



The Fiscal Impact of Federal Personnel Expenses: Trends and Developments

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The *Parliament of Canada Act* mandates the Parliamentary Budget Officer (PBO) to provide independent analysis to the Senate and House of Commons on the state of the nation's finances, the government's estimates, and trends in the national economy.

In 2011-12, expenses associated with personnel represented 38.1 per cent of direct program expenses, accounting for the largest share of direct program expenses. Budget 2012 projected that direct program expenses would contract over the medium term, thereby signalling that growth in Personnel Expenses will also contract. Budget 2012 also indicated a significant reduction in the number of employees of the federal public service.

This note examines the extent of the restraint for Personnel Expenses and provides an approach to evaluating trends and developments in total compensation within the federal public service, Parliament, Canadian Forces and the Royal Canadian Mounted Police (referred to as the "federal employment").

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Executive Summary

Federal government expenses are scrutinized on a regular basis through the supply process. However, personnel expenses are typically examined in relative isolation to total program spending and generally focus on individual ministry results. Further, the Government's most visible policy and planning documents, the Budget Plan and the Update of Economic and Fiscal Projections, do not provide detail on personnel expenses either over history or over the planning horizon.

This report provides a broader perspective of the Government's personnel expenses, identifying trends in federal personnel expenses since 1990-91 and highlighting the key drivers and policy developments. In addition, the report provides a wider lens through which these expenses can be viewed, namely, relative to the size of the economy, adjusting for inflation and population, and comparing expenses at the federal level to those of the business sector and other levels of government. Given the recent policy actions to restrain the Government's Direct Program Expenses (DPE), this report also examines the implications for federal personnel expenses and employment over the coming years.¹

What has emerged from this report is a deconstruction of the current cost of personnel expenses, an assessment of historical trends relating to both expenses and employment, and an analysis of forward looking projections.

- Regarding **costs**, in 2011-12, Canada's federal personnel expenses were \$43.8 B, or 2.55 per cent of GDP. These expenses supported a workforce of 375,500 employees and provided

approximately \$114,100 on average in total compensation per employee.²

- Regarding **trends**, over the last 22 years, there have been significant swings in employment figures. Personnel expenses rose consistently between 1999-00 and 2011-12, reversing an earlier period of restraint between 1990-91 and 1998-99. Additionally, federal compensation growth per-FTE outpaced not only the CPI but also the Canadian business sector and other levels of government.
- Regarding **projections**, the period between 2012-13 and 2014-15 resembles those of the mid-1990s, as both personnel expenses and federal employment were reduced. The PBO expects a significant slowdown in personnel expenses, given assumptions about baseline employment by the PBO.

The following table captures growth trends for each of the time periods described above and for each of the data inputs, namely, employment, total compensation per-FTE, and total personnel expenses.

Table 1
Compound Annual Growth for Employment (FTE), Total Compensation per-FTE (TC/FTE), and Personnel Expenses (PE)³

Summary CAGR, nominal terms			
Basis	FTE	TC/FTE	PE
1990-91 to 1998-99	-2.7 %	1.3 %	-1.5 %
1999-00 to 2011-12	2.1 %	5.1 %	7.3 %
1990-91 to 2011-12	0.2 %	3.9 %	4.1 %
2012-13 to 2014-15	-1.8 %	4.4 %	2.5 %
1990-91 to 2014-15	-0.1 %	3.9 %	3.8 %

Sources: TBS, Department of Finance, PBO.

² Personnel expenses in 2011-12 include the recent and short-term distribution of early severance payments. The figure of \$114,100 is calculated by dividing personnel expenses less early severance payouts per TB Vote 30 by the corresponding federal public service employment. Refer to the Notes section of this paper for additional information regarding TB Vote 30.

³ The analysis presented in Table 1 for 2012-13 to 2014-15 considers that employment is frozen at 2011-12 RPP levels and that reductions per Budget 2012 are applied.

¹ Please refer to Annex 1 for a summary of the PBO approach to evaluating the fiscal impact of federal personnel expenses.

Finally, this report identifies gaps in reporting and transparency. In effect, as the growth trends to personnel expenses and employment are reversed in the near term, it is critical that parliamentarians receive the necessary reporting tools and analysis to assess whether or not fiscal targets and program service levels are met.

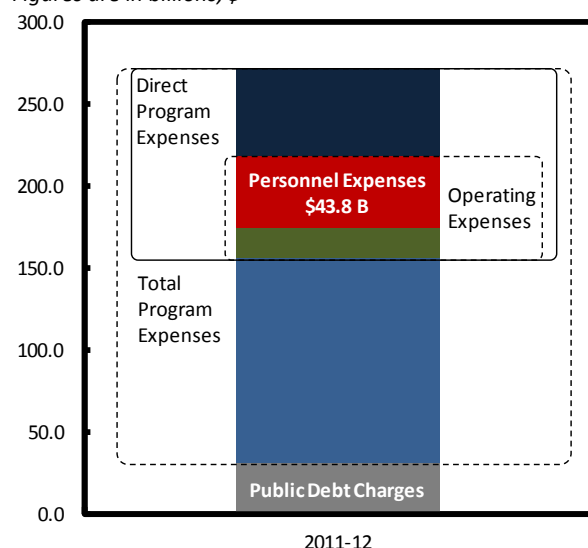
1. The Cost of the Federal Employment

In 2011-12, Canada's total program expenses were \$240.4 B. Of this amount, DPE accounted for \$115.2 B, and within that spending envelope, personnel expenses were \$43.8 B. In effect, personnel expenses accounted for 18.2 per cent of total program expenses and 38.1 per cent of DPE, representing a significant share of Canada's total spending as seen in Chart 1.⁴

Chart 1

Government of Canada Total Expenses, 2011-12

Figures are in billions, \$



Sources: Public Accounts of Canada, Fiscal Reference Tables.

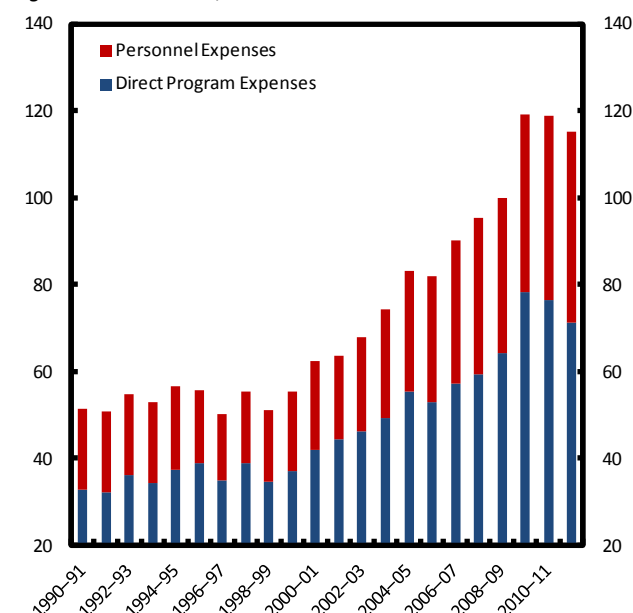
⁴ Budget 2012 and Fiscal Reference Tables, Finance Canada. <http://www.fin.gc.ca/frt-trf/2011/frt-trf-11-eng.asp>. Retrieved November 2012. Refer to the Public Accounts of Canada, Volume II, Table 3a, Ministerial Expenses for Standard Objects which include payments to Crown Corporations, personnel, transportation and communications, information, professional and special services, rentals, repairs and maintenance, and utilities, materials and supplies.

To better understand the relationship between personnel expenses and direct program expenses, the PBO has analysed these spending streams over a 22-year time horizon. The data from this analysis is presented in Chart 2.

Chart 2

Personnel Expenses and Direct Program Expenses, 1990-91 to 2011-12

Figures are in billions, \$ and in nominal terms.



Source: Public Accounts of Canada.

What emerges from the data above is that both spending on personnel expenses and DPE in nominal terms, remains fairly stable from 1990-91 to 1998-99 and rises, virtually unabated, from 1999-00 to 2009-10. The stability in the 1990s is the outcome of the managed restraint that occurred during Program Review. However, the growth that follows cannot be attributed to any one program, rather, it is the result of a number of initiatives, culminating in Canada's Economic Action Plan and the associated stimulus spending towards the end of the 2000s.

An analysis of the annual growth rates for each of DPE and personnel expenses is shown in Table 2. In contrast to the relative stability during the 1990s, the period following was one of significant growth.

During the 13-year period between 1999-00 and 2011-12, DPE and personnel expenses each grew on a compound annual basis of 5.6 and 7.3 per cent respectively.

Table 2

Compound Annual Growth Rate, Direct Program Expenses (DPE) and Personnel Expenses (PE)

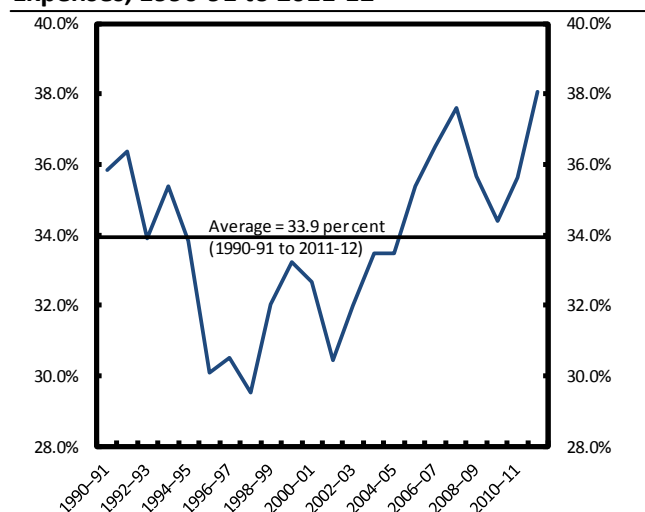
Years	Direct Program Expenses		Personnel Expenses	
	Nominal	Real	Nominal	Real
1990-91 to 1998-99	0.7 %	-1.1%	-1.5 %	-3.2 %
1999-00 to 2011-12	5.6 %	2.6 %	7.3 %	4.4 %
1990-91 to 2011-12	3.8 %	1.3 %	4.1 %	1.7 %

Source: Public Accounts of Canada.

A further analysis of the relationship between DPE and personnel expenses reveals that the share of one to the other has fluctuated. During the period of fiscal restraint in the mid-1990s, the ratio of personnel expenses to DPE trended downward. Conversely, during the late 2000s, during the period of fiscal expansion, the ratio trended upward, to reach the current figure of 38.1 per cent as seen in Chart 3.

Chart 3

Ratio of Personnel Expenses to Direct Program Expenses, 1990-91 to 2011-12



Source: Fiscal Reference Tables, Finance Canada.

This illustrates that while DPE were reduced in the mid-1990s, reductions to personnel expenses were greater. Conversely, in the 2000s, the relative share of personnel expenses rose, indicating that spending in this area outpaced that of other inputs to direct program expenses.⁵ The spike in 2000-01 reflects a large increase to personnel expenses in that year.

Another explanation considers employment figures as a central input to the fluctuation in personnel expenses described above. Given that employment is a key driver for personnel expenses, the PBO has constructed this study to better understand the relationship between the two, the implications to each by recent budgets, and the management challenges related to personnel expenses within the larger context of DPE.

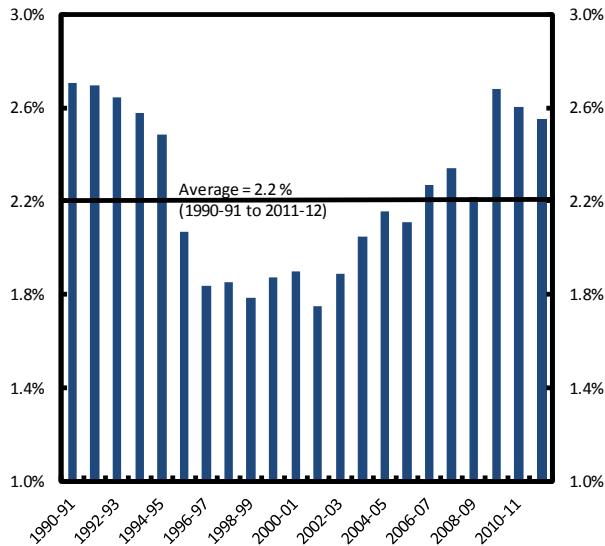
⁵ The spike in the early 2000s reflects a large increase in personnel expenses due to negotiated agreements, which continued to rise primarily due to pay equity settlements in the core public service. Pay Equity settlements account for approximately 2.5 per cent of total compensation in the early 2000s. "Expenditure Review of the Federal Public Sector," compiled for TBS, 2006. Retrieved May, 2012.

2. Trends in Federal Personnel Expenses

Personnel expenses may be evaluated against key benchmarks, namely GDP and on a real-per capita basis. From Chart 4, personnel expenses have been on average 2.2 per cent of GDP over the last 22 years and were 2.55 per cent in 2011-12.

Chart 4

Per cent Share: Personnel Expenses to GDP



Sources: Statistics Canada, Finance Canada, PBO.

The ratio of personnel expenses to GDP has fluctuated to reach historical lows following Program Review and returning, recently, to highs not seen since the early 1990s, gaining almost a full percentage of GDP over the last thirteen years. On a real per-capita basis, the total cost of personnel expenses is \$1,267 in 2011-12, an 85 per cent increase from a low of \$744 in 1996-97.

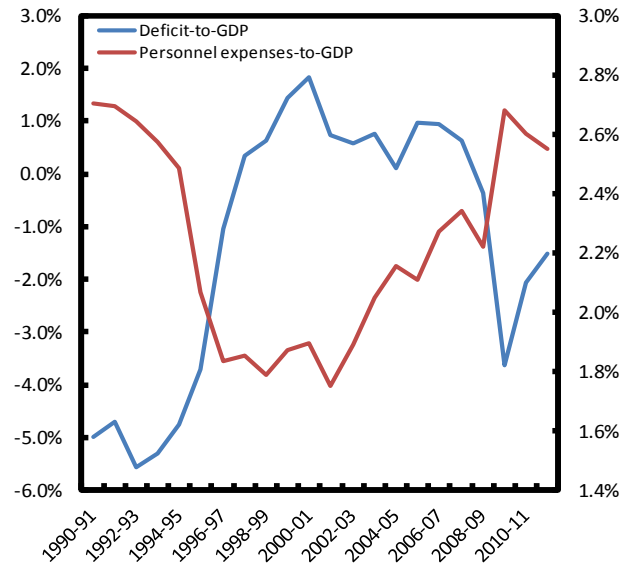
The relationship between personnel expenses-to-GDP and Deficit-to-GDP is shown on Chart 5. From the data, the ratio is inversely correlated with few exceptions and illustrates that as the budgetary deficit was eliminated in the late 1990s, personnel expenses were managed and reduced during the same time frame.⁶

⁶ Refer to Annex 2 for the relationship between the Deficit-to-GDP and personnel expenses-to-GDP as well as to personnel expenses on a real per-capita basis.

Chart 5

Personnel Expenses-to-GDP and Deficit-to-GDP, 1990-91 to 2011-12

Left axis = Deficit-to-GDP; Right axis = Personnel Expenses-to-GDP



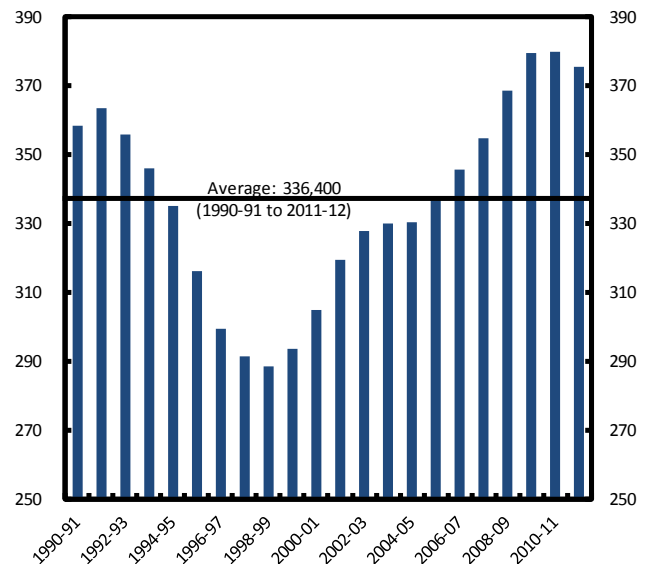
Sources: FRT 2012 Finance Canada, Public Accounts of Canada.

