

Aging and Retirement Trends in the  
Canadian Federal Public Service  
1997-2017

by

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## **Abstract**

This paper uses data from the Public Service Commission of Canada to present the aging and retirement trends found in the Canadian Federal Public Service among specific job categories. The purpose is to examine the demographic shift occurring within the Public Service, as employees born during the baby-boom era (1947-1966) edge closer to retirement age. Retirement and recruitment trends for select job categories are examined over the study period of 1997-2007 to explore if certain job groups face challenges as their respective labour forces age. The current trends are projected to the year 2017 to see how the retirement and recruitment may vary across job categories in ten years. The next two decades are crucial since by the year 2031, the tail end of the baby boomer generation (individuals born in 1966) will be 65 years of age and prepared to retire from the workforce.

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## 1.0 Introduction

Like many industrialized countries, Canada faces the challenges associated with an aging population. According to a United Nations report, an aging society is part of a global trend of industrialized nations (UN, 2003). Various sources of literature indicate that population aging will be an important feature of developing countries in the near future, which are generally characterized by low fertility rates, increased life expectancy, and in the case of North America, the increased age of the baby boomer<sup>1</sup> generation, a period in time with a remarkably large number of births. This demographic shift has numerous implications for society in general, impacting areas such as health care costs, the labour force, public debt, immigration and the economy as a whole. Denton and Spencer (2009) point out that an aging population may also affect standards of living due to its effect on the labour market. Trends indicate that the baby-boomer generation continues to be active in the labour force, meaning they are under the age of 65. However in the next 20 years, the majority of this age-group will exceed the age of 65 (ibid). Developed nations have the ideal conditions required to experience a rise in the aged population, an increase in life expectancy, along with a decline in fertility rates (McMullin et al, 2004).

The current situation in Canada is one where baby boomers are below the age of 65, and thus still of working age; this enables Canada to have a substantial overall support ratio, which is described by Denton and Spencer as the ratio labour force to population (2009, pg.4). However, this ratio cannot be sustained for an extended period, as the aging population rises over time. Academic journals and reports by the Canadian

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<sup>1</sup> Individuals born between 1947 and 1966 (Fox Pg. 4)

government provide projections to display the distribution of age groups, which indicate that by the year 2051, the population aged 65 plus will consist of 26.5 of the total population (see Appendix I for graph). On February 23, 2010, Statistics Canada released figures indicating that life expectancy at birth in Canada had reached 80.7 years for the three-year-period between 2005 and 2007, which was up 0.2 years from an average of 80.5 between the years 2004 and 2006<sup>2</sup>. In 1995 to 1997, life expectancy at birth was 78.4. This is an indication that the elderly are living longer, which requires the planning of relevant services for the aged as well as implications for the labour force, as workers may choose to remain in the paid labour market for longer periods.

An article from October 2009, when the global economy was recovering from its downturn, suggested that “Freedom 75” may become the new norm as Canadians are living longer while immigration and birth rates are insufficient for Canada’s labour market in the coming decades (Times and Transcript, 2009). An OECD booklet on Aging and Employment Policies in Canada notes that the proportion of the Canadian population 65 years and older relative to the working-age population (20-64), is expected to increase from 20% in 2004 to approximately 45% in 2050 (OECD, 2005). Literature stresses that other venues must be investigated in order to replace the highly-skilled older population that will soon be exiting the workforce. McMullin’s paper on Labour Force Aging and Skill Shortages in Canada and Ontario refers to the different aspects of the demographic shift and decline in the labour force when she writes,

*“Now, there are three important shifts taking place. First, young people are taking much longer to complete their education and begin a career job. Second, many people are ending their careers earlier than 60. And third, because of demographic ageing, the proportion of the population of working*

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<sup>2</sup> For the full release, see: <http://www.statcan.gc.ca/daily-quotidien/100223/dq100223a-eng.htm>

*age is expected to become smaller in coming decades. In fact, the Canadian labour force is projected to shrink in absolute size after 2016.” (McMullin, Cooke, & Downie, 2004, p. iii)*

On February 18, 2010, Canada’s Parliamentary Budget Office (PBO) released their Fiscal Sustainability Report<sup>3</sup>, suggesting the Canadian Government’s current fiscal structure is unsustainable if the demographic issue of the aging population is not addressed. The PBO’s long-run projections include the real GDP per capita growth declining by approximately half over the next 50 years. Since 1961, real GDP per capita grew on average 2.1%, but is projected to average only 0.9% from 2009-2059 (Askari et al, 2010). Although the PBO report presents a “worst-case” scenario, the issue of an aging population is quite relevant today, as the foreseeable demographic shift will impact various facets of society and the economy.

Numerous headlines over the past two years, from articles found on the PSC’s internal NewsDesk website, indicate that the issue of retiring baby boomers is an important issue on the radar of the Federal Government. Articles mention a “generational war” brewing in the Public Service, as assumptions that guide present day economic and government policies are based on the baby boom era, which may not align with the ideals of the younger generation (May, 2010). McMullin and company (2004) write of the possible mass exodus where older, experienced workers retire from the Public Service in droves. Consequently, possible skills shortages may occur, and discussions from the 1990s emphasized issues such as added pressure to fund pensions and health care, thus increasing taxes and lowering overall economic growth.

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<sup>3</sup> For the full report, see: [http://www2.parl.gc.ca/Sites/PBO-DPB/documents/FSR\\_2010.pdf](http://www2.parl.gc.ca/Sites/PBO-DPB/documents/FSR_2010.pdf)

The focus of this major paper is to examine the situation of the aging workforce specifically in the Canadian Federal Public Service, using data from Statistics Canada and largely from the Public Service Commission of Canada's (PSC) Job-Based Analytical Information System (JAIS). The scope of the data is limited to the departments covered by the authority of the Public Service Employment Act (PSEA<sup>4</sup>), which in 2007 represented approximately 70% of the Canadian Public Service (Fox, 2008). This paper briefly examines aging in the Canadian labour market, particularly in the Federal Public Service. With the Public Service as the main area of focus, the paper will investigate the population, retirement, recruitment, and age trends for seven occupational groups<sup>5</sup>: Administrative Services (AS), Correctional Services (CX), Economics, Sociology and Statistics (ES), Executive Group (EX), Financial Administration (FI), Information Services (IS), and Personnel Management (PE).

In a 2008 study, conducted by the PSC on the mobility of public servants<sup>6</sup>, the seven occupational groups mentioned above were examined due to their noticeably high movement rates within the Public Servants (Public Service Commission of Canada, 2008). For the purposes of this paper, the data is focused more towards the retirement trends, recruitments, and age distributions from the period 1997-2007, as well future trends and possible areas of concern in regards to recruitment versus retirements among the groups. JAIS data prior to 1997 was obtained (data is available from 1989) however, many past department are no longer in existence and the Public Service down-sizing

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<sup>4</sup> The PSEA universe excludes employees of separate agencies (such as the Canada Revenue Agency), Crown corporations (such as Canada Post) and members of the Canadian Forces (CF) and the Royal Canadian Mounted Police (RCMP). For more information on the PSEA, see: <http://www.tbs-sct.gc.ca/hrh/psealefp-eng.asp>

<sup>5</sup> Refer to Appendix V for a glossary of terms by the PSC

<sup>6</sup> See PSC Study on Mobility of Public Servants: <http://www.psc-cfp.gc.ca/adt-vrf/rprt/2008/mob/index-eng.htm>

during the mid-1990's also affected the JAIS data. It was decided to begin the study period from 1997 in order to obtain a more consistent data set. During the cleaning of the data set, 9 departments were removed<sup>7</sup>; excluded departments from the JAIS database were Communication Canada (CIO), Law Commission of Canada (CLD), Copyright Board (COP), Public Integrity Canada (INT), Office of the Director of Public Prosecutions (PPD), Registry of the Public Servants Disclosure Protection Tribunal (PRT), Assisted Human Reproduction Agency (RAP), Canada Revenue Agency (NAR) and Revenue Canada-Taxation (TAX). These specific departments were dissolved, merged with other departments, or recently created with a very small number of employees. 73 Federal departments were included in the data analyzed for this paper and a full list with their employee populations is found in Appendix IV.

Similar to the Canadian Labour Force, the Public Service also faces the challenge baby boomers retiring at an increasing rate. However, the Public Service has certain characteristics that are not necessarily represented in the labour force as a whole. These include a secure pension system, public servants retiring at an earlier age than employees in the general labour force, as well as the flexibility for retirees to continue working after retirement. Regardless of these unique attributes, an aging workforce continues to have an impact on the Public Service and the issue is of great importance both on an economic and policy level over the next few decades.

This paper contains eight main sections that examine the aging and retirement trends found in the Public Service. The first section discusses the Public and Private sector in terms of the age distribution of employees and the average age of retirees. The

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<sup>7</sup> For a full list of past and current Public Service Departments, refer to Treasury Board's Population Affiliation Report: [http://publiservice.tbs-sct.gc.ca/pas-srp/overview-apercu\\_e.asp](http://publiservice.tbs-sct.gc.ca/pas-srp/overview-apercu_e.asp) and Departmental Reorganizations Since 1990: [http://be2020.publiservice.psagency-agencefp.gc.ca/eng/dept\\_e.asp](http://be2020.publiservice.psagency-agencefp.gc.ca/eng/dept_e.asp).

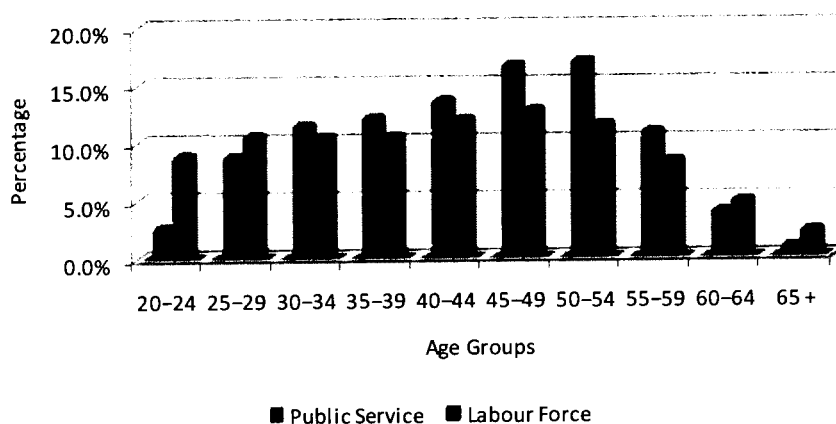
second section presents the challenges researchers face when analyzing retirement, due to the lack of a standard definition of the term. The third section discusses the Public Service data source analyzed in this paper as well as data limitations. The fourth section examines the Public Service over the study period, describing trends in population growth, staffing activities, recruitment ages, and the age distribution by gender. The fifth section covers retirement trends in the Public Service over the study period, by department size as well as gender. The sixth section examines the seven selected occupational groups in detail, providing a profile of their job description, population distribution as well as retirement patterns by age group. The seventh section discusses the issue of recruitment compared to retirements in the Public Service in order to observe if certain occupational groups face the challenge of having a larger proportion of retirements versus recruitments. The eighth section presents a projection in retirement and recruitment trends to the year 2017, using the Time Series Modeler in SPSS 18, and discusses the challenges certain occupational groups may face in the coming years.

## **2.0 The Public and Private Sectors**

Using Statistics Canada Labour Force Estimates and PSC's Statistical CUBE data for March 2009, it is possible to see a notable difference among certain age groups in the Public Service compared to the overall Labour Force. This being one of the reasons retirements in the Public Service has increased at a faster pace than in the labour force; Public sector employees are, on average, 5.3 years older than their labour force counterparts and also retire 3.2 years earlier (Fox, 2008, p. 3). This comparison is shown

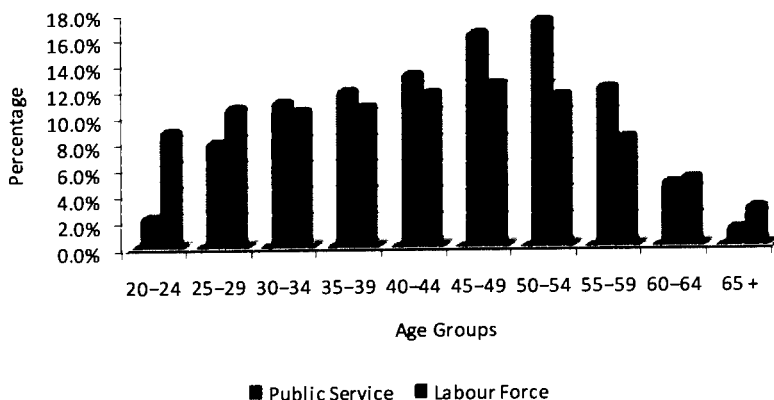
in Figure 1, where Public Service employees in the age groups of 40-59 are greater in number than in the overall Canadian Labour Force. As of 2009, the low-end (individuals born in 1966) of baby-boomers are 43 years old while the high-end (individuals born in 1947) would be 62 years of age. In Figure 1, the percentage of 40-44 year olds is 1.6% higher in the Public Service than the overall labour force.

Figure 1: Comparison of the Population of the Public Service vs Labour Force in Canada, March 2009



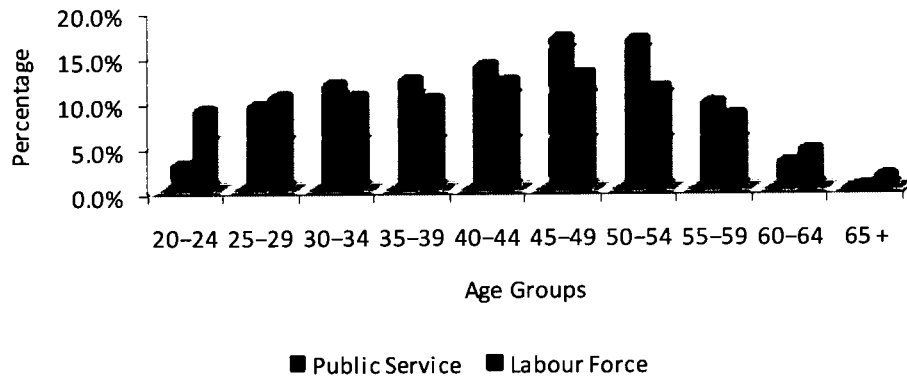
Source: Statistics Canada Labour Force Survey and JAIS (PSC)

Figure 2: Comparison of the Male Population of the Public Service vs Labour Force in Canada by Age Group, March 2009



Source: Statistics Canada Labour Force Survey and JAIS (PSC)

Figure 3: Comparison of the Female Population of the Public Service vs Labour Force in Canada by Age Group, March 2009

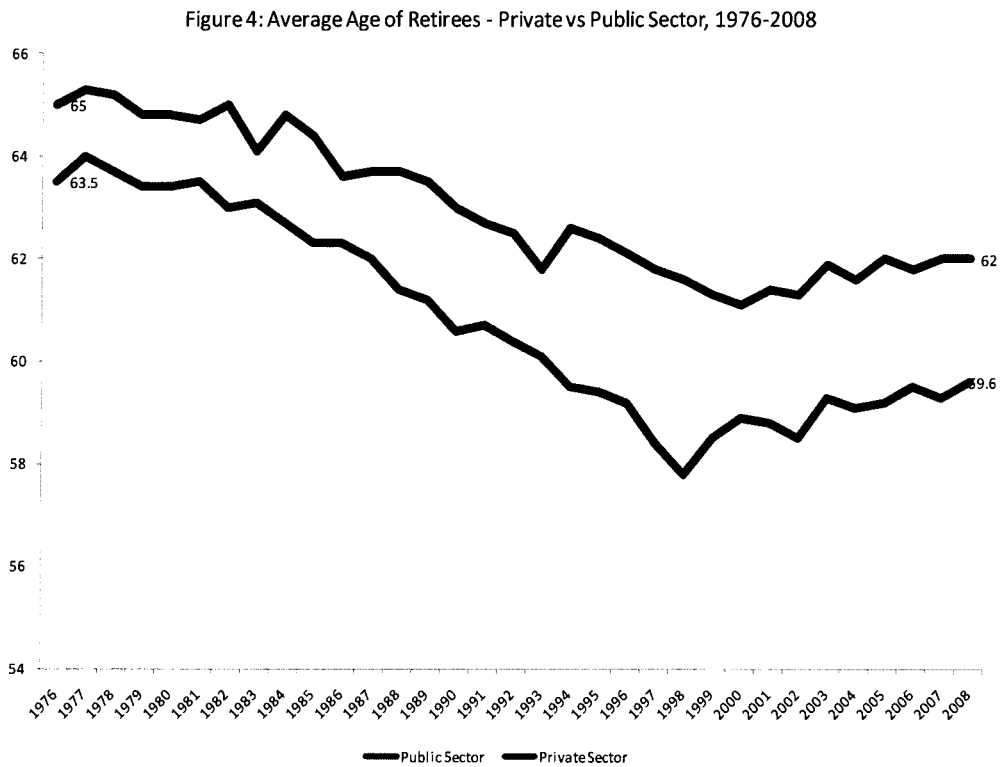


Source: Statistics Canada Labour Force Survey and JAIS (PSC)

A similar trend is visible for the 50-54 and 55-59 year-old groups, which are 5.5% and 2.6% higher, respectively. In the next decade, the Public Service will face the challenge of these employees in their late 40's and mid 50's shifting closer to retirement age. This same trend applies when data is separated by gender, as seen in Figure 2 and Figure 3. The total male population in the Public Service as of March 2009 was 92,173 for men and 112,092 for women, a difference of almost 20,000 employees. In a comparison of the male and female labour force, the proportion of employees falling in the age groups 40-59 are again higher in the Public Service than in the overall labour force.

Using Statistics Canada Labour Force Survey estimates, a comparison can be made between the average age of retirees in the public and private sectors. While average age of retirement has declined in both sectors since 1976, as of 2008, data utilized for this paper indicates public sector employees have been retiring 2.4 years earlier than private sector employees. This trend, coupled with the the public service generally being

older than the overall labour force will be important in the coming years as the demographic shift gains momentum and a record number of baby-boomers exit the workforce. Figure 4 below displays the average age of retirees in the Private and Public sectors.



Source: Statistics Canada Labour Force Survey and JAIS (PSC)

### 3.0 Challenges in Defining Retirement

Researchers face certain challenges when examining the concept of retirement, as there is no standard definition of the term, as discussed by Denton & Spencer (2008) and Bowlby (2007). Various components constitute retirement; for example, persons retiring

from a certain occupation and changing careers later in life would be considered retired yet continue to earn income from non-retirement sources. Denton & Spencer (2008) point to the complexity of retirement when they note, “retirement can be voluntary or involuntary, it can be gradual or sudden; and it can be temporary or permanent. It is clear that the notion of retirement is complex and that no one definition will satisfactorily represent all situations.” (p. 3).

