durham workforce authority

NOT IN THE LABOUR FORCE

Report | 2018

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Introduction

As Statistics Canada (2015) defines, individuals self-identifying as 'not in the labour force' (NILF) are unwilling or unable to provide labour services during the reference week. Therefore, they are not counted as unemployed or employed. In the last 16 years, Durham Region has seen a significant increase in the number of residents who are not in the labour force (Statistics Canada, 2017c). According to Census data, residents who are not in the labour force have increased by 58.3 percent from 2001 to 2016, whereas the population of Durham Region has only increased by 27.41 percent within the same time period (Statistics Canada, 2017c).

Methodology

Since the percentage increase of those not in the labour force is rising more rapidly than overall population change, the Durham Workforce Authority is undertaking this report to better understand the context for non-participation in the local labour market. This report will utilize various sources for presenting a more thorough understanding of labour force participation and related patterns within the Durham Region. First, a literature review will be conducted with Canadian academic literature from major economic and research organizations, including governments, banks, thinktanks and universities, which will outline the most frequently attributed reasons for non-participation. This review will be followed by analysis of data from Statistics Canada surveys, including the Labour Force Survey, Censuses from 2001, 2006 and 2016 and the National Household Survey from 2011. Specifically, analysis will be conducted on population and not in the labour force data, by age group and sex, examining changes over time and differences between groups. Lastly, implications of the findings related to the rising not in the labour force population will be discussed, and further research recommendations will be provided.

Literature Review

The Statistics Canada (2015) definition for not in the labour force (NILF) will be used throughout this report to maintain consistency. Statistics Canada (2015) defines NILF as individuals who self-identify as being unable or unwilling to offer labour services during the reference week, meaning they are neither employed or unemployed. Within this category, there are several types of individuals who are encompassed in this category, including those with some form of perceived labour market attachment, those who can work with no perceived labour market attachment, and those who are permanently unable to work (Gilmore & LaRochelle-Cote, 2011). Individuals with some perceived labour market attachment include discouraged searchers who have given up looking for employment, those who were recently laid off and wanted work but are not currently seeking employment, or those who are marginally attached (e.g. expect to start a job in five weeks or more) (Gilmore & LaRochelle-Cote, 2011). Individuals who can work but have no perceived labour market attachment include students, recently retired individuals or other individuals both under and over the age of 65 years (Gilmore & LaRochelle-Cote, 2011). Due to their prevalence in existing literature, several of these categories within the not in the labour force population will be examined further including older adults, students, females and their role as primary caregivers, and discouraged searchers.

Aging & Retirement

As Canadian economists and researchers continue to state, the labour force is aging at a rapid rate (Fields, Uppal & LaRochelle-Cote, 2017; Government of Ontario, 2017). The proportion of Canada's working-age population over the age of 55 continues to increase, accounting for 36 percent of the total population in 2016 (Fields, Uppal & LaRochelle-Cote, 2017). As Statistics Canada projects, the proportion of seniors (65+) is expected to increase to between 23.8 to 27.8 percent in 2063, compared to 15.3 percent in 2013 (Bohnert, Chagnon & Dion, 2016). This proportion will continue to be more pronounced, especially between the years of 2013 to 2030, when baby boomers will reach the 65-year-old benchmark (Bohnert, Chagnon & Dion, 2016). At a provincial level in Ontario, similar patterns for population projections are anticipated, as the proportion of seniors (65+) is expected to reach 23.8 to 26.2 percent by the year 2038 (Bohnert, Chagnon & Dion, 2016). By 2040, the core working prime-aged population of Ontario is projected to be the same size as the older adult population (Institute of Competitiveness and Prosperity, 2017).

Retirement is inevitable for this aging population, because the Canadian labour participation rate is the lowest for the older adult (55+) demographic and population aging will eventually lead to a significant amount of people exiting from the labour force (Kustec, 2012). In fact, population aging has been identified as a key factor behind the decline of participation rates in Canada, accounting for more than 100 percent of the change (Ketcheson, Kyui & Vincent, 2017). These declines in labour market participation are mostly driven by retiring workers, rather than other

factors such as discouraged workers (Janzen, 2014; Wyman, 2011). There are further declines in labour force participation as individuals become older, as employment rates were 70.9 percent for adults aged 55 to 59, declining to seven percent for adults aged 70 and older (Bourbeau & Fields, 2017). These patterns at the national level are consistently reflected in Ontario data on age and labour force participation (Institute of Prosperity and Competitiveness, 2017). This demographic shift will lead to shortages in labour market supply for numerous occupations, particularly in the skilled trades (BuildForce Canada, 2017).

Some older adults are able to make a deliberate decision to retire based on a planned age of retirement (average of 63.2 years) and financial security (MacBride-King, 2014). Individuals with the most choice to retire tend to be married, older, have high-paying jobs, and have no dependent children (Quine & Wells, 2007). However, as individuals age, there are increases in the possibility for life events such as illness, disability,

layoff or needing to care for a loved one which could lead to involuntary retirement (Carriere & Galarneau, 2012). These reasons impacting involuntary retirement including employment prospects, care work and health will be discussed.

Mature workers tend to face displacement in economic difficulties, compared to prime-aged workers (Public Policy Forum, 2011). This effect is further exacerbated by many barriers to re-employment, including the lack of formal education and basic skills, or limited industry experience (Public Policy Forum, 2011). Some older workers who face poor employment prospects may opt for an early retirement instead (Finnie & Gray, 2011). In 2004, a Canadian survey reported that more than 25 percent of retirees over the age of 50 would have remained in the labour force should they have been offered part-time work, but the current work arrangements were too stressful (Rene, Schellenberg & Silver, 2004). In addition, approximately 20 percent of retired older workers surveyed in 2008 reported that their most important reason for first retirement was because of a layoff, downsizing or closure (Pignal, Arrowsmith & Ness, 2010). Since unemployed older adults are more likely to face substantial wage losses upon re-employment, some may opt to retire early instead (National Seniors Council, 2013).

Additionally, some older adults may experience ageism in their employment searches (Casey & Berger, 2015). One of the major barriers that older adults face which could put them at a higher risk of leaving the labour force is discrimination or stigma in the workplace, making them an "at-risk" population (National Seniors Council, 2013). After facing unemployment, 15 percent of adults over the age of 50 reported that their age was an obstacle faced when pursuing re-employment (Pignal, Arrowsmith & Ness, 2010). Older unemployed individuals also reported that their chances of finding a job were "not very good", almost double that of respondents between the ages of 20 to 34, once again attributing their age as a significant barrier (Bernard, 2012). Negative stereotypes about older workers and pessimism regarding employment prospects could lead to retiring earlier than anticipated, meaning non-participation in the labour market (Public Policy Forum, 2011). Older workers also have received less job-related training opportunities than the core-aged working population by 13 percent which could be related to perceived dispositional barriers (Park, 2012). This trend is important to note, particularly since participation in job-related training is correlated to employability, productivity and employee retention (Park, 2012).

Older adults also tend to face challenges between balancing caregiving for their loved ones and their careers. In 2007, 40 percent of employed women and 31 percent of employed men between the ages of 45 to 64 provided care to a family member or friend with a disability or long-term health problem (Fast et al., 2013). Those who provided more caregiving hours expressed strong feelings of being burdened and had to make substantial employment-related changes, including reducing their hours or turning down a job offer (Pyper, 2006) which could lead to an eventual exit from the workforce that was earlier than planned. Jacobs, Laporte, Van Houtven & Coyte (2013) found that high intensity caregiving was linked to non-participation in the labour force, and a higher likelihood of retirement before the age of 65. Similarly, high intensity caregiving at more than 15 hours of care a week, meant women were 11 percent less likely and men were 8.5 percent less likely to participate in the labour force (Lilly, 2011). These studies are supported by national Labour Force Survey (LFS) data from 1998 to 2009, which indicated that approximately 40 percent of retirements were due to personal or family responsibilities (Carriere & Galarneau, 2012). It may also be important to note that women are more likely to be retired and out of the labour force than men (Park, 2011), which may be linked to the fact that women tend to be the primary providers of unpaid care (Havelock, 2009). As the 2015 General Social Survey on Time found, 91 percent of senior women engage in unpaid household work versus 83 percent of senior men; in addition, senior women also spend additional time (3.5 hours) than men (2.9 hours) on these activities (Arriagada, 2018).

Additionally, disability or health-related problems may impact older adults' participation in the labour force. In 2006, a Statistics Canada survey reported that over 40 percent of Canadians over the age of 65 self-reported a disability (Statistics Canada, 2010). National data from the Labour Force Survey between 1998 to 2009 found that over half the retirees over the age of 50 exit the workforce because of health reasons (Carriere & Galarneau, 2012). Campolieti (2002) found that disability status for Canadian males was negatively correlated with labour market participation. Similarly, Schirle (2010) noted that those with poor health were 25 percent more likely to retire. Workers who had self-reported negative perceptions of their health, or had multiple chronic conditions, were also more likely to exit the labour market at an earlier age (Park, 2010). For each chronic condition that was reported by men, there was an additional 25 percent increase in the likelihood of retirement, particularly the following conditions: eye problems, back pain, ulcers and migraines (Park, 2010).

Youth

Canadian labour market trends for youth (15-24) tend to be more unstable than for prime-aged (25-44) individuals (Bartlett, 2014; Bernard, 2014). This instability can be attributed to the lesser skills and experience that youth possess, meaning that they are less likely to be considered for certain employment opportunities, and are more likely to lose their employment in times of economic difficulty (Bernard, 2013; The Canadian Chamber of Commerce, 2012). This trend is documented in the Labour Force Survey (LFS) data for the Oshawa Census Metropolitan Area (encompassing Clarington, Whitby and Oshawa) (2016), when the unemployment rate for youth (15-24 years) was 13.4 percent, more than double that of the overall unemployment rate for the total labour force, at 5.9 percent. This pattern is also evidenced following the economic recession of 2008, while the LFS data (2009) showed the participation rate of the total labour force was lower than typical at 67.1 percent, the youth participation rate was lower by nearly three percent, at 64.6 percent.

In addition to the typical labour market instability evidenced for the youth population, there are several other documented reasons for non-participation in the labour market, including full-time enrolment in schooling. Cheung, Granovsky & Velasco (2015) examined Canadian labour market trends for youth (15-24) between 2007 to 2014, and found that school was a key factor for 90 percent of youth who 'did not want work' and were not in the labour force. Their findings also suggested that the nine percent reduction in youth participation during the seven-year period could be attributed purely to increased rates of schooling (Cheung, Granovsky & Velasco, 2015), indicating that enrolment in schooling has the potential to strongly impact decisions to not be in the labour force. Bernard (2015) also found that 57 percent of the participation rate decline for 20 to 24-year-olds between 2008 to 2014 could be explained by increased enrolment in schooling. Limited post-recession employment prospects may have led youth to pursue education rather than unemployment or a job with low wages, although a boost in expected wages could help recover participation rates (Cross, 2015). These patterns of decline and enrolment are similar in Ontario, reflecting the national average (Bernard, 2015).

Some youth who are not participating in the labour force are also youth who are not employed, attending school or in training (NEET) (OECD, 2017). In Ontario, this number is rising and becoming a cause for concern, as the number nearly doubled between 2001 to 2016 (Institute of Prosperity and Competitiveness, 2017). Over half of Canada's NEET youth are young men in their twenties, though the reason for this trend cannot be determined (Marshall, 2012). For Canadian NEET youth who did not want a job, 44 percent had no known activity, 20 percent had no known activity but had young children at home and six percent were permanently unable to work (Marshall, 2012). Some youth who did want jobs were also at risk of disengagement, because they may have given up looking for work since it was believed there was none available (Marshall, 2012). The number of NEET youth between the ages of 27 to 29 who are living with their parents has doubled; since they likely do not pay for housing and food, living at home may further enable non-participation in the labour force (Institute of Prosperity and Competitiveness, 2017). However, it is important to note that in addition to educational enrolment and the lack of appropriate skills, the growth of the participation rate in this demographic is expected to be weak, due to a lack of overall population growth for this age group (15 to 24 years) (Human Resources and Skills Development Canada, 2008). In fact, in 2016, there was a slight decline in the youth population by 1.7 percent (Bourneau & Fields, 2017).

Childcare & Female Participation in Labour Force

According to the 2016 Canadian Census, the participation rate for males was 65.2 percent, compared to 61.0 percent for females, representing a substantial 4 percent difference between sexes (Statistics Canada, 2017a). The gendered difference in participation is more noticeable in Ontario, with males having a higher participation rate by nearly nine percent, at 69.1 percent, compared to that of females at 60.6 percent (Statistics Canada, 2017c). Within the Durham Region, the difference in labour force participation is just as stark at 7.8 percent, with male participation at 71.4 percent, and female participation at 63.6 percent (Statistics Canada, 2017c).

Researchers and policy analysts are indicating that child care and other forms of caregiving may be a significant reason for the lower participation of Canadian females in the labour force. Lilly, Laporte & Coyte (2010) found that primary caregivers in Canada are significantly less likely to participate in the labour force. More specifically, the lack of affordable childcare is a likely and major contributor to this concerning trend, as women are opting to be stay-at-home parents, rather than seek employment (Macdonald & Friendly, 2014). However, this is not a new and emerging concern; in fact, OECD (2005) beckoned for Canada to increase investments in childcare more than 10 years ago. The issue of childcare affordability has not improved much since, as out-of-pocket childcare costs for Canadian couples currently sits at 22.2 percent, one of the highest for all OECD countries (OECD, 2016). In fact, Canadian childcare expenses are approximately 7 percent higher than the OECD average of 15 percent, with some countries such as Sweden and Germany having substantively lower childcare costs, which are at 4.4 and 9.7 percent of net family income, respectively. Costs for preschool have risen faster than inflation in 82 percent of Canadian cities since 2014, meaning that childcare fees are prohibitively expensive for most Canadian parents (Macdonald & Friendly, 2017).

Ontario has the highest full-time childcare costs in the country, with a median cost of $677 in 2011, compared to $541 in the Atlantic provinces and $152 in Quebec (Sinha, 2014). A recent study noted Ontario's largest metropolis of Toronto, recorded the highest infant childcare costs in the nation at $1,758 a month (Macdonald & Friendly, 2017). Another city within the Greater Toronto Area (GTA) recorded the second highest infant childcare costs at $1,415 a month, whereas Quebec's largest metropolis of Montreal recorded costs of only $168 a month (Macdonald & Friendly, 2017). The reason for this major cost discrepancy is due to the provincial subsidies that Quebec provides towards funding child care, resulting in set affordable maximum child care fees (Macdonald & Friendly, 2017).

Quebec is uniquely positioned, because they are the only province with a universal child daycare program with subsidized child care costs by the provincial government (Stalker & Ornstein, 2013). In 1997, Quebec began universal preschool-aged childcare for five dollars a day (Stalker & Ornstein, 2013) which has since increased to seven dollars a day (Fortin, Godbout & St-Cerny, 2012) and presently is a sliding scale system based on family income with a maximum of 20 dollars per day (Hanes, 2017). These new affordable childcare policies have helped boost labour force participation for women by 12 percent, from the implementation of the subsidies in 1997 to 2011 (Fortin, Godbout & St-Cerny, 2012). Similarly, the labour force participation rate for single mothers of preschoolers increased by nearly 22 percent, from 1996 to 2008 (Fortin, Godbout & St-Cerny, 2012). These changes indicate that policies promoting childcare affordability impacted labour force participation of women significantly and increases in female labour force participation could occur in other provinces and territories including Ontario, should they choose to implement similar policies as well. Boosting female labour participation is beneficial to the Canadian economy, as economists indicate that eliminating the gender gap in labour force participation could mean a higher real GDP of nearly four percent (Petersson, Mariscal & Ishi, 2017).