Of equal importance to personnel expenses is the level of employment. Chart 6 highlights the cyclical nature of employment in the Federal Public Service, losing over 70,000 jobs in the late 1990s and regaining over 90,000 in the decade that followed.

Chart 6

Federal Employment, FTE basis 1990-91 to 2011-12

Figures are in thousands



Sources: Departmental Performance Reports, TBS.

As with personnel expenses, there are two distinct time periods that emerge for employment. During the first, between 1990-91 and 1998-99, employment declined at a compound annual rate of 2.7 per cent due primarily to Program Review. During the second, between 1999-00 and 2011-12, employment grew by 2.1 per cent annually, due to both gradual expansion initiatives in the years following Program Review and stimulus spending aligned with implementing Canada's Economic Action Plan. Over the course of the last 22 years, employment figures have remained relatively flat, having grown by 0.2%.

Table 3

Compound Annual Growth Rate, Employment

Time Period	Employment
1990-91 to 1998-99	-2.7 %
1999-00 to 2011-12	2.1 %
1990-91 to 2011-12	0.2 %

Source: *Public Accounts of Canada*.

3. Total Compensation per-FTE

In order to determine total compensation per-FTE, the PBO considers both the personnel expenses, and the corresponding number of employees that make up the federal employment.⁷

The PBO has aligned available data for personnel expenses with the federal employment in order to determine an average annual per-FTE expense. In 2011-12 personnel expenses were \$43.8 B and the associated workforce was 375,500. As such, total compensation per-FTE in 2011-12 was \$114,100.⁸

⁷ Personnel expenses within the Public Accounts of Canada align with employees within the Core Public Administration, Separate Agencies, Parliament, the RCMP regular and civilian members and the Canadian Forces members and active reserve.

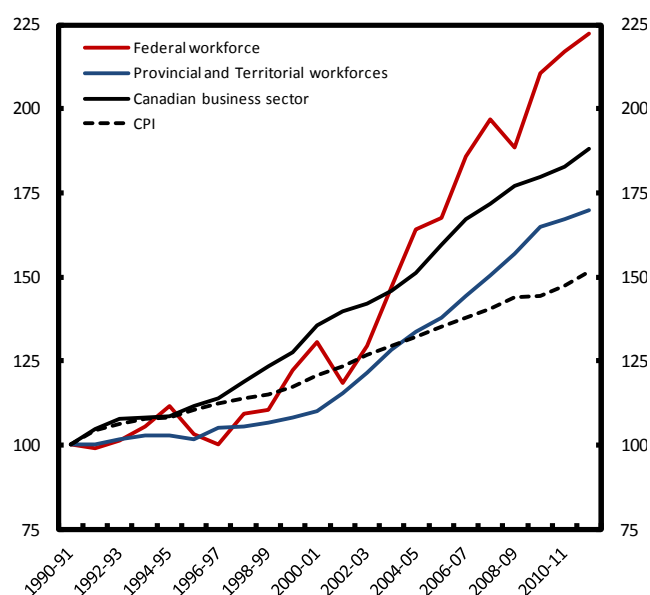
⁸ Personnel expenses in 2011-12 include the recent and short-term distribution of early severance payments. The figure of \$114,100 is calculated by dividing personnel expenses less early

Total compensation per-FTE may also be compared to that of the Canadian business sector and to other levels of government. Chart 7, below, identifies personnel expense growth per-FTE for the groups identified above and against CPI.⁹

Chart 7

Relative Compensation Growth, per-FTE basis

Index: 1990-91 = 100



Sources: *Statistics Canada, Finance Canada, PBO*.

From the data in Chart 7, compensation growth per-FTE in the federal public service outpaced not only CPI inflation but also compensation growth in the Canadian business sector and the Provincial and Territorial levels of government over the last ten years. The sustained rise in federal public service total compensation per-FTE, including higher growth than for other sectors, underscores the importance of transparent reporting processes to ensure that Parliamentarians are aware of the changes and its impact on the nation's finances.

severance payouts per TB Vote 30 by the corresponding federal public service employment. Refer to the Notes section of this paper for additional information regarding TB Vote 30.

⁹ Refer to the Notes section of this paper for additional information on data limitations at the Provincial and Territorial levels of government.

4. The Effects of Budgets 2010-2012

To assess the impact of restraint measures in Budgets 2010, 2011, and 2012, the PBO has developed projections for employment, compensation per-FTE, and personnel expenses.

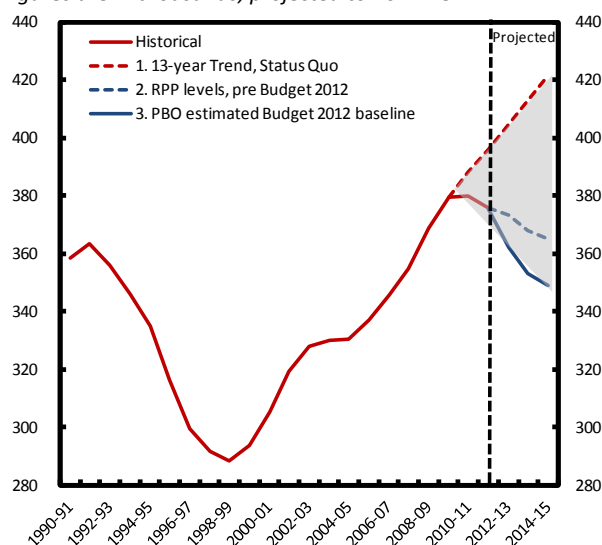
(A) Projections for employment numbers are based on the following scenarios:

1. Historical trend for FTE growth: 2.1 per cent compound annual growth.
2. 2011-12 RPP levels: adjust the employment growth by applying FTE figures, reported by departments and agencies in their Report on Plans and Priorities tabled in Parliament in May 2012, which consider reductions to FTEs announced prior to Budget 2012.
3. PBO estimated Budget 2012 baseline: apply FTE figures as reported in Report on Plans and Priorities documents and overlay reductions per Budget 2012.

Chart 8

Federal Workforce, FTE basis

Figures are in thousands, projected to 2014-15



Sources: DPRs, Finance Canada, TBS, PBO data.

Budget 2010 marked a notable inflection point in stemming employment growth that had occurred since 1999-00. Budget 2012 introduced a reversal in the growth trend by reducing FTEs significantly

over the next three years (refer to the solid blue line in Chart 8). Approximately 4,000 FTEs have already been eliminated per Budgets 2010 and 2011.

As a result of announcements made in Budget 2012, the PBO expects that the workforce will be further reduced in the coming three years by 19,200 FTEs. This decline in employment represents a cumulative reduction of approximately 7.0 per cent of the workforce between 2011-12 and 2014-15 or a reduction of 8.0 per cent from the employment peak in 2010-11.¹⁰

¹⁰ Employment reductions are expected not only to the federal workforce but also to consolidated Crown corporations and other entities. These organizations receive funding described in the Public Accounts, Volume 1, Table 4.2. These entities have reported employment reductions to their respective unions, but are not captured within this study.

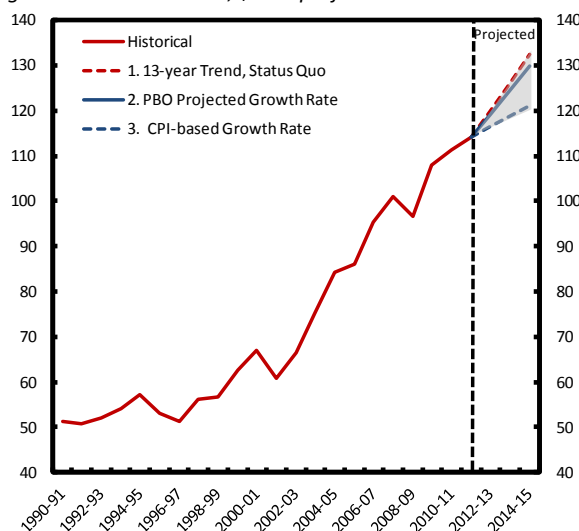
(B) Projections for total compensation per-FTE are based on the following scenarios:¹¹

1. Historical trend for total compensation per-FTE: 5.1 per cent compound annual growth.
2. PBO Projected growth rate: apply a 4.4 per cent growth adjustment to total compensation per-FTE (refer to Box 1).
3. CPI-based growth rate: apply a 2.0 per cent growth adjustment to total compensation per-FTE

Chart 9

Total Compensation, per-FTE basis

Figures are in thousands, \$ and projected to 2014-15



Sources: DPRs, Finance Canada, TBS, PBO data.

From the trajectory described in Chart 9, the PBO expects that total compensation per-FTE would reach \$132,400 by 2014-15 given historical growth, \$129,800 given a 4.4 per cent annual growth adjustment, or \$121,000 given a 2.0 per cent annual growth adjustment.

¹¹ The 5.1 per cent compound annual growth rate from 1999-00 to 2011-12 for total compensation per-FTE is calculated from aggregate data within the Public Accounts of Canada and from employment data from Statistics Canada. However, detailed information from the Receiver General is available starting in 2001-02. Consequently, Box 1 analysis references the compound annual growth rate of 5.6 per cent since 2001-02 given the ability to deconstruct compensation according to the compensation categories ("Object Codes") provided by the Receiver General.

Box 1: Inputs to Calculating the Projected Growth Rate for Total Compensation per-FTE

The PBO has used the following analysis to project the growth rate for total compensation per-FTE (TC/FTE) given recent announcements delivered through Budgets 2010-2012 and Bill C-45:

Compound Annual Growth for TC/FTE, by category

Category: Contribution	Historical Growth (Contribution)	Projected Growth (Contribution)	Notes ¹²
Salaries and Wages: 71.8 %	5.4 % (3.9 %)	4.5 % (3.2 %)	A
Employer contributions to Pensions (Superannuation, CPP/QPP): 12.8 %	5.3 % (0.7 %)	2.8 % (0.4 %)	B
Employer contributions to health, dental, and disability benefits: 5.7 %	8.0 % (0.5 %)	8.0 % (0.5 %)	C
Other employer contributions: 9.7 %	6.1 % (0.6 %)	3.5 % (0.3 %)	D
Total, 100%:	5.6 %	4.4 %	Annual Growth

Sources: Receiver General, PWGSC, TBS, Statistics Canada, HRSDC

¹² A. 1.8 % negotiated agreements plus 2.7 % historical changes to the job skill mix and normal step increments. HRSDC http://www.hrsdc.gc.ca/eng/labour/labour_relations/info_analysis/overview/2011/section_2.shtml Retrieved November 2012 and Receiver General Economic Data PBO IR0076. Refer to Box 3B in the body of this report for additional information regarding the growth figure for salaries and wages.

B. Refer to Part 4, Division 23 of Bill C-45 for information detailing adjustments to public sector pensions: <http://www.fin.gc.ca/pub/c45/4-eng.asp> Retrieved October 2012.

C. 10-year trend given no indicated changes to existing policies.

D. Reduction to trend per significant decreases in current service costs associated with severance liability to the employer. Refer to PBO information request IR0095.

(C) Projections for total Personnel Expenses

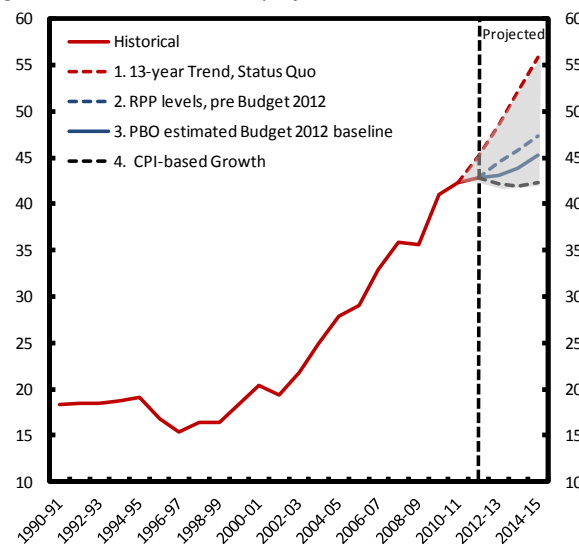
In order to project total personnel expenses in the near-term, the PBO has constructed three scenarios based on data collected from projections for employment numbers and total compensation per-FTE. The scenarios are presented in Chart 10.

1. Historical trend for FTE growth and expense per-FTE: 2.1 per cent for FTE growth and 5.1 per cent for expense per-FTE. This case yields \$55.7 B in personnel expenses or 48.4 per cent of DPE in 2014-15.
2. 2011-12 RPP levels: apply FTE figures as reported by Departments and Agencies in RPP documents which considers reductions announced in prior Budgets and apply a 4.4 per cent annual growth adjustment to total compensation per-FTE. This case yields \$47.4 B in personnel expenses or 41.2 per cent of DPE in 2014-15.
3. PBO estimated Budget 2012 baseline: apply FTE figures as reported by Departments and Agencies in RPP documents, overlay reductions per Budget 2012, and apply a 4.4 per cent annual growth adjustment to total compensation per-FTE. This case yields \$45.3 B in personnel expenses or 39.3 per cent of DPE in 2014-15.
4. CPI-based growth (for illustrative purposes): apply FTE figures as reported by Departments and Agencies in RPP documents, overlay reductions per Budget 2012, and apply a 2.0 per cent annual growth adjustment to total compensation per-FTE. This case yields \$41.8 B in personnel expenses or 36.3 per cent of DPE in 2014-15.

Chart 10

Personnel Expenses

Figures are in billions, \$ and projected to 2014-15



Source: PBO.

In the absence of a declared baseline by the federal government, the PBO has determined that the third scenario is most consistent with recent budgetary announcements.

As such, the PBO would expect the following outcome by the end of 2014-15:

- Federal employment will be reduced from 2012 RPP projected levels by 19,200 per Budget 2012, resulting in federal employment of 349,000.
- For this employment, total compensation per-FTE will have grown by 4.4 per cent on an annual basis, resulting in, on average, \$129,800 per employee.
- The net effect, adjusting for early severance payouts, yields approximately \$45.3 B in personnel expenses or 39.3 per cent of DPE.

In order to achieve the fiscal objectives announced by the Government of Canada in its 2012 Budget Plan, namely to achieve fiscal balance in the medium term by freezing Direct Program Expenditures, it is necessary to fully implement the Government initiatives currently underway to reduce the size of federal workforce.

5. Reporting, Transparency and Accountability

This paper focuses on federal budget restraint and its effect on personnel expenses and, by association, on direct program spending as it seeks to review Canada's spending in this area. From the projection analysis that the PBO has constructed, the effects of Budgets 2010, 2011, and 2012, once implemented, are expected to slow down the upward trend and maintain a stable trajectory for personnel expenses in the near term.

However, Parliament does not have, at present, access to government plans and reporting mechanisms required to assess and monitor the progress expected from changes announced within recent consecutive budgets.

The reasons for the lack of transparency are threefold. First, the Government has not identified a baseline for reductions to FTEs. In effect, the multiyear plans to reduce 19,200 FTEs as announced in Budget 2012 have not been provided. Without a confirmed baseline, reductions to FTEs cannot be assessed by Parliament.¹³

Second, Parliament does not, at present, have access to the allocation for reductions to FTEs within departments and agencies by program activity as requested by the PBO. As such, parliamentarians do not have the resources with which to determine areas of priority for resource distribution and the effects of the distribution on services provided to Canadians.¹⁴

Third, the channels for reporting on resource allocation and operational efficiency do not exist at present. In its current state, information released approximately 18 months following the end of the fiscal cycle details personnel expenses and employment figures for each department and agency as reported in Departmental Performance Reports and in the Public Accounts of Canada. Were information available on an interim basis, parliamentarians would be able to respond with enhanced effectiveness and succeed in providing greater insight into how Canada spent \$43.8 B in 2011-12, or 2.55 per cent of its GDP.

