Public- and Private-Sector Wage Differentials in Canada Revisited

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Using a variety of techniques, we estimate the wage premium for federal, provincial, and municipal public-sector employees in Canada. We find that females in the public sector are paid a wage premium, with federal government workers enjoying the highest rents, followed by local and provincial public-sector employees. Estimates for males suggest that rent payments are comparably less, but results are inconclusive.

1. Introduction

Early in 1998, Canadian finance minister Paul Martin brought down the first balanced federal budget in some three decades. This was due, at least in part, to his previous budgets that contained deep cuts in federal government spending. Among these cuts, the federal government slashed thousands of public service jobs across the country. In addition to the cutbacks at the federal level, several provinces and municipalities have cut or have plans to cut a number of public servants from their payrolls. These reductions were at least partially the result of political pressures from taxpayers who have repeatedly questioned the size and cost of public-sector employment in recent public opinion polls.[1]

Is the elimination of thousands of government jobs across the country justified by the relatively high pay of the bureaucrats who hold these

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[1] The results of various polling data from the late 1980s to the present show that Canadians appear supportive of decreasing the size and expense of the civil service at the federal and provincial levels. These data were collected originally by Decima Research and Environics Research and were kindly made available by the Centre for the Study of Democracy, Queen's University, Kingston, Ontario.

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positions? Or do these employees simply have the misfortune of being on the front line as elected officials pander to the discontent of taxpayers? Given this decrease in government expenditures by trimming government payrolls, it would seem important to know where these cuts can or should be made. Must positions be eliminated entirely? Or can compensation for individuals simply be reduced to eliminate any excess payment? Both could have the same effect on government payroll expenditures, but the latter option would preserve payroll numbers and government services by eliminating only rent payments. For this reason, it is important to understand at what level government employees are compensated relative to their private-sector counterparts. In the absence of a competitive market for its services, government compensation is often compared with that of the private sector, which is (generally considered to be) more subjected to the discipline of the market. In fact, comparisons with the private sector are a common method of determining the comparable worth of public-sector employees.

It is the purpose of this article to update and expand on the literature in a number of important ways. First, the 1988 through 1990 waves of the Labour Market Activity Survey (LMAS) are used. The data set is more recent and contains a larger number of explanatory variables than the census data used in a number of previous Canadian studies. These census data sets did not include a union status variable, nor did they include variables for the various different levels of government. The authors therefore were unable to ascertain whether their results were because of different wage determination factors in the public sector or because of unionization effects. Given the greater prevalence of unionization in the public sector, the previous studies may have falsely concluded that wage differentials were a public-sector effect when in fact they were the result of a union effect. My analysis does not suffer from this shortcoming. The LMAS also contains variables for different levels of the public sector, which will permit me to analyze relative public-sector wages at the municipal, provincial, and federal levels of government. Furthermore, I analyze the public-sector wage determination process separately for males and females. Most recent Canadian work has analyzed public-sector wage differentials aggregating over males and females. The result is that any wage differential is constrained to be equal for both genders.

The second contribution is the variety of methodologies used. I start by using the standard decomposition methodology pioneered by Blinder (1973) and Oaxaca (1973) in their independent analyses of wage discrimination. This allows me to compare my results with the earlier works on Canadian public-private sector wage differentials by Gunderson (1979)

and Shapiro and Stelcner (1989). Next, since the LMAS contains information on up to five jobs held per individual per year, it permits me to observe wage changes that may result when individuals change jobs and, more important, as individuals change sectors as they change jobs. This allows me to use a fixed-effect model to test for the existence of a public-sector wage premium. By controlling for individual heterogeneity, I am better able to ascertain if different returns in the public sector are indeed a public-sector effect or the result of unobserved differences in workers.

The results of such a comprehensive exercise have important policy implications. Given the extent to which the governments are cutting public-sector payrolls, a basic understanding of where these cuts may be made most effectively would appear to be a highly worthwhile exercise. Part of the public debate surrounding these reductions has been regarding what effects they will have on the provision of services to the public. If I am able to conclude that rents are being earned in the public sector, and if these can be eliminated, then public expenditures can be reduced without any commensurate decrease in public services or any further declines in public-sector employment.

The next section will briefly review some of the theoretical reasons commonly given for the existence of wage differentials and the important existing research on the issue. Sections 3 and 4 will describe the methodology and data. Section 5 will explain the results and compare these with earlier studies. The final section concludes and discusses some policy implications.

2. Theoretical Considerations and Previous Research

There are a number of reasons to assert, *a priori*, that earnings differentials between the private and public sectors exist. Some factors may be expected to inflate the wages of public-sector workers relative to their private-sector counterparts, whereas other factors may lead to lower wages for observationally equivalent workers.[2] With regard to factors that could be inflationary, the public sector is not subjected to the same profit-maximization conditions normally assumed for the private sector. As such, the public sector may be able to pay its workers higher wages because they are only subjected to a price floor as a result of competition

[2] Most of these factors are addressed more comprehensively in Gunderson and Riddell (1993). There also may be qualitative differences between the public and private sectors that result in pay differentials. Unfortunately, data limitations only allow me to focus on quantifiable differences between sectors in the empirical analysis that follows.

from the private sector. Second, unions are more pervasive in the public sector. In 1990, for example, some 70.1 (68.5) percent of male (female) public-sector employees were covered by collective agreements, compared with only 35.1 (17.6) percent of male (female) private-sector employees.[3] Insofar as union members have higher wages than their nonunion counterparts, we would expect government employees to have higher wages compared with their private-sector counterparts. Lastly, the fact that government services are usually considered essential implies that demand for these services will be inelastic. Thus the derived demand for labor inputs to these services also will be inelastic, and wage increases can be passed onto consumers (i.e., taxpayers) without a significant decrease in demand for these services.

Other factors may lead to lower wages for public-sector workers. First, despite this lack of profit maximization driving the wage-determination process in the public sector, it must be mentioned that the public sector is subjected to consumer (i.e., taxpayer) scrutiny to a degree rarely encountered by private-sector firms.[4] Provincial and local public-sector employees in particular may see their labor incomes scrutinized more closely, largely owing to the better taxpayer information about regional levels of government compared with the centralized federal government. This scrutiny could put downward pressure on wages. As long as we have worker mobility between sectors, however, this factor should not be important. Second, and related to the preceding point, nonpecuniary advantages to the job may compensate for lower wages in the public sector, allowing the public sector to compete effectively with the private sector for skilled workers. Job security and generous benefits in the public sector may compensate for lower base wages in this sector. For example, a generous pension plan is simply deferred compensation, allowing an employee to accept a lower base salary without reducing the present value of total compensation. Furthermore, such pecuniary and nonpecuniary benefits could be easier to hide from taxpayer scrutiny than regular wage compensation. Again, to the extent that mobility between the two sectors is perfect, we may see lower wages in the public sector, but the present value of all compensation should be equal. Third, if the public sector has monopsony power, wages may be lower there.

