



# Federal Public Service Wage Growth: 2001-02 to 2011-12

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**Key Points of this Note:**

- The Parliamentary Budget Officer's (PBO) legislative mandate is 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".
- In 2012, the PBO published an analysis of the fiscal impact of federal personnel expenses, which assessed the trends in total compensation spending across the federal public service. This report responds to a request from the Member of Parliament for Ottawa Centre to further expand on the prior analysis and provide a breakdown of the major factors influencing the growth in federal government labour costs.
- The PBO estimated year-over-year changes in labour costs over the period covering 2001-02 to 2011-12, decomposed into three major drivers: changes in the level of employment, changes in wages, and changes in the classification mix. Changes in wages were further split into CPI inflation and real wage changes.
- Of the key drivers examined, changes in employment and wage growth attributable to Consumer Price Index (CPI) inflation constituted the two main drivers of labour cost growth. These two drivers were approximately equal in size and each constituted almost half of the estimated increase in labour costs over the period examined.
- Cumulatively, changes in classification and real wage growth contributed little to overall labour cost growth. However, on a year-over-year basis there are differing levels of contributions to the cumulative totals by each of the examined drivers.

Prepared by: Duncan MacDonald\*

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\*The author wishes to acknowledge the contribution of former employee Jason Stanton, who is a co-author to this report. Together the authors would like to thank Trevor Shaw and Randall Bartlett for their input regarding this note. Any errors or omissions are the responsibility of the authors. Contact Jason Jacques (e-mail: [jason.jacques@parl.gc.ca](mailto:jason.jacques@parl.gc.ca)) for further information.

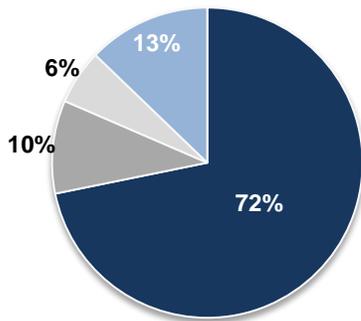
## 1 Context

The Parliamentary Budget Officer's (PBO) legislative mandate is 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".<sup>1</sup>

In December 2012, the PBO published an analysis of the fiscal impact of federal personnel expenses, which assessed the trends in total compensation spending across the federal public service over a 22 year span.<sup>2</sup>

**Figure 1-1**

**Average Composition of Federal Personnel Expenses, 2001-02 to 2011-12**



- Salaries and wages
- Other employer contributions including EI, Workers Compensation, bonuses, severance and early termination benefits
- Employer contribution to health, dental, and disability benefits
- Employer contribution to pensions (superannuation, CPP/QPP)

Sources: Receiver General for Canada, Public Works and Government Services Canada

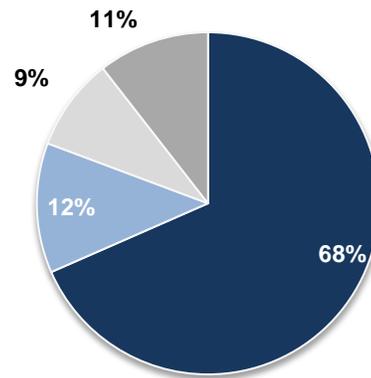
<sup>1</sup> <http://laws-lois.justice.gc.ca/eng/acts/P-1/FullText.html?term=79.2>  
Accessed August 2013.

<sup>2</sup> PBO Report: The Fiscal Impact of Federal Personnel Expenses: Trends and Developments - [http://www.pbo-dpb.gc.ca/files/files/Fed%20Personnel%20Expenses\\_EN.pdf](http://www.pbo-dpb.gc.ca/files/files/Fed%20Personnel%20Expenses_EN.pdf).

One finding from this report was that over 70 per cent of the \$354 billion spent on compensation between 2001-02 and 2011-12 related to salaries and wages of federal employees (Figure 1-1). Moreover, more than two-thirds of the 5.4 per cent overall annual growth was attributable to salaries and wages (Figure 1-2).

**Figure 1-2**

**Contributions to Personnel Expenses Compound Annual Growth Rate, 2001-02 to 2011-12**



- Salaries and Wages
- Employer contributions to Pensions (Superannuation, CPP/QPP)
- Employer contributions to health, dental, and disability benefits
- Other employer contributions

Sources: Receiver General for Canada, Public Works and Government Services Canada

The report identified how much total compensation increased and enumerated its major components, but was silent regarding the underlying cost drivers. To this end, the Member of Parliament for Ottawa Centre requested the PBO build on the 2012 report and complete a decomposition of the wage bill, providing a breakdown of the main factors influencing its recent growth.

More specifically, this paper examines whether the growth in salaries and wages – which

constitutes the majority of salary growth – is explained by a combination of four factors:

- Wage settlements negotiated between unions and the employer;
- Overall inflation in the Canadian economy;
- Growth in the number of federal public servants; and,
- Increases in the overall labour skills of the federal public service.