Box 2: Recommendations previously issued for TBS

The report compiled for the Treasury Board Secretariat in 2006, *"Expenditure Review of Federal Public Sector Compensation Policy and Comparability,"* remains the most comprehensive analysis on expenses related to Personnel. The report issued 17 sets of recommendations (77 proposals in total) organized into five themes as follows:¹⁵

- Transparency and Accountability
- Coherent Management of Federal Compensation
- Specific Substantive Compensation Issues Relating to Salaries
- Specific Compensation Issues relating to Pension and Other Benefits
- Possible Areas of Legislative Change

¹³ PBO Information Request IR0076-B confirms the absence of a baseline from which reductions to FTEs have been calculated by the Treasury Board Secretariat.

¹⁴ As of the writing of this report, the PBO has received partial information from the government in response to PBO information request IR0080 which requested spending data on a program of activity basis for each department and agency.

¹⁵ Expenditure Review of Federal Public Sector Compensation Policy and Comparability. <http://www.tbs-sct.gc.ca/report/orp/2007/er-ed/er-ed-eng.asp> Retrieved November 2012.

6. External Assistance

The PBO has received information, guidance and feedback from the following departments, agencies and institutions.

Department, Agency, or Institution
Cabinet Office, U.K.
Canada Employment Insurance Financing Board
Carleton University
Chief Actuary, Office of the Superintendent of Financial Institutions
Congressional Budget Office, U.S.
Deloitte Consulting
National Audit Office, U.K.
Organisation for Economic Development and Cooperation (OECD)
Receiver General, PWGSC
Statistics Canada
Sussex Circle
Treasury Board Secretariat
University of Ottawa
University of Toronto

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Table of Acronyms

CAGR	Compound Annual Growth Rate
CPI	Consumer Price Index
DRAP	Deficit Reduction Action Plan
DPE	Direct Program Expenses
DPR	Departmental Performance Reports
FRT	Fiscal Reference Table, Finance Canada
FTE	Full-time equivalent
GDP	Gross Domestic Product
HRSDC	Human Resources and Skills Development Canada
OSFI	Office of the Superintendent of Financial Institutions Canada
PBO	Parliamentary Budget Officer
PSC	Public Service Commission
PWGSC	Public Works and Government Services Canada
RG	Receiver General, Public Works and Government Services Canada
RPP	Report on Plans and Priorities
SOR	Strategic and Operating Review
TBS	Treasury Board Secretariat

Context

The *Parliament of Canada Act* mandates the Parliamentary Budget Officer (PBO) to provide independent analysis to the Senate and the House of Commons on the state of the nation's finances, the government's estimates, and trends in the national economy.¹⁶ In this regard, the PBO reviews and analyzes Annual Financial Reports, the Budget Plan, the Public Accounts of Canada, Main and Supplementary Estimates, and Departmental Performance Reports. Personnel expenses, reported within these documents, are significant, representing approximately 38 per cent of direct program expenses and, therefore, merit regular analysis and consistent reporting.

This report provides to Parliamentarians a framework with which to assess the trends and developments of personnel expenses in the Canadian federal public service. The report includes an analysis of trends and comparative metrics, using historical data from 1990-91 and projections to 2014-15. The time period under review includes key policy decisions related to program review during the mid-1990s, stimulus spending during the late 2000s, the impacts of the operating budget freeze of 2010, strategic review of 2011, and DRAP (the Deficit Reduction Action Plan) in Budget 2012.

Additionally, the report includes comparative data on personnel expenses within the Canadian federal public service relative to GDP, other significant national programs, other levels of Government within Canada, the Canadian business sector, and other Governments abroad. Finally, this report explores current reporting mechanisms and assesses the degree to which

this information is transparent and available to parliamentarians.

The study also reviews the fiscal impact of the Government of Canada's proposal for personnel expenses with the goal of presenting findings to Parliamentarians that assess the likelihood of achieving its fiscal plan objective of effectively freezing direct program expenses over the next five years.

¹⁶ Parliament of Canada Act: <http://laws-lois.justice.gc.ca/eng/acts/P-1/FullText.html?term=79.2>. Retrieved May 2012

1. Personnel Expenses

As Canada enters a period of fiscal restraint in light of announcements made within Budget 2010 to 2012, discussions surrounding operating expenses in general and personnel expenses in particular are becoming increasingly relevant. Key issues include the magnitude of historical and projected growth of personnel expenses, reaching record levels of \$43.8 B in 2011-12, the impact of the relatively large swings in the level of employment of the federal public service, and the ability for the government to achieve its fiscal plan including freezing direct program expenses which include personnel expenses.¹⁷

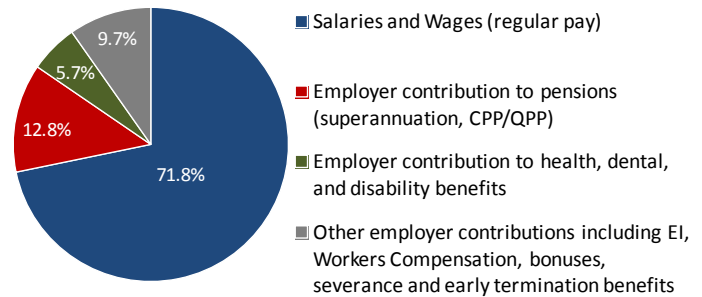
(i) Composition of Personnel Expenses

Personnel expenses are reported within the Public Accounts of Canada for each department and agency within the Core Public Administration, Separate Agencies, Parliament, Canadian Forces, and RCMP and are considered as tangible benefits payable to employees.¹⁸ These benefits consist of salaries and wages (regular pay), and further include employer pension contributions (both Public Service Superannuation and Canada/Quebec Pension Plans), medical, dental, and disability benefits including hospital expenses and Provincial health premiums; and a host of other compensatory contributions by employers including Employment Insurance (EI) and Workers' Compensation, overtime pay, bonuses, severance pay and termination benefits. Figure 1 describes the average share for the four key

categories for expenses to Personnel between 2001-01 and 2011-12.¹⁹

Figure 1

Average Composition of Personnel Expenses, 2001-02 to 2011-12²⁰



Source: Receiver General, PWGSC.

In 2011-12, the share of 'other employer contributions' rose from the historical share of 9.7 per cent to approximately 12 per cent. The increase is attributable to severance pay and early termination benefits which grew from, on average, approximately 1.5 per cent of personnel expenses to over 4 per cent in 2011-12.

In addition to personnel expenses which are categorized by the Receiver General, PWGSC considers personnel expenses on a per-FTE basis for the purpose of calculating expenses associated with accommodation. As such, trends in personnel expenses have a direct impact on the funding allocation by PWGSC. These expenses are classified as rentals and included as operating expenses categorized within the Public Accounts of Canada.

¹⁷ From the Public Accounts, operating expenses are considered as costs associated with personnel, transportation and communications, information, professional and special services, rentals, repairs and maintenance, and utilities, materials, and supplies. This paper analyzes personnel costs only.

¹⁸ Total compensation is classified according to the Government Wide Chart of Accounts for Canada. <http://www.tpsgc-pwgsc.gc.ca/recgen/pceaf-gwcoa/1213/txt/rg-d-7-a-eng.html#id-A-0> Retrieved November 2012.

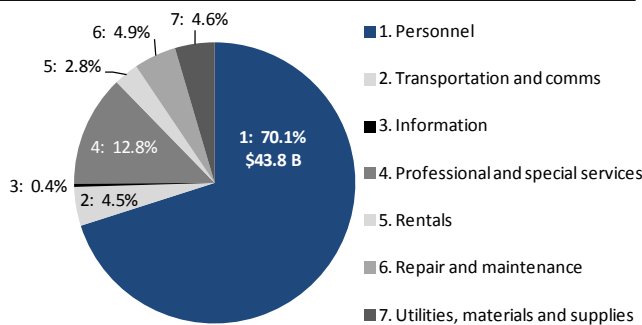
¹⁹ A detailed breakdown of personnel expenses by economic code by the Receiver General commences in 2001-02.

²⁰ Between 2001-02 and 2011-12, the allocation within the four categories of total compensation remained relatively stable. Salaries and wages, which account for almost 72 per cent of the allocation, fluctuated by 1.9% over the study period. Employer pension contributions fluctuated by 1.3%; health, dental, and disability benefits by 1.5%; and other benefits by 1.1%. The allocation for 2011-12 results in the lowest levels for salaries and wages, namely 68.7 per cent. This year also marks the highest share for health and dental as well as other employer contributions over the study period. Source: Receiver General. Retrieved November 2012.

(ii) Share of Personnel Expenses

In 2011-12, personnel expenses, reported within the Public Accounts of Canada, were \$43.8 B (Figure 2).²¹ These expenses accounted for 18.2 per cent of total program expenses, 38.1 per cent of Direct Program Expenses, and 70.1 per cent of operating expenses. The percentage share for personnel expenses to total operating expenses has been, on average, 64.5 per cent over the course of the last 22 years.²²

Figure 2
Personnel Expenses as a Share of Operating Expenses, 2011-12



Source: Public Accounts of Canada, 2011-12.

In 2011-12, personnel expenses accounted for 2.55 per cent of GDP and on a real per capita basis, Canadians spent \$1,267 on total federal personnel expenses.²³

²¹ \$43.8 B is the total recorded within the Public Accounts, Volume 2, Table 3, "Ministerial Expenses for Standard Object" specific to Personnel and for Departments and Agencies listed in the Financial Administration Act, Annexes I and IV. Consequently, this figure does not include payments made by the Government of Canada to support those personnel expenses of consolidated Crown Corporations. Given funding provided to Crown corporations by the Government of Canada, per the Public Accounts, Volume 1, Table 4.2, approximately \$3 B may be considered as additional expenses.

²² The lowest ratio of personnel expenses to operating expenses was 59 per cent in 1998-99 and the highest ratio was 70.1 per cent in 2011-12.

²³ Canada, CANSIM TABLE 051-0005. Retrieved November 2012. Please refer to Annex 2 for further information on personnel expenses per capita since 1990-91.

When compared to spending on key programs, personnel expenses account for approximately two times the amount spent on National Defence, two and a half times the amount spent on Employment Insurance benefits, and more than the amount spent on Old Age Security.²⁴

(iii) Composition of the Workforce

The workforce included within this study is aligned with FTEs employed by departments and agencies listed within the Public Accounts of Canada, Volume II.²⁵

Figure 3 provides the percentage breakdown of the FTE workforce population considered within this study, comprised of the following groups:²⁶

- The Federal Public Service (the Core Public Administration and Separate Agencies), and Parliament;
- RCMP regular and civilian members, Canadian Forces members and active reserve.

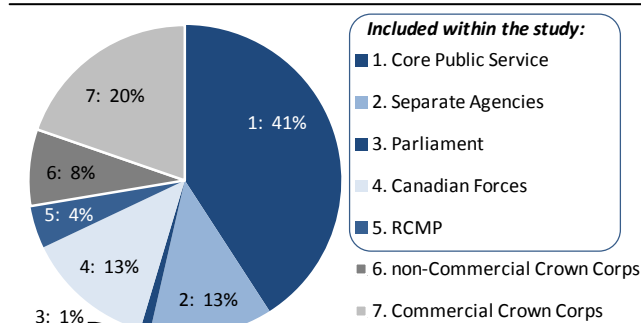
²⁴ Finance Canada, Fiscal Reference Tables. Retrieved November, 2012. Please note that there is some overlap in counting given that the comparison between expenses for Personnel and expenses for Defence include expenses for Personnel in each.

²⁵ Workforce FTE figures are compiled from DPRs and cross-checked with Statistics Canada data, CANSIM Table 183-0021 - Federal public sector employment reconciliation of Treasury Board Secretariat, Public Service Commission of Canada, and Statistics Canada statistical universes, annual (persons). Retrieved November, 2012. Of the 519,000 employees within the Statistics Canada Universe, 375,500 are employed by departments and agencies that are listed within the Public Accounts, Volume 2, Table 3.

²⁶ Please refer to the Financial Administration Act for departments and agencies within the categories of Core Public Administration and Separate Agencies: <http://laws-lois.justice.gc.ca/eng/acts/F-11/>. Retrieved May 2012. Consolidated Crown corporations are listed within the Public Accounts, Volume I, Table 4.2 with Government expenses indicated in this table although this study does not consider these employees. Civilian members of the RCMP and Department of National Defence are included within the Core Public Service.

Figure 3

Federal Public Sector Employees, 2011-12²⁷



Source: Statistics Canada.

The PBO has assembled data for the population included in these groups from Departmental Performance Reports (DPR) for FTEs as seen in Table 1, below, for 2011-12.²⁸

Table 1

2011-12 Workforce Full-Time Equivalents (FTEs)

Federal workforce within this study	FTEs
Federal Public Service (Core Public Administration, Separate Agencies) and Parliament	283,400
RCMP regular, civilian members; Canadian Forces members, active reserve	92,100
Total	375,500

Source: Departmental Performance Reports, 2010-11.

²⁷ Please refer to Annex 3 for a Federal Public Service Historical Trend by Employer.

²⁸ Employment figures from the DPRs are used for 2011-12 data while employment figures from TBS are used for the historical data. Although the two approaches differ in that TBS figures represent bodies in all positions, the discrepancy between counting employees is within one per cent over the study period. The margin of error in 2011-12 is 0.13 per cent, rendering the discrepancy statistically insignificant. RPP figures are used to estimate projection FTE figures within this report since these figures, authorized at the level of the department or agency, provide insight into expectations in employment for the upcoming three years.

(iv) Total Compensation per-FTE, 2011-12

In order to determine total compensation per-FTE, the PBO considers both the personnel expenses, and the corresponding number of employees that make up the federal employment.

The PBO has aligned available data for personnel expenses with the federal employment in order to determine an average annual per-FTE expense. Given that personnel expenses were \$43.8 B in 2011-12 and the associated workforce was 375,500, total compensation per-FTE in 2011-12 was \$114,100.²⁹

²⁹ Personnel expenses in 2011-12 includes the recent and short-term distribution of early severance payments. The figure of \$114,100 is calculated by dividing personnel expenses less early severance payouts per TB Vote 30 by the corresponding federal public service employment. Refer to the Notes section of this paper for additional information regarding TB Vote 30.

In addition, total compensation per-FTE figure for the Canadian federal public service is slightly higher than that released in the "Expenditure Review of the Federal Public Sector," compiled for TBS in 2006 due to updated and newly available data. It is comparable to that of the U.S. federal public service published by the U.S. Congressional Budget Office in its report, "Comparing Benefits and Total Compensation in the Federal Government and the Private Sector" (January, 2012). The data is, however, not comparable to similar information from the United Kingdom for two reasons. First, the U.K. model follows a unitary system and therefore includes a much broader range of job categories that have no equivalent at the federal level in Canada. Second, U.K. compensation data is classified according to eleven geographic zones. Canada does not distinguish by geographic zone within our compensation structure.

