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Are Female Baby Boomers Ready for Retirement?

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Key Messages

This synthesis explores whether or not female baby boomers are ready for retirement. Key points are:

- The baby boomer generation, 1946-1965, is important due to its size and because its members modified social institutions and norms at each stage of their life course.
- Higher levels of education, particularly for females, and the social-sexual revolution of the 1960s led baby boomers to: marry later in life, delay childbearing longer, have fewer children, divorce more frequently, and be lone-parents more often than previous cohorts.
- Increasingly consumer-oriented lifestyles, labour market inequalities, and changes in family structure (more lone-parent households) meant that some boomers, particularly those with "low-quality" jobs, faced difficulties saving for retirement.
- Policies shifted away from assisting the poor toward improving labour market skills. These changes were detrimental to many women, particularly lone mothers.
- Senior poverty rates started rising in the mid-90s and continue to do so. Women are, on average, poorer than men, and losing a spouse's pension is more difficult for women.
- Many boomers, particularly disadvantaged groups, may have insufficient savings due to increasing life expectancy, increasing chronic conditions, low investment returns, and declining pension and health insurance coverage.
- Women are less likely than men to be in a pension plan. For women who do have pensions, plan values are frequently lower because of labour market absences.
- Women also accumulate lower retirement savings than men because: their incomes are lower; they are more likely to be lone parents (with multiple claimants on their time and income); they tend to have less risky portfolios and lower levels of financial knowledge.
- Younger female baby boomers fare better because they benefited from more equitable labour markets, and they lost less wealth during, and have more time to recover from, the 2008 crash.
- Recent policy changes delay the age of eligibility for GIS/OAS and lower incentives to take CPP before the age of 65. However, these changes generate further inequities.
- Ensuring adequate retirement incomes necessitates improving the economic well-being of women earlier in life, with equitable, family friendly labour markets and social policies. However such policies will be too late for older baby boomers entering retirement.

Executive Summary

The Baby Boom Generation

While there is no clear definition of a baby boomer, there is consensus that boomers are individuals born between 1946 and 1965. Early baby boomers were born between 1946 and 1955, and late baby boomers were born between 1956 and 1965. Although both time periods exhibited high birth rates, the two boomer sub-cohorts evolved differently because of their distinct political, social and economic circumstances. Because of these distinct circumstances, some groups of women in the early boomer cohort may face significant disadvantages as they head into retirement.

Changing Social and Institutional Norms

Baby boomers attained more education than previous cohorts. These educational gains played a significant role in the rise of women's labor force participation, the narrowing of the wage gap and the eventual decrease in fertility rates. In addition, older baby boomers were young adults during the social-sexual revolution of the 1960s. They witnessed extreme shifts in society's norms on courtship, marriage and family formation. As a result, baby-boomers were more likely to cohabitate, marry later in life, delay childbearing, have fewer children, and divorce more frequently than previous cohorts.

The labour force increased substantially as baby boomers hit working age, because of the cohort size, and also because of the increase in female labour force participation. Rising inflation and increased consumerism meant a greater need for dual income households. While labor force participation increased for all types of women, substantial change occurred among married women and women with preschool-age children. Women tended to enter the labour force directly after completing their education, temporarily exit when they had children, re-enter when the children were older, and then remain in the labour force until retirement (the M-shaped labour force participation pattern). Rising labour supply, unaccompanied by a similar increase in labour demand, put downward pressure on wages. However, wage growth varied across income percentiles. Growth was remarkably high among the top percentiles, while it stagnated among the lowest earning families, so income inequality widened over this period. This trend, coupled with unstable employment conditions and an increasingly consumer-oriented lifestyle, meant that many low-income baby-boomers faced difficulties in accumulating savings. Therefore, while overall economic conditions were better for the baby boomers, relative to previous cohorts, certain groups were left vulnerable.

Senior Poverty

Because of the prevalence of women in part-time or low-paying jobs, and their M-shaped labour force participation pattern (allowing work-life balance), many women have lower or non-existent pensions. These women often rely on spousal pensions and, as such, marriage protects many senior women from poverty. Conversely, boomer lone mothers, in addition to having substantially lower employment based pensions than men and other women, have additional demands on their income, lack a spousal pension, and are, therefore, particularly vulnerable to low incomes in retirement.

Divorce and separation can leave senior women vulnerable. As such, government programs like the Guaranteed Income Supplement (GIS) or Old Age Security (OAS) are important to women's wellbeing, particularly for the early boomer cohort. The 2008 financial crisis had significant impacts for those in and nearing retirement. Poverty rates among Canadian seniors have risen, but poverty rates had already

increased before the crash. Only 3.9 percent of seniors lived in poverty in 1995. That increased to 10.2 percent by 2005 and hit 12.3 percent in 2010. Almost 60 percent of the seniors living in poverty are women. Moreover, these poverty estimates do not account for those in near poverty, that is those who live very close to the poverty line.

Health

The wellbeing of seniors is multidimensional. Many baby boomers worry about being able to afford the health care they will need in retirement. Canada has a public health insurance system, but longer life expectancy and increasing rates of chronic disease necessitate additional resources. Only, 68 percent of seniors have supplemental health coverage and the level of coverage can vary substantially across plan. Moreover, given the economic picture, many firms intend to alter benefits currently offered. Supplemental health insurance (public or private) is a particular concern because seventy-five percent of Canadians 65 years of age and over, and almost half of those between 45 and 64 year of age, have at least one chronic disease. Because women live longer than men, they are more likely to face these health shocks and financial burdens.

Baby Boomers, Savings and Investment

At each stage of life, the baby boomer generation was more prosperous and accumulated more wealth than their parents. However, baby boomers did not necessarily save adequately. Increasing life expectancy, decreasing investment returns, and declining private pension coverage could significantly undermine retirement outcomes. Moreover, the relative prosperity and saving patterns of baby boomers varies substantially across sub-cohort, and across wealth, gender, age and education. Those with higher incomes save more and save a higher proportion of their income. Men have higher financial assets and better rates of saving than do women; the average net worth of women aged 45 and over is only 64 percent of men's and the wealth distribution is highly skewed. Because women are overrepresented in part-time, transitory and low paying jobs, they are also less likely to have employer-sponsored pension plans. Women's pension participation rate is 75% that of men, and for women who do participate, their pensions tend to have lower values than that of men. In addition, women are more risk averse than men and have lower levels of financial knowledge, leading to lower levels of retirement savings outside of pension plans. Thus, while baby-boomers in high-paying, secure jobs will likely be prepared many other boomers, disproportionately women, will not be ready for retirement.

The repercussions of the 2008 crash varied by cohort, income level and net worth. Many households lost substantial portions of their wealth in the crash, and older baby boomers (nearing retirement) were especially misfortunate because they had more wealth to lose and lacked the time to recover their losses before planned retirement dates. While younger baby-boomers invested far more heavily in stocks, they did not have much wealth to lose, and they have more time to potentially recoup lost wealth before retirement.

Policy

The social-sexual revolution, with its resultant increase in divorce rates, pre-marital sex, and commonlaw cohabitation, led to a substantial increase in proportion of lone-parent families. Most boomer loneparents are women, since women generally maintained custody of children, and older female baby boomers did not have the same benefits of equitable child support payments or distribution of marital assets, particularly pensions, available to later cohorts. Moreover, social policies changed dramatically in the mid 90s, when the oldest boomers were hitting late forties and the younger boomers were around 25 years of age. Policies shifted away from providing a social safety nets for the poor toward expanding education and labour market skills. Policy makers now focused on removing the disincentive effects of social programs.

Despite increased and improved work opportunities for women, social policies did not always consider family responsibilities or childcare, and other expenses which often reduced the lone mother's situation below minimum living standards. Lone mothers who were able to participate in the labour market often held precarious jobs with few benefits, further fueling the feminization of poverty. The policy shift toward social investment meant that extremely vulnerable groups were left behind, many of whom were the boomer lone mothers.

From a pension perspective, there is no consensus in the literature on the outlook for baby boomers that are just now retiring. Current economic conditions are an improvement on the 2008 crash, and a maturing retirement income system, growth in private savings and a shift to pre-funded benefits under the C/QPP means that the later baby boomers may be less likely to face poverty during retirement. On the other hand, increasing life expectancy, decreasing investment returns, and declining private pension and supplemental health insurance coverage could significantly undermine the Canadian pension system and individual retirement savings.

An increasing proportion of Canadians predict they will be working past the age 65 because of low rates of health insurance, and lower DB pension plan coverage. While many baby boomers are healthy and economically well-off, some sub-groups remain vulnerable. Policies are being implemented, implicitly and explicitly, to extend the 'normal' age of retirement. While individuals are 'voluntarily' working longer (the percentage of seniors in the labour force doubled over the past decade), the Federal Government provides incentives that they do so. GIS/OAS reform is slowly increasing the age of eligibility from 65 to 67. Yet eligibility changes to GIS/OAS and CPP may generate further inequities for lower-income individuals, predominantly women. GIS/OAS recipients, who tend to be poor, *have* to work longer. Whereas those with higher incomes can *choose* to work longer, and receive higher benefits if they do so. However, changes to CPP drop-out provisions do directly assist women.

Many proponents of pension reform call for increases in 'forced savings.' The Federal Government could increase required contributions to the CPP, enhancing benefit and coverage rates over the next 15 to 20 years. Some proponents call for a regulated national pension plan, or mandatory contributions to current plans. Some provincial governments are moving in this direction. Moreover, proposals to calculate contribution maxima on multi-year averages rather than annual earnings would enable earners who reduce hours worked for limited periods of time (e.g., child rearing, elder care, or obtaining education) to make up contributions at later dates.

While pension debate has often focused on DB versus DC, The Optimal Pension System (TOPS) has been put forward as a potential alternative to both. TOPS would guarantee equity for men and women by adjusting for labour market absences and incorporating autopilot investment strategies to handle the longer life expectancy of women. TOPS is presented as a flexible system that could be adopted at the national, regional, industry, or firm level.

Pension reform represents part of the picture. However, the literature suggests that improvements to women's well-being in retirement starts with improving their experiences in early life, whether by

improving labour market experiences or providing better social supports. While the gender-wage gap has dissipated over the last few decades, occupational differences remain; 'sticky floor' and 'glass ceiling' effects linger. Women continue to be the dominant care-givers and typically reduce work hours if needed.

Many of these proposed policies should, in the long run, help modest-, middle-, and higher-income earners. However, they are unlikely to impact households at the very bottom of the income distribution, nor will they do much for those currently heading into retirement. Individuals at the bottom of the income distribution are also more likely to rely on the public system for long-term health care and other supplemental health insurance.

As baby boomers move into retirement, policy makers must improve efficiencies in both the pension system and the health-care system, to move towards health and wellness promotion, and to provide more choice for seniors. Movement away from the medicalization of aging must include concomitant provision of a variety of integrated care options, meeting a broader range of needs and creating a continuum of care as baby boomers age. Restructuring current systems, moving elderly care out of hospitals into their homes and communities and changing the delivery of health care must be transparent. Importantly, policy makers must be upfront about any added costs so that Canadians can adequately prepare.

