

## Top-End Incomes and the Ontario Public Sector

DRAFT: please do not cite

Vlad Dobrescu (McMaster University)

Stefan Mirkovic (McMaster University)

Shabnam Mohsenzadeh (McMaster University)

Michael R. Veall (McMaster University)

Abstract: Ontario public sector salary disclosure data is used to analyze trends from 1996 to 2010 at the top end of the salary distribution for employees of the provincial government, public universities and colleges, hospitals, school boards, municipalities and government corporations. In addition, such salaries are compared to the top 1%, 0.1%, and 0.01% most highly paid employees in the Ontario private and public sectors combined, as calculated from Statistics Canada taxfiler data. The first conclusion is that the top share surge in the public sector is very close to that for Ontario as a whole. Second, within the public sector, the surge is more substantial in government corporations, public universities and colleges, hospitals and municipal governments than it is for the provincial government itself and for school boards. There is some diversity in the trends across universities and colleges. We briefly consider whether these findings help in distinguishing among competing explanations for the increase in overall top-end incomes in Ontario and Canada. We judge that they are weak evidence against explanations that focus on falling trade barriers, unionization and avoidance/effort responses to changes in tax rates and neutral with respect to explanations based upon skill-biased technical change and/or a more fluid international market for talent and conceivably mildly supportive of explanations based upon bargaining responses to taxation.

Acknowledgements: We thank Brian Murphy and Hung Pham of Statistics Canada for their help and the Social Sciences and Humanities Research Council of Canada for financial support.

## **1. Introduction**

Over the last thirty years, there has been an increase in income inequality in Canada largely due to an increase in the income share of the top 1%, top 0.1% and top 0.01% of income recipients. Updating Veall (2012), the share of the market income received by the top 1% was 7.9% in 1982, rose to 13.7% in 2007 and was 12.2% in 2010. Fortin, Green, Lemieux, Milligan and Riddell (2012), Murphy, Roberts and Wolfson (2007) and Saez and Veall (2005, 2007) all document various aspects of this top end surge, where the last authors particularly emphasize that the increase has been largely in salaries paid to highly-remunerated employees.

Veall (2012) discusses a number of possible reasons for this trend, including skill-biased technical change, an increase in global competition for high-earning workers coupled with an increase in import competition that adversely affects lower-earning workers, factors related to corporate governance and changes in taxation. However, narrowing the range of explanations has been difficult. In part this has been because the taxfiler data used by many of these studies did not have information on occupation or industry. In the United States, where the available taxfiler sample is smaller but includes occupation information, Bakija, Cole and Heim (2012) find that the top 0.1% surge has a very large financial industry component. But using Census data for Canada, Fortin, Green, Lemieux, Milligan and Riddell (2012) find that the top 1% surge is spread across many occupations.

Comparing trends in top public and private sector salaries might shed some light on the process or processes driving the top income surge, although it would be unrealistic to expect decisive evidence. (We will discuss the implications of the public/private comparison more in Section 5 and in the Conclusions.) Accordingly, in this study we explore a new data source for analyzing top shares, the public sector salary disclosure data from Ontario. Since 1996, this is a

register of all salaries \$100,000 and over for employees of what we call the Ontario public sector: the government of Ontario, Ontario government corporations (by which we mean Ontario crown corporations plus Hydro One and Ontario Power Generation), Ontario public sector hospitals, and universities and colleges (i.e. virtually all Ontario hospitals and universities and colleges), Ontario publicly-funded school boards and Ontario municipalities, but not the federal government . These are matched to individual by name and by institution. Besides our goal to find even small pieces of evidence regarding the causes of the top share surge in Canada, there is independent public policy interest given the focus by the government of Ontario to control top public sector salaries.<sup>1</sup> This is consistent with a significant amount of public criticism of high public sector salaries in Ontario and Canada with particular criticism of top end salaries.<sup>2</sup>

Disclosure data has a few advantages over taxfiler data in analyzing top salaries within the public sector of Ontario. First, while the taxfiler's employer's principal industry sub-sector (at the North American Industrial Classification System (NAICS) 3-digit level) has recently become available in some taxfiler data and could be used to study industries associated with the public sector, the available time period is only 2000 to 2010. The disclosure data extends this forward to 2012 and perhaps just as importantly, back to 1996. The four years from 1996 to 2000

---

<sup>1</sup> From the budget document *Ontario's Economic Outlook and Fiscal Plan* (Government of Ontario, 2013): "Additionally, an advisory panel will be appointed to review compensation practices for senior executives in the broader public sector. The panel's mandate will include the consideration of hard caps on compensation while recognizing the need to hold senior executives accountable for results...Salaries have been frozen for designated executives at hospitals, universities, colleges, school boards and provincially owned electricity companies. All aspects of compensation plans are frozen, and base salaries cannot be increased. In addition, the overall performance pay envelopes at designated employers are frozen. These restraint measures will be in place until the Budget is balanced in 2017-18."