2. Trends in Personnel Expenses and Employment, 1990-91 to 2011-12

This section examines trends in personnel expenses between 1990-91 and 2011-12. The approach includes a time series and analysis of Ministerial Expenses by Standard Object for Personnel as recorded in the Public Accounts of Canada. The workforce is consistent with that described within the Public Accounts, Volume II, Table 3, and is based on data from DPRs regarding FTEs.³⁰

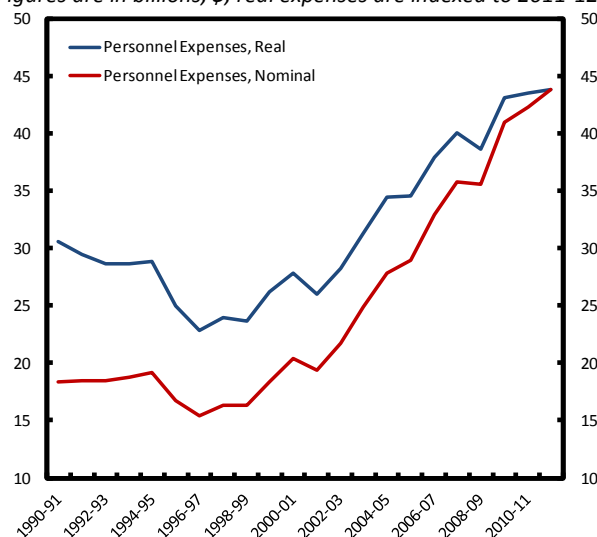
(i) Personnel Expenses

In 1990-91, expenses for personnel were reported in the Public Accounts as \$18.4 B. Over the course of the time period covered by the study, expenses rose to \$43.8 B, the highest level recorded (Chart 1).

Chart 1

Personnel Expenses, 1990-91 to 2011-12

Figures are in billions, \$; real expenses are indexed to 2011-12



Sources: Public Accounts of Canada.

The growth trend for personnel expenses has not been even. Rather, there are two distinct periods:

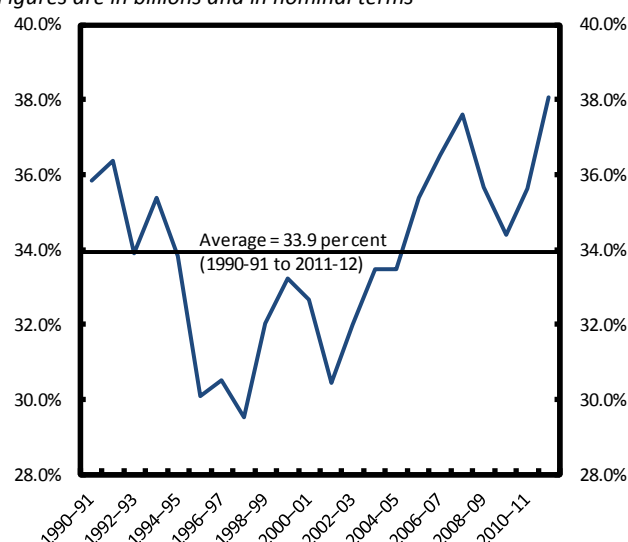
³⁰ Data are presented in nominal terms so that values best correspond to Votes in Parliament. Given the 22-year study period, data are also presented in inflation-adjusted terms. Figures in real dollars are inflation adjusted using the total CPI index rebased to 2011-12. Annex 2 describes spending on personnel expenses relative to deficit-to-GDP.

the first between 1990-91 and 1998-99 and the second between 1999-00 and 2011-12. During the first, expenses for both personnel and direct program expenses remained relatively stable. However, from 1999-00 to 2011-12, personnel expenses as well as Direct Program Expenses began to rise and continued to do so to reach their highest levels at the start of 2012. Chart 2 provides information on the ratio of personnel expenses to DPE throughout the study.

Chart 2

Ratio of Personnel Expenses to Direct Program Expenses, 1990-91 to 2011-12

Figures are in billions and in nominal terms



Source: Public Accounts of Canada.

The compound annual growth rate (CAGR) for personnel expenses between 1990-91 and 2011-12 is 4.1 per cent in nominal terms or 1.7 per cent in real terms, having outpaced inflation. The growth rates for personnel expenses for both periods are captured in Table 2, below.

Table 2

Personnel Expenses, Compound Annual Growth

Years	Nominal Rate	Real Rate
1990-91 to 1998-99	-1.5 %	-3.2 %
1999-00 to 2011-12	7.3 %	4.4 %
1990-91 to 2011-12	4.1 %	1.7%

Source: Public Accounts of Canada.

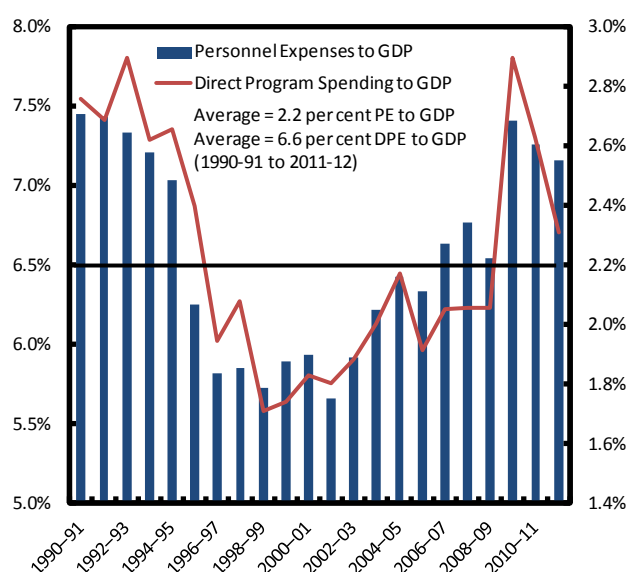
(ii) Personnel expenditure relative to GDP and in real per-capita terms

In 2011-12, when Canadian Gross Domestic Product (GDP) reached \$1.7 trillion, personnel expenses were \$43.8 B, or 2.55 per cent of GDP. Chart 3 shows personnel expenses and Direct Program Expenses each as a share of GDP over the study period.

Chart 3

Personnel Expenses (PE) to GDP and Direct Program Expenses (DPE) to GDP, 1990-91 to 2011-12

Left axis = Direct Program Expenses; Right Axis = Personnel Expenses



Sources: Statistics Canada, Finance Canada, PBO.

The shape of the curve in Chart 3 above clearly reflects changes in spending over two time periods. In the mid-1990s, reductions to expenses drove the ratio of expenses to GDP to historically low levels, well below the average ratio for this study of 2.2 per cent and 6.6 percent for personnel expenses and direct program expenses, respectively.

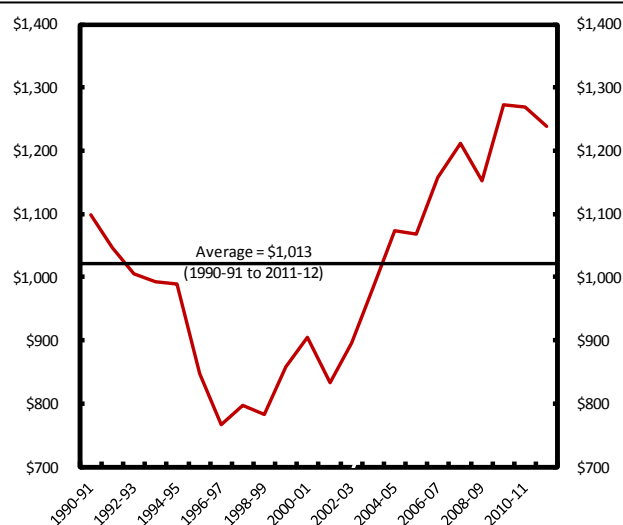
Conversely, more recently, escalated growth in program spending due to stimulus spending together with a weaker GDP as a result of the economic recession at the end of the last decade resulted in restoring the ratio of expenses to GDP to levels not seen since the early 1990s.

The two time periods evident in the analysis regarding the expense ratio to GDP (both personnel expenses and direct program expenses) are also apparent in the trend of personnel expenses on a real per capita basis. Personnel expenses that were reduced in the 1990s rebounded fully and overtook the historical average of \$1,013 in the mid-2000s.

The volatility in personnel expenses over the last twenty two years is demonstrative of the cyclical nature of boom and bust shifts in employment figures. In effect, personnel expenses on a real per capita basis have grown by over 65 per cent from a low in 1996-97 following program review. Real per capita personnel expenses reached its peak at \$1,272 in 2009-10 before dropping marginally in the last two years, as seen in Chart 4.

Chart 4

Personnel Expenses, Real per Capita basis



Sources: Statistics Canada, Finance Canada, PBO.

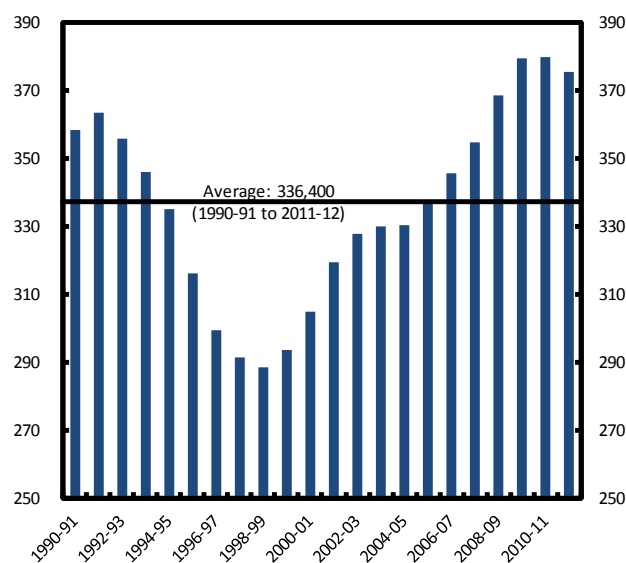
(iii) Federal Employment, FTEs

Chart 5, below, highlights the cyclical nature of employment in the Federal Public Service over the course of the last 22 years.

Chart 5

Federal Employment, FTE basis 1990-91 to 2011-12³¹

Figures are in thousands



Sources: DPRs, Finance Canada, TBS.

Between 1990-91 and 1998-99, federal employment reached a low, dropping to approximately 288,500 in 1998 as the full effects of Program Review were realized. By the late 2000s, employment had rebounded fully and continued to grow until the end of the study period. In effect, the population lost over 70,000 jobs in the late 1990s and subsequently regained them by adding over 90,000 in the decade that followed.

As with personnel expenses, there are two distinct time periods that emerge for employment. During the first, between 1990-91 and 1998-99, employment declined by a compound annual growth rate of 2.7 per cent due primarily to Program Review. During the second, between 1999-00 and 2011-12, employment grew by 2.1 per cent compounded

annually, due to both gradual expansion initiatives following the years of deficits and stimulus spending aligned with implementing Canada's Economic Action Plan. Over the course of the last 22 years, employment figures have remained relatively flat, having grown by 0.2%.

Table 3

Compound Annual Growth Rate, Employment

Years	Employment
1990-91 to 1998-99	-2.7 %
1999-00 to 2011-12	2.1 %
1990-91 to 2011-12	0.2 %

Source: Public Accounts of Canada.

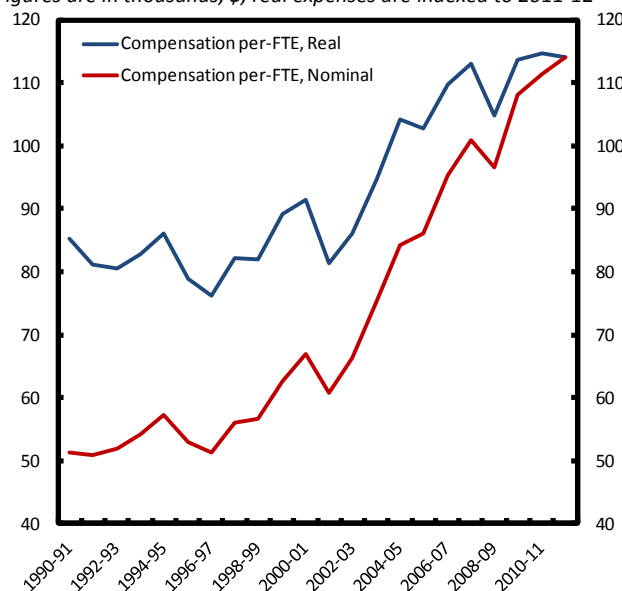
(iv) Average Total Compensation per-FTE

Average total compensation per-FTE, shown in Chart 6 below, remained relatively stable from 1990-91 until 1998-99 and then rose sharply during the 2000s.

Chart 6

Total Compensation per-FTE, 1990-91 to 2011-12

Figures are in thousands, \$; real expenses are indexed to 2011-12



Source: PBO.

In keeping with data on personnel expenses and FTE figures, total compensation per-FTE is subject to two distinct periods as well; that of relative restraint in the 1990s whereby total compensation per-FTE grew slowly in both nominal and real terms and that of

³¹ Please refer to Annex 4 for additional information on the percentage share between EX and non-EX employees.

increased spending in the 2000s which produced much higher growth, as seen in Table 4.

Table 4

Total Compensation per-FTE, Compound Annual Growth

Years	Nominal Rate	Real Rate
1990-91 to 1998-99	1.3 %	-0.5 %
1999-00 to 2011-12	5.1 %	2.1 %
1990-91 to 2011-12	3.9 %	1.4 %

Source: DPRs.

(v) Trends and Fiscal Impacts

There are two key considerations that have emerged from the trend analysis above. First, the policy events in the mid-1990s, namely program review and the period of restraint that followed, were completely reversed by steady growth in the following decade. Given these trends over each of two time periods, the PBO considered the growth trend for the thirteen years between 1999-00 and 2011-12 in order to inform a baseline for projections.

Second, expectations surrounding changes to the workforce and to personnel expenses may be extrapolated from historical patterns. The patterns serve to generate a counterfactual based on the projection as it would have been in the absence of a policy change. Given that both FTEs and personnel expenses grew steadily over the last thirteen years, expectations of public servants and politicians alike may have adapted to the steady growth as the normal condition.³²

³² A counterfactual enables the ability to project trends based on historical activity, where the future activity has not yet occurred. Evidence of counterfactual definiteness may also be explored through data presented in the Reports on Plans and Priorities (RPP) issued by Departments and Agencies at the start of each fiscal year. FTE figures and associated expenditures that were projected over the last three years have been adjusted to reflect reductions in both spending and employees as reiterated in more recent budget announcements.

Box 1: Drivers of Growth to Personnel Expenses

The report compiled for the Treasury Board Secretariat in 2006, *“Expenditure Review of Federal Public Sector Compensation Policy and Comparability,”* points to four key conditions that result in increases to personnel expenses.³³ First, *the population of the Canadian Federal Public Service has grown in absolute terms.* From a workforce low in 1998-99, the number of FTEs currently serving in the federal public service has grown by a third.

Second, *job requirements and, consequently classifications, have changed significantly since the early 1990s.* The federal public service now employs many more professionals and experts than was the case twenty years ago as the nature of public service delivery has changed. Further, the proliferation of technology has enabled a more sophisticated public service that requires its members to have enhanced training more so than was necessary for the many clerical jobs that prevailed in the early 1990s. The transition to a highly skilled job mix is a reflection of both improvements to technology and requirements of the current public service in its delivery of services to Canadians.

Third, since the restoration of *collective bargaining* in the late 1990s, collective agreements have fairly consistently yielded overall compensation increases above inflation.

Fourth, pay equity increases serve as a growth driver in some of the largest classifications within the federal public service.³⁴

³³ “Expenditure Review of Federal Public Sector Compensation Policy and Comparability,” compiled for the Treasury Board Secretariat remains the most comprehensive body of work completed to date on the topic of compensation in the federal public service. <http://www.tbs-sct.gc.ca/report/orp/2007/er-ed/over-exam/over-exampr-eng.asp?format=> .

³⁴ “Expenditure Review of Federal Public Sector Compensation Policy and Comparability,” compiled for TBS., Ch. 3, The Legal and Institutional Framework for Salary Determination.”

3. Comparing Personnel Expenses

Central to the discussion on personnel expenses is the context within which compensation is measured and viewed. The PBO has compared personnel expenses to Canada's GDP and on a real per capita basis in Section 2, above. Here, the PBO compares compensation per-FTE at the federal level to that of the private sector as well as to those of the provincial and territorial public service.