[3] These numbers include both those who are formally union members and those covered by a collective agreement but who are not formal union members. Public-sector numbers include those in public administration but exclude those in education and health industries. Including these two industries changes the unionization rate to 71.4 percent for men and 66.2 percent for women, respectively (see Table 1).

[4] This political constraint, however, is arguably less binding than the profit constraint faced by the private sector.

This is especially true in small labor markets. This also may be true in the case of some professions. Post-secondary education, for example, is an area where provincial governments are, in effect, the only employers.

Previous evidence suggests that the inflationary forces on relative public-sector wages tend to outweigh the deflationary forces. The U.S. literature is rich with public- and private-sector employee comparisons. Smith (1976) discovered that federal workers were paid more than comparable private-sector workers in both 1960 and 1970, with a large proportion of the differential not attributable to observable productivity differences. Smith (1977b) supplemented her earlier work by showing that public-sector wages did indeed exceed private-sector wages, but the size and composition of the differential depended on the sex of the worker and the level of government (i.e., federal, state, or local).[5] Quinn (1979) performed a similar analysis on older male workers and concluded that state and federal government employees earned higher wages and received more attractive benefits than observationally equivalent workers in the private sector. Local government employees appeared to have been paid less than their private-sector counterparts, but this may have been offset by superior fringe benefits in the public sector. Bellante and Long (1981) determined that both male and female public-sector workers earned significant rents, once the higher fringe benefits and the lower probability of unemployment in the public sector were taken into account. Smith (1981) found that federal workers in large SMSAs receive at least as high a wage as their private-sector counterparts, despite the prevalence of national pay schedules for most federal workers.

Other researchers have used indirect evidence to imply that economic rents are indeed present in the public sector. Long (1982), for example, concluded that lower incidence of quits by government employees was evidence that public-sector employees did indeed earn rents. This evidence alone, however, is less than conclusive, since other factors have been attributed to lower quit rates. For example, Utgoff (1983) argued that lower government quit rates were the result of the greater probability of intrafirm job transfers given the size of the government. Government pensions may be another important determinant of lower public-sector quit rates. Ippolito (1987) showed that government workers' compensation may be "back-end loaded" in terms of pension benefits, thus explaining the lower quit rates observed for government workers. This effect

[5] Perloff (1971) and Field and Keller (1976) came to a similar conclusion by comparing similar jobs, not similar workers.

could be strengthened further if pension benefits in the public sector are higher than those in the private sector (Quinn, 1982).

More recently, work by Venti (1987), Krueger (1988), Moore and Raisian (1991), Moore and Newman (1991), and Choudhury (1994) confirm the existence of a public-sector wage premium. Miller (1993), however, noted that the growth of compensation to state and local government workers in the 1980s does not appear overgenerous when comparing these workers with service workers in the private sector rather than private-sector workers as a whole. Poterba and Rueben (1994) also studied the wage premia of state and local workers. They showed that the distribution of wages was wider in the private sector and that state and local government workers enjoyed a wage premium at the lower tail of the wage distribution but suffered a wage penalty at the upper tail.

Unfortunately, such direct wage comparisons have not been done using Canadian data for some time. Gunderson (1979) used 1971 census data and studied the differences between public- and private-sector earnings differentials using the (now) standard decomposition technique found in Oaxaca (1973). Gunderson concluded that significant rents, 8.6 percent for men and 6.2 percent for women, were enjoyed by public-sector workers vis-à-vis their observationally equivalent private-sector counterparts.[6] Shapiro and Stelcner (1989) replicated and updated the Gunderson exercise by using 1981 census data. Their results showed that the total earnings advantage of male employees increased from 9.3 to 19.1 percent. For female public-sector employees, the earnings advantage increased from 22.3 to 27.2 percent over the decade. The rent component of the total differential decreased to 4.2 percent of private-sector earnings for men and increased to 12.2 percent for women.

Both these studies, however, used Canadian census data, which did not allow the researchers to control for union status. Given the high rates of public-sector unionization, this is potentially a serious shortcoming because union wage differentials could be mistakenly interpreted as public-sector wage differentials. Robinson and Tomes (1984), for example, argued that public-sector rents in the absence of controls for union status, in fact, may have been largely the result of union differentials. They allowed for union status to be endogenously determined in their model and discovered that controlling for union status did indeed reduce total public-sector wage differentials, implying that the rent component of

[6] Gunderson limits his definition of the private sector to those workers in the manufacturing sector. In the private- and public-sector pay differentials literature, Smith (1976, 1977a, 1977b) was the first to use this methodology. Gunderson's numbers are similar to those obtained by Smith (1977a).

wage differentials may have been overestimated.[7] Simpson (1985) discovered that evidence of higher public-sector earnings appeared to be completely due to the higher incidence of public-sector unionization rather than to higher settlements in the public sector, since wages in the unionized public sector were lower than those in the unionized sector as a whole. Similarly, Robinson (1995) concluded that if private-sector union coverage were as high as that in the public sector, the public-sector wage differential would be negative.

Also lacking from the Canadian literature is any discussion of the differences in public-private sector wages at different levels of government. This often has been the result of data limitations that have prevented the disaggregation of the public sector into its federal, provincial, and municipal components. In addition, most previous analyses have assumed (at least implicitly) that there are no gender differences in the public- and private-sector wage gap. Use of the LMAS, along with use of alternative estimation techniques, allows me a more detailed look at these disaggregated public-sector wage premia.

3. Methodology

I use two related and complementary methodologies to achieve a comprehensive picture of public- and private-sector wage differentials. First, the methodology initially and independently developed by Blinder (1973) and Oaxaca (1973) is followed. It allows me to decompose any differential between public- and private-sector earnings into two components. The first component is the part of the differential, which can be explained by differences in the observable attributes or endowments between workers in the two sectors. The remaining part of the earnings differential cannot be explained by differences in endowments and is often referred to as the *earnings surplus* or *rent*.[8] Although more sophisticated techniques are available, the use of this methodology supplies the necessary link for comparisons with earlier research.[9]

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[7] They also tried (without success) to endogenize sector choice and use it as an instrument in standard log wage regressions.

[8] Part of this component also may be due to unobservable differences in job characteristics between the two sectors.

[9] More sophisticated techniques do not always mean better results. For example, Doiron and Riddell (1994) studied the evolution of the male-female earnings gap from 1981 to 1988. These authors concluded that both the more sophisticated procedures and the standard Oaxaca decomposition indicated that the gender earnings gap was about 30 percent due to differences in characteristics and about 70 percent due to differences in returns to these characteristics.

