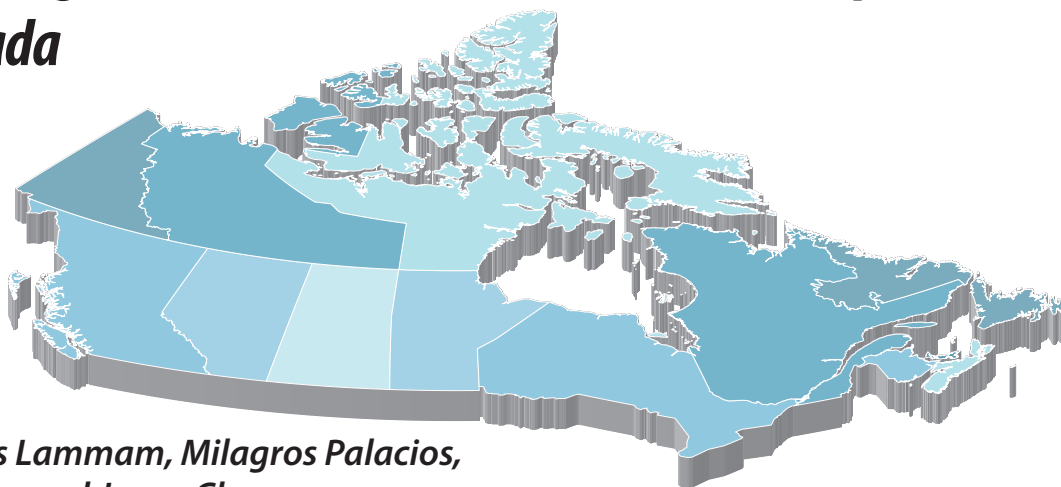


## ***Comparing Government and Private Sector Compensation in Canada***



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### **MAIN CONCLUSIONS**

- Using data on individual workers from January to December 2015, this report estimates the wage differential between the government and private sectors in Canada. It also evaluates four available non-wage benefits in an attempt to quantify compensation differences between the two sectors.
- After controlling for such factors as gender, age, marital status, education, tenure, size of firm, type of job, industry, and occupation, Canada's government sector workers (from the federal, provincial, and local governments) were found to enjoy a 10.6 percent wage premium, on average, over their private sector counterparts in 2015. When unionization status is factored into the analysis, the wage premium for the government sector declines to 7.2 percent.
- The available data on non-wage benefits suggest that the government sector enjoys an advantage over the private sector. For example, 89.3 percent of government workers in Canada are covered by a registered pension plan, compared to 23.8 percent of private sector workers. Of those covered by a registered pension plan, 93.7 percent of government workers enjoyed a defined benefit pension compared to just under half (45.0 percent) of private sector workers.
- In addition, government workers retire earlier than their private sector counterparts—about 2.3 years earlier on average—and are much less likely to lose their jobs (3.8 percent in the private sector versus 0.5 percent in the public sector).
- Moreover, full-time workers in the government sector lost more work time in 2015 for personal reasons (12.7 days on average) than their private sector counterparts (7.8 days).

## Introduction

As governments of all levels across Canada struggle with persistent budget deficits and growing debt, better control of spending will be key in their efforts to repair public finances. Against this backdrop, there is heightened interest in how wages and non-wage benefits in the government sector compare with those in the private sector, since the compensation of government employees makes up a significant share of a government's annual program spending (often over half of a provincial government's budget).

This report builds on previous research by the Fraser Institute comparing government and private sector compensation in Canada (Lammam et al., 2015). Using data on individual workers from January to December of 2015, the report updates past estimates of the wage differential between government sector workers in Canada (including federal, provincial, and local government workers) and their private sector counterparts. It also evaluates four available non-wage benefits in an attempt to quantify compensation differences between the two sectors.

At the outset, it is important to emphasize that wages are only one component of overall compensation. Various non-wage benefits such as pensions, health and dental insurance, vacation time, life and disability insurance, and so forth affect overall compensation levels. In this report, we are unable to estimate the overall total compensation premium in the government sector due to a lack of data on non-wage benefits. However, we do present the data that are available on non-wage benefits to shed some light on the differences in these benefits between the government and private sectors.