The terms of reference (ToR) for this project are presented in Annex A. Section 2 of the ToR is addressed separately in the Federal Employee Classification Dataset, previously uploaded to the PBO website.

## 2 Methodology

The methodology for this report relies on three data sources and a growth decomposition model comprised of the four principal factors.

### Data Sources

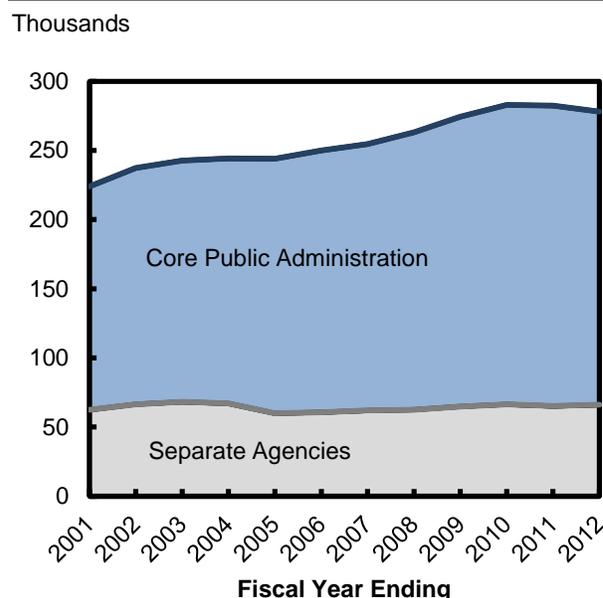
The analysis of total labour cost increases is based on three datasets:

1. A list of all employees within the Canadian Federal Public Service for the fiscal years ending in 2001 to 2012.
2. A list of the calculated average wage by job classification and year for the fiscal years ending in 2001 to 2012.
3. Annual inflation data regarding the fiscal years examined in the analysis.

The employee dataset is a subset of the Federal Employee Classification Dataset listed on the PBO website, and originally obtained from the Treasury Board of Canada Secretariat (TBS)

(Figure 2-1).<sup>3</sup> This dataset provides a snapshot of the number of workers employed by various departments at the end of each fiscal year. See Box 2-2 for an example.

**Figure 2-1**  
**Total Federal Public Service Workers**



Source: Treasury Board of Canada Secretariat

<sup>3</sup> [http://www.pbo-dpb.gc.ca/files/get/resources/84?path=%2Ffiles%2Ffiles%2FFederal+Public+Service+data+department+and+classification\\_EN.xlsx](http://www.pbo-dpb.gc.ca/files/get/resources/84?path=%2Ffiles%2Ffiles%2FFederal+Public+Service+data+department+and+classification_EN.xlsx). Accessed July 2013.

**Box 2-2****Federal Employee Classification Dataset Example: Computer Systems Employees**

On March 31, 2012, the Government of Canada had 18,228 employees occupying positions in the Computer Systems (CS) category. These staff supported information technology services across the majority departments and agencies in the Core Federal Public Administration and Separate Agencies.

The information provided is for the Federal Public Service (*i.e.* Core Public Administration and Separate Agencies). It includes all employment tenures, active employees only (*i.e.* employees on leave without pay are excluded), and it is based on substantive employment classification (*i.e.* excluding acting appointments).

Within the CS group, there are five levels, which represent greater levels of experience, seniority, responsibility, etc. Within each band, there are eight increments (nine for CS-05). Moving up a level requires competing for that position, whereas attaining a higher increment is automatic every year (until the highest level is reached).

The dataset only provides information on the number of employees within each level. It does not give a breakdown by increment.

At the end of the 2011-12 fiscal year, there were 3,382 CS-01 employees, 7,944 CS-02 employees, 5,129 CS-03 employees, 1,503 CS-04 employees, and 270 CS-05 employees.

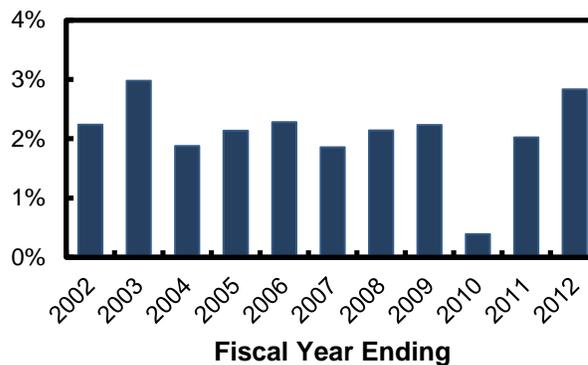
Source: Federal Employee Classification Dataset; <http://www.pbo-dpb.gc.ca/en/RESEARCH+RESOURCES>.