Formally, the difference in the mean log wage between the public and private sectors is

$$\overline{\ln w_g} - \overline{\ln w_p} = \sum b_p(\overline{X_g} - \overline{X_p}) + \sum (b_g - b_p)\overline{X_g} \tag{1}$$

where $\overline{\ln w_j}$ is the mean natural logarithm of the wage in industry j, b_j is a vector of estimated coefficients for industry j, $\overline{X_j}$ is a vector of average characteristics of workers in industry j, and $j = g, p$ denotes the public (or government) and private sectors, respectively.

The first term on the right-hand side of Equation (1) shows the component of the log earnings differential that is due to the difference in mean endowments between public- and private-sector employees. This is often referred to as the *justifiable earnings differential*. The second term shows the component of the earnings differential that is due to differences in the way that characteristics are rewarded in the public and private sectors. This is usually referred to as the *surplus* or *rent payment* that is granted to public-sector workers.

Use of this technique does provide us with a simple method to answer the hypothetical question: "What if public-sector workers were paid the same rate of compensation as their private-sector counterparts?" An important shortcoming of the decomposition technique is the fact that these techniques cannot capture unobservable characteristics. For example, workers may have some characteristic that can raise productivity, and hence wages, but is not captured by the usual variables used in wage regressions. For this reason, government wages could be higher than those in the private sector if government workers have more of these productivity-enhancing yet unobservable characteristics. Since these are assumed to be fixed over time, a fixed-effect model can be used effectively to address this aspect of public- and private-sector wage differentials. For each job, the log earnings equation is

$$\ln w_{ij} = X_{ij}\beta + P_{ij}\delta + \gamma_i + \varepsilon_{ij} \tag{2}$$

where $j = 1, 2$ for the first and second jobs held by the ith individual, X_{ij} are observable characteristics related to each job, β is the vector of returns to these characteristics, P_{ij} is a dummy that equals 1 if the individual holds a job in the public sector and equals 0 otherwise, δ is the corresponding public-sector wage premium, γ_i is the job-invariant, individual-specific

characteristics of each person (i.e., the fixed-effect), and ε_{ij} is the error term. First differencing the preceding equation yields

$$\Delta \ln w_{ij} = \Delta X_{ij}\beta + \Delta P_{ij}\delta + \Delta\varepsilon_{ij} \tag{3}$$

which eliminates the fixed-effect term γ_i. The coefficient δ then will provide an estimate of the public-sector wage differential of the individuals who move intersectorally between jobs 1 and 2.

4. Data

The data are from the 1988–1990 LMAS. The survey was administered in the first quarter of the year following the year of study to a randomly drawn set of Canadians living throughout the country.[10] The decomposition methodology uses the 1990 LMAS, which consists of 63,018 observations and contains information on up to five jobs held by each individual during the calendar year 1990. Only data on the first job held by each individual in 1990 are used. The sample is further restricted to include only those respondents who were between 16 and 64 years of age, paid the equivalent of at least $1.00 per hour, worked at the job for at least 4 weeks, did not work in agriculture, and were not self-employed.[11] A total of 20,086 males and 18,274 females satisfied these criteria. The sample was further disaggregated into those who worked for the private sector (16,247 males and 11,708 females), the public sector (1810 males and 1367 females), and the public sector plus (3659 males and 6566 females), which includes the public sector as well as workers in health and education. It is worth noting that my definition of the public sector essentially contains only those involved in "public administration," since the LMAS does not contain more detailed information on public-sector status.[12]

[10] The two territories are excluded from the sample.

[11] In the LMAS, workers are grouped into two broad categories, those who worked for others (paid workers) and those who worked for themselves (self-employed). The latter group of workers was excluded from the sample.

[12] Since health and education are financed provincially and regulated by the provinces, usually these workers are considered public-sector workers. However, since health and education are arguably the quasi-public sector (since these workers are not involved in public administration), results often will be analyzed by both including and excluding health and education workers. The public sector can be disaggregated further into federal, provincial, and local government workers. The definition of the public sector does not include government workers who work for the government but are more closely related to other industries. For example, air traffic controllers who work for Transport Canada would not be

The fixed-effects estimation uses a pooled cross section comprised of three individual cross sections from the years 1988 through 1990. The 1988–1990 pooled cross-sectional sample is limited to those individuals who satisfy the preceding criteria.[13] Each LMAS cross section contains data on up to five jobs held per study year per individual. Generally, only data on the first two jobs are used.[14] If workers held more than two jobs in any given year, only data on the first two are used, as long as the other criteria for inclusion into the sample are satisfied. Since fixed-effect estimation requires that workers change jobs, individuals who held only one job in any of the survey years were excluded from the sample. Individuals are also excluded from the sample if there was any job overlap.[15] A total of 7419 males and 6248 females satisfied these criteria.[16]

5. Estimation

Table 1 gives selected summary statistics of the 1990 data set used in the first estimation. The sample is broken down along gender lines as well as into the public sector, the public sector plus (the public sector and employees in the education and health industries), and the private sector. For both men and women, the hourly wage is lower in the private sector compared with both the public sector and the public sector plus. Public-sector and public-sector-plus workers generally are older than their

considered public administration but would be included in the transportation industry. In 1993, some 713,000 employees were classified as working in public administration out of a total of 2,666,000 employed in the public sector. Inclusion of health and education employees increases this number to above 1,900,000. Thus my public-sector-plus definition includes roughly 71 percent of the total number of workers that Statistics Canada deems to be employed in the public sector. Aside from those employees more closely linked with other industries, my definition of the public sector excludes those in the military, those public-sector employees living outside of Canada, etc. See Statistics Canada (1995a) for a reconciliation statement.

[13] Although the LMAS contains a 1988–1990 panel, it results in a smaller sample size than the pooled cross-sectional data set used. There is a tradeoff, however, because the 1988–1990 panel contains information on changes in marital status, province, education, etc. The pooled cross section only allows me to control for changes in occupation, number of employees at each job, part-time employment, changes in tenure, and changes in job-related pension plans.

[14] Fixed-effect estimates also were conducted using information as the individual moved from job 2 to job 3. Results were consistent with those presented below.

[15] Operationally, if the stop week of job 1 was greater than the start week of job 2, the individual was eliminated from the sample. Once all other criteria were satisfied, an additional 2538 individuals were eliminated because of job overlap, about 15.7 percent of the sample. This left me with my final sample of 13,367 individuals (7419 males and 6248 females).

[16] The characteristics of this sample of job changers are comparable with those of the larger sample. The main differences are that job changers tend to be younger, are more likely to be single, have fewer weeks of job tenure, and are less likely to be unionized.

