

# Ontario Prosperity Initiative

FRASER  
INSTITUTE

## Comparing Public and Private Sector Compensation in Ontario

by Amela Karabegović, Milagros Palacios, and Jason Clemens



# **Ontario Prosperity Initiative**

February 2013

## Comparing Public and Private Sector Compensation in Ontario

**by Amela Karabegović, Milagros Palacios  
and Jason Clemens**



# Contents

Executive summary	❖	5
Introduction	❖	7
I A Review of Past Research	❖	8
II Comparing Wages in Ontario’s Public and Private Sectors	❖	14
III Comparing Non-Wage Benefits in Ontario’s Public and Private Sectors	❖	17
Overall Conclusion	❖	22
References	❖	23
About the authors	❖	26
Acknowledgments	❖	27
Publishing information	❖	28
About the Fraser Institute	❖	31
Editorial Advisory Board	❖	32



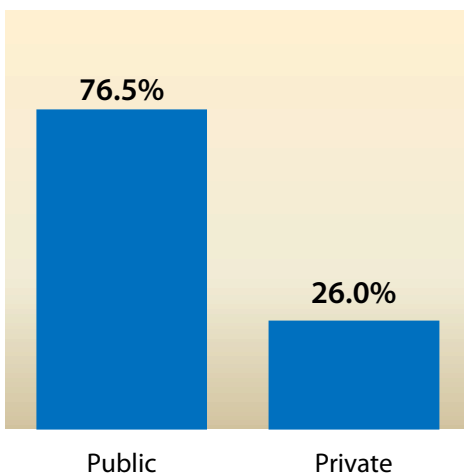
## Executive Summary

As Ontario's provincial government continues to struggle with both deficits and finding ways to constrain spending, there is heightened interest in how wages and non-wage benefits (i.e., total compensation) in the public sector compare with those in the private sector.

While a lack of non-wage benefits data mean that there is insufficient information to make a definitive statement about total compensation between the private and public sectors, the data that are available indicate that the public sector enjoys a clear wage premium. There are also strong indications that the public sector has more generous non-wage benefits than the private sector.

*The data that are available indicate that the public sector enjoys a clear wage premium.*

**Figure 1: Percentage of employees covered by a registered pension plan in 2011**



### Wage comparison

After controlling for such factors as gender, age, marital status, education, tenure, size of firm, type of job, and industry, public sector workers (including federal, provincial, and local) located in Ontario in April 2011 enjoyed, on average, a 13.9 percent wage premium over their private sector counterparts. When unionization is factored in, the premium is reduced to 12.4 percent.

### Non-wage comparison

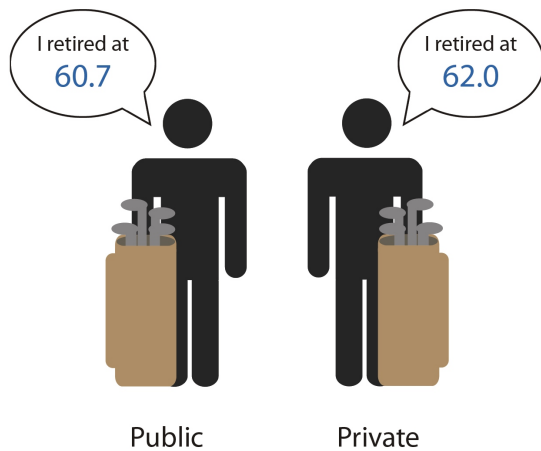
As of 2011, 76.5 percent of public sector workers in Ontario were covered by a registered pension compared to 26.0 percent of private sector workers (figure 1). In addition, 97.3 percent of Ontario's public sector workers who were covered

by a pension plan enjoyed a defined benefit pension plan (i.e., a plan guaranteeing a certain level of benefits) compared to 53.5 percent of private sector workers.

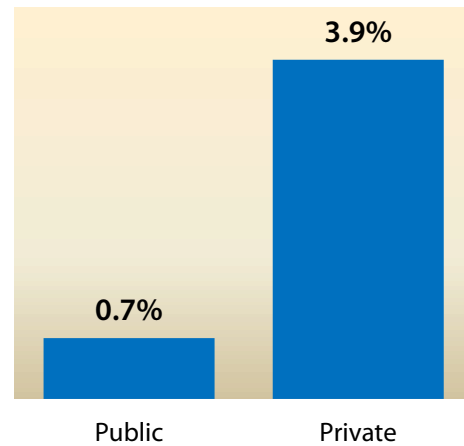
On average, between 2007 and 2011, public sector workers in Ontario retire more than a year earlier (1.3 years earlier) than private sector workers (figure 2).

Finally, in 2011, job losses were greater in Ontario's private sector than in the public sector: 3.9 percent of private sector workers lost their jobs compared to 0.7 percent of public sector workers (figure 3).

**Figure 2: Average retirement age, 2007–2011**



**Figure 3: Job loss as a percentage of employment in 2011**



# Introduction

As Ontario's provincial government continues to struggle with deficits and as it tries to constrain spending, there is heightened interest in how wages and non-wage benefits (i.e., total compensation) in the public sector compare with those in the private sector. This study replicates a previously used methodology by which to compare wages in the two sectors. It then compares some available non-wage benefits more generally in an attempt to quantify compensation differences between the province's public and private sectors.

This paper is divided into three distinct sections. The first reviews past research comparing the compensation of the public and private sector workers. The second section presents and explains the wage comparisons between the private and public sectors (broadly defined) in Ontario. It also presents a summary of the methodology employed to compare and calculate differences in wages between the two sectors. Finally, the third section compares three available non-wage benefits, namely, pension coverage, the age of retirement, and layoffs, in order to gauge the generosity of non-wage benefits in the private and public sectors.

# I A Review of Past Research

## Understanding compensation

Before reviewing the existing research comparing public and private sector compensation, it is necessary to highlight the different compensation components. The first and most readily understood of these is the wages people earn from their employment.