Take Away Points

Due to their life-course socio-economic conditions, many female boomers may suffer large decreases in well-being as they head into retirement. Pension reforms which increase retirement age will disproportionately disadvantage those already in low income. While changes to the CPP will reduce losses from poor or sporadic labour force participation, these changes are too late to help the early boomer women. Likewise, while research suggests that improving retirement outcomes must begin with improved labour market conditions, inequitable conditions persist. Therefore, any current policy change will miss helping the early boomers. Finally, with increasing rates of chronic disease and longer lifespans, policy must aim toward health and wellness promotion, providing a wider range of integrated care options, and clear estimates of added costs so that Canadians can adequately prepare for retirement.

Introduction

This synthesis focuses on female baby boomer's circumstances as they approach retirement. Specifically, it examines whether boomer women will have adequate resources (namely income, pensions and supplemental health insurance) as they move into retirement and then on to older ages. 'Retirement,' in this context, is loosely defined as the move from working age to retirement age and, therefore, includes women who may not have worked outside of the home. Close attention is paid to pensions, both public and private, and to supplemental health insurance coverage as both are critical components of the current policy debate in Canada. A focus on women is important because female baby boomers experienced substantial life course change in their roles within the family, the labour market, and the community, during the last half of the 20th century.

The 'social and cultural revolution' of the 1960s and 1970s lead to dramatic changes in women's roles. The period between the mid-1970s, when the first baby boomers would have been about 30, and the mid 1990s, when the last of the baby boomers would have been around 30, saw family dynamics change substantially. Marriage rates fell, while age of first marriage, age at first child birth, divorce rates, and the proportion of young adults continuing to live with their parents all increased (HRSDC, 2012). Female labour force participation increased, from approximately 50 percent in the mid-1970s to 70 percent by the late 1980s, leveling off in the 1990s (Beaudry & Lemieux, 1999). At the same time, the proportion of children living in lone-parent families increased steadily from about 11 percent in 1986 to slightly over 14 percent in 1998 and to almost 25 percent in 2008 (Curtis, 2011; Crossley & Curtis, 2006). The consequent upheaval in family composition, work patterns and economic circumstances of women was unparalleled. Concomitant changes to Canada's social safety net, particularly health care financing, social assistance and unemployment insurance, left some groups of women more susceptible to poor outcomes.

Life expectancy has increased substantially over time, and while women live longer than men, they spend fewer years in good health (ESDC, 2011; Rochon, Bronskill, Gruneir, Liu Johns, Lo, & Bierman, 2011). Seniors are typically healthy as they reach retirement age, however the probability of poor health and chronic conditions increases with age. The 'epidemic' or even 'pandemic' of chronic disease and the costs to the health care system are major concerns in the current policy debate. Close to half of those affected by chronic disease are seniors². Chronic disease is most prevalent in seniors with lower incomes, but it is also common further up the income distribution; over half of higher-income³ seniors experience chronic illness (CIHI, 2010). Treatment of chronic disease is expensive. In 2010, seniors purchased about \$5.6 billion worth of the prescription drugs (CIHI, 2010). As the prevalence of chronic disease increases, provinces are moving away from providing pharmaceutical and other supplemental health coverage by age towards income based schemes.

In addition to the dramatic changes which occurred over their life course, female baby boomers face a unique economic situation as they prepare for retirement. The earliest boomers turned 65 years old in 2011. The 2008 crash and slow economic recovery have altered peoples' beliefs about their preparedness for retirement. The financial crisis and housing price crash were particularly troubling for those in or approaching retirement. By 2009, U.S. baby boomers lost almost 50 percent of their wealth relative to 2004 levels, as the housing market collapsed and the stock market plunged (Baker & Rosnick,

² In general, seniors are individuals who are 65 years of age or older.

³ Higher income was defined as household income \geq \$60,000 CDN in the study.

2009). Baker & Rosnick (2009) predict that American baby boomers will be far more dependent on Social Security and Medicare than previous generations. Although conditions in Canada were not as severe, there remains significant concern that pensions and supplemental health benefits will not be adequate in retirement and that Canadians will be more reliant on social programs (Curtis, 2011; Marier & Skinner, 2008; Andrews, Bonnar & Brown, 2007). Many defined benefit (DB) plans continue to struggle, and investment markets remain weak and/or unstable in the second decade of the 21st century. Moreover, private health insurance coverage is declining, and retirement health benefits are being cut or eliminated altogether as firms attempt to save resources (AonHewitt, 2011; ESI Canada, 2008; ESI Canada, 2007).

Financial market instability and record low interest rates have changed not only individuals' beliefs about the adequacy of their own savings, but also the ability of firms' and governments' to provide expected pensions. Rules that govern plans continue to change as the synthesis is written. Shifting pension and insurance plans, including movement from DB to defined contribution (DC), and the tightening of private and provincial insurance coverage, leaves some seniors, particularly women, at risk of lower than anticipated retirement incomes and substantial out-of-pocket health-care expenditures, resulting in lower than planned standards of living.

The synthesis begins by exploring the life course of the baby boom cohort. It then examines the economic and health circumstances of current seniors, particularly female seniors, and explores what is known about baby boomers readiness for retirement. Finally, we present policy implications and prescriptions suggested by the literature.

The Baby Boom Generation

While there is no clear definition of a baby boomer, there is consensus that they are the individuals born between 1946 and 1965 and they are one of the most unique generations to date (Lin & Brown, 2012; Frey, 2010; Horner, 2009; Reisenwitz & Iyer, 2007; Orel, Ford & Brock, 2004; Yabiku, 2000; Bouvier & De Vita, 1991). The baby boomer generation is important not only because of its size (see figure 1) but also because its members have redefined each stage of life, modifying societal institutions throughout their life course (Pruchno, 2012; Frey, 2010; Bouvier & De Vita, 1991). The baby boom generation is typically divided into two sub-cohorts; those born between 1946 and 1955 (early or older baby boomers) and those born between 1956 and 1965 (late or younger baby boomers). Although both periods experienced large numbers of births, the two sub-cohorts evolved differently because of their distinct political, social and economic circumstances.

The distinguishing feature of the baby boom generation is its size. While many demographers expected, and were prepared for, a temporary post-war surge in births, the extent of the increase in births was a shock (Pruchno, 2012; Frey, 2010; Greenwood, Seshadri, & Vandernbrougcke, 2005 Bouvier & De Vita, 1991; Cherlin, 1990). The reason behind the unexpected rise in fertility has not been pinpointed (Brewster & Rindfuss, 2000; Rosenfield). Immediately after World War II, marriages and births increased followed by a subsequent downswing in the number of births (Bouvier & De Vita, 1991). However, in 1951, fertility rates began increasing again and continued to rise until 1965 (see figure 2) (Greenwood, Seshadri, & Vandernbrougcke, 2005; DaVanzo & Rahman, 1993; Bouvier & De Vita, 1991). A partial explanation for the continued rise in fertility rates is the economic growth which characterized the postwar era.

During World War II women had opportunities to gain higher levels of education and to work outside of

the home. However, in the aftermath of the war, there was a shift back to the traditional family; women were expected to stay at home and fulfill traditional duties of wives and mothers. Rapid post-war expansion of the economy led to high demand for labor. Well-paying jobs, with the possibility of rapid promotion, were plentiful, and the youth responded. The economic and social conditions of the post-war era made it affordable and acceptable for individuals to marry, and have more children, at younger ages than had previously been the norm. (Greenwood, Seshadri, & Vandernbrougcke, 2005; Bouvier & De Vita, 1991). The baby boom generation was born.

Education and the Baby Boom

As the baby boomers progressed through the education system, schools had to expand rapidly. Elementary school systems grew substantially in the 1950s and secondary systems increased capacity in the early 1960s as baby boomers entered primary school and then went on to high school. In the mid-1960s colleges began experiencing capacity constraints brought on by, not only the size of the boomer cohort, but also by their increased interest in obtaining post-secondary degrees. Shifts in the economy (e.g., rising competition in the labour market), as well as increasing international relations, fueled interest in higher education. (Bouvier & De Vita, 1991). The baby boom generation became the most highly educated generation in history, resulting in a dramatic shift in the popularity of specific occupations and industries (e.g., professional and service related jobs) and inducing further change in the economy (Pruchno, 2012; Lin & Brown, 2012; Frey, 2010; DaVanzo & Rahman, 1993; Bouvier & De Vita, 1991).

During this period, the education gap between men and women narrowed considerably, (Yamokoski & Keister, 2006; Bouvier & De Vita, 1991). The gender gap in education, a significant determinant of the labour force participation gap, began to dissipate (lams et al, 2008). With increasing levels of education, female baby boomers became more interested in pursuing careers outside the home. Education gains played a significant role in the rise of women's labor force participation, the narrowing of the wage gap and the eventual decrease in fertility rates (Percheski, 2008; Tenkorang, 2004; Cornman & Kingston, 1996; Bouvier & De Vita, 1991;).

The Social-Sexual Revolution, Boomer Marriage and Fertility Patterns

Older baby boomers were becoming young adults, and thus highly impressionable, during the social and sexual revolution of the 1960s; They witnessed an extreme shift in society's norms on courtship, marriage and family formation (Pruchno, 2012; Bouvier and De Vita, 1991). baby boomers married later in life, delayed childbearing longer, had fewer children, and divorced more frequently than previous cohorts had (Lin & Brown, 2012; Pruchno, 2012; Frey, 2010; Hartmann & English, 2009; Iams et al, 2008; ; Percheski, 2008; Goldin, 2006; Yamokoski & Keister, 2006; Teachman, Tedrow, Crowder, 2000; Cornman & Kingston, 1996; Uhlenberg, 1996; Klerman & Leibowitz, 1995; DaVanzo & Rahman, 1993; Bouvier & De Vita, 1991; Cherlin, 1990). The median age of first marriage for women, which had been falling since World War II, began increasing as the older baby boomers hit their early twenties (see figure 3) (ESDC, 2011; Ravanera et al., 1998). Not only did the age at first marriage rise, but the reasons for marriage changed. Marriage became less about financial security and more about happiness for women (Isen & Stevenson, 2010). With the changes in marital patterns and reasons for marriage, came a significant increase in the number of marital dissolutions during the 1960s (Cherlin, 1990).

Initially divorces were more popular among parents of baby boomers rather than baby boomers themselves, but by the 1970s, baby boomers, like their parents, were experiencing growing divorce

rates; 3 of every 4 divorces were experienced by people in their twenties or thirties (Bouvier and De Vita, 1991). In addition to higher divorce rates and later age at first marriage, many boomers did not marry at all. The baby boomer cohort also saw an increase in pre-marital cohabitation and one-parent families (Lin & Brown, 2012; Frey, 2010; Teachman, Tedrow, Crowder, 2000; Ravanera et al., 1998; Uhlenberg, 1996; DaVanzo & Rahman, 1993; Cherlin, 1990). The changing trends in family formation became more accepted over time and influenced work and social policies, particularly for the younger boomers (DaVanzo & Rahman, 1993; Bouvier & De Vita, 1991). The changing norms resulting from the social-sexual revolution of the 1960s and the increase in female labour force participation played a considerable role in decreasing the birth rate (Brewster & Rindfuss, 2000; Rosenfeld, 1996; Klerman & Leibowitz, 1995; Bouvier & De Vita, 1991).