The PBO has also reviewed personnel expenses against those of the United States federal government across each of the four categories, namely, salaries and wages; employer pension contributions; health, dental and disability benefits; and other employer contributions including Employment Insurance, Workers Compensation, overtime pay, bonuses, pay-in-lieu of leave, and severance pay.

(i) Compensation per-FTE Relative to the Canadian Business Sector³⁵

Compensation per-FTE within the federal workforce may be compared to that of the Canadian business sector. From the data presented in Chart 7, compensation growth for both the federal public service and the business workforces lagged against CPI inflation in the 1990s.

However, in the early 2000s, compensation began to rise. By the end of the study period, compensation in both cases outpaced inflation, in the business sector by a factor of 1.2 and the public sector by a factor of 1.5. From the data presented in Chart 7, the most

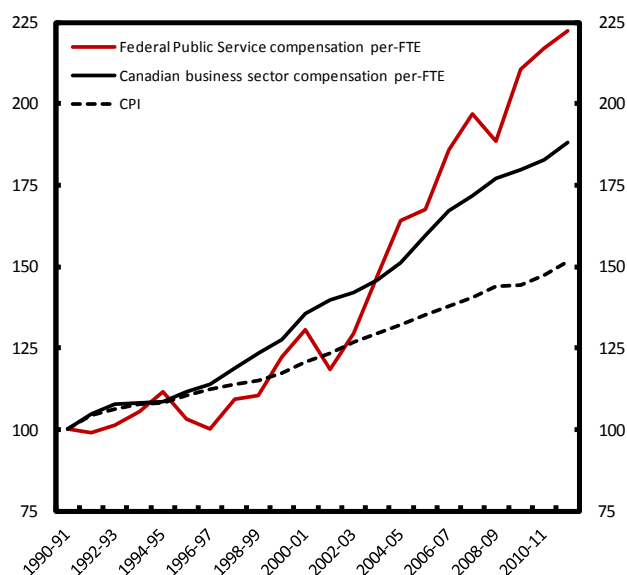
³⁵ Although it is important to draw comparisons between the federal public service and the Canadian business sector, it is inevitable that key assumptions in the methodology are not easily compared, namely, the size of the population and the diversity of the job mix. Given the relative population of each, shocks to the federal public service will be more acute than to the larger Canadian business sector. In addition, the Canadian business sector has a significantly more diverse job mix which distorts average compensation figures in this analysis.

significant change in compensation per-FTE is in the federal workforce starting in 1999-00.³⁶

Chart 7

Relative Growth in Compensation per-FTE

Index: 1990-91 = 100



Sources: Statistics Canada³⁷, PBO.

As seen in Table 5, below, the growth rate for compensation per-FTE within the federal employment trailed that of the Canadian business sector during the first part of the study and then surpassed it in the second part of the study.

³⁶ One of the key distinctions between federal public service compensation and that of the Canadian business sector is the difference in pension benefit schemes. Where by federal pension program is a defined benefit scheme, the Canadian business sector pension program has been evolving towards a defined contribution one. Consequently, as interest rates fell in the last decade, the present value of the future benefits of federal pension programs needed to be supported with additional employer contributions. This was not the case for the defined benefit schemes that exist within the Canadian business sector. This difference accounts for approximately 12 per cent of the growth in personnel expenses at the federal level over the last decade. Receiver General, Public Works and Government Services Canada, Information Request IR0076. Retrieved November 2012.

³⁷ Statistics Canada: v1409158 - 383-0008 Indexes of labour productivity. The definition for 'Business Sector' is included within the technical notes for the CANSIM Table referenced here. Retrieved May 2012.

Table 5
Compensation per-FTE, Compound Annual Growth

Years	Federal Public Service	Canadian business sector	CPI
1990-91 to 1998-99	1.3 %	2.6 %	1.7 %
1999-00 to 2011-12	5.1 %	3.3 %	2.1 %
1990-91 to 2011-12	3.9 %	3.1 %	2.0 %

Source: Statistics Canada, DPRs.

Regarding growth in employment, the Canadian business sector grew consistently over the study while the federal workforce experienced significant swings to its population as seen in Table 6, below.

Table 6
Employment (FTEs), Compound Annual Growth

Years	Federal Public Service	Canadian business sector
1990-91 to 1998-99	-2.7 %	1.2 %
1999-00 to 2011-12	2.1 %	1.0 %
1990-91 to 2011-12	0.2 %	1.5 %

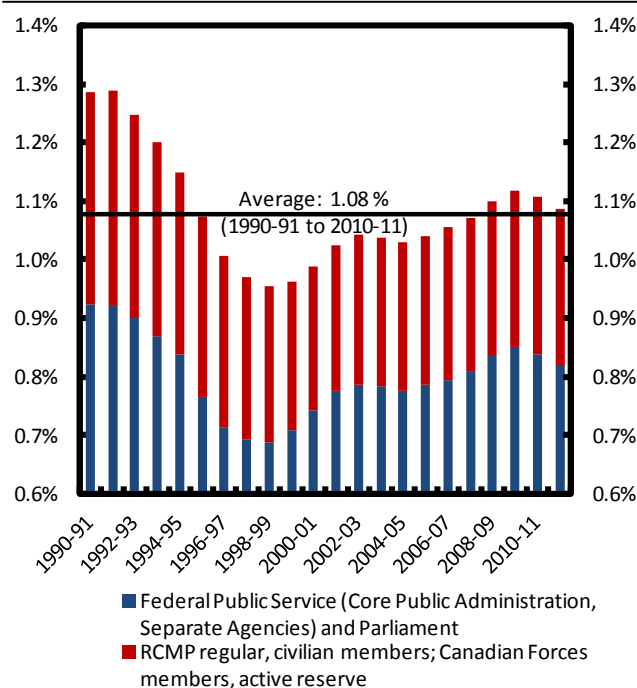
Source: Statistics Canada³⁸, DPRs.

While the data set for the federal employment is smaller than for the Canadian business sector, federal employment experienced more significant swings relative to the Canadian business sector. The federal public service experienced significant losses in the 1990s and significant growth in the last thirteen years. At the beginning of this study, the population of the federal public service was over 350,000 FTEs. By 1998-99 it decreased to below 290,000, and subsequently increased to a high of just below 380,000 in 2010-11. 2011-12 marks the first year in which the population of federal employment has decreased since 1998-99. Over the course of the

last thirteen years, growth within the Federal Public Service was over two times that of the Canadian business sector.

From Chart 8, below, the ratio of the federal employment to the Canadian population has fluctuated over the last 22 years within the limits of 0.95 per cent, during Program Review in the mid 1990s, and 1.29 per cent a few years prior. On average, FTEs employed by the Federal Public Service account for 1.08 per cent of the Canadian population. In recent years, the federal workforce has approximated the average and hovers marginally above at 1.1 per cent, having returned to the historical average.

Chart 8
Federal Employment Share of the Canadian Population, 1990-91 to 2011-12



Sources: Statistics Canada, DPRs, PBO.

³⁸ Statistics Canada: Tables: (1) Table 281-0023 Employment (SEPH), unadjusted for seasonal variation, by type of employee for selected industries classified using the North American Industry Classification System (NAICS), monthly (persons)(4,14,15,16). Retrieved May 2012.

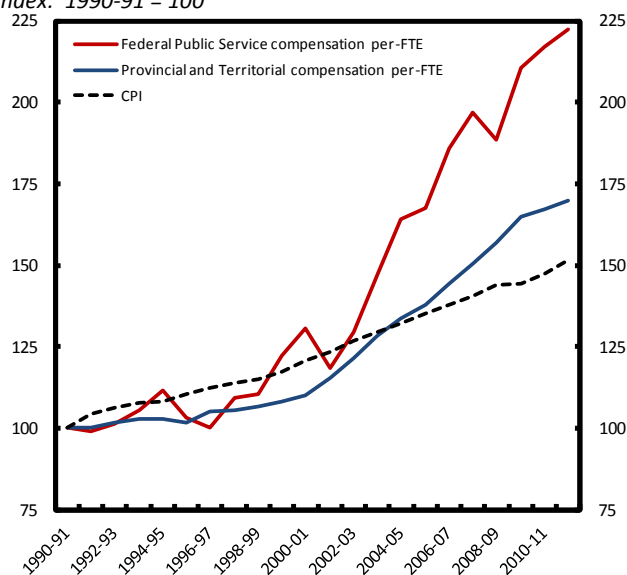
(ii) Compensation per-FTE Relative to Other Levels of Government

Compensation per-FTE within the federal employment may be compared to that of other levels of government.³⁹ From the data presented in Chart 9, compensation per-FTE is generally well correlated within the provincial and territorial, and federal workforces. However, since the late 1990s, compensation per-FTE in the federal workforce rose more quickly than that in other levels of government, exceeding the rate of inflation only towards the second half of the decade. Other levels of government follow a slower growth trajectory, exceeding the rate of inflation only towards the end of the decade.

Chart 9

Relative Growth in per-FTE Compensation

Index: 1990-91 = 100



Sources: Statistics Canada⁴⁰, PBO.

As seen in Table 7 below, the growth rate for compensation per-FTE within the federal workforce was correlated with that of the provincial and

territorial workforces within each of the time periods in that it was lower during the 1990s and rose subsequently and during the 2000s. However the rate of change within federal employment significantly outpaced that of the provinces and territories towards the end of the last decade.

Table 7

Compensation per-FTE, Compound Annual Growth

Years	Federal Employment	Provincial & Territorial	CPI
1990-91 to 1998-99	1.3 %	0.9 %	1.7 %
1999-00 to 2010-11	5.1 %	3.8 %	2.1 %
1990-91 to 2010-11	3.9 %	2.7 %	2.0 %

Source: Statistics Canada, DPRs.

From the data presented in Table 8, employment at the federal level trailed that of the other levels throughout the study. The employment figures are particularly significant during the first part of the study since reductions at the federal level surpassed those at the provincial and territorial levels even during widespread reductions in employment in the health care sector in the mid-1990s at the provincial and territorial levels.

Table 8

FTE Compound Annual Growth

Years	Federal Employment	Provincial & Territorial
1990-91 to 1998-99	-2.7 %	-2.0 %
1999-00 to 2010-11	2.1 %	3.4 %
1990-91 to 2010-11	0.2 %	1.1 %

Source: Statistics Canada, DPRs.

³⁹ Please refer to the "Notes" section for a disclaimer on the available data for this section.

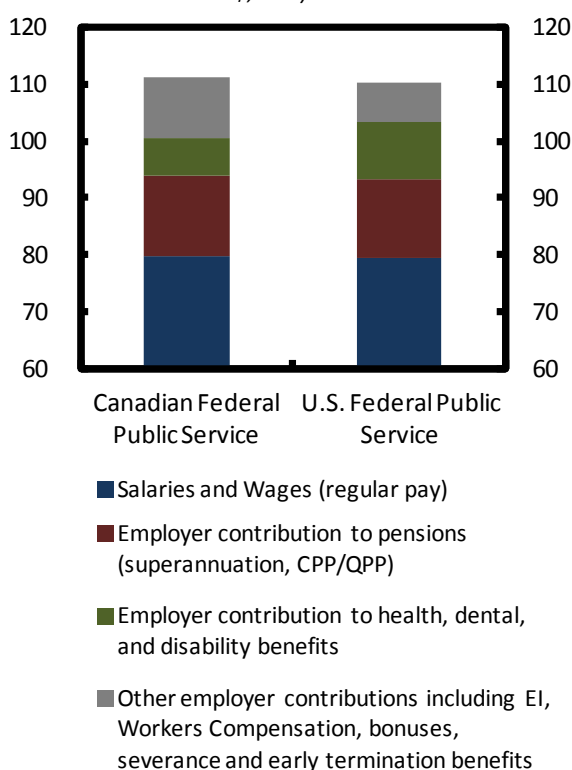
⁴⁰ Statistics Canada: Table 281-0023 Employment (SEPH), and Table 281-0026 Average weekly earnings (SEPH), Retrieved May 2012.

(iii) Compensation Relative to the U.S. Federal Employment⁴¹

Compensation may also be compared at the federal level to better assess spending trends in general as well as within the four components of compensation. Chart 10, illustrates the comparison between average compensation on a per-FTE basis for the Canadian and American federal public services.

Chart 10
Compensation per-FTE for the Canadian and U.S. Federal Public Services, 2010-11

(values are in thousands \$, CAD)



Sources: Receiver General (PWGSC) and Congressional Budget office, U.S.

The United States Congressional Budget Office (CBO) completed a study that reviews U.S. federal public service compensation; however, the study excludes

U.S. military personnel which have been retained in the comparable analysis for Canada.⁴²

Given the findings from the CBO study, compensation paid to Canadian and U.S. public servants at the federal level is comparable across the four categories of compensation described above. From the data in Table 10, the U.S. pays, on average, \$110,400 CAD per-FTE compared to \$111,300 CAD paid per-FTE in Canada in 2010-11.⁴³ The allocation across the four main categories is also similar with the exception of health, dental benefits and disability: the U.S. allocates nine per cent of compensation to spending in this category to Canada's six per cent.⁴⁴

⁴² Congressional Budget Office, United States, "Comparing Benefits and Total Compensation in the Federal Government and the Private Sector." January, 2012. The study is based on hourly assumptions for total compensation which have been converted to annual figures given a standard work-week comprising of 37.5 hours. CBO report, retrieved April 2012. <http://www.cbo.gov/browse/publications/147?page=1>.

⁴³ U.S. data has been adjusted for inflation per the Bank of Canada monthly average exchange rates: <http://www.bankofcanada.ca/rates/exchange/exchange-rates-in-pdf/> Retrieved April 2012.

⁴⁴ The Canadian allocation to health benefits includes dental benefits, absent in the U.S. This research does not consider major transfers made by the Federal government to Provinces for health care spending. Transfers to Provinces and Territories amounted to approximately \$750 per capita in 2010-11 and represent a fluctuating portion of total spending on a Province and Territory basis. <http://www.fin.gc.ca/fedprov/mtp-eng.asp> Retrieved June 2012.

⁴¹ This analysis is based on 2010-11 data for both Canada and the U.S. to align with previously published data from the U.S. Congressional Budget Office and which has not been updated.

4. Developments in Personnel Expenses and Employment

The analysis included within this section is comprised of two data streams, namely, the number of employees within the workforce (FTEs), and the total compensation paid per-FTE. It is necessary to project each of these streams in order to provide an insight to upcoming trends in personnel expenses.

(i) Projections for FTEs

Between 1999-00 and 2011-12, the populations of the Federal Public Service, Canadian Forces, and RCMP grew at a compound annual growth rate of 2.1 per cent. At its peak in 2010-11, 380,000 FTEs made up this workforce, having added over 91,000 FTEs over the previous twelve-year period. However, announcements made in the last three consecutive budgets indicate that FTE numbers within the workforce are expected to fall. In fact, in 2011-12, the federal workforce was 375,500 FTEs, contracting by over 4,000 from the previous year, or by 1.2 per cent, and providing evidence of an initial reduction to FTE figures.⁴⁵

The PBO has projected employment numbers for the upcoming four fiscal years based on the following scenarios:

1. Historical trend for FTE growth: 2.1 per cent compound annual growth.
2. 2011-12 RPP levels: adjust the employment growth by applying FTE figures, reported by departments and agencies in their Report on Plans and Priorities tabled in Parliament in May 2012, which consider reductions to FTEs announced prior to Budget 2012.