The first section of this report provides some basic statistics on government and private sector employment in Canada. The second section presents the results of calculations used to determine the wage premium in the government sector. The third section compares available non-wage benefits to ascertain the likelihood that there is a premium for non-wage benefits in the government compared to the private sector.<sup>1</sup>

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1 Lammam et al. (2015) provide possible solutions to the disparities in compensation between the government and private sectors. The options they propose include: (1) gathering better data on wage and non-wage benefits for government and private sector workers; (2) recognizing that total compensation is what matters, not wages alone; (3) ensuring that the information regarding government sector wages and benefits is transparent, accessible, and disclosed regularly; and (4) instituting mechanisms for setting compensation such as wage boards. For more details, see Lammam et al. (2015).

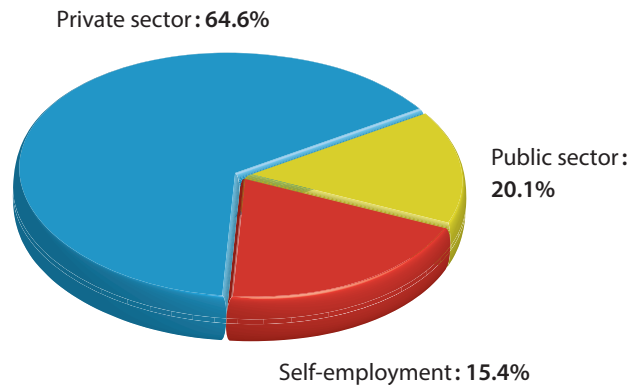
## Comparing the Size of the Government and Private Sectors

Before analyzing compensation in the government and private sectors, it is useful to compare the two sectors in a more general way. **Figure 1** displays the composition of total employment in Canada in 2015. In that year, about 3.6 million Canadian workers, representing 20.1 percent of total employment, were employed in the public sector. This includes the federal, provincial, and local governments, as well as government agencies, crown corporations, and government-funded establishments such as schools (including universities) and hospitals (Statistics Canada, 2016a).<sup>2</sup> In contrast, there were 11.6 million workers employed in the private sector in 2015, representing 64.6 percent of total employment (Statistics Canada, 2016a). The remaining 15.4 percent were self-employed.

## Comparing Wages in Canada's Government and Private Sectors

A number of studies have empirically quantified wage differences between similar occupations in the private and public sectors. Nearly all of these studies measure just the wage differences

**Figure 1: Components of total employment in Canada, 2015**



Sources: Statistics Canada, 2016a; calculations by the authors.

between the public and private sectors; this is due to lack of sufficient data on non-wage benefits. The Canadian research examining wage differences between the two sectors over the past three decades consistently indicates a premium for government sector workers.<sup>3</sup> The specific wage premiums vary depending on the data source and time period. What is clear, however, is that a premium exists.<sup>4</sup>

2 Unless otherwise stated, data used in this section come from Statistics Canada's Labour Force Survey. This is a household survey of a sample of individuals who are representative of the civilian population 15 years of age or older. Excluded from the survey's coverage are persons living on reserves and other Aboriginal settlements in the provinces, full-time members of the Canadian Forces, and the institutionalized population (for example, inmates of penal institutions and patients in hospitals or nursing homes who have resided in the institution for more than six months). These groups together represent an exclusion of approximately 2.0 percent of the population aged 15 and over (Statistics Canada, 2016g: 20).

3 For a thorough review on wage differentials in the public and private sector in Canada, see Lammam et al. (2015).

4 The reason for the premium in the government sector is twofold. The process of determining wages in the public sector is markedly different from that in the private sector. The wage process in the government sector is largely determined by political factors, while the process in the private sector is largely guided by market forces and profit constraints. These differences are amplified by the monopoly environment in which the government sector operates versus the competitive environment of the private sector. For a more detailed explanation of the causes for the compensation premium observed in the public sector, see Lammam et al. (2015).