Discouraged Searchers

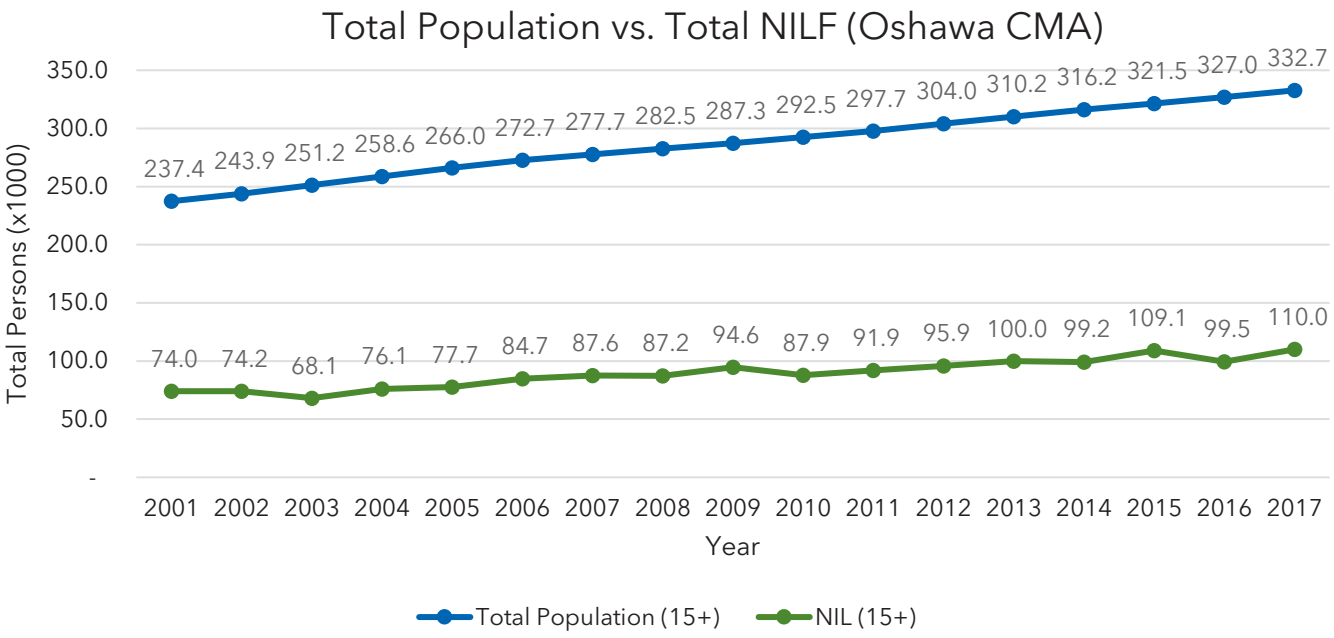
Researchers have also examined whether the declining labour market participation rate can be attributed to discouraged searchers. Statistics Canada (2017f) defines discouraged searchers as individuals who wanted to work at a job or business and were available to do so, but did not search for work because they did not believe there was suitable work available. Previous research has indicated that these individuals are more likely to start or re-start seeking employment and are less likely to leave the labour force, compared to other marginally attached workers (e.g. caring work, illness or disability) (Jones & Riddell, 2017). However, this group of individuals is also more likely to remain marginally attached, due to their lowest rate of transition into employment (Jones & Riddell, 2017). This demographic of individuals increased following the economic recession of 2008, though this increase was not significant enough to impact overall participation rates in the Canadian labour market (Janzen, 2014). Therefore, it is not likely that major changes in labour market participation are due to discouraged searchers, but rather other structural factors such as retirement of an aging cohort (Janzen, 2014).

Findings

Labour Force Survey (2017), Oshawa Census Metropolitan Area (CMA)

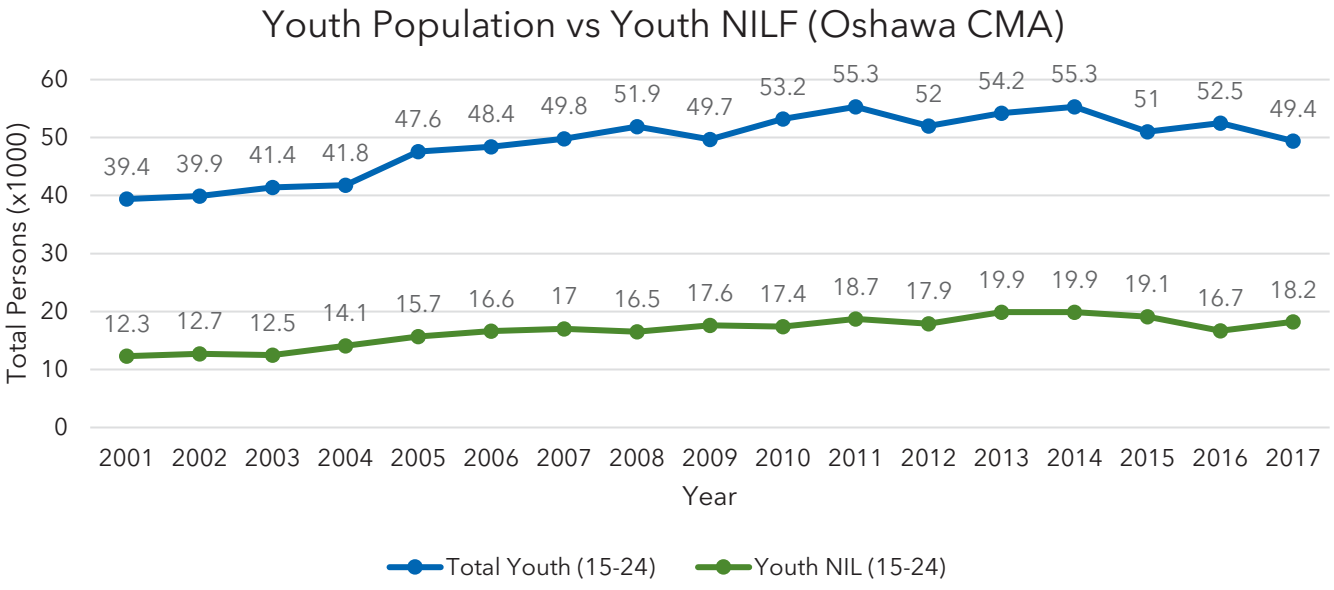
The Oshawa Census Metropolitan Area (CMA), consisting of Clarington, Whitby and Oshawa (Statistics Canada, 2017d) will be used as a guide for overall labour force status changes in the Durham Region. Uxbridge, Pickering and Ajax are included in the Toronto Census Metropolitan Area (which also includes Toronto proper, Mississauga, Brampton, Markham, Vaughan, Richmond Hill, Oakville, Milton, Newmarket, Caledon, Halton Hills, Aurora, Whitchurch-Stouffville, Georgina, Bradford West Gwillimbury, New Tecumseh, Orangeville, King, East Gwillimbury, Mono and the Chippewas of Georgia Island First Nation) (Statistics Canada, 2016) ; however, the Toronto CMA is not reflective of Durham Region overall compared to the Oshawa CMA, which is a better guide for assessing overall trends in the Region. Brock and Scugog currently does not have a high degree of integration to the urban area of the Oshawa CMA to be included, as being part of a CMA is "measured by commuting flows derived from census place of work data"(Statistics Canada, 2017f). Since Labour Force Survey (LFS) data is the most up-to-date and frequently collected, the data on population and residents not in the labour force (NILF) will be used in this report as an approximate gauge for overall workforce participation trends regionally. Data between 2001 to 2017 will be used, reflecting the same time period covered by four Canadian census periods.

Since 2001, the overall population of those eligible to work (15 years and older) has increased by 40.1 percent (+95,300) , whereas the not in the labour force population has increased by 48.7 percent (+36,000) , which is much higher than the rate of population change. The following chart depicts population growth against not in the labour force growth, between 2001 to 2017.



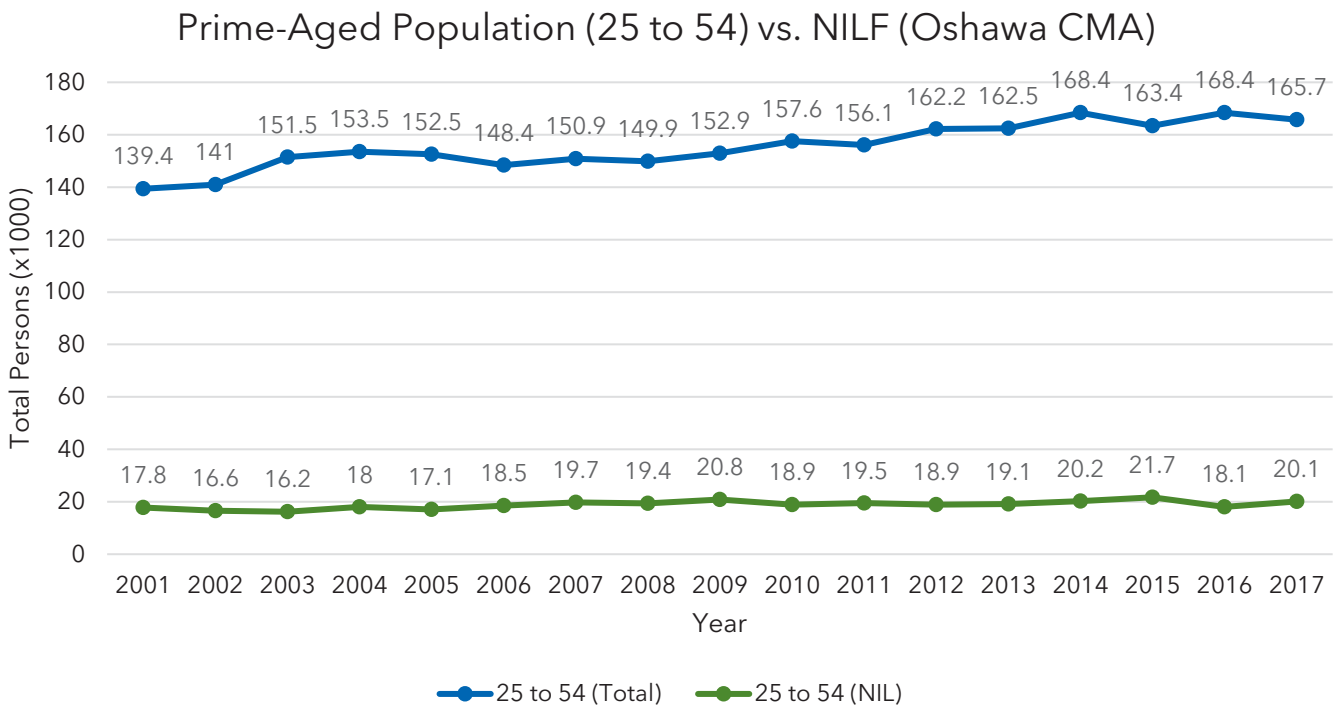
(Statistics Canada, Labour Force Survey, Table 14-10-0096-01)

For youth between the ages of 15 and 24, the total population has increased by 25.4 percent (+10,000), but the not in the labour force for this demographic has nearly doubled, at 47.97 percent (+5,900). The following chart outlines population growth and not in the labour force changes across time.



(Statistics Canada, Labour Force Survey, Table 14-10-0096-01)

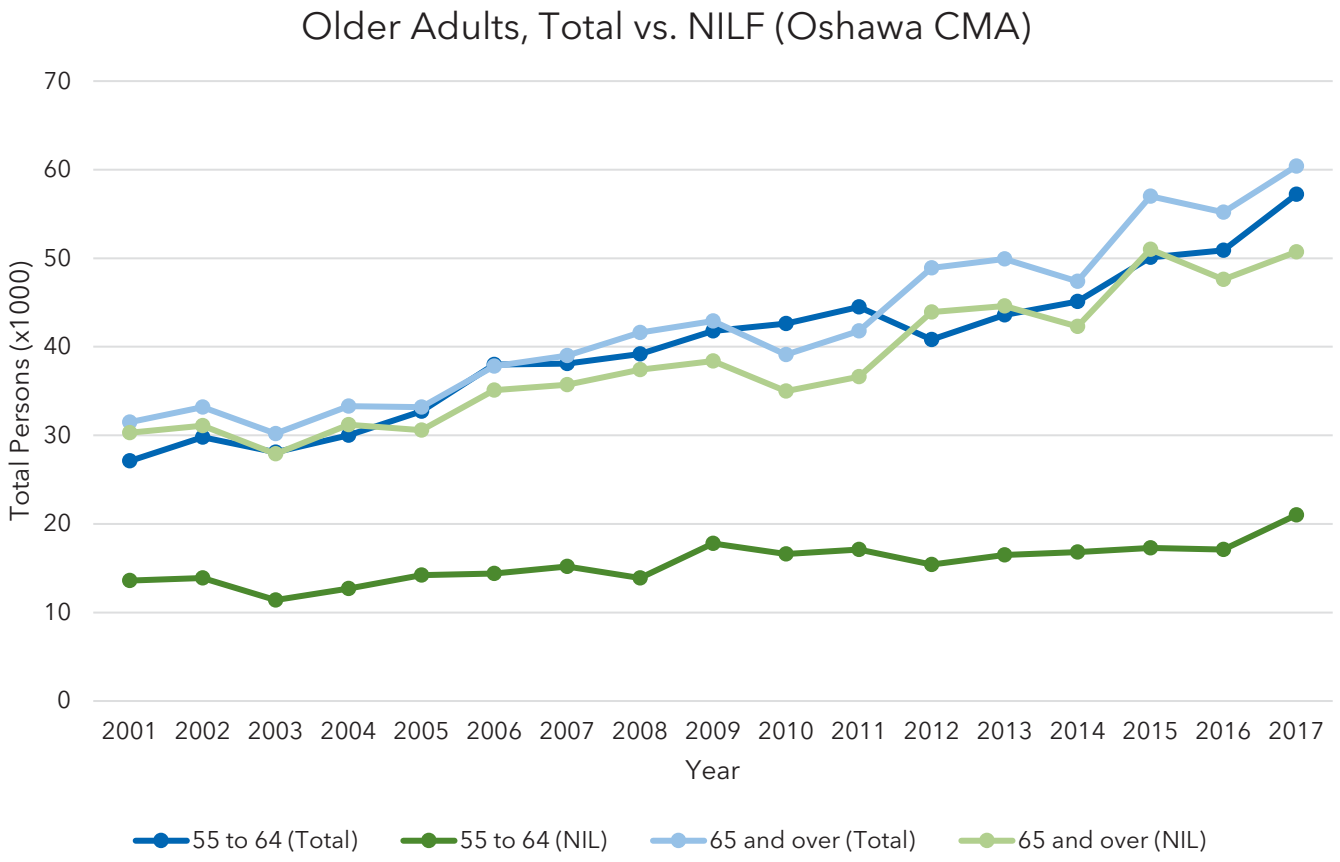
The not in the labour force changes are smallest for prime-aged individuals (aged 25 to 54), as the population total has increased by 18.9 percent (+26,300), for not in the labour force at 12.9 percent (+2,300). The following chart illustrates labour force participation against population growth, for the prime-aged population.



(Statistics Canada, Labour Force Survey, Table 14-10-0096-01)

However, Oshawa CMA residents over the age of 55 show the largest increases for not in the labour force, at 65.41 percent. It is also important to note that the population of those over the age of 55 has increased by over 100 percent since 2001. Therefore, these increases are likely due to the natural aging of the population from prime-age into older adulthood.