Since retirement varies by individuals and there does not exist a comprehensive standard in defining the term, Bowlby (2007) explains that measuring the actual occurrence of retirement would be a lower priority for statistical agencies; rather a useful approach would be to have an accepted international standard that focuses on persons who are in the state of retirement, as opposed to measuring the actual number of retirements (2007). Denton & Spencer (2008) summarize the various definitions of retirement and note that academic papers usage of a particular definition depends mainly on the purpose of the study as well as data availability (p. 18). Statistics Canada’s standard definition of a retired person is one who is 55 years or older, and is not in the labour force, and receives 50% or more of their income from retirement-like sources (Bowlby, 2007).

The advantage of Statistics Canada’s measure of retirement is its objectivity, yet the definition is restricted to being applied only by household surveys, which contain labour and income modules; the two surveys that can successfully apply this measure are the Survey of Labour Income Dynamics (SLID) and the Census (Bowlby, 2007).

Bowlby further mentions that Statistics Canada’s definition was implemented in the 1990s with little information available as to the development of this measure. Denton &

Spencer further discuss the data sets which contain retirement data available in Canada and point to Statistics Canada's Labour Force Survey (LFS) and Longitudinal Administrative Database (LAD). The monthly LFS measures retirement based on the current labour force status and does not include sources of income. The LFS does not focus on the older population, but is instead a good source of information on the employed and unemployed; however, it is also the main source of data on the average and median age of retirement. LAD is mainly based on income and its sources, yet does not contain information on the labour force. Denton & Spencer's other work compares the measures of retirement in the LFS & LAD. They explain that researchers studying the issue of retirement desire data containing both sources of retirement income as well as labour force status. The authors indicate that a merging of the LFS and LAD would not be feasible, hence the SLID would be a good measure of retirement as it contains both labour force and income data originating from 1992 (Denton & Spencer, 2008).

Although the annual SLID contains useful longitudinal data, Bowlby suggests that SLID along with Census data may not be frequent enough for researcher's needs. Under the SLID, retirement is counted under three conditions: (i) when a person has spent a year outside of the labour market, (ii) the person has received retirement income in that period, and (iii) the person does not return to the labour market before the survey is complete (Bowlby, 2007). The General Social Survey (GGS) is an annual survey with rotating topics that last covered the issue of retirement in 2002. Survey respondents were grouped into three categories under "retired": (i) the last 12 months of activity was considered "retired", (ii) respondents who had some other activity over the past 12 months but answered yes to the question "Have your retired", and (iii) respondents whose main

activity was something else and said they had never retired, but answered yes to the question asking if they had stopped working due to a retirement-related reason. This particular definition of retirement relies on the perception of respondents, and since the survey is infrequent, may not be the first choice of researchers, says Bowlby (2007).

As the issue of the inevitable demographic shift and retirement becomes more important, the need for resilient data on retirements is required even more. The next section discusses the PSC's JAIS retirement separations data used for this paper.

#### **4.0 PSC JAIS Retirement Separations Data**

Data on the Public Service utilized in this paper was obtained from the Public Service Commission's Job-based Analytical Information System (JAIS) administered by the Public Service Commission of Canada (PSC). JAIS is an administrative database built through the longitudinal processing of pay and mobility data on the majority of federal public service employees who work for departments subject to the Public Service Employment Act (PSEA). The information from JAIS is based on data extracted from snapshots of the broader public service pay system managed by Public Works and Government Services Canada (Fox, 2008).

The retirement data from JAIS falls under 'separations', which are essentially reasons for leaving the workforce (i.e. pay system), whether it be for retirement or other reasons<sup>8</sup>. An employee is considered "retired" in the system if they are receiving retirement income. Separations data from JAIS is a snapshot of public service employees

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<sup>8</sup> The information mentioned above on JAIS separations data was obtained from discussions with Daniel Godin, Supervisor for Data Quality and Control for the Data Services Division at the PSC.

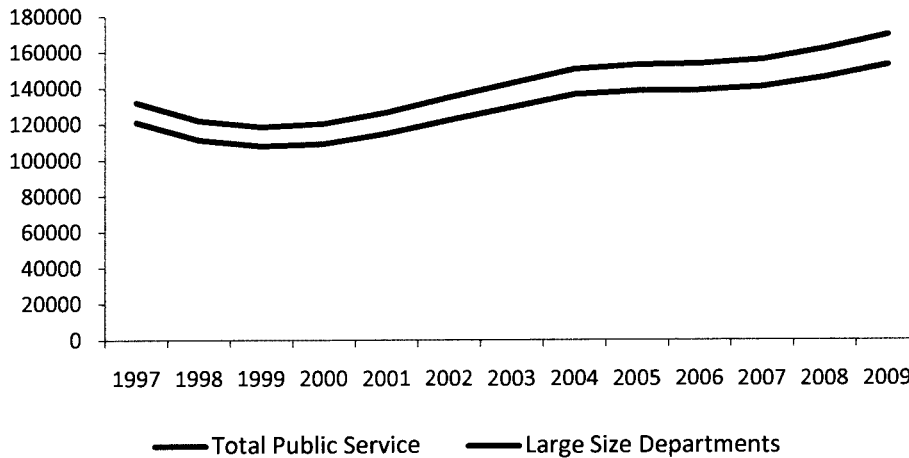
who are retired at a given time period (i.e. fiscal year). If an employee resumes paid employment at a later date, as a casual or on a contract basis for example, the process is captured in JAIS under 'staffing activities.' However, the separations database would also capture the person as being retired as well. For the purposes of this paper, separations are divided into retirement and non-retirement separations. Non-retirement separations, which are comprised of reasons such as resignation for outside employment, resignation for personal reasons, or death, are grouped into a single category in this paper's analysis. The main focus is on retirement separations, across the Public Service as well as by specific occupational groups. From JAIS, information on public servants' age was also gathered, as well as age at the time of retirement. Although JAIS retirement separations data may not be as robust as other sources of retirement data, (since it is not a measure of employees in a state of retirement) nevertheless, it provides descriptive information on the Public Service at a departmental and job level. Population, staffing activities and recruitment data is also provided by the JAIS database, which is used to compare the inflow versus outflow in the Public Service.

## **5.0 Analysis of the Canadian Federal Public Service**

The Public Service has grown over the 10 year study period by approximately 18%, with the population at 132,189 indeterminate (permanent) employees as of March 31<sup>st</sup>, 1997 to 156,052 indeterminate employees as of March 31<sup>st</sup>, 2007. For certain analysis, data is grouped by department size, where large departments have 2000 or more employees, medium have 999 – 500 employees, small departments have 499 – 100

employees and extra-small departments have 99 employees or less. Growth was experienced across the Public Service as shown in Figure 5 and 6 below.

Figure 5: Public Service Population, Total Public Service and Large Size Departments, 1997-2009

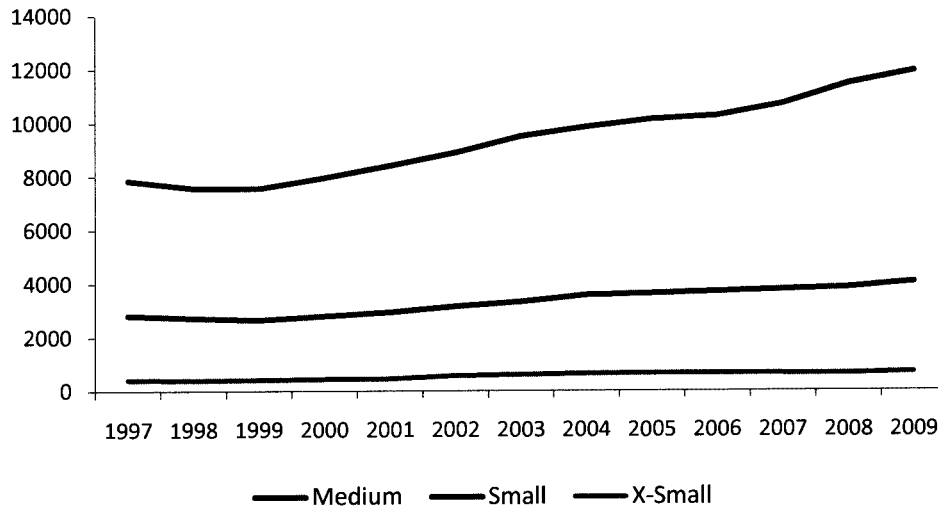


Source: Public Service Commission, Job-based Analytical Information System

As the Public Service population increased over this period, so too did the number of staffing activities. Here, staffing activities are defined as the recruitment, promotion, lateral & downward movements, and acting appointments of indeterminate employees. This essentially encompasses movement of employees into and within the Public Sector. Total staffing activities rose from 35,613 in 1997-1998 fiscal year to 67,283 for the fiscal year 2007-2008, an increase of 89%. In Figure 7, staffing activities are separated by age groups. One can notice a visible increase in the staffing activities of employees in the 50-54 age range, which increased by 3.6 percentage points, while staffing activities among 55-59 year olds experienced an increase by approximately 2.5 percentage points. Generally, this would imply older employees have increased their movement to and within the Public Service, whether it is as new recruitments, promotions, or movements

across departments (or within the same department) at the same occupational group and level.

Figure 6: Public Service Population - Medium, Small and Extra Small Size Departments, 1997-2009

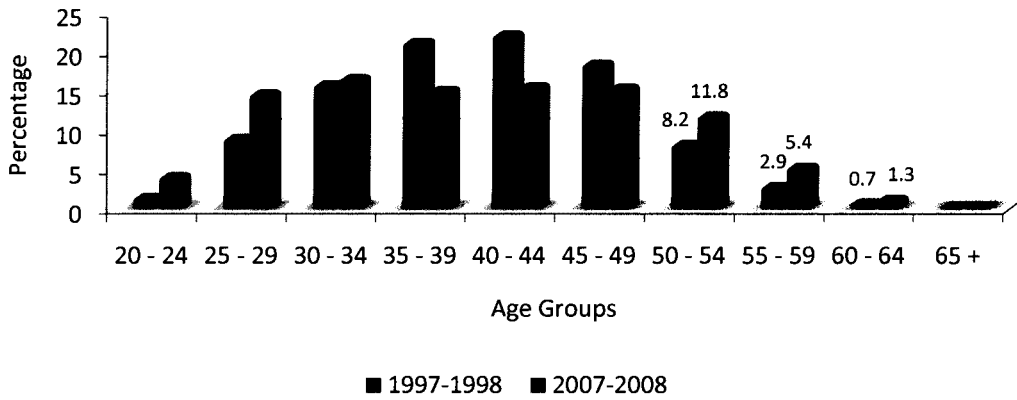


Source: Public Service Commission, Job-based Analytical Information System

The measure of staffing activities may be too broad of a measure when discussing an aging workforce or retirement. Hence, data is further broken down by only recruitments, so as to capture the number of new indeterminate employees in the Public Service. Recruitment data obtained will exclude the hiring of any employees on a student, casual or term basis, with only indeterminate (permanent) employees being considered. In Figure 8, recruitments by age group generally follow a similar trend as staffing activities. Among the older age groups, there has been a slight increase in recruitments. In 1997-1998, 137 recruitments occurred for the 45-49 age group, while in 2007-2008, 940 recruitments took place, an increase of 1.6 percentage points of total recruitments. This is also the case for employees in the 50-54 and 55-59 age groups,

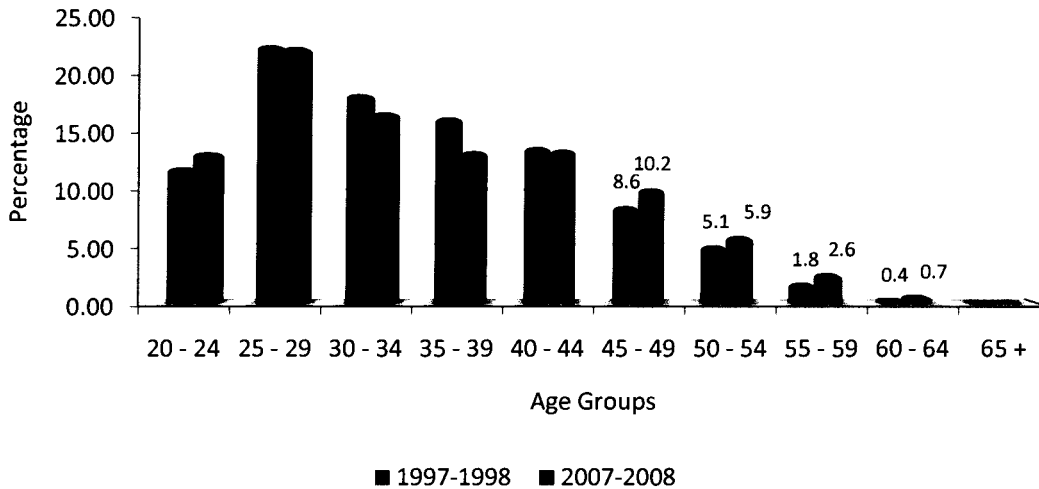
which saw a rise from 81 to 547 recruitments and 28 to 241 recruitments over the study period, respectively.

**Figure 7 : Staffing Activities in the Public Service  
by Age Groups  
1997-1998 vs 2007-2008**



Source: Public Service Commission, Job-based Analytical Information System

**Figure 8: Recruitment of Indeterminate Employees  
by Age Groups in the Public Service  
1997-1998 vs. 2007-2008**

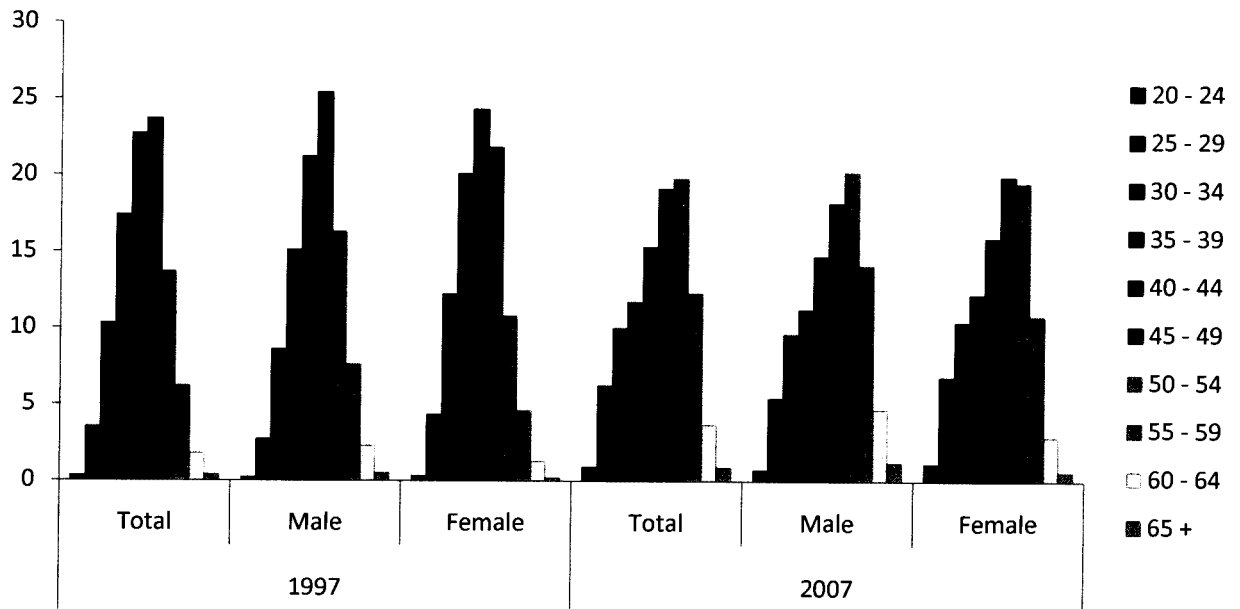


Source: Public Service Commission, Job-based Analytical Information System

The number of 60 and over employees has also slowly increased over the 10 year period as well. In 1997-1998, six 60-64 and two 65 plus employees were hired. In 2007-2008, these numbers rose to 63 and 11, respectively. While the data may not indicate if these older employees were already in a state of retirement and/or are receiving some form of retirement income at the time of recruitment, it does point to a trend of older employees being active in the Public Service labour force. This also enables the Public Service to retain valuable corporate knowledge if older workers are being rehired after retirement and shows that the trend of an aging workforce will continue in the Public Service over the next few decades as the demographic shift continues on its expected path.

To further illustrate changes in the age composition of the Public Service, the next few graphs will provide a breakdown of the population by gender and age groups. In Figure 9, the age structure is presented for 1997 and 2007, by gender. A gradual shift is visible as the percentage of 45-49 year olds, who were the majority in 1997 at 23.7% of the total workforce, fell to 19.1% in 2007. The 40-44 age range was the second largest at 22.7% of the total workforce in 1997, falling to 15.3% in 2007. Given the ten year shift, these employees who made up the greater part of the Public Service workforce are now older, which is visible in the graph. The 50-54 age group has become the majority rising from 13.8% to 19.7% for the Total Public Service. The percentage of 55-59 age group also witnessed a drastic increase, as it almost doubled from 6.2% in 1997 to 12.3% in 2007, for the total workforce. The current composition of males and females is quite similar, however the female population is slightly younger, having fewer employees 55 years and older and a larger proportion of employees in the 20 to 44 age ranges.

Figure 9: Age Structure in % of the Public Service  
Total, Males and Females  
1997 vs 2007



Source: Public Service Commission, Job-based Analytical Information System

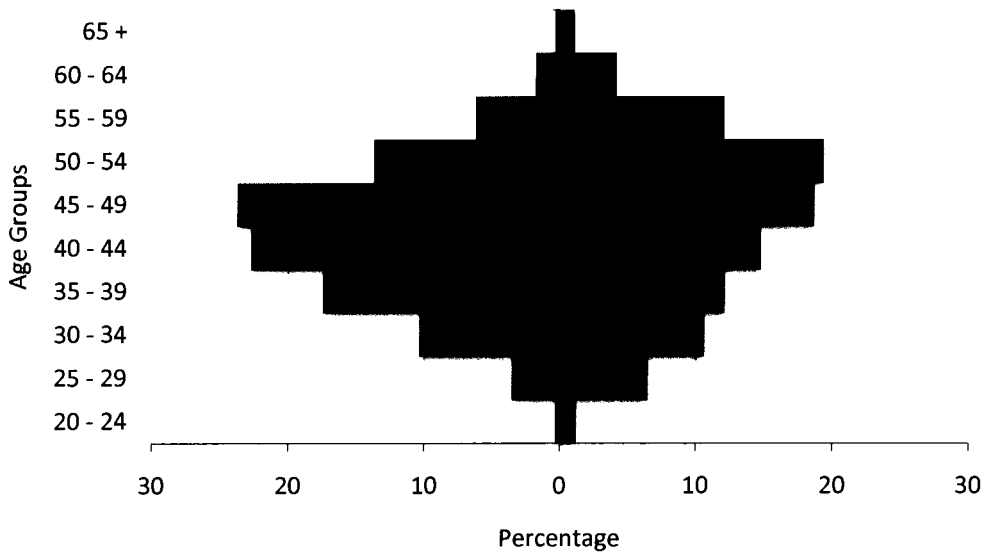
Figure 10 and 11 present similar developments, with the older age groups steadily increasing in size as employees inch closer to retirement age. In Figure 10, the 45-49 age group has gradually declined while employees in the 50-55 and 55-59 groups are on a steady rising trajectory. The 45-49 group has fallen by 5.8% from 23.7% in 2007 to 17.9% of the Public Service as of March 31<sup>st</sup>, 2009. The 55-59 age group saw a notable increase from 6.2% in 2007 to 11.8% of the Public Service as of March 31<sup>st</sup>, 2009. Figure 11 displays an age pyramid that visually represents the aging workforce, which is shown by the top-heavy shape of the pyramid as the age structure of employees grows older. In the final section on looking ahead to 2017, the proportion of select age groups will be forecasted in order to examine the aging trend in the Public Service.