## Methodology and Data Sources

This report provides new calculations for the government sector wage premium in Canada. It uses aggregated monthly data on individual workers from the Labour Force Survey from January to December of 2015 (Statistics Canada, 2016b).<sup>5</sup> The major advantage of the Labour Force Survey data is that public sector workers are explicitly identified, whereas they are not in the National Household Survey data.<sup>6</sup> The Labour Force Survey sample for Canada consists of 616,438 individuals for whom their hourly wage rate, age, gender, education, marital status, type of work, and other characteristics are available. The analysis covers paid government and private sector employees only (persons 15 years of age and over with employment income). It excludes the self-employed, unemployed persons, and persons not in the labour force. The Labour Force Survey breaks down the data by sector (public and private) but does not provide data for different levels of government. Therefore, the public sector wage premium in this section contains workers from the federal, provincial, and local governments in Canada.<sup>7</sup>

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5 The Labour Force Survey is a monthly survey. However, the data used for the empirical analysis in this report is aggregated data over the 12-month period from January to December 2015.

6 The Labour Force Survey has a “class of worker” variable that designates whether the employer is a government or privately owned enterprise, whereas the National Household Survey does not have such variable to distinguish government from private employers.

7 Specifically, the Labour Force Survey considers the public sector as those working for federal general government (i.e., federal public administration), federal government business enterprises, provincial general government, provincial health and social service institutions, universities, colleges, vocational and trade institutions, provincial government business enterprises,

## The Public Sector Wage Premium: Results from Empirical Analysis

The analysis in this section updates the analysis done by Lammam et al. (2015) and follows earlier academic work by Gunderson et al. (2000).<sup>8</sup> For details on the methodology used to compute the public sector wage premium in this section, please see Lammam et al. (2015).

**Table 1** summarizes the results of the analysis of the public and private wage sector comparison in Canada. The column labelled *Model 1* provides the public sector wage premium calculation without controlling for any factors. In other words, Model 1 represents a calculation that does not account for variables like age, experience, education, and so forth, which we know influence wages. The Model 1 estimate indicates that wages in Canada’s public sector (including federal, provincial, and local public sector workers), are 34.4 percent higher, on average, than in the private sector.

A more appropriate way to determine if there is a wage premium in the public sector is to control for different factors such as gender, age, level of education, tenure, type of employment (seasonal, contractual), part-time or full-time work, establishment size, industry, and

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local general government, local school boards, and local government business enterprises. Those in the military armed forces are excluded from the survey.

8 Lammam et al. (2015) use aggregated data from the monthly Labour Force Survey over the 12-month period from January to December 2013 and calculate a public sector wage premium of 35.1 percent, without controlling for other independent variables, and 9.7 percent after accounting for gender, age, marital status, level of education, job status, tenure, province of employment, size of firm, full-time/part-time, city, and industry. When unionization is accounted for, the public sector wage premium was 6.2 percent.

**Table 1: Summary of public sector wage premium in Canada, 2015**

*Dependent variable = log of hourly wage*

	MODEL 1	MODEL 2	MODEL 2, controlling for unionization
	Coefficient	Coefficient	Coefficient
(Private)			
Public	34.4	10.6	7.2
N	616,438	616,438	616,438
Adjusted R square	0.10	0.57	0.57

Notes: (i) The control variables used in the regressions include sex, age, marital status, education, tenure, type of employment (seasonal, contractual), part-time or full-time work, establishment size, province, city, industry, and occupation.

(ii) Self-employment is not included.

(iii) Estimates are significant at 99%.