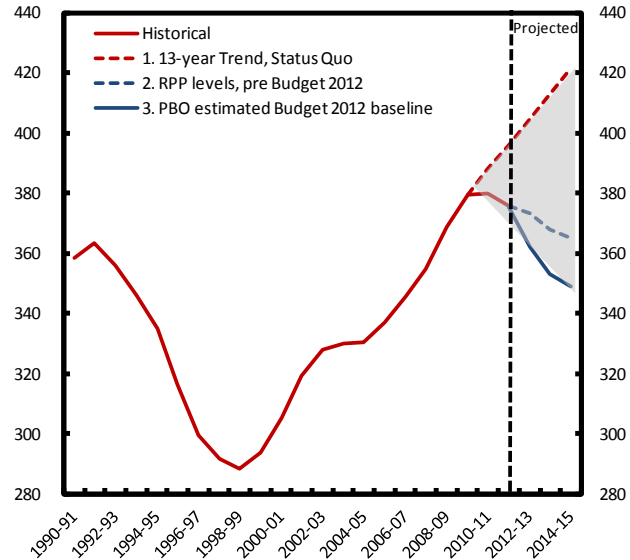
⁴⁵ Data is gathered from the 2011-12 DPRs on a Department and Agency basis and reflected by TBS Snapshot Employment Numbers. <http://publiservice.tbs-sct.gc.ca/res/stats/snet-ade-eng.asp>. Retrieved August 2012.

3. PBO estimated Budget 2012 baseline: apply FTE figures as reported in Report on Plans and Priorities documents and overlay reductions per Budget 2012.⁴⁶

Chart 11

Federal Employment, FTE basis

Figures are in thousands, projected to 2014-15.



Sources: DPRs, Finance Canada, TBS, PBO data.

Given the historical trajectory, absent any of the restraint measured introduced within Budgets 2010-2012, the workforce could have been expected to reach 421,600 by 2014-15.

While Budget 2012 introduced a significant reduction to FTEs (refer to the gap between the dotted blue line and the solid blue line in the chart above), over 4,000 FTEs have already been reduced per Budgets 2010 and 2011 relative to FTE figure reported in 2010-11. Consequently, 2010-11 marks an inflection point, representing a significant deviation from the otherwise expected trend prior to Budget 2010.

⁴⁶ The projected employment figures from 2012-13 to 2014-15 reflect the announcements made in Budget 2012 to reduce the federal public service by 19,200 FTEs over the next three years as well as reductions that have already been realized through the operating budget freeze between 2009-10 and 2011-12 and reported by TBS. Of the 19,200 FTEs, the PBO assumes that 6,200 will be reduced in 2012-13, 9,000 in 2013-14, and 4,000 in 2014-15. Finance Canada, retrieved May 2012.

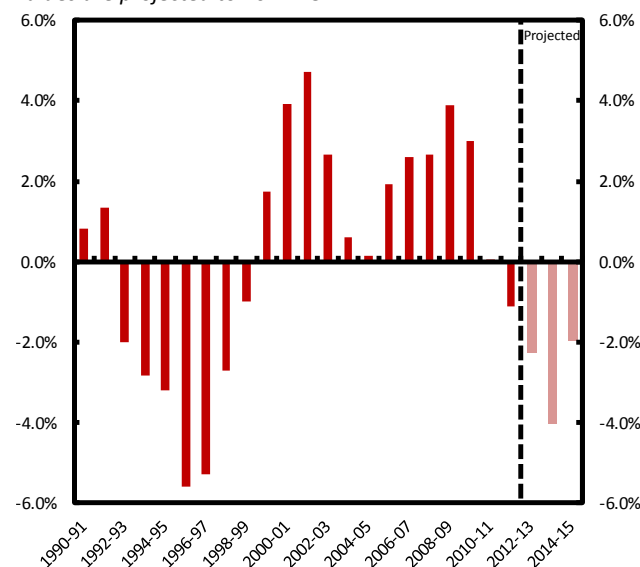
As a result of announcements made in Budget 2012, the PBO assumes that the workforce will be further reduced in the coming three years by 19,200 FTEs. This decline in employment represents a cumulative reduction of approximately 7.0 per cent of the workforce between 2011-12 and 2014-15 or a reduction of 8.0 per cent from the employment peak in 2010-11.⁴⁷

The swings in workforce figures are evident in Chart 12, below, which shows the year-on-year change in growth in FTEs for the federal employment.

Chart 12

Growth in FTEs Within the Federal Employment

Values are projected to 2014-15.



Sources: DPRs, Statistics Canada.

From the data, reductions to the federal employment numbers during the mid-1990s were reversed in the early 2000s. The federal employment grew significantly toward the end of the last decade although the downward trend within the Federal

Public Service, Canadian Forces, and RCMP has already begun, starting with the “Operating Budget Freeze” in Budget 2010 and evident in the negative growth rate for 2011-12. Further reductions associated with the Strategic and Operating Review of Budget 2011 are under way.⁴⁸

In effect, the statistics that emerge from the data suggest that the federal public service may not be as ‘stable’ an employer as has been routinely perceived, evidenced by the significant variation in FTE growth over the study period.⁴⁹

⁴⁷ Employment reductions are expected not only to the federal workforce, but also to consolidated Crown corporations and other entities. These organizations receive funding described in the Public Accounts, Volume 1, Table 4.2. These entities have reported employment reductions to their respective unions, but are not captured within this study.

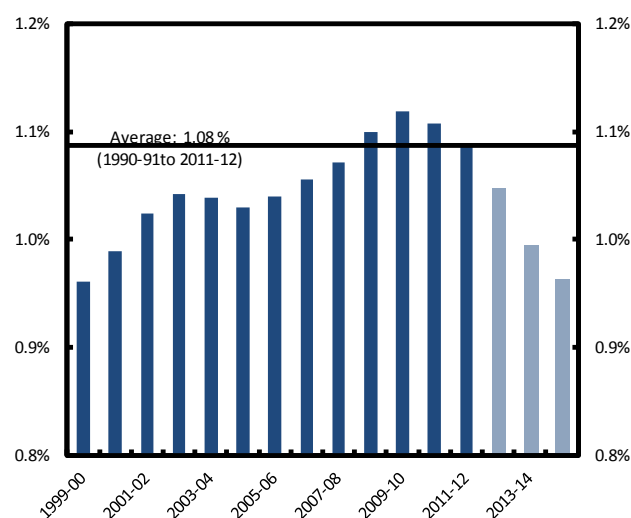
⁴⁸ Chart 12 uses projection data from Scenario 3 (apply FTE figures are reported in RPPs and overlay reductions per Budget 2012). Finance Canada has provided data on the details of planned reductions to departmental spending, including a profile of fiscal savings reflected in the expense forecast in Table 6.6 (of Budget 2012) of which operating expenses subject to freeze (from Budget 2010) are listed. <http://www.pbo-dpb.gc.ca/en/> Retrieved May 2012.

⁴⁹ Note that FTE volatility is one dimension of stability. TBS reviews multiple measures within the “Demographic Snapshot of the Federal Public Service” which further serves to determine stability: <http://www.tbs-sct.gc.ca/res/stats/demo11-eng.asp>. Retrieved June 2012.

The PBO has projected FTE data within the federal employment relative to the Canadian population up to 2014-15. From Chart 13, given the anticipated reductions to FTEs within the federal workforce, the ratio of federal employees to the Canadian population is projected to fall below the historical average of 1.08 per cent to 0.96 per cent by 2014-15. As the Canadian population expands from 34.3 M in 2010-11 to 35.9 M in 2014-15, federal employment contracts from 380,000 FTEs to approximately 349,000 FTEs.⁵⁰

Chart 13

Federal Employment to the Canadian population



Sources: Statistics Canada, DPRs, PBO.

Box 2: Reductions to FTE Figures

Announcements delivered through Budgets 2010, 2011, and 2012 have each referred to reductions to FTE figures. As such, the PBO has constructed the following analysis in order to determine the impact and timing of the anticipated reductions.

Federal employment reached its maximum level in 2010-11 when FTEs numbered 380,000. Between 2010-11 and 2011-12, more than 4,000 FTEs were reduced to achieve a new level of 375,500.

⁵⁰ Statistics Canada: Table 052-0005 Projected population, by projection scenario, Canada, provinces and territories, annual (persons x 1,000)(1)

Given data compiled from Budget 2012 the PBO anticipates the following projection.⁵¹

Year	Historical FTEs	2012-13 RPP Projection	Budget 2012 Reduction	Net Effect	% change
2010-11	380,000				
2011-12	375,500				1.2 %
2012-13		368,200	-6,200	362,200	3.6 %
2013-14			-9,000	353,000	2.5%
2014-15			-4,000	349,000	1.1 %
Cumulative Reduction from 2010-11.					8.2 %

Given the level change of approximately 13,500 FTEs between 2011-12 and 2012-13, the PBO expects reductions to have been made in the first six months of FY 2012-13.

On November 16, 2012 the Treasury Board Secretariat issued a press release indicating that of the 19,200 positions to be reduced per Budget 2012, 10,980 had already been realized in the first six months of 2012-13.⁵²

In the context of this press release, the PBO assumes the projected rate of attrition within the federal public service to be 3.3 per cent. Although this rate may be applied to the federal employment in aggregate, additional information is required in order to best assess the net effect of FTE reductions through attrition and layoffs as well as additions through hiring across all departments and agencies.⁵³

⁵¹ The allocation of FTE reductions is per Finance Canada response to PBO Information Request 0081. http://www.pbo-dpb.gc.ca/files/files/IR/Response_IR0081_Finance_EN.pdf. Retrieved April 2012.

⁵² <http://www.tbs-sct.gc.ca/media/nr-cp/2012/1116-eng.asp#backgrounder>. Retrieved November 2012.

⁵³ <http://www.tbs-sct.gc.ca/res/stats/demo-eng.asp#toc1-4>. Retrieved November 2012.

(ii) Projections for Total Compensation per-FTE

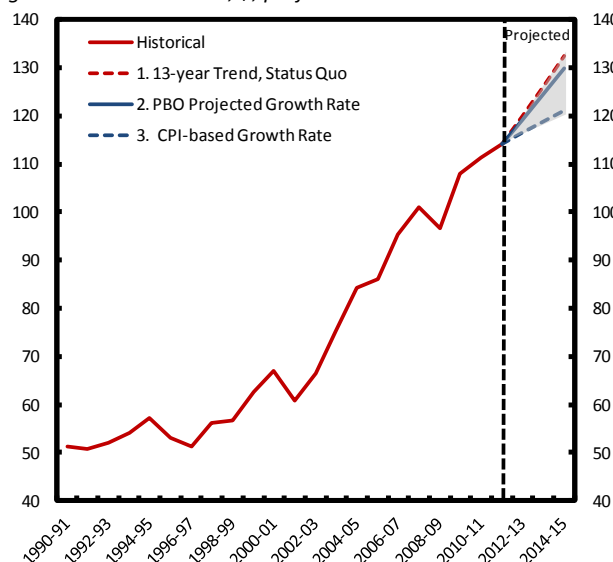
Between 1999-00 and 2011-12, total compensation per-FTE grew at a compounded rate of 5.1 per cent. In 2011-12, total compensation was \$114,100, having grown from \$56,700 over thirteen years.⁵⁴

In order to project total compensation per-FTE for the upcoming five years, the PBO has evaluated the following scenarios presented in Chart 14:

1. Historical trend for total compensation per-FTE: 5.1 per cent compound annual growth.
2. Projected growth rate: apply a 4.4 per cent growth adjustment to compensation per-FTE which reflects the settlements with unions, contractual obligations to health care providers and inflationary adjustments.
3. CPI-based growth rate (for illustrative purposes): apply a 2.0 per cent growth adjustment to total compensation per-FTE.⁵⁵

Chart 14
Compensation, per-FTE basis

Figures are in thousands, \$; projected to 2014-15



Sources: DPRs, Finance Canada, TBS, PBO data.

From the trajectory described in Chart 14, the PBO expects that total compensation per-FTE would reach \$132,400 by 2014-15 given historical growth, \$129,800 given a 4.4 per cent annual growth adjustment, or \$121,000 given a 2.0 per cent annual growth adjustment.

⁵⁴ This figure is reported in nominal terms. In chained 2011-12 dollars, total compensation per-FTE was \$114,100 in that year, having grown from \$85,300 in 1999-00. Data from the Receiver General is available starting in 2001-02. Refer to Box 3A.

⁵⁵ Given that 4.4 per cent represents a projection based on recent trend analysis, the PBO has modelled another scenario on CPI-growth of 2 per cent for illustrative purposes only. This scenario could represent changes in management practices in compensation, additional policy changes to severance payments, and the end of the rise of accrual growth given historically low interest rates. Please refer to the Notes section of this paper for additional information on accrual growth.

Box 3A: Inputs to Calculating the Projected Growth Rate for Total Compensation per-FTE

The PBO has constructed the following analysis to project the growth rate for total compensation per-FTE (TC/FTE) given recent announcements delivered through Budgets 2010-2012 and Bill C-45:

Compound Annual Growth for TC/FTE, by category

Category: Contribution	Historical Growth (Contribution)	Projected Growth (Contribution)	Notes ⁵⁶
Salaries and Wages: 71.8 %	5.4 % (3.9 %)	4.5 % (3.2 %)	A
Employer contributions to Pensions (Superannuation, CPP/QPP): 12.8 %	5.3 % (0.7 %)	2.8 % (0.4 %)	B
Employer contributions to health, dental, and disability benefits: 5.7 %	8.0 % (0.5 %)	8.0 % (0.5 %)	C
Other employer contributions: 9.7 %	6.1 % (0.6 %)	3.5 % (0.3 %)	D
Total 100%:	5.6 %	4.4 %	Annual Growth

Sources: Receiver General, PWGSC, TBS, Statistics Canada, HRSDC.

⁵⁶ The 1990-91 to 2011-12 CAGR for TC/FTE is 5.1 % per aggregate Public Accounts and Statistics Canada data. More detailed data from the Receiver General enables the analysis in Box 3A, although it is available only starting in 2001-02. From this data, the 2001-02 to 2011-12 CAGR for TC/FTE is 5.6 %. Refer to PBO IR0076.

A. Refer to Box 3B of this note and to the Notes section of this paper for information on accrual and other adjustments.

B. Refer to Part 4, Division 23 of Bill C-45 for information detailing adjustments to public sector pensions: <http://www.fin.gc.ca/pub/c45/4-eng.asp>. Retrieved October 2012.

C. 10-year trend given no indicated changes to existing policies. Refer to the Notes section of this paper for information on accrual and other adjustments.

D. Reduction to trend as per significant decreases in current service costs associated with severance liability to the employer. Refer to PBO information request IR0095.

Box 3B: Inputs to Calculating the Projected Growth Rate for Salaries and Wages

The compound annual growth rate for salaries and wages is generated from the following three sources:

- *Wage settlements*: negotiated wage settlements with unions representing the federal employment are approximately 1.8% for 2012-13 to 2014-15.⁵⁷
- *Step increases*: In a steady state, step increases within classification bands per TBS guidelines are, in the aggregate, virtually insignificant. Given the PBO forecast to FTEs figures decreasing, the net effect is a slight upward bias.⁵⁸
- *Changes to the composition of the government*: the PBO has observed movements in the composition of federal employment both across classifications and along level changes for the time period covered by this study. For example, on an FTE basis over the last 22 years, the ST classification has all but disappeared; ES, SI and EC classifications have grown by over eight per cent. Additionally, the number of EX and equivalent positions has almost doubled over the same time frame. The resulting composition of the federal employment is a more professional and high skilled workforce.⁵⁹

The historical compound annual growth rate for salaries and wages is 5.4 per cent.⁶⁰ Once the major wage settlement component is revised per current negotiated settlements and the balance of 2.7 per cent is retained,⁶¹ the projected compound annual growth rate is 4.5 per cent.

⁵⁷ HRSDC http://www.hrsdc.gc.ca/eng/labour/labour_relations/info_analysis/overview/2011/section_2.shtml Retrieved November 2012 and RG Economic Data PBO IR0076.

⁵⁸ Refer to the TBS Rates of Pay for the Public Service of Canada. http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/coll_agre/rates-taux-eng.asp. Retrieved November 2012.

⁵⁹ Refer to PBO IR0076 on Classifications.

⁶⁰ Receiver General. Refer to PBO IR0076.

⁶¹ Statistics Canada publication, "Perspectives on Labour and Income," Table 4. <http://www5.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=75-001-x&lang=eng> Retrieved November 2012.