Figure 10: Population of Select Age Groups (%)  
1997-2009



Source: Public Service Commission, Job-based Analytical Information System

Figure 11: Age Distribution of Public Servants  
1997-1998 vs 2007-2008



Source: Public Service Commission, Job-based Analytical Information System

Table 1 displays the age distribution for Public Servants aged 40 and above for the three snapshot years of 1997, 2003, and 2008. There has been a substantial increase in the proportion of 50-54 year olds who, as of 2008, comprised of almost 20% of the workforce. An aging coefficient was calculated by dividing the population of 45 and older employees by the total number of employees. This coefficient has risen from 45.9 in 1997 to 54.9 in 2008, which further illustrates the demographic shift occurring in the Public Service. Similarly, an aging intensity was calculated using the population of 55 plus employees over the population of 45 plus employees. This ratio has increased as well over the three snapshot years from 18.4 in 1997 to 31.0 in 2008. The bottom section of the table provides the average age of employees by gender in the Public Service. Males employees tend to retire on average 1.3 years later than their female counterparts, while the overall average age has risen over the three fiscal year snapshot dates by 4.4 years.

Table 1: Age Distribution in the Public Service

	1997	2003	2008
<b>Total Population</b>	132,189	142,870	161,981
<b>Proportion of Age Groups</b>			
<b>40 - 44</b>	22.7	17.7	14.7
<b>45 - 49</b>	23.7	20.9	18.6
<b>50 - 54</b>	13.7	20	19.3
<b>55 - 59</b>	6.2	9.7	12
<b>60 - 64</b>	1.8	2.7	4.1
<b>65 +</b>	0.4	0.5	1
<b>Average Age in Public Service</b>	43.5	44.5	44.9
<b>Aging Coefficient (45+/Total)</b>	45.9	53.8	54.9
<b>Aging Intensity (55+/45+)</b>	18.4	24.0	31.0

<b>Average Age of Retirees</b>	<b>1997-1998</b>	<b>2003-2004</b>	<b>2008-2009</b>
<b>Male</b>	53.9	57.7	58.5
<b>Female</b>	52.9	56.6	57.2
<b>Overall</b>	53.5	57.3	57.9

Source: PSC's Job -Based Analytical Information System (JAIS) and Author's Calculations

## 6.0 Retirements in the Federal Public Service

With an aging workforce, a rise in retirements is inevitable. Fox (2008) notes that as of March 2007, indeterminate employee retirements increased by almost three times the amount witnessed at the start of the millennium. The rapid pace of retirements can be attributed to Public Service employees being slightly older than the overall labour force, and that Public Servants tend to retire earlier than their counterparts in overall labour force. The surge in retirements among Public Servants can largely be attributed to the exodus of baby boomers from the workforce. Figure 12 shows the breakdown of retirement versus non-retirement separations for two fiscal years. There has been a 29% increase in retirement separations, meaning that as of 2007-2008, 5,875 employees left their positions due to retirement reasons.

While the data is available, the specific reasons for retirement are not explicitly shown in this paper. Retirements reasons in JAIS are categorized in three groups: due to illness, being entitled to immediate annuity, or elective retirement which has the option of an annual allowance or deferred annuity. Non-retirement reasons can include a wider variety of reasons for exiting the workforce, such as resignations (for personal reasons, for separate employer, or a return to school), layoffs, rejection during probation period, or death, but as mentioned earlier, these reasons are grouped into a single category for the purposes of this paper.

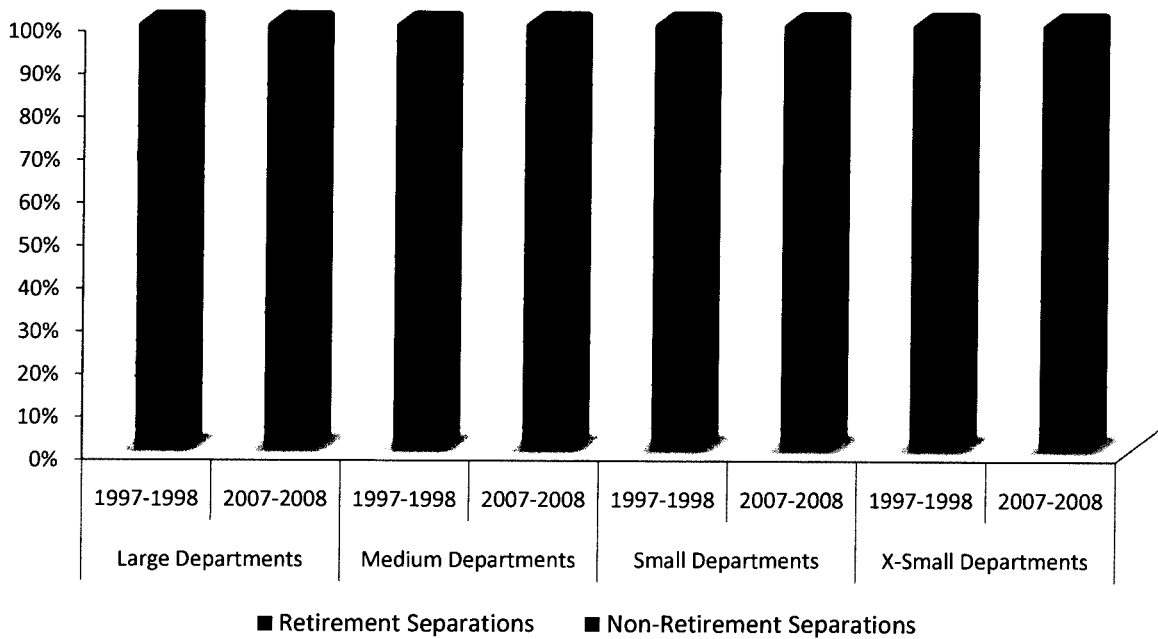
Figure 12: Public Service Retirement & Non-Retirement Separations - 1997-1998 vs 2007-2008



Source: Public Service Commission, Job-based Analytical Information System

Retirement and non-retirement separations are also displayed by department size in Figure 13. The pattern is similar across departments, as retirements increased over the ten year study period. Large sized departments witnessed a 30% increase in retirements over 10 years as 3,964 employees retired in 1997-1998, which rose to 5,271 retirees in 2007-2008. An increase in retirements was also experienced by medium, small and extra-small departments as well. Medium sized departments saw a 21% rise in retirements, as 180 more employees retired over the study period, while small and extra-small departments both experienced a 12% rise in retirements. The overall trend in the Public Service is that retirements are on the rise over the given study period, and will continue to rise as employees near retirement age.

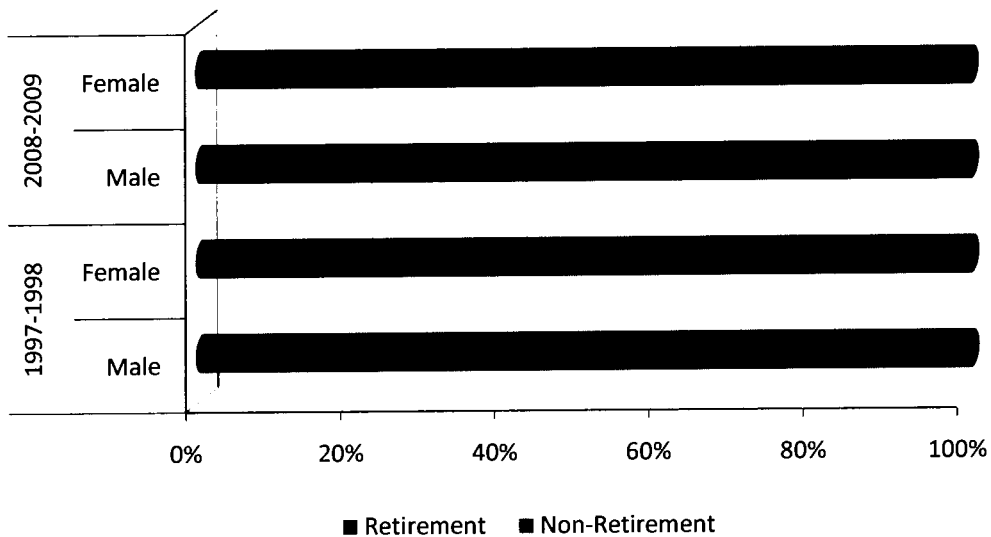
Figure 13: Public Service Retirement & Non-Retirement Separations by Department Size - 1997-1998 vs 2007-2008



Source: Public Service Commission, Job-based Analytical Information System

In Figure 14, retirements by gender are presented, which show that retirements separations increased by 27.6% for males and 26.3% for females. Generally, the population of women in the Public Service tend to be younger than their male counterparts. From Fox's 2008 report on Federal Public Service retirements, it is mentioned that the retirement patterns of men and women are on a path of convergence, and although both genders retired at approximately the same age, men had more years of pensionable service than women. These may be the reasons males have a higher rate of retirement as is presented in the graph below.

Figure 14: Public Service Retirement & Non-Retirement Separations by Gender - 1997-1998 vs 2007-2008



Source: Public Service Commission, Job-based Analytical Information System

While retirements have been on the rise, the data obtained shows that recruitments of permanent employees outnumber employees retiring for the fiscal year 2007-2008, as shown in Figure 15. This is a positive indication that the staffing of “new blood” currently exceeds the number of employees who are currently exiting the workforce. However, there are challenges in predicting if this trend will continue in the coming decades. The economic climate is a key factor that will impact recruitments by the Public Service in the future, as will be discussed at a later point. The breakdown of recruitments and retirements will be provided by occupational groups, to examine if certain groups are at risk of being understaffed due to an increase in retirements. As will be shown, the retirement and recruitments tend to differ among the select occupational groups, with some heavily recruiting younger employees over the study periods, while others are generally older and tend to recruit older employees, such as the Executive group.

Figure 15: Recruitments and Retirements in the Public Service, 1997-1998 vs 2007-2008



Source: Public Service Commission, Job-based Analytical Information System

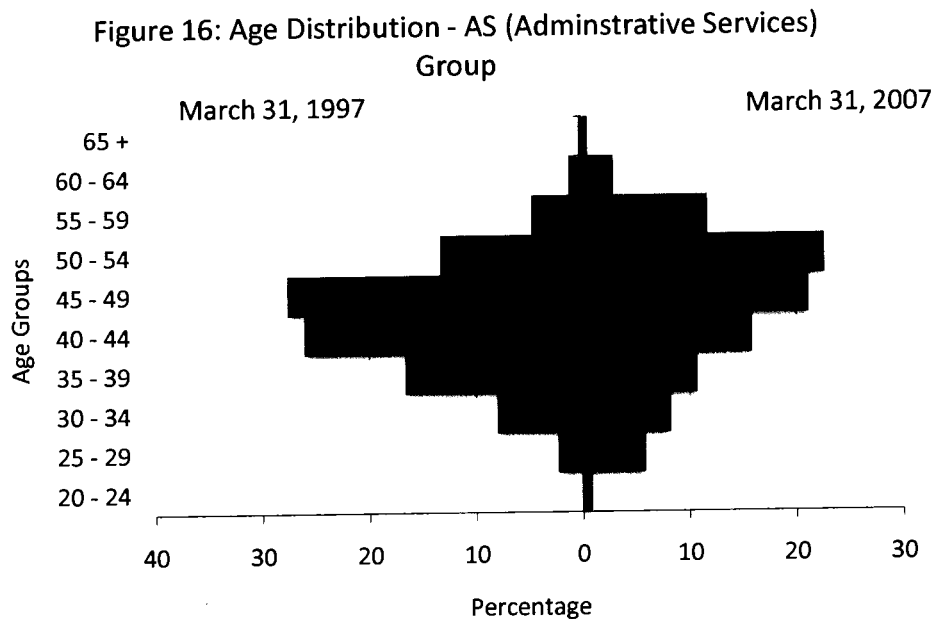
## 7.0 Analysis of Select Occupational Groups

The following section will examine, in greater detail, the seven selected occupational groups. A brief profile of each group's job description is presented, followed by their age and retirement distributions, over the study period. As mentioned earlier, these seven groups were chosen due to their particularly high levels of mobility within the Public Service.

### 7.1 Administrative Services (AS) Group

In keeping in line with PSC's Study on Mobility of Public Servants, seven occupational groups that were considered to have high rates of mobility were chosen for analysis in the study. This paper utilizes data on the same seven occupational groups with more of a focus on the retirement aspects of these groups. The first of the group is

Administrative Services (AS) which from the Treasury Board's website<sup>9</sup> is described as being composed of positions that are primarily involved in the planning, development, delivery or management of administrative and federal government policies, programs, services or other activities directed to the public or to the Public Service. Figure 16 presents an age distribution pyramid for the AS group. The visible shift over a 10 year period can be noticed as the older age groups increase in size, regardless of the increase in the population of younger AS employees in the 25-29 age range, which grew from 2.3% to 5.8%. The evident change occurs in the 50-54 group, which increased in proportion from 13.3% to 22.6% over the ten year period.

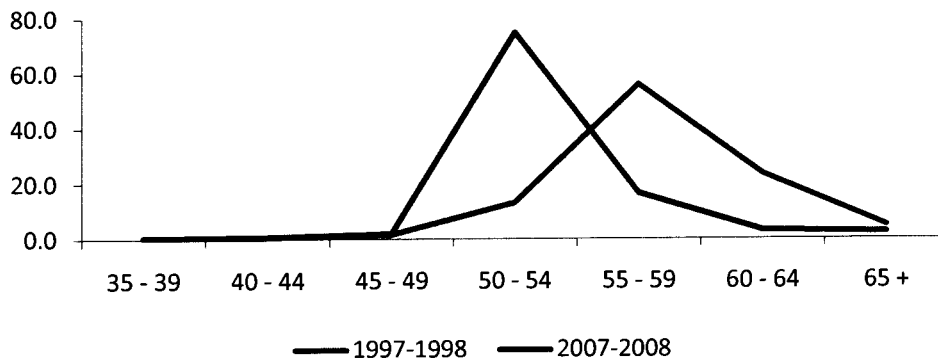


Source: Public Service Commission, Job-based Analytical Information System

<sup>9</sup> For a detailed description of occupational groups, see Treasury Board's website: <http://www.tbs-sct.gc.ca/cla/occ-eng.asp>

The AS group had the highest indeterminate population of the seven groups, with 20,951 employees in 2007-2008 (up from 10,982 in 1996-1997) comprising approximately 14% of the entire Public Service as of 2007-2008. The average age of AS employees has risen from 43.8 in 1997 to 45.4 for 2007, while the average age of AS retirees has increased from 52.3 in 1997-1998 to 57.1 in 2007-2008, an increase of 4.8 years. The average age of the AS retiree by gender has remained similar; 57.4 years for males and 57 years for females. Due to the high number of AS employees, there were a substantial number of AS retirements relative to the Public Service as a whole. In the overall Public Service, retirements increased by 36% from 4,312 to 5,876 from 1997 to 2007, whereas AS retirements more than doubled from 418 to 856, an increase of 105% for the same period.

Figure 17: AS Retirements Distribution in % of Age Groups



Source: Public Service Commission, Job-based Analytical Information System

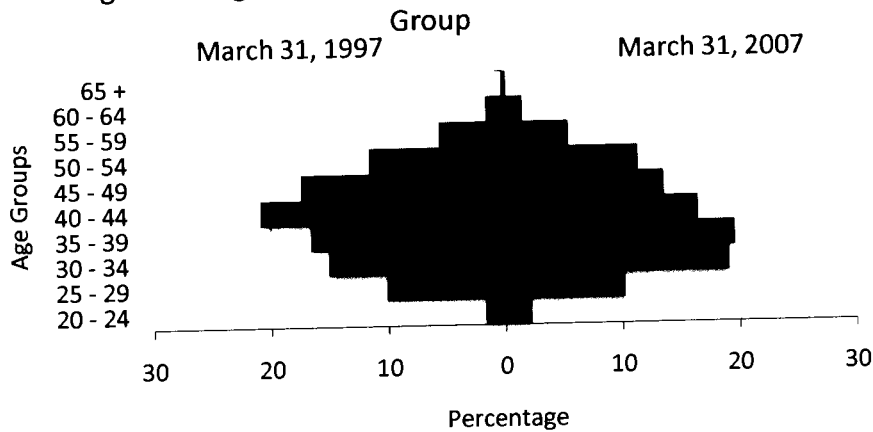
To illustrate the shift in retirement patterns in the Public Service, Figure 17 presents how the distribution of AS retirees has transferred to older age groups over a 10 year period. This trend generally applies to the other occupational groups in question, as

the number of older employees increase in number and their decision to retire is prolonged. AS retirees in the age 55-59 category constituted the majority of AS retirements in 2007-2008 and increased by nearly 40% over a 10 year period. For the fiscal year 1997-1998, approximately 75% of AS retirees were in the age range of 50-54. The data presented indicates that AS retirees are remaining in the Public Service labour force for longer periods, and that the AS occupational group is generally composed of older employees. The issue of recruitments versus retirements for the specific occupational groups will be presented after a brief analysis of each occupational group. The AS group is one of three occupational groups that has experienced a greater number of retirements compared to recruitments in both the 1997-1998 and 2007-2008 fiscal years.

## **7.2 Correctional Services (CX) Group**

The CX group is defined on Treasury Board's as consisting of positions that deal with the custody, control and correctional influence of inmates in the institutions of Correctional Service Canada and the training of staff engaged in custodial and correctional work at a Staff College of Correctional Service Canada. As of March 2007, the CX made up approximately 4% of the Public Service with 6,249 employees, an increase by 35% from 4,612 employees in March 1997. Figure 18 presents the age distribution between two snapshot years and is characterized by a generally bottom-heavy distribution, which indicates a younger workforce for the CX group.

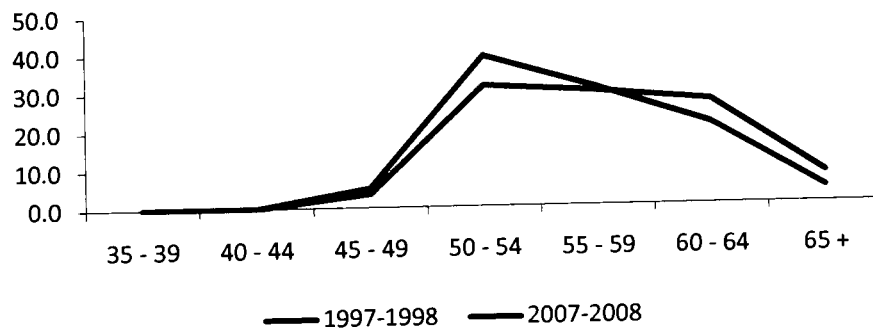
Figure 18: Age Distribution - CX (Correctional Services)



Source: Public Service Commission, Job-based Analytical Information System

The average age of CX employees has remained stable at around 40 years of age over the study period, while the average age of CX retirees has dropped by 1 year from 56.5 in 1997 to 55.5 in 2007. The percent change of CX retirements has increased by 74% with 115 employees retiring in 1997 and 200 employees retiring in 2007, while the average age for male CX retirees has dropped over the study period from 57 to 55.4 and has increased for female CX retirees from 48.3 to 56.1 over the same period.