A second component of compensation is non-wage benefits. This category includes such benefits as retirement programs (including pensions and RRSPs), dental coverage, supplemental health benefits, fitness and related memberships, and the number of weeks of vacation an employee has. These benefits can represent a significant and meaningful portion of an employee's overall compensation.

A particularly important but frequently ignored third aspect of compensation is job security, and the potential difference in job security between the two sectors. The difference could arise from the fact that there is little to no risk of bankruptcy or insolvency in the public sector, at least in most industrialized countries. Public sector entities that encounter financial problems are generally bailed out in one way or another (i.e., they have "soft" budgets), which allows them to continue operating, in contrast to the private sector.<sup>1</sup>

In comparing compensation between the public and private sectors, it is important to include as broad a measure of wages and non-wage benefits as possible. Unfortunately, there are significant data barriers in Canada to measuring both non-wage benefits and job security. Despite that, the goal should be for public sector compensation to broadly reflect private sector compensation for similar and comparable positions. The key is that the *overall* compensation levels should be comparable between the public and private sector workers rather than the individual compensation components.

---

1 For a general discussion of this phenomenon, see Janos Kornai's 1986 work on what is referred to as "the soft budget constraint" (Kornai, 1986).



## Past research comparing wages in the public and private sectors

A number of studies have empirically quantified wage differences between similar occupations in the private and public sectors.<sup>2</sup> All of the studies summarized in this section, except for one, measure just the wage differences between the public and private sectors due to a lack of sufficient data on non-wage benefits.

In a seminal study, University of Toronto Professor Morley Gunderson (1979) examined wage differences between the public and private sectors using the 1971 Canadian Census data. He found that after controlling for the effect of other determinants of pay, the pure wage premium in Canada's public sector was 6.2 percent for males and 8.6 percent for females when compared to the private sector. Lower wage workers received the largest premium.

Shapiro and Stelcner (1989) extended Gunderson's analysis using the 1981 Canadian Census data. They found that after accounting for factors such as education, training, and work experience, the public sector wage premium was 4.2 percent for males and 12.2 percent for females in 1980.

In a comprehensive follow-up study, Gunderson and two of his colleagues expanded his original analysis by using Census data from 1971, 1981, 1991, and 1996, as well as data from the 1997 *Labour Force Survey* (Gunderson et al., 2000).<sup>3</sup> They found a public sector wage premium of 7.6 percent using the survey data and about 9.0 percent using the 1996 Census data. Overall, Gunderson et al. (2000) found that the findings from the two data sources were quite consistent, suggesting that, on average, those in the public sector received a wage premium of roughly 9 percent compared to similar workers in the private sector.<sup>4,5</sup>

- 
- 2 Note that male-female wage and union/non-union wage differentials are outside of the scope of this study. For a survey of this literature, see Ehrenberg and Schwarz (1986) and Bender (1998).
  - 3 The major advantage of the Labour Force Survey data is that public sector workers are explicitly identified, whereas they are not in the Census data.
  - 4 While the 1996 Census data are not strictly comparable to those from earlier Censuses due to different industry classifications, the wage premium based on the 1996 data is higher than the wage premium from earlier Censuses (4.6 percent in 1971, 5.5 percent in 1981, and 8.5 percent in 1991) suggesting that the premium has potentially increased over the past few decades.
  - 5 The Gunderson et al. (2000) estimate of the public sector wage premium in 1971 is different from that found in Gunderson (1979). This is likely due to slightly different specifications used in the 2000 study to make the wage premium estimates comparable across the three Census years (1971, 1981, and 1991). For example, Gunderson et al. (2000) includes those in the military, since those people could not be excluded from the 1991 Census, whereas people in the military are excluded in Gunderson (1979).

Prescott and Wandschneider (1999) examined 1981 and 1990 survey data from Canada's *Survey of Consumer Finances* and found a higher public sector wage premium: 14.3 percent for males and 25.0 percent for females for 1990.<sup>6</sup>

Mueller (2000) examined differences in public sector wage premiums by the level of government (federal, provincial, and local) using Canadian data from 1988 to 1990 from the *Labour Market Activity Survey* (LMAS) and found that the premiums were the highest for federal government employees followed by those in local and provincial governments.<sup>7</sup> Overall, the public sector wage premium was 3.3 percent for males and 11.3 percent for females. At the federal level, the wage premium for public sector workers was 7.8 percent for males and 16.0 percent for females compared to the private sector. At the provincial level, the public sector wage premium was negative 3.5 percent for males and positive 10.9 percent for females. Finally, at the local or municipal level, the public sector wage premium was 5.0 percent for males and 6.6 percent for females over the private sector.

The Canadian Federation of Independent Businesses (CFIB) used 2006 Census data and found that it was not only wages that were higher in the public sector, but non-wage benefits, too. The CFIB found "that government and public sector employees are paid roughly 8 to 17 percent more than similarly employed individuals in the private sector" (Mallett and Wong, 2008:1). However, after "taking into account significantly higher paid [non-wage] benefits and shorter workweeks, the public sector total compensation advantage balloons past 30 percent" (Mallett and Wong, 2008: 1).<sup>8</sup>

More recently, Tiagi (2010) examined the public sector wage premium for male and female workers in Canada using data from Statistics Canada's September 2008 *Labour Force Survey*. After controlling for individual differences among workers in the two sectors such as education, marital status, occupation, job tenure, and unionization, the author found that both male and female public sector workers receive a wage premium: 5.4 percent for men and 19.8 percent for women.

There are a few studies that have surveyed the research on public sector wage premiums in Canada. For instance, Bender (1998) completed a comprehensive review of past research on public sector wage premiums for this country and a select group of

- 
- 6 The authors found that from 1981 to 1990, the public sector wage premium for males slightly declined while it increased for females.
- 7 Mueller (1998) obtained similar results. The author found that public sector wage premiums tend to be higher for federal government employees, females, and low-wage individuals.
- 8 Mallett and Wong (2008) found that the public sector wage premium was the highest at the federal level (17.3 percent) followed by the municipal level (11.2 percent) and provincial level (7.9 percent). Once the non-wage benefits are included, the public sector compensation premium increases to 41.7 percent for federal workers, 35.9 percent for municipal workers, and 24.9 percent for provincial workers.

developed and developing nations. He found that the public sector wage premium in Canada was between 5 and 15 percent.