TABLE 1

SELECTED SUMMARY STATISTICS FOR PUBLIC- AND PRIVATE-SECTOR EMPLOYEES, 1990 (PERCENTAGES UNLESS OTHERWISE NOTED)

	Public sector		Public sector plus		Private sector	
	Male	Female	Male	Female	Male	Female
Sample size	1,810	1,367	3,659	6,566	16,427	11,708
Hourly wage ($)	16.45	12.81	16.57	13.47	13.19	8.86
Marital status						
Married	0.756	0.646	0.749	0.704	0.642	0.622
Age group						
16	0.004	0.008	0.005	0.004	0.017	0.018
17–19	0.035	0.048	0.031	0.025	0.083	0.097
20–24	0.078	0.090	0.074	0.084	0.133	0.150
25–34	0.235	0.318	0.225	0.291	0.293	0.297
35–44	0.320	0.314	0.319	0.328	0.246	0.237
45–54	0.203	0.157	0.229	0.193	0.146	0.140
55–64	0.125	0.066	0.118	0.076	0.082	0.060
Education						
Post-secondary diploma	0.170	0.229	0.150	0.277	0.113	0.129
University degree	0.218	0.142	0.356	0.251	0.080	0.054
Occupation						
Management	0.198	0.178	0.156	0.072	0.108	0.103
Professional	0.160	0.080	0.119	0.069	0.056	0.021
Education	0.015	0.021	0.205	0.194	0.001	0.002
Health	0.007	0.046	0.056	0.254	0.002	0.008
Clerical	0.077	0.481	0.054	0.226	0.059	0.341
Number of employees						
100–499	0.127	0.107	0.177	0.190	0.104	0.079
500+	0.488	0.524	0.453	0.391	0.328	0.275
Level of government						
Federal/other	0.316	0.339	N/A	N/A	N/A	N/A
Provincial	0.322	0.403	N/A	N/A	N/A	N/A
Local	0.362	0.258	N/A	N/A	N/A	N/A
Other job variables						
Job tenure (weeks)	499	303	498	332	331	215
Union status	0.701	0.685	0.714	0.662	0.351	0.176
Part-time job	0.066	0.140	0.107	0.300	0.114	0.313

NOTE: N/A = not applicable.

private-sector counterparts and are more likely to be married. They are also more likely to hold a post-secondary school diploma or a university degree compared with their private-sector counterparts. Both classifications of public-sector workers are more apt to be in management and professional occupations. Public-sector-plus workers also (not surprisingly) are highly concentrated in health and education occupations. Females in both the public sector and the private sector are highly concentrated in clerical occupations. As expected, public-sector employees tend to work for larger organizations, and they are much more likely to be unionized or (at least) covered by a collective agreement. Job tenure is also higher for public-sector and public-sector-plus employees. Public-sector workers

are less likely than both private-sector and public-sector-plus employees to be part-time workers. Finally, male public-sector employees are relatively evenly divided among the federal, provincial, and local levels of government. Female public-sector workers, by contrast, are more concentrated at the provincial level and less concentrated at the local level.

5.1 Decomposition. Tables 2 and 3 present the results of the decomposition estimation using Equation (1) for males and females, respectively. The top panel of each table shows average wages in the private and public sectors, as well as the total hourly wage differential between the sectors in both dollars and natural logarithms. Given the probability that union status may not be exogenous and could thus bias the OLS coefficient estimates (Robinson, 1995; Robinson and Tomes, 1984; Simpson, 1985), estimates with union status determined both exogenously and endogenously are presented in the lower two panels of either table.[17]

The data show that male and female workers in the public sector plus earn significantly more than their private-sector counterparts. Males earned 27.9 percent more in the public sector plus, whereas the female differential is 53.7 percent. In both the male and female cases, the majority of the differential is due to different endowments compared with private-sector workers rather than different levels of compensation for these endowments. In the estimates with exogenous union status, different male and female endowments between the sectors accounted for 99.6 and 80.6 percent, respectively, of the total wage differential. Pure rents in the public sector plus meant that males were paid a mere 0.1 percent more

[17] The decomposition with exogenous union status is based on log wage regressions controlling for province, age group, education level, occupation, marital status, head of household, minority, mother tongue, immigrant status, work-limiting disabilities, coverage by collective agreement (i.e., union status), pension coverage, number of employees in firm, tenure, and part-time employment. Chow tests allowed me to reject the null hypothesis that the underlying coefficients in the earnings equations were the same for both the private and the public sectors. A total of 10 separate Chow tests were performed, one for both males and females for each of the five separate definitions of the public sector. The results with endogenous union status were obtained by the familiar Heckman (1979) two-step procedure. In the first step, all the regressors listed above, with the exception of pension status and tenure, were used to determine union status in a probit regression. The Mills ratio was then calculated and included as a regressor in estimating the OLS log wage equation. In these estimates, the number of employees per firm variables were excluded, whereas pension and tenure were included. Probit regressions to determine the union selectivity variable also were attempted with separate public- and private-sector unions as the dependent variables. This did not change the results of the decomposition. It should be noted that this methodology assumes that union choice is made independently of sector and occupational choice, whereas in practice, this choice may be made simultaneously. In other words, because of the high incidence of unionization in the public sector, individuals simply may be covered by a union agreement by virtue of the sector and/or occupation that they have chosen without specifically selecting into a unionized position.

TABLE 2

DECOMPOSITION OF MALE PUBLIC- AND PRIVATE-SECTOR WAGE DIFFERENTIALS

		PSP	PS	Fed	Prov	Local
Average wages						
Public sector	log (in cents)	7.3045	7.3050	7.3780	7.3178	7.2284
	dollars	14.87	14.88	16.00	15.07	13.78
Private sector	log (in cents)	7.0581	7.0581	7.0581	7.0581	7.0581
	dollars	11.62	11.62	11.62	11.62	11.62
Total differential	log	0.2464	0.2469	0.3200	0.2597	0.1703
	dollars	3.24	3.25	4.37	3.44	2.15
As % of private-sector wage	%	27.9	27.9	37.6	29.6	18.5
As % of total gap	%	100.0	100.0	100.0	100.0	100.0
Exogenous union status						
Rent differential	log	0.0016	0.0266	0.0589	–0.0263	0.0439
	dollars	0.01	0.38	0.91	–0.41	0.58
As % of private-sector wage	%	0.1	3.3	7.8	–3.5	5.0
As % of total gap	%	0.4	11.7	20.7	–12.0	27.0
Characteristic differential	log	0.2448	0.2203	0.2610	0.2861	0.1265
	dollars	3.22	2.86	3.47	3.85	1.57
As % of private-sector wage	%	27.7	24.6	29.8	33.1	13.5
As % of total gap	%	99.6	88.3	79.3	112.0	73.0
Endogenous union status						
Rent differential	log	0.0069	0.0364	0.0927	–0.0121	0.0285
	dollars	0.09	0.52	1.41	–0.19	0.38
As % of private-sector wage	%	0.8	4.5	12.1	–1.7	3.2
As % of total gap	%	2.8	16.1	32.2	–5.6	17.6
Characteristic differential	log	0.2395	0.2106	0.2273	0.2718	0.1418
	dollars	3.15	2.72	2.97	3.63	1.77
As % of private-sector wage	%	27.1	23.4	25.5	31.2	15.2
As % of total gap	%	97.2	83.9	67.8	105.6	82.4