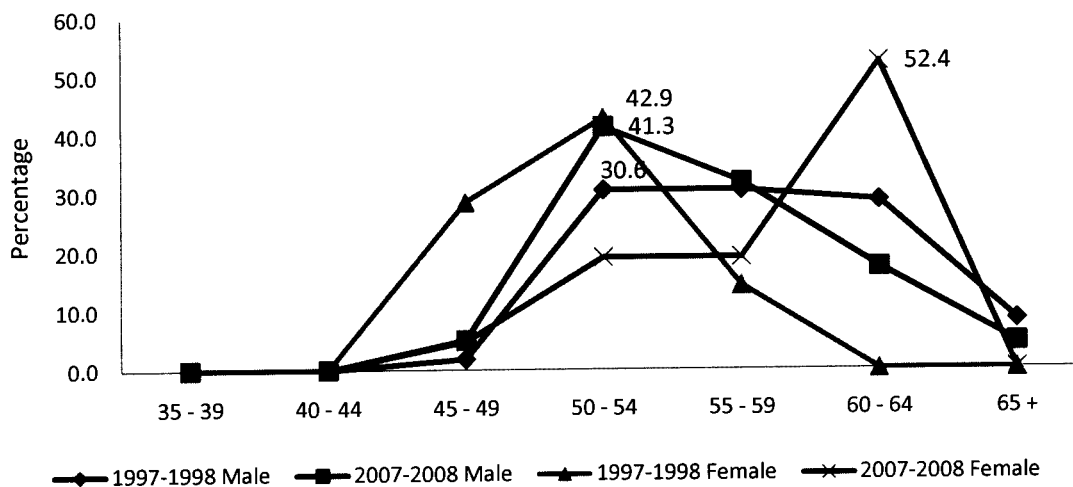
Figure 19: CX Retirement Distribution in % of Age Groups



Source: Public Service Commission, Job-based Analytical Information System

Figure 19 presents the retirement distribution of CX employees by age groups. In 1997-1998, a significant portion of employees retired at the 50-54 (31.3%) and 60-64 (27%) age groups, while in 2007-2008 the majority of CX employee retirees have shifted back towards the 50-54 (39%) range. This pattern is unique to the CX category, as fewer employees are retiring at older ages over the study period. Male and female retirement distributions in the CX group differ notably, as presented in Figure 20 below. Male CX retirees trends, rather than shifting towards later retirement, has moved towards relatively earlier retirement.

Figure 20 :CX Retirement Distributions by Age Group (%) :  
Male and Female  
1997-1998 vs 2007-2008



Source: Public Service Commission, Job-based Analytical Information System

For the fiscal year 1997-1998, CX male retirees were mainly centered around the 50-54 (30.6%) and 55-59 (30.6%) age ranges. Ten years later, the majority of male CX retirees are leaving at ages 50-54 (41.3%). Female CX retirees display a different trend, with the greater part of retirements in the 50-54 age range (42.9%) in 1997-1998, while in

2007-2008, female retirees chose to retire at an older age with the 60-64 range constituting 52.4% of retirees. This particular example of the CX group proves that while retirements generally are shifting towards later ages, this may not necessarily hold true when the data is analyzed by specific occupational groups and genders. In the majority of occupational groups analyzed, male and female retirement distributions follow similar trends. However, if any distinct differences present themselves in the data, then retirement distributions will be presented by gender.

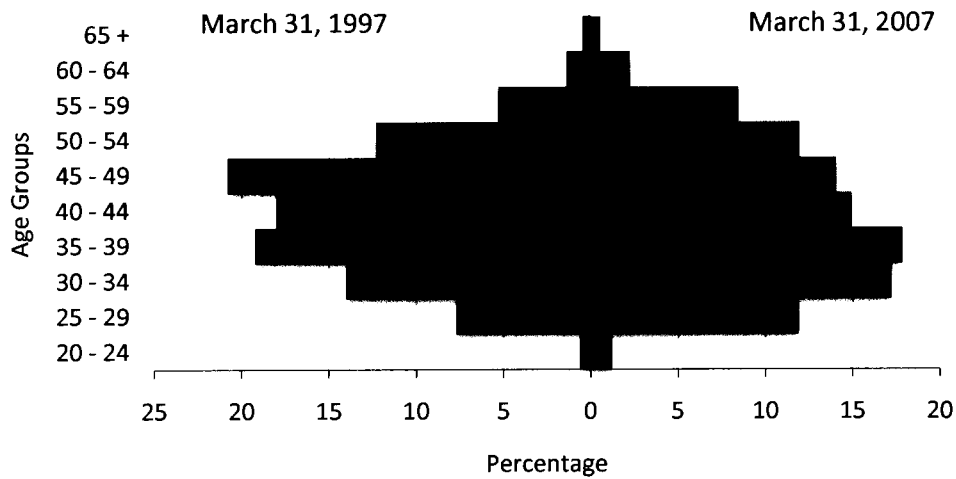
### **7.3 Economics, Sociology and Statistics (ES<sup>10</sup>) Group**

The classification standard for the ES group is defined as those who are involved in the conduct of surveys, studies and projects in the social sciences; and in the application of a comprehensive knowledge of economics, sociology or statistics to the conduct of economic, socio-economic and sociological research, studies, forecasts, surveys, and other related work. As of March 2007, the ES group accounted for 4.2% of the entire Public Service, with an average age of employees at 45.4 years. The ES group has performed well in terms of recruiting younger employees to off-set the older proportion of employees. While the proportion of 55-59 year olds has risen by 3.1% over 10 years, while the proportion of 25-29 year olds increased by 4.2% over the same period.

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<sup>10</sup> As of June 22, 2009, the ES and SI (Social Science Support) have been merged to form the EC (Economic and Social Science Support) occupational group. For more information, see Treasury Board's Classification Modernization of the EC Group: <http://www.tbs-sct.gc.ca/faq/ecg-eng.asp#gq1>

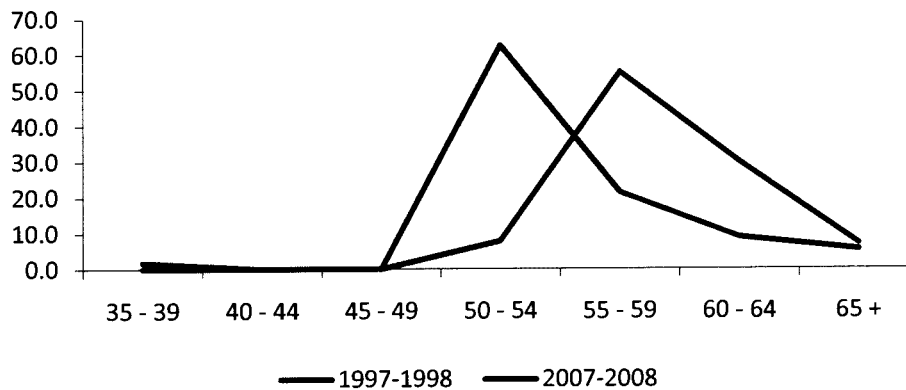
Figure 21: Age Distribution - ES (Economics, Sociology and Statistics) Group



Source: Public Service Commission, Job-based Analytical Information System

Given the population distribution of the ES group, it is well-positioned to face any large outflow of older employees, if the retirement and recruitment trends continue in the next few decades, as shown in Figure 21. ES retirees are, on average, older compared to any of the other occupational groups, possessing an average retirement age of 59 in 2007, which has risen from 54 in 1997. The ES group also has the oldest average age among female retirees of any of the other groups, at 58 years of age. There was not any significant differences in the retirements distribution among male and female employees in the ES occupational group.

Figure 22: ES Retirement Distribution in % of Age Groups



Source: Public Service Commission, Job-based Analytical Information System

Figure 22 displays the retirement distribution of the ES group, which follows the common pattern of retirements shifting to an older age group. However, in terms of retirements, the ES group had the highest percentage increase in the number of retirements out of all the other occupational groups. The percentage change in retirements in the overall Public Service was from 4,312 in 1997 to 5,876 retirements in 2007, an increase of 36%. The ES group had 56 retirements in 1997 and 140 retirements in 2007, resulting in an increase of 150%. While the ES group possesses the highest percentage increase in retirements, it also performs the strongest in terms of recruiting younger employees, as will be discussed further in this paper.

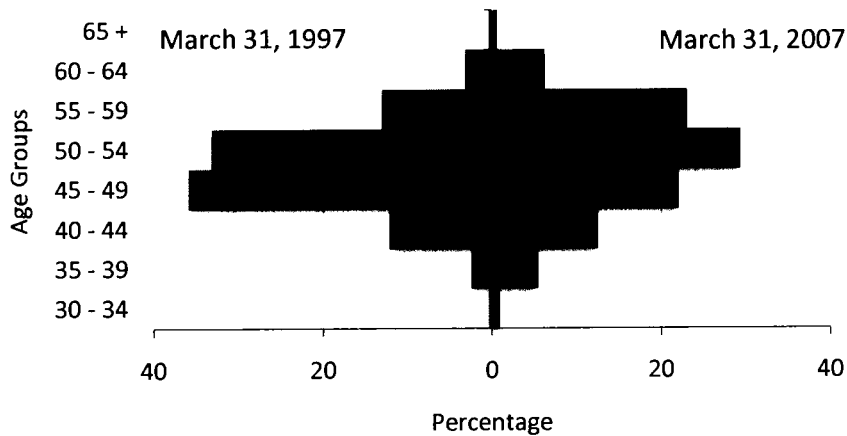
#### 7.4 Executive (EX) Group

The Executive group is made up of positions which are no more than three hierarchical levels below the Deputy or Associate Deputy level and have significant

executive managerial or executive policy roles and responsibilities or other significant influence on the direction of a department or agency. The EX group is essentially employees in the Public Service who perform at the Director level and above. Due to the educational and/or experience requirements of the EX level, employees of this particular occupational group often are older than the remaining groups, with the average age in 2007 of EX employees at 50.6 years. The EX group comprises 2.5% of total Public Service employees as of 2007, with 3,971 employees. This is a 44% increase from 1997, when the EX population was at 2,761 employees.

The age distribution of EX employees is presented in Figure 23, which displays a 10% increase in the proportion of EX's aged 55-59. The proportion of 60-64 year olds experienced an increase of 3.1% over the study period. The proportion of 40-44 year olds has remained constant at around 12% while the proportion of 45-49 year olds has declined by approximately 14% over the study period. It is also worth noting that the EX group possesses the highest proportion of 60-64 year olds out of any of the occupational groups mentioned, with 6.2% of the EX population falling in this age range. This feature is understandable, as reaching the EX level requires more years of service than the other occupational groups.

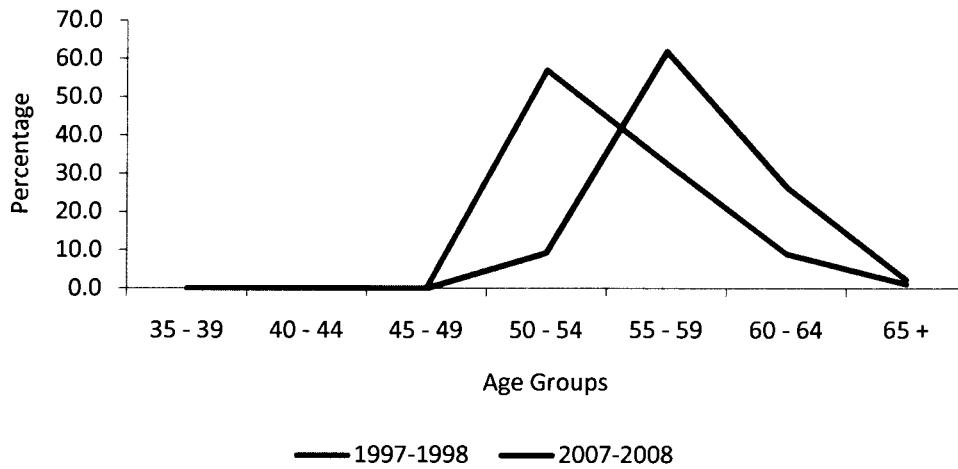
Figure 23: Age Distribution - EX (Executive Group)



Source: Public Service Commission, Job-based Analytical Information System

Over the next few decades, the number of EX employees working at a later age will inevitably increase, which means delaying retirement or returning to paid employment on a casual or contract basis. This issue is crucial in order to retain and transfer corporate knowledge, especially for EX employees who have gathered many years of valuable experience and knowledge. In Figure 24, the retirement distribution of EX follows similar patterns of the other occupational groups, as the shift of retiring at later ages continues, with a large percentage of EX employees retiring at the 55-59 and 60-64 age range, both of which increased by 29.1% and 17.5% over the study period, respectively. No significant differences in the retirement distribution patterns between male and female EX employees were found, and female EX retirees were on average 1.4 years younger than their male counterparts at 56.8 years in 2007-2008 and male EX employees retiring at 58.2 years on average.

Figure 24: EX Retirement Distribution in % of Age Groups



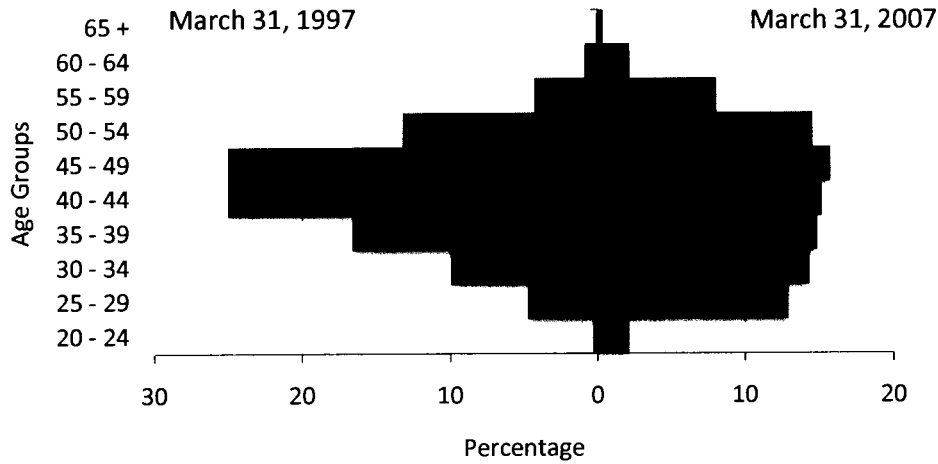
Source: Public Service Commission, Job-based Analytical Information System

## 7.5 Financial Administration (FI) Group

The fifth occupational group is the FI group, which mainly works in the planning, development, analysis, delivery or management of internal Public Service financial policies, programs and services. As of March 2007, the FI group consisted of 2.1% of the Public Service, with 3,313 employees, a 57% increase from 1997, when the FI population was 2,112 employees. The average age of FI employees for 2007 was 41.4 years, down from 42.9 years in 1997. The FI population age distribution is characterized by a noticeable shift over the ten year study period with a larger percentage of younger employees balancing out the proportion of older FI employees, as seen in Figure 25. In 1997, fifty percent of FI employees fell in the 40 to 49 age ranges, while ten years later a more even distribution was found, with only approximately thirty percent of employees falling in the 40 to 49 age ranges. This feature of a round age-pyramid will likely better

position the FI group as a larger portion of Public Service employees enter the older age groups.

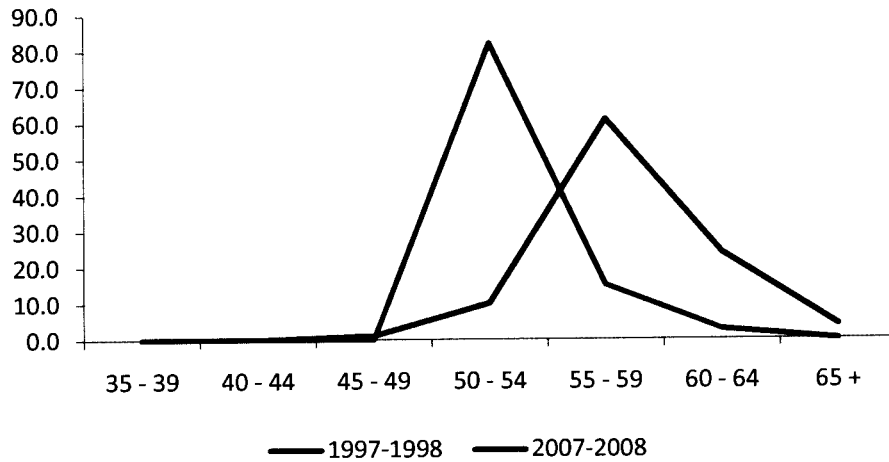
Figure 25: Age Distribution - FI (Financial Administration)



Source: Public Service Commission, Job-based Analytical Information System

The proportion of FI retirements by age groups experiences a similar trend as the other occupational groups, as seen in Figure 26. Over the ten year study period, the percentage of retirees in the 55-59 age range increased from 15.1% in 1997-1998 to 61% in 2007-2008, while a 21% increase in retirees in the 60-65 age range occurred over ten years. The average age of female FI retirees in 2007-2008 was 2 years younger than male retirees, at 56 years, while the average age of retirement for both male and female FI employees was originally 52 years in 1997-1998. The retirement distribution among the genders is quite similar, however a larger portion of female employees has been shown to retire in the 50-54 age range for the fiscal year 2007-2008; 23.5% compared to only 3% for male FI retirees.