In 2006, James Lahey, an associate secretary at the Treasury Board Secretariat, reviewed the literature on the public sector wage premium in Canada and concluded that the “federal public service wage premium was likely well under 10 percent” (Treasury Board of Canada Secretariat, 2006: 73).

In an update of his study, in 2011 Lahey concluded that the public sector wage premium at the federal level was likely between 8 and 9 percent (Lahey, 2011). He argued that the total compensation premium for federal employees is roughly 15 to 20 percent once the non-wage benefits such as pensions are added.

Similar studies as those completed for Canada have been undertaken in other countries with similar results: the public sector is consistently observed to maintain higher wages and compensation than the private sector.<sup>9</sup> For example, Biggs and Richwine (2011) found that federal workers in the US enjoyed a wage premium of 14 percent. Critically, however, the authors spent considerable time developing estimates for both non-wage benefits and job security. They calculated that the premium enjoyed by the public sector increased to over 60 percent after non-wage benefits and job security were included.

## Explaining the public sector premium

There are a number of potential causes for the compensation premium observed in the public sector. Importantly, two of them yield an understanding of how such a premium might be managed and eliminated over time.

The first consideration is the type of constraint facing private sector wages. University of Toronto Professor Morley Gunderson noted in his seminal study, *Earnings Differentials between the Public and Private Sectors* (1979), that the main difference in the process of determining wages between the public and private sectors was the type of constraint imposed on wages. In the private sector, profits are the main constraint on wages. That is, to maximize profits, businesses set wages in line with workers’ productivity so they can attract and retain the workers they require to compete.

In the public sector, on the other hand, Gunderson observed that the “profit constraint [on wages] is replaced by an ultimate political constraint” (1979: 230). That is, wages are determined through political bargaining between governments and

---

9 See, for example, Smith (1976 and 1977), Venti (1985), Moore and Raisian (1991), Choudhury (1994), and Ramoni-Perazzi and Bellante (2007). Gregory and Borland (1999) and Ehrenberg and Schwarz (1986) provide prominent reviews of this literature for the US and/or other countries.

employee groups (largely unions). Ultimately, public sector wages “depend on their [i.e., employee groups’] ability to compete with other interest groups over the allocation of the public budget” (1979: 230). In addition, Gunderson explained that the government’s ability to tax and borrow enables it to increase wages without having to reduce public services or substitute labour for other inputs such as capital. For these reasons, Gunderson concluded that the political constraint in the public sector on wages may be less binding (effective) than the profit constraint in the private sector.

The second consideration is the environment within which the private and public sectors exist. Most of the public sector operates as a monopoly, which means there is no threat from competition. In other words, individuals cannot choose an alternative provider for government services. This monopoly on service provision means that the unions representing public sector workers can demand a wage premium without fear of competitive pressure or responses from other firms.

In contrast, the private sector is rarely in a monopoly situation; when one does exist, it is normally imposed by the state. Competition and the threat of competition characterize non-monopoly markets. Firms, therefore, have to better balance the need to retain and attract workers with their ability to compete against other firms on price, quality, and cost.

These two environments have distinct effects on unions and the threat of strikes. Since the public sector operates in a monopoly with no competitors, workers can threaten and undertake strikes that disrupt service in the public sector with almost no fear of losing customers or a contract.

In stark contrast, in the private sector, both employers and unions have an incentive to settle their differences quickly, especially under the increased competitive pressures from globalization. Unions know that excessive wage demands will make the firm uncompetitive, which will likely result in reduced future employment. Employers, on the other hand, face trade-offs between wage demands and a loss of market share, profitability, etc., that result from a prolonged dispute. Ultimately, the parties usually come up with a compromise acceptable to both.<sup>10</sup>

## Conclusion

The process of determining wages in the public sector is markedly different from that in the private sector. The public sector wage process is largely determined by political factors, while the process in the private sector is largely guided by market forces and

---

10 For an additional discussion about the differences between the public and private sector, see Christensen (1980), Kornai (1992), and Kornai et al. (2003).

profit constraints. These differences are amplified by the monopoly environment in which the public sector operates versus the competitive environment of the private sector.

The Canadian research examining wage differences between the two sectors over the past three decades consistently indicates a premium for public sector workers. The specific wage premiums vary depending on the data source and timing. What is clear, however, is that a premium exists.



## II Comparing Wages in Ontario's Public and Private Sectors

### Methodology and data sources

This study uses data from the *Labour Force Survey* for April 2011 (Statistics Canada, 2011). The sample for Ontario consists of 15,257 individuals for whom hourly wage rate, age, gender, education, province, marital status, type of work, and other characteristics were available. The analysis covers paid government and private sector employees only (persons 15 years of age and over with employment income); it excludes self-employment, unemployed persons, and persons not in the labour force. The *Labour Force Survey* data breaks down the data by sector (public and private) but unfortunately does not provide data for different levels of government. Therefore, the public sector wage premium in this section pertains to local, provincial, and federal workers located in Ontario.<sup>11</sup> In Ontario, federal government employees represent 14.8 percent of the total public sector. Provincial public sector workers represent 39.3 percent of the total public sector in the province, and local government employees represent the remaining 46.0 percent (Statistics Canada, 2012e and 2012f).<sup>12</sup>

The model used for estimating a public sector wage premium in Ontario is similar to methodology used in Gunderson et al. (2000):

$$w_i = \alpha + \beta P_i + \gamma x_i + \eta_i$$

In the equation,  $w_i$  denotes the (log) hourly wage of individual  $i$ ,  $P$  is the dummy variable denoting sectoral status ( $P = 1$  for the public sector status),  $x$  is a vector of control variables such as gender, age, marital status, education, tenure, type of work (permanent or seasonal), size of firm, industry, and  $\eta$  is an error term which includes factors such as unobserved skill or ability. The  $\alpha$  and  $\beta$  are coefficient estimates. In

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

12 Some public sector employees do not reside or work in Ontario. These workers account for a very small percentage (statistically insignificant) of public sector workers in the province.

