Differentials in Wage Equity Between the Public and Private Sectors

by

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A Thesis Submitted in Partial Fulfillment of the Requirements for the
Degree of Bachelor of Arts, Honours
in the Department of Economics
University of Victoria
April 2016

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Abstract

This study compares the wage rates for Canadian-born workers in the private sector to workers in the public sector. Utilizing 2006 Census of Canada data, I find that wage gaps for minority men in comparison to Caucasian men are generally smaller in the public sector. In contrast, I did not find statistically significant wage gaps between minority women and Caucasian women in either sector. Gender-wage gaps are substantial in both sectors but smaller in the public sector. Overall the public sector has a wage advantage when compared to the private sector, and the advantage is greater for some male minority groups and for Caucasian women than it is for Caucasian men. This suggests that some of the overall wage advantage of the public sector may be due to greater wage equity for its workers.

Keywords: wage equity, public sector, private sector, minorities, women

Table of Contents

	I. Introduction	
	II. Literature review	j
Data	III. Description of Data	

I. Introduction

The existence of persistent wage premiums for public sector workers has long been a subject of contention in Canada. Several studies spanning from the 1960s consistently find that public sector employees make 5-20 percent more than their private sector counterparts (D. Macdonald, 2009, pp. 3-5). In addition to the higher wages, public sector employees enjoy many non-wage benefits such as health care and retirement plans, as well as greater job security. Some outlets suggest that these wage premiums offered to public sector workers are unfair, especially given that public sector workers are paid for by taxpayers' money. A 2013 article on the topic from Maclean's magazine warns that "bloated public sector payrolls" have bankrupted European governments and could have the same effect in Canada if not brought into check (N. Macdonald). In defense of the government wage premium, a 2009 study published by the National Wage Union of Public and General Employees concludes that any positive wage gaps associated with the public sector are due to the higher and more equitable compensation granted to women working in government (D. Macdonald, p. 13).

Many studies have looked into the wage advantages of the public sector, and gone as far as to break down the effects for men, and for women, but few have taken extra steps to consider that if pay equity is greater for women in the public sector that this may be the same case for other marginalized groups. As a multicultural country, Canada hasn't always had a history of protecting minority rights nor ensuring pay equity for visible minorities, and women. Although undeniable progress has been made in a movement towards pay equity, it is still possible to observe gender and minority wage gaps in many industries today. There are several potential explanations as to why we still see persistent wage gaps for minorities and women. One possible simple explanation is that these groups have a lower reservation wage, and therefore can be

induced to enter the workforce for a much lower premium than Canadian-Born Caucasian males, who can be considered the control group for this study.

Many pay equity legislations or frameworks have been introduced in Canada, both federally and provincially. Beginning in Manitoba in 1986, and spanning through the 1990s, these legislations mainly focus on equity pay rights within the public sector (Equal Pay Coalition, 2011). In 2003, the Canadian Federal government introduced the *Public Service Employment Act* in which it was acknowledged that while public servants would continue to be hired based on merit, that there was a benefit to ensuring ethnic and gender diversity of employment in the public sector. If legislations have had the desired effect, we might expect to see smaller wage differentials for minority groups, immigrants, and women who are employed in the public sector, than we see for those working in the private sector. However, it may be the case that it is more necessary to have equity legislation in not-for-profit sectors, such as government, because these

minorities, differentiating between the public and private sector. Their findings indicate that income gaps are indeed smaller for the visible minority groups in government jobs, than they were in private enterprises. My research looks to expand on their findings, by also looking at wage gaps between men and women in these two sectors and by looking directly at the wage effect of the public sector, with the expectation that I will find similar results.

My research seeks to study public-private wage differentials, once the wage equity gaps have

legislation. In 1979, Gunderson compared the wages of men in women, in both sectors and determined that there was a significant wage advantage for public service workers and that wage gaps are much smaller for women working in the public sector. Findings similar to those of Gunderson have been discovered in other countries with similar social and economic structure to Canada. However, a 2015 paper out of the UK suggests that the reduced wage gap for women in the public sector is not due to greater pay equity in the public sector, but to the fact that there are several female dominated industries, such as nursing and teaching, that fall under the public domain (Bradley, Green and Mangan, p 395). Although these findings are important to be aware of, when considering wage equity for visible minorities, an argument similar to that of Bradley et al. isn't as applicable considering that most researchers include at both men and women in their samples and control for occupation. In 2014, McInturff and Tulloch, used the 2011 National Household Survey to compare wage gaps in the public and private sectors; while this study is comprehensive, studying the effects on women, aboriginals and visible minorities, it fails to account for many economic factors that could also be influencing wages (pp 19-27).