Boomers in the Labour Market

Dramatic changes occurred in the labour market as the first of the baby boomers reached working age. The labour force increased substantially, not only because of the cohort size but also because of increased participation by women (Fullerton, 1999; Emery & Ferrer, 2009; Barnett, 2007). The economy was able to accommodate part, but not all, of the increased labour supply. Therefore, while employment rose in the 60s, 70s, and 80s, unemployment also grew, particularly among minority baby boomers (Barnett, 2007; Juhn & Potter, 2006; Cornman & Kingston, 1996; Uhlenberg, 1996; Bouvier & De Vita, 1991). Because of the large established work force, younger workers were faced with longer job searches, more instability in jobs, and higher job turnover leading to higher incidences of unemployment (Frey, 2010; Cornman & Kingston, 1996; Bouvier & De Vita, 1991).

The social-sexual revolution had a substantial impact on women, and many women now aspired to be more than housewives (Shu & Marini, 2008; Wright, 2005), but it was not the only factor in the dramatic increase in labour force participation. Inflation (rising slowly in the 60s and rapidly in the 70s) meant an increased need for dual income households (Hartmann & English, 2009; Goldin, 2006; Yamokoski & Keister, 2006; Rosenfeld, 1996; Brewster & Rindfuss, 2000; Bouvier & De Vita, 1991; Cherlin, 1990). Labor force participation increased for all types of women, but the increase was substantial for married women and women with preschool-age children, especially compared to women who worked in previous cohorts (Emery & Ferrer, 2009; Hartmann & English, 2009; Percheski, 2008; Rosenfeld, 1996; DaVanzo & Rahman, 1993). Among baby boomer cohorts, women's labour market participation followed an M-shaped pattern (Warren, Rowlingson & Whyley, 2001; Rosenfeld, 1996). Women tended to enter the labour force directly after completing education, temporarily exit when they had children, re-enter when the children were older, and then remain in the labour force thereafter, until retirement (Orel, Ford & Brock, 2004; Dex et al, 1998; Rosenfeld, 1996).

Because child bearing and labour participation were not perfectly compatible, women started having fewer children and found additional means of childcare (Brewster & Rindfuss, 2000; DaVanzo & Rahman, 1993). Concurrent legislative changes, increased use of contraceptives, and the adoption of new family work policies, propelled even higher rates of female employment (Percheski, 2008; Rosenfeld, 1996). As boomer labour market behavior fed back into the social, economic, and policy environment, younger women increased their participation further. While the older baby boomer cohort had a participation rate of 41 percent, the younger baby boomers had a labor participation rate of 75 percent (Williamson & Rix, 2000).

Finally, a consequence of the baby boom cohort is that large increases in labour supply, without a similar increase in labour demand, put downward pressure on workers' wages (see for example, Sapozhnikov &

Triest, 2007). However, wage growth varied across percentiles. From the 1970s to the current period, income growth was remarkably high among the top percentiles, while it stagnated among the lowest earning families, so income inequality widened substantially over this time (Stone et al., 2014). This trend, coupled with unstable employment conditions and an increasingly consumer-oriented lifestyle, meant that many baby boomers faced difficulties in accumulating savings for retirement. Ability to save was particularly strained among those with "low-quality" jobs. Therefore, while overall economic conditions were better for the baby boomers, relative to previous cohorts, certain groups were left vulnerable (Lin & Brown, 2012; Frey, 2010; Keister & Deeb-Sossa, 2001).

Despite the upward trend in female labor force participation, outside the labour market, gender roles did not adjust quickly, and women continued to struggle to balance family and work. Child care remained the mother's 'responsibility.' Women tended to interrupt their careers for child rearing (M-shaped labour force participation pattern), work part-time, or take lower-paying jobs that allowed work-life balance. These conditions meant that women were often receiving a lower pension, or not qualifying for a pension at all, and as such, government programs (e.g., Guaranteed Income Supplement (GIS)/Old Age Security (OAS)) are highly beneficial and important to women's wellbeing (Bardasi & Jenkins, 2010; Tamborini, Iams & Whitman, 2009; Hartmann & English, 2009; Percheski, 2008; O'Rand & Shuey, 2007; Moore, 2006; Warren, Rowlingson & Whyley, 2001; Hardy & Shuey, 2000; Williamson & Rix, 2000; Yabiku, 2000; Rosenfeld, 1996).

Senior Boomers at Risk for Poverty

As the leading edge of the baby boomers approached retirement age, the National Advisory Council on Aging (NACA, 2006) issued a Report Card on Seniors in Canada. The report indicated that, compared to 2001, the incomes of seniors had increased and a smaller proportion of seniors were living in low-income circumstances. Canada had also experienced a decrease in the percentage of seniors that relied heavily on the Guaranteed Income Supplement (GIS) and Old Age Security (OAS) (Horner, 2009; Veall, 2008). It is worth noting, however, that the portion of Canadian seniors living in poverty would almost triple if GIS/OAS were not available (Veall, 2008). In the mid-2000s, before the crash, when the first baby boomers were reaching 60 years of age, the outlook for senior boomers was good, and poverty rates among the elderly were expected to continue to decline (Tamborini, 2007).

However, despite the reported low fraction of seniors living in poverty⁴, certain subgroups were disproportionately disadvantaged (Marier & Skinner, 2008; Veall, 2008). In 2004, only 5.6 percent of seniors were living below the poverty line; however, close to 4 times as many senior women lived below the poverty line as men (NACA, 2006), indicating that the population of seniors living in poverty was comprised mainly of women. Moreover, at that time, unattached elderly women and post-1970 immigrants were more likely to be poor and were over-represented among those dependent on the GIS (Lin & Brown, 2012; Marier & Skinner, 2008; Tamborini, 2007). Women are less likely to depend on GIS if they are married or living in a common-law relationship, however 55 percent of widowed women depended on the GIS in 2004. Although an improvement relative to mid-1990s, the disparity between male and female dependence on the GIS worsened from 15 percent to 21 percent over that decade (Marier & Skinner, 2008). Further, controlling for personal characteristics, Marier and Skinner (2008)

⁴ Poverty and/or poverty line refers to living below whatever measure the quoted study used to describe lowincome circumstances whether it be the Canadian low-income cut-off (LICO), or low-income measure (LIM) or the U.S. poverty line.

found that unpartnered (never-married, divorced, separated or widowed) women were more than twice as likely as other groups to rely on GIS. Studies consistently show that economic well-being is more closely related to marital status for women, more so than for men, and changes in marital status result in substantial harsher penalties for women (Angel, Jimenez & Angel, 2007; Zagorsky, 2005; McLaughlin & Jensen, 2000).

Marriage is the mediating factor that tends to protect women from poverty, more so than men (Denton & Boos, 2007; Zagorsky, 2005). Single households do not have the same safety net as coupled households do and therefore are more vulnerable to job loss, income loss and low savings rates. Single households have higher per capita consumption expenditures than do dual-member households. Therefore unattached seniors are more likely to fall into poverty, and unattached women fare more poorly than married women and unattached males (Tamborini & Whitman, 2010; Williamson & Rix, 2010; Veall, 2008; O'Rand & Shuey, 2007; Bernard & Li, 2006; NACA, 2006; Mcdonald & Robb, 2004; Orel, Ford & Brock, 2004; Butrica & Iams, 2003; Butrica & Iams, 2000; Pestieuu,1989).

Unattached senior women were over 5 times more likely to live in poverty than unattached senior men in the mid-2000s (NACA, 2006), because they were more likely to be without a pension (Shuey & O'Rand, 2006). Similarly, Orel, Ford & Brock (2004) found that divorced and never married women were 5 times more likely to live in poverty compared to married seniors. A similar trend was visible in the United States and Britain at that time (Lin & Brown, 2012; Bardasi & Jenkins, 2010; Hartmann & English, 2009; Haveman, Holden, Wolfe & Sherlund, 2006; Even & Macpherson, 2004; Williamson & Rix, 2000). Women tended to be more disadvantaged than men because of persistent pre-retirement gender biases in wage and opportunity gaps in the labour markets (Sharif, 2014; Noone, Alpass, & Stephens, 2010; Even & Macpherson, 2004). Haveman, Holden, Wolfe & Sherlund, (2006) showed that those who were poor in retirement were most likely to be those who were poor in pre-retirement. Women also tended to hold more negative views towards their ability to save for retire and this, in turn, may have negatively influenced preparations for retirement (Noone, Alpass, & Stephens, 2010).

The loss of pension and labour income in retirement as a result of a partner's death increased the likelihood of experiencing poverty for both male and female seniors but more so for females than males (Veall, 2008; Bernard & Li, 2006; Pestieuu,1989). Bernard & Li, (2006) demonstrated that the death of a female spouse resulted in one percent of widowers falling into poverty immediately and that increased to about four percent in the subsequent five years. Widows experienced similar short-term poverty, but the loss of a male spouse lead eight percent of widows to experience poverty in the five years following their partner's death. The partner's labour and pension income, on average, was far more important for senior women than for senior men (Veall, 2008).

Separated and divorced individuals also fared poorly in retirement in the mid-2000s. Both men and women suffer economically as a result of a marital dissolution, but women were especially vulnerable to loss of income and savings (Shuey & O'Rand, 2006; Zagorsky, 2005; Pestieuu, 1989). Table 8 shows the 2004 distribution of seniors living in poverty by sex and marital status (Veall, 2008). A higher percentage of retired women lived in poverty across all marital statuses except for married. No matter the sex, separated individuals were worst off followed by never-married and then by those who were divorced. Married couples fared best followed by widows/widowers. Earlier studies found that never-married females were better off in retirement than widowed and separated/divorced women but like the Veall (2008) study, separated women were worst off (NACA, 2006; Mcdonald & Robb, 2004). The increase in well-being of divorced and widowed females may have resulted from policy changes that ensure more equitable sharing of pensions in the event of divorce and compulsory spousal coverage in private

pension plans (NACA, 2006).

The 2008 downturn in the markets and the subsequent slowing of the economy had a strong impact on poverty rates among Canadian seniors but poverty rates had already started to creep up before the crash (figure 9) (Conference Board of Canada, 2013; Curtis, 2013; Horner, 2009; Dushi & Iams, 2008; Iams et al, 2008; Milligan, 2008; NACA, 2006). Only 3.9 percent of seniors lived in poverty in 1995. That figure increased to 10.2 percent by 2005 and hit 12.3 percent in 2010. Almost 60 percent of the seniors living in poverty were women (Conference Board of Canada, 2013). Most studies, and policies, are aimed at those living in poverty; however, it is worthwhile considering the well-being of those with incomes close to the poverty line (near poverty⁵). Individuals who live in near-poverty circumstances tend to move in and out of poverty frequently (Curtis and Rybczynski, 2014). Moreover, Haveman et al, (2006) point out that many seniors live very close to the poverty line (or in near-poverty) in the U.S.; five percent of new retirees live below the poverty line, but a full 25 percent live in near-poverty.