Figure 26: FI Retirement Distribution in % of Age Groups



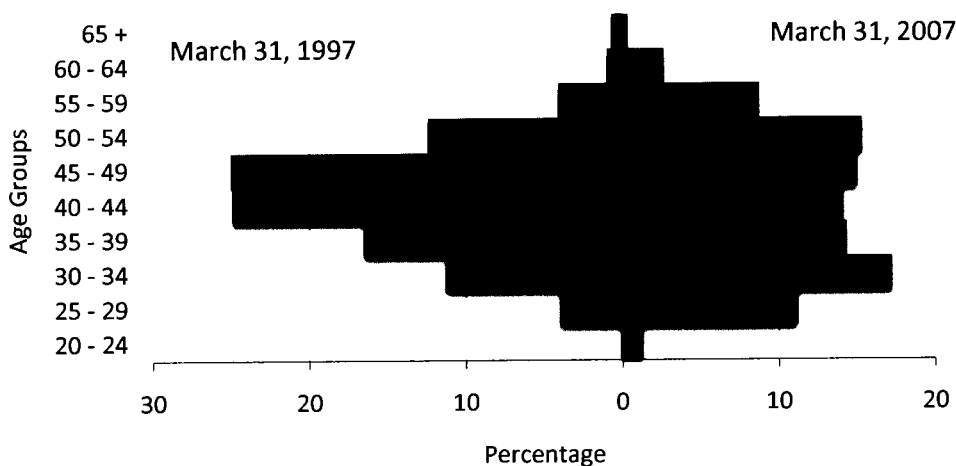
Source: Public Service Commission, Job-based Analytical Information System

## 7.6 Information Services (IS) Group

The IS group is described as those positions mainly involved in the planning, development, delivery or management of administrative and federal government policies, programs, services or other activities directed to the public or to the Public Service. As of March 31<sup>st</sup>, 2007, the IS group consisted of 1.7% of the Total Public Service with 2,673 employees, up from 1,198 employees in 1997. The average age of IS employees has declined by 1.1 years over the study period to 41.8 in 2007. In Figure 27 the age distribution pyramid for the IS group is presented, showing quite a pronounced difference over the study period. In 1997, about 50% of the IS population was centered around the 40 to 49 age range. By 2007, a more even distribution had been achieved, with substantial increases in the proportion of younger employees. The 25-29 group had

increased from 4% to 11.2% while the proportion of employees 30-34 rose from 11.3% to 17.2% over the study period.

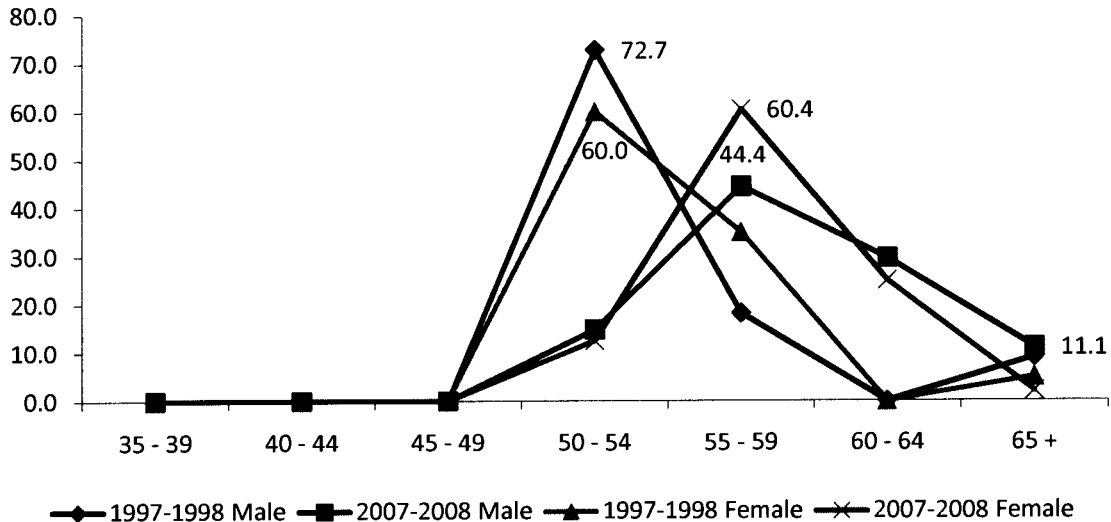
Figure 27: Age Distribution - IS (Information Services)



Source: Public Service Commission, Job-based Analytical Information System

Figure 28 presents the retirement distribution of IS employees by gender, which shows the shift towards later retirement. However, the unique feature for the IS group is that it has the highest proportion of male retirees out of all the selected occupational groups who retire in the 65 plus age range. The male retirement distribution by age groups shifted over the study period, however, data shows that male IS employees choose to retire at later ages; for the fiscal year 1997-1998, 9.1% retired at 65 or later, while this figure increased to 11.1% in 2007-2008. Even in the EX group, male retirees in the 65 plus range was only 3.7% of the EX population for 2007-2008. Certain characteristics of the IS group may facilitate late retirement and could be an area of further study.

Figure 28 :IS Retirement Distributions by Age Group (%) :  
Male and Female  
1997-1998 vs 2007-2008

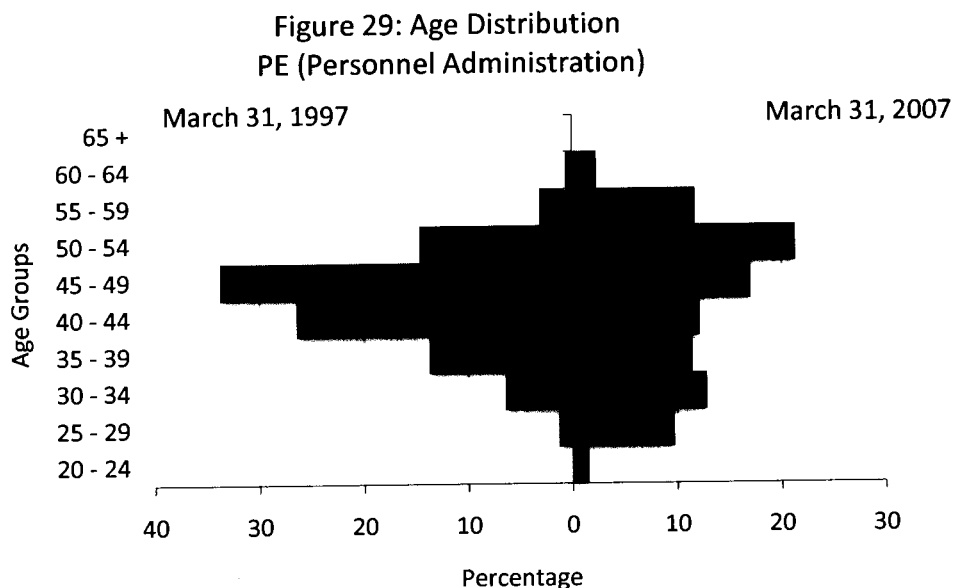


Source: Public Service Commission, Job-based Analytical Information System

## 7.7 Personnel Administration (PE) Group

The final occupation group is the PE group, which falls under the umbrella of Human Resources Management (HM) and comprised 2.2% of the Public Service in 2007, with 3,396 employees, up 52% from 2,233 employees in 1997. The average age of PE employees has declined to 43.6 years in 2007 from 44.2 years in 1997. The age distribution of the PE group, represented in Figure 29, shows improvements in the hiring of younger employees over the study period. However, the largest portion as of 2007 was the 50-54 year olds, which made up 21.3% of employees, up from 14.6% in 1997. The 40-44 and 45-49 age groups have declined significantly, 14.3% and 16.7%

respectively, and the overall distribution has improved in terms of younger employees in the 25-29 and 30-34 age ranges, which increased by 8.4% and 6.4%, respectively.

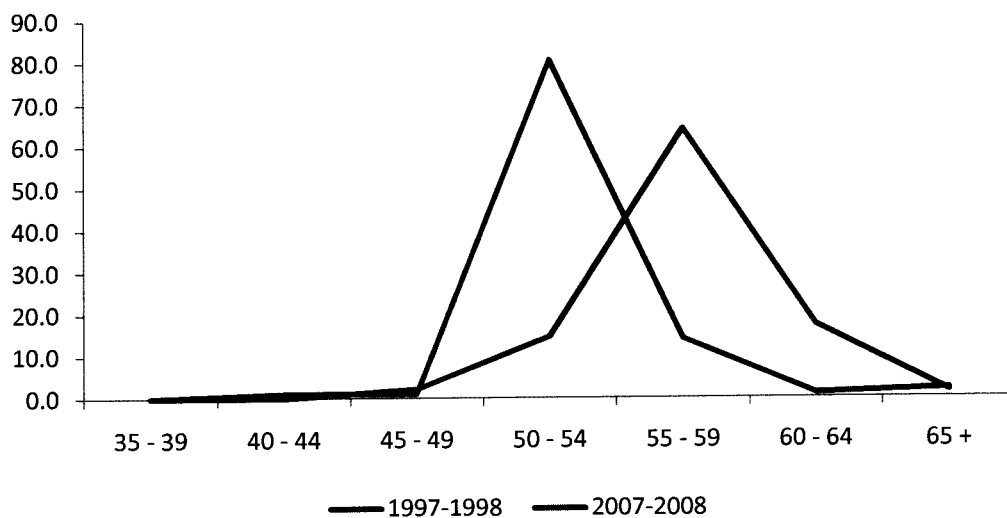


Source: Public Service Commission, Job-based Analytical Information System

The retirement distributions by age group are presented in Figure 30, which follow the general trend found in the other occupational groups. There was not any substantial differences among the genders in terms of retirement distributions, and the demographic shift in the Public Service presents itself again, with the retirements at ages 55-59 increasing to 64.1% in 2007-2008, up from only 14.1% in 1997-1998. The increase in PE retirements in the 60-64 range also rose quite considerably, up to 17.4% in 2007-2008 from 1.1% in 1997-1998. As the population of the Public Service continues to age, employees will either be retiring into their later years or choose to retire in large

numbers once their years of eligible service for receiving retirement. The next section discusses the issue of recruitments among the select occupational groups.

Figure 30: PE Retirement Distribution in % of Age Groups



Source: Public Service Commission, Job-based Analytical Information System

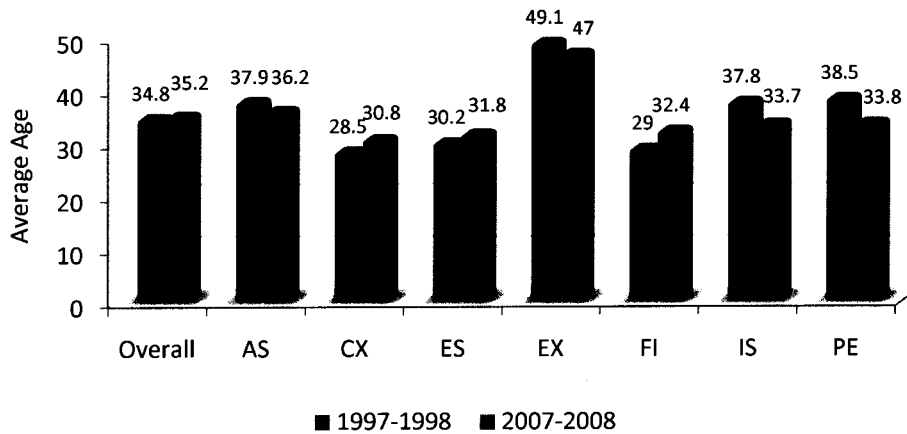
## 8.0 Recruitment of Indeterminate Employees

While the issue of an aging workforce and retirements are at the forefront of research, so is the very important matter of recruitment. The hiring of new employees will help to fill gaps in the Public Service labour force as larger numbers of employees exit due to retirement reasons. A news article from March 2010 notes the Public Service will continue to recruit new employees regardless of the Harper government's three-year freeze on departmental operating budgets (May, 2010). Renewal of the Public Service is important as the number of retirements continue to rise. The Public Service Renewal

program, introduced in 2006, will continue to play a key role, since the current political and economic climate tightens resources while the inevitable demographic shift continues to impact the workforce each year.

The average age of indeterminate recruits has risen by 0.4, from 34.8 to 35.2 over the study period, which indicates that employees are entering the Public Service labour force at a later age.

Figure 31: Average Age of Indeterminate Recruits in the Public Service, 1997-1998 vs 2007-2008



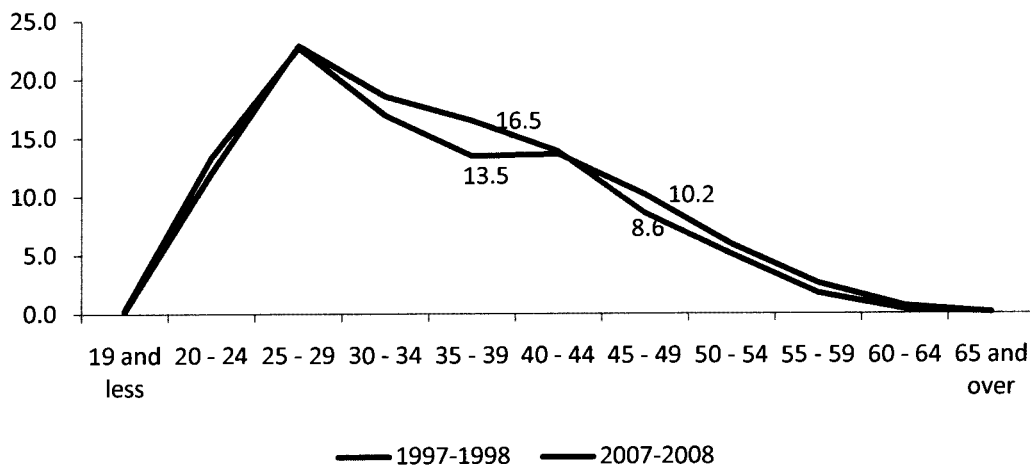
Source: Public Service Commission, Job-based Analytical Information System

Figure 31 displays the average age of recruits by occupational group, where the most noticeable change is found in the PE group, which experienced a drop in the average age of recruits by 4.7 years, from 38.5 to 33.8 years. The largest increase occurred in the FI group, which saw its average recruit age from 29 to 32.4 years over the study period, an increase of 3.4 years.

The recruitment of indeterminate employees by age group shows improvement in the sense that the largest percentage of recruits in the Public Service enter from the 25-29

age group (23%), which has not changed over the study period. In Figure 32, the recruitment of permanent employees by age groups is presented; fewer employees were hired from the 35-39 age group, which witnessed a drop of 3 percentage points, while the older age ranges experienced a slight increase over the ten year period, with an increase in hires of employees in the 45-49 range by 1.6 percentage points.

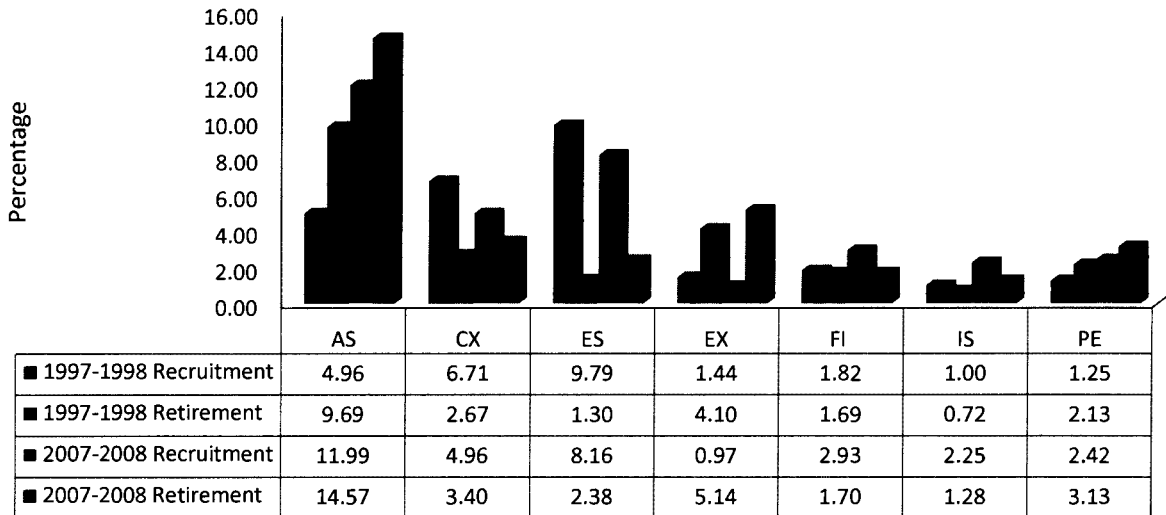
Figure 32: Recruitment of Indeterminate Employees by Age Group (%)  
1997-1998 vs 2007-2008



Source: Public Service Commission, Job-based Analytical Information System

Using data on the seven occupational groups discussed above, a comparison can be made on the percentage of recruitments versus retirements. This is presented in Figure 33, which displays the percentage of recruitments of indeterminate employees by occupational group, as percentage of total indeterminate recruitments, compared to retirements as a percentage of total retirements. The three occupational groups which exhibit the characteristic of having a higher percentage of retirements than recruitments, when comparing the overall Public Service, are the AS, EX and PE group.

Figure 33: Recruitment and Retirements by Occupational Group  
as a Percentage of Overall Public Service  
1997-1998 vs 2007-2008



Source: Public Service Commission, Job-based Analytical Information System

The most pronounced difference is found in the AS group, which exhibited a proportion of retirements at 14.57% of overall retirements in the Public Service as of 2007-2008, while AS recruitments were shown to be 11.99% of overall recruitments in the Public Service. For the fiscal year 2007-2008, 1,108 AS employees were recruited while 856 AS employees retired. The AS group has improved their recruitment over the study period, however, as the aging workforce continues retire, the next few decades will be important as the continued recruitment of younger employees will play a crucial role in the renewal of the Public Service.

The EX group shows a low percentage of recruitment, compared to overall Public Service recruitment, at only 0.97% in 2007-2008, with EX retirements at 5.14% of the overall Public Service for the same fiscal year. In 2007-2008, 90 EX employees were recruited while 302 retired. The PE group shows a similar trend, where PE recruitments

make up 2.42% of total Public Service recruitments and PE retirements make up 3.13% of total Public Service retirements. In 2007-2008, 224 PE employees were recruited while 184 PE employees retired. As of 2007, the age distribution of the PE group was composed of 21% 50-54 year olds, meaning that over the duration of twenty years, a large proportion of PE employees will be ready to exit the workforce, and thus recruitment will play an important role in maintaining a relatively young workforce. By analyzing specific occupational groups, it is evident that certain professions are more vulnerable to the upcoming shift in the Public Service demographic.

## 9.0 Looking Ahead

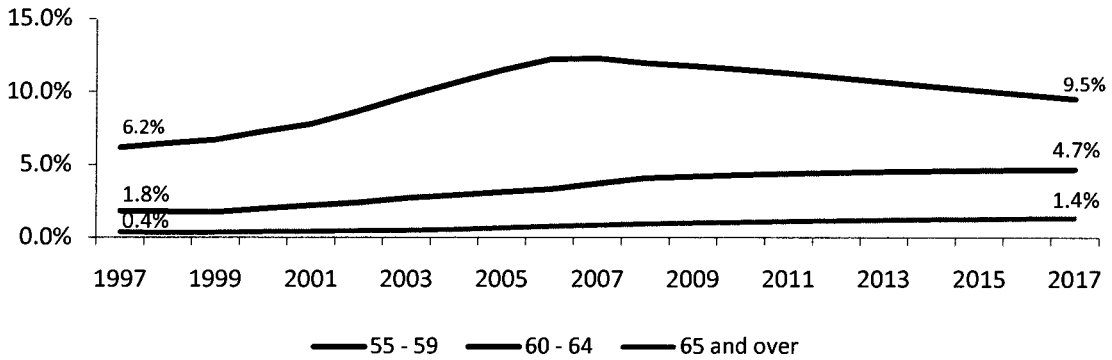
For the final section of the paper, a projection will be forecasted to the year 2017 using JAIS data and the PASW<sup>11</sup> 18 Time Series Modeler. The modeler procedure includes an Expert Modeler that automatically identifies and estimates the best-fitting ARIMA (Autoregressive Integrated Moving Average) model for one or more independent variable series. The Public Service has grown quite significantly since the downsizing of the 1990s, yet the economic conditions may not always allow such growth to occur in the future. However, if one assumes that Public Service growth continues to follow the same trend as it has over the past ten years, Figure 34 shows a projection to 2017 where the proportion of older employees steadily increases. The proportion of 55-59 year old employees is forecasted to rise from 6.2% to 9.5% in 2017, while the proportion of 60-64 year olds rises to 4.7% in 2017 from 1.8% in 1997. Ten years ahead

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<sup>11</sup> SPSS software was called PASW (Predictive Analytics Software) between 2009 and 2010

may not be a lengthy projection into the future; however a similar trend may be applicable to two or three decades in the future. By the year 2031, which is 21 years from the present, the high end of the baby boomers (those born in 1966) will be age 65 and preparing for retirement from the Public Service.