NOTE: PSP = public sector plus; PS = public sector; Fed = federal government; Prov = provincial government; Local = local government.

than the male private-sector wages, although pure rent for females added 10.4 percent to female wages in this sector.[18]

Tables 2 and 3 show similar patterns for the other four definitions of the public sector. For male public-sector workers, the total wage differential is 27.9 percent. For females, the differential is 48.2 percent. The rent differential, however, is 3.3 percent in the case of males and 11.3 percent in the case of females. Of the three levels of government that comprise the public sector, the highest total wage differential for both males and females is found in the federal government, followed by provincial and

[18]These pure public-sector rents are exclusive of union and other rents. A more thorough look at the numbers (not presented here) reveals that most of the public- and private-sector wage differential is a result of differences in education, age, unionization rates, and tenure, as well as the differences in returns to these attributes. There is also a constant markup in the public sector that is often positive. The constant markup in the public sector simply reflects the higher rate of return to being in the public sector versus the private sector.

TABLE 3
DECOMPOSITION OF FEMALE PUBLIC- AND PRIVATE-SECTOR WAGE DIFFERENTIALS

		PSP	PS	Fed	Prov	Local
Average wages						
Public sector	log (in cents)	7.1058	7.0694	7.1447	7.1255	6.8829
	dollars	12.18	11.74	12.66	12.42	9.74
Private sector	log (in cents)	6.6756	6.6756	6.6756	6.6756	6.6756
	dollars	7.92	7.92	7.92	7.92	7.92
Total differential	log	0.4301	0.3937	0.4691	0.4499	0.2073
	dollars	4.25	3.82	4.74	4.49	1.82
As % of private-sector wage	%	53.7	48.2	59.8	56.8	22.9
As % of total gap	%	100.0	100.0	100.0	100.0	100.0
Exogenous union status						
Rent differential	log	0.0710	0.0798	0.1062	0.0727	0.0562
	dollars	0.82	0.89	1.27	0.86	0.52
As % of private-sector wage	%	10.4	11.3	16.0	10.9	6.6
As % of total gap	%	19.4	23.4	26.8	19.2	28.8
Characteristic differential	log	0.3592	0.3140	0.3629	0.3772	0.1511
	dollars	3.43	2.92	3.47	3.63	1.29
As % of private-sector wage	%	43.3	36.9	43.8	45.9	16.3
As % of total gap	%	80.6	76.6	73.2	80.8	71.2
Endogenous union status						
Rent differential	log	0.1063	0.1175	0.1600	0.1165	0.0633
	dollars	1.22	1.29	1.86	1.36	0.59
As % of private-sector wage	%	15.4	16.3	23.5	17.1	7.4
As % of total gap	%	28.7	33.9	39.4	30.2	32.4
Characteristic differential	log	0.3238	0.2763	0.3091	0.3334	0.1440
	dollars	3.03	2.52	2.87	3.14	1.23
As % of private-sector wage	%	38.3	31.9	36.3	39.6	15.5
As % of total gap	%	71.3	66.1	60.6	69.8	67.6

NOTE: PSP = public sector plus; PS = public sector; Fed = federal government; Prov = provincial government; Local = local government.

local governments. The rent premium also declines as one moves from federal to lower levels of government. For males, the premium is 7.8 percent of private-sector wages at the federal level, declining to –3.5 percent at the provincial level and 5.0 percent at the local level. For females, the comparable numbers are 16.0, 10.9, and 6.6 percent. This is consistent with the hypothesis that provincial and local government employees are subjected to a higher degree of taxpayer scrutiny, since taxpayers have better information about these levels of government compared with the (more) centralized federal government.

Estimates of the public-sector rent premium generally increase when union status is endogenized in the model. The only exception is for males in the local public sector. In this case, the rent premium falls from 5.0 to 3.2 percent of private-sector wages. In all other cases the rent premium increases by up to 7 percentage points when union status is endogenized.

These results are not inconsistent with those of Gunderson (1979) and Shapiro and Stelcner (1989). While the present estimates show a larger total wage differential than the earlier estimates, the rent differentials are close to these earlier estimates. Gunderson found total public- and private-sector wage differentials of 9.3 percent for males and 22.3 percent for females in 1970. Shapiro and Stelcner, following the identical methodology but using 1980 data, discovered that the differentials had widened to 19.1 percent for men and 27.2 percent for women. The public-sector wage premium for men, however, decreased from 6.2 to 4.2 percent of private-sector earnings between 1970 and 1980. Female public-sector rents, by contrast, increased from 8.6 to 12.2 percent over the same period. For males, the current rent estimates are consistent with these two earlier studies, whereas for females, the rent premia tend to be slightly higher in the present work. A number of possible explanations for these divergences exist. First, the two previous studies made use of census data, whereas the LMAS is used here. The LMAS allows me to control for union status, level of government, and level of education completed. The 1970 and 1980 census data do not include a union status variable or a disaggregated public-sector variable. Given the higher level of unionization in the public sector and the varying returns to unionization, this means that public-sector rent premia estimates without the union variable were misestimated. In addition, education is given in years of schooling, a variable that is likely inferior to level of education completed. As discussed earlier, both university graduation and union status account for a large amount of the total differential between the sectors. Second, the previous studies used data on annual earnings rather than wage data. Finally, Gunderson and Shapiro and Stelcner compared the manufacturing sector with the public sector, whereas the entire private sector is included here. Given the sensitivity of wage premia to my definition of the public sector, it is also probable that the estimation of public-sector rents is sensitive to the definition of the private sector used. In fact, including only the manufacturing sector as the definition of the private sector does decrease public-sector rent premia more in line with the previous studies.[19]

These results are in marked contrast to earlier Canadian studies that endogenize union status. Robinson and Tomes (1984), Simpson (1985),

[19]When the 1990 LMAS is recoded to be as consistent as possible with the Gunderson and Shapiro and Stelcner studies and the same methodology is followed, total public-sector earnings differentials compared with manufacturing-sector earnings were 16.9 percent for males and 31.0 percent for females. The rent premia were 10.6 percent for males and 5.0 percent for females. Details of these estimates are available from the author.

and Robinson (1995) all found that the public-sector rent premium declines when union status is endogenized. This has led these researchers to argue that the public-sector rent premium is simply an artifact of the higher degree of unionization in the public sector. In Simpson (1985), it is union and nonunion wages that are being estimated separately (both with and without correction for endogeneity of union status) and with the public sector entering the regression equations as a dummy variable. What is being compared then is the difference between public- and private-sector wages in the unionized and nonunionized sectors, and the public-sector premium does indeed decline when union status in endogenized.[20] This methodology, however, assumes that there are no differences in mean characteristics between the public and private sectors because they are constrained to be equal.