Sources: Statistics Canada, 2016b; calculations by the authors.

occupation, which affect individual wage levels. Model 2 in table 1 controls for these personal characteristics. Controlling for these factors reduces the public sector wage premium in Canada to 10.6 percent, on average.<sup>9</sup> When

9 Model 2 also provides details on the differences in wages across various personal and job characteristics (not shown on table 1). For instance, after controlling for other wage-determining factors, men, on average, earn 10.7 percent more than women. As expected, higher education levels lead to higher wages. In fact, those who graduate from high school earn 7.5 percent more than those with elementary education or less. A university graduate earns 16.8 percent more than those with only elementary schooling, on average, whereas those with a graduate degree earn 21.9 percent more. Moreover, those with full-time, permanent jobs, and longer tenure, earn, on average, higher wages than those with temporary, part-time jobs, and shorter tenure. On average, those with seasonal, contract, and casual work earn between 5 and 9 percent less than those with permanent jobs.

unionization is included in Model 2, the premium is reduced to 7.2 percent.

## The Public Sector Wage Premium by Industry

Table 2 summarizes the public sector wage premium for six of 18 industries after accounting for the various factors mentioned above.<sup>10</sup>

**Table 2: Public sector wage premium in Canada by industry, 2015**

*Dependent variable = log of hourly wage*

	Coefficient	N	R-squared
Utilities	-1.0	6,450	0.27
Transportation and warehousing	8.6***	29,666	0.25
Finance, insurance, real estate and leasing	8.7***	30,432	0.32
Educational services	10.2***	51,574	0.36
Health care and social assistance	17.5***	89,402	0.37
Information, culture and recreation	2.6***	23,043	0.49

Notes: (i) The control variables used in the regressions were similar to the ones used in the earlier regressions. These included controls for sex, age, marital status, education, experience, type of employment (seasonal, contractual), establishment size, province, city, part-time or full-time work, and tenure.

(ii) Only those industries with a sample size of more than 5% are selected.

(iii) Estimates marked \*\*\* are significant at a 99% level; estimate without \* is not significant at 99%, 95% or 90% level.

(iv) The Labour Force Survey (LFS) uses 12 age groups to categorize the data. Instead of using 12 independent variables for this analysis, the authors use only one variable, "age", which represents the mid age of each age group.

Sources: Statistics Canada, 2016b; calculations by the authors.

Those who work full time earn 6.7 percent more than those with part-time jobs.

10 These industries were selected because the percentage of workers employed in them (in either the public or private sector) was 5 percent or more among the sample. 12 of the 18 industries were excluded because their sample sizes were below the 5 percent threshold.



The wage premium for public sector workers in health care and social assistance is 17.5 percent, while the wage premium is 10.2 percent for educational services. In two industries (transportation and warehousing; finance, insurance, real estate, and leasing), public sector workers earn, on average, a wage premium of approximately 9 percent. In the information, culture, and recreation industry, workers in the public sector earn, on average, 2.6 percent more than their counterparts in the private sector. In the utilities industry, public sector workers earn, on average, 1.0 percent less than their private sector counterparts, although this finding is not statistically significant.

## The Public Sector Wage Premium by Occupation

This report also estimates the public sector wage premium within particular occupations. **Table 3** presents the public sector wage premium for 18 of 25 occupations (after accounting for other factors that drive wages).<sup>11</sup> Within these occupations, public sector workers generally earn more than their private sector counterparts with the exception of senior management occupations,

11 These occupations were selected because the percentage of workers in them (in either the public or private sector) was 5 percent or more among the sample. Seven of the 25 occupations were excluded because their sample sizes were below the 5 percent threshold.