Health

While 22 percent of Canadians report they are "not at all confident" about their retirement incomes and another 49 percent said they were only "somewhat confident" (Press, 2013a), half of baby boomers worry about being able to afford the health care they will need in retirement (Picard, 2014). Even though Canada has a public health insurance system, longer life and more health issues require additional savings and resources to maintain lifestyles in retirement (Tamborini, Iams & Whitman, 2009; Hartmann & English, 2009). Under the Canada Health Act (CHA), all Canadians are covered for medically necessary health-care services. However, health care is under provincial jurisdiction and, as such, each province and territory determines the definition of 'medically necessary health-care services' leading to substantially different coverage patterns across the provinces and territories for some services. Provinces offer similar coverage for most physician fees and in-hospital care but vary substantially in the coverage of pharmaceuticals and long-term care (CBC, 2007, CLHIA, 2012). Only about half of the Canadian population has public pharmaceutical coverage (this is the second smallest national proportion of coverage, next to United States) (Curtis, 2011). Moreover, only 68 percent of seniors have supplemental health coverage to assist with health expenditures that are not covered under the Canada Health Act (Picard, 2014).

Long-term care and pharmaceuticals are not covered under the CHA. About seven percent of seniors currently live in long-term care facilities, costing Canadian governments about \$20 billion in 2012 (CLHIA, 2012). CLHIA (2012) projects exponential growth in the figure if efficiencies are not identified and implemented. Although long-term care is a worry, pharmaceuticals are actually more expensive than long-term care, in aggregate. Pharmaceutical expenditures are second only to hospital expenditures (hospital expenses are generally covered under the CHA) in Canada (CLHIA, 2012; CIHI, 2010). Canadians spent over \$26 billion on prescription drugs in 2010.Of this amount, approximately \$12 billion was paid for by the public sector, the remaining \$14 billion was paid by the private sector. About two-thirds of the private sector spending was covered by private insurance, while \$4.6 billion was paid out-of-pocket (CIHI, 2011a). Canadian seniors purchase about 40 percent of all prescription drugs sold in Canada, spending about three times the national average (CIHI, 2010). ESI Canada (2008) reports that seniors submit close to 45 percent of all health insurance claims. On average, they submit close to

⁵ See Curtis and Rybczynski 2014 for a discussion of near poverty.

30 prescriptions per year at a cost of \$57 per script. CIHI (2010) reports that 41 percent of seniors have claims for 5 to 9 drug classes and 21.4 percent of seniors submit claims for 10 or more drug classes⁶.

Canada has 19 publicly funded drug plans (each province and territory has a plan and six are offered by the federal government and there are over 1000 private plans provided through employers, unions, and professional associations (Phillips, 2009). A recent study by Dremers et al., (2008) compares the impact of differential provincial public drug coverage on patients' annual drug expenditures. They examine possible age/income/cost scenarios and find that seniors with a household income below the national average could pay between a low of about 2 percent of a \$454 annual drug bill in Ontario to a high of 110 percent in Manitoba (more than 100 percent because of dispensing fees). Seniors in households with incomes at the national average would pay approximately 5 percent of the \$1283 annual drug bill in New Brunswick but closer to 104 percent in Manitoba.

Private health insurance does not necessarily pick up the slack. Phillips (2009) reports that only 55 percent of private insurance plans covered individuals for catastrophic drug expenditures; the remaining 45 percent had incomplete coverage. Not only do many plans offer incomplete coverage but many firms intend to change the benefits offered (AonHewitt, 2011). AonHewitt, (2011) surveyed firms in Canada, in 2009 and 2010, regarding benefits offered to current retirees and intended changes to coverage⁷. Less than half of the firms (46 percent) provided retiree benefits to former employees in 2010; down from 60 percent in 2009. Of the firms that did offer retiree benefits in 2010, 48 percent provided medical and dental benefits whereas 22 percent provided dental benefits only. Three percent supplied health-care spending accounts and nine percent made medical insurance available, but it was fully paid by the retiree. Over twenty percent of employers suggested they were very or somewhat likely to reduce benefits for future retirees, 34 percent indicated they might have to increase contributions, and 22 percent report they are very or somewhat likely to reduce or eliminate eligibility for future retirees. Ten percent of responding firms revealed that they were very or somewhat likely to reduce current retirees' benefits, which is surprising as there are legal issues in changing vested benefits.

Lakshman (2010) reports that benefit plan sponsors are increasingly discussing moving to voluntary benefits which allow firms a way to offer some level of benefits but at reduced costs. Voluntary benefits are also flexible, allowing the employee to choose benefits that are tailored towards their situation, but they are generally 100 percent employee paid. Some researchers are calling for private sector consideration of the establishment of prefunded drug coverage plans, similar to the CPP for retirement (Stabile and Greenblatt, 2009). ESI Canada (2007 and 2008) report that firms are continually examining avenues to reduce the costs of their benefit plans including changes to coverage, deductibles and copayments. Figure 4 shows the decreasing coverage offered to employees of large Canadian firms and also indicates that the vast majority of firms reduce or eliminate benefits when their employees retire. More seniors will be relying on provincial supplemental health benefits as provinces move towards income-based and/or a combination of age and income-based health benefits coverage. Figure 5 takes the Demers et al., (2008) expenditures scenarios (\$504 for seniors from lower income households (first group of bars) and \$1583 for seniors from higher-income households (second group of bars)) and applies the 2006 and 2011 provincial funding rules. Clearly, there is provincial variability in

⁶ This is a lower bound on the number of prescriptions because there is likely to be more than one script per drug class.

⁷ Seventy-three percent of the interviewed firms were private sector firms, 25 percent were public sector firms and two percent were multi-employer firms.

pharmaceutical coverage, but substantial decreases in coverage can also be seen in some provinces across time. Except for low-income Manitoban seniors, the expenditure covered by provinces fell, substantially in some cases, and provincial variation increased.

Most seniors are healthy (Butler-Jones, 2010), but supplemental health insurance (public or private) is a particular concern because chronic disease accounted for over 2/3 of all deaths in Canada in the mid-2000s. Although chronic disease affects all age groups, baby boomers are entering the age range where chronic disease hits hardest. Chronic disease rates grow exponentially after the age of 60 (see figure 6, Denton and Spencer, 2009). Seventy-five percent of Canadians 65 years of age and over, and almost half of those between 45 and 64 year of age, experience chronic diseases. In contrast, less than 1/3 and 1/5 of those 25 to 44 and 18 to 24 years of age, respectively, do so. Not only do seniors experience chronic disease, they experience multiple chronic conditions. Approximately ¼ of all seniors report having 3 or more chronic diseases and ½ report 1 or 2 conditions (CIHI, 2011b). The proportion of seniors reporting one or more chronic diseases in Manitoba to a high of 8.5 in 10 in Newfoundland (see Figure 7).

As Canada's population ages, the prevalence rates of chronic diseases become more alarming. CIHI (2011b) reports that close to half those affected by chronic diseases are seniors. Fifty-seven percent of the individuals diagnosed with heart disease are seniors, as are 54 percent of those who have had a stroke, close to 40 percent of the chronic obstructive pulmonary disease (COPD), cancer, hypertension, and diabetes cases are 65 years of age or older as are one third of arthritis sufferers and about 1/6th of those with chronic pain. Nine percent of Canadian seniors are affected by the Alzheimer's disease or a related dementia (CIHI, 2012).

Chronic disease rates increase as individuals age and women live longer than men thus, women tend to be more affected by long-term and chronic illness across the income spectrum (Abdelaziz, 2007). While seniors with lower incomes experience more chronic disease than those with higher incomes, and women more than men, higher income Canadian seniors do not escape the growing perils of chronic disease. In 2007, 31 percent of wealthier² Canadian seniors reported one chronic illness, 14 percent reported two and 8 percent reported three or more chronic illnesses (Curtis, 2011).

As baby boomers enter retirement, and both the prevalence of chronic disease and the cost of pharmaceutical treatments increase (CIHI, 2012), provinces have considered alternative coverage schemes. There has been a shift away from the philosophy of providing pharmaceutical and other extended health benefits by age, towards income-based schemes or to providing only catastrophic coverage (Demers et al., 2008; Curtis, 2011). Concurrently, private health insurance, often tied to employment, is being reduced and retirement benefits cut or eliminated by many firms (AonHewitt, 2011). The movement towards means-tested public insurance and the tightening of private insurance coverage may increase the retirement savings needed to maintain living standards and catch some boomers off guard, just as they are entering retirement.

Baby Boomers and Savings

In general, the goal of retirement saving is to accumulate enough wealth to maintain living standards, in retirement, that are consistent with pre-retirement standards (Alan, Atalay & Crossley, 2008; Haveman, Holden, Wolfe & Sherlund, 2006; Engen, Gale & Uccello, 2005; Stoller & Stoller, 2003; Radner, 1998). Experts suggest that retirees can maintain living standards with retirement incomes that sit somewhere between 50 and 85 percent of their pre-retirement income, that is with a replacement rate of between

50 and 85 (Engen et al., 2005, Horner, 2009; Weller, 2010). Retirees do not need a replacement rate of 100 percent because they have fewer expenses, pay fewer taxes, and do not need to save as much (Weller, 2010). Adequate savings should generate constant (or smoothed) consumption over time (Haveman, Holden, Wolfe & Sherlund, 2006).

Despite baby boomers' prosperity and high accumulation of wealth, relative to their parents (at each stage of life), baby boomers did not necessarily save optimally (Roberts, 2012; Iams et al, 2008; Keister & Deeb-Sossa, 2001; Bouvier & De Vita, 1991). While the majority of baby boomers have some savings, their saving rates and investment profiles may not have been sufficient (Engen, Gale & Uccello, 2005). Increasing life expectancy, decreasing investment returns, and declining private pension coverage could significantly undermine the Canadian pension system, and retirement outcomes, particularly for disadvantaged groups (Horner, 2009; Weller, 2010; McLaughlin, & Jensen, 2000).

Horner (2009) estimates the amount of savings required to meet a replacement rate of 60 percent (across different income levels), and finds that a significant portion of modest- and middle-income Canadians were not saving enough to meet the goal. This saving inadequacy is concentrated among individuals who did not have registered pension plan (RPP) coverage (Horner, 2009). Other studies determine that half of new retirees were unable to fully maintain their estimated pre-retirement consumption, and 40 percent were unable to maintain 70 percent of their consumption (Engen, Gale & Uccello, 2005; Glass & Kilpatrick, 1998). Moreover, retirement security may further deteriorate for baby boomers because they will not be able to rely on annuity incomes to the same extent that older cohorts did, and because boomers will likely live substantially longer than earlier cohorts (Weller, 2010). Even though some workers viewed their savings as adequate, an increased number of those in their early fifties predicted a high probability of having to work past the age of 65 due to low rates of health insurance, educational attainment, and lower DB plans (McLaughlin & Jensen, 2000).

The relative prosperity and saving patterns of baby boomers varies substantially across sub-cohort. Older baby boomers enjoyed substantially more prosperity than younger baby boomers (Keister & Deeb-Sossa, 2001). The annual rate of personal savings (as a percentage of GDP) exhibits an inverted Ushaped pattern across time, rising from 5.2 percent in the 1950s to 6.7 percent in the 1980s and falling back to 4.6 percent in the 1990s (Pryor, 2003; Bouvier & De Vita, 1991; Dean et al, 1989). Saving behavior also varies across individuals with different characteristics. Saving is positively correlated with education, employment, age, income level and accumulated wealth which is, in part, why men have higher relative quantities of financial assets and better levels of savings than do women (Glass & Kilpatrick, 1998a; Noone, Alpass, & Stephens, 2010; Rybczynski, forthcoming). There is a strong positive relationship between saving rates and lifetime income, and higher income households tend to have higher marginal propensities to save (as income increases they save more of the increase); put plainly, the rich save more (Dynan, Skinner & Zeldes, 2004). Annualized median saving rates increase from 1 percent, for households in the bottom income quintile, to 24 percent for those in the top quintile (Dynan et al, 2004). Lower income earners are not alone. Those with lower levels of education, minorities, females, singles and those with children, regardless of marital status, also have lower saving rates (Shuey, 2004; Pestieuu, 1989). Individuals with higher discount rates, because of current and pressing economic concerns or because they value their present well-being more than future well-being, also have lower saving rates (Shuey, 2004).