(iii) Projections for Personnel Expenses

In 2011-12, \$43.8 B was reported in the Public Accounts of Canada for expenses associated with personnel, having grown by 7.3 per cent on a compounded basis since 1999-00.⁶² This figure marked the highest level reached of personnel expenses over the 22 year study period and may be viewed as a point of departure from the previous growth trend in light of Budget 2012 announcements.

In order to project personnel expenses in the near-term, the PBO has constructed three cases, presented in Chart 15:

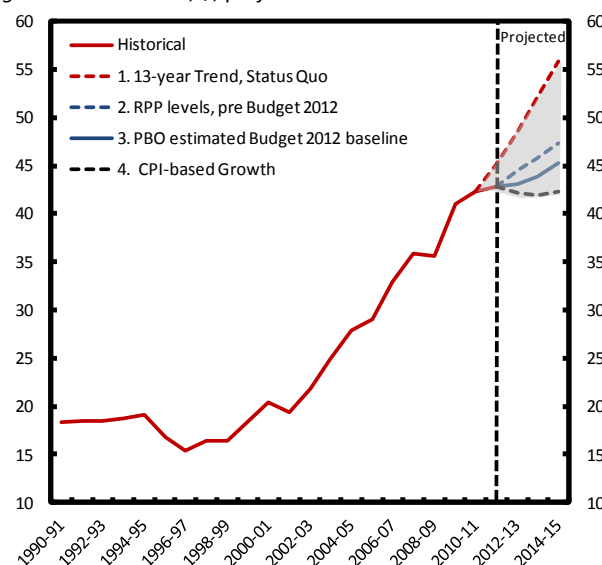
1. Historical trend for FTE growth and expense per-FTE: 2.1 per cent for FTE growth and 5.1 per cent for expense per-FTE over 13 years respectively. In 2014-15, this case results in \$55.7 B in personnel expenses and 48.4 per cent of DPE.
2. 2011-12 RPP levels: apply FTE figures as reported by Departments and Agencies in RPP documents which considers reductions announced in prior Budgets and apply a 4.4 per cent annual growth adjustment to total compensation per-FTE. In 2014-15, this case results in \$47.4 B in personnel expenses and 41.1 per cent of DPE.
3. PBO estimated Budget 2012 baseline: apply FTE figures as reported by Departments and Agencies in RPP documents, overlay reductions per Budget 2012, and apply a 4.4 per cent annual growth adjustment to total compensation per-FTE. In 2014-15, this case results in \$45.3 B in personnel expenses and 39.3 per cent of DPE.
4. CPI-based growth: apply FTE figures as reported by Departments and Agencies in RPP documents, overlay reductions per Budget 2012, and apply a

2.0 per cent annual growth adjustment to total compensation per-FTE. This case yields \$41.8 B in personnel expenses or 36.3 per cent of DPE in 2014-15.

Chart 15

Personnel Expenses

Figures are in billions, \$; projected to 2014-15



Source: PBO.

In the absence of a declared baseline by the federal government, the PBO has determined that the third scenario is most consistent with recent budgetary announcements.

As such, the PBO would expect the following outcome by the end of 2014-15:

- Federal employment will be reduced from 2012 RPP projected levels by 19,200 per Budget 2012, resulting in federal employment of 349,000.
- For this employment, total compensation per-FTE will have grown by 4.4 per cent on an annual basis, resulting in, on average, \$129,800 per employee.
- The net effect, adjusting for early severance payouts, yields approximately \$45.3 B in personnel expenses or 39.3 per cent of DPE.

In order to achieve the fiscal objectives announced by the Government of Canada in its 2012 Budget Plan, namely to achieve fiscal balance in the medium term by

⁶² Public Accounts of Canada, Volume II.

freezing Direct Program Expenditures, this analysis suggests that it is necessary to fully implement successfully the Government restraint initiatives currently underway to reduce the size of federal employment.

The following table captures growth trends for each of the time periods described above and for each of the data inputs, namely, employment figures, total compensation per-FTE, and total personnel expenses.

Table 9

Compound Annual Growth for Employment (FTE), Total Compensation per-FTE (TC/FTE), and Personnel Expenses (PE)⁶³

Summary CAGR, nominal terms			
Time series	FTE	TC/FTE	PE
1990-91 to 1998-99	-2.7 %	1.3 %	-1.5 %
1999-00 to 2011-12	2.1 %	5.1 %	7.3 %
1990-91 to 2011-12	0.2 %	3.9 %	4.1 %
2012-13 to 2014-15	-1.8 %	4.4 %	2.5 %
1999-00 to 2014-15	-0.1 %	3.9 %	3.8 %

Source: TBS, Department of Finance, PBO.

The effect over the study period is that the federal workforce has remained virtually unchanged while personnel expenses have grown by 4.1 per cent on a compounded basis per year.

Finally, in light of Budget 2012 announcements, FTE figures are expected to be reduced and total compensation per-FTE is expected to grow at the 4.4 per cent rate of adjustment. The projected result is that personnel expenses will rise moderately by 2.5 per cent on average, over the next three years.

From the data, the analysis for the years between 2012-13 and 2014-15 resembles that of the mid-1990s where both FTE figures and personnel expenses were under restraint. In effect, the significant reductions to employment due to a fiscal restraint program is about to occur once more in light of Budget 2012 announcements.

Summary projections for FTEs, total compensation per-FTE, and personnel expenses are as listed below in Table 10.

Table 10

FTE, Total Compensation per-FTE, and Personnel Expenses Summary, Projection

(Personnel expense figures are in billions, projected to 2014-15)

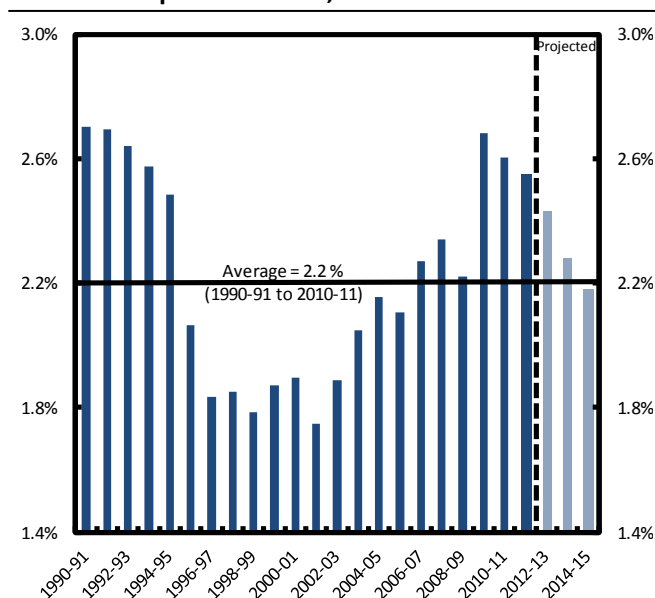
Projection Analysis, nominal terms					
Year	FTE	TC/FTE	% Δ	PE	% Δ
2010-11	380,000	111,400	3.1	42.3	3.1
2011-12	375,500	114,100	2.4	42.8	1.3
2012-13	362,000	119,100	4.4	43.1	0.6
2013-14	353,000	124,300	4.4	43.9	1.8
2014-15	349,000	129,800	4.4	45.3	3.2

Source: TBS, Department of Finance, PBO.

The PBO has projected personnel expenses to GDP given the data provided above. From Chart 16, by 2014-15 personnel expenses will have been reduced sufficiently so as to bring these expenses to 2.18 per cent, just below the historical share of 2.2 per cent.

Chart 16

Personnel Expenses to GDP, 1990-91 to 2014-15



Source: PBO.

⁶³ The analysis presented in Table 9 for 2012-13 to 2014-15 considers that employment is frozen at 2011-12 RPP levels and that reductions to FTEs per Budget 2012 are applied.

Finally, with respect to the structure of personnel expenses, while the allocations have been relatively stable across the four categories of personnel expenses over the last thirteen years, it is expected that changes announced in Budget 2010 regarding operation expenses subject to freeze, and in Budget 2012 concerning both increased pension contributions by employees and changes to Employment Insurance (EI) will result in a redistributed allocation. Such modifications are anticipated to reduce the overall growth rate in expenses for personnel.⁶⁴

Although reductions to personnel expenses are expected, associated savings may not be realized immediately. In effect, while salaries and wages are

variable in the short term, having recently been negotiated at approximately 1.8 per cent per year, other benefits including those for health, dental, and disability may be subject to contractual obligations that require servicing for additional months. Further, severance or pay-out packages will contribute to a surge in expenditures within the 'other' category in the upcoming years as reductions to full time equivalent (FTEs) are phased in over a three-year period. For these reasons, while there is pressure to reduce FTEs in order to achieve fiscal restraint objectives, the cumulative effect of savings from layoffs may take several years to be realized.⁶⁵

⁶⁴ Refer to Box 3A of this paper.

⁶⁵ The National Audit Office (U.K.) has produced a paper, "Managing early departures in central government," which identifies the ranges in time for variable and fixed cost recovery. From this research, it is expected that contracts and severance packages add between ten and twenty months to the date upon which savings from reductions to personnel are realized. http://www.nao.org.uk/publications/1012/early_departures.aspx. Retrieved March 2012.

5. Considerations for Parliament

This paper serves as a starting point to support understanding of the government of Canada's personnel expenses, the compensation envelope and its composition and changes, to enable parliamentarians to better scrutinize planned expenses. The summary of key findings, below, provides a catalyst for increased reporting and enhanced transparency of personnel expenses.

(i) Key Findings of this Report

- Personnel expenses are significant. In 2011-12, personnel expenses were reported within the Public Accounts of Canada at \$43.8 B. These expenses accounted for 18.2 per cent of total program expenses, 38.1 per cent of direct program expenses, 70.1 per cent of operating expenses, and 2.55 per cent of GDP.⁶⁶
- Average annual total compensation on a per-full-time equivalent (FTE) basis in 2011-12 was approximately \$114,100. Compensation is made up of the following categories including:
 - Salaries and wages;
 - Employer contributions to pensions (superannuation and CPP/QPP);
 - Employer contributions to health, dental, and disability benefits;
 - Other employer contributions such as Employment Insurance, Workers Compensation, severance payments, overtime, bonuses, and pay –in-lieu of leave.
- Trends in personnel expenses have varied significantly in the period between 1990-91 and

the late 1990s, marking a period of fiscal restraint, compared to those between 1999-00 to 2011-12, marking a period of fiscal expansion.

- Over the course of the 22-year study period, growth in both personnel expenses and employment has been driven by changes in policy, resulting in significant swings. The result is that, by definition, total compensation per-FTE has also been subject to large swings over the course of the study.
- Patterns have emerged from the trend analysis: restraint to expenses and to FTEs is typically marked by a deliberate fiscal policy decision and, historically, the impact of the change is large.
- Total compensation per-FTE in the federal workforce outpaced not only CPI, but also that of the Canadian business sector and provinces and territories over the study period.
- 2011-12 marks a significant shift from the historical growth trend of the twelve prior years and is anticipated to result in a key point of inflection. Policy decisions announced in Budgets 2010 (Operating Budget Freeze) and 2011 (Strategic Review) are being implemented and signs that the historical growth trend is being reversed are being observed. Announcements made in Budget 2012 provide additional reductions to both FTEs and personnel expenses.
- For the projection period between 2012-13 and 2014-15, federal public service employment is expected to contract by approximately 1.8 per cent on a compounded basis and total compensation per-FTE will maintain 4.4 per cent growth annually. The compounded result of these projections is a 2.5 per cent annual increase to personnel expenses.
- Accounting for Budget 2012, from the beginning of the study in 1990-91 and through to 2014-15, the growth rate for FTEs is projected to contract by 0.1 per cent in level terms, resulting in historical lows.

⁶⁶ Public Accounts of Canada, Volume 2, Table 3a. Operating expenses are listed as Ministerial Expenses for Standard Objects within the Public Accounts and include items such as payments to Crown Corporations, Personnel, transportation and communications, information, professional and special services, rentals, repairs and maintenance, and utilities, materials and supplies.

Conversely, personnel expenses and total compensation per-FTE are projected to increase by 3.9 and 3.8 per cent on an average annual basis respectively, resulting in a more expensive public service on the whole.

- Parliament may wish to seek additional information from the Government that would further inform the estimated cost for total compensation per-FTE within the federal employment and support sound management practices in this area. Parliament may also wish to request that the government provide an annual profile and briefing on personnel expenses to parliamentarians so as to track spending with greater frequency in this regard.

(ii) Transparency and Reporting Requirements

Given the significant impact of personnel expenses, departments and agencies are required to submit an Integrated Human Resources Management Strategy and Plan report to the Government which, in turn, may be helpful to Parliament in the following regards:⁶⁷

- **An annual report of Personnel Expenses.** The report, delivered in conjunction with the RPPs, could include disbursement and projection information on salaries and wages; employer pension contributions; health, dental and disability benefits; and other employer contributions. This document could be linked to the FTE levels within Departmental Performance Reports and could provide a clear assessment of

which programs will be prioritized given current budgetary restraints.⁶⁸

- **Monthly reporting in Fiscal Monitor.** These reporting criteria are recommended to better track implantation of government restraint. The monthly release which tracks spending may be further expanded to track aspects of operations including expenses associated with Personnel.

⁶⁷ Reporting by departments and agencies to TBS is regulated by the Financial Administration Act (FAA) although these requirements have recently been modified in Bill C-38, Division 5, section 218: Reporting requirements. Refer to the FAA here: <http://laws-lois.justice.gc.ca/eng/acts/F-11/page-7.html#docCont> Retrieved May 2012.

⁶⁸ Refer to the report compiled for the Treasury Board Secretariat in 2006, "Expenditure Review of the Federal Public Sector," recommendations <http://www.tbs-sct.gc.ca/report/orp/2007/er-ed/er-ed-eng.asp> Retrieved November 2012.

6. Notes

- (i) Numbers in the text, tables, and figures in this study may not add up to totals because of rounding. For the same reason, percentage differences shown in some of the tables may not correspond precisely to the associated dollar amounts shown.
- (ii) Values in this study are presented in both nominal and real terms. Values presented in real dollars have been adjusted for inflation using the total CPI index rebased to 2011-12 per Statistics Canada CANSIM Table V3860248, Canada: Implicit Chain Price Index: GDP at Market Prices.
- (iii) Given that the Government of Canada moved to accrual accounting in 2001-02, figures for the unique components of total compensation are only available from this year forward.
- (iv) Projections to 2014-15 are based on the Department of Finance assumptions within Budget 2012, including for GDP and inflation.
- (v) Personnel expenses are subject to accruals and other adjustments insofar as they impact on the unamortized liability to pensions and benefits. Given the three-year projection horizon within this paper, changes to the interest rate are not considered within the context of this paper.
- (vi) The analysis within this report is based on average annual total compensation across all classifications and departments and agencies within the federal public service, Parliament, Canadian Forces, and RCMP including executive and non-executive classes. This report does not examine sensitivities associated with the nature of work and requirements for skills associated with positions and classifications either in the public service or in the private sector.
- (vii) Data have been assembled from a variety of sources and, consequently, may result in minor variations throughout the analysis. Values from 1990-91 to 2011-12 have been tabulated from sources including from the Public Accounts of Canada, Statistics Canada, Departmental Performance Reports and the Treasury Board Secretariat. Projected values to 2014-15 are based on data within the 2012 Budget and Reports on Plans and Priorities as submitted by departments and agencies.
- (viii) Figures reported on personnel expenses are gross figures and do not take into account tax revenue that would be collected.
- (ix) Calculations for total compensation per-FTE are based on aligning personnel expenses within the Public Accounts of Canada with the corresponding population. However, in 2011-12, an adjustment is made to account for severance payments which do not impact the entire population. As such, 2011-12 personnel expenses are net of the increase in early severance payments allocated from TB Vote 30.
- (x) Due to the limitation of available data for employer pension contributions; and health, dental, and disability benefits payable to employees at the provincial and territorial levels, comparable data considers salaries and wages, and other benefits inclusively. At the federal level, salaries and wages, and other benefits account for, on average, approximately 81.5 per cent of Personnel Expense. Consequently, the PBO has used available data for salaries and wages as well as for other benefits, indexed to 100 in 1990-91, both for compensation at the federal level at the provincial and territorial levels in order to assess the growth relationship between the two.
- (xi) The historical rate of increase to accruals associated with total compensation is not expected to be sustained over the projection period. In effect, the upward pressure that has been applied to the growth rate for employer contributions to pension benefits is expected to slow in the upcoming years.
- (xii) In the absence of a baseline with which to calculate reductions to the federal employment, the PBO has considered announcements made in Budget 2012 in addition to aggregate data from the 2011-12 Report on Plans and Priorities for each department and agency.