Workers included within the employee dataset consist of Federal Public Service employees, consisting of employees of the Core Public Administration as well as Separate Agencies. This dataset excludes Royal Canadian Mounted Police, non-civilian personnel (*i.e.* Military),

Ministers' exempt staff, and certain other specified agencies.<sup>4,5</sup>

**Figure 2-3****CPI Inflation**

Per cent (%)



Source: Statistics Canada CANSIM data

The second dataset, pertaining to wages, was compiled by PBO through data collected from the TBS website, and through collective agreements listed on the Human Resources and Skills Development Canada (HRSDC) Negotech search module, as well as the Canada Revenue Agency (CRA) website and various other official sources.<sup>6,7,8</sup> In certain instances wage data could not be obtained for certain job groups for certain years. In such cases and where possible, either a percentage increase was applied as dictated by the *Expenditure Restraint Act* of 2009 (for fiscal years ending in 2007 to 2011) or the mode of the wage increases for a

<sup>4</sup> <http://www.tbs-sct.gc.ca/res/stats/ssen-ane-eng.asp>. Accessed July 2013

<sup>5</sup> The dataset only provides information on number of employees within each job group. It does not give a breakdown by steps within a job group. A simplifying assumption was made that the average wage of all the increments within a job group was applied to all employees contained within that job group.

<sup>6</sup> [http://www.tbs-sct.gc.ca/pubs\\_pol/hrpubs/coll\\_agre/rates-taux-eng.asp](http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/coll_agre/rates-taux-eng.asp). Accessed July 2013.

<sup>7</sup> <http://negotech.labour.gc.ca/cgi-bin/search/negotech/search-eng.aspx>. Accessed July 2013.

<sup>8</sup> <http://www.cra-arc.gc.ca/crrs/wrknng/pyrts/menu-eng.html>. Accessed July 2013.

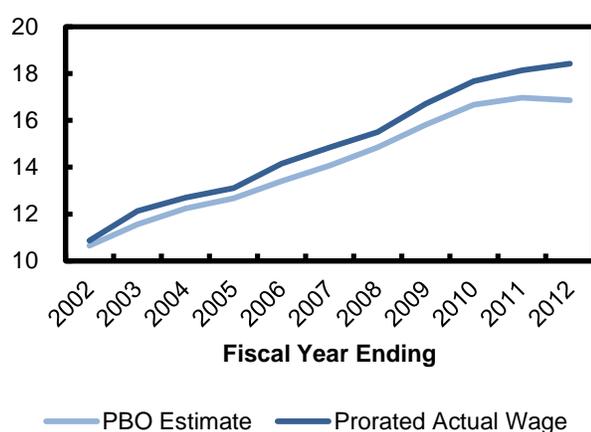
given year was applied to the wages of the previous year (specifically a 1.75 per cent increase for the fiscal year ending in 2012).<sup>9</sup>

The inflation dataset consisted of the calculated inflation based on the Consumer Price Index (CPI) as reported by Statistics Canada.<sup>10</sup> Figure 2-3 shows the measures of inflation with regards to CPI growth. The compound annual growth rate (CAGR) for CPI over the period was 2.1 per cent.

**Figure 2-4**

**Prorated Actual Wage Expenditure and PBO Estimated Wage Expenditure**

Billions of dollars, nominal



Sources: Receiver General for Canada, Collective Bargaining Agreements, PBO Calculations

In total, approximately 95 per cent of the employees listed within the Federal Employee Classification Dataset were successfully matched to wage data, and served as the basis of the analysis. As presented in Figure 2-4, the PBO wage model is tightly correlated (99.5 per cent) with the prorated aggregate annual

expenditure on wages and salaries reported by the Receiver General for Canada.<sup>11,12</sup>

*Model*

Using a model to estimate labour cost changes, the PBO examined year-over-year changes in the labour costs and decomposed the effect of three principal factors:

1. Wage Growth
  - a. Wage growth driven by CPI inflation
  - b. Real wage growth
2. Changes in Employment Levels
3. Changes in Classification Mix

Wage growth consists of the yearly increases in average salary for each job classification, as outlined in the Collective Bargaining Agreements.<sup>13</sup> The salary increases can be broken down into two parts: inflation and increases in excess of inflation.

The second factor in the model is changes in total employment levels. As employee numbers fluctuate, so does the total spending on salaries in the federal public service.

<sup>11</sup> The wage data used to prorate of the aggregate annual expenditure on wages and salaries corresponds to object code 0101 (Civilian Regular Time – Continuing Employment) and object code 0102 (Civilian Regular Time – Part-time, Seasonal and Casual) of the Chart of Accounts for the Government of Canada.

<sup>12</sup> The PBO estimate of the wage expenditure matches the actual wage expenditure trend. Unexplained variance could be attributable to a number of factors, which include the nature of the dataset, which is presented as a snapshot of total employment as of March 31 of each year. The dataset does not identify temporary workers that may be employed for periods of less than one year. For example, during tax season workers are hired on a temporary basis but are not employed on March 31st; the wages of these employees would contribute to the total actual salaries paid, but would not be counted as employees listed within the employee dataset. As the model effectively captures the 94 per cent of the total dollars paid in salaries and wages and accurately captures the trend of the growth, the omission of further potential factors is not material.