Robinson and Tomes (1984) arrived at results similar to those of Simpson. Although their principal interest was in union wage differentials, they also performed public- and private-sector decompositions resembling those above, but small sample sizes prohibited them from putting much faith in these particular results. Furthermore, they also did not find any justification for decomposing the overall differential into parts attributed to differences in coefficients and parts attributed to differences in characteristics, so they used group mean characteristics rather than allowing these characteristics to vary between groups. The results in Tables 2 and 3 show that this could bias my results because characteristic differences between sectors account for a significant amount of the intersectoral wage differential.

Finally, using a similar methodology to his earlier work with Tomes, Robinson (1995) found that the public-sector wage premium is actually negative under certain conditions. His definition of the public sector, however, is very different from mine (which is heavily weighted toward those in public administration), thus making direct comparisons difficult. In particular, his definition of the public sector is much broader and encompasses public-sector workers in other industries in addition to those included in my definition [public administration and (sometimes) health and education]. The fact that I find rent payments whereas Robinson does not could imply that public administration workers are subject to inelastic demand curves and are thus able to sustain rent payments, since no valid

[20]When we follow Simpson's methodology, we find results similar to his. Namely, that the public-sector wage premium falls in both the unionized and nonunionized sectors when union status is endogenized. Unlike Simpson, all my public-sector wage premium estimates remain unambiguously positive and significant for both union and nonunion wages.

wage comparisons are possible with the private sector. By contrast, Robinson's definitions of the public and private sectors include a number of industries that overlap each sector (e.g., transportation). This could make intersectoral wage comparisons possible with industries and limit the sustainability of rent payments in either sector.

5.2 Fixed-effects estimation. The analysis up to this point has ignored the fact that unobservable worker characteristics may be driving (at least part of) the wage differential between the public and private sectors. Fixed-effects estimation of the public-sector wage premium allows me to overcome this potential bias. It requires not only that workers change jobs but also that a number of these workers change sectors as they change jobs. Furthermore, it is workers who change jobs involuntarily who are likely to produce the most informative wage changes compared with those who leave their jobs (and sectors) voluntarily. This is so because voluntary job movement is expected to be a positive function of the wage differential between two jobs; thus those who leave their jobs voluntarily should earn a higher wage at their new job, all other things equal.[21] Involuntary movers, by contrast, are forced to change jobs, and thus wage changes may not be positive. It is these involuntary job changes with which I am concerned primarily, although comparisons will be made with voluntary job changers.[22] Where the data permit, I also analyze those who changed jobs as a result of plant closures, arguably a more random subset of involuntary job changers.

Mean log wage changes of male and female job changers are presented in Table 4 for the pooled 1988–1990 data.[23] Data for involuntary job changers who stay in the public sector, who leave the public sector (and join the private sector), who join the public sector (after leaving the private sector), and who remain in the private sector are presented for comparison purposes. Initial evidence suggests that rents are paid in the public

[21]Mincer (1986) showed that the gains from quits exceeded the gains from layoffs.

[22]Those who left their jobs because of a labor dispute, a seasonal or permanent layoff, a company moving or going out of business (i.e., a plant closure), or a dismissal are considered involuntary job movers. Those who changed jobs as a result of an illness or disability, personal or family responsibilities, to move to a new residence or return to school, a retirement, a new job, or because of a variety of poor working conditions are all considered voluntary movers.

[23]The data in Table 4 refer to the public sector plus. Comparing this subsample of involuntary male and female job changers to the broader sample in Table 1, there are very few differences in the summary statistics. This suggests that the subsample is representative. Important differences, however, do exist. Involuntary male and female job changers tend to be disproportionately younger than those in the broader sample and have much less job tenure. This is especially true of involuntary job changers in the public sector and is suggestive of a seniority system.

TABLE 4
LOG WAGE CHANGES OF INVOLUNTARY JOB CHANGERS, 1988–1990

	Public-sector stayers	Public-sector leavers	Public-sector joiners	Private-sector stayers
Change in log wage (first difference)				
Males	0.088	–0.015	0.073	0.026
Females	0.065	–0.126	0.167	–0.001
Sample size (males/females)	89/167	147/122	136/127	1,969/851

sector. For males, those who stay in the public sector experienced about an 8.8 percent increase in wages, compared with a drop of some 1.5 percent for those who left. Private-sector workers who joined the public sector saw their wages increase an average of 7.3 percent, whereas those who changed jobs but remained in the private sector experienced more modest wage gains of 2.6 percent. For women, those who stayed in the public sector enjoyed an average wage gain of 6.5 percent, whereas those who left had mean wage declines of 12.6 percent. Women who joined the public sector had their wages increase by an average of 16.7 percent, whereas those who remained in the private sector experienced a small decline of 0.1 percent. Therefore, for both men and women, those who held second jobs in the public sector had higher log wage growth than those who held a private-sector job as their second job. Thus staying in or joining the public sector resulted in higher average wage increases compared with staying in or joining the private sector.

Tables 5 and 6 present the estimated regression results for males and females using OLS on both the cross section and first differenced equations (Equation 3).[24] For males, the OLS estimates of the cross section reveal a negative wage premium of 5.6 percent for the public sector plus and 4.5 percent for the public sector. As expected, those who changed jobs voluntarily experienced a less severe drop in wages than those who left involuntarily. Fixed-effects results show a public-sector wage premium of 2.0 percent for those in the public sector plus and 3.9 percent for those in the public sector. These are somewhat higher than the decomposition estimates presented in Table 2. Again, those who left voluntarily had higher wage gains than those who left involuntarily. However, neither of these results is statistically significant at the usual levels.

To further investigate the Mincer (1986) concern that even involuntary job changes may not be picked randomly from the population, those who

[24]OLS estimates of the cross section include information on the first job only.