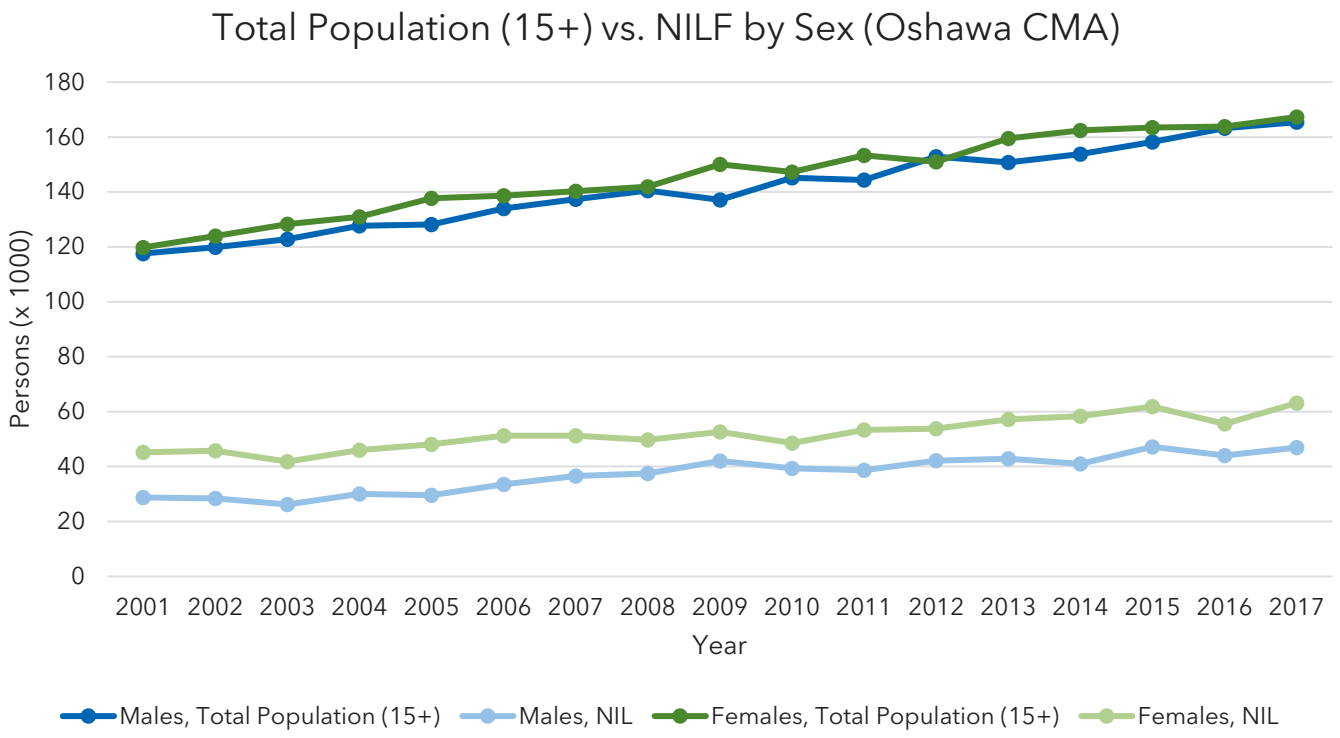
In total, adults over the age of 55 (+20,800) contribute to 86.7 percent of the total increase in labour force participation decline, a significant portion of the trend. Adults between the ages of 55 to 64 (+7,400) make up 20.55 percent of the total increase in those exiting the labour force. Adults over the age of 65 also make up a large portion of the NILF (not in labour force) increase, at 62.5 percent (+15,000). Although adults 65 years and over who are not in the labour force have increased by 42.0 percent (+20,400), this age group has nearly doubled, at 91.2 percent (+28,900). The following chart shows the total population and NILF changes across a 15-year time span, for all older adult age groups.



(Statistics Canada, Labour Force Survey, Table 14-10-0096-01)

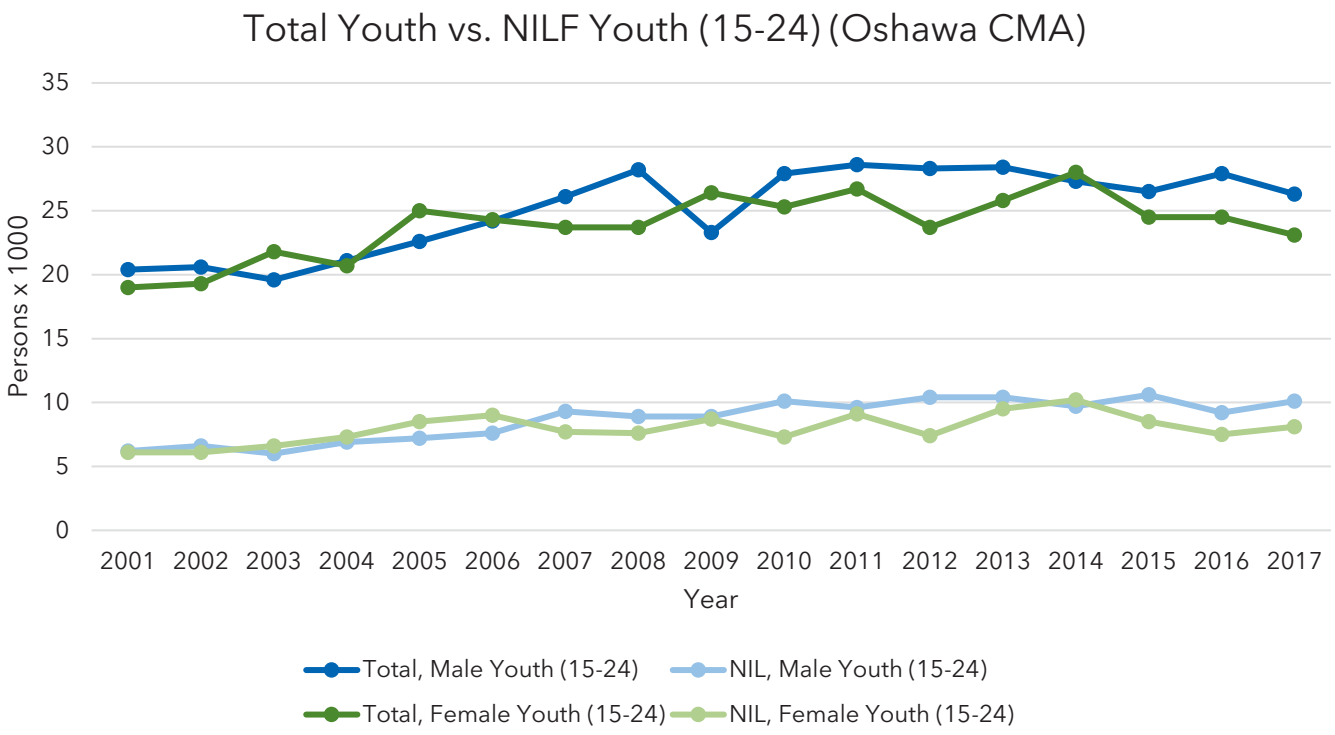
By Sex

There are some differences in the trends for not in the labour force, when examining residents in the Oshawa CMA by sex. For males, the total population (15 years and over) increased by 40.7 percent (+47,800), whereas the total female population (15 years and over) increased by less, at 39.68 percent (+47,500). The total amount of residents not in the labour force (NILF) increased by 62.9 percent for males (15 years and over) (+18,100), and a lesser 39.6 percent for females (15 years and over) (+17,900). However, this difference could be because of the baseline labour participation rates for males (71.6 percent) and females (62.3 percent). Historically, female labour participation rates are about 10 percent less than that of males in the Oshawa CMA. Therefore, percentage changes for not in the labour force for males appear to be larger, even though the actual change in number of residents may not be too large. The following chart illustrates the changes in population and NILF across 15 years, for both males and females.



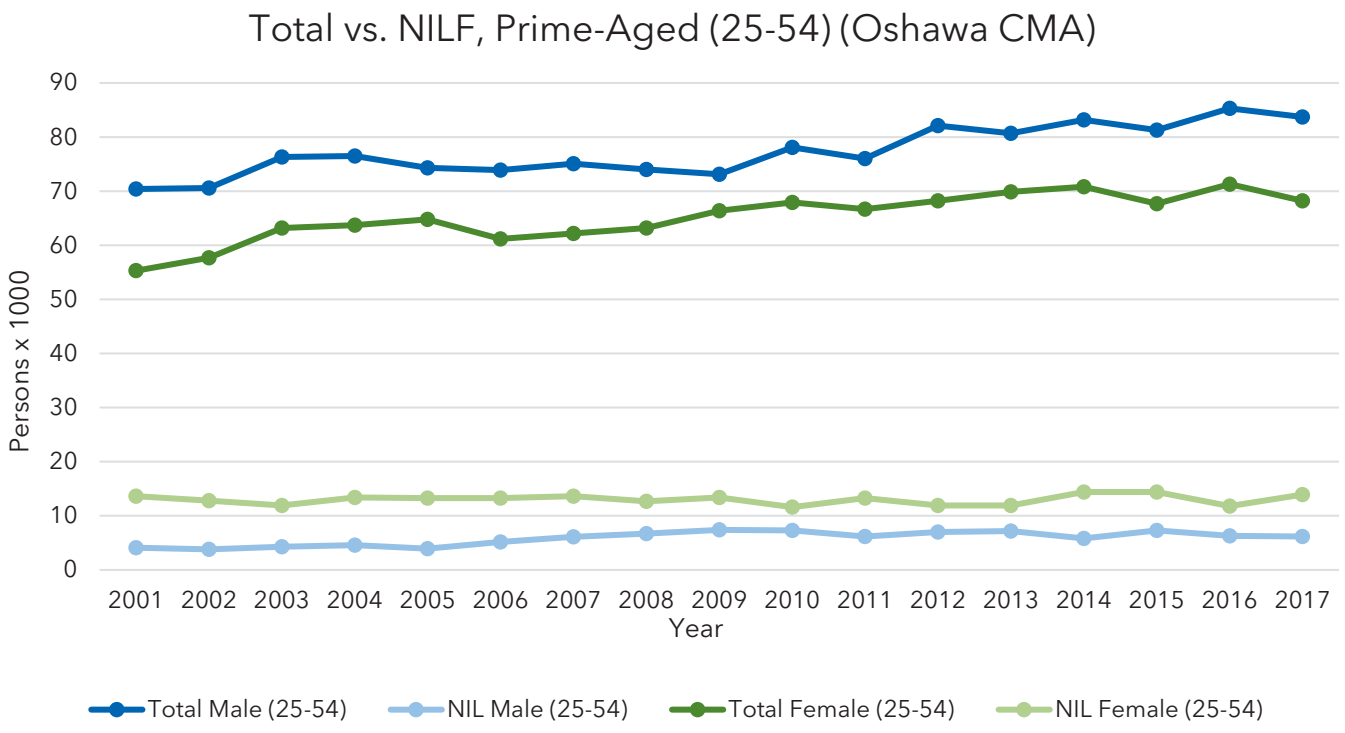
(Statistics Canada, Labour Force Survey, Table 14-10-0096-01)

The population of male youth (15 to 24 years) in the Oshawa CMA has grown by 28.9 percent between 2001 to 2017 (+5,900). The population of female youth (15 to 24 years) has increased by 21.6 percent (+4,100), which is smaller. There are noticeable differences in not in the labour force changes between males and females. While the male NILF population has increased by 62.9 percent, more than double the rate of population growth (+3,900), the female NILF population has increased by 32.8 percent (+2,000), about 10 percent higher than the rate of population change. The following chart outlines these differences.



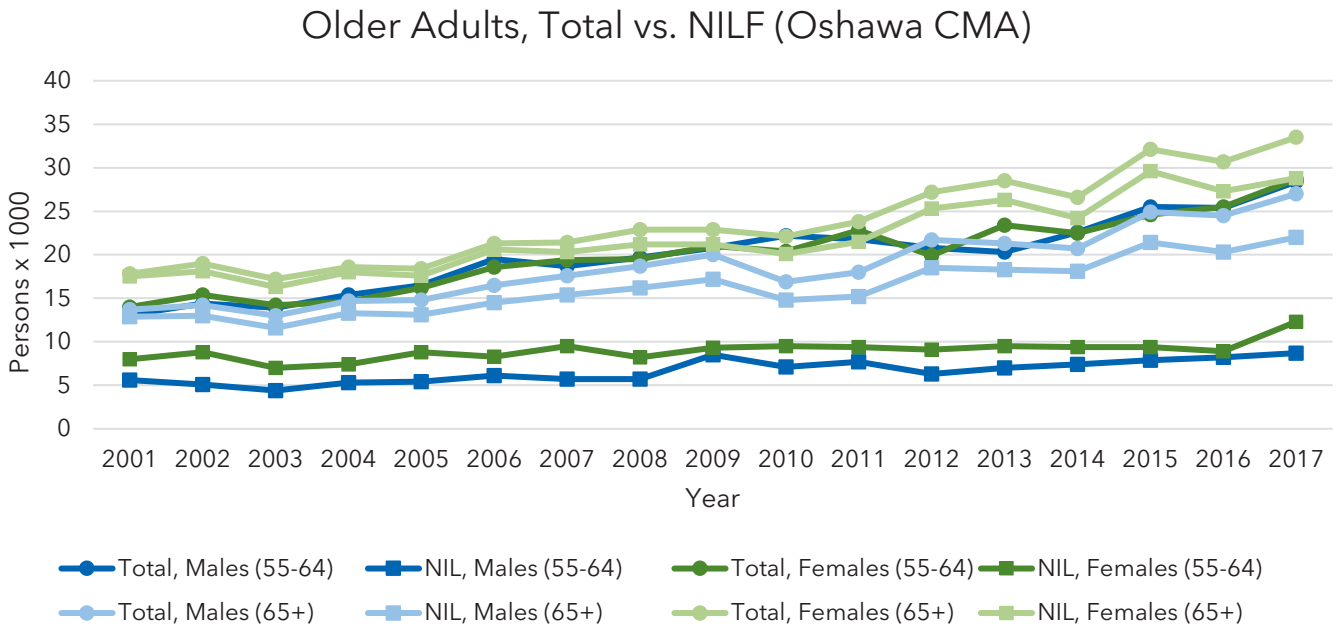
(Statistics Canada, Labour Force Survey, Table 14-10-0096-01)

The prime-aged (25 to 54 years) male (+13, 300) and female populations (+12,900) have increased by the similar amounts, at 18.9 percent. However, the not in the labour force numbers for prime-aged male and females are different. For males, non-participants have increased by 51.2 percent (+2,100), but these numbers are much less for females, at only 2.2 percent (+300). However, as can be seen in the chart below, not in the labour force numbers for prime-aged females were previously, and continue to be, much higher than those for prime-aged males.



(Statistics Canada, Labour Force Survey, Table 14-10-0096-01)

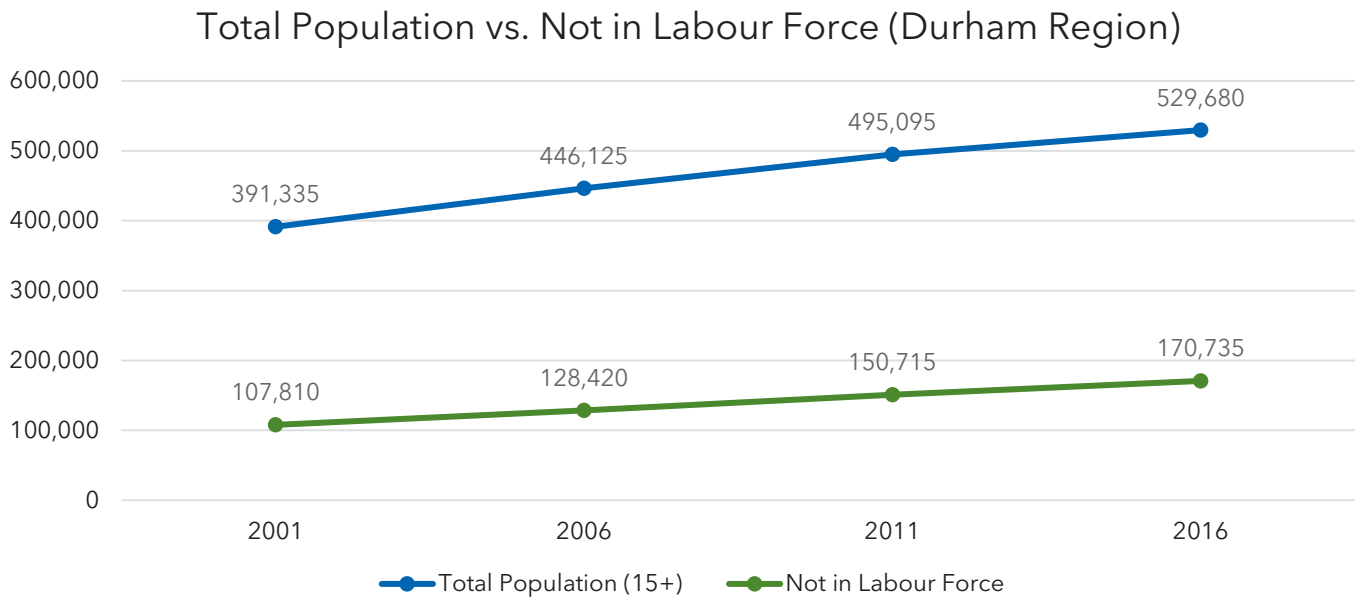
For older adults, there was a population increase of 116.8 percent for males between the ages of 55 to 65 (+15,300), and an increase of 105 percent for females (+14,700) in the same age group. These changes are similar to Bohnert, Chagnon & Dion (2016), who stated that baby boomers will naturally age into the older adult cohort, affecting not in the labour force numbers. As Oshawa CMA data shows, changes in not in the labour force for older adults are significant. For adult males between the ages of 55 to 65, there has been an increase of 55.4 percent (+3,100) and for females in this same group, the increase was a similar 53.8 percent (+4,300). For adults 65 years and over, there was a increase in population of 97.1 percent for males (+13,300), and 88.2 percent for females (+15,700). Not in the labour force changes for this age group (65 years and over) were 70.5 percent for males (+9,100) and 64.6 percent for females (+11,300).