<sup>13</sup> Hourly wages were converted into annual salaries by multiplying the hourly wage by 37.5 hours per week and 52 weeks a year.

<sup>9</sup> <http://laws-lois.justice.gc.ca/eng/acts/E-15.5/page-4.html#h-6>. Accessed July 2013.

<sup>10</sup> <http://www5.statcan.gc.ca/cansim/> Table v41690973. 2011 basket of goods. Accessed August 2013.

The classification mix refers to the distribution in levels within an employee group. For example, within the Financial Management group, there are four different levels. As shown in Box 2-5, the classification mix can change from year-to-year.<sup>14</sup>

When decomposing the total estimated labour costs into factors, the PBO compared the year-over-year change in total labour costs using a growth accounting framework.

The total labour costs (LC) paid in a given year for a given classification is the product of wages and the total number of employees:

$$LC_{Classification}^{Year} = \sum_{i=1}^M E_i \times W_i$$

$M$  represents the number of levels within a classification,  $W_i$  represents the average wage for the year, classification, and level, and  $E_i$  represents the number of workers employed within each classification group level in the relevant year.

To effectively analyse the effect of the distribution of workers within levels, and to determine the growth of each component for each year, we rearrange the above formula and obtain following:

$$\begin{aligned} LC_{Classification}^{Year} &= ((\Delta E) + (E^{Year-1})) \\ &\times \sum_{i=1}^{i=M} ((\Delta D_i) + (D_i^{Year-1})) \\ &\times ((\Delta W_i) + (W_i^{Year-1})) \end{aligned}$$

<sup>14</sup> The Office of the Chief Human Resources Officer develops and maintains classification standards for the Treasury Board Secretariat. Some of the classifications can be located here: <http://www.tbs-sct.gc.ca/gui/squn01-eng.asp#FI>.

### Box 2-5

#### Example: Federal Employee Classification Dataset

	2010	2011	2012
FI-01	29.2%	28.5%	27.5%
FI-02	31.1%	31.9%	32.5%
FI-03	27.1%	27.1%	27.1%
FI-04	12.6%	12.5%	12.9%

From 2009-10 to 2011-12, the distribution of the classifications within the Financial Management job group changed marginally. The relative number of FI-01 employees has decreased, while both FI-02 and FI-04 employees have increased as a percentage of total FI's.

It is assumed that higher level positions within a job group are awarded to individuals with higher levels of education, experience, knowledge, certifications, and/or language skills. The standards for each level are determined by the Office of the Chief Human Resources Officer.

All other factors held constant, the proportionally greater share of more senior employees will result in a higher salary and wage costs.

Sources: Federal Employee Classification Dataset <http://www.pbo-dpb.gc.ca/en/RESEARCH+RESOURCES> and Treasury Board Secretariat of Canada. <http://www.tbs-sct.gc.ca/chro-dprh/cla-eng.asp>

In the preceding formula  $\Delta$  represents year-over-year change,  $E$  represents the total number of employees in a certain classification for a certain year, and  $D_i$  represents the percentage of total employees within a classification that belong to level  $i$ .

This equation, and the equivalent growth rate equation below, allows for a clear analysis of the drivers of labour cost growth.

$$LC_{Classification}^{Year} = \sum_{i=1}^M \left( (1 + E^{Year}) \left( 1 + D_i^{Year} \right) \left( 1 + W_i^{Year} \right) - 1 \right) \times \left( \frac{LC_i^{Year-1}}{LC^{Year-1}} \right)$$

While there are interactions between the factors (changes in labour costs that could be attributed to multiple factors) the three factors of wage, employment, and classification changes on average accounted for virtually all of the year-over-year changes in labour costs.

The changes in costs were estimated separately for each job group, and the total cost attributable to the changes in each factor was calculated. These costs were then aggregated across the job groups to obtain a total estimate of the cost for each factor. When calculating the cost for the two wage factors (inflation and real wage increases) the total effect calculated for overall wage change was split:

$$\begin{aligned} \text{Total Wage Growth} \\ &= \text{CPI Inflation} \\ &+ \text{Real Wage Growth} \end{aligned}$$

In some situations, new job groups were created within the period examined (e.g. Applied Science and Patent Examination, Economics and Social Science Services, Border Services), through the process of either amalgamating job groups or through splitting one group into two.<sup>15</sup> When these situations occurred, the net change in cost was classified entirely as changes in employment. The resulting net change in employment costs was minimal, however, as increases due to the creation of a new job group generally corresponded to decreases in another related job group. For example, when the

Economics and Social Science Services (EC) classification was created there was a drop in the number of Economics, Sociology, and Statistics (ES) employees that year, and the net employment cost was not material.