TABLE 5

CROSS-SECTIONAL AND FIXED-EFFECT ESTIMATION OF THE MALE PUBLIC-SECTOR WAGE PREMIA (STANDARD ERRORS ARE IN PARENTHESES)

	Cross-sectional			
	Pooled	Voluntary	Involuntary	Plant closure
Public sector plus	–0.056	–0.053	–0.077	0.008
	(0.071)	(0.020)	(0.030)	(0.105)
Public sector	–0.045	–0.045	–0.052	0.097
	(0.021)	(0.025)	(0.036)	(0.124)
Sample size (public sector plus/public sector)	7419/7018	5078/4787	2341/2231	336/326
	Fixed-effect			
	Pooled	Voluntary	Involuntary	Plant closure
Public sector plus	0.020	0.017	0.014	0.051
	(0.016)	(0.021)	(0.025)	(0.083)
Public sector	0.039	0.041	0.029	0.071
	(0.018)	(0.023)	(0.028)	(0.089)
Sample size (public sector plus/public sector)	7419/7018	5078/4787	2341/2231	336/326

NOTES: (1) Cross-sectional estimates include the following controls: 4 regional dummies, 5 educational dummies, 2 native language dummies, 2 marital status dummies, 9 occupational dummies, 4 establishment size dummies, 2 year dummies, and controls for minority status, handicapped, head of household, immigrant status, union status, pension plan, job tenure, and part-time employment. (2) Fixed-effect estimates include the following controls: 9 occupational change dummies, 4 establishment size dummies, and controls for changes in union status, pension plan, job tenure, and part-time employment.

TABLE 6

CROSS-SECTIONAL AND FIXED-EFFECT ESTIMATION OF THE FEMALE PUBLIC-SECTOR WAGE PREMIA (STANDARD ERRORS ARE IN PARENTHESES)

	Cross-sectional			
	Pooled	Voluntary	Involuntary	Plant closure
Public sector plus	0.053	0.045	0.091	0.233
	(0.013)	(0.015)	(0.027)	(0.100)
Public sector	0.039	0.025	0.079	–0.038
	(0.018)	(0.021)	(0.037)	(0.197)
Sample size (public sector plus/public sector)	6248/5163	4981/4086	1267/1077	241/227
	Fixed-effect			
	Pooled	Voluntary	Involuntary	Plant closure
Public sector plus	0.061	0.049	0.098	0.175
	(0.013)	(0.015)	(0.027)	(0.079)
Public sector	0.058	0.047	0.094	0.116
	(0.014)	(0.017)	(0.029)	(0.078)
Sample size (public sector plus/public sector)	6248/5163	4981/4086	1267/1077	241/227

NOTES: (1) Cross-sectional estimates include the following controls: 4 regional dummies, 5 educational dummies, 2 native language dummies, 2 marital status dummies, 9 occupational dummies, 4 establishment size dummies, 2 year dummies, and controls for minority status, handicapped, head of household, immigrant status, union status, pension plan, job tenure, and part-time employment. (2) Fixed-effect estimates include the following controls: 9 occupational change dummies, 4 establishment size dummies, and controls for changes in union status, pension plan, job tenure, and part-time employment.

left jobs involuntarily as a result of plant closures are also investigated. Theoretically, one may expect layoffs to be a means by which employers are able to purge their employee ranks of less productive employees, whereas plant closures are more random in that all employees are dismissed. One would then expect those dismissed as a result of a plant closure to move into new positions with higher wages compared with those who were dismissed as a result of a pure layoff. This indeed does appear to be the case in the data. Compared with male involuntary job changers, estimates of wage premia by changers as a result of plant closures are generally higher in both the OLS and fixed-effect estimations. However, since the coefficient estimates have large standard errors owing to the relatively small number of individuals affected by plant closures, I am not able to draw any reasonable inferences from these results.[25]

For women, OLS estimation of the cross section in Table 6 reveals wage premia of 5.3 and 3.9 percent for the public sector plus and the public sector, respectively. Unlike the case of males, however, workers who left involuntarily experienced higher wage gains than those who left voluntarily. The fixed-effect estimates also show a positive public-sector-plus premium of 6.1 percent and a public-sector premium of 5.8 percent. Again, however, the results show a higher public-sector premium for those who changed jobs involuntarily. As with the case of males, the coefficient estimates on those who left jobs involuntarily because of plant closures support the proposition that this subgroup is not representative of the entire sample of involuntary job changers.[26]

To investigate these results further, I divide the sample into job leavers and job joiners and estimate separate equations for each group. Tables 7 and 8 show the male and female estimates of Equation (3) after splitting the sample into those who are separated from their initial job in the public sector (and either rejoined or left the sector) and those who had their first job in the private sector (and then rejoined or left the sector). For males, the only statistically significant result is for involuntary public-sector leavers (a wage decline of about 18.2 percent). The lack of significance among the rest of these coefficients suggests that no rent premium exists for males in the public sector.[27]

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[25]In the cross section, coefficient estimates on the public-sector-plus (public sector) dummy are based on only 20 (10) individuals affected by plant closures. In the fixed-effects estimation, only 29 (16) males left or joined the public sector plus (public sector) as the result of a plant closure.

[26]These estimates must be interpreted with care owing to small sample sizes. In the public sector plus (public sector), only 28 (7) females changed sectors as a result of a plant closure in the fixed-effects model. The OLS estimates of the cross section rely on 17 (3) women in the public sector plus (public sector).

[27]Small sample sizes prohibit a meaningful analysis of involuntary job changes due to plant closures.

TABLE 7

FIXED-EFFECT ESTIMATION OF MALE PUBLIC-SECTOR WAGE PREMIA OF PUBLIC-SECTOR LEAVERS AND JOINERS (STANDARD ERRORS ARE IN PARENTHESES)

	Leavers			Joiners		
	Pooled	Voluntary	Involuntary	Pooled	Voluntary	Involuntary
Public sector plus	–0.041 (0.034)	–0.014 (0.043)	–0.065 (0.058)	0.027 (0.023)	0.034 (0.029)	0.024 (0.038)
Public sector	–0.087 (0.048)	–0.042 (0.064)	–0.182 (0.081)	0.013 (0.028)	0.038 (0.036)	–0.018 (0.046)
Sample size (public sector plus/public sector)	802/374	566/256	236/118	6617/6440	4512/4388	2105/2052

TABLE 8

FIXED-EFFECT ESTIMATION OF FEMALE PUBLIC-SECTOR WAGE PREMIA OF PUBLIC-SECTOR LEAVERS AND JOINERS (STANDARD ERRORS ARE IN PARENTHESIS)

	Leavers			Joiners		
	Pooled	Voluntary	Involuntary	Pooled	Voluntary	Involuntary
Public sector plus	–0.069 (0.027)	–0.037 (0.030)	–0.133 (0.059)	0.063 (0.017)	0.055 (0.019)	0.095 (0.038)
Public sector	–0.074 (0.043)	–0.056 (0.050)	–0.093 (0.092)	0.063 (0.026)	0.067 (0.029)	0.063 (0.059)
Sample size (public sector plus/public sector)	1472/334	1183/243	289/91	4776/4351	3798/3461	978/890

For women, coefficient estimates generally are statistically significant and indicate that those leaving the public sector experience a decline in wages, whereas those who join enjoy a wage increase. These results are as expected. Furthermore, the absolute value of the negative premium to public-sector leavers is not significantly different from the positive premium awarded to public-sector joiners. Thus the penalty for leaving the public sector and joining the private sector is not statistically different from the premium for joining the public sector from the private sector.[28]

[28]If, as expected, there does exist a public-sector wage premium, then the loss of the public-sector wage premium for those leaving the sector should equal the premium gained by those joining the sector. Simple joint *t* tests, in fact, support this for the female estimates, since one cannot reject the hypothesis that the absolute value of these two numbers is equal in every case. I also found the same results for the males in the sample, but considering that the individual coefficient estimates were indistinguishable from zero, it is to be expected that the absolute values would be jointly equal.