Female baby boomers are more economically disadvantaged, compared to their male counterparts, as they move into retirement (Mcdonald & Robb, 2004; Even & Macpherson 2004; McLaughlin & Jensen, 2000). Across both sexes, saving increases with age; however, compared to men, women tend to save

less at all ages (Jacobs-Lawson, Hershey & Neukam, 2004). Women from the earlier baby boom cohort continue to have lower incomes due to a history of interrupted careers and inequitable labour market conditions, and are also less likely to be covered by pension plans, limiting wealth accumulation for retirement (Bardasi & Jenkins, 2010; Hartmann & English, 2009; Denton & Boos, 2007; Berger & Denton, 2004; Even & Macpherson, 2004; Shuey, & O'Rand, 2004; McDonald & Robb, 2004). The average net worth of women aged 45 and over is only 64 percent of that of men, and the wealth distribution is highly skewed; women's holdings of non-financial assets are about two-thirds that of men's, and they hold only half as much financial assets, including in pensions. (Denton & Boos, 2007).

Boomers historically made substantial registered retirement savings plan (RRSP) contributions but these contributions declined substantially between 1996 and 2006 (Horner, 2009). A partial explanation (for the decline in RRSP use) is that households shifted to other forms of saving (i.e. RESPs, home equity, and other non-financial assets). Data from the 1999 Canadian Survey of Financial Security indicates similar RRSP contributions by men and women, except among lone parents; lone moms hold a lower fraction of their wealth in RRSPs and a slightly higher fraction in other registered savings (authors' calculations). These data are consistent with concerns that low-income households, particularly lone-mothers, typically have little disposable income with which to invest, in any investment vehicle.

Rybczynski, forthcoming Horner (2009))Noone, Alpass & Stephens (2010) suggest that baby boomer women working in specialized, high-paying occupations are likely to be as well prepared as their male counterparts, whereas women in other occupations are not likely to be as well prepared. Noone et al., (2010) also suggest that the decreasing male-female labour gaps may mean that many women will be more adequately prepared for retirement. However, specialized and high-paying occupations do not represent the labour market experience for the majority of women. The narrowing of the wage gap, and opportunities to work in more highly paid occupations, is the reality for younger female boomers not the older cohort (Noone, Alpass, & Stephens, 2010; Moore, 2006; Yamokoski & Keister, 2006; DaVanzo & Rahman, 1993). Even with the changes experienced by the younger cohort, a gender gap remains and men are still more likely to experience upward wealth mobility than are women (Dushi & Iams, 2008; Even & Macpherson, 2004; Orel, Ford & Brock, 2004; Keister & Deeb-Sossa, 2001; NACA, 2000). Women in the labour force still experience sticky floors and glass ceilings (Sharif, 2014).

Potentially insufficient rates of saving are not baby boomers only worry. Boomers also exhibit a rising level of debt, especially mortgage and home equity debt (Roberts, 2012). Increased debt could greatly affect seniors' economic security in retirement (Roberts, 2012; Anguelov & Tamborini, 2010; McGhee & Draut, 2004; Manning, 2000). By detracting from the accumulation of wealth, high debt levels could result in reduced longevity of private retirement funds, and more seniors that must work beyond their expected retirement age or become dependent on government welfare programs (Rybczynski, forthcoming; Horner (2009))Noone, Alpass & Stephens (2010) Anguelov & Tamborini, 2010). Even more troubling is that a substantial amount of this debt growth occurred among low income families and lone-female headed families (Anguelov & Tamborini, 2010).

Although some research suggests that, on average, baby boomers in high-paying jobs will be prepared for retirement, it is becoming clear that some marginalized groups will not (Dynan, Skinner & Zeldes, 2004; Stoller & Stoller, 2003). Zagorsky (1999) considers changes in portfolios among the younger baby boomers and suggests that a small percentage will have almost no savings at retirement. Economic well-being post retirement is determined by economic well-being pre-retirement, such that low-income individuals will not be adequately prepared for retirement (Haveman, Holden, Wolfe & Sherlund, 2006; McLaughlin & Jensen, 2000).

Because women are overrepresented in part-time or low paying jobs, with interrupted careers, women are less likely to participate in employer-sponsored pension plans, and are more likely to cash out their pension assets when they change jobs (Hardy & Shuey, 2000). Although pension coverage can vary by marital status and cohort (Rybczynski, forthcoming), Hardy & Shuey (2000) report that women are only 75 percent as likely as men to participate in a pension plan. Although pension participation rates have changed over time, by the early 2000s, the gap between male and female late baby boomers had only decreased by 3 percentage points, and younger female baby boomers were only 9 percent more eligible for pension than older female boomers (Moore, 2006). Moreover, the gap in pension participation has widened between the highest and lowest wealth quintile (Dushi & Iams, 2008). Even though there have been significant improvements to women's economic conditions, a substantial proportion of female baby boomers continue to remain in the lower wealth quintiles prior to retirement and are less likely to participate in pension plans; leaving them to face poorer income during retirement.

Labour market challenges are not the only reason why women struggle with their preparedness for retirement. Baby boomers experienced other important life course pattern changes. For example, changes in family formation and structure, such decreases in rates of marriage and increases in divorce rates and lone parenthood, lead some women to experience greater difficulties with saving. On one hand, those who never married, had no children, and no career interruptions, face better retirement prospects due to the steady flow of income, the ability to save, and expectations of full Canadian Pension Plan (CPP) (Berger & Denton, 2004). On the other hand, unmarried women require higher expenditures to pay monthly bills and provide for necessities (Zagorski, 2005; Berger & Denton, 2004; Shuey, 2004). Moreover, lone mothers have especially high expenses (e.g., childcare), such that even when they earn an adequate salaries they often fall below the poverty line once expenditures are accounted for (Percheski, 2008; Berger & Denton, 2004). As such, baby boomer lone mothers are particularly vulnerable to low incomes in retirement. They are disproportionately represented among the lowest wealth quintiles, and data in the Canadian Survey of Financial Security indicates that this group of women have employer or union based pension funds that are less than 1/3 the size of the funds of their male counterparts, and about ½ the size of funds for the average woman (authors' calculations using the 1999 SFS).

Zagorsky (2005) studies the wealth accumulation of younger American boomers' between 1985 and 2000. Unsurprisingly, he showed that couples were able to live more cheaply and save more than singles. Surprisingly they were able to save substantially more than twice what singles saved. On average, singles saved slowly and steadily over the survey period, experiencing a growth in savings of about \$10,000 over 15 years. However, married individuals saw sharp increases in their wealth over time, growing to approximately \$43,000 after only ten years of marriage. Holding other factors constant, married couples' wealth grew by about four percent per year. Divorced individuals saw substantial declines in their wealth. After experiencing a divorce, individuals ended up with, on average, about 75 percent of the wealth of never-married individuals and about 16 percent of married individuals' wealth (per capita). Moreover, although divorced individuals had low wealth, on average, divorced males had 2.5 times more wealth than divorced females.

Investing

On top of lower saving rates, women are also more susceptible than men to low income in retirement due to gender differences in financial planning. On average, Canadians spend little time planning for their retirements. According to Benn (2007), 70 percent of DC plan members spend less than 10 hours

annually on investment planning. Fewer women spend time planning their futures than do men (37 percent of women relative to 53 percent of men) and some women report that planning is meaningless to them or it is their husband's responsibility to do so (Berger & Denton, 2004; Jacobs-Lawson, Hershey & Neukam, 2004). This difference highlights an important point: retirement income is not determined by the level of savings alone.

Private savings generates retirement income by two channels: first, by the quantity invested (level of saving), and second, by returns on the investments. In order to compare the effects of the magnitude of the saving versus the return on those savings, Horner (2009) showed that a one percent drop in portfolio return implied that an individual would have to save an additional 2.5 percent of earnings, annually⁸. All else equal, lower risk portfolios can result in lower retirement income, on average, and a greater likelihood of reliance on government income supports. Risk aversion can vary substantially across cohorts, sexes, minority status and other individual characteristics such as income, education, family composition and wealth (Shuey, 2004; Rybczynski, forthcoming). In general, women tend to hold less risky portfolios, whereas men disproportionately choose high-risk investments, which can lead to higher returns and greater wealth accumulation among men (Neelakantan, 2010; O'Rand & Shuey, 2007; Glass & Kilpatrick, 1998). Portfolio risk levels also vary across marital status. Portfolios of older men and women, particularly married men and women that were born just before the boomers, exhibit higher levels of risk than do other groups (Rybczynski, forthcoming; Jianakoplos & Bernasek, 2006; Porterba & Samwick 2001; Jianakoplos & Bernasek, 1998). While much of the difference in portfolio risk is driven by wealth and other family and individual characteristics, Rybczynski (forthcoming) reports that, controlling for these characteristics, the lowest risk portfolios appear among previously married women who were born in the 1943-1954 period (early baby boomers). Previously married, late-boomer women (born at the time of the social-sexual revolution) exhibit much higher financial risk tolerance (both relative to other cohorts and to their male counterparts). However, while risky portfolios generate higher returns on average; they are also more susceptible to extreme shocks. For example, many households lost a substantial fraction of their wealth in the 2008 financial crisis.

During the baby boomers' prime years, there was unprecedented growth in real estate and stock markets and it seemed as if the boomers' wealth portfolios would exceed those of their parents (Keister & Deeb-Sossa, 2001). The stock market boom and availability of mutual funds during the late 1990s and early 2000s attracted many middle-class investors to the stock market, consequently decreasing their annuitized savings and increasing the risk to which retirees were exposed (Keister & Deeb-Sossa, 2001; Weller, 2010). Furthermore, in 2008, 31 percent of individuals held stocks inside their retirement accounts and DC plans, in addition to the equities held outside such funds (Butrica, Smith, Iams, & Toder, 2009). As a result, the 2008 stock market crash played havoc with baby boomers wealth and savings for their retirement. As well, in response to the crash, many firms shifted their pension plans from DB plans to DC plans⁹ leading to an increase in the number of households placing portions of their wealth in retirement accounts, specifically equities (Robson, 2008). The baby boomers were known to be active

⁸ Assuming target income replacement rate is thirty percent and the investment is a 20 year indexed annuity that is financed at a 3.5 percent real rate of return over 35 years.