**Table 3: Public sector wage premium in Canada by occupation, 2015**

*Dependent variable = log of hourly wage*

	Coefficient	N	R-squared
Senior management occupations	-6.2	1,532	0.32
Other management occupations	11.9***	32,582	0.29
Professional occupations in business and finance	9.5***	15,243	0.24
Financial, secretarial and administrative occupations	11.1***	31,309	0.25
Clerical occupations, including supervisors	15.3***	62,923	0.35
Natural and applied sciences and related occupations	6.5***	41,940	0.30
Professional occupations in health, nurse supervisors and registered nurses	1.2	20,012	0.15
Technical, assisting and related occupations in health	11.9***	28,588	0.26
Occupations in social science, government service and religion	18.8***	30,765	0.41
Teachers and professors	15.5***	29,651	0.27
Occupations in art, culture, recreation and sport	7.9***	12,721	0.44
Occupation in protective services	39.5***	11,001	0.56
Childcare and home support workers	24.0***	9,544	0.40
Sales and service occupations n.e.c., including occupations in travel and accommodation, attendants in recreation and sport as well as supervisors	18.1***	58,031	0.39
Contractors and supervisors in trades and transportation	3.7**	7,984	0.27
Other trades occupations	9.7***	37,233	0.38
Transport and equipment operators	7.9***	26,014	0.26
Trades helpers, construction, and transportation labourers and related occupations	9.9***	14,978	0.32

Notes: (i) The control variables used in the regressions were similar to the ones used in the earlier regressions. These included controls for sex, age, marital status, education, experience, type of employment (seasonal, contractual), establishment size, province, city, part-time or full-time work, and tenure.

(ii) Only those occupations with a sample size of more than 5% are selected.

(iii) Estimates marked \*\*\* are significant at a 99% level; \*\* = significant at a 95% level; estimate without \* is not significant at 99%, 95% or 90% level.

(iv) The Labour Force Survey (LFS) uses 12 age groups to categorize the data. Instead of using 12 independent variables for this analysis, the authors use only one variable, "age," which represents the mid age of each age group.

Sources: Statistics Canada, 2016b; calculations by the authors.

although this latter result was not statistically significant. For results that are statistically significant, the public sector wage premium ranges from a low of 3.7 percent (contractors and supervisors in trades and transportation) to a high of 39.5 percent (occupations in protective services).<sup>12</sup> Within the childcare and home support worker occupation, public sector workers earn nearly a quarter more than their private sector counterparts. Public sector workers in the teachers and professors occupation earn an average wage premium of 15.5 percent. There is a 15.3 percent public sector wage premium for clerical occupations.

## Comparing Non-Wage Benefits in Canada's Public and Private Sectors

Although public sector workers in Canada enjoy a wage premium, this does not tell us whether their overall compensation is higher than, comparable to, or lower than that of workers in the private sector. That is because wages are only a part of total employee compensation.

Unfortunately, individual-level data on non-wage benefits, such as pensions, vacation time, and health benefits, are not readily available in Canada, which explains the lack of research on this aspect of employee compensation. It is critical that Canada's statistical agency, Statistics Canada, augment its current survey in order to begin collecting and analyzing data on non-wage benefits.

Fortunately, there are some aggregated non-wage benefit data that can be examined to roughly compare how Canada's public sector

non-wage benefits compare to the nation's private sector. Four specific types of non-wage benefits data are examined: registered pensions, average age of retirement, job loss (as a proxy of job security), and the absence rate of full-time employees.

### Registered Pensions

The pension benefit is the first non-wage benefit to consider. It has two important dimensions. The first is the percentage of workers in both sectors who have a registered pension.

**Table 4** summarizes the pension data for Canada.

In terms of registered pension coverage, there is a dramatic difference between the public and private sectors. In 2015, the latest data available at the time of writing, 23.8 percent of private sector workers in Canada were covered by a registered pension plan, compared to 89.3 percent of public sector workers. Put differently, while a little over two of every 10 private sector workers have a registered pension plan, nearly nine of every 10 public sector workers do. This gap grows when we consider the second dimension—the type of pension plan in each sector.

A defined benefit plan provides workers with a guaranteed benefit in retirement. A defined contribution plan, on the other hand, provides employees with a benefit that is based on their contributions, their employer's contributions, and earnings on the pension savings over time. A defined benefit plan is increasingly scarce in the private sector because of its high costs and risks for employers. Specifically, in a defined benefit pension plan, the employer bears all the financial risk since the employee is guaranteed the benefit. If returns on the pension's investment fund do not match expectations, the employer must increase the contributions to the plan to fully fund the guaranteed benefit.

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12 Public sector workers in professional occupations in health, nurse supervisors, and registered nurses earn a wage premium of 1.2 percent, but this result is not statistically significant.