These results differ from those of Krueger (1988), who found that U.S. workers who joined the federal public sector enjoyed a log wage increase (standard error) of 0.12 (0.05) compared with those who remained in the private sector. Conversely, those who moved from the federal government to the private sector saw their log wages increase by 0.05 (0.07) compared with those who remained as federal government employees. However, since neither Krueger's estimates nor mine are measured with a great deal of precision, too much emphasis should not be placed on these differences.[29]

These fixed-effects estimates generally are smaller than those obtained using the decomposition methodology in the preceding section. They are consistent across estimation techniques, however, insofar as the male wage premium is smaller compared with that of females using either technique.

6. Conclusion

Using the common decomposition methodology, I have shown that public-sector employees tend to be paid a wage premium on average compared with their observationally equivalent counterparts in the private sector. This premium is highest for federal government employees, followed by those in local and provincial governments. Only in the case of male provincial employees is this premium negative (i.e., a wage penalty). In comparing males and females, the premium is unambiguously higher for females. This premium also tends to increase when union status is endogenized in the wage equation estimates.

Controlling for unobserved heterogeneity in a fixed-effect model and addressing wage changes in job changes, I am not as certain of my results. For males who changed jobs, a public-sector wage premium again was revealed, with those leaving voluntarily enjoying a larger increase in wages than those who left involuntarily and those who changed jobs because of a firm closure enjoying a larger premium still. These results, however, failed the usual tests for statistical significance. For females it can be concluded that a public-sector wage premium

[29]Krueger is aware that these results may not be estimated precisely owing to a relatively small number of job movers between the two sectors. Because of this limited sample size, he is forced to pool voluntary and involuntary and male and female joiners and leavers. His estimates are also for movements to and from the federal public sector, and he uses weekly rather than hour wages. These factors alone could be responsible for differences in our estimates. Furthermore, he argues that the relative wage gains for workers who join the federal government are likely to be a more accurate reflection of actual wage differentials than for those who leave the federal government and join the private sector. In this case, my results are more comparable with his.

exists, although it tends to be smaller than that suggested when using the decomposition methodology.

By dividing the sample further into those who join the public sector and those who leave the public sector, I find that the female wage premium for joining the public sector from the private sector is symmetric with the wage penalty for leaving the public sector and joining the private sector. In other words, I cannot reject the hypothesis that the wage increase for joining the public sector is of the same magnitude as the wage penalty for leaving the public sector. This does suggest the existence of a public-sector wage premium for females. For males, the results continue to be insignificantly different from zero. The differences between the current estimates and those in the most recent Canadian literature also point out the sensitivity of these estimates to differences in estimation methodologies.

The existence of a public-sector wage premium certainly has important implications for public policy in Canada. Given the current and tenuous fiscal situation of various levels of government throughout the country, these results may prove to be useful in determining if and where further cuts to the public-sector payroll should be made. For example, cuts at the federal government level may be more appropriate than those at lower levels of government, since this is where the largest wage premium exists. If labor is mobile between the public and private sectors, cutting the public-sector wage premium should not result in an exodus of labor to the private sector, but only if these premia are prudently eliminated. Any discussion of scaling back government payrolls is always done within the context of the loss of government services that could result from the layoff of government employees. Elimination of rents, by definition, will not lead to any movement of labor between sectors. This should preserve existing levels of government services.[30]

Although these results represent an important first look at the issue of public-sector employee compensation, they are limited in a number of ways. First, they do not give us any idea about the existence of wage

[30]In dollar terms, the combined government payroll for all levels of government was $81.9 billion in fiscal year 1990–1991 (Statistics Canada, 1991). This includes all wages and salaries as well as fringe benefits. If we assume that the public-sector wage differential also applies to fringe benefits, then the average of the male and female total compensation rent differential for the public sector plus is about 5 percent (from Tables 2 and 3). A reduction in the total compensation rent differential to 0 percent in that year would have reduced the combined government payroll by $4.1 billion. In fiscal year 1990–1991, the federal government deficit was $31.9 billion, and the combined provincial and local deficits were $8.8 billion and $1.4 billion, respectively (Statistics Canada 1995b). Thus, given this combined government deficit of $42.1 billion, a $4.1 billion cut in combined payrolls would represent a reduction in the deficit of almost 10 percent.

premia by occupation. This is one extension to the analysis that would prove useful to policymakers. Second, I have only addressed wage differentials in the current work. Better data on total compensation would be necessary to find out the true extent of intersectoral compensation differentials. The total public-sector compensation premium could be either mitigated or increased depending on the relative level of public-sector nonwage compensation. Third, my results are based on 1988–1990 data. Since that time, there have been efforts to decrease the payrolls at the federal and lower levels of government. Nominal wage increases often have been zero or negative, and/or movement up pay scales has been frozen in the public sector during much of the early to middle 1990s. This already may have reduced the size of or even reversed the public-sector wage premium. Furthermore, that government employees are offered early-retirement packages and other incentives to leave the public sector could have reduced rent premia by eliminating those who enjoyed the highest premia. A more likely scenario, however, is that those who earned the lowest rents in the public sector took such packages before moving into the private sector, since their opportunity costs of remaining in the public sector were the highest. If rents have indeed been removed already, governments are faced with a much more difficult task. Further cuts in government payrolls would come either from cutting positions or from further reducing real wages, which could result in the reallocation of resources as public-sector talent migrates to the private sector. In either case, the provision of public services would be affected. More detailed research using more recent data is necessary before one can determine with any degree of certainly if and where there still exist any premia in public sector compensation.[31]

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[31]The Survey of Labour and Income Dynamics (SLID) is essentially a newer version of the LMAS. More recent waves of this survey will be useful in ascertaining whether the public-sector wage premium has continued into the 1990s.

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