**Table 1: Public sector wage premium in Ontario, based on Labour Force Survey, April 2011 (Dependent variable: log of hourly wage)**

	Model 1 Coefficient (%)	Model 2 Coefficient (%)		Model 1 Coefficient (%)	Model 2 Coefficient (%)
<b>(Private)</b>			<b>(Full Time)</b>		
Public	41.0***	13.9***	Part Time		-11.5***
<b>(Female)</b>			<b>(Establishment, fewer than 20 employees)</b>		
Male		13.3***	Establishment, 20-99 employees		7.6***
<b>(Age 15-19)</b>			Establishment, 100-500 employees		11.2***
Age 20-24		-1.9*	Establishment, more than 500		20.0***
Age 25-29		11.3***	<b>(Agriculture)</b>		
Age 30-34		18.8***	Forestry, Fishing, Mining, Oil and Gas		35.4***
Age 35-39		20.3***	Utilities		35.8***
Age 40-44		19.5***	Construction		27.1***
Age 45-49		21.5***	Manufacturing—durables		14.5***
Age 50-54		21.7***	Manufacturing non-durables		9.4***
Age 55-59		16.7***	Wholesale Trade		14.3***
Age 60-64		14.5***	Retail Trade		-7.7***
Age 65-69		-1.1	Transportation and Warehousing		6.3**
Age 70+		4.5	Finance, Insurance, Real Estate, and Leasing		19.2***
<b>(Married)</b>			Professional, Scientific, and Technical Services		27.0***
Living in common-law		-0.3	Management, Administrative, and Other Support		-4.9*
Widowed		-0.2	Educational Services		17.2***
Separated		-5.0***	Health Care and Social Assistance		17.8***
Divorced		-0.7	Information, Culture and Recreation		11.4***
Single, never married		-6.1***	Accommodation and Food Services		-8.7***
<b>(Grade 0-8)</b>			Other Services		8.2***
Some secondary		8.3***	Public Administration		22.2***
11 to 13 years of schooling		11.4***	Constant	2.9***	2.3***
Some post secondary		17.9***	N	15,257	15,257
Post secondary certificate		24.7***	Adjusted R Square	0.12	0.51
Bachelors degree		40.7***			
Masters degree		47.8***			
<b>(Tenure 1-5 months)</b>					
Tenure 6-11 months		-0.8			
Tenure 1-5 years		4.8***			
Tenure 6-10 years		13.2***			
Tenure 11-20 years		22.3***			
<b>(Permanent Work)</b>					
Seasonal Work		-10.4***			
Contract Work		-8.4***			
Casual Work		-8.5***			

Note: Self-employment is not included.

\* = Significant at a 90% level; \*\* = Significant at a 95% level, \*\*\* = Significant at a 99% level. All are based on robust standard errors.

Sources: Statistics Canada, 2011; calculations by the authors.

other words, the model controls for age, gender, marital status, education, tenure, type of work, size of establishment, and industry. Some may argue that age and tenure measure the same thing, i.e., experience. However, tenure in the *Labour Force Survey* only measures the length of time in the person's current job and thus ignores overall experience. The age indicator is needed to capture the individual's cumulative experience from different jobs over time.

Ordinary least squares (OLS) were used to estimate the wage premium in the public sector. Results are shown in table 1 using different control variables.

## Wage comparison results

Table 1 presents the technical results of the wage comparison analysis in Ontario. The second column of the table (Model 1) provides the public sector wage premium calculation without controlling for any factors. In other words, Model 1 represents a calculation that ignores variables like age, experience, education, etc., which we know influence wages. The Model 1 estimate indicates that wages in the public sector, including federal, provincial and local public sector workers located in Ontario are 41.0 percent higher, on average, than in the private sector.

Table 1's third column (Model 2) controls for personal characteristics such as gender, age, marital status, education, tenure, size of establishment, type of job, and industry. Controlling for these factors reduces the public sector wage premium in Ontario to 13.9 percent, on average.<sup>13</sup> It should be noted that Gunderson et al. (2000) also controlled for unionization, and when this variable is included in our model, the premium is further reduced to 12.4 percent.

There are some additional details provided in Table 1. For example, the characteristics shown in boldface in the table are called reference groups, where other indicators in the same category are compared to them. For example, "female" is the reference category for gender. This means that the estimate for the male indicator shows that men, on average, earn 13.3 percent more than women.

"Public sector" in the *Labour Force Survey* covers all levels of government: federal, provincial, and local.

---

13 The *Labour Force Survey* provides data by occupation and industry. However, public sector wage premium by industry and occupation is not presented in the paper due to small sample sizes.

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

It is important to emphasize that wages are only a part of total employee compensation, as discussed in the first section. Even though public sector workers in Ontario enjoy a wage premium, this does not tell us whether or not their overall compensation is higher, comparable, or lower to workers in the private sector.

Unfortunately, individual data on non-wage benefits such as pensions, vacation time, health benefits, etc., is not readily available in Canada, which explains the lack of research on this aspect of employee compensation.<sup>14</sup>

However, some aggregated non-wage benefit data can be examined to roughly surmise whether non-wage benefits are lower, comparable, or higher in Ontario's public sector than in its private sector. Three specific components of non-wage benefits are examined: registered pensions, average age of retirement, and job loss. To some degree, the latter is meant to measure job security.

#### Registered pensions

The pension benefit is the first of the non-wage benefits to consider. It has two important dimensions. The first is the percentage of workers in both sectors covered by a registered pension plan. Table 2 summarizes the pensions data for Canada, and more specifically, Ontario. There is a dramatic difference in pension coverage between the public and private sectors. In 2011, the latest data available at the time of writing, 26.0 percent of private sector workers in Ontario were covered by a registered pension plan compared to 76.5 percent of public sector workers.