<sup>2</sup> For example, Clemens and Palacios (2013) wrote a well-publicized Fraser Institute study arguing that public sector salaries were generally too high. Ontario NDP leader has called hospital executive compensation packages "exorbitant" (McMahon, 2012). Dehaas (2013) argues to university salaries in Ontario are excessive.

appear to be potentially important. Using the taxfiler data for all Ontario filers, the average salary income (all figures in 2010 dollars) of the top 1% rose from \$334K in 1996 to \$510K in 2000, but fell to \$450K by 2010. The comparable 1996, 2000 and 2010 values for the top 0.1% are (\$1172K, \$2120K and \$1620K) and for the top 0.01% (\$3620K, \$7176K and \$5178K). So clearly the 1996 to 2000 period is important for studying the overall surge. (For comparative purposes, the average income for all Ontario filers rose from \$40K in 1996 to \$44K in 2000 to \$45K in 2010, which is a much more modest rate of increase, whether one compares from 1996 to 2000 or from 1996 to 2010.

Also the disclosure data gives the specific institution of employment and it avoids the issue that some of the NAICS codes in the taxfiler data mix private and public sectors together.<sup>3</sup> Finally unlike taxfiler data, the data set is completely public: using the data does not involve loss of information due to privacy protection and any research can be replicated without paying the fees that access to taxfiler microdata entails.<sup>4</sup>

Our analysis of the Ontario public sector disclosure data yields two main findings. First, from 1996 to 2010, the trends in Ontario in top public sector income were more or less the same as the trends in top incomes in the private and public sector combined, even though top public sector incomes were at a lower level. Second, the rate of increase for highly remunerated employees in government corporations, hospitals, universities and colleges, and municipalities

---

<sup>3</sup> Relevant NAICS codes might include Educational Services (611), Ambulatory health care services (621), Hospitals (622), Nursing and residential care facilities (623), Social assistance (624), Heritage institutions (712), Provincial and territorial public administration (912) and Local, municipal and regional public administration (913).

<sup>4</sup> There are of course shortcomings. Most obviously the disclosure data is restricted to those earning \$100,000 a year or more. Also, the disclosure data is at the institutional level so that if someone works part of a year, the reported salary will be only for that part. The employment income data from the T1FF includes all income paid to the individual as an employee for the year, regardless of the number of employers.

were more like those at the top end of the private sector, while the rate of increase for highly remunerated employees in the provincial government and school boards was lower.

Section 2 very briefly discusses other research using the disclosure data. Section 3 discusses our methodology. Section 4 presents the results while Section 5 offers some discussion. Section 6 summarizes and concludes.

## **2. Other Research Using Ontario Public Sector Salary Disclosure**

A few other papers have used the Ontario salary disclosure data.<sup>5</sup> These include Essaji and Horton (2010) who find that university administrator salaries increased much more quickly than faculty salaries over 1996 to 2005 and Gomez and Wald (2010) who conclude that the salary disclosure process has not restrained salary growth. Sen, Ariizumi, and De Sousa (2009) and Sen, Voia and Woolley (2010) use it as part of analyses to study how university faculty wages are affected by publications and appearance respectively. Reiter, Sandoval, Brown and Pink (2009) find that Ontario hospital CEO compensation was not related to hospital financial performance. Schnarr (2012) finds that measures of patient satisfaction do seem to be determinants of hospital CEO compensation.

## **3. Methodology**

We divide the Ontario public sector into general provincial government, universities and colleges, hospitals, municipalities, school boards, and government corporations. When we are examining top end labour income distribution *within* each sub-sector, we estimate the number in the top 1%, 0.1% and 0.01% in each subsector using public sector employment figures gathered by the Financial Management System (FMS) statistics. FMS obtains the data from the Labour

---

<sup>5</sup> Saani and Murphy (2010) discuss high earners in the context of public salary disclosure using Census data.