Figure 34: Population Projection in the Public Service for Select Age Groups (%) 1997-2017

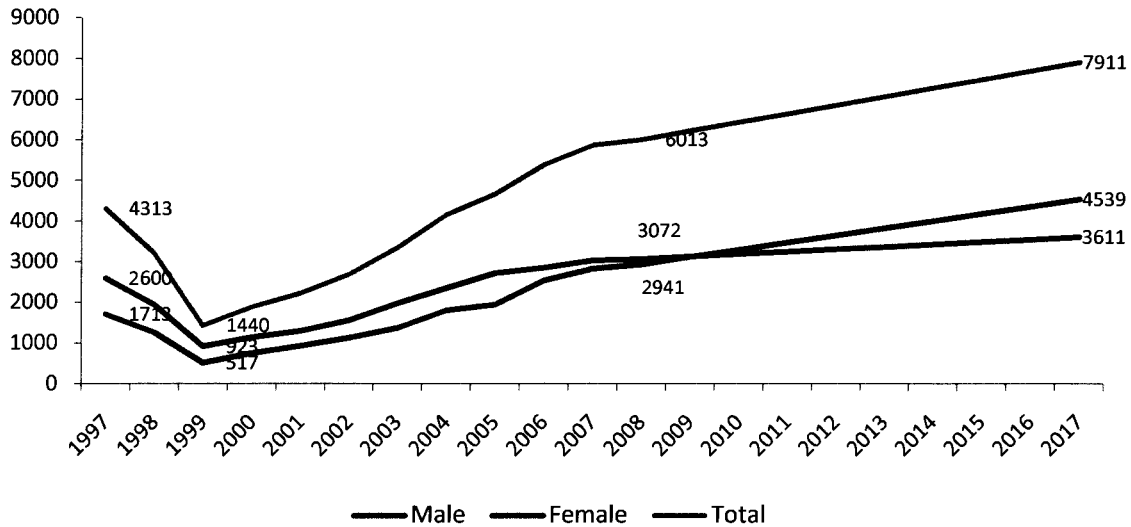


Source: Public Service Commission, Job-based Analytical Information System and Author's Calculations

This is, of course, assuming that Public Servants will choose to retire at later ages in the future. A similar projection is made using data on the number of retirements from the Public Service, which is presented in Figure 35. The graph displays the total number of retirements in the Public Service as well as total retirements by gender, and is characterized by a constant increase since 1999. Total retirements are forecasted to increase up to 7,911 for the overall Public Service, while female retirements are expected to surpass male retirements by 2017. This may be an accurate depiction of future trends, as the female population in the Public Service outnumbered the male population by

around 20,000 employees in 2009. The sharp decline in retirements during the late 1990s and early 2000s was likely influenced by the bursting of the dot-com bubble.

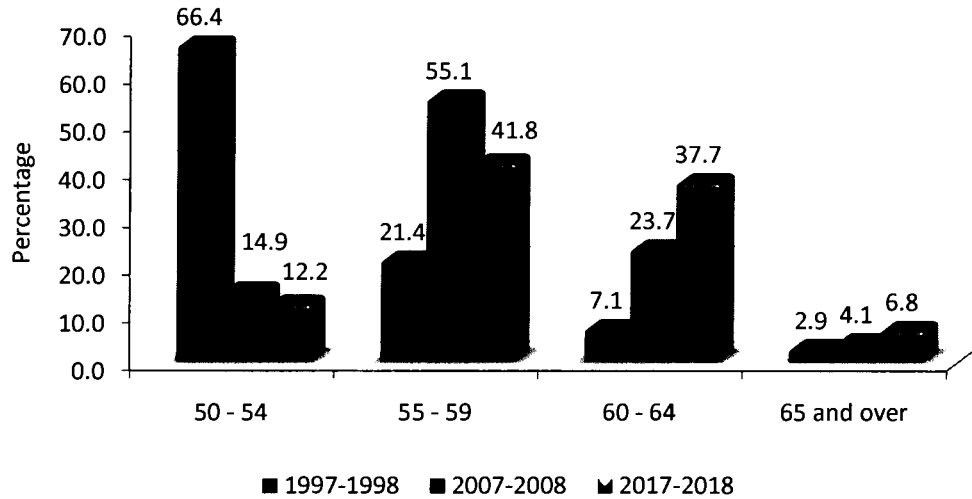
Figure 35: Forecast of Number of Retirements in the Public Service, Total, Male, and Female 1997-2017



Source: Public Service Commission, Job-based Analytical Information System and Author's Calculations

Retirements are also forecasted as a distribution among age groups in Figure 36, over three snap-shot fiscal years: 1997-1998, 2007-2008, and 2017-2018. The forecast predicts a considerable increase in the proportion of retirees in the 60-64 age range. Again, this forecast relies on the assumption that Public Service employees will choose to retire in their later years, regardless of their years of pensionable service, and that retirements will continue on their upward path. It should be noted that this assumption may not be completely implausible since data from the study period clearly shows a shift in the retirement patterns of Public Servants who are retiring later in their careers.

Figure 36: Distribution of Retirements in the Overall Public Service  
by Select Age Groups  
1997-1998, 2007-2008, 2017-2018



Source: Public Service Commission, Job-based Analytical Information System and Author's Calculations

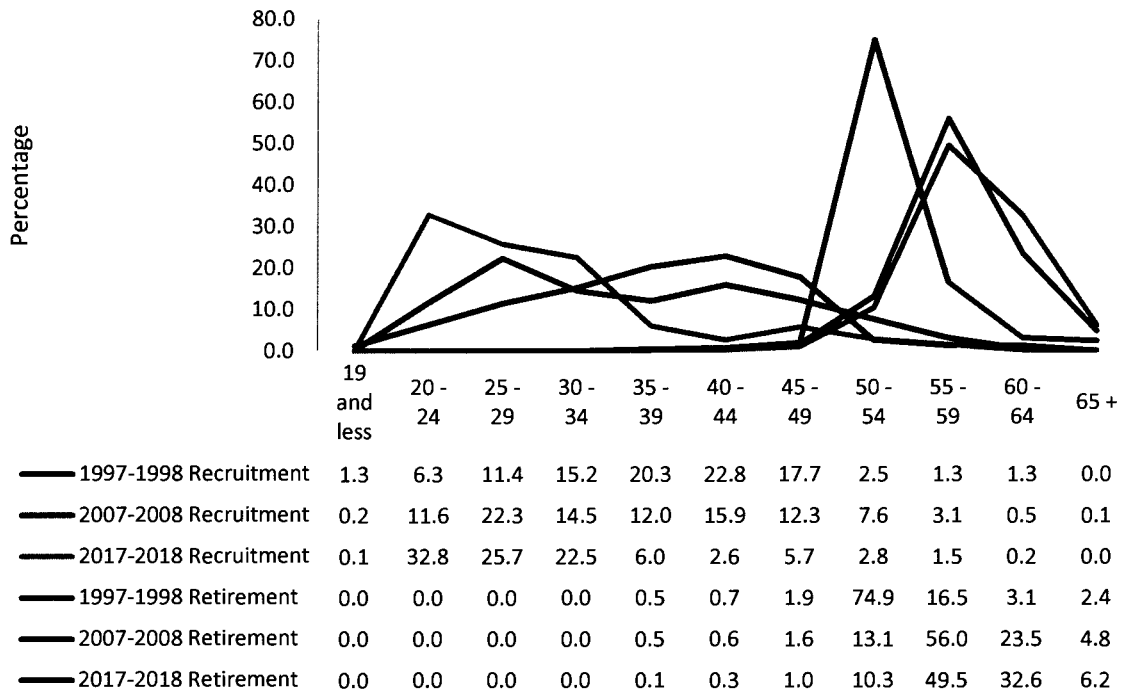
Factoring in increases in life-expectancy, higher costs of living, as well as the recent financial crisis cutting into people's retirement savings, workers may decide to remain in the workforce into their later years of life. However, the issue of retiring later is quite complex in itself, since employers must be willing to retain older employees by offering employment opportunities, flexible hours, or utilizing phased-in retirement work arrangements. The Conference Board of Canada noted in October 2008 that Canadian employers in the Public and Private sectors had not put in place policies or provided adequate funding towards retaining older employees (Proudfoot, 2008).

The final section will look at the three particular occupational groups: the AS, EX and PE groups, in order to forecast the trends their respective recruitment and retirement patterns follow. As of the fiscal year 2007-2008, these three particular groups saw higher rates of retirement versus recruitments as a percentage of overall retirements and

recruitments in the Public Service. In Figure 37, the distribution of recruitments and retirements for the AS group are plotted along with the forecast for each for the fiscal year 2017-2018. As the retirements shift out toward older age groups over the study period, the recruitment patterns for the AS group have shifted over the ten year study period towards the younger age groups. The forecasts do not take into consideration the instability of the economy which may impact recruitment and also assumes that employees will necessarily want to extend their working careers into their later years, rather than exit the workforce after their required years of pensionable service. Nevertheless, the graphs present a general pattern to recruitment and retirements for the AS group. It is projected that about 32.6% of AS retirees will retire in the 60-64 age range, while the majority of AS retirees will remain in the 55-59 age range at 49.5%, in 2017.

Following the trend of AS recruitments over the study period, future recruitments are forecasted to increase drastically for the 20-24 age range. The AS group has dramatically improved its recruitment trends from 1997-1998 to 2007-2008, as the recruitment of employees aged 25-29 rose from 11.4% to 22.3%, over the study period. This projection may be improbable, as sources have shown that new employees are beginning their careers at later ages due to more time spent on educational attainment. However, if the intake of new employees increases through bridging mechanisms of students over the next few decades, such as through the Federal Student Work Exchange (FSWEP) program, then the projection of recruiting younger AS employees may not be far-fetched.

Figure 37: AS Group Recruitment vs Retirement Distributions (%) by Age Groups:  
1997-1998, 2007-2008, 2017-2018

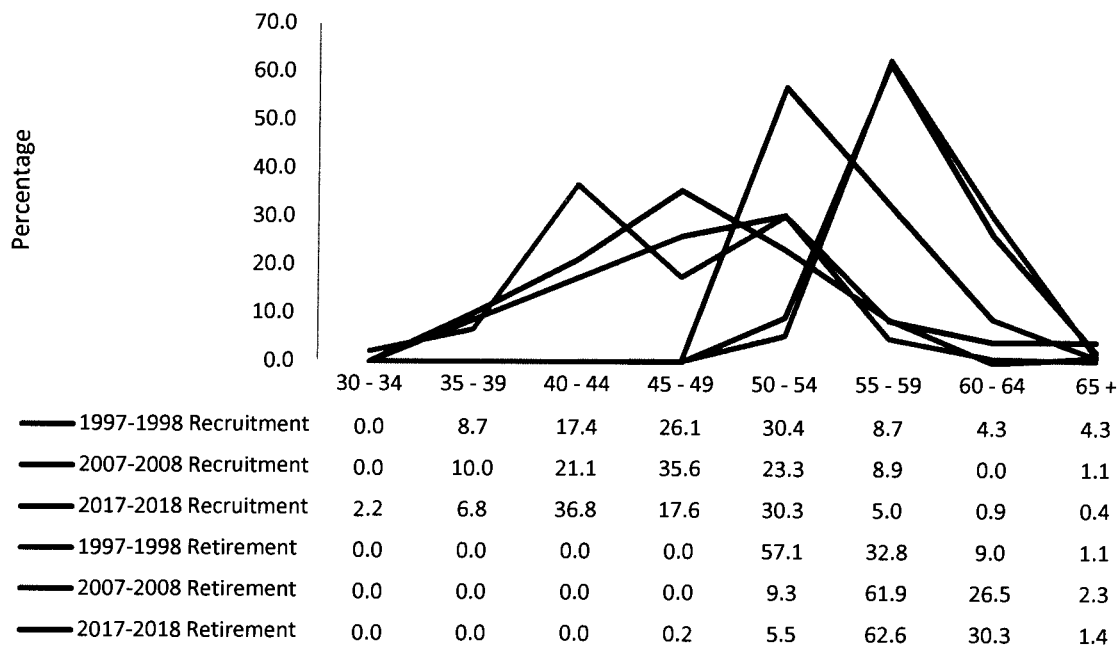


Source: Public Service Commission, Job-based Analytical Information System and Author's Calculations

The recruitment and retirement trends for the EX group are presented in Figure 38. The patterns in recruitment of EX employees has improved over the study period, as the proportion of recruits in the 45-49 age range has increased from 26.1% in 1997-1998 to 35.6% in 2007-2008. This movement shows efforts in the recruitment of younger EX employees, who in the next few decades will be the positions of Directors and Director Generals of departments across the Public Service. The forecast for 2017-2018 shows recruitments edging towards the 40-44 age range, with 36.8% of recruits coming from this category. As of 2007-2008, recruits from the 40-44 age range comprised 21.1% of total EX recruits, however, given that the entire Public Service is aging, the employment

of relatively younger EX recruits may be challenging as the available labour pool of qualified candidates possibly will be older as well. Although it has not been presented in this paper, the recruitment of EX employees will likely originate from within the Public Service itself, rather than from external (outside the Public Service) sources. Data

Figure 38: EX Group Recruitments vs Retirements Distribution (%) by Age:  
1997-1998, 2007-2008, 2017-2018



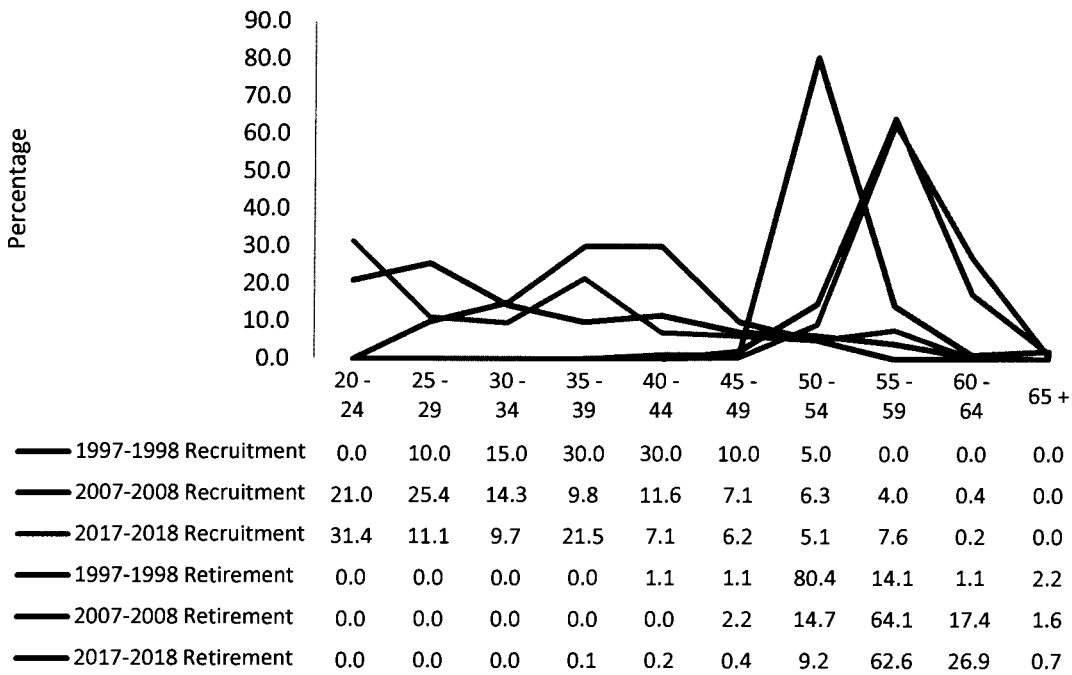
Source: Public Service Commission, Job-based Analytical Information System and Author's Calculations

obtained from the PSC's Statistical CUBE show that of the 2,325 staffing activities during the fiscal year 2007-2008 for the EX group, only 4% were appointments to the Public Service from outside, whereas 96% of the EX staffing actions were from within the Public Service (41% indeterminate promotions, 21% indeterminate lateral and downward movements, and 34% indeterminate acting appointments). Thus, the EX

group faces the challenge of recruiting relatively younger employees but largely from within the Public Service itself, which is facing the challenge of an increasingly greying population. EX retirements are forecasted to remain quite consistent with trends from 2007-2008.

The recruitment and retirement distribution of the PE group is presented next in Figure 39, which is characterized by a notable shift in the recruitments of PE employees

Figure 39: PE Group Recruitments vs Retirements Distribution (%) by Age:  
1997-1998, 2007-2008, 2017-2018



Source: Public Service Commission, Job-based Analytical Information System and Author's Calculations

from the 35-39 (30%) and 40-44 (30%) age ranges in 1997-1998, to recruitments of employees in the 20-24 (21%) and 25-29 (25.4%) age ranges. The forecast for the recruitment of PE employees is challenging to determine with accuracy due to the

excessive variation in recruitment trends over the study period. It is predicted that recruitment of employees in the 55-59 age group will rise to 7.6% as will the recruitment in the 20-24 age group (31%) and the 35-39 age group (21.5%). The retirement patterns of the PE group are forecasted to remain consistent into 2017 with current trends, with a 9.5% increase in retirements belonging to the 60-64 age group.

## **10.0 Conclusion**

The issue of aging and retirements within specific occupational groups in the Public Service is quite extensive, with various factors to consider when analyzing data or developing policies. Data limitations can prevent a proper study of Public Servants truly in the state of retirement for a given period and the nature of staffing system must be considered as well, since it is more intricate than simply hiring new permanent employees to replace older ones. This paper attempts to examine the aging, retirement and recruitment trends among indeterminate employees of specific occupational groups in the Canadian Public Service and to consider any challenges certain groups may face with respect to the widely discussed demographic shift in the upcoming years. Often, literature available on retirements did not delve deeply into job-specific data within the Public Service, but rather presented information on the labour force in general. This paper attempts to explore some of these micro-level trends and further research may investigate aging and retirement issues within the Public Service, whether it be by gender, region or at the departmental level. Stone and Nouroz (2006), in their chapter on *Patterns of Work-to-Retirement Transition Among Canadian Public-Sector Employees*,

conclude that “there is an implication for policy-relevant statistical analyses. Statisticians and other researchers should look beyond the global figures (which indicate public sector employees retiring earlier), and break down the data to show trends for different age groups and for major segments within the public sector.” (p. 319).