---

14 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. In the United States, for example, data on non-wage benefits paid by private sector employers and state and local governments are collected by the Bureau of Labor Statistics (Biggs and Richwine, 2011). Non-wage data includes vacation time, holidays, sick leave, life and health insurance, short- and long-term disability insurance, defined benefits, and defined contribution pension plans (Biggs and Richwine, 2011). For federal employees, the Office of Management and Budget (OMB) and Office of Personnel Management (OPM) provides a similar level of detail on non-wage benefits.

**Table 2: Registered pension plan (RPP) members, by type of plan and sector, as of January 1, 2011**

	Canada			Ontario		
	Total (public and private)	Private sector	Public sector	Total (public and private)	Private sector	Public sector
Total number of members who have:	6,065,751	2,924,786	3,140,965	2,263,744	1,235,453	1,028,291
– Defined benefit plans	4,484,011	1,530,035	2,953,976	1,661,243	660,517	1,000,726
– Defined contribution plans	969,207	817,645	151,562	352,363	338,659	13,704
– Other pension plans	612,533	577,106	35,427	250,138	236,277	13,861
Total employment, 2011	15,746,600	12,183,600	3,563,000	6,087,500	4,743,800	1,343,700
% of employees covered by pension plans	38.5	24.0	88.2	37.2	26.0	76.5
	<b>As a % of total number of members</b>			<b>As a % of total number of members</b>		
Defined benefit plans	73.9	52.3	94.0	73.4	53.5	97.3
Defined contribution plans	16.0	28.0	4.8	15.6	27.4	1.3
Other pension plans	10.1	19.7	1.1	11.0	19.1	1.3

**Notes:**

(a) Total 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).

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

Sources: Statistics Canada, 2012a, 2012b, 2012c; and calculations by the authors.

Second, for those who have pensions, what type of plan do they have? 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 employers' 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 the employer. Specifically, in a defined benefit pension plan, the employer bears 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. The comparative data presented in table 2 illustrate the increasing scarcity of defined benefit pensions. In 2011, of the workers in Ontario who were covered by a



**Table 3a: Average retirement age, from 2007 to 2011 (in years)**

	<b>Total<sup>a</sup></b>	<b>Public sector employees</b>	<b>Private sector employees</b>	<b>Difference<sup>c</sup> (in years)</b>
Canada	61.9	60.0	62.4	2.5
Newfoundland & Labrador	60.0	58.2	62.3	4.1
Prince Edward Island	61.8	60.8	62.4 <sup>b</sup>	1.6
Nova Scotia	61.5	60.0	62.0	2.1
New Brunswick	61.3	59.1	63.1	4.0
Quebec	60.4	58.5	61.7	3.2
<b>Ontario</b>	<b>62.1</b>	<b>60.7</b>	<b>62.0</b>	<b>1.3</b>
Manitoba	62.4	60.6	62.6	2.0
Saskatchewan	62.7	60.3	62.7	2.4
Alberta	63.5	61.7	63.8	2.0
British Columbia	63.0	60.7	63.5	2.8

Notes:

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

(b) The retirement age of private sector workers in Prince Edward Island was not provided by Statistics Canada for the year 2011 since the sample was too small to be reliable. For Prince Edward Island, estimates based on a sample of less than 200 are not reported. Therefore, the retirement age for Prince Edward Island is based on four years of data, 2007 to 2010.

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

Sources: Statistics Canada, 2012d; and calculations by the authors.

**Table 3b: Median retirement age, from 2007 to 2011 (in years)**

	<b>Total<sup>a</sup></b>	<b>Public sector employees</b>	<b>Private sector employees</b>	<b>Difference<sup>c</sup> (in years)</b>
Canada	61.5	59.7	62.6	2.9
Newfoundland & Labrador	59.7	58.2	62.9	4.7
Prince Edward Island	61.3	60.1	63.0 <sup>b</sup>	2.8
Nova Scotia	60.3	59.8	61.5	1.7
New Brunswick	60.8	59.1	64.0	4.9
Quebec	59.9	58.3	61.6	3.3
<b>Ontario</b>	<b>62.1</b>	<b>60.6</b>	<b>62.4</b>	<b>1.8</b>
Manitoba	62.3	60.6	62.9	2.4
Saskatchewan	62.0	60.2	62.3	2.1
Alberta	64.3	63.2	64.3	1.1
British Columbia	62.8	60.0	64.2	4.2

Notes and sources: Same as for Table 3a.

**Table 4: Job loss, by class of workers for Canada and the provinces, 2011**

	Number of those who lost a job (in thousands)			Number of those who lost a job as a % of employment			
	Total	Public sector	Private sector	Total	Public sector	Private sector	Difference (percent- age points)
Canada	445.4	22.1	423.4	3.0	0.6	3.8	3.2
Newfoundland & Labrador	10.4	0.5	10.0	5.1	0.7	7.4	6.6
Prince Edward Island	2.5	0.2	2.3	4.1	0.9	5.8	4.8
Nova Scotia	14.2	0.8	13.3	3.6	0.7	4.8	4.1
New Brunswick	13.4	0.8	12.6	4.3	0.9	5.7	4.7
Quebec	106.8	4.3	102.5	3.1	0.5	4.0	3.5
Ontario	178.2	8.8	169.4	3.1	0.7	3.9	3.2
Manitoba	10.4	1.0	9.5	1.9	0.6	2.5	1.9
Saskatchewan	8.0	0.7	7.3	1.9	0.5	2.5	2.0
Alberta	37.4	2.5	34.9	2.1	0.7	2.5	1.8
British Columbia	64.1	2.5	61.6	3.5	0.6	4.3	3.7

**Notes:**

(a) Total job losses cover public and private sector workers only. Self-employed are excluded.

(b) Reasons for losing a job include: company moved, company went out of business, business conditions, and dismissal by employer. Job losses due to an end of temporary, casual, and seasonal work are not included.

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

Sources: Statistics Canada, 2012a and 2012d; and calculations by the authors.

pension plan, 97.3 percent of those in the public sector enjoyed a defined benefit pension compared to 53.5 percent of those in the private sector.