(Statistics Canada, Labour Force Survey, Table 14-10-0096-01)

Census (2001, 2006, 2016) and National Household Survey (2011)

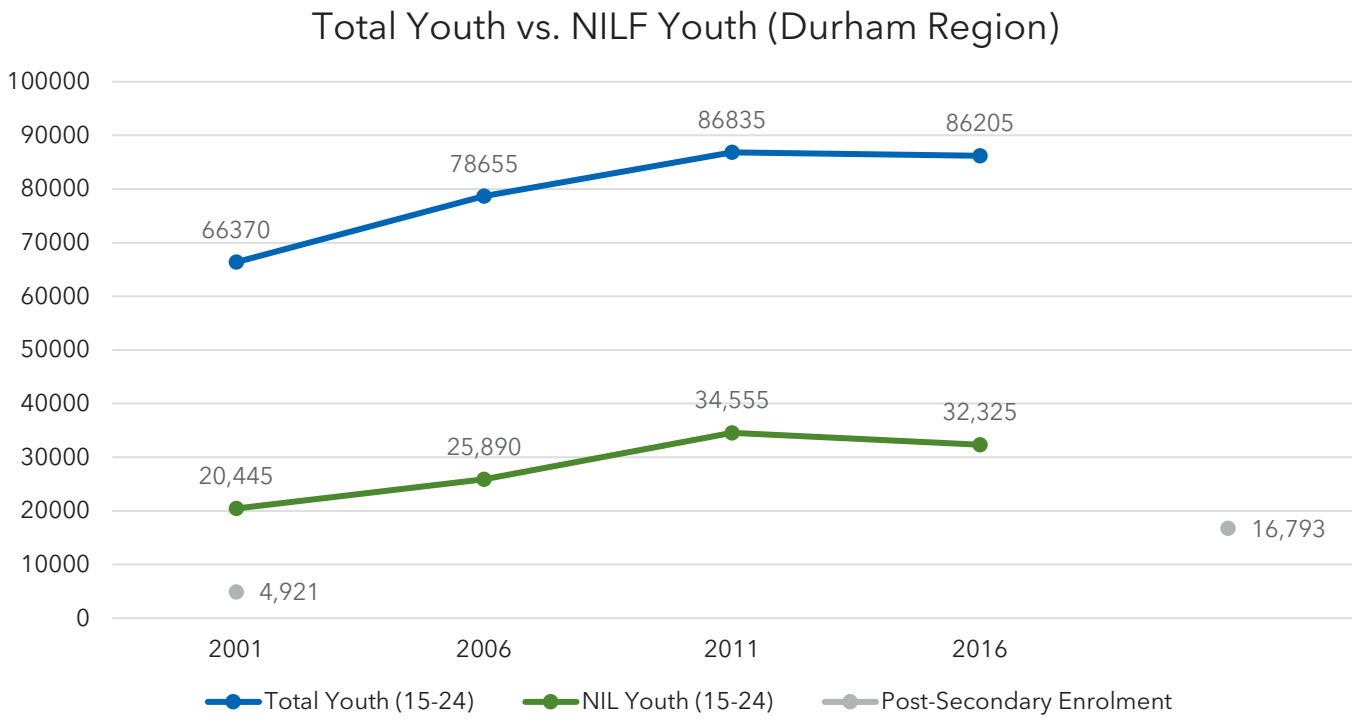
Although the total population of Durham Region is increasing, the not in the labour force population is increasing faster than the population is growing. Since 2001, the total population increased by 35.3 percent (+138,345), but the not in the labour force population has increased by a lot more, at 58.4 percent (+62,925). The following chart compares the total population (15 years and over) against the not in the labour force population, across four census periods.



(Statistics Canada, Census 2001, 2006 and 2016; National Household Survey, 2011; data custom purchased by Durham Workforce Authority)

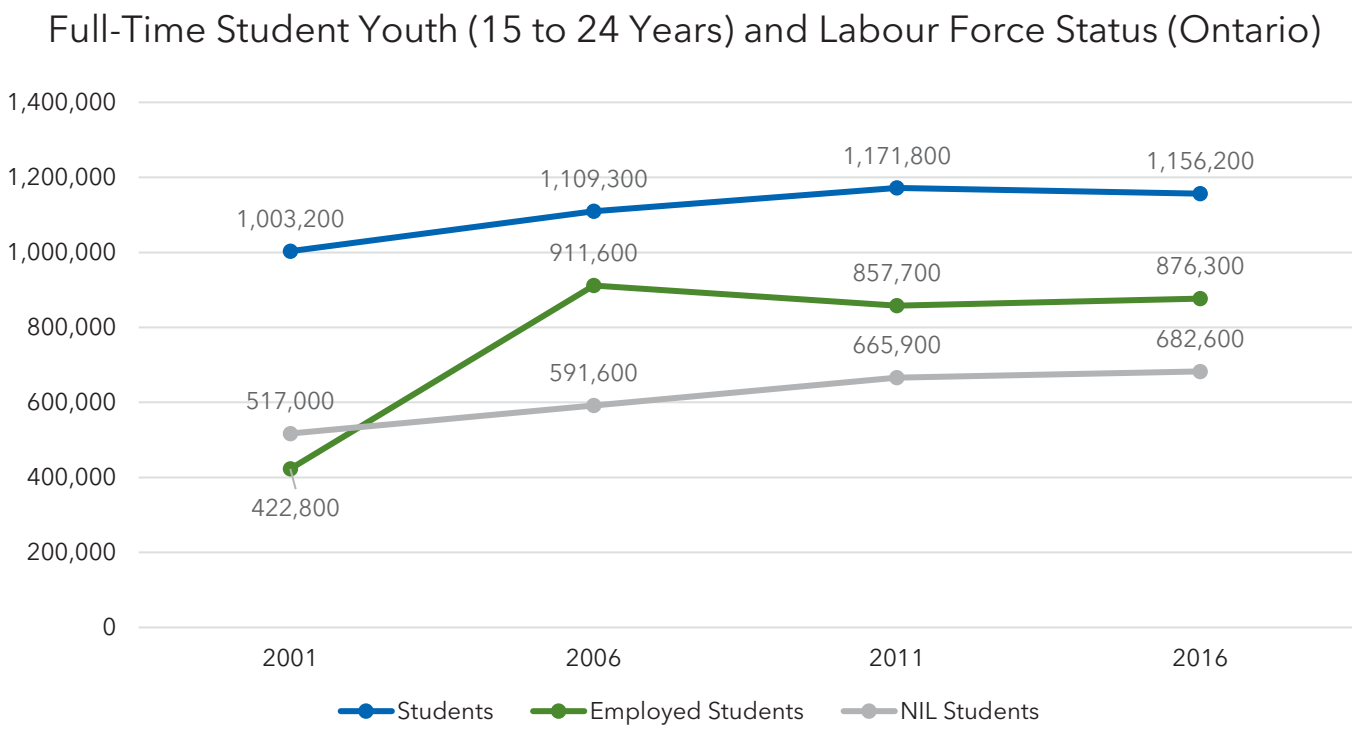
The trends for not in the labour force (NILF) are similar when comparing Durham Region census data to Oshawa CMA data. Between 2001 to 2016, the population for youth (15 to 24 years) in Durham Region has increased by 29.89 percent (+19,835), but youth not in the labour force is nearly double the rate of population growth, at 58.11 percent (+11,880).

Perhaps, it will be useful to look at enrolment numbers for post-secondary institutions in the Durham Region to help explain these changes in not in the labour force. The student enrolments from UOIT and Trent University Durham are counted as equivalent to zero, because they opened in 2003 (UOIT, 2017) and 2010 (Trent University, 2017), respectively. Therefore, student enrolment in the region for 2001 can be presumed to solely be from Durham College, who reported full-time student enrolment of 4,921 students (Durham College, 2006). Since 2001, UOIT has opened multiple campuses and Trent-Durham has established a permanent location in Oshawa. In the school year 2016-2017, Durham College reported full-time enrolment of 7,123 students (Durham College, 2017), UOIT reported full-time undergraduate enrolment of 8,795 students (Ministry of Advanced Education and Skills Development, 2017) and Trent-Durham reached full-time undergraduate enrolment of 875 students (Trent University, 2017). Since there are more students living in the Durham Region for school and there is a trend towards non-participation in the labour force as a full-time student, it is likely that the increase of youth in the Durham Region who are full-time post-secondary students are a significant factor in the rising NILF population. The following chart outlines total population and not in the labour force numbers across four census periods, against full-time post-secondary enrolment during 2001 and 2016.



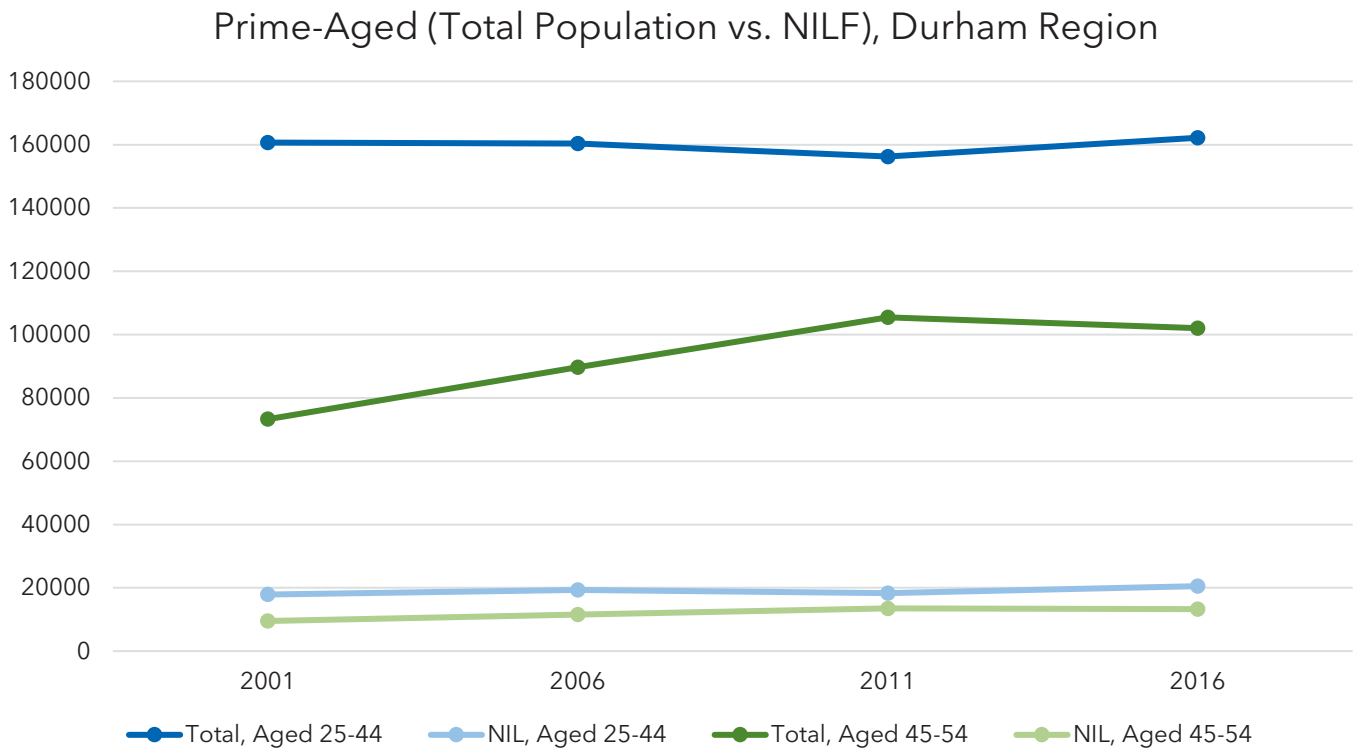
(Statistics Canada, Census 2001, 2006 and 2016; National Household Survey, 2011; data custom purchased by Durham Workforce Authority)

In addition, these trends for youth in the Region are quite similar to national and provincial employment trends from the Labour Force Survey (Statistics Canada, 2018). In Ontario, the number of full-time students is increasing, and proportionally, so is the number of full-time students who are not in the labour force. In fact, labour force participation of student youth (15 to 24 years) is approximately 40.9 percent, meaning that nearly 60 percent of Ontarian students are not in the labour force. The following chart outlines Ontario Labour Force Survey data with the total number of students, against employed students and students out of the labour force at the same four time points as the Census.



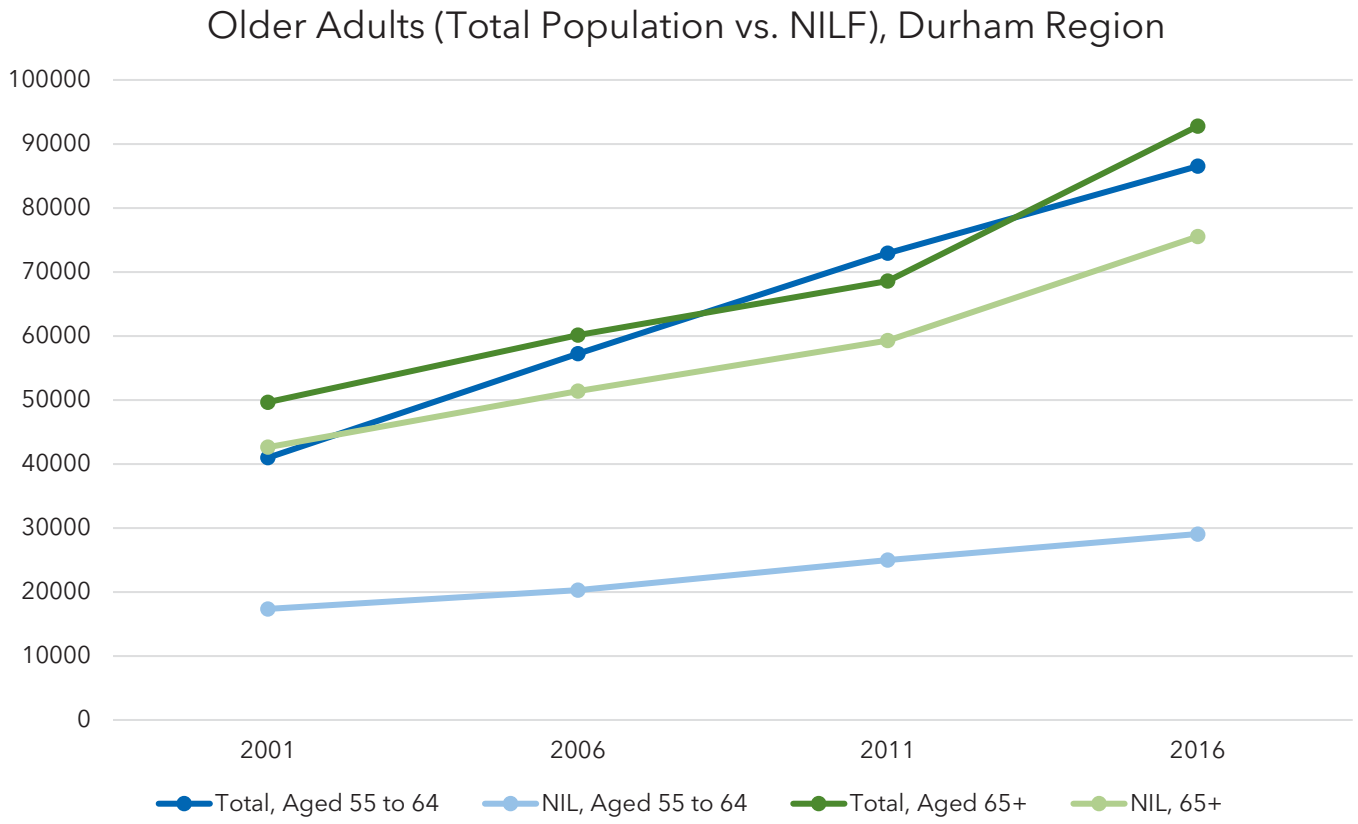
(Statistics Canada, Labour Force Survey, Table 14-10-0081-01)

For individuals aged 25 to 44 years, the population has barely increased at 0.95 percent (+1,520), while those not in the labour force has increased by 14.77 percent (+2,640). For middle-aged individuals (45 to 54 years), the population has increased significantly at 39.18 percent (+28,705), with not in the labour force numbers increasing at a similar number of 39.52 percent (+3,760). Once again, this change is similar to what economists have stated, regarding expected and natural demographic changes because of aging (Bohnert, Chagnon & Dion, 2016).