The Largest problem with past papers that look at wage gaps for visible minorities is that many of these papers group Canadian-Born visible minorities together with immigrants belonging to visible minority groups (Hou and Coulombe, 2015 p. 31). In 2002, Swidinsky and Swidinsky were able to separate out Canadian-Born visible minorities and immigrants using 1996 census data, and determine that there was a large impact of visible minority status on men born in Canada, but only a small impact on women (pp. 630-634). Hou and Coloumbe choose to focus on only Canadian-born visible minorities, and found similar results to Swidinsky and Swidinsky. Hou and Coloumbe took their research one step further however, and looked separately at the public sector vs the private sector, and found that, for men in particular the

sector, while some lower paid government paid employees such as bus drivers are captures as the "private" sector, causing a positive bias in terms of wages in the public sector.

IV. Empirical Strategy

In an attempt to isolate the wage effects of minority status, sex, and public sector employment, my model controls for a number of economic factors. Below are stylized representations of the

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is a potential indicator of aptitude or ability for workers, however tenure can also lower productivity incentives for individuals who have already been granted it (Benjamin et al., 2011, pp. 193-194). I would expect individuals with tenure to earn a wage premium, although it is unclear whether omitting tenure will cause a definite bias towards either the public or the private sector.

Because of the many factors that I am unable to observe, I must emphasize that my project doesn't look to suggest any causal relationships between minority status and wage, but simply to observe the size of these gaps given the information that is available. It is possible to consider that minority status may be one of the many factors that are contributing to observed unexplained gaps.

To contrast the model with explained factors, I have also chosen to look at the raw gaps in wages between groups before accounting for these various economic factors, because this gives a sense of the gaps that these groups are actually experiencing in the employment market. That is to say, when accounting for the various economic factors in my first model, I essentially compare wages between two groups while accounting for the fact that on average one group may have, for example, more education than the other. When looking for the raw gaps, all of those factors are captured in the raw wage gap, and therefore it is as if I am comparing the expected wage of one individual from group 1, who has the expected value of all the economic factors for an average individual in group 1, and an individual from group 2 who has the expected value of all the economic factors for an average individual in group 2. This provides information about the actual gaps that we can observe in the real world. The difference between the raw gaps and the unexplained gaps, can be considered the "explained" wage gaps across different groups. The explained gaps capture what percent of the raw gaps are due to differences in expected value of

these variables for each group. For example, if one group, on average, has a higher level of education than another group, this will likely result in higher wages for the more educated group, all else equal. I use an Oaxaca² decomposition to isolate these differences and provide a breakdown of these explained gaps.

The explained gaps are broken up into six categories, education, age, occupation, full-time status, province, and family demographics. Education quantifies how much of the raw gap can be explained by different levels of education across the two groups being compared. Age shows the the percentage difference in wages that can be explained by different average ages across the groups. Occupation accounts for how much of differences in wages across the groups can be attributed to different jobs to the different professions individuals in these groups are choosing; It should be noted, that there may be some discrimination or other bars to entry that make working in higher paying occupations difficult for minority groups. Full-time status identifies the explained gap due to the portion of each group that are classified as full-time workers compared to those who work part time. Again, it should be noted that for women in particular there may be reasons that they have selected into part time work that may be due to discrimination or gender

some information about the effect of visible minority status in the case of Equation I, and the effect of belonging to the public sector, in the case of Equation II, but it is important to note that it cannot isolate what precisely is causing these effects.

V. Results

i. DESCRIPTIVE STATISTICS

Table 1 provides some background information about the individuals in my sample. It is important to be aware the different groups in this sample are not homogeneous and cannot be treated as such. Table 1 is an important reference guide for the interpretations of my results in the following sections because it provides information about underlying statistics in the demographic groups of this study.

counterparts. Females have a greater proportion of their labour force in the public sector, which can possibly be attributed to the many traditionally female professions that can be found in the public sector, such as administrative jobs, nursing and teaching. We can also see that as the groups get more specific, the size of my sample somewhat dwindles, this is valuable to keep in mind when looking at some