Clearly, public sector workers in Ontario are much more likely to be in a pension plan, and are much more likely to receive a defined benefit pension, than their private sector counterparts.

## Average and median age of retirement

Tables 3a and 3b present information on the average and median age of retirement for all workers—public and private sector—between 2007 and 2011 both for Canada as a whole and for individual provinces.<sup>15</sup>

Regardless of whether the average or median age of retirement is used, public sector workers in Ontario retire at an earlier age than their private sector counterparts (as in fact is the case across the country). Specifically, on average, Ontario's public sector workers retire over a year (1.3 years) earlier than do the province's private sector workers. The gap increases to 1.8 years if the median rather than the average is used.

## Job loss as a proxy for job security

Table 4 presents data on job losses (excluding those from temporary employment) for 2011 for Canada as a whole and the provinces. Table 4 includes job losses from firms moving location, firms that went out of business, changing business conditions, and dismissal. In 2011, 3.9 percent of those employed in the private sector experienced job loss in Ontario. This rate was much higher than that for the public sector of 0.7 percent.

## Conclusion

While there is insufficient data to calculate or make a definitive statement about non-wage benefits differences between the public and private sectors in Ontario, available data suggest that the public sector enjoys more generous non-wage benefits than the private sector. More specifically, public sector workers in Ontario have higher rates of pension coverage, higher rates of defined benefit pensions, lower ages of retirement, and lower rates of job loss than private sector workers in the province.

---

15 Statistics Canada, which provided the data, noted that provincial data should be used with caution due to small sample sizes. Five-year averages were used (2007 to 2011) to try to mitigate the sample size problem.

## Overall Conclusion

The empirical analysis of wage data and a survey of available non-wage benefit data for Ontario indicate that public sector workers in the province enjoy both higher wages and likely higher non-wage benefits than their private sector counterparts. Specifically, Ontario's public sector workers (i.e., federal, provincial, and local public sector workers) enjoy a 13.9 percent wage premium, on average, compared to private sector workers after adjusting for personal characteristics such as gender, age, marital status, education, tenure, size of establishment, type of job, and industry. When unionization is included in the analysis, the wage premium for the public sector in Ontario declines to 12.4 percent.

Available data for non-wage benefits in Ontario similarly indicates that public sector workers likely enjoy a premium over private sector workers. For example, 76.5 percent of public sector workers in Ontario were covered by a pension compared to 26.0 percent of private sector workers. Of those workers who have a registered pension plan, 97.3 percent of public sector workers were covered by a defined benefit pension compared to 53.5 percent of private sector workers. In addition, on average, public sector workers in Ontario retire over a year earlier (1.3 years) than private sector workers. Finally, public sector workers face lower rates of job loss than private sector workers. In 2011, 3.9 percent of private sector workers lost their jobs in Ontario compared to 0.7 percent of public sector workers.

It is clear that public sector workers in Ontario enjoy higher wages—and likely higher non-wage benefits—than comparable workers in the private sector.

## References

Bender, Keith A. (1998). The Central Government-Private Sector Wage Differential. *Journal of Economic Surveys* 12, 2: 177-220.

Biggs, Andrew, and Jason Richwine (2011). *Comparing Federal and Private Sector Compensation*. AEI Economic Policy Working Paper 2011-02 (March). American Enterprise Institute. <<http://www.aei.org/files/2011/06/08/AEI-Working-Paper-on-Federal-Pay-May-2011.pdf>>, as of December 19, 2012.

Choudhury, Sharmila (1994). New Evidence on Public Sector Wage Differentials. *Applied Economics* 26, 3: 259-266.

Christensen, Sandra (1980). *Unions and the Public Interest*. The Fraser Institute.

Ehrenberg, R.G., and J.L. Schwarz (1986). Public-sector Labor Markets. In O. Ashenfelter and R. Layard (eds.), *Handbook of Labor Economics* (vol. 2) (North-Holland): 1219-1260.

Gregory, Robert, and Jeffrey Borland (1999). Recent Developments in Public Sector Labor Markets. In O. Ashenfelter and D. Card (eds.), *Handbook of Labor Economics* (vol. 3) (North-Holland): 3573-3630.

Gunderson, Morley (1979). Earnings Differentials between the Public and Private Sectors. *The Canadian Journal of Economics* 12, 2: 228-242.

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. <[http://www.cprn.org/documents/15680\\_en.pdf](http://www.cprn.org/documents/15680_en.pdf)>, as of December 19, 2012.

Hayes, Andrew F., and Li Cai (2007). Using Heteroskedasticity-consistent Standard Error Estimators in OLS Regression: An Introduction and Software Implementation. *Behavior Research Methods* 39 (4): 709-722.

Kornai, Janos (1986). The Soft Budget Constraint. *KYKLOS*, 39 (1986): 3-30. <<http://www.kornai-janos.hu/Kornai1986%20The%20Soft%20budget%20Constraint%20-%20Kyklos.pdf>>, as of December 14, 2012.



Kornai, Janos (1992). *The Socialist System: The Political Economy of Communism*. Princeton University Press.

Kornai, Janos, Eric Maskin, and Gerard Roland (2003). Understanding the Soft Budget Constraint. *Journal of Economic Literature*, XLI (December): 1095-1136.

Lahey, James (2011). Controlling Federal Compensation Costs: Towards a Fairer and More Sustainable System. In Christopher Stoney and G. Bruce Doern (eds.), *How Ottawa Spends 2011-2012* (School of Public Policy and Administration at Carleton University): 84-105.

Mallett, Ted, and Queenie Wong (2008). *Wage Watch: A Comparison of Public-sector and Private-sector Wages*. Canadian Federation of Independent Business. <<http://www.cfib.ca/research/reports/rr3077.pdf>>, as of January 14, 2013.

Moore, William J., and John Raisian (1991). Government Wage Differentials Revisited. *Journal of Labor Research* 12, 1: 13-33.

Mueller, Richard E. (1998). Public-Private Sector Wage Differentials in Canada: Evidence from Quantile Regressions. *Economic Letters* 60, 2: 229-235.