Statistics Division of Statistics Canada, and monthly employment figures for various subsectors such as general provincial and local governments, universities and colleges, health and social service institutions, as well as government business enterprises are publicly available in a CANSIM table.<sup>6</sup> Salaries of these employees are then obtained from the disclosure data, more formally the Public Sector Salary Disclosure (PSSD) data published by the Ministry of Finance of the Government of Ontario.<sup>7</sup>

When we are examining how many public sector employees are members of the top 1%, top 0.1% and top 0.01% salary recipients for the Ontario population as a whole, we use thresholds provided by a custom run on the T1FF taxfiler data as provided by Statistics Canada. The T1FF file is the universe of all taxfiles in Canada, where we use only the Ontario portion.<sup>8</sup> We then use the disclosure data to analyze the salaries of the public sector employees above those thresholds. We do this for public sector subsectors and, as an example, for individual universities and colleges.

#### **4. Results**

Table 1 focuses on the top end income distribution within public sector subsectors, with all figures in 2010 dollars. The first panel is provided for comparison. It is based on our custom

---

<sup>6</sup> We use CANSIM Table 183-0002, which was terminated in March 2012.

<sup>7</sup> Suppose for example that the FMS data estimated that for a particular sector in a particular year, there were 100,000 employees. Then the top 1% would be 1000 employees. Then the disclosure data would be used to find the salaries of the top 1000 employees in that sector. Fractions of employees are rounded to the nearest whole number.

<sup>8</sup> Most previous studies have used the Longitudinal Administrative Database (LAD), an anonymized, annual 20% sample of taxfilers for Canada from 1982 to 2010, with longitudinal and family linkages. It most recently contains about 5 million tax records per year. We have used the LAD for our references to Canadian data. Because our Ontario calculations use T1FF data and the disclosure data, which each purport to be populations and not samples, statistical inference based on sampling theory is not necessary for our comparisons.

run on the Statistics Canada T1FF taxfiler data and shows that in 1996, the minimum income to be in the top 1% of all Ontario employees was \$157,593 while the average income of all such earners was \$333,919.

The next panels use the method described in Section 3 to calculate the top end of the salary distribution. For example in 1996 in public universities and colleges, the minimum salary to be in the top 1% in this subsector was \$134,990 with the average salary in that group \$157,965.

As would be expected, top-end salaries for the public and private sector combined are much higher than those for any of the public sector sub-sectors. This is shown in the table by comparing the thresholds and the averages in the top panel with those of the others, with the difference greatest for the top 0.01%. But even for the top 0.1%, in 2010 the average salary was \$1,620,000 which was four to nine times greater than the comparable average within any of the public sector sub-sectors. Note also that the averages for the public sector sub-sectors tend to be much closer to their thresholds than the economy-wide averages are to their thresholds.

Comparing the rates of change, the overall Ontario rates of change are in the 30% to 45% range, which appear to be about in the middle of the public sector sub-sector rates of change. The rate of change of the average salary of the top 0.01% of university and college employees is higher at 66%, consistent with the results for university administrators of Essaji and Horton (2010). The rates of change for both thresholds and averages for the top 0.1% and top 0.01% for hospitals and government corporations are also above 50%. In municipalities, the average for the top 0.01% also grew by over 50%. The percentage increases for average top end salaries in the

provincial government and school boards are mostly lower than 30%, with a notable exception being the average in the top 0.01% which rose by 40%.

Table 2 examines the same data through a different lens that is the “membership” of the most highly paid Ontario public sector employees in the groups of the top 1%, top 0.1% and top 0.01% highly paid employees for Ontario as a whole. The number of public sector employees in Ontario’s top 1% increased from 1,570 individuals in 1996 to 2,481 in 2010. That is a 58% increase, while public sector employment in general increased 39% over the same period. In 1996, all sub-sectors had some employees in the top 1% of Ontario and only one person (in government corporations) was in the 0.1% (Table 2). By 2010, government corporations had 3 employees, hospitals 2, and universities 1 employee in the top 0.1% of Ontario. In all sub-sectors the share of employees who were considered high earners in all of Ontario was less than 1%, with the lowest share in school boards for both years, and the highest in the general provincial government (1996) and government corporations (2010).

Membership in the 1% outpaced employment growth in three of the six sectors. In universities, for example, employment increased 53% while membership into the 1% of Ontario increased 77%. In hospitals as well, the sector grew 24% by employment, but 56% more people fell into the 1%. Similarly government corporations saw a 63% growth in general, but a 425% growth in employees who belonged to Ontario’s 1%. Municipalities on the other hand grew by 70% but the count of those in Ontario’s 1% grew by 50%.