**Table 4: Registered pension plan (RPP) members in Canada, by type of plan and sector, January 1, 2015**

	TOTAL (public and private)		PRIVATE SECTOR		PUBLIC SECTOR	
	Number	%	Number	%	Number	%
Defined benefit plans	4,380,386	70.0	1,369,789	45.0	3,010,597	93.7
Defined contribution plans	1,097,211	17.5	952,630	31.3	144,581	4.5
Other pension plans	779,323	12.5	721,616	23.7	57,707	1.8
Total number of members	6,256,920		3,044,035		3,212,885	
Total employment, 2015	16,398,800		12,800,400		3,598,400	
% of employees covered by pension plans		38.2		23.8		89.3

Notes: (i) Total employment includes workers in the public and private sector as well as self-employed workers in incorporated business (with and without paid help). Self-employed incorporated businesses are included in the private sector because, like their public and private sector counterparts, they are able to have a registered pension plan (RPP).

(ii) The registered pension plan data comes from the annual Pension Plans in Canada Survey (PPIC). Meanwhile, total employment data comes from Statistics Canada's Labour Force Survey (LFS). Although these two data sets (PPIC and LFS) are comparable, there are some conceptual differences that should be pointed out. First, members of Canadian Registered Pension Plans (RPP) living on Indian reserves (in any province or territory) as well as those working outside Canada (less than 1 percent of total RPP membership) are included in the pension plan membership but these groups are excluded from labour force survey estimates. Second, labour force estimates are annual averages while pension plan membership refers to the number of active, employed participants as of January 1, 2015. Finally, the Labour Force Survey does not cover full-time members of the Armed Forces.

(iii) Due to some conceptual differences between the PPIC and LFS, the percentage of employees covered by pension plan might be lower than the numbers shown in this table.

(iv) Numbers may not add up to the total due to rounding.

Sources: Statistics Canada, 2016a, 2016c; calculations by the authors.

The comparative data presented in table 4 illustrate the increasing scarcity of defined benefit pensions in the private sector versus the prevalence of these pension plans in the public sector. In 2015, of the workers in Canada who were covered by a pension plan, 93.7 percent of those in the public sector enjoyed a defined benefit pension compared to 45.0 percent of those in the private sector. While almost half of private sector workers with a pension have a pension with a guaranteed benefit in retirement, a guaranteed benefit is the norm in the public sector. Public sector workers in Canada are much more likely to be in a registered pension plan, and are much more likely to receive a defined benefit pension, than their private sector counterparts.

## Average Age of Retirement

**Table 5** presents data on the average age of retirement for public and private sector workers between 2011 and 2015, for Canada as a whole and for individual provinces.<sup>13</sup> On average, Canada's public sector workers retire 2.3 years earlier than do the province's private sector workers.<sup>14</sup>

13 Statistics Canada notes that the data on age of retirement should be used with caution due to small sample sizes, especially for the provinces. Five-year averages were used (2011 to 2015) to try to mitigate the sample size problem.

14 The authors also examined median retirement age. Regardless of whether the average or median age of retirement is used, public sector workers in Canada retire at an earlier age than their private sector counterparts. If the median retirement age is used, the difference in years is slightly larger. For instance, Canada's public sector workers retire 3.2 years earlier than the private sector employees if the median rather than the average is used.



**Table 5: Average retirement age, 2011–2015**

	Total	Public sector employees	Private sector employees	Difference (years)
Canada	62.9	61.2	63.5	2.3
NL	61.2	59.0	62.8	3.8
PEI	63.4	61.2	65.3	4.1
NS	62.4	60.8	63.4	2.6
NB	62.6	60.8	63.7	2.9
QC	61.8	59.8	62.5	2.8
ON	63.3	62.1	63.5	1.4
MB	63.1	61.3	63.9	2.7
SK	63.9	61.6	64.1	2.5
AB	63.6	62.6	63.7	1.1
BC	63.6	61.4	63.9	2.5

Notes: (i) Total includes workers in the public and private sector, and self-employed individuals (including unpaid family workers).