The aim of this major paper was to shed some light on the trends among major groups within the Public Sector, though it only covers a small fraction of the issue of aging and retirements. The nature of staffing in the Public Service is quite broad in itself, with issues to consider such as the use of temporary help, casual or student employment, which may be utilized to fulfill departmental needs without the permanent recruitment of employees. It is also difficult to accurately measure any trend in recruitments for certain due to fluctuations of the economy. For example, the March 2010 Federal Budget announced a three-year freeze on departmental operating budgets, which will impact both employers and employees in the labour market. Various messages are being presented by senior officials in the Government. In March 27, 2009, the Privy Council Clerk mentioned that the government will continue to hire employees (May, 2009), while a year later, the Conference Board of Canada announces that 10,000 Public Service jobs may be shed, though it does not specify at what level of government jobs will be impacted (Hill, 2010). In March 2010, the chief human resources officer at Treasury Board Canada informed the Commons government operations committee that new employee recruitment must continue to renew the aging workforce (May, 2010). These types of economic uncertainties will continue into the coming decades as the “silver tsunami” gains momentum.

Certain occupational groups, such as the Administrative Services, Executive Group, and Personnel Administration group face challenges due to their percentage of retirements as a proportion to the overall Public Service, relative to their recruitments as a proportion of the overall Public Service. While it may be simple to suggest increasing recruitment levels by hiring younger employees, the majority of staffing for many occupational groups utilizes the labour pool found within the Public Service, with external sources of labour being only a small proportion of staffing activities. For the fiscal year 2007-2008, 85.5% of indeterminate staffing activities were from within the Public Service (promotions, lateral and downward movements, and acting appointments), while 14.5% of employees were appointed to the Public Service who were not previously term or indeterminate employees. A further breakdown is provided in Appendix 3, Table 1. It is worth noting that promotion within the Public Service is beneficial in terms of retaining corporate memory. However, current data suggests that hiring and recruitment of permanent employees is largely an internal mechanism and the intake of new permanent employees will be quite challenging if the source of labour is increasingly aging over the coming decades. Thus, options may be considered over the coming decades in order to increase the intake of younger employees from outside the Public Service, along with internal promotions and movement, which will ensure a diverse labour force to offset any imbalances from the upcoming demographic shift.

Sound policies that utilize and adapt to an older workforce will enable employers, both within the Public and Private sectors, to successfully transition during the inevitable demographic shift. This paper has attempted to present the aging and retirement trends found within specific groups in the Canadian Public Service, and the next few decades

will be crucial in deciding what form the Public Service will take on. The intake, development, and retention of younger employees is vital as the older generation passes on its valuable knowledge to the managers, directors and senior bureaucrats of tomorrow.

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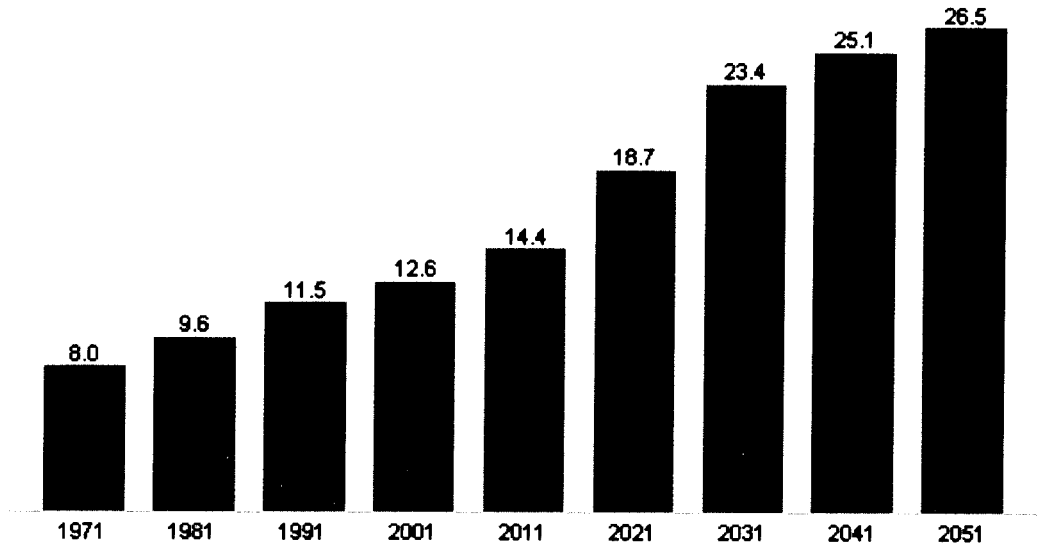
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## Appendix I

**Population 65 years and over, Canada, 1971-2051  
(percent)**



Note: Population projections use a medium-growth and medium-migration trends scenario. For further information see: Statistics Canada. Population Projections for Canada, Provinces and Territories (2005-2031). Catalogue no. 91-520 XIE.

Source: Statistics Canada. Estimates of Population, Canada, the Provinces and Territories (Persons). CANSIM Table no. 051-0001; and Statistics Canada. Population Projections for Canada, Provinces and Territories (2005-2031). CANSIM table no. 052-000

## Appendix II

Table 1 – Administrative Services

	1997	2007					
Average Age	43.8	45.4	Increase of 1.6 years				
AS Population as of March 31st	10,982	20,951	Increase of 91 %				
Total Population of Public Service as of March 31st	132,189	156,052	Increase of 18 %				
Total Staffing Activities of AS (Fiscal Year 97-98 vs 07-08)	4,956	12,834	Increase of 159 %				
Total Staffing Activities of Public Service (Fiscal Year 97-98 vs 07-08)	35,613	67,283	Increase of 89 %				
Total AS Recruitments (Fiscal Year 97-98 vs 07-08)	79	1,108	Increase of 1,302 %				
Total Recruitments in the Public Service (Fiscal Year 97-98 vs 07-08)	1,594	9,239	Increase of 480 %				
<b>Distribution In % of Age Groups</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>	
March 31st, 1997	26	27.6	13.3	4.7	1.2	0.3	
March 31st, 2007	15.8	21.1	22.6	11.7	2.9	0.5	
	<b>1997</b>	<b>2007</b>					
Average Age of AS Retirees (Fiscal Year 97-98 vs 07-08)	52.3	57.1	Increase of 4.8 years				
Number of AS Retirements (Fiscal Year 97-98 vs 07-08)	418	856	Increase of 105 %				
AS Population as of March 31st	10,982	20,951					
AS Retirement Ratio	3.8	4.1					
	<b>1997-1998</b>	<b>2007-2008</b>					
Total Retirements in Public Service	4312	5876	Increase of 36 %				
Number of Male AS Retirements	191	257	Increase of 35 %				
Number of Female AS Retirements	227	599	Increase of 164 %				
Average Age of Male AS Retirees	52.6	57.4	Increase of 4.8 years				
Average Age of Female AS Retirees	52.1	57	Increase of 4.9 years				
<b>Retirements Distribution In % of Age Groups</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.5	0.7	1.9	74.9	16.5	3.1	2.4
2007-2008	0.5	0.6	1.6	13.1	56.0	23.5	4.8
<b>Retirements Distribution In % of Age Groups - Males</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.5	2.1	75.9	14.1	3.1	4.2
2007-2008	0.0	0.0	1.9	8.9	64.2	19.5	5.4
<b>Retirements Distribution In % of Age Groups - Females</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.9	0.9	1.8	74.0	18.5	3.1	0.9
2007-2008	0.7	0.8	1.5	14.9	52.4	25.2	4.5

Source: Public Service Commission, Job-based Analytical Information System and Author's Calculations

**Table 2 – Correctional Services**

	1997	2007					
Average Age	41	40.1	Decrease of 0.9 years				
CX Population as of March 31st	4,612	6,249	Increase of 35 %				
Total Population of Public Service as of March 31st	132,189	156,052	Increase of 18 %				
Total Staffing Activities of CX (Fiscal Year 97-98 vs 07-08)	1,427	1,833	Increase of 28 %				
Total Staffing Activities of Public Service (Fiscal Year 97-98 vs 07-08)	35,613	67,283	Increase of 89 %				
Total CX Recruitments (Fiscal Year 97-98 vs 07-08)	107	458	Increase of 328 %				
Total Recruitments in the Public Service (Fiscal Year 97-98 vs 07-08)	1,594	9,239	Increase of 480 %				
<b>Distribution in % of Age Groups</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>	
March 31st, 1997	20.8	17.3	11.5	5.5	1.5	0.2	
March 31st, 2007	16.5	13.6	11.4	5.5	1.6	0.2	
	<b>1997</b>	<b>2007</b>					
Average Age of CX Retirees (Fiscal Year 97-98 vs 07-08)	56.5	55.5	Decrease of 1 year				
Number of CX Retirements (Fiscal Year 97-98 vs 07-08)	115	200	Increase of 74 %				
CX Population as of March 31st	4,612	6,249					
CX Retirement Ratio	2.5	3.2					
	<b>1997-1998</b>	<b>2007-2008</b>					
Total Retirements in Public Service	4,312	5,876	Increase of 36 %				
Number of Male CX Retirements	108	179	Increase of 66 %				
Number of Female CX Retirements	7	21	Increase of 200 %				
Average Age of Male CX Retirees	57	55.4	Decrease of 1.6 years				
Average Age of Female CX Retirees	48.3	56.1	Increase of 7.8 years				
<b>Retirements Distribution in % of Age Groups</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.0	3.5	31.3	29.6	27.0	7.8
2007-2008	0.0	0.0	5.0	39.0	30.5	21.0	4.0
<b>Retirements Distribution in % of Age Groups - Males</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.0	1.9	30.6	30.6	28.7	8.3
2007-2008	0.0	0.0	5.0	41.3	31.8	17.3	4.5
<b>Retirements Distribution in % of Age Groups - Females</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.0	28.6	42.9	14.3	0.0	0.0
2007-2008	0.0	0.0	4.8	19.0	19.0	52.4	0.0

Source: Public Service Commission, Job-based Analytical Information System and Author's Calculations

**Table 3 – Economics, Sociology and Statistics**

	1997	2007					
Average Age	41.8	41.1	<i>Decrease of 0.7 years</i>				
ES Population as of March 31st	2,649	6,480	<i>Increase of 145 %</i>				
Total Population of Public Service as of March 31st	132,189	156,052	<i>Increase of 18 %</i>				
Total Staffing Activities of ES (Fiscal Year 97-98 vs 07-08)	1,408	4,915	<i>Increase of 249 %</i>				
Total Staffing Activities of Public Service (Fiscal Year 97-98 vs 07-08)	35,613	67,283	<i>Increase of 89 %</i>				
Total ES Recruitments (Fiscal Year 97-98 vs 07-08)	156	754	<i>Increase of 383 %</i>				
Total Recruitments in the Public Service (Fiscal Year 97-98 vs 07-08)	1,594	9,239	<i>Increase of 480 %</i>				
<b>Distribution In % of Age Groups</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>	
March 31st, 1997	18	20.8	12.3	5.3	1.4	0.5	
March 31st, 2007	14.9	14	11.9	8.4	2.2	0.5	
	<b>1997</b>	<b>2007</b>					
Average Age of ES Retirees (Fiscal Year 97-98 vs 07-08)	53.8	58.7	<i>Increase of 4.9 years</i>				
Number of ES Retirements (Fiscal Year 97-98 vs 07-08)	56	140	<i>Increase of 150 %</i>				
ES Population as of March 31st	2,649	6,480					
ES Retirement Ratio	2.1	2.2					
	<b>1997-1998</b>	<b>2007-2008</b>					
Total Retirements in Public Service	4,312	5,876	<i>Increase of 36 %</i>				
Number of Male ES Retirements	49	86	<i>Increase of 76 %</i>				
Number of Female ES Retirements	7	54	<i>Increase of 671 %</i>				
Average Age of Male ES Retirees	53.9	59.1	<i>Increase of 5.2 years</i>				
Average Age of Female ES Retirees	52.9	58	<i>Increase of 5.1 years</i>				
<b>Retirements Distribution In % of Age Groups</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	1.8	0.0	0.0	62.5	21.4	8.9	5.4
2007-2008	0.0	0.0	0.0	7.9	55.0	30.0	7.1
<b>Retirements Distribution In % of Age Groups - Males</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	2.0	0.0	0.0	61.2	20.4	10.2	6.1
2007-2008	0.0	0.0	0.0	5.8	52.3	33.7	8.1
<b>Retirements Distribution In % of Age Groups - Females</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.0	0.0	71.4	28.6	0.0	0.0
2007-2008	0.0	0.0	0.0	11.1	59.3	24.1	5.6

Source: Public Service Commission, Job-based Analytical Information System and Author's Calculations

**Table 4 – Executive Group**

	1997	2007					
Average Age	49.6	50.6	Increase of 1 year				
EX Population as of March 31st	2,761	3,971	Increase of 44 %				
Total Population of Public Service as of March 31st	132,189	156,052	Increase of 18 %				
Total Staffing Activities of EX (Fiscal Year 97-98 vs 07-08)	941	2,247	Increase of 139 %				
Total Staffing Activities of Public Service (Fiscal Year 97-98 vs 07-08)	35,613	67,283	Increase of 89 %				
Total EX Recruitments (Fiscal Year 97-98 vs 07-08)	23	90	Increase of 291 %				
Total Recruitments in the Public Service (Fiscal Year 97-98 vs 07-08)	1,594	9,239	Increase of 480 %				
<b>Distribution in % of Age Groups</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>	
March 31st, 1997	12.1	35.8	33.1	13	3.1	0.3	
March 31st, 2007	12.5	22	29.3	23	6.2	0.6	
	<b>1997</b>	<b>2007</b>					
Average Age of EX Retirees (Fiscal Year 97-98 vs 07-08)	54.1	57.7	Increase of 3.6 years				
Number of EX Retirements (Fiscal Year 97-98 vs 07-08)	177	302	Increase of 71 %				
EX Population as of March 31st	2,761	3,971					
EX Retirement Ratio	6.4	7.6					
	<b>1997-1998</b>	<b>2007-2008</b>					
Total Retirements in Public Service	4,312	5,876	Increase of 36 %				
Number of Male EX Retirements	147	190	Increase of 29 %				
Number of Female EX Retirements	30	112	Increase of 273 %				
Average Age of Male EX Retirees	54.5	58.2	Increase of 3.7 years				
Average Age of Female EX Retirees	51.8	56.8	Increase of 5 years				
<b>Retirements Distribution in % of Age Groups</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.0	0.0	57.1	32.8	9.0	1.1
2007-2008	0.0	0.0	0.0	9.3	61.9	26.5	2.3
<b>Retirements Distribution in % of Age Groups - Males</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.0	0.0	51.7	36.1	10.9	1.4
2007-2008	0.0	0.0	0.0	4.7	61.1	30.5	3.7
<b>Retirements Distribution in % of Age Groups - Females</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.0	0.0	83.3	16.7	0.0	0.0
2007-2008	0.0	0.0	0.0	17.0	63.4	19.6	0.0

Source: Public Service Commission, Job-based Analytical Information System and Author's Calculations

**Table 5 – Financial Administration**

	<b>1997</b>	<b>2007</b>					
<b>Average Age</b>	42.9	41.4	<i>Decrease of 1.5 years</i>				
<b>FI Population as of March 31st</b>	2,112	3,313	<i>Increase of 57%</i>				
<b>Total Population of Public Service as of March 31st</b>	132,189	156,052	<i>Increase of 18%</i>				
<b>Total Staffing Activities of FI (Fiscal Year 97-98 vs 07-08)</b>	702	2,025	<i>Increase of 188%</i>				
<b>Total Staffing Activities of Public Service (Fiscal Year 97-98 vs 07-08)</b>	35,613	67,283	<i>Increase of 89%</i>				
<b>Total FI Recruitments (Fiscal Year 97-98 vs 07-08)</b>	29	271	<i>Increase of 834%</i>				
<b>Total Recruitments in the Public Service (Fiscal Year 97-98 vs 07-08)</b>	1,594	9,239	<i>Increase of 480%</i>				
<b>Distribution In % of Age Groups</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>	
March 31st, 1997	25	25	13.2	4.3	0.9	0.1	
March 31st, 2007	15.1	15.7	14.5	8	2.1	0.3	
	<b>1997</b>	<b>2007</b>					
<b>Average Age of FI Retirees (Fiscal Year 97-98 vs 07-08)</b>	52.2	57.3	<i>Increase of 5.1 years</i>				
<b>Number of FI Retirements (Fiscal Year 97-98 vs 07-08)</b>	73	100	<i>Increase of 37%</i>				
<b>FI Population as of March 31st</b>	2,112	3,313					
<b>FI Retirement Ratio</b>	3.5	3.0					
	<b>1997-1998</b>	<b>2007-2008</b>					
<b>Total Retirements in Public Service</b>	4,312	5,876	<i>Increase of 36%</i>				
<b>Number of Male FI Retirements</b>	52	66	<i>Increase of 27%</i>				
<b>Number of Female FI Retirements</b>	21	34	<i>Increase of 62%</i>				
<b>Average Age of Male FI Retirees</b>	52.3	58	<i>Increase of 5.7 years</i>				
<b>Average Age of Female FI Retirees</b>	52	55.9	<i>Increase of 3.9 years</i>				
<b>Retirements Distribution In % of Age Groups</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.0	0.0	82.2	15.1	2.7	0.0
2007-2008	0.0	0.0	1.0	10.0	61.0	24.0	4.0
<b>Retirements Distribution In % of Age Groups - Males</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.0	0.0	80.8	15.4	3.8	0.0
2007-2008	0.0	0.0	0.0	3.0	66.7	25.8	4.5
<b>Retirements Distribution In % of Age Groups - Females</b>	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.0	0.0	85.7	14.3	0.0	0.0
2007-2008	0.0	0.0	2.9	23.5	50.0	20.6	2.9

Source: Public Service Commission, Job-based Analytical Information System and Author's Calculations