(Statistics Canada, Census 2001, 2006 and 2016; National Household Survey, 2011; data custom purchased by Durham Workforce Authority)

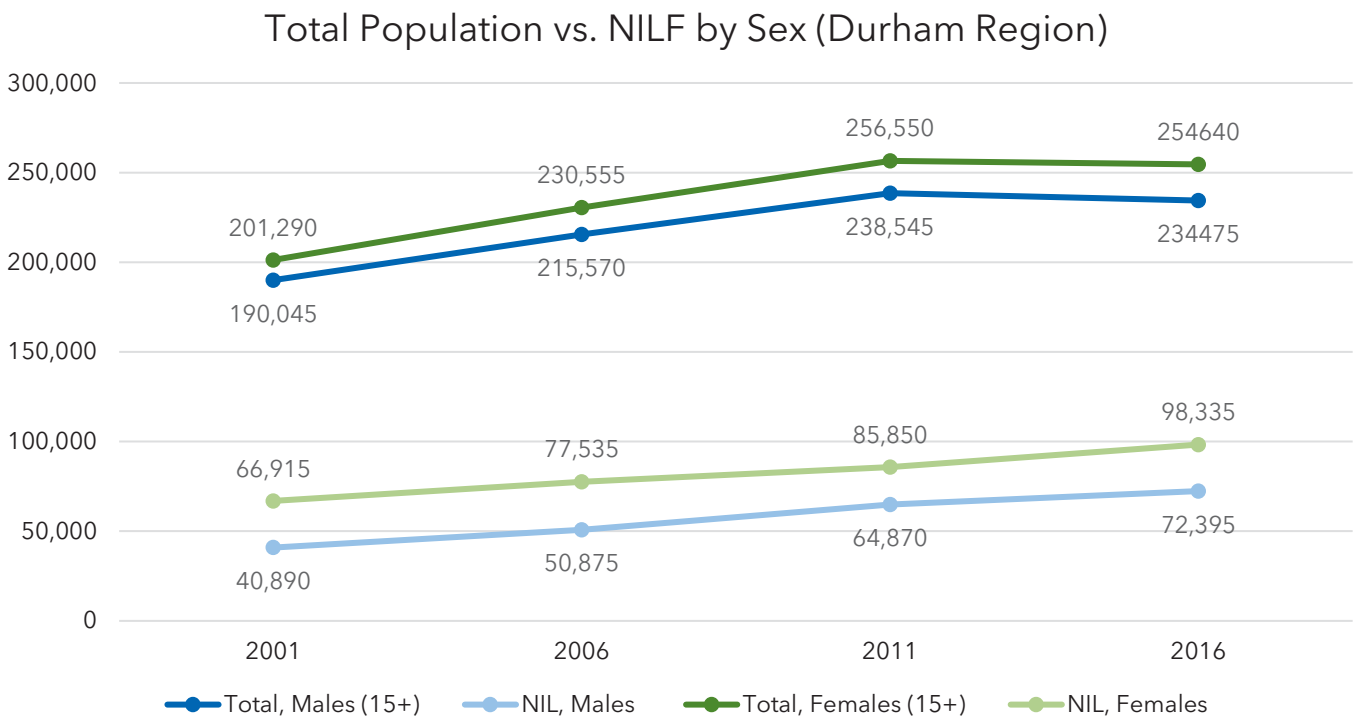
Again, the largest changes are for the oldest age groups. The number of residents aged 55 to 64 has increased by 111.2 percent (+45,550) since 2001, with not in labour force numbers increasing by less, at 67.4 percent (+11,705). For Durham residents over the age of 65, there has been a population increase of 87.6 percent (+43,130), with a lesser increase in not in the labour force at 77.3 percent (+32,925). These changes align with demographic predictions by statisticians and economists, who strongly associate declining labour force participation with aging, and inevitably, retirements. In fact, the number of residents 65 years and over who have left the labour force between 2001 and 2016 makes up 52.3 percent of the total increase in not in the labour force (+32,925). The number of residents aged 55 to 64 (+11,705) who have left the labour force in the same time, makes up for another 18.6 percent of the total increase in not in the labour force. In total, the number of Durham Region residents over the age of 55 who have left the labour force, make up 70.93 percent of the increase in not in the labour force.



(Statistics Canada, Census 2001, 2006 and 2016; National Household Survey, 2011; data custom purchased by Durham Workforce Authority)

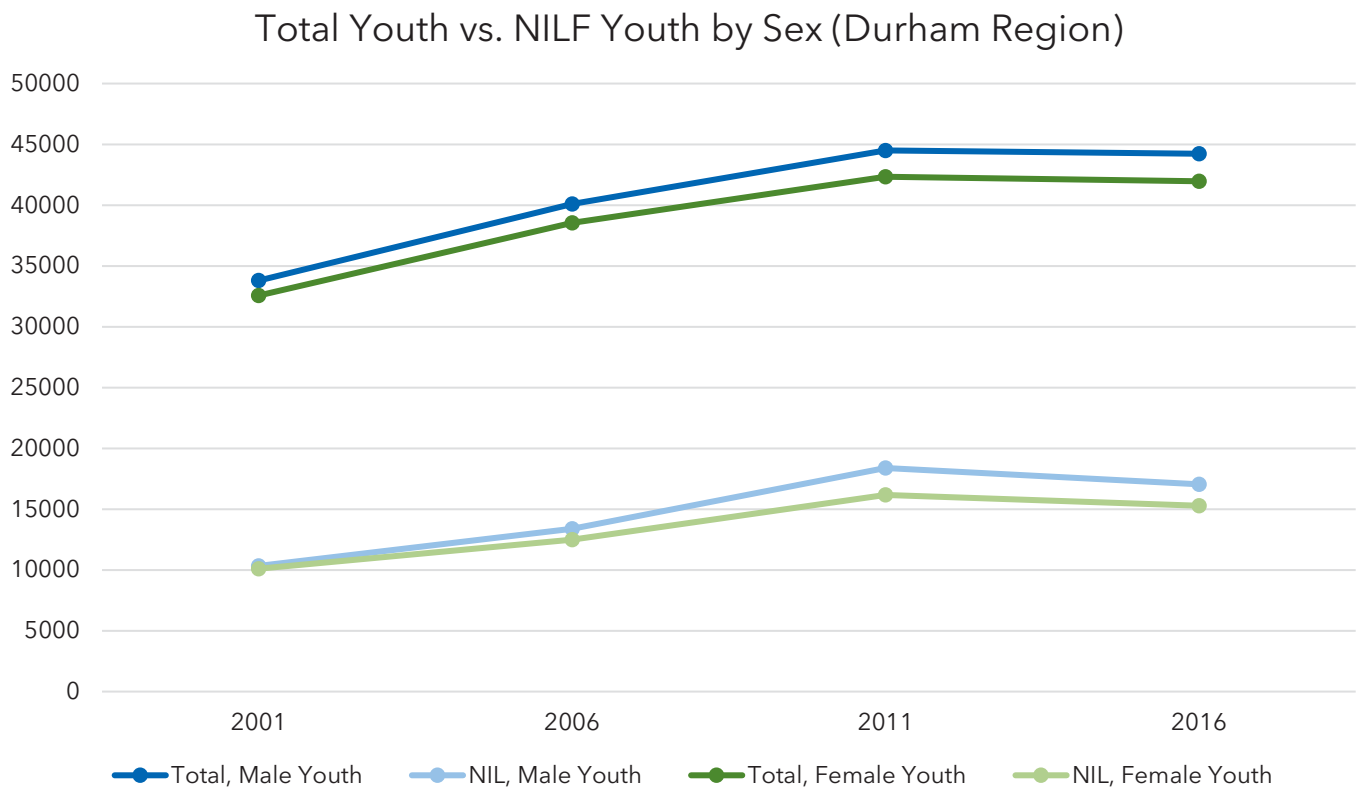
By Sex

Since the 2001 census, the total female population has increased by 14.5 percent (+53,350), which is higher than the total increase for the total male population, at 11.6 percent (+44,430). However, in contrast to population change, the not in the labour force population for males has increased by much more, at 77.1 percent (+31,505) compared to females (+31,420) at 51.3 percent. The following chart outlines population and not in labour force trends across four census periods.



(Statistics Canada, Census 2001, 2006 and 2016; National Household Survey, 2011; data custom purchased by Durham Workforce Authority)

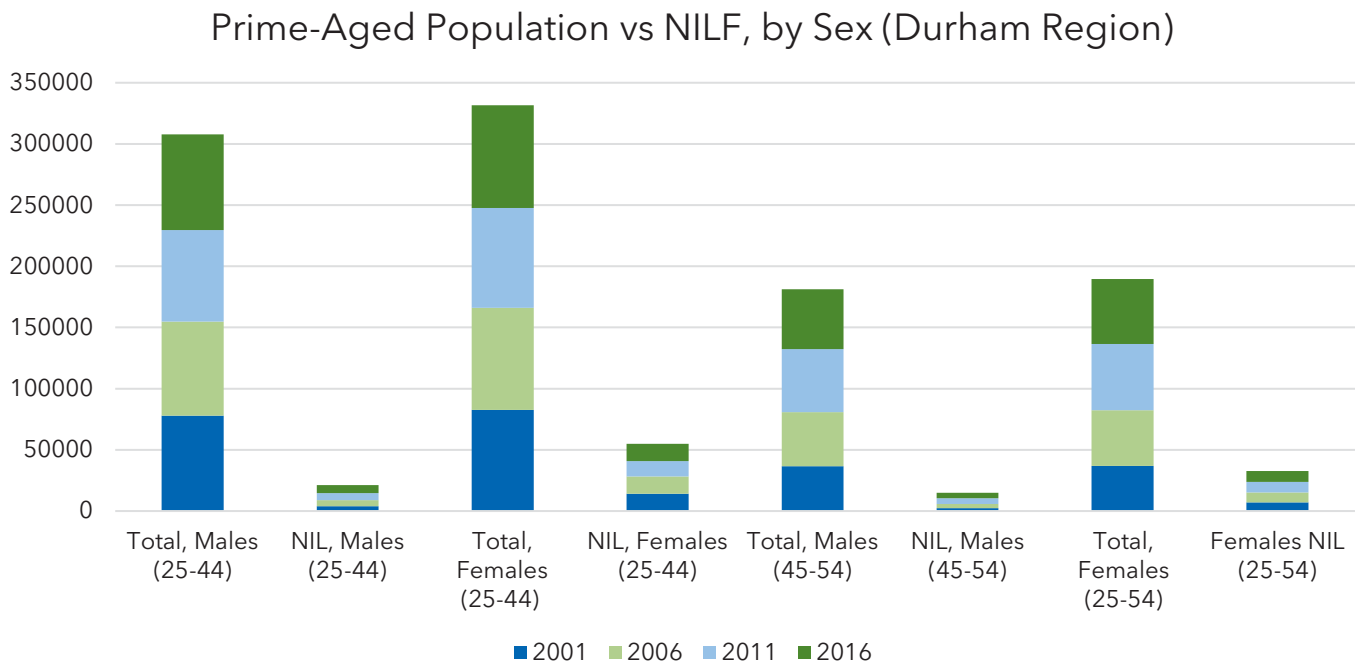
Since the change in not in the labour force by sex differs by more than 25 percent, it is worthwhile to examine differences by both sex and age, in order to better understand the occurring trends. The population increases for males and female youth (15 to 24 years) are similar. The male youth population has increased by 30.9 percent (+10,440), with the female youth population increasing by 28.8 percent (+6,685). However, not in the labour force numbers do not trend in the same direction. For male youth, not in the labour force numbers have increased by 64.9 percent (+6,710) and female not in the labour force numbers have increased by less, at 46.9 percent (+5,185). The following chart outlines these changes across 4 census periods.



(Statistics Canada, Census 2001, 2006 and 2016; National Household Survey, 2011; data custom purchased by Durham Workforce Authority)

For prime-aged adults in the Durham Region, the population and not in labour force patterns are opposite than those for youth. The total population for males and females between the age of 25 to 44 has not changed much, with increases of 0.6 percent (+445) and 1.3 percent (+1,075), respectively. However, there are larger differences between males and females for not in the labour force in this age group. For males, there was an increase by 67.7 percent (+2,590) but for females, this number barely changed with an increase of 0.4 percent (+55).

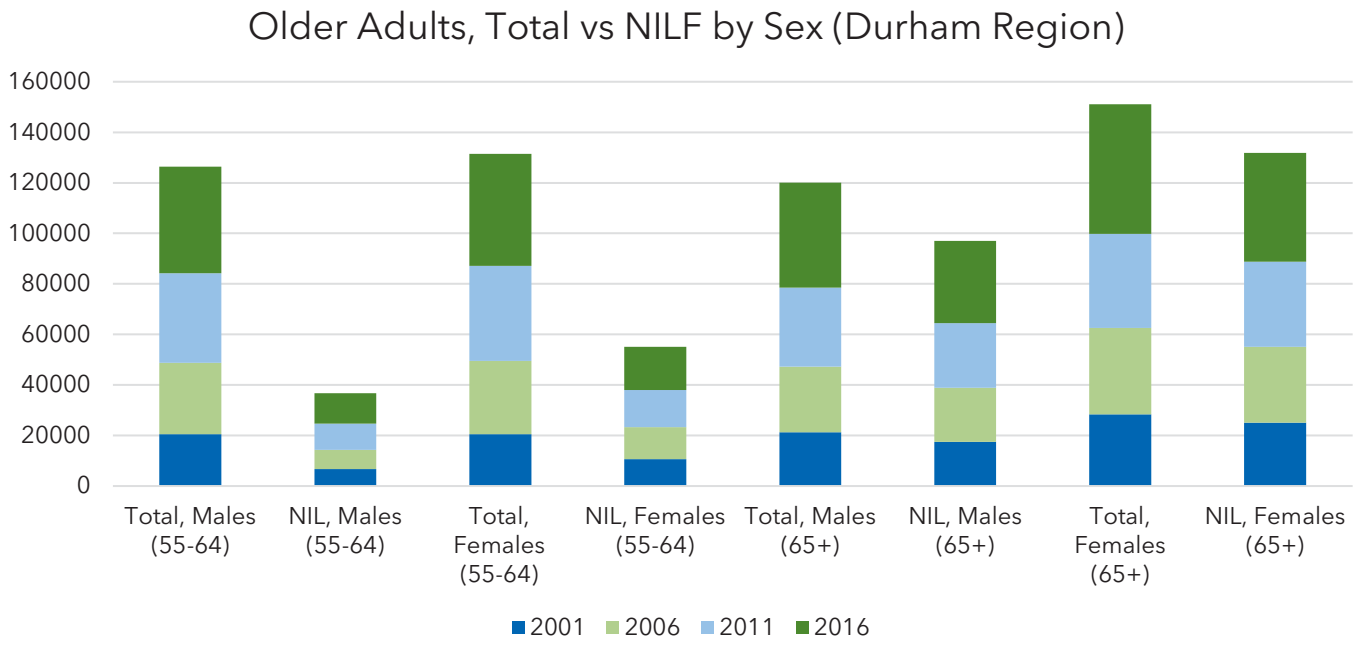
These trends are similar for males and females between the ages of 45 to 54 years. The population increase for males was 33.9 percent (+12,395). For females, the population increase was about 10 percent higher, at 43.4 percent (+16,050). The differences between males and females are larger for changes in not in the labour force. While there has been an increase for males by 77.3 percent (+1,925), the change for females is more than 50 percent less, at 26.1 percent (+1,835). However, the actual change in numbers is similar, differing by less than a hundred. It is likely that the percentage change appears much larger for men, because the number of prime-aged men who are not in the labour force has always been low (e.g. 3,825 for 25 to 44-year-old men in 2001). Therefore, any increase would show as a larger percentage change. In addition, the participate rate for prime-aged females has always been lower. The following chart will outline these trends and differences.



(Statistics Canada, Census 2001, 2006 and 2016; National Household Survey, 2011; data custom purchased by Durham Workforce Authority)

When examining older adults in the Durham Region by sex, there are also some interesting trends to note. For adults between 55 to 64 years of age, there has been a population increase of 105.2 percent for males (+21,610), and a slightly higher population increase of 115.7 percent for females (+23,805). For the same age group, the not in the labour force male population increased by 78.8 percent (+5,290), more than 18 percent higher than the increase for females at 60.2 percent (+6,410).

For adults over the age of 65, there was a population increase of 95.6 percent for males (+20,315), and 80.3 percent for females (+22,810), which is nearly 15 percent less growth. For not in the labour force, there was an increase of 85.5 percent for males (+14,985) and for females, a lower increase of 71.5 percent (+17,935). The following chart displays all the changes across time for older adults.