⁹ Bonnar (2008) reports firms had started shifting away from DB coverage prior to the 2008 downturn. Private sector coverage dropped from 29 percent in 1992 to around 21 percent in 2004 and then further after the crash. Bonnar claims the crisis in DB plans is that a few poorly run plans were impacting all plans and that the real crisis was that even affordable DB plans were disappearing. On the other hand, Jametti (2008) argues that more than three-quarters of DB plans in Canada were underfunded to some extent in 2005; decreasing to just under half in 2006 – pointing out the dire circumstances of some DB plans and their instability over time.

and innovative risk takers but seemed to lack the knowledge necessary to 'play the markets' wisely (Reisenwiz & Iyer, 2007; Shuey & O'Rand, 2004; Weller, 2010). Married couples tended to invest in similar assets rather than diversifying their assets to spread the risks (Shuey, 2004). While it is important to maximize contributions, investors must diversify, rebalance portfolios at specific points in the life cycle, and carry appropriate levels of risk in order to optimize retirement incomes. Prior to the 2008 crash, there seemed to be complacency towards risk leading, in retrospect, boomers to carry too much risk in their wealth portfolios. Consequently, they were unable to compensate for the losses experienced by the 2008 crash. This was particularly true for retirees with annuity incomes below twice the poverty line (Weller, 2010). In this regard, women may be in a safer investment position because they held less risk portfolios, however the greatest impact on investments occurred in the top third of the income distribution (Coile & Levigne, 2010), so it is not clear that this shock is an issue for the low-income women who are at greater risk of poverty in retirement.

The impact of the 2008 crash varies by age, income level and by possible future market performance (Butrica, Smith, Iams & Toder, 2009). Millions of people lost substantial portions of their wealth in the crash; older baby boomers who were nearing retirement were especially misfortunate because they had substantial wealth to loose and did not have the time to recoup their losses before planned retirement dates (Butrica, Smith, Iams & Toder, 2009; Weller, 2010). Comparatively, while younger baby boomers invested far more heavily in stocks, they did not have much wealth to lose, and they have more time to potentially recoup their lost wealth before they are ready to retire (Butrica, Smith, Iams & Toder, 2009).

Baby Boomers and 2008

Butrica, Smith, Iams & Toder, (2009) ran positive (full recovery) and negative (no recovery) scenarios in order to estimate the effect of the 2008 market downturn on baby boomers. On average, the effect on younger baby boomers' per capita household income ranges from a decline of 7.2 percent to an increase of 3.2 percent for no-recovery and the full-recovery scenarios, respectively. Whereas older baby boomers will experience a decline in both situations; the decline in the no-recovery situation was about 8.5 percent and it was 6.9 percent in the full-recovery scenario. Even in the full-recovery scenario, individuals only reap optimal benefits when they bought stocks at low prices and held them through the recovery period to make above average returns. If individuals sold their poorly performing stocks prior to recovery they would lose on their initial investments as well. (Butrica, Smith, Iams & Toder, 2009). It may be difficult for individuals who have lost substantial wealth in the market to hold onto their stocks or to turn around and invest what they have left. Butrica, Smith, lams & Toder, (2009) also point out that, historically, those from higher income households are more likely to invest in the stock market and thus, may, as a result of the crash, find themselves moving down the income distribution. Families with lower income tended to keep very small shares of it in retirement accounts or the stock market. However, as a result of changing pension plans, families with lower incomes are now more likely to hold equities than ever before. Resultantly, more than ever before, the 2008 crash and ongoing market instability could have significant and detrimental effects on the wealth accumulation of families with low incomes. (Butrica, Smith, Iams & Toder, 2009).

Indubitably, experts predict that in the long run people's wealth will increase as markets recover to the previous upward trends (Butrica, Smith, Iams and Toder, 2009, (Horner, 2009). However, it is difficult to predict precisely when the rebound will occur, if it will fully rebound, and if there will be enough time to accumulate the wealth lost by many of the baby boomers individually and in their pension plans. While some suggest there will be a rebound in the upcoming years, others suggest that the decline in the rate of growth experienced as a result of 2008 will continue through 2020 (Horner, 2009); this prediction is

now looking more possible. The longer the recovery takes, the worse it is for near-retirees who will be unable to recover their losses, and meet earning replacement targets. In addition to making it difficult to recover losses, low returns make it difficult to save adequately for retirement; recall a rate of return decrease of even a single percentage point, increases the required savings rate considerably (Horner, 2009). Moreover, current low returns may drive some to depend on increasingly riskier investments, further jeopardizing their retirement incomes.

Pension Plans

Many Canadian seniors face insufficient retirement incomes due to declining RPP coverage (Weller, 2010; Horner, 2009). Between 1984 and 1997, RPP coverage declined for three out of four major demographic groups; all men and younger women; RPP coverage only increased for older women. The changes were a result of diminishing unionization rates and the shift in employment from high-coverage to low-coverage industries (Morissette & Drolet, 2001). Only about half of workers in North America are covered by workplace pension plans (Ambachtsheer, 2008). The impact of the decline in RPP coverage has been somewhat offset by the increase in female labour force participation. The growth in two-earner families has helped to maintain the proportion of families with at least one RPP. However, Horner (2009) points out that having a pension that covers one earner's income is not sufficient.

The baby boomers' ability to accumulate adequate retirement funds has also been influenced by a significant shift from DB plans to DC plans in United States, United Kingdom and to some degree Canada (Wright, 2012; Hartman & English, 2009; Horner, 2009; Ambachtsheer, 2008; Dushi & Iams, 2008; O'Rand & Shuey, 2007; Shuey, 2004; Shuey, & O'Rand, 2004; Hardy & Shuey, 2000). DB pension plans are typically the responsibility of the employer, are funded by contributions from the employer and employee and offer guaranteed pension benefits based on some combination of salary, age, and years of service (Shuey, 2004; Shuey, & O'Rand, 2004). DB plans protect employees against longevity, and other forms of investment, risk (Horner, 2009; Dushi & lams, 2008). DB plans also provide spousal and survival benefit to family of the employee (Dushi & Jams, 2008; Horner, 2009; O'Rand & Shuey, 2007; Shuey, & O'Rand, 2004). DC plans, on the other hand, are more like saving accounts. Employer and employee contributions are invested and the benefits received at retirement depend on the return on the investments (O'Rand & Shuey, 2007; Hardy & Shuey, 2000). The increase in DC plans has been influenced by their adaptability across different types of jobs, the shift from unionized manufacturing jobs to non-unionized service related jobs, and the rising cost of DB plans (Pruchno, 2012; Horner, 2009; Dushi & lams, 2008; lams et al, 2008; Shuey & O'Rand, 2006; Wiatrowski, 2004). Unlike DB plans, employee participation is not automatic in DC plans and it is likely that some employees, particularly women and minorities, are discouraged from joining them due to the risks involved (Dushi & Iams, 2008; O'Rand & Shuey, 2007; Shuey, 2004). The outcomes of DC plans are highly dependent on the investment choices that the individual makes, where high-risk choices may lead to greater returns (Shuey, 2004).

DC plans have the ability of generating high account balances provided the individual consistently contributed over a long period of time and made sound investment decisions (Dushi & Iams, 2008; O'Rand & Shuey, 2007; Weller, 2010). The high levels of contributions are necessary to protect against longevity, and not all boomers have had sufficient income or knowledge to make necessary contributions over long periods of time (Horner, 2009). There are risks of losing the balance if markets are do not behave as expected or of outliving the account balance if returns are low or retirees live longer than expected; the question becomes how much is necessary to handle these unplanned situations (O'Rand & Shuey, 2007). Employees are unlikely to benefit from the potential gains of DC plans because employees are bearing multiple types of risk including, risk of inadequate contributions,

risky investment returns, longevity risk and the risk of mismanaging funds in retirement (Butrica et al., 2009; Ambachtsheer, 2008; Robson, 2008; Dushi & Iams, 2008; Poterba et al., 2006; Munnell & Sunden, 2004; Shuey, & O'Rand, 2004).

The literature clearly indicates that the shift from DB to DC has had both negative and positive effects on a woman's ability to save for their retirement. While spousal and survival benefits offered in DB plans are extremely important to women, women themselves are often not covered by DB plans (Dushi & lams, 2008; Denton & Boos, 2007; O'Rand & Shuey, 2007; Shuey & O'Rand, 2006). DC plans may be more beneficial for those who have interrupted work histories or change jobs frequently (i.e., women) if they are able to make high rates of return on their investments (Dushi & lams, 2008; Hardy & Shuey, 2000). Despite the benefits DC plans present for women, women have accumulated less in them than males (Butrica et al., 2009; Hartman & English, 2009; O'Rand & Shuey, 2007; Shuey & O'Rand, 2006) and there seem to be more losers than winners when examining the shift from DB plans to DC plans (Butrica et al., 2009).

Policy Discussion

There is no consensus in the literature on the outlook for baby boomers that are just now retiring. Current economic conditions are an improvement on the conditions faced by some earlier boomer cohorts (Curtis, 2013; Dushi & Iams, 2008; Iams et al, 2008; Milligan, 2008; NACA, 2006; McDonald & Robb, 2004; Horner, 2009;). On the one hand, a maturing retirement income system, growth in private savings and a shift to pre-funded benefits under the C/QPP means that these later baby boomers may be less likely to have low income during retirement (Horner, 2009; Milligan, 2008). On the other hand, increasing life expectancy, decreasing investment returns, and declining private pension and supplemental health insurance coverage could significantly undermine the Canadian pension system (Weller, 2010; Horner, 2009; McLaughlin, & Jensen, 2000; Milligan, 2008) and individual's retirement savings. Additionally, the 2008 crash had an extreme negative impacts on retirement aspirations of the leading edge of the baby boom generation.

Some workers view their savings as adequate, but an increasing proportion of Canadians predict they will be working past the age 65 because of low rates of health insurance, and lower DB pension plan coverage (Mermin, Johnson and Murphy, 2007; McLaughlin & Jensen, 2000). At the beginning of the 21st Century, three quarters of Canadian retirees reported being at least as satisfied with their financial situation as they were before retiring (Alan, Atalay, Crossley, 2008). However, current expectations are less rosy. Press (2013a) reports the results of a survey of 35 to 65 year old Canadians in late 2008 and again in 2012 (baby boomers were 43 to 62 in 2008). More Canadians expect to work past normal retirement age than in 2008; 27 percent of Canadians expect to retire at 65 years of age (down from 51 percent in 2008), 26 percent expect to work full-time past that age (up from 16 percent in 2008) and 32 percent expect to work part-time (same as 2008). In 2008, the most popular reasons for working past normal retirement age were life-style choices "I enjoy my job or career", 'to stay mentally active" and "to earn enough money to live well." Since 2010, the most popular answers are more related to economic stability; "to earn enough money to meet basic living expenses", "to earn enough money to live well", and "I don't believe government benefits will be enough to live on." Nearly 40 percent of respondents believe there is a "serious risk" they will outlive their retirement savings.

Concerns raised in this synthesis are becoming more apparent as baby boomers continue to retire. While many baby boomers are healthy, are doing well economically (Butler-Jones, 2010), some subgroups remain vulnerable. The very youngest of the baby boomers have a decade before they hit normal retirement age, and many have reaped the rewards of changes in labour market policies (better parental leave, lower gender-wage gap, better work-life balance) and family policies (more equitable divorce settlements, custody arrangements, and child support payments; shared parental leave; automatic pension splitting). However, many of the profound social and economic changes that occurred during the life-course of the baby boomers generation left some subgroups especially vulnerable in retirement. Extreme changes in family dynamics and substantial labour market inequities meant that older female baby boomers faced low incomes in early life and, subsequently, in retirement. High proportions of baby boomers never married and those that did had higher divorce rates than previous cohorts. Therefore as the baby boom cohort reaches 65 years of age, it is expected that there will be an increase in the proportion of unattached (widowed, divorced, separated and never-married) individuals, particularly women (TaLin & Brown, 2012; mborini, 2007; Teachman, Tedrow, Crowder, 2000). Because marital status is a strong determinant of wealth accumulation, this trend implies that early female baby boomers face poor economic prospects in retirement.