(ii) The difference in years may not equal the difference as displayed by the data because the retirement age years for both the public and private sectors are rounded.

Sources: Statistics Canada, 2016d; calculations by the authors.

The gap is largest in Prince Edward Island and Newfoundland and Labrador, where public sector workers retire 4.1 and 3.8 years earlier, respectively, than their private sector counterparts. At 1.1 years, Alberta has the smallest gap. What is clear from table 5 is that, in every province, public sector workers tend to retire earlier than private sector workers.

## Job Loss as a Proxy for Job Security

**Table 6** presents data on job losses in 2015 (excluding those with temporary employment) for Canada as a whole and for the provinces. There are several reasons for job loss, including firms moving location, firms going out of business, changing business conditions, and dismissal. In 2015, 3.8 percent of those employed in the private sector experienced job loss in Canada, compared to only 0.5 percent of those employed in the public sector. That means the rate of job loss was nearly seven times higher in the private sector.

**Table 6: Job loss by sector, 2015**

	JOB LOSSES (thousands)			JOB LOSSES (% of employment)			
	Total	Public sector	Private sector	Total	Public sector	Private sector	Difference (percentage points)
Canada	456.1	19.7	436.4	3.0	0.5	3.8	3.2
NL	11.9	0.5	11.4	5.6	0.8	7.4	6.6
PEI	2.0	0.0	1.9	3.2	0.0	4.6	4.6
NS	12.5	0.9	11.6	3.2	0.8	4.2	3.4
NB	12.1	0.6	11.6	3.9	0.7	5.2	4.5
QC	125.6	5.3	120.3	3.6	0.6	4.5	3.9
ON	151.2	7.1	144.1	2.6	0.5	3.2	2.6
MB	10.3	0.9	9.4	1.9	0.5	2.4	1.9
SK	12.5	0.8	11.8	2.7	0.6	3.6	3.0
AB	72.3	1.8	70.5	3.8	0.4	4.6	4.2
BC	45.5	1.6	43.9	2.4	0.4	3.0	2.6

Notes: (i) Total employment includes workers in the public and private sector. Self-employment is not included.

(ii) Reasons for losing a job include (1) company moved, (2) company went out of business, (3) business conditions, and (4) dismissal by employer. Job losses due to the end of a temporary, casual, or seasonal job are not included.

(iii) The difference in percentage points may not equal the difference as displayed by the data because the job loss percentages for both the public and private sectors are rounded.

Sources: Statistics Canada, 2016a, 2016e; calculations by the authors.

On a provincial basis, the loss of jobs in the public sector ranged from 0.0 percent in Prince Edward Island to 0.8 percent in Nova Scotia and Newfoundland and Labrador. Private sector workers, on the other hand, were much more likely to lose their jobs in the Atlantic Provinces, where job losses ranged from 4.2 percent in Nova Scotia to 7.4 percent in Newfoundland & Labrador. At 2.4 percent, private sector workers in Manitoba had the lowest job loss rate.

## Absence Rate of Full-Time Employees

**Table 7** presents a measure of the absence rate in the two sectors: total days lost per worker in 2015.<sup>15</sup> Among full-time employees, an average of 7.8 days was lost for personal reasons in the private sector, compared to 12.7 days in the public sector (4.9 days higher). Public sector workers in Quebec have the most days of absence in a year (16.5), which is 6.9 days higher than their private sector counterparts. Public sector workers in Alberta have the least days of absence within a year (10.7 days), but this is still 4.5 days higher than workers in the private sector.