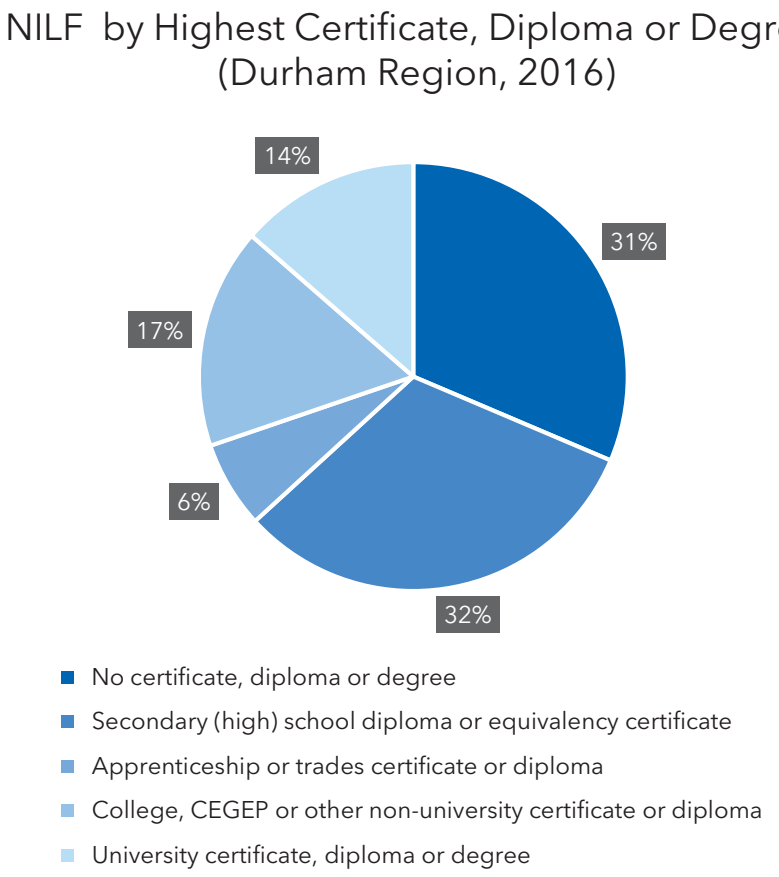


(Statistics Canada, Census 2001, 2006 and 2016; National Household Survey, 2011; data custom purchased by Durham Workforce Authority)

Likely Characteristics of NILF from Census (2016) Data

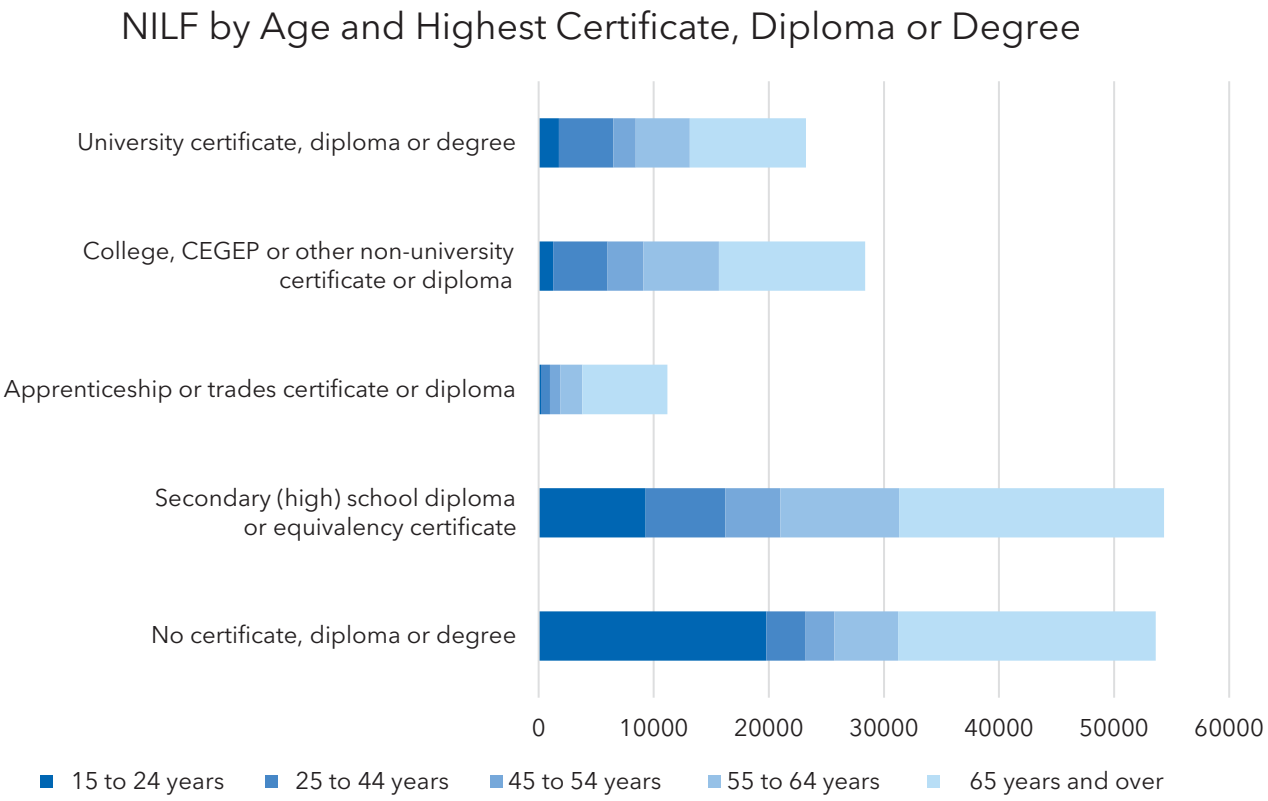
Although the above findings provide an understanding of labour force participation trends based on age and sex, other data from the 2016 Census will be examined in order to better understand the likely profile of Durham Region residents who are presently not in the labour force. These findings will provide a more in-depth look into other characteristics contributing to the lack of labour force participation, including field of study, last occupation worked, last industry worked, and highest certificate, diploma or degree obtained.

Firstly, residents of Durham Region not in the labour force will be examined by highest certificate, diploma or degree attained. This data presents an interesting trend, where residents with lower educational attainment are most likely to not be in the labour force, and residents with highest educational attainment are least likely to not be in the labour force. Residents with no certificate, diploma or degree comprise 31 percent of the NILF population, and those with only a high school diploma or equivalent account for an additional 32 percent. Therefore, residents with a high school diploma or equivalent or less, account for approximately 63 percent of the entire not in labour force population. The portion of the population least likely to be non-participants are residents with an apprenticeship or trades certificate or diploma, perhaps due to the continual demand for workers proficient in skilled trades (Buildforce, 2017).



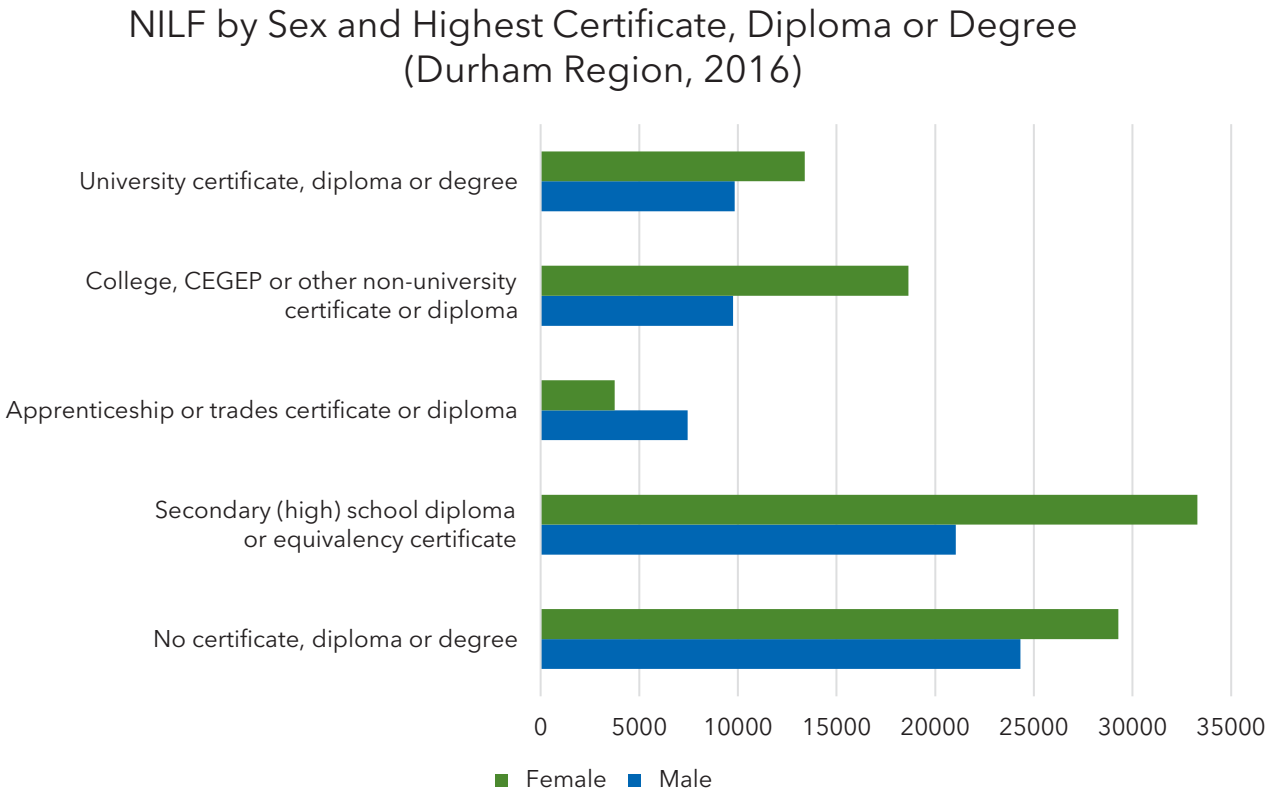
(Statistics Canada, Census 2016; data custom purchased by Durham Workforce Authority)

Secondly, age will be compared against highest certificate, diploma or degree for Durham Region residents who are not in the labour force. Once again, residents over the age of 65 comprise the largest portion of non-participants, regardless of highest certificate, diploma or degree attained. Notably, the largest proportion of this population are residents holding only a secondary school diploma or equivalent, for all age groups. The following chart outlines these trends.



(Statistics Canada, Census 2016; data custom purchased by Durham Workforce Authority)

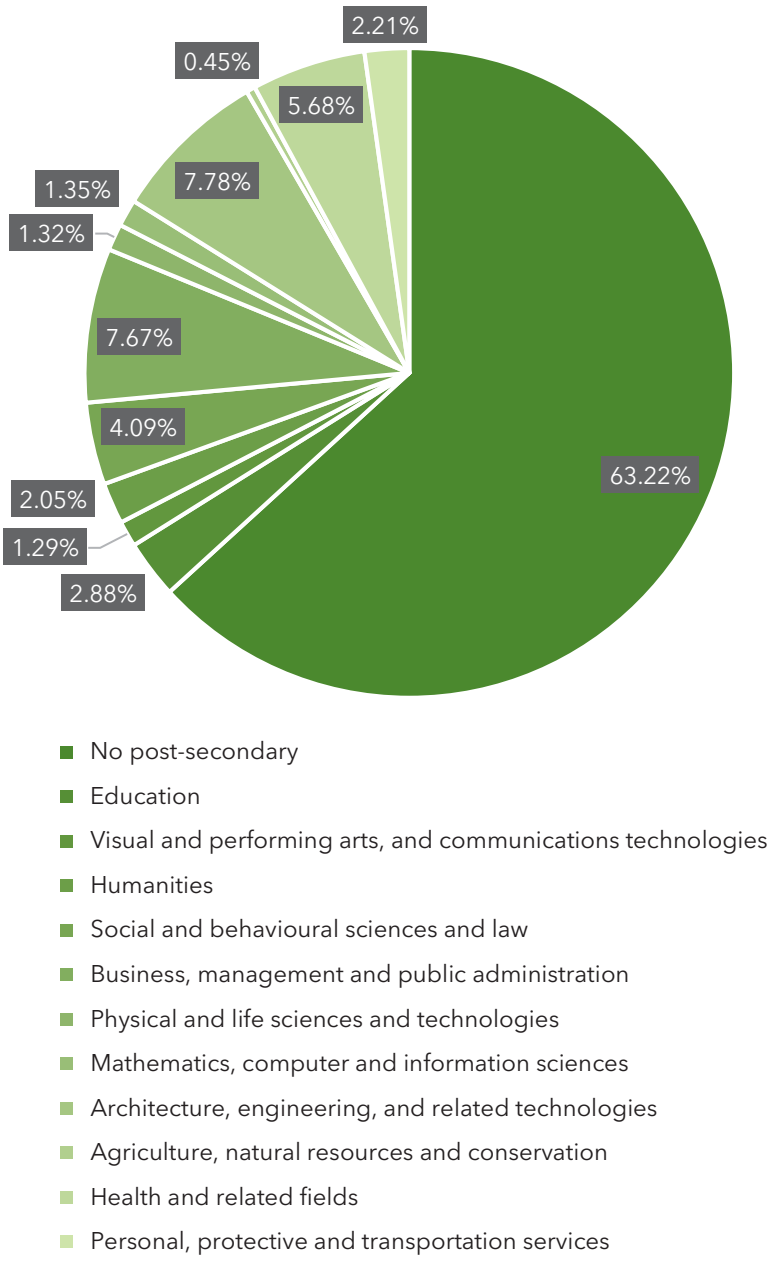
Other than apprenticeship or trades certificates or diplomas, labour force participation for females is significantly lower for all other certificates, diplomas or degrees. On average, not in labour force participation for females is higher by approximately 20 percent, which is significant because population for females is only higher than males by approximately 7 percent, further signaling a significant difference in labour market participation due to sex. The following chart outlines this discrepancy in labour force status by sex.



(Statistics Canada, Census 2016; data custom purchased by Durham Workforce Authority)

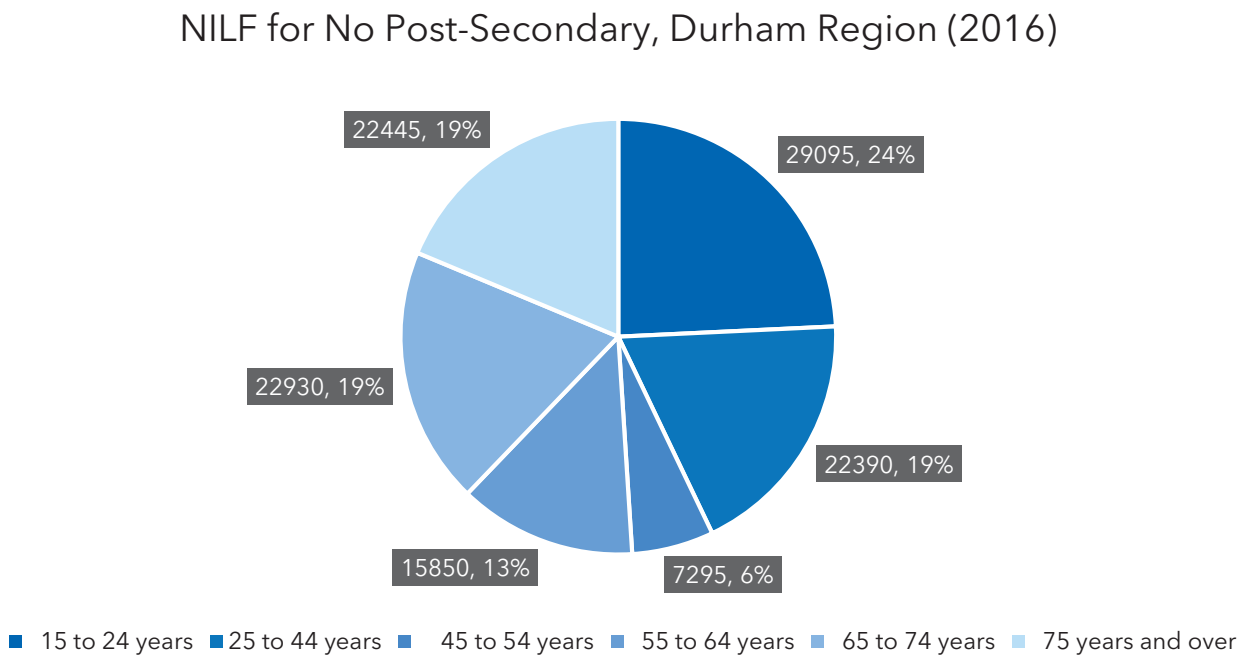
Additionally, according to field of study data by labour force status, the highest proportion of residents who were not in the labour force had no post-secondary certificate, at 63.2 percent. The second highest fields of study were tied at nearly eight percent for architecture, engineering and related technologies and business, management and public administration. The lowest proportion of non-participants were residents who studied agriculture, natural resources and conservation at only half a percent.