**Table 6 – Information Services**

	1997	2007					
Average Age	42.9	41.8	<i>Decrease in 1.1 years</i>				
IS Population as of March 31st	1,198	2,673	<i>Increase of 123 %</i>				
Total Population of Public Service as of March 31st	132,189	156,052	<i>Increase of 18 %</i>				
Total Staffing Activities of IS (Fiscal Year 97-98 vs 07-08)	441	1,773	<i>Increase of 302 %</i>				
Total Staffing Activities of Public Service (Fiscal Year 97-98 vs 07-08)	35,613	67,283	<i>Increase of 89 %</i>				
Total IS Recruitments (Fiscal Year 97-98 vs 07-08)	16	208	<i>Increase of 1,200 %</i>				
Total Recruitments in the Public Service (Fiscal Year 97-98 vs 07-08)	1,594	9,239	<i>Increase of 480 %</i>				
<b>Distribution in % of Age Groups</b>							
	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>	
March 31st, 1997	24.9	25	12.4	4.1	1	0.7	
March 31st, 2007	14.1	15	15.3	8.7	2.6	0.3	
<b>IS Retirement Data</b>							
	<b>1997</b>	<b>2007</b>					
Average Age of IS Retirees (Fiscal Year 97-98 vs 07-08)	53.5	58	<i>Increase of 4.5 years</i>				
Number of IS Retirements (Fiscal Year 97-98 vs 07-08)	31	75	<i>Increase of 142 %</i>				
IS Population as of March 31st	1,198	2,673					
IS Retirement Ratio	2.6	2.8					
<b>Retirement Trends</b>							
	<b>1997-1998</b>	<b>2007-2008</b>					
Total Retirements in Public Service	4,312	5,876	<i>Increase of 36 %</i>				
Number of Male IS Retirements	11	27	<i>Increase of 145 %</i>				
Number of Female IS Retirements	20	48	<i>Increase of 140 %</i>				
Average Age of Male IS Retirees	53.4	58.6	<i>Increase of 5 years</i>				
Average Age of Female IS Retirees	53.6	57.6	<i>Increase of 4 years</i>				
<b>Retirements Distribution in % of Age Groups</b>							
	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.0	0.0	64.5	29.0	0.0	6.5
2007-2008	0.0	0.0	0.0	13.3	54.7	26.7	5.3
<b>Retirements Distribution in % of Age Groups - Males</b>							
	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.0	0.0	72.7	18.2	0.0	9.1
2007-2008	0.0	0.0	0.0	14.8	44.4	29.6	11.1
<b>Retirements Distribution in % of Age Groups - Females</b>							
	<b>35 - 39</b>	<b>40 - 44</b>	<b>45 - 49</b>	<b>50 - 54</b>	<b>55 - 59</b>	<b>60 - 64</b>	<b>65 +</b>
1997-1998	0.0	0.0	0.0	60.0	35.0	0.0	5.0
2007-2008	0.0	0.0	0.0	12.5	60.4	25.0	2.1

Source: Public Service Commission, Job-based Analytical Information System and Author's Calculations

**Table 7 – Personnel Administration**

	1997	2007	
Average Age	44.2	43.6	Increase of 0.6 years
PE Population as of March 31st	2,233	3,396	Increase of 52 %
Total Population of Public Service as of March 31st	132,189	156,052	Increase of 18 %
Total Staffing Activities of PE (Fiscal Year 97-98 vs 07-08)	907	2,576	Increase of 184 %
Total Staffing Activities of Public Service (Fiscal Year 97-98 vs 07-08)	35,613	67,283	Increase of 89 %
Total PE Recruitments (Fiscal Year 97-98 vs 07-08)	20	224	Increase of 1,020 %
Total Recruitments in the Public Service (Fiscal Year 97-98 vs 07-08)	1,594	9,239	Increase of 480 %

Distribution In % of Age Groups	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 +
March 31st, 1997	26.4	33.7	14.6	3.1	0.6	0
March 31st, 2007	12.1	17	21.3	11.7	2.3	0.1

	1997	2007	
Average Age of PE Retirees (Fiscal Year 97-98 vs 07-08)	51.9	56.6	Increase of 4.7 years
Number of PE Retirements (Fiscal Year 97-98 vs 07-08)	92	184	Increase of 100 %
PE Population as of March 31st	2,233	3,396	
PE Retirement Ratio	4.1	5.4	

	1997-1998	2007-2008	
Total Retirements in Public Service	4,312	5,876	Increase of 36 %
Number of Male PE Retirements	38	67	Increase of 76 %
Number of Female PE Retirements	54	117	Increase of 117 %
Average Age of Male PE Retirees	52.3	57.1	Increase of 5 %
Average Age of Female PE Retirees	51.6	56.3	Increase of 5 %

Retirements Distribution In % of Age Groups	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 +
1997-1998	0.0	1.1	1.1	80.4	14.1	1.1	2.2
2007-2008	0.0	0.0	2.2	14.7	64.1	17.4	1.6

Retirements Distribution In % of Age Groups - Males	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 +
1997-1998	0.0	0.0	2.6	78.9	13.2	2.6	2.6
2007-2008	0.0	0.0	1.5	11.9	64.2	19.4	3.0

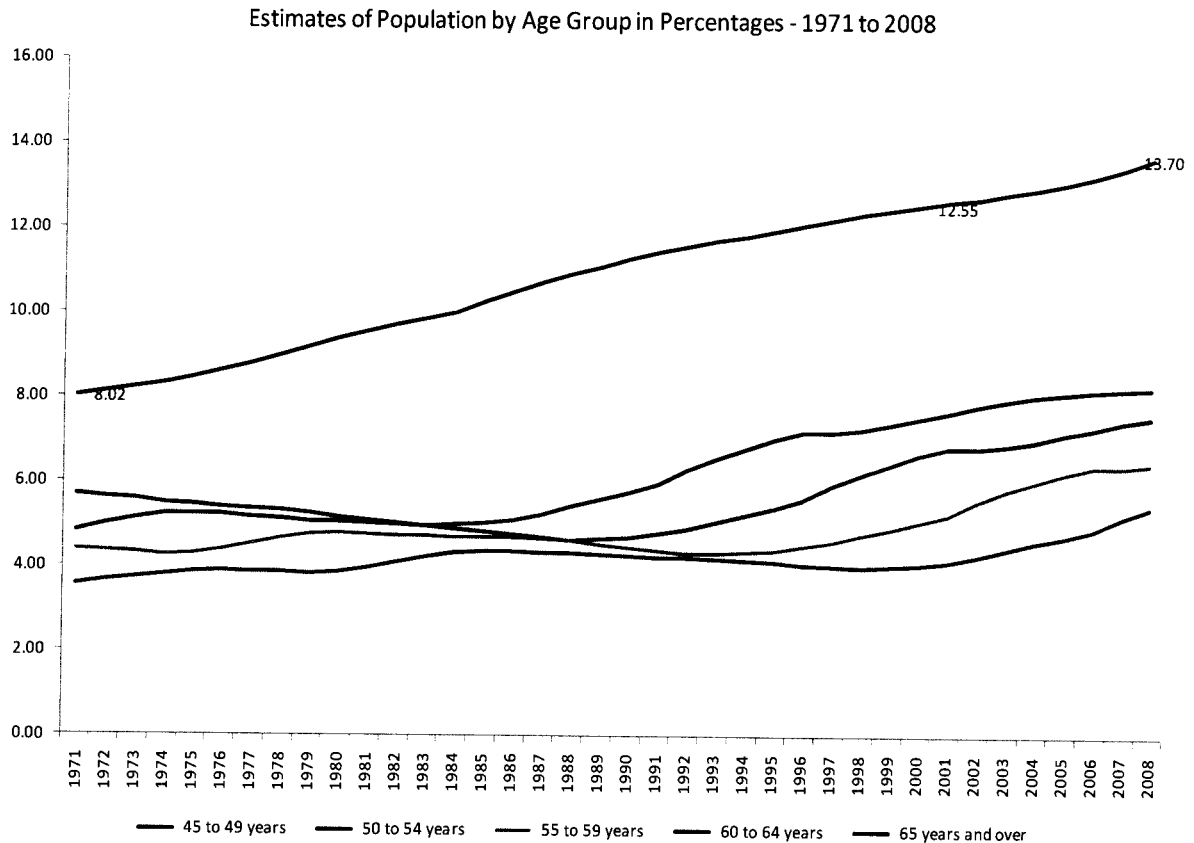
  

Retirements Distribution In % of Age Groups - Females	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 +
1997-1998	0.0	1.9	0.0	81.5	14.8	0.0	1.9
2007-2008	0.0	0.0	2.6	16.2	64.1	16.2	0.9

Source: Public Service Commission, Job-based Analytical Information System and Author's Calculations

## Appendix III

**Figure 1**



Source: Statistics Canada. Table 051-0001 - Estimates of population, by age group and sex for July 1, Canada, provinces and territories, annual (persons unless otherwise noted) (table), CANSIM (database) Using E-STAT (distributor).

**Table 1: Indeterminate Staffing Activities in the Public Service, 2007-2008**

Staffing Activities 2007-2008	AS	CX	ES	EX	FI	IS	PE	Overall PS
Appointments to the Public Service	8.4	24.9	15.3	4.0	13.0	11.6	9.0	14.5
Promotions	36.0	26.7	39.8	40.8	31.8	30.0	44.4	32.4
Lateral and Downward Movements	27.8	20.6	27.9	21.3	35.0	35.3	32.1	32.3
Acting Appointments	27.7	27.7	17.0	33.9	20.2	23.1	14.6	20.9

Source: Public Service Commission, Job-based Analytical Information System

## Appendix IV

List of Federal Public Service Departments			1997		2007	
Department Name	Size	Acronym	Population	%	Population	%
Atlantic Canada Opportunities Agency	Medium	ACO	321	0.2	650	0.4
Agriculture and Agri-Food Canada	Large	AGR	7,575	5.7	6,041	3.9
Public Health Agency of Canada	Large	AHS	0	0	1,635	1
Canadian Artists and Producers Professional Relations Tribunal	X-Small	APT	5	0	5	0
Canadian Transportation Agency	Small	ATN	250	0.2	224	0.1
Library and Archives Canada	Medium	BAL	1,100	0.8	971	0.6
Canadian International Trade Tribunal	X-Small	BCO	70	0.1	67	0
Courts Administration Service	Medium	CAJ	447	0.3	508	0.3
Office of the Chief Electoral Officer	Small	CEO	57	0	236	0.2
Canada School of Public Service	Medium	CES	92	0.1	548	0.4
Canadian Grain Commission	Medium	CGC	657	0.5	553	0.4
Canadian Intergovernmental Conference Secretariat	X-Small	CIC	20	0	20	0
Canada Industrial Relations Board	X-Small	CLR	78	0.1	86	0.1
Office of the Commissioner of Official Languages	Small	COL	120	0.1	136	0.1
Military Police Complaints Commission of Canada	X-Small	CPM	0	0	9	0
Canadian Space Agency	Medium	CSA	238	0.2	562	0.4
Human Resources and Social Development Canada	Large	CSD	18,394	13.9	20,239	13
NAFTA Secretariat - Canadian Section	X-Small	CST	5	0	9	0
Status of Women Canada	X-Small	CSW	70	0.1	67	0
Fisheries and Oceans Canada	Large	DFO	8,252	6.2	8,817	5.7
National Defence (Public Service Employees)	Large	DND	17,568	13.3	20,408	13.1
Environment Canada	Large	DOE	4,176	3.2	5,629	3.6
Industry Canada	Large	DUS	4,334	3.3	5,092	3.3
Veterans Affairs Canada	Large	DVA	2,875	2.2	3,335	2.1
Canadian Environmental Assessment Agency	Small	EAA	64	0	129	0.1
National Energy Board	Small	ENR	226	0.2	279	0.2
Foreign Affairs and International Trade Canada	Large	EXT	2,994	2.3	3,919	2.5
Canadian Forces Grievance Board	X-Small	FCG	0	0	40	0
Department of Finance Canada	Medium	FIN	668	0.5	935	0.6
Office of the Commissioner for Federal Judicial Affairs	X-Small	FJA	39	0	58	0
Financial Consumer Agency of Canada	X-Small	FNA	0	0	33	0
National Farm Products Council	X-Small	FPN	13	0	9	0
Economic Development Agency of Canada for the Regions of Quebec	Small	FRD	228	0.2	366	0.2
Office of the Governor General's Secretary	Small	GS	104	0.1	148	0.1
Canadian Human Rights Commission	Small	HRC	142	0.1	158	0.1
Canada Public Service Agency	Medium	HRH	0	0	517	0.3
Indian and Northern Affairs Canada	Large	IAN	2,877	2.2	3,905	2.5
Canadian International Development Agency	Medium	IDA	1,119	0.8	1,564	1
International Joint Commission (Canadian Section)	X-Small	IJC	25	0	26	0

List of Federal Public Service Departments Continued			1997		2007	
Department Name	Size	Acronym	Population	%	Population	%
Citizenship and Immigration Canada	Large	IMC	3,336	2.5	3,265	2.1
Infrastructure Canada	Small	INF	0	0	152	0.1
Offices of the Information and Privacy Commissioners of Canada	Small	IPC	79	0.1	135	0.1
Immigration and Refugee Board of Canada	Medium	IRB	723	0.5	775	0.5
Department of Justice Canada	Large	JUS	1,873	1.4	4,353	2.8
Office of the Registrar of Lobbyists	X-Small	LOB	0	0	15	0
Hazardous Materials Information Review Commission	X-Small	MHI	13	0	30	0
Transport Canada	Large	MOT	4,631	3.5	4,537	2.9
National Parole Board	Small	NPB	266	0.2	311	0.2
Office of the Correctional Investigator of Canada	X-Small	OCI	0	0	18	0
Canadian Heritage	Large	PCH	4,169	3.2	1,931	1.2
Privy Council Office	Medium	PCO	465	0.4	670	0.4
Correctional Service Canada	Large	PEN	10,537	8	14,099	9
Passport Canada	Large	PPT	433	0.3	1,447	0.9
Public Service Commission	Medium	PSC	1,198	0.9	872	0.6
Public Safety Canada	Medium	PSP	233	0.2	686	0.4
Canadian Human Rights Tribunal	X-Small	PTP	8	0	20	0
Patented Medicine Prices Review Board	X-Small	PXR	29	0	37	0
Royal Canadian Mounted Police (Public Service Employees)	Large	RCM	3,148	2.4	4,532	2.9
Competition Tribunal	X-Small	RCT	10	0	13	0
RCMP External Review Committee	X-Small	REC	0	0	3	0
Public Service Labour Relations Board	X-Small	RLT	39	0	64	0
Commission for Public Complaints Against the RCMP	X-Small	RPP	0	0	18	0
Natural Resources Canada	Large	RSN	3,517	2.7	3,867	2.5
Canadian Radio - television and Telecommunications Commission	Small	RTC	360	0.3	375	0.2
Health Canada	Large	SHC	4,856	3.7	7,700	4.9
Office of the Superintendent of Financial Institutions Canada	Small	SIF	353	0.3	426	0.3
Statistics Canada	Large	STC	4,237	3.2	4,836	3.1
Supreme Court of Canada (Office of the Registrar)	Small	SUC	88	0.1	142	0.1
Public Works and Government Services Canada	Large	SVC	11,308	8.6	11,336	7.3
Transportation Appeal Tribunal of Canada	X-Small	TAT	4	0	6	0
Treasury Board of Canada Secretariat	Medium	TBD	590	0.4	884	0.6
Transportation Safety Board of Canada	Small	TSB	216	0.2	206	0.1
Western Economic Diversification Canada	Small	WCO	267	0.2	358	0.2
<b>Total</b>			<b>132,189</b>	<b>100</b>	<b>156,052</b>	<b>100</b>

Source: Public Service Commission, Job-based Analytical Information System

## Appendix V

### Select PSC Glossary<sup>12</sup>

#### **Acting appointment** (Nomination intérimaire)

The temporary performance of the duties of another position by an employee, if the performance of those duties would have constituted a promotion had he/she been appointed to the position

#### **Appointment** (Nomination)

An action taken under the *Public Service Employment Act (PSEA)* to confer a public service position or an occupational level on a person. An appointment to the public service (external appointment) is the appointment of a person from the general public or an employee of a government organization that is not part of the public service

#### **Casual employment** (Emploi occasionnel)

A short-term employment option to hire persons to the public service for a period not exceeding 90 working days in one department in any year. These persons may not participate in any advertised internal appointment process

#### **Classification** (Classification)

The occupational group, sub-group (if applicable) and level assigned to a person or a position

#### **Departmental movement** (Mobilité ministérielle)

Mobility within or between organizations in the part of the public service to which the Public Service Commission has exclusive authority to make appointments

#### **Earliest Retirement (number of years to)** (Admissibilité à la retraite – nombre d'années d'ici là)

The date when an employee can retire with an immediate annuity without incurring any penalties

#### **Executive Group** (Groupe de la direction)

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<sup>12</sup> The full PSC Glossary can be found at: <http://www.psc-cfp.gc.ca/abt-aps/gls/index-eng.htm>

Consists of five levels up to and including most assistant deputy ministers (EX-1 to EX-5)

**External recruitment (Recrutement externe)**

The primary mechanism for replenishing the federal public service with members of the general public; primarily accomplished through open competitions

**Federal Student Work Experience Program (FSWEP) (Programme fédéral d'expérience de travail étudiant – PFETE)**

A program through which federal organizations recruit students; gives full-time secondary school, CEGEP, college, technical institute and university students opportunities to learn about the federal government and gain valuable experience while developing and improving their employability skills

**Fiscal year (Année financière ou exercice)**

April 1 to March 31, for the public service

**Hiring activities (Activités d'embauche)**

Includes appointments to the public service, hiring of casuals under the *Public Service Employment Act*, and recruitment of students under the *Student Employment Programs Exclusion Approval Order and Regulations*

**Indeterminate (permanent) employment (Emploi pour une période indéterminée – emploi permanent)**

Part-time or full-time employment, including seasonal, of no fixed duration

**Occupational category (Catégorie professionnelle)**

A broad series of job families characterized by the nature of the functions performed and the extent of academic preparation required. Job families include: Executive; Scientific and Professional; Technical; Administrative and Foreign Service; Administrative Support; and Operational

**Occupational group (Groupe professionnel)**

A subdivision of an occupational category, comprising similar kinds of work requiring similar skills

**Population snapshot date (Date de référence de l'effectif)**

A count, on a particular day, of employees in departments or agencies where the Public Service Commission has exclusive authority to make appointments

**Post-Secondary Recruitment Program** (Programme de recrutement postsecondaire)  
Provides organizations with the flexibility to recruit post-secondary graduates into entry-level to mid-level positions

**Public service** (Fonction publique)  
The departments named in Schedule I of the *Financial Administration Act*, the organizations named in Schedule IV of that Act, and the separate agencies named in Schedule V of that Act

**Recruitment** (Recrutement)  
Hiring from outside the public service

**Staffing activities** (Activités de dotation)  
Include appointments to and from within to the public service, deployments, assignments and secondments

**Staffing activities within the public service** (Activités de dotation à l'interne)  
Promotions, lateral or downward deployments, secondments, assignments and acting appointments within the public service

**Status before staffing** (Situation professionnelle antérieure)  
The individual's previous type of employment (indeterminate, specified-period, casual, student, etc.)

**Student** (Étudiant)  
A person who attends a secondary school, CEGEP, college, technical institute or university full-time

**Student bridging** (Intégration des étudiants)  
A mechanism that allows managers to hire qualified recent post-secondary graduates who have previously worked in the public service through either the Federal Student Work Experience Program, the Co-operative Education and Internship Program, or the Research Affiliate Program, and have completed their program of study within the last 24 months

**Temporary help** (Personnel temporaire)  
Normally contracted through a company or agency to replace employees on short-term leave, to deal with an increase in workload, or to meet urgent operational needs; not appointed under the *Public Service Employment Act*; not considered employees

**Tenure** (Durée de l'emploi)  
The period of time for which a person is employed; may be indeterminate (full or part-time, including seasonal employment), specified-period (full or part-time) or casual