Mueller, Richard E. (2000). Public- and Private-Sector Wage Differentials in Canada Revisited. *Industrial Relations* 39, 3: 375-400.

Prescott, David, and Bo Wandschneider (1999). Public/Private sector Wage Differentials in Canada—Evidence from the 1991 and 1982 Surveys of Consumer Finance. *Applied Economics* 31: 723-731.

Ramoni-Perazzi, Josefa, and Don Bellante (2007). Do Truly Comparable Public and Private Sector Workers Show Any Compensation Differential? *Journal of Labor Research* XXVIII, 1: 117-133.

Shapiro, Daniel M., and Morton Stelcner (1989). Canadian Public-Private Sector Earnings Differentials, 1970-1980. *Industrial Relations* 28 (1): 72-81.

Smith, Sharon (1976). Pay Differentials between Federal Government and Private Sector Workers. *Industrial and Labor Relations Review* 19 (Jan): 179-197.

Smith, Sharon (1977). Government Wage Differentials. *Journal of Urban Economics* 4: 248-271.

Statistics Canada (2011). *Labour Force Survey*. Microdata file (April 2011). Statistics Canada.

Statistics Canada (2012a). Labour force survey estimates (LFS), employment by class of worker, North American Industry Classification System (NAICS) and sex, annual (persons). CANSIM Table 282-0012. Statistics Canada.

Statistics Canada (2012b). Registered pension plan (RPP) members, by area of employment, sector, type of plan and contributory status, annual. CANSIM Table 280-0008. Statistics Canada.

Statistics Canada (2012c). Special request from Statistics Canada regarding defined benefits, defined contribution, and other pension plans for private and public sector by area of employment (received on November 7, 2012). Statistics Canada.

Statistics Canada (2012d). Special request from Statistics Canada using data from the Labour Force Survey (received on Sept. 18, Oct. 19, and Oct. 29, 2012). Statistics Canada.

Statistics Canada (2012e). Public sector employment, wages and salaries, seasonally unadjusted and adjusted, annual. CANSIM Table 183-0002. (Accessed November 23, 2012). Statistics Canada.

Statistics Canada (2012f). Department of National Defence, military personnel seasonally unadjusted and adjusted, and wages and salaries, annual. CANSIM Table 183-0004. (Accessed November 27, 2012). Statistics Canada.

Tiagi, Raaj (2010). Public Sector Wage Premium in Canada: Evidence from Labour Force Survey. *Labour* 24, 4: 456–473.

Treasury Board of Canada Secretariat (2006). *Expenditure Review of Federal Public Sector Compensation Policy and Comparability* (Web page—archived). <<http://www.tbs-sct.gc.ca/report/orp/2007/er-ed/er-ed-eng.asp>>, as of December 19, 2012.

Venti, Steven (1985). *Wages in the Federal and Private Sectors*. NBER Working Paper No. 1641. National Bureau of Economic Research.

## About the Authors

**Amela Karabegović** is a Senior Economist in the Fiscal Studies Department at the Fraser Institute. Since joining the Institute, she has written about 40 comprehensive studies on wide range of policy issues including labour markets, government spending, natural resources, economic institutions, international trade, foreign aid, stock market performance, and social policy. She has published in academic journals such as the *European Journal of Political Economy* and *Emerging Markets Review* and writes commentaries that have appeared in major Canadian newspapers such as the *National Post*, *Toronto Star*, *Calgary Herald*, and *Vancouver Sun*. She holds a BM (Great Distinction) in General Management from the University of Lethbridge in Alberta and a MA in Economics from Simon Fraser University in British Columbia.

**Milagros Palacios** is a Senior Research Economist in the Fiscal Studies Department at the Fraser Institute. Since joining the Institute, Ms. Palacios has authored or co-authored over 40 research studies on a wide range of public policy issues including taxation, government finances, investment, productivity, labour markets, and charitable giving, among others. She has co-written three books and is a regular contributor to *Fraser Forum*, the Fraser Institute's policy magazine. Her recent commentaries have appeared in major Canadian newspapers such as the *National Post*, *Toronto Sun*, *Windsor Star*, and *Vancouver Sun*. Ms. Palacios holds a BA in Industrial Engineering from the Pontifical Catholic University of Peru and an MSc in Economics from the University of Concepcion, Chile.

**Jason Clemens** is the Fraser Institute's Executive Vice-President. Mr. Clemens held a number of positions with the Fraser Institute between 1996 and 2008, including Director of Research Quality, Director of Budgeting and Strategic Planning, and Director of Fiscal Studies. He most recently worked with the Ottawa-based Macdonald-Laurier Institute (MLI) as Director of Research and held a similar position with the San Francisco-based Pacific Research Institute for over three years. Mr. Clemens has an Honours Bachelors Degree of Commerce and a Masters' Degree in Business Administration from the University of Windsor as well as a Post Baccalaureate Degree in Economics from Simon Fraser University. He has published over 70 major studies on a wide range of topics, including taxation, government spending, labor market regulation, banking, welfare reform, health care, productivity, and entrepreneurship. He has published nearly 300 shorter articles, which have appeared in such newspapers as the *Wall Street Journal*, *Investors' Business Daily*, the *Washington Post*, the *Globe and Mail*, the *National Post*, and a host of US, Canadian, and international newspapers.

## Acknowledgments

The authors would like to thank a number of individuals for their contribution and assistance in completing this study. They first thank the University of Toronto Professor Morley Gunderson and an anonymous reviewer for formally peer-reviewing the study and providing helpful comments and suggestions. The authors also thank Nachum Gabler for his assistance on this study.

The authors are also grateful for the assistance and diligence of the Fraser Institute's publications and communications departments whose work improved the quality of the study.

Any remaining errors or omissions are the sole responsibility of the authors. We would also like to express our gratitude to those who donated to support this project. Without their donations, this project would not have been possible.