Never married younger female baby boomers are in a better place relative to previous cohorts, because they had career patterns closer to those of men. This group benefited from the structure of pension plans, better employment opportunities and from the reduction of wage inequities between men and women, enabling an accumulation of wealth similar to unmarried men (Lin & Brown, 2012; Shuey & O'Rand, 2006; McDonald & Robb, 2004). However, women's attitude towards saving and risk has resulted in lower life-time savings relative to men (Rybczynski, forthcoming; Neelakantan, 2010; O'Rand & Shuey, 2007; Jianakoplos & Bernasek, 2006; Porterba & Samwick 2001; Glass & Kilpatrick, 1998a). As well, never married women lack the spousal income and retirement benefits to compensate for insufficient pensions due to lower saving rates or lower lifetime earnings (Lin & Brown, 2012; O'Rand & Shuey, 2007; Tamborini, 2007). For the never-married individual, poverty is highly dependent on their pre-retirement occupation, income, and the 'sticky floor' and 'glass ceiling' effects. These effects are still prominent in the labour market, holding women, especially minority women, back, relative to men (Sharif, 2014). Never-married-young baby boomers may do better in retirement than previous cohorts, but this is not guaranteed (Tamborini, 2007)

Comparatively, baby boomer women who are widowed or divorced are likely to do worse than their male counterparts. Widowed retirees tend to be early baby boomers and/or foreign-born which means they are less likely to have been in the labour force, thereby facing higher risks of poverty after losing their husbands (Lin & Brown, 2012; Pruchno, 2012; Angel, Jimenez, & Angel, 2007; O'Rand & Shuey, 2007;). Lin & Brown (2012) suggest that widows appear to be the most disadvantaged of the boomer women. Even though widowed early boomer women receive some level of wealth and survivor benefits as a result of their marriages, they faced many of the gender biases in employment and financial conditions experienced by women of earlier cohorts. Therefore, survivor benefits and remaining wealth may not be enough to fully support widowed women (Mcdonald & Robb,2004; Yabiku, 2000).

The most disadvantaged group is previously married women. Divorce is particularly hard on women as the costs associated with filing for divorce, running a new household, and lack of financial knowledge seem to be higher for women than men; 50 percent of divorced women stated they did not have enough knowledge to plan for their future (Zagorsky, 2005; Orel, Ford & Brock, 2004). Separated women are further disadvantaged because separation comes with fewer legal protections on the wealth accumulated during the marriage (Veall, 2008; Mcdonald & Robb, 2004). Although joint custody arrangements are becoming more common, boomer women still tended to maintain full custody of children after a divorce or separation, when all but the latest cohorts.

The sexual revolution, with its resultant increase divorce rates, pre-marital sex, and common-law cohabitation, also influenced a substantial increase in proportion of lone-parent families (Lin & Brown, 2012; Wu, 2008; Teachman, Tedrow, Crowder, 2000; Uhlenberg, 1996; DaVanzo & Rahman, 1993; Pestieuu, 1989). Most boomer lone-parent families are lone-mother families as women generally maintained full custody of the children born outside of marriage or after a divorce (Teachman, Tedrow, Crowder, 2000; DaVanzo & Rahman, 1993). Female baby boomers, particularly older boomers, did not have the same benefits of child support payments (Department of Justice, 2015) or equitable distribution of marital assets, particularly pensions (NACA, 2006), that are available to women today. Poverty rates for lone-mother families tend to be substantially higher than for coupled- and lone-father families (Curtis, 2011; Crossley & Curtis, 2006). Therefore, while lone parents of both genders are economically disadvantaged, women face more difficulty (Yamokoski & Keister, 2006; Grossbard, 2005; Dooley, 1994). Because individuals establish retirement savings and investments early in life, the poverty experienced at these earlier life stages will determine their lack of wealth as they entire retirement (Haveman, Holden, Wolfe & Sherlund, 2006; Yamokoski & Keister, 2006). Lone-mother families tend to be particularly unprepared for retirement due to these economic penalties that prevented appropriate wealth accumulation (Yamokoski & Keister, 2006).

Improved social policies aim to assist low-income families; however, these policies may be insufficient for older female baby boomers, a group that is more disadvantaged than most. In the late 1970s, when the earliest female boomers would have been around 25 years of age, research began to highlight the large proportion of women living in poverty and the feminization of poverty (Yamokoski & Keister, 2006; Dooley, 1994).

Moreover, in the 1990s, when the oldest boomers were hitting late forties and the younger boomers were around 25 years of age, social assistance benefits and other programs directed at the poor were deteriorating (Curtis, 2011a; Crossley & Curtis, 2006; Hicks, 2008). Policy shifted away from social safety nets for the poor toward expanding education and labour markets skills (assisting individuals to adapt in the rapidly changing labour markets). Attention moved away from supporting the poor toward a focus on the disincentive effects of social programs like unemployment insurance and social assistance (Haveman, Holden, Wolfe & Sherlund, 2006; Yamokoski & Keister, 2006; Hicks, 2008). Some changes in social support programs were particularly detrimental to women, particularly lone mothers. For example, income tested child benefits, aimed at low-income working parents, were generally not provided to lone mothers who stayed home to look after their children. (Curtis, 2007). These policy changes contributed to increasing poverty rates in the mid-1990s (Curtis, 2011a; Crossley & Curtis, 2006). Despite increased and improved work opportunities for women, social policies did not always consider family responsibilities or childcare, and other expenses which often reduced the lone mother's situation below minimum living standards (Gingrich, 2008; O'Rand & Shuey, 2007; Percheski, 2008; Wu, 2008; Curtis, 2007). Lone mothers who were able to participate in the labour market often held precarious jobs with few benefits (Gingrich, 2008; Curtis, 2007; Dention & Boos, 2007), further fueling the feminization of poverty. In sum, the policy shift towards social investment meant that extremely vulnerable groups were left behind, (Gingrich, 2008; Curtis, 2007) many of which were baby boomers.

The issue of lifetime vulnerability is increasingly problematic as Canadians are living longer and, on average, are healthy when they reach the age of 65 years. In 2012, men were expected to live to 80 and women to 94 (CBC, 2014). At 65, seniors are expected to live another 20 years, on average (females 21.6 years and males 18.5 years) (Statistics Canada, 2009). As life expectancy increases, some workers will spend more years in retirement than in work (Fitzgerald, 2008), and many Canadian baby boomers have, implicitly if not explicitly, begun to deal with the fact that their retirement savings may not be adequate

to meet their financial needs over the final course of their life. The proportion of Canadians who believe they will work past the normal age of retirement has increased substantially over time (Press, 2013; McLaughlin & Jensen, 2000), and more of those who work past retirement age do so because they have to rather than want to (Press, 2013).

The percentage of seniors in the labour force doubled, from about 7 percent to 11 percent, between 1999 and 2009, and more than twice as many men as women work past the normal age of retirement (Haveman, Holden, Wolfe & Sherlund, 2006; Yamokoski & Keister, 2006)Hicks, 2008).Butler-Jones, 2010). While individuals 'voluntarily' consider working past normal retirement age, the Federal Government is providing incentives they do so and Canadian researchers are calling for more explicit changes to plans (Spencer, 2014; (Haveman, Holden, Wolfe & Sherlund, 2006; Yamokoski & Keister, 2006)Hicks, 2008)Denton and Specner, 2009; Fitzgerald, 2008; Robson, 2008). GIS/OAS reform will slowly increase the age of eligibility from 65 to 67 for those born between 1958 and 1962 (younger baby boomers). Recent CPP policy changes decrease benefits taken before the age of 60 and increase benefits if receipt begins after the age of 65 years. Policy changes will make it easier to continue working while receiving CPP and to continue contributing to build pension benefits. Additionally, a 2 percentage point increase to the drop-out period increases the number of low-income years that can be excluded from CPP entitlement calculations. This change is in addition to drop-out provisions for child-rearing years, and could be particularly helpful for baby boomer women who may have moved in and out of the labour market. (Service Canada, 2015 & 2010; CBC, 2012).

However, the age of eligibility changes to GIS/OAS and CPP appear inequitably focused on lower-income individuals, predominantly women with precarious jobs or no labour experience (Bardasi & Jenkins, 2010; Hartmann & English, 2009; Tamborini, Iams & Whitman, 2009; Percheski, 2008; O'Rand & Shuey, 2007; Moore, 2006; Warren, Rowlingson & Whyley, 2001; Hardy & Shuey, 2000; Williamson & Rix, 2000; Yabiku, 2000; Rosenfeld, 1996;), who are less likely to be healthy and often die earlier than those with higher incomes (Butler-Jones, 2010; Wolfson, 2012). GIS/OAS recipients *have* to work longer, whereas higher income individuals who are eligible for CPP *can* work longer if they choose. Some researchers are also concerned about the savings disincentives inherent in the GIS/OAS, particularly for modest and middle-income earners (lower income earners have little ability to save) (Horner, 2008). Disney, Emmerson & Wakefield (2008) point out that the UK targets public benefits to households with low-incomes and offers tax incentives to encourage additional private retirement savings.

There are calls for substantial increases in 'forced savings.' The Federal Government could increase contributions to CPP, enhancing benefit and coverage rates over the next 15 to 20 years, such that younger baby boomers would have a chance to increase their financial well-being in retirement (Haveman, Holden, Wolfe & Sherlund, 2006; Yamokoski & Keister, 2006)Hicks, 2008)Denton and Specner, 2009; Fitzgerald, 2008; Robson, 2008)Wolfson, 2012). Similar to the 1990 CPP reforms, some research suggests that these type of adjustments are necessary to maintain the feasibility of the plan (Wolfson, 2012; Béland & Myles, 2008). Alternately, federal and provincial governments could collaboratively set up a regulated national pension plan, or regulate mandatory contributions to current DC plans (Baldwin, 2008; Fitzgerald, 2008). Ontario has implemented new rules for jointly sponsored pension plans and has appointed an expert panel to review possible changes (Fitzgerald, 2008). This panel is moving forward rapidly on a jointly sponsored plan for the university sector. Calculating DC or RRSP contribution maxima on multi-year averages rather than annual earnings rather would enable earners who leave the labour market or reduce their hours worked for limited periods of time (e.g., child rearing, elder care, or obtaining education) to make up contributions at later dates. Mechanisms, such

as those used within the CPP, that ensure labour market exits do not unduly harm women's pension benefits are being identified and implemented.