### 3 Analysis and Results

Figure 3-1 presents the PBO's estimated labour cost increases for separate fiscal years. Evident from the figure, total labour costs are estimated to have increased year-over-year for each year examined with the exception of the most recent fiscal year examined.

Growth in wages contributed most of the growth in labour costs over the fiscal years 2002-03 to 2004-05. In the fiscal years following, until 2009-10, employment made up a larger share of growth, and constituted more than half of total labour cost growth over that period.

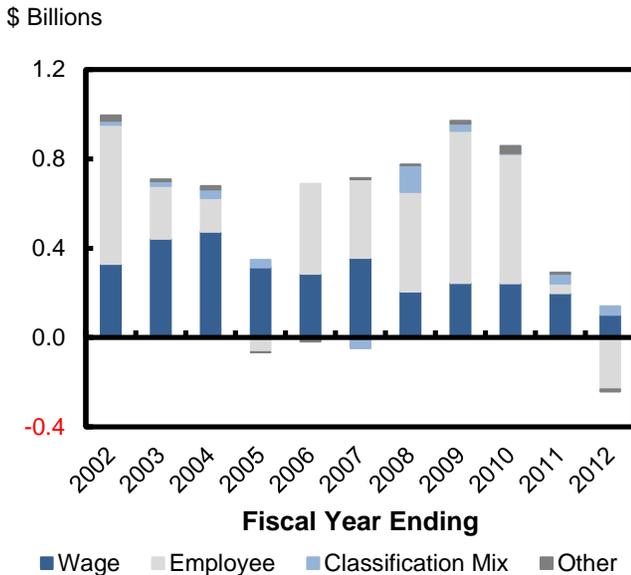
In the following sections the individual drivers of labour cost growth are examined in detail.

#### *Employment*

As Figure 3-1 shows, there have been employment increases in each of the years examined, with the exception of the fiscal years 2004-05 and 2011-12. Correspondingly, these two data points represent two of the three lowest growth rates (the other being 2010-11, see Figure 3-2). In particular, the drop in employment in 2011-12 is such that the total labour cost growth rate for that year is negative.

<sup>15</sup> Within the notes provided with the Federal Employee Classification Dataset, TBS notes that: "Analysis across time periods can be challenging due to changes in the definition of what constitutes the core public service [sic], the creation of separate agencies, and the creation or modification of occupational groups. For example, it should be noted that as of June 22, 2009, all ES and SI were amalgamated into the EC occupational group".

**Figure 3-1**  
**Decomposition of Yearly Changes in Estimated Labour Costs, including Interactions (Other)**



Sources: Receiver General for Canada, Collective Bargaining Agreements, Statistics Canada CANSIM data, PBO Calculations

The co-movement between estimated labour cost growth and changes to employment can be observed in Figure 3-3.<sup>16</sup> The growth in labour costs was strongly correlated with growth in overall employment levels (88 per cent). However, employment itself is not adequate in explaining all of the changes in labour cost growth.

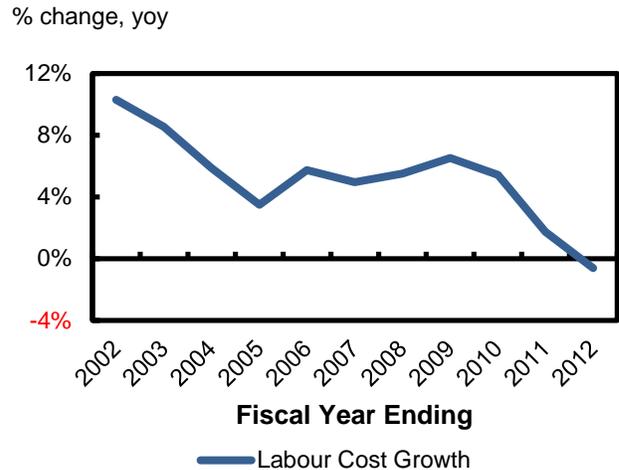
**Wages**

Increase in wage was a significant driver in the increase in labour costs over the period examined. Figure 3-4 is similar to Figure 3-1

<sup>16</sup> Figure 3-3 exhibits modelled employment growth, not actual employment growth. Modelled and actual employment growth are identical with the exception of the fiscal years ending in 2005 and 2006. In those years, there was a notable decrease in the number of invalid classifications (*i.e.* data that were not able to be included within the model). While these differences result in small discrepancies between the modelled and actual employment growth, they do not materially affect the model as the modelled employment growth accurately represents the employment changes of the classifications examined