Other subsectors, general provincial government and school boards had fewer people in Ontario’s 1% by 2010. This is while employment grew in the two subsectors.



The composition of public sector members in Ontario's 1% has changed over time. As shown in Figure 1, in both years hospitals were the highest public sector contributor to Ontario's 1%, and accounted for 34% of high earning individuals. Universities and colleges took over general provincial government and tied with government corporations in 2010. Together, 57% of public sector employees who are part of Ontario's 1% are from hospitals, and universities and colleges. The most noticeable change however, is the surge in the employees of government corporations from 8% of the share to 23% in 2010. The decline in the general provincial government from 30% in 1996 to 15% in 2010 is also noteworthy.

Table 3 gives the figures for membership in the overall Ontario top 1% for public universities and colleges, although it can be seen the vast majority of the members are at universities. Membership in the top 1% from universities has generally increased, with the notable exception of the University of Ottawa and Laurentian University. Of those in the top 1%, real salaries increased over the period for most institutions by values between 30% and 50%, which is slightly higher than for the overall Ontario 1%. Table 3A in Appendix 2 provides the rate of change for the highest paid person at each university, finding that between 1996 and 2010 over the 39 institutions studied, the average salary growth was 79%.

We conclude from this section that the rate of change between 1996 and 2010 in top-end Ontario public-sector salaries was overall not that different than at the top-end for the Ontario population as a whole. There is some evidence that the rates of change were higher than for the population as a whole for at least parts of the top end for public universities and colleges, hospitals, government corporations, and municipalities, and were lower for school boards and the provincial government.

## 5. Discussion

We do not wish to overstate the consequences of our findings for distinguishing among the various possible explanations of the top end income surge. For one, the income distribution responses to any policy change come with long and uncertain lags, so any changes from 1996 to 2010 may be in response to events from a number of years earlier. This makes testing problematic.<sup>9</sup> What follows is therefore speculative.

In any case, one explanation of the top-income surge mentioned by Veall (2012) was that managers were able to gain income at the expense of other workers through outsourcing or related methods, given increased international competition due to the lowering of trade barriers. A broadly similar explanation, mentioned by Fortin, Green, Lemieux, Milligan and Riddell (2012) and emphasized by Hacker and Pierson (2010) for the United States, centres on the decline of unionization. While by no means rejected, these explanations do not receive support in our analysis because the Ontario public sector top end share increases are similar to those for the general population. But the Ontario public sector is not a traded goods sector and the Ontario public sector remains largely unionized.

Another explanation discussed by Veall (2012) hinges on responses to reductions in marginal rates of taxation<sup>10</sup>, either through increased labour supply or reduced avoidance. As is the broad conclusion of the volume edited by Slemrod (2000) and Saez, Slemrod and Giertz (2012), both of which have some focus on the United States, it seems unlikely the labour supply elasticity with respect to tax changes at the top end is very large. While the avoidance response is

---

<sup>9</sup> Also the ability for individuals to shift across sectors and subsectors may tend to make rates of change across sectors similar.

<sup>10</sup> This would include a lagged response to the 1988 cuts in federal top marginal tax rates plus some cuts in the late 1990s in Ontario provincial top marginal tax rates.

potentially larger, in this research we have examined salaries and wages before deductions where given the nature of public sector employment income, avoidance is difficult. Hence it seems very unlikely that any of the public income surge is due to reduced tax avoidance.

Now let us turn to top-income surge explanations based on skill-biased technical change and/or increased globalization of the international market for talent (perhaps because of better communications and travel technology).<sup>11</sup> It is possible that these factors could have had roughly the same effects on the public and private sectors in Ontario (especially given some employee mobility), so that finding of similar rates of top-end salary increase in the public and private sectors is neither supportive nor unsupportive in both cases. It is conceivable that the higher rates of top-end salary increase in the university, hospital, municipalities and government corporation sectors are due to greater importance in those sectors of skill-biased technical change and of mobility of highly-remunerated workers. However these explanations do not seem to offer a reason why top-end school board salaries have risen more slowly than top-end salaries in the provincial government or in the other sub-sectors we have studied.