The Optimal Pension System (TOPS) has been put forth as a potential alternative to both DB and DC plans ((Haveman, Holden, Wolfe & Sherlund, 2006; Yamokoski & Keister, 2006, Hicks, 2008, Denton and Specner, 2009; Fitzgerald, 2008; Robson, 2008, Wolfson, 2012, Ambahstcheer, 2008; Cui, De Jong and Ponds, 2005; Blake, 2003). TOPS is a fully portable pension plan that circumvents typical issues of both DB and DC by making contributions mandatory and setting policies and rules in advance that can 'auto pilot' adjustments to contribution rates and investment policies. TOPS would guarantee equity for men and women by adjusting for labour market absences and the longer life expectancy of women. As part of the autopilot investment strategy to deal with longevity risk, TOPS would purchase deferred life annuities over time. TOPS would even suggest deferred retirement if necessary. Thus, TOPS represents a flexible system that could be adopted at the national level, regional level, and industry-level or individual employer level.

While many of these proposed policy initiatives would, in the long run, help modest-, middle-, and higher-income earners, they are unlikely significantly impact households at the very bottom of the income distribution, nor will they do much for those moving into retirement within the next few years. As discussed previously, changes to OAS/GIS have likely made those with very low incomes worse off. The literature suggests that improvements to women's, particularly low-income women's, well-being in retirement starts with improving their experiences in early life, whether that be by improving labour market experiences and outcomes or by providing better social supports (Sharif, 2014; Marier & Skinner, 2008; Noone, Alpass, & Stephens, 2010; Haveman, Holden, Wolfe & Sherlund, 2006; Even & Macpherson, 2004). While the gender-wage gap has diminished over the last few decades, occupational differences still drive a gap. The 'sticky floor' and 'glass ceiling' effects linger. Women remain the dominant care-giver, whether for children or elderly parents (Butler-Jones, 2010; Bernier & Clow, 2009), and are the ones that reduce working hours if needed.

Moreover, individuals at the bottom end of the income distribution are more likely to rely on the public system for long-term health care and other supplemental health insurance. As baby boomers move into retirement and older ages, policy makers must strive to improve efficiencies in the health-care system (CLHIA, 2012; Bulter-Jones, 2010), to move towards health and wellness promotion, and to providing more choice for seniors. Movement away from the medicalization of aging must include concomitant provision of a variety of integrated care options, ensuring that a broader range of needs are met, and creating a continuum of care as baby boomers age. Current systems must be restructured, moving elderly care out of hospitals into their homes, their communities assisted living and support facilities, long-term care facilities, and palliative and end-of-life care facilities. (CLHIA, 2012; Bulter-Jones, 2010; Knickman, & Snell, 2002). Changes in the delivery of health care (and its funding) must be transparent, and policy makers must be upfront about any added costs to seniors and their families so that Canadians can adequately prepare.

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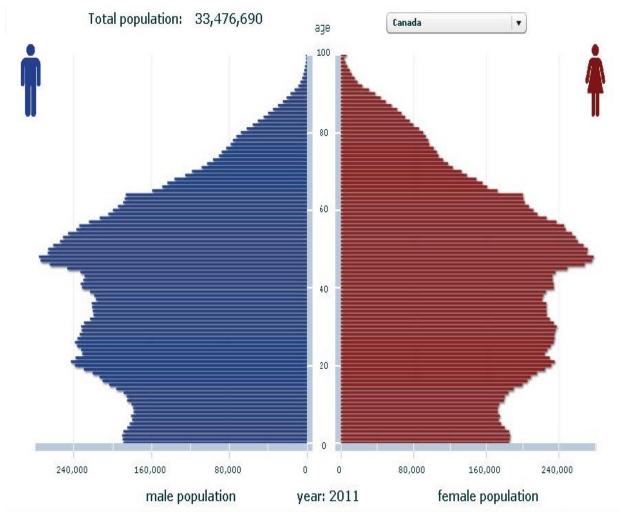
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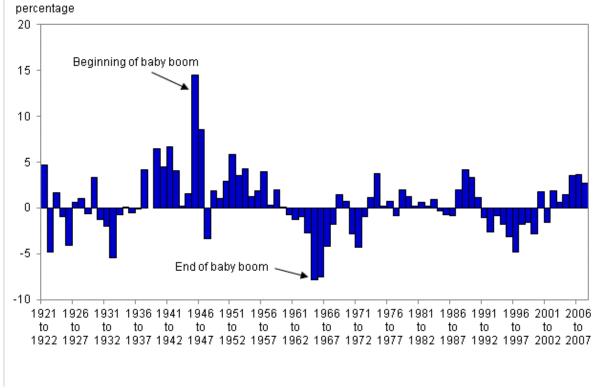
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Sources: Statistics Canada, censuses of population and Population Estimates Program, 1921 to 2011. Total population counts originate from the census for census years. Between census years, total population counts were extrapolated using the annual rates of population growth from the Population Estimates Program. For all years included between 1921 and 2011, the age structures are those of the Population Estimates Program.

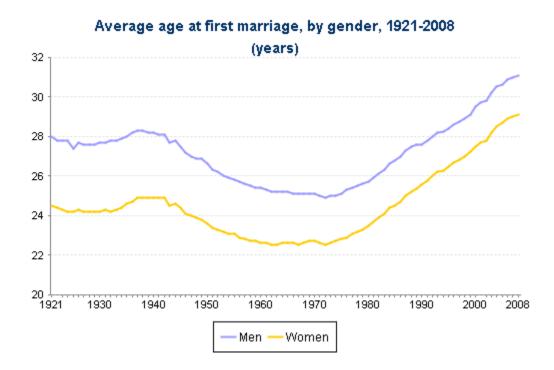
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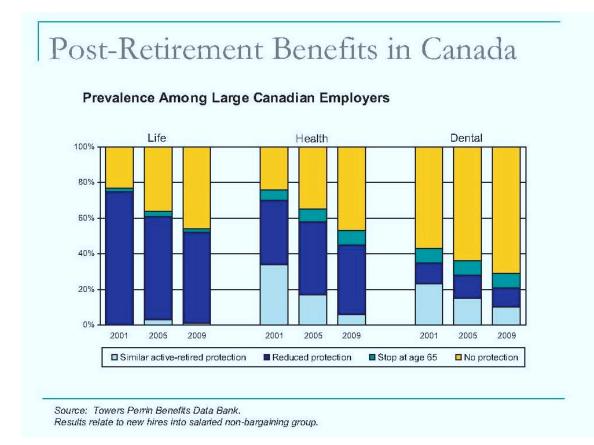
Percentage growth in the annual number of births, Canada, 1921 to 2008

Source: Statistics Canada, 2014

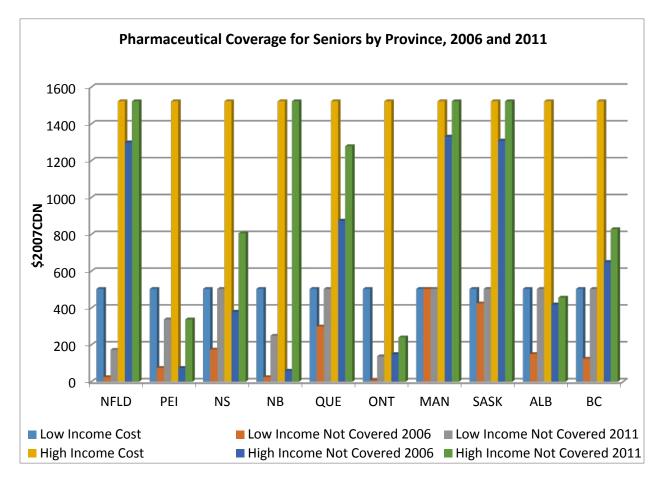




Source: ESDC (2011) http://www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=78



Source: Bourassa and Stoller (2009)



Source: Constructed from Demers et al., 2008 and Curtis, 2011.

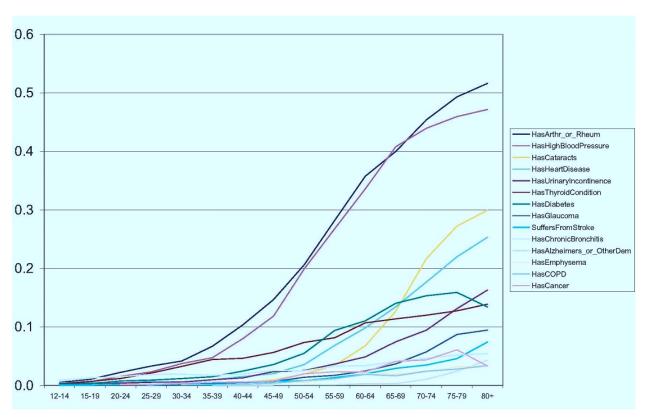
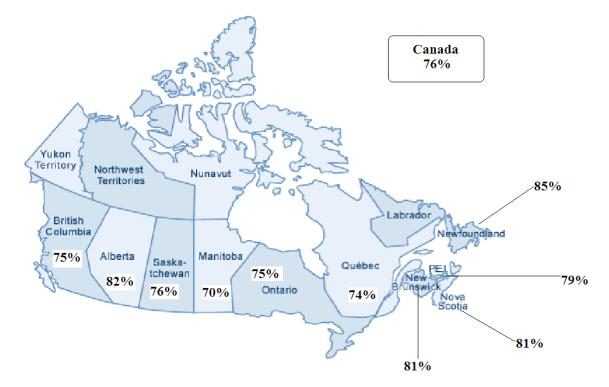


Figure 6: Prevalence Rates for Chronic Conditions Associated with Old Age, 2005

Source: Denton and Spencer, 2009.

Percent of Seniors Reporting One or More Chronic Diseases in Canada and Provinces



Source: Adapted from CIHI, (2011)

	Married (%)	Widowers/Widowed (%)	Divorced (%)	Separated (%)	Never Marriec (%)
Males					
Age 66-70	4	6	6	9	12
Age 71-75	4	5	6	8	11
Age 76-80	3	4	5	7	12
Age 81-85	3	4	5	8	11
Age 86-90	3	4	6	8	13
Age 91+	4	6	8	10	14
Females					
Age 66-70	3	10	12	18	16
Age 71-75	2	8	12	18	15
Age 76-80	2	7	11	20	16
Age 81-85	2	7	10	20	15
Age 86-90	1	8	12	22	14
Age 91+	1	12	21	25	16

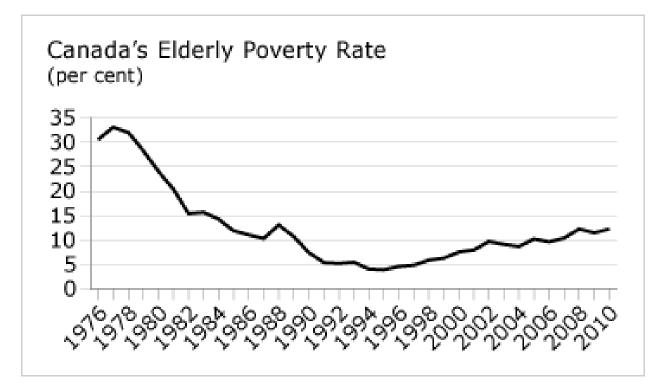
Senior Below-LIM Rates in Canada by Gender, Age, and Marital Status

Notes: The low income measure (LIM) is 50 percent of family income for Canada, all ages, with an adjustment for family size. Age is the age as of 31 December 2004.

Source: Statistics Canada (2004a) and author's calculations from the Longitudinal Administrative Database.

Source: Veall (2008)





Source: Conference Board of Canada (2013) http://www.conferenceboard.ca/hcp/details/society/elderly-poverty.aspx