Percentage of Total NILF by Field of Study (Durham Region, 2016)



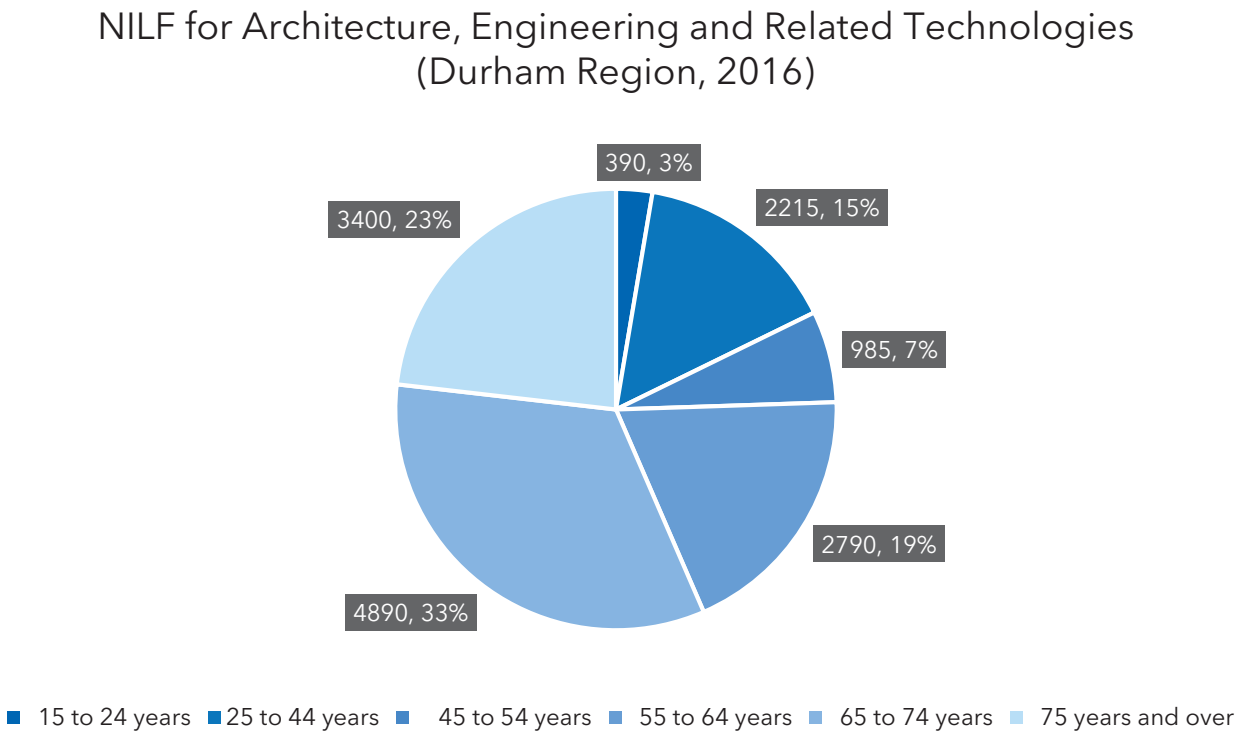
(Statistics Canada, Census 2016; data custom purchased by Durham Workforce Authority)

The following chart outlines the age profile for residents of Durham Region who are not in the labour force and have no post-secondary certificate or diploma, since that is the majority of not in the labour force. The analysis shows that most non-participants who have no post-secondary diploma or degree are youth between 15 to 24 years old, comprising 26.9 percent of this population. Understandably, this trend may be due to current full-time student status or participation in some other form of education or training. The age group with lowest non-participation and no post-secondary certificate or diploma are middle aged adults, between the ages of 45 to 54, comprising only six percent of the total.



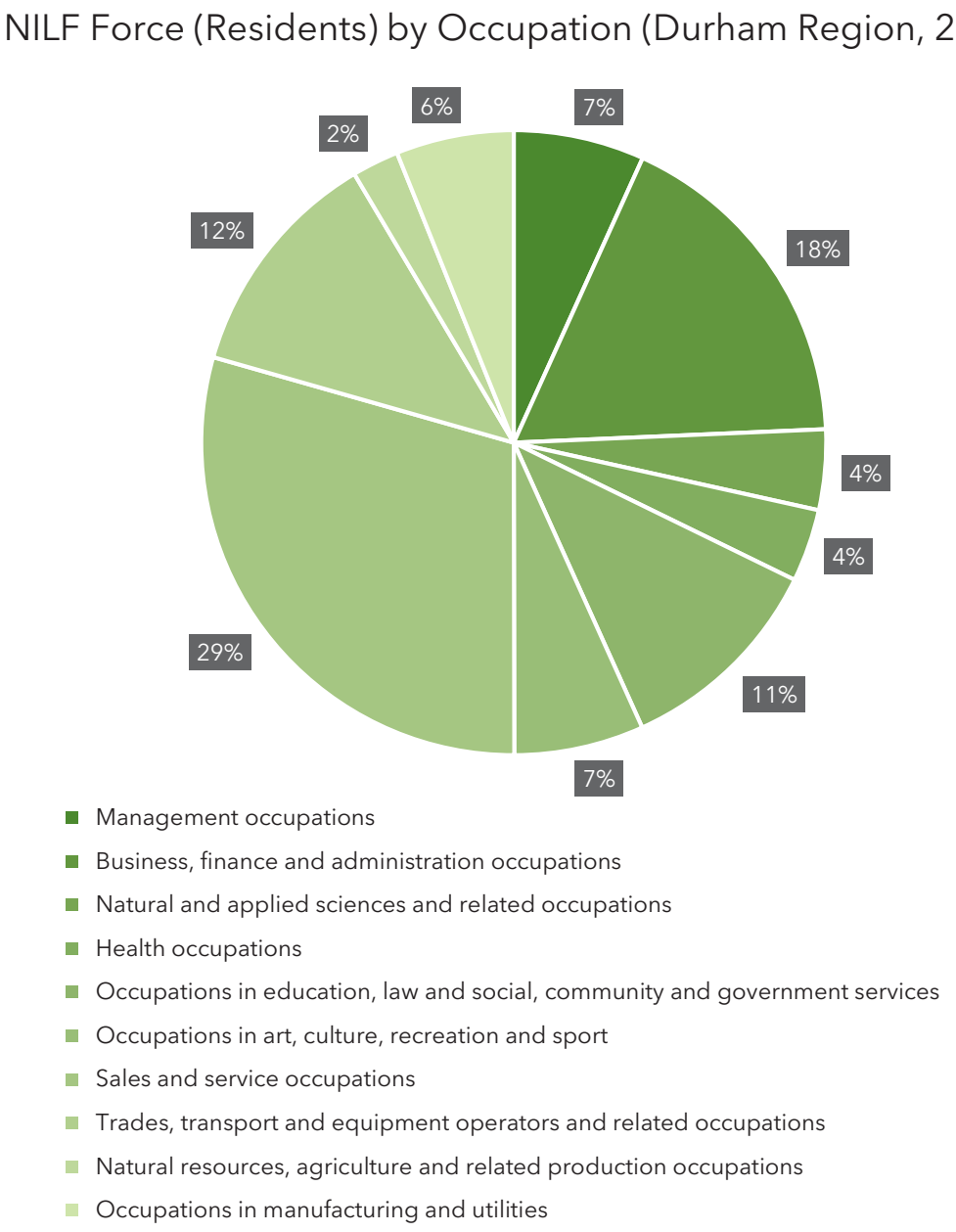
(Statistics Canada, Census 2016; data custom purchased by Durham Workforce Authority)

The following chart outlines the age profile for the field of study with the second highest proportion of not in the labour force residents within the Durham Region- architecture, engineering and related technologies. The majority of residents who studied in this field are over the age of 55, with the largest proportional age group being seniors between the ages of 65 to 74 years at 33 percent. The age group comprising the lowest percentage of this population is youth, at only three percent. Once again, this low percentage may be attributed to the fact that youth in this age group are likely to still be students.



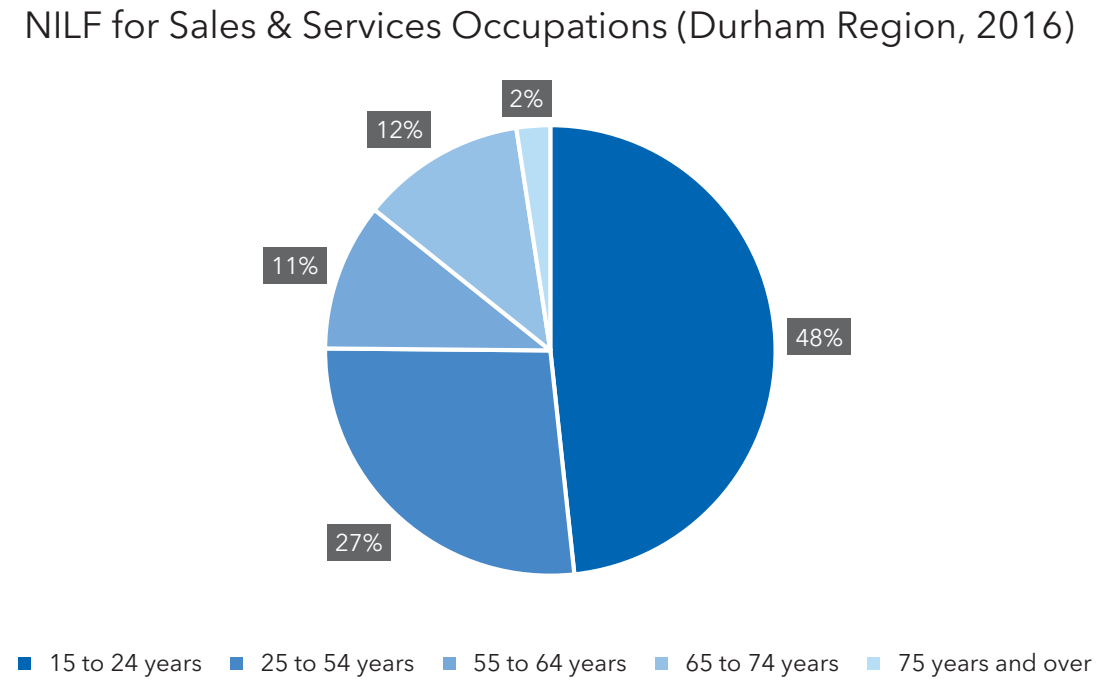
(Statistics Canada, Census 2016; data custom purchased by Durham Workforce Authority)

The following chart outlines the composition of residents who are not in the labour force, based on occupation from NOC (2016) (National Occupational Classification), using 1 digit codes. Sales and services occupations have the highest proportion of residents not in the labour force, compared to other occupational categories, at 29 percent. The second highest occupational category is more than ten percent lower, at 18 percent, for business, finance and administration occupations. The one-digit NOC with the lowest proportion of residents not in the labour force are natural resources, agriculture and related production occupations, at only two percent. It is important to note that reporting the occupation of residents who are not in the labour force for the Census is only required when their last employment was 2015 or later (Statistics Canada, 2016); therefore, data should be interpreted with caution.



(Statistics Canada, Census 2016; data custom purchased by Durham Workforce Authority)

The not in labour force proportion of residents in sales and service occupations will be examined further, by age. The largest proportion of residents not in the labour force for sales and service occupations are youth, between the ages of 15 to 24 years, comprising nearly half (48 percent) of this entire NILF group. In total, prime-aged residents (25 to 54 years) comprise 27 percent of this group, and older adults over the age of 55 comprise the remaining 25 percent.



(Statistics Canada, Census 2016; data custom purchased by Durham Workforce Authority)

Analysis and Recommendations

Findings from the Censuses and Labour Force Survey demonstrate that expected demographic changes have significantly impacted labour force participation within the Durham Region. First and foremost, aging is identified as a significant factor, with older adults (55 years and over) accounting for 62.5 percent of the total not in labour force change between 2001 to 2017 in the Oshawa CMA; and 70.9 percent of the total change between 2001 and 2016 within the Durham Region. As anticipated, this age cohort faces a variety of life events impacting decisions to exit the labour force, including planned retirement (MacBride-King, 2014); illness, disability, layoff or care work (Carriere & Galarneau, 2012). Secondly, an increase in post-secondary institution enrolment in the Durham Region is another major contributing factor. According to the 2016 Census, 37.5 percent of youth (15 to 24 years) in the Durham Region were non-participants in the labour force, aligning with research that states that increases in schooling for youth contribute to decisions not to be in the labour force (Cheung, Granovsky & Velasco, 2015). In addition, prime-aged adults are not likely significant in impacting the not in labour force numbers, in line with literature that states discouraged workers in this age group are not the reason for declines in labour force participation (Janzen, 2014). Between 2001 to 2016 in the Durham Region, adults aged 25 to 44 years account for 4.2 percent of the overall change in not in labour force, and adults between 45 to 54 years account for the remaining 5.9 percent of the change. In addition, regional labour force participation for prime-aged females remains relatively stagnant at 83.1 percent, with a little unchanged not in labour force statistic at 0.4 percent, signaling that perhaps, female caregivers are a contributing factor to not in the labour force (Macdonald & Friendly, 2014).

In addition, a likely profile of residents who are not in the labour force was constructed using Census data from 2016. These residents are more likely to not have a certificate, degree or diploma, or only hold a secondary school diploma or equivalent. They are also more likely to be an adult aged 55 years or over, regardless of their highest certificate, degree or diploma. Residents with apprenticeship certificates are least likely to not be in the labour force, likely due to skilled shortages in the trades (Buildforce, 2016). By field of study, residents not in the labour force are quite evenly distributed, but they are least likely to have studied agriculture, natural resources and conservation, and most likely to have studied in either architecture, engineering and related technologies or business, management and public administration. By previous occupation, residents not in the labour force are most likely to be youth (15 to 24 years) in sales and service occupations, and least likely to have last worked in natural and applied sciences and related occupations.

Although Labour Force Survey and Census data has allowed for a greater understanding of labour force participation and related trends in the Durham Region, additional targeted research is required to qualitatively identify and confirm the reasons for non-participation. Key informant interviews, focus groups or another qualitative research method should be used to communicate with identified demographic groups who are more likely to not be in the labour force, including youth, older adults and prime-aged women. Reasons documented in existing literature such as childcare costs, declining opportunities for work, involuntary retirement and reasons for retirement are unable to be identified with existing data but could emerge through further qualitative and targeted research.

In addition, identifying these demographic changes presents an opportunity to communicate with community partners, local governments and other relevant stakeholders on how these demographic trends will impact the Durham Region community. Partnered with qualitative investigation, it can be determined whether issues such as involuntary retirement, labour shortages in the skilled trades, childcare and labour market trends for youth are important social issues that require additional attention, support or policy change. As a result, a collaborative strategy can be implemented, to address relevant and timely labour market issues, that have the potential to negatively impact the community and its residents.

References

Arriagada, P. (2018, March). A day in the life: How do older Canadians spend their time? *Insights on Canadian Society*. Statistics Canada Catalogue no. 75-006-X. Retrieved from http://www.statcan.gc.ca/pub/75-006-x/2018001/article/54947-eng.pdf

Audet, K. (2016, August 30). Getting harder for less-skilled men to join the Canadian workforce. *Canadian Industrial Outlook*. Retrieved from http://www.conferenceboard.ca/newsletter/archive/2013/dec2013/hot-topics-in-economics-blog/2016/08/30/Getting_Harder_for_Less-Skilled_Men_to_Join_the_Canadian_Workforce.aspx

Bartlett, R. (2014, December). *Young and restless: A look at the state of youth employment in Canada*. Retrieved from https://www.td.com/document/PDF/economics/special/YoungAndRestless.pdf

Beaulieu, E. (2000). The Canada-U.S. Free Trade Agreement and labour market adjustment in Canada. *Canadian Journal of Economics, 33*(2), 540-563.

Belanger, A., Carriere, Y., & Sabourin, P. (2016). Understanding employment participation of older workers: The Canadian perspective. *Canadian Public Policy, 42*(1), 94-110.