## Conclusion

In 2015, Canada's government sector workers earned a wage premium of 10.6 percent, on average. When unionization is accounted for, the wage premium declines to 7.2 percent. These findings are in line with previous research investigating wage differences between the two sectors. It is important to note that the wage premium varies within particular industries and occupations. While there is insufficient data to calculate or make a definitive statement about the differences in non-wage benefits between the public and private sectors in Canada, the available data suggest that the public sector enjoys more generous non-wage benefits than the private sector, including higher rates of pension

**Table 7: Total days lost for full-time employees by sector, 2015**

	Total	Public sector employees	Private sector employees	Difference (days)
Canada	8.9	12.7	7.8	4.9
NL	9.2	13.1	7.8	5.3
PEI	10.4	12.9	9.2	3.7
NS	10.8	13.7	9.7	4.0
NB	10.5	14.1	9.2	4.9
QC	11.3	16.5	9.6	6.9
ON	7.7	10.9	6.8	4.1
MB	9.5	11.5	8.6	2.9
SK	10.1	12.9	9.0	3.9
AB	7.1	10.7	6.2	4.5
BC	9.0	12.4	8.0	4.4

Notes: (i) Absence data are only for personal reasons—that is, illness or disability, or personal or family responsibility.

(ii) Days lost per worker are calculated by multiplying the inactivity rate (number of hours lost as a proportion of the usual weekly hours worked by full-time workers) by the estimated number of working days in the year (250). The estimated number of working days in the year (250) is in line with other research in the field. This number assumes that the typical full-time employee works a five-day week and is entitled to all statutory holidays (around 10 days a year). Thus, the potential annual labour supply of a typical worker would be 52 weeks multiplied by 5, less 10 statutory holidays, or 250 days. This allows the days lost per worker in a year to be calculated.

Sources: Statistics Canada, 2016f; calculations by the authors.

coverage, higher rates of defined benefit pensions, earlier ages of retirement, lower rates of job loss, and more days lost.

15 Lammam et al. (2015) also present two additional measures of absence rates: total incidence rate and inactivity rate. The total incidence rate is defined as the percentage of full-time paid workers that were absent during a reference week. The inactivity rate is the number of hours lost as a proportion of the usual weekly hours worked by full-time workers. In 2015, public sector workers had a higher incidence rate (10.4 percent) and inactivity rate (5.1 percent) compared to their private sector counterparts (6.9 percent and 3.1 percent, respectively).

## References

- Gunderson, Morley, Douglas Hyatt, and Craig Riddell (2000). *Pay Differences between the Government and Private Sectors: Labour Force Survey and Census Estimates*. Human Resources in Government Series, CPRN Discussion Paper No. W10. Canadian Policy Research Networks.
- Lammam, Charles, Milagros Palacios, Feixue Ren, and Jason Clemens (2015). *Comparing Public and Private Sector Compensation in Canada*. Fraser Institute.
- Statistics Canada (2016a). *Labour force survey estimates (LFS), employment by class of worker, North American Industry Classification System (NAICS) and sex, annual (persons)*. CAN-SIM Table 282-0012. Statistics Canada.
- Statistics Canada (2016b). *Labour Force Survey (monthly)*. Microdata file (January to December 2015). Ordered and sent by Statistics Canada on May, 2016.
- Statistics Canada (2016c). *Registered pension plan (RPP) members, by area of employment, sector, type of plan (defined benefit, defined contribution and other pension plan) and contributory status, by province as of January 1, 2015*. Custom tabulation from Statistics Canada (received on August 8, 2016). Statistics Canada.
- Statistics Canada (2016d). *Average and Median retirement age by sex, class of worker, Canada and Provinces, annual average*. Custom tabulation from the Labour Force Survey (received on August 2, 2016). Statistics Canada.
- Statistics Canada (2016e). *Job loss by reasons and by class of workers for Canada and the provinces*. Custom tabulation from the Labour Force Survey (received on August 2, 2016).
- Statistics Canada (2016f). *Absence rates for full-time employees by sex and public and private sector, Canada and provinces*. Custom tabulation from the Labour Force Survey (received on August 2, 2016). Statistics Canada.
- Statistics Canada (2016h). *Guide to the Labour Force Survey*. Catalogue No. 71-543-G. Statistics Canada. <<http://www.statcan.gc.ca/pub/71-543-g/71-543-g2016001-eng.pdf>>



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