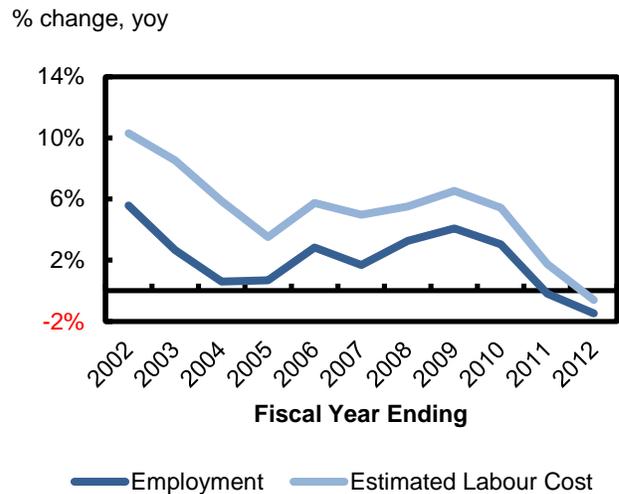
with the exception that the interaction terms are dropped for clarity, and that wage gains are further separated into two drivers: CPI inflation and wage increases attributable to other sources.

**Figure 3-2**  
**Estimated Total Labour Cost Growth**



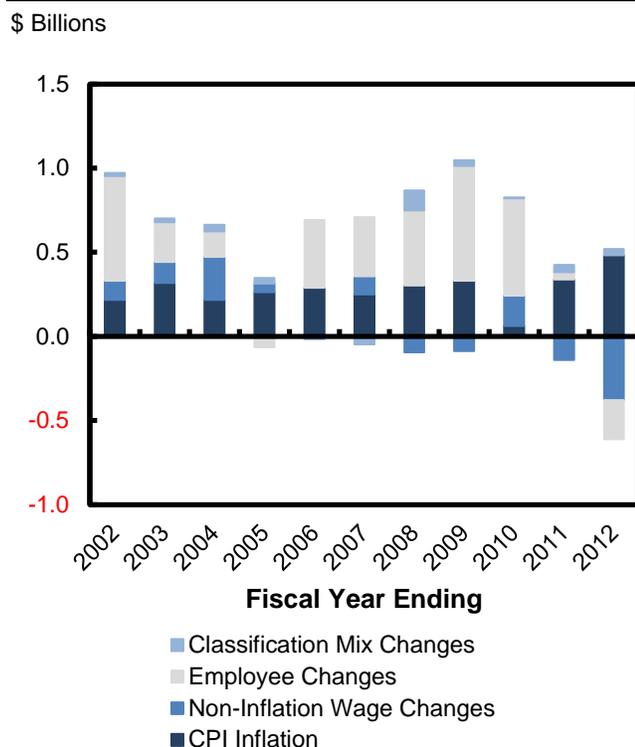
Source: PBO Calculations

**Figure 3-3**  
**Estimated Labour Cost Growth and Modelled Employment Growth**



Sources: Receiver General Data, Collective Bargaining Agreements, PBO Calculations

**Figure 3-4**  
**Decomposition of Yearly Changes in Estimated Labour Costs**



Sources: Receiver General Data, Collective Bargaining Agreements, Statistics Canada CANSIM data, PBO Calculations

In the beginning of the period examined, collectively bargained wage gains were in excess of inflation, but those gains have been exhausted due to negative gains in more recent years. In fact, the cumulative effect of non-wage inflation factors has been essentially nil over the period examined, exhibiting positive gains from the fiscal years ending 2002 to 2007 and negative in the fiscal years ending from 2008 to 2012, with the exception of 2010. In this situation the impression from the cumulative result, in which wage increases appear to be primarily due to CPI inflation, does not show the clear variations in non-inflationary wage growth over the period examined.

### Box 3-5

#### **Expenditure Restraint Act of 2009**

The *Expenditure Restraint Act* was an act contained in Bill C-10 (*Budget Implementation Act, 2009*) and achieved Royal Assent on March 12, 2009. The *Act* restrained federal government expenditures as they related to employment.

The *Act* mandated that all collective agreements coming into force after December 8, 2008 include pay increases no greater than 1.5%. For collective agreements not yet agreed upon, but coming into force before December 8, 2008, the maximum pay increase would be 2.5%, and 2.3% for fiscal years 2006-07 and 2007-08 respectively. The *Act* remained in force until the 2010-11 fiscal year.

The *Act* also prohibited the restructuring of rates of pay within collective agreements, save for the creation of national rates of pay for groups of employees that are paid wages with regional differences.

Source: Parliament of Canada  
<http://www.parl.gc.ca/HousePublications/Publication.aspx?DocumentId=3656090&File=440>

The decrease in real wage growth in more recent years can be partly attributed to the implementation of the *Expenditure Restraint Act* of 2009 (ERA).<sup>17</sup> The *ERA* limited the size of potential increases in wage for federal public servants in the fiscal years ending 2007 to 2011 (See Box 3-5). During those years CPI inflation increased at a rate higher than the wage increases permitted by the *ERA* in three of the five years.