Bernard, A. (2012). The job search of the older unemployed. *Perspectives on Labour and Income*. Statistics Canada Catalogue no. 75-001-X. Retrieved from https://www.statcan.gc.ca/pub/75-001-x/2012003/article/11698-eng.pdf

Bernard, A. (2013). Unemployment dynamics among Canada's youth. Statistics Canada, Analytical Studies Branch. Retrieved from http://en.copian.ca/library/research/statistics_canada/unemployment_dynamics/unemployment_dynamics.pdf

Bernard, A. (2015, October). "Youth labour force participation: 2008 to 2014." *Economic Insights*. Vol. 52. October. Statistics Canada Catalogue no. 11-626-X. Retrieved from http://www.statcan.gc.ca/pub/11-626-x/11-626-x2015052-eng.pdf (accessed December 4, 2017).

Bohnert, N., Chagnon, J. & Dion, P. (2015). "Population projections for Canada (2013 to 2063), Provinces and Territories (2013 to 2038)". Statistics Canada Catalogue no. 91-520-X. Retrieved from http://www.statcan.gc.ca/pub/91-520-x/91-520-x2014001-eng.pdf (accessed December 14, 2017).

Bourbeau, E. & Fields, A. (2017). Annual review of the labour market, 2016. *Labour Statistics: Research Papers*. Statistics Canada Catalogue no. 75-004-M-2017001. Retrieved from http://www.statcan.gc.ca/pub/75-004-m/75-004-m2017001-eng.pdf

Buildforce Canada (2017). *Construction and maintenance looking forward: National summary highlights 2017-2026*. Retrieved from https://www.constructionforecasts.ca/sites/forecast/files/highlights/2017/2017-National-Constr_Maint-Looking-Forward.pdf

Campolieti, M. (2002). Disability and the labour force participation of older men in Canada. *Labour Economics*, *9*(3), 405-432.

Carriere, Y. & Galarneau, D. (2011). Delayed retirement: a new trend? *Perspectives on Labour and Income, 23*(2), 1-16. Statistics Canada Catalogue no. 75-001-X. Retrieved from http://www.statcan.gc.ca/pub/75-001-x/2011004/article/11578-eng.pdf

Carriere, Y. & Galarneau, D. (2012). "How many years to retirement?". *Insights on Canadian society*. Statistics Canada Catalogue no. 75-006-X. Retrieved from http://www.statcan.gc.ca.libaccess.lib.mcmaster.ca/pub/75-006-x/2012001/article/11750-eng.pdf

Casey, R., & Berger, E. (2015). Enriching or discouraging? Competing pictures of aging and paid work in later life. *Population Change and Life Course Strategic Knowledge Cluster Discussion Paper Series, 3*(3).

Cheung, C., Granovsky, D., & Velasco, G. (2015). *Changing labour market participation since the Great Recession: A regional perspective*. (No. 2015-2). Bank of Canada Discussion Paper. Retrieved from http://www.banqueducanada.ca/wp-content/uploads/2015/02/dp2015-2.pdf

Cross, P. (2015). The recession's impact on Canada's labour market. *University of Calgary The School of Public Policy SPP Research Papers, 8*(28), 1-31.

Durham College. (2006). *2005-2006 Annual Report*. Retrieved from http://govdocs.ourontario.ca/node/1441

Durham College. (2017). *2016-2017 Annual Report*. Retrieved from https://durhamcollege.ca/interactive-documents/2016-2017-annual-report/

Eberstadt, N. (2017, May 8). Where did all the men go? *Milken Institute Review*. Retrieved from https://www.aei.org/publication/where-did-all-the-men-go/

Fast, J., Lero, D., Keating, N., Eales, J. & Duncan, K. (2013). *The economic costs of care to employers: A synthesis of findings*. Retrieved from http://rapp.ualberta.ca/Portals/116/Documents/Reports/Economic%20Costs%20to%20Employers%20final%20synthesis%20report_2013Oct29.pdf

Fields, A., Uppal, S., & LaRochelle-Côté, S. (2017). "The impact of aging on labour market participation rates." *Insights on Canadian Society.* Statistics Canada Catalogue no. 75-006-X. Retrieved from http://www.statcan.gc.ca/pub/75-006-x/2017001/article/14826-eng.htm (accessed December 5, 2017).

Finnie, R., & Gray, D. (2011). Labour-force participation of older displaced workers in Canada: Should I stay or should I go?. *IRPP Study, 15.* Retrieved from http://irpp.org/wp-content/uploads/assets/research/competitiveness/new-research-article-2/IRPP-Study-no15.pdf

Fortin, Godbout & St-Cerny (2012). Impact of Quebec's universal low fee childcare program on female labour force participation, domestic income, and government budgets. Retrieved from https://cffp.recherche.usherbrooke.ca/wp-content/uploads/2012-02-Impact-of-Quebecs-universal-low-fee.pdf

Gilmore, J. & LaRochelle-Cote, S. (2011). Inside the labour market downturn. *Perspectives on Labour and Income*. Statistics Canada Catalogue 75-001-X. Retrieved from https://www.safec.ca/userfiles/file/%C3%89conomie/EN/04%20Studies/43%20Work-Revenue-Workforce/431%20Employement%20and%20revenue/2011-PerspectivesLabourIncome-Labour%20market.PDF

Hanes, A. (2017, August 8). Quebec daycare a model for Canada, but province shouldn't rest on its laurels. *Montreal Gazette*. Retrieved from http://montrealgazette.com/opinion/columnists/allison-hanes-quebec-daycare-a-model-for-canada-but-province-shouldnt-rest-on-its-laurels

Haverlock, J. (2009). Who's caring for the caregivers? Symposium focuses on the mental health of women health care workers. *Canadian Women's Health Network, 11*(2).

Human Resources and Skills Development Canada. (2008). Looking-Ahead: A 10-year outlook for the Canadian labour market (2008-2017). *Policy Research Directorate*. Retrieved from https://www.google.ca/url?sa=t&rct=j&q=&esrc=s&source=web&cd=15&cad=rja&uact=8&ved=0ahUKEwiK2emylZnYAhUd24MKHRmIDZk4ChAWCDkwBA&url=http%3A%2F%2Foccupations.esdc.gc.ca%2Fsppc-cops%2Fservlet%2Fcopspub%3Flang%3Den%26curjsp%3Dl.3bd.2t.1.3ls%40-eng.jsp%26curactn%3Ddwnld%26lid%3D1%26fid%3D1&usg=AOvVaw13ED92obqBIbGKm1DnuRrN

Institute of Prosperity and Competitiveness. (2017). Strength in numbers: Targeting labour force participation to improve prosperity in Ontario. *Annual Report, AR16.* Retrieved from https://www.competeprosper.ca/uploads/Annual_Report_16_Strength_in_numbers_targeting_labour_force_participation_in_Ontario_Dec_2017.pdf

Jacobs, J.C., Laporte, A., Van Houtven, C.V., & Coyte, P.C. (2013). Caregiving intensity and retirement status in Canada. *Social Science & Medicine, 102*, 74-83.

Janzen, N. (2014). Current analysis, May 2014. *RBC Economics|Research*. Retrieved from http://www.rbc.com/economics/economic-reports/pdf/other-reports/Canada_participation_rate.pdf

Jones, S. & Riddell, C. (2017). Unemployment, marginal attachment and labour force participation in Canada and the United States. *Canadian Labour Economics Forum Working Paper Series, WP#13*. Retrieved from https://clef.uwaterloo.ca/wp-content/uploads/2017/05/CLEF-013-2017-Spring-Summer-Jones_Riddell.pdf

Ketcheson, J., Kyui, N., & Vincent, B. (2017, July). *Labour force participation: A comparison of the United States and Canada*. (No. 2017-9). Bank of Canada Staff Analytical Note. Retrieved from https://www.bankofcanada.ca/2017/07/staff-analytical-note-2017-9/

Kustec, St. (2012, June). The role of migrant labour supply in the Canadian labour market. *Citizenship and Immigration Canada*. Retrieved from https://www.canada.ca/en/immigration-refugees-citizenship/corporate/reports-statistics/research/role-migrant-labour-supply-canadian-labour-market.html

Lilly, M.B. (2011). The hard work of balancing employment and caregiving: What can Canadian employers do to help? *Healthcare Policy, 7*(2), 23-31.

MacBride-King, J.L. (2014). A survey of non-retirees and retirees in Canada: Retirement perspectives and plans. Ottawa, ON: Conference Board of Canada.

Macdonald, D. & Friendly, M. (2014, November). *The parent trap: Child care fees in Canada's big cities*. Retrieved from https://www.policyalternatives.ca/sites/default/files/uploads/publications/National%20Office/2014/11/Parent_Trap.pdf

Macdonald, D. & Friendly, M. (2017, November). *Time out: Child care fees in Canada 2017*. Retrieved from https://www.policyalternatives.ca/sites/default/files/uploads/publications/National%20Office/2017/12/Time%20Out.pdf

Marshall, K. (2012). Youth neither enrolled nor employed. *Perspectives on Labour and Income*. Statistics Canada Catalogue no. 75-001-X. Retrieved from https://www.statcan.gc.ca/pub/75-001-x/2012002/article/11675-eng.pdf

Ministry of Advanced Education and Skills Development. (2017). University enrolment. [Data file]. Retrieved from https://www.ontario.ca/data/university-enrolment

National Seniors Council. (2013). Older workers at risk of withdrawing from the labour force or become unemployed: Employers' views on how to retain and attract older workers. ISSD-124-03-13E. Retrieved from https://www.canada.ca/content/dam/nsc-cna/documents/pdf/policy-and-program-development/publications-reports/2013/older-workers-risk/older_workers-en.pdf

OECD (2005). Babies and bosses: Reconciling work and family life. Retrieved from http://www.keepeek.com/Digital-Asset-Management/oecd/social-issues-migration-health/babies-and-bosses-reconciling-work-and-family-life-volume-4_9789264009295-en#.WjQUxN-nGM8#page1

OECD (2016, July). *Society at a glance 2016*: *OECD social indicators, childcare costs are around 15% of net family income across the OECD*. Retrieved from http://www.keepeek.com/Digital-Asset-Management/oecd/social-issues-migration-health/society-at-a-glance-2016/childcare-costs-are-around-15-of-net-family-income-across-the-oecd_soc_glance-2016-graph14-en#.WjQWEd-nGM8

OECD (2017). Youth not in employment, education or training (NEET) (indicator). doi: 10.1787/72d1033a-en (Accessed on 20 December 2017)

Park, J. (2010). Health factors and early retirement among older workers. *Perspectives on Labour and Income*. Statistics Canada Catalogue no. 75-001-X. Retrieved from http://www.statcan.gc.ca/pub/75-001-x/2010106/pdf/11275-eng.pdf

Park, J. (2011). Retirement, health and employment among those 55 plus. *Perspectives on Labour and Income*. Statistics Canada Catalogue no. 75-001-X. Retrieved from https://www.statcan.gc.ca/pub/75-001-x/2011001/pdf/11402-eng.pdf

Park, J. (2012). Job-related training of older workers. *Perspectives on Labour and Income*. Statistics Canada Catalogue no.75-001-X. Retrieved from http://www.statcan.gc.ca/pub/75-001-x/2012002/article/11652-eng.pdf

Petersson,B., Mariscal, R., & Ishi, K. (2017). *Women are key for future growth: Evidence from Canada*. Retrieved from https://www.imf.org/en/Publications/WP/Issues/2017/07/19/Women-Are-Key-for-Future-Growth-Evidence-from-Canada-45047

Pignal, J., Arrowsmith, S., & Ness, A. (2010). First results from the survey of older workers, 2008. *Special Surveys Division Research Paper*. Statistics Canada Catalogue no. 89-646-X. Retrieved from http://www.statcan.gc.ca/pub/89-646-x/89-646-x2010001-eng.pdf

Public Policy Forum. (2011). *Canada's aging workforce: A national conference on maximizing employment opportunities for mature workers*. Retrieved from http://www.ppforum.ca/sites/default/files/canadas_aging_workforce_eng_report.pdf

Pyer, W. (2006). Balancing career and care. *Perspectives*. Statistics Canada Catalogue no. 75-001-XIE. Retrieved from http://www.statcan.gc.ca/pub/75-001-x/11106/9520-eng.pdf

Quine, S. & Wells, Y. (2007). When choice in retirement decisions is missing: Qualitative and quantitative findings of the impact on well-being. *Australian Journal on Ageing, 26*(4), 173-179.

Rene, M., Schellenberg, G., & Silver, C. (2004). Retaining older workers. *Perspectives on Labour and Income, 5*(10), 15-20.

Schirle,T. (2010). Health, pensions and the retirement decision: Evidence from Canada. *Canadian Journal on Aging, 29*(4), 519-527.

Sinha, M. (2014, October). "Analytical paper/Spotlight on Canadians: Results from the General Social Survey." *Analytical Paper.* Statistics Canada Catalogue no. 89-652-X- No.005. Retrieved from http://www.statcan.gc.ca/pub/89-652-x/89-652-x2014005-eng.pdf (accessed December 13, 2017).

Stalker, G., & Ornstein, M. (2013). Quebec, daycare, and the household strategies of couples with young children. *Canadian Public Policy*, *39*(2), 241-262.

Statistics Canada (2007, February). "Defining retirement." *Perspectives.* Statistics Canada Catalogue no. 75-001-XIE. Ottawa, Ontario. Retrieved from https://www.statcan.gc.ca/pub/75-001-x/10207/9584-eng.pdf

Statistics Canada. (2010). Participation and activity limitation survey 2006: Tables (part VI). *Analytical Paper*. Statistics Canada Catalogue no. 89-628-X- No. 015. Retrieved from http://www.statcan.gc.ca/pub/89-628-x/89-628-x2010015-eng.pdf

Statistics Canada (2015, November). *Section 2: Determining labour force status*. Retrieved from http://www.statcan.gc.ca/pub/71-543-g/2012001/part-partie2-eng.htm

Statistics Canada. (2016). *2016 Census of population questions, long form (National Household Survey).* Retrieved from https://www12.statcan.gc.ca/nhs-enm/2016/ref/questionnaires/questions-eng.cfm

Statistics Canada. (2017a). Canada [Country] and Canada [Country] (table). Census Profile. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29, 2017 Retrieved from http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E (accessed December 15, 2017).

Statistics Canada. (2017b). *Dictionary, Census of Population, 2016.* Retrieved from http://www12.statcan.gc.ca/census-recensement/2016/ref/dict/az12-eng.cfm?topic=az12

Statistics Canada. (2017c). *Durham, RM [Census division], Ontario and Ontario [Province] (table).* Census Profile. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29, 2017. Retrieved from http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E (accessed December 15, 2017).

Statistics Canada. (2017d). *Focus on Geography Series, 2016 Census*. Statistics Canada Catalogue no. 98-404-X2016001. Ottawa, Ontario. Data products, 2016 Census.

Statistics Canada. (2017e). "Methodology of the Canadian Labour Force Survey." Statistics Canada Catalogue no. 71-526-X. Retrieved from https://www150.statcan.gc.ca/n1/en/pub/71-526-x/71-526-x2017001-eng.pdf?st=2echpqQk

Statistics Canada. (2017f). Table 14-10-0127-01, Reason for not looking for work, monthly, unadjusted for seasonality (x 1,000) , CANSIM (database). (accessed: November 30, 2017)

Statistics Canada. (2018). Table 14-10-0096-01. Labour force characteristics by census metropolitan area, annual. Retrieved from https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410009601

The Canadian Chamber of Commerce (2012, February). *Preparing Canada's youth for the jobs of tomorrow.* Retrieved from https://businessinsurrey.com/wp-content/uploads/2016/03/201202_Preparing_Canadas_Youth_for_the_Jobs_of_Tomorrow.pdf

Trent University. (2017). *Trent by the numbers.* Retrieved from https://www.trentu.ca/about/trent-numbers

UOIT. (2017). *Pre-2003: How Durham Region's dream of a university become reality.* Retrieved from https://uoit.ca/about/uoit-info/history.php

Wyman, D. (2011). Recent trends in Canada's labour force participation rate. *Canadian Economic Observer.* Statistics Canada Catalogue no. 11-010-X. Retrieved from http://www5.statcan.gc.ca/olc-cel/olc.action?ObjId=11-010-X201101211611&ObjType=47&lang=en

Key Terms

Labour Force Status:

"Whether a person was employed, unemployed or not in the labour force during the reference period"
(Statistics Canada, 2017b)

Retired:

"A person who is aged 55 and older, is not in the labour force, and receives 50% or more of his or her total income from retirement-like sources"
(Statistics Canada, 2007)

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NOT IN THE LABOUR FORCE

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