# Publishing Information

## Distribution

These publications are available from <<http://www.fraserinstitute.org>> in Portable Document Format (PDF) and can be read with Adobe Acrobat® 7 or later, or with Adobe Reader® 7 or later. Adobe Reader® X, the most recent version, is available free of charge from Adobe Systems Inc. and may be downloaded from: <<http://get.adobe.com/reader/>>. We encourage you to install the most recent version.

## Ordering publications

For information about ordering the Fraser Institute's printed publications, please contact the publications coordinator

- ❖ e-mail: [sales@fraserinstitute.org](mailto:sales@fraserinstitute.org)
- ❖ telephone: 604.688.0221 ext. 580 or, toll free, 1.800.665.3558 ext. 580

## Media

For media inquiries, please contact our Communications Department:

telephone: 604.714.4582 or e-mail: [communications@fraserinstitute.org](mailto:communications@fraserinstitute.org)

## Copyright

Copyright © 2013 by the Fraser Institute. All rights reserved. No part of this publication may be reproduced in any manner whatsoever without written permission except in the case of brief passages quoted in critical articles and reviews.

## Disclaimer

The authors of this publication have worked independently and opinions expressed by them are, therefore, their own, and do not necessarily reflect the opinions of the supporters, trustees, or other staff of the Fraser Institute. This publication in no way implies that the Fraser Institute, its trustees, or staff are in favor of, or oppose the passage of, any bill; or that they support or oppose any particular political party or candidate.

## Date of issue

February 2013

## Citation

Karabegović, Amela, Milagros Palacios, and Jason Clemens (2013). *Comparing Public and Private Sector Compensation in Ontario*. Ontario Prosperity Initiative. Fraser Institute.

## Editing and production

Kristin McCahon

## Design

Lindsey Thomas Martin

### **Cover design**

Bill Ray

### **Cover images**

Bigstock, Panorama of Toronto © RobertS

Office workers in cubicles © Paul Carvill

## **Supporting the Fraser Institute**

To learn how to support the Fraser Institute, please contact

- ❖ Development Department,  
The Fraser Institute,  
Fourth Floor, 1770 Burrard Street,  
Vancouver, British Columbia,  
Canada V6J 3G7
- ❖ telephone, toll-free: 1.800.665.3558 ext. 586
- ❖ e-mail: [development@fraserinstitute.org](mailto:development@fraserinstitute.org)

### **Lifetime Patrons**

For their long-standing and valuable support contributing to the success of the Fraser Institute, the following people have been recognized and inducted as Lifetime Patrons of the Fraser Institute.

Sonja Bata

Charles Barlow

Ev Berg

Art Grunder

Jim Chaplin

Serge Darkazanli

John Dobson

Raymond Heung

Bill Korol

Bill Mackness

Fred Mannix

Jack Pirie

Con Riley

Catherine Windels

## **Purpose, Funding, and Independence**

The Fraser Institute provides a useful public service. We report objective information about the economic and social effects of current public policies, and we offer evidence-based research and education about policy options that can improve the quality of life.

The Institute is a non-profit organization. Our activities are funded by charitable donations, unrestricted grants, ticket sales and sponsorships from events, the licensing of products for public distribution, and the sale of publications.

All research is subject to rigorous review by external experts, and is conducted and published separately from the Institute's Board of Trustees and its donors.

The opinions expressed by staff or author(s) are those of the individuals themselves, and should not be interpreted to reflect those of the Institute, its Board of Trustees, or its donors and supporters.

As a healthy part of public discussion among fellow citizens who desire to improve the lives of people through better public policy, the Institute welcomes evidence-focused scrutiny of the research we publish, including verification of data sources, replication of analytical methods, and intelligent debate about the practical effects of policy recommendations.



## About the Fraser Institute

Our vision is a free and prosperous world where individuals benefit from greater choice, competitive markets, and personal responsibility. Our mission is to measure, study, and communicate the impact of competitive markets and government interventions on the welfare of individuals. Founded in 1974, we are an independent Canadian research and educational organization with locations throughout North America and international partners in over 85 countries. Our work is financed by tax-deductible contributions from thousands of individuals, organizations, and foundations. In order to protect its independence, the Institute does not accept grants from government or contracts for research.

*Nous envisageons un monde libre et prospère, où chaque personne bénéficie d'un plus grand choix, de marchés concurrentiels et de responsabilités individuelles. Notre mission consiste à mesurer, à étudier et à communiquer l'effet des marchés concurrentiels et des interventions gouvernementales sur le bien-être des individus.*

### Peer review

#### *Validating the accuracy of our research*

The Fraser Institute maintains a rigorous peer review process for its research. New research, major research projects, and substantively modified research conducted by the Fraser Institute are reviewed by experts with a recognized expertise in the topic area being addressed. Whenever possible, external review is a blind process. Updates to previously reviewed research or new editions of previously reviewed research are not reviewed unless the update includes substantive or material changes in the methodology.

The review process is overseen by the directors of the Institute's research departments who are responsible for ensuring all research published by the Institute passes through the appropriate peer review. If a dispute about the recommendations of the reviewers should arise during the Institute's peer review process, the Institute has an Editorial Advisory Board, a panel of scholars from Canada, the United States, and Europe to whom it can turn for help in resolving the dispute.

## Editorial Advisory Board

Professor Terry L. Anderson

Professor Robert Barro

Professor Michael Bliss

Professor Jean-Pierre Centi

Professor John Chant

Professor Bev Dahlby

Professor Erwin Diewert

Professor Stephen Easton

Professor J.C. Herbert Emery

Professor Jack L. Granatstein

Professor Herbert G. Grubel

Professor James Gwartney

Professor Ronald W. Jones

Dr. Jerry Jordan

Professor Ross McKittrick

Professor Michael Parkin

Professor Friedrich Schneider

Professor Lawrence B. Smith

Dr. Vito Tanzi

### **Past members**

Professor Armen Alchian\*

Professor James M. Buchanan\*†

Professor Friedrich A. Hayek\*†

Professor H.G. Johnson\*

Professor F.G. Penance\*

Professor George Stigler\*†

Professor Edwin G. West\*

Sir Alan Walters\*

\* Deceased

† Nobel Laureate