Tabe E a ed P f Wae Ga W e

The gaps in Tables 3 and 4 (multiplied by 100) can be considered as the approximate percentage difference in weekly wages between all minority groups or the specified minority group and Caucasian men (Table 3) or women (Table 4). These explained differences are due to the different levels in these factors that each group has, on average. For example, Chinese women have, on average, higher levels of education than Caucasian women, which increases their average expected wages by about 15 percent in all sectors, this is slightly offset by the fact that the population of working Chinese women is younger than that of Caucasian women, reducing expected wages of Chinese women by about 4 percent. From Tables 3 and 4, it is immediately observable, is that education is one of the larger explained factors influencing wage for both men and women and that full time status also plays a significant role.

iii.	GENDER WAGE GAPS					

Table 6 uses a slightly amended version of Equation 1 to compare the wages of women of different visible minority status to Caucasian men, in both the private and public sectors. In this case, the variable VisMin becomes Sex, and all other data points except Caucasian men, and women in the target group are dropped from the dataset. Each value in the table are the approximate percentage difference in wage the listed groups experience in comparison to non minority males.

15

Table 7 shows the explained differences between the raw wages gap and the unexplained

wage gaps. From Table 1 is is possible to observe that all the groups of women in the data set

have a higher percentage of workers with university degrees than Caucasian men. We see the

direct result of this in that women generally experience positive explained gaps due to education

levels. The negative explained portion of the gender wage gaps appear to, not surprisingly, be

mainly due to full time status and family demographics.

iv. PUBLIC- PRIVATE WAGE GAPS

Table 8 shows the results of running Equation II to determine the wa91re W nfppeion

Table 9 shows the breakdown of explained wage gaps between the public and private sector. On average, the public sector appears to employ workers who are more highly educated than those working in the private sector, and the occupations in the public sector generally seem to pay more. Interestingly, the private sector appears to employ more full-time workers than the

education for workers in the public sector. While isn't possible to measure any difference in aptitude between workers a possible proxy to consider consider is education. There may be some connection between higher levels of education and aptitude or trainability of employees (Stasio, 2014, p.796). However this seems to be mainly captured by the explained gaps, because otherwise we would see the more highly educated groups, such as both Chinese men and women enjoying large wage premiums in the public sector.

Unionization of the government workers may provide some explanation as to why wages are higher overall for workers in the public sector. Unions also generally protect the seniority and rights of its workers, so it is less likely that, for example a woman would loose her job for taking a maternity leave. This means that unions may be part of the reason why there does seem to be greater pay equity in the public sector, they may hold the government as an employer accountable to its pay equity legislation.

As it is possible to observe from Table 2, in the case of men, unexplained wage gaps are much smaller or not statistically significant in the public sector in comparison to the private sector. In the cases where the gaps are not statistically significant it is possible that a larger sample size is needed. However, the results

explanation is that the effect of being a woman already has such a large impact on wage (as evidenced by Table 6) that the additional effect of belonging to a visible minority group is negligible.

VII. Conclusions

It is possible to observe (from Table 8) a wage premium for working in the public sector that is paid to all Caucasian men and women, black men, and all other visible minority men save for Chinese and South Asian. This w.2 (i) 0.2 (a) 0.2 (n.) JTJ ET Q Q q 91 Tf [(,o q 9.014 Q q 9.014213 40.76].

References

- Benjamin, D., Gunderson, M., Lemieux, T. and Riddell, C. (2011). Labour Market Economics, 7th Edition. Toronto, ON: McGraw-Hill Ryerson
- Bradley, S., Green, C., and Mangan, J. Gender Wage Gaps Within a Public Sector: Evidence from Personnel Data. (2015). *The Manchester School.* 83(4) 379-397. http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/manc.12061/epdf
- Fortin, N., Lemieux, T., and Firpo, S. (2010). Decomposition Methods in Economics. *NBER Working Paper*. June 2010 (16045). Retrieved from http://faculty.arts.ubc.ca/nfortin/w16045.pdf
- Government of Canada. (2016). Current and Forthcoming Minimum Hourly Wage Rates for Experienced Adult Workers in Canada. *Minimum Wage Database*. Retrieved from http://srv116.services.gc.ca/dimt-wid/sm-mw/rpt1.aspx

Gunderson, M. (1979). Earnings Differential

Called Wage Watch: A Comparison of Public and Private Sector Wages. Nepean, ON:

National Union of Public and General Employees. Retrieved from

http://www.ebrary.com

http://search.proquest.com.ezproxy.library.uvic.ca/docview/224275257/fulltextPDF/34F9

7F94B1FF4062PQ/1?accountid=14846

Appendix A: Oaxaca Decomposition