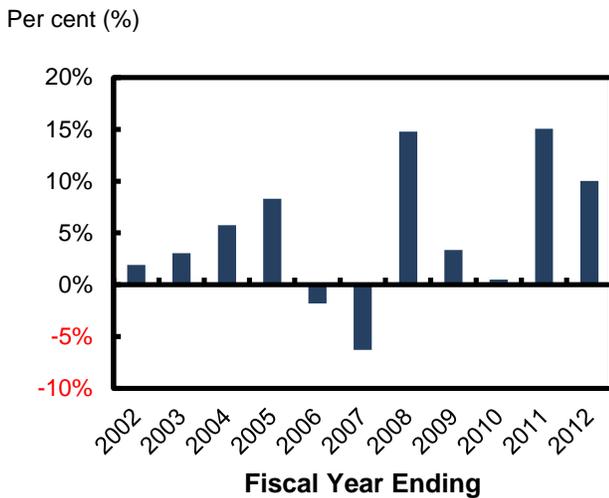
#### *Classification Mix*

The final component consisted of individual employee movements within job increments and job levels. As mentioned previously, due to the

<sup>17</sup> <http://laws-lois.justice.gc.ca/eng/acts/E-15.5/page-4.html#h-6>. Accessed July 2013.

aggregate level of the data obtained, in depth analysis of the impact of the movement within job level increments was not possible, and this analysis limits its scope in this regard to changes in classification mix (*i.e.* changes in individual job levels) only.

**Figure 3-6**  
**Classification Mix, Share of Total Labour Costs**



Sources: Collective Bargaining Agreements, PBO Calculations

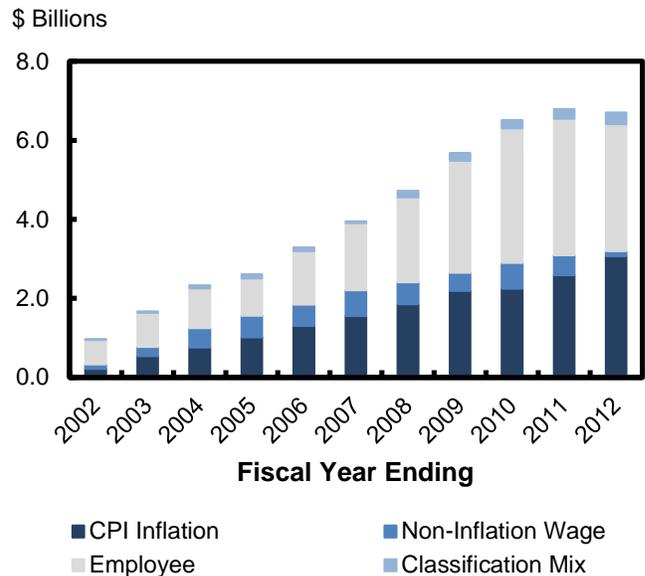
Classification mix changes (*e.g.* a computer systems group employee moving from CS-01 to CS-02) constituted the smallest of the three key drivers influencing public service wages. The effect of such movements in personnel accounted for a small amount of the total change, accounting for at most 15.6 per cent of all change in any given year (in the fiscal year ending in 2008).

Figure 3-6 exhibits the estimated total share change in labour costs attributable to classification mix changes.<sup>18</sup>

<sup>18</sup> The model used by the PBO captured shifts in classification within a job group (*e.g.* increased skills among financial analysts would be reflected as an upward shift within the FI category), but does not address shifts between similar job groups where an employee moves from one job group to another. In the absence of other employment changes, movements such as these will be

There are a number of situations where the classification mix can increase. The first is a situation where individual workers are promoted to a higher job level. The second situation is one in which employees are let go with an emphasis that is disproportionality focused on lower level (*i.e.* cheaper) employees.

**Figure 3-7**  
**Total Changes in Estimated Labour Costs, Cumulative from 2001-02 to 2011-12**



Sources: Receiver General Data, Collective Bargaining Agreements, Statistics Canada CANSIM data, PBO Calculations

The cumulative decomposition (Figure 3-7) shows the effect of classification changes accounting for approximately 4.3 per cent of the total labour cost increases since the fiscal year ending in 2002. Over that period there has been an estimated total increase in labour costs of approximately \$6.8 billion, with a classification

captured as a mixture of employment and classification changes within the model. An employee leaving one job group will reduce the employment cost of that job group while increasing employment cost of the group that they are joining. Additionally the migrating employee will alter the classification mix within each of the affected job groups, with the exact nature of the change depending on the previous mix if the job groups and the employee's placement within it. While implicitly included within the model, shifts in employment between similar job groups are not discretely measured.

mix accounting for only approximately \$290 million of that increase.