7. Annexes

Annex 1: An Approach to Evaluating the Fiscal Impact of Federal Personnel Expenses

The PBO has developed an approach to evaluating the fiscal impact of the federal public service.

The approach consists first of creating a snapshot of the current state of personnel expenses and FTE figures. To do so, the PBO recorded existing data for the 2011-12 year, the base year and the most recent year that data is available for expense analysis. The data includes published values for personnel expenses as reported within the Public Accounts of Canada and figures on full-time employees (FTEs) as per Departmental Performance Reports. The figures were cross-checked with those of the Treasury Board Secretariat and Statistics Canada. The PBO used the two data sources, namely personnel expenses and FTEs to determine average annual total compensation per-FTE. In order to best understand total compensation, the PBO used the classifications as provided by the Receiver General to consider compensation within four broad categories: Salaries and wages; employer pension contributions; health, dental and disability benefits; and other employer contributions which include Employment Insurance, workers compensation, pay-in-lieu of leave, bonuses, and severance pay.

Next, the PBO collected historical data starting in 1990-91 in order to carry out 22-year trend analysis. This time horizon allows for further analysis around significant policy changes including Program Review during the mid-1990s, the Economic Action Plan during the late 2000s, the impacts of the Operating Budget Freeze of 2010, Strategic Review of 2011, and, most recently, the Deficit Reduction Action Plan in Budget 2012. Personnel expenses, FTEs and compensation per-FTE are each examined over the 22-year horizon to further analyse levels compared with the following criteria: GDP, real-per capita expense, compensation rates within the Canadian business sector, salary levels relative to other levels of government, and at the federal level of the United States.

Finally, PBO developed projections for each of the three variables of personnel expenses, FTEs, and compensation per-FTE. Projections were based on the following variables:

- Inflation based on consumer price index (CPI) figures as reported in Budget 2012
- Historical growth rates given the trend analysis that emerged from this study
- Announcements as per Budgets 2010, 2011, and 2012 and associated policy directives
- Information released in the Report on Plans and Priorities submitted by Departments and Agencies in spring, 2012.

The outcome of the projections for personnel expenses, FTE figures, and compensation per-FTE is a series of charts that demonstrate the gap between historical growth rates and recent budgetary announcements. In effect, the data within the charts demonstrate the gap between projected status quo growth and policy implications once implemented for personnel expenses, federal employment, and compensation per-FTE.

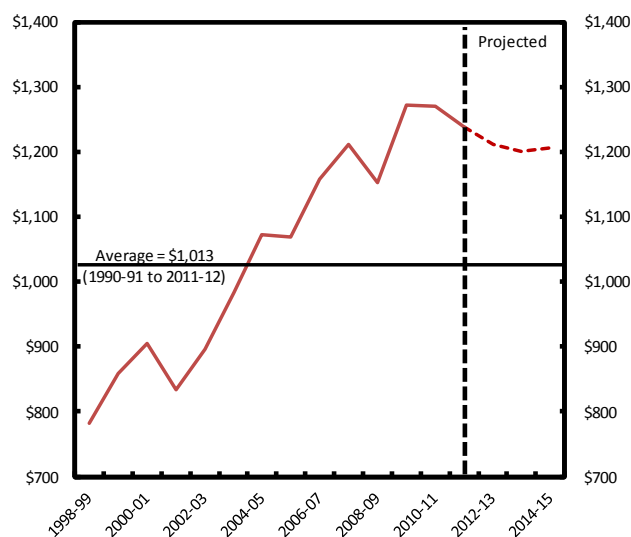
Annex 2: Personnel Expenses, Real per-Capita Basis, GDP and Federal Balance

Personnel expenses-to-GDP have been analysed on a real per-capita basis and compared to the federal balance in the tables below:

Chart 1, Annex 2

Personnel Expenses, , Real per Capita Basis, 1998-99 to 2014-15

Figures are indexed to 2011-12 dollars



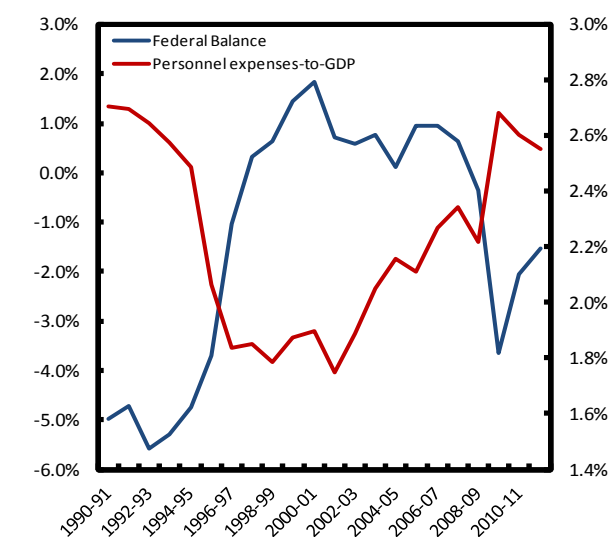
Sources: Statistics, Public Accounts of Canada.

The chart above shows the projected trends of personnel expenses on a real per capita basis and is based on the projection analysis provided within this paper. From the data, per capita federal personnel expenses are projected to decrease by \$64 to \$1,206 by 2014-15.

Chart 2, Annex 2

Personnel Expenses-to-GDP and Federal Balance, 1990-91 to 2011-12

Left axis = Deficit-to-GDP; Right axis = Personnel Expenses-to-GDP



Sources: Finance Canada⁶⁹, Public Accounts of Canada.

⁶⁹ Please refer to the Fiscal Reference Tables published by Finance Canada: <http://www.fin.gc.ca/frt-trf/2011/frt-trf-11-eng.asp>. Retrieved August, 2012.

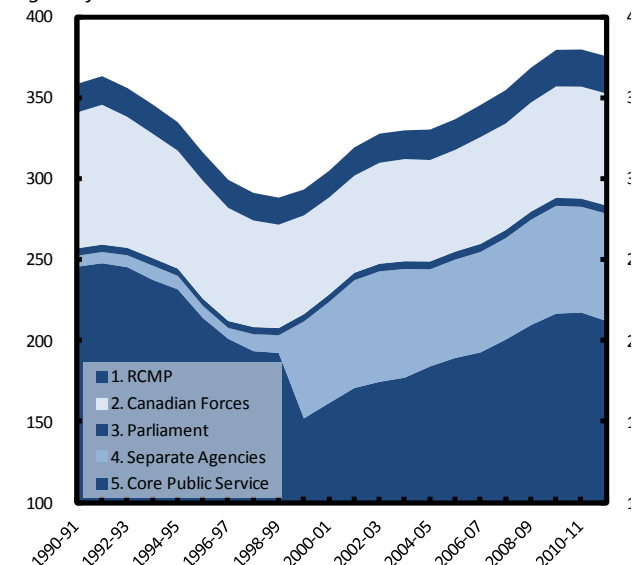
Annex 3: Federal Public Service Historical Trend by Employer

The charts below show the federal public service historical trend by employer over the last twenty-two years in absolute terms and by per cent.

Chart 1, Annex 3

Employment in the Federal Public Service, FTE-basis from 1990-91 to 2011-12

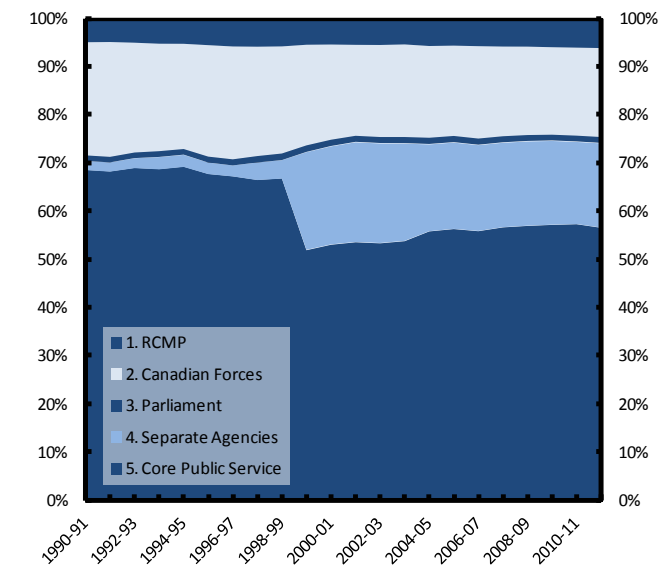
Figures for FTEs are in thousands



Source: Departmental Performance Reports.

Chart 2, Annex 3

Employment in the Federal Public Service, per cent-basis from 1990-91 to 2011-12



Source: Departmental Performance Reports.

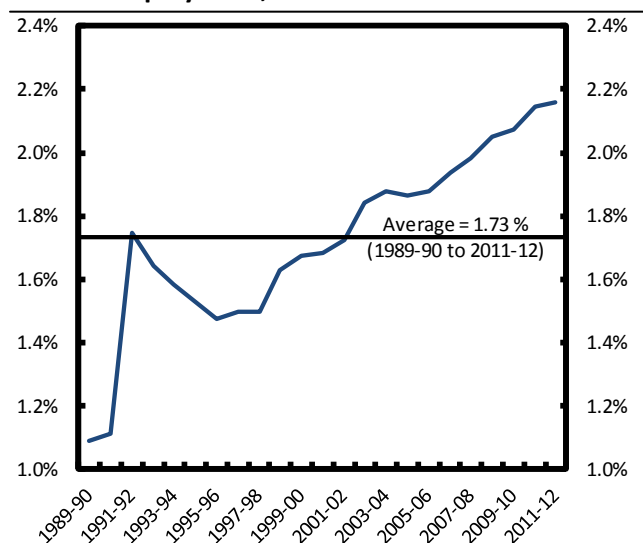
There is a large decrease in FTEs from the Core Public Service in the late 1990s due to the number of agencies restructured to become Separate Agencies. These agencies include Canada Revenue Agency, Parks Canada, and the Canadian Food Inspection Agency. These movements have not been explored in detail in this paper.

Annex 4: Federal Public Service EX and Equivalent Figures

The following chart contains data for EX and non-EX classifications within the Federal Public Service inclusively.⁷⁰

Chart 1, Annex 4

Federal Public Service Share of EX and equivalent to non-EX employment, 1989-90 to 2011-12



Source: Treasury Board Secretariat.

From the data in the chart above, the share of EX and equivalent employees to Federal Public Service employees has been, on average, 1.73. In 2011-12, the share was 2.16 per cent. With the exception of the four years between 1992-93 and 1995-96, EX employees as a share of total Federal Public Service employees has risen consistently.

From announcements made within Budget 2012, it is expected that reductions to the EX classification will reach 7.4 per cent which represents a greater reduction to employees than is expected for non-EX employees.⁷¹ As such, the PBO expects that the per cent share of EX employees within the Federal Public Service will fall to below 2.0 per cent by the end of 2014-15.

⁷⁰ EX classifications for Treasury Board Secretariat employees include EC classifications within the Canada Revenue Agency and MG classifications within the National Research Council of Canada. This data does not include EX and equivalent classifications within Parliament, the Canadian Forces and Royal Canadian Mounted Police.

⁷¹ Budget 2012: <http://www.budget.gc.ca/2012/plan/chap5-eng.html#a16>. Retrieved November 2012.

Annex 5: Document Review and Summary of Key References

The following information is currently available to Parliament and has been reviewed in conjunction with this paper:

Government Documents

- Public Accounts of Canada
- Reports on Plans and Priorities
- Departmental Performance Reports
- The Budget Plan
- Update of Economic and Fiscal Projections
- Main and Supplementary Estimates
- Treasury Board Secretariat demographic information including Snapshot Employment Numbers of the Federal Public Service
- Receiver General economic coding and classifications for total compensation
- Press releases

Statistics Canada data

- National Census
- Canadian Business sector employment data
- Canadian public service employment data
- Perspectives on Labour and Income, latest issue: Fall 2012, vol. 24 no.3.

Other Publications

- Congressional Budget Office (United States), **Comparing Benefits and Total Compensation in the Federal Government and the Private Sector**, 2012.
- Lahey, James. ***Controlling Federal Compensation Costs: Towards a Fairer and More Sustainable System***. Chapter 4 of **How Ottawa Spends, 2011-2012**, Edited by Christopher Stoney and Bruce Doern.
- National Audit Office (United Kingdom), **Managing Early Departures in Central Government**, 2012
- Office for National Statistics (United Kingdom), **Estimating Differences in Public and Private Sector Pay – 2012**.
- Organisation for Economic Development and Cooperation, **Government at a Glance**, 2011.
- Robson, William and Alexandre Laurin, C.D. Howe Institute, **Federal Employee Pension Reforms: First Steps – on a Much Longer Journey**, 2012.
- Treasury Board Secretariat, **Expenditure Review of the Federal Public Sector**, 2006.

Summary of Key References:

The analysis put forth in this paper is developed on a strong foundation of pre-existing work in the field of personnel expenses within the federal public service.

- (i) ***“Expenditure Review of Federal Public Sector Compensation Policy and Comparability,”*** compiled for the Treasury Board Secretariat in 2006, provides an examination of federal public sector compensation as well as a comparison to the Canadian labour market. The paper suggests four key factors that are attributed to the growth in the compensation bill: (1) an increase in the federal employment in absolute terms, (2) a change toward enhanced “professionalism” in job requirements and associated higher education levels, (3) restoration of collective bargaining and (4) pay equity in particular job classifications.
- (ii) The Organisation for Economic Cooperation and Development (OECD) has published a report, ***“Government at a Glance 2011,”*** which compares political and institutional frameworks of government across OECD member countries. This comparison includes a review of government revenues and expenses, employment and compensation. While Canada is not included in this report, it is helpful to consider the indicators that are used to compare on a country-by-country basis.⁷²
- (iii) Two studies from the United Kingdom have been reviewed as background for this paper. The United Kingdom Office for National Statistics has released a paper, ***“Estimating differences in public and private sector pay – 2012,”*** that compares public and private sector compensation. This paper reveals that comparisons between the private and public sectors is difficult to measure because of the different skill mix of jobs, the variation in age and pay distribution, the variation in qualifications of workers, the variation of percentage of men versus women and the differences in average hours worked. The paper recommends that due to these difficulties, it is necessary to run a regression analysis to account for these variables. Finally, the paper suggests that there may be other factors that contribute to the pay differences including timing of the report given earnings announcements and bonuses in the private sector or budget announcements in the public sector. A second paper by the National Audit Office, ***“Managing early departures in central government,”*** provides detail to support fixed and variable costs in staff retention.
- (iv) The United States Congressional Budget Office produced a paper in January, 2012, ***“Comparing Benefits and Total Compensation in the Federal Government and the Private Sector.”*** This paper identifies educational levels as a prominent statistical measure in determining the gap between private sector and public sector total compensation. The paper concludes that at lower levels of education attained, total compensation in the public sector is higher but that the result is inverted when education attained increases.

⁷² OECD publication, “Government at a Glance 2011.” http://www.oecd-ilibrary.org/governance/government-at-a-glance-2011_gov_glance-2011-en Retrieved April 2012.