### Total Labour Costs

Figures 3-8 and 3-9 depict the cumulative increase in total labour costs over the period, broken down into the noted key drivers. Of the actual total increase in labour costs of \$7.8 billion from 2001-02 to 2011-12, almost half is estimated to be explained by new hires in the federal public service and a similar proportion from wage gains.<sup>19</sup> Within wage increases, 96 per cent of the gains are attributable to CPI with the balance a result of real wage growth. Classification mix (*i.e.* the increased skill of workers within their respective job categories) is responsible for less than 4.3 per cent of the estimated cumulative change.

**Figure 3-8**

#### Estimated Cumulative Labour Cost Changes, 2001-02 to 2011-12

\$ Billions

<b>Wage</b>	<b>3.19</b>
CPI Inflation	3.06
Real Wage Growth	0.13
<b>Employment</b>	<b>3.22</b>
<b>Classification mix</b>	<b>0.29</b>
<b>Other</b>	<b>0.09</b>
<b>Total</b>	<b>6.79</b>

Source: PBO Calculations

## 4 Conclusion

Of the key drivers examined, changes in employment and wage growth attributable to CPI

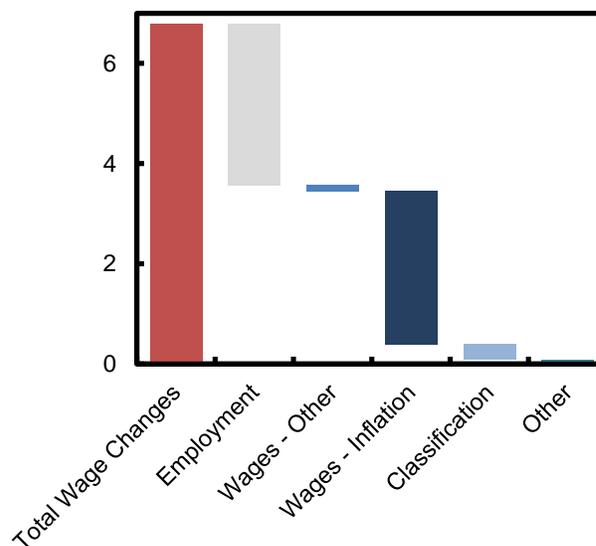
<sup>19</sup> Salaries paid to employees of the Canadian Security Intelligence Service and the Security Intelligence Review Committee were not included in the total actual wages as employee totals for these organizations were not included within employee dataset obtained by TBS, and so were excluded from the estimates produced by the PBO.

inflation constituted the two main drivers of labour cost growth. These two drivers were approximately equal in size and each constituted almost half of the estimated increase in labour costs over the period examined.

**Figure 3-9**

#### Labour Cost Increases: Total Change 2001-02 to 2011-12, Decomposed by Cost Drivers

\$ Billions



Sources: Receiver General Data, Collective Bargaining Agreements, PBO Calculations

Cumulatively, changes in classification and real wage growth contributed little to overall labour cost growth. However, on a year-over-year basis there are differing levels of contributions to the cumulative totals by each of the examined drivers.

Recent reductions in the level of employment and the *Expenditure Restraint Act* of 2009 have been successful in limiting the growth in labour costs. However, to maintain a constant standard of living in the public sector, some labour cost growth is inevitable.

## Annex A

### Decomposition of Federal Salary Growth

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#### Section 1

Hypothesis: Growing expertise (moving up in classifications, ex. Going from an AS-01 to AS-02) in the federal public service is a key factor in the rising total cost of employment salaries over the past 10 years.

#### Methodology

The objective of this paper is to highlight the impact of classification increases on total spending on salary in the public sector.

This will be done on the basis of four discrete components:

1. Inflation
2. Settlements in excess of inflation
3. Number of People
4. Changes in the classification mix

Total Increase in Spending on salaries per classification = (1) Annual Increase in inflation + (2) Annual Increase in salary from bargaining agreements that exceeds inflation + (3) Annual Increase in expertise + (4) Annual in the number of employees

- (1) Total Cost (\$): Number of employees (using base year) x Average rate of inflation
- (2) Total Cost (\$): Number of employees (using base year) x Average salary growth in excess of inflation in the collective bargaining agreement
- (3) Total Cost (\$): Number of employees within each specific category (using base year) x Average salary for each category (using base year) x Change in classification mix
- (4) Total Cost (\$): Number of employees x Average salary (using base year)

Data requirements:

1. Data set received from TBS
2. Collective Agreements
3. Cases studies from PSLRB

#### Section 2

Which departments have shown the highest level of growth in expertise?

This section would highlight the organizations that have significantly changed their classification mix to employees with more expertise (ex. A larger percentage of AS-08 than they previously had).

- This could include a top 10 table of departments

### **Resources & Timeline**

This proposal would require the effort of 1.0 full-time equivalent (FTEs) for a period of 12 weeks. A final report could be provided by September 23, 2013.

### **Communications**

All external consultations pertaining to this product would cease in the event of a federal election.

Publication of the final report on the PBO's Web site would occur simultaneously with the release of PBO analysis to clients.