Finally, there are explanations that involve the interaction of highly-paid employees with those who decide on their compensation. Piketty, Saez and Stantcheva (2011) argue that marginal tax reductions in a bargaining context may actually increase employee salaries as it increases the employee incentive to take an outside option and hence improves her/his bargaining position.<sup>12</sup> It seems plausible to us that this factor matters for increases in some public

---

<sup>11</sup> The latter hypothesis sometimes postulates the importance of access to a U.S. option for Canadian employees, as U.S. top end salaries are higher than those in Canada.

<sup>12</sup> Bebchuk and Fried (2003) is a seminal contribution to a literature that argues that top end salaries are more heavily influenced by their “governance” (by their boards in the case of private sector executives) than by employee performance. Jensen and Murphy (2004) is one of a number of papers that suggests that this may explain *high* corporate executive salaries but not necessarily explain *increasing* corporate executive salaries. Piketty, Saez and Stantcheva (2011) may fill that gap.

sector contexts, as it may in the private sector. Arguably, it does seem to line up with the finding that rates of increase from 1996 to 2010 were highest in government corporations, universities and colleges and hospitals, where governance and bargaining with top managers is perhaps most similar to that of private corporations, is lower in the provincial government, where there is more direct scrutiny by the electorate and in public school boards. However, this argument might suggest that the rate of change would also be relatively low in municipalities, which is not the case. There may be a geographical dimension to this (where for example top end incomes have risen more rapidly in Toronto than elsewhere; see Murphy and Veall, 2012). We are studying this further.

## **5. Summary and Conclusions**

Over the last thirty years there has been a rise in inequality in Canada and Ontario largely due to increased top-end salaries. We examine the Ontario public sector aspect of this rise since 1996 by using salary disclosure data. Between 1996 and 2010, the rate of increase in top-end salaries in Ontario public sector subsectors is similar to that for top-end salaries in the Ontario economy as a whole. The rate of increase in top-end salaries has been highest for employees of public universities and colleges, hospitals and government corporations (our name for crown corporations plus Hydro One and Ontario Power Generation) and employees of municipal governments, in the middle for employees of the provincial government itself and lowest for employees of school boards. The disclosure data does not include federal government employees.

Hence even though top-end public sectors are much lower in level than top-end salaries for the Ontario economy as a whole, the fact that they are growing at about the same rate is a fragment of evidence against the hypotheses that an important cause of the surge is falling trade

barriers (that weaken the position of employees in traded goods industries versus their management who have the option of outsourcing), because the public sector does not largely deal in traded goods. Similarly it is weak evidence against the importance for top salaries of declining unionization because the Ontario public sector has been highly unionized throughout this period (although it could be argued that public sector unions are very different from private sector unions).

The evidence seems neutral with respect to the hypotheses that the top-end surge is due to skill-biased technological change or improved communications and travel technology that have globalized the international market for talent. It is not clear that these factors can explain why the top-end increases for school boards are much lower.

The evidence could be mildly supportive of the Piketty, Saez and Stantcheva (2011) hypothesis that an increase in top-end incomes can be a consequence of reductions in top marginal tax rates. This is not largely because of an induced increase in labour supply (which is likely to be small) or reduced avoidance (which is likely irrelevant to our observed publicly-paid salaries before tax deductions) but rather because it increases the value of the outside option to employees and hence strengthens their bargaining position. We loosely argue the hypothesis that this explains why the biggest increases went to top-end employees of public universities and colleges, hospitals and government corporations, as their bargaining flexibility is likely higher than within the provincial government which answers more directly to the electorate. However, while this view is supported by the low rate of top-end salaries in school boards, it is not supported by the relatively high rate of increase in top-end salaries of municipalities. This is a topic for continued research.

**Table 1: Trends in Top Employment Earnings in Ontario, by Public Subsector, 1996 and 2010**

	Number of individuals		Threshold (2010\$)			Average (2010\$)		
	1996	2010	1996	2010	% change	1996	2010	% change
<b>All Ontario Taxfilers</b>								
Top 1%	48,500	60,100	\$157,593	\$206,700	31%	\$333,919	\$449,600	35%
Top 0.1%	4,900	6,000	549,938	732,500	33%	1,171,664	1,620,000	38%
Top 0.01%	490	600	2,001,287	2,857,000	43%	3,618,875	5,177,700	43%
<b>Universities and colleges</b>								
Top 1%	970	1,484	134,990	172,036	27%	157,965	213,347	35%
Top 0.1%	97	148	194,406	270,600	39%	223,080	329,811	48%
Top 0.01%	10	15	262,705	387,237	47%	295,081	489,047	66%
<b>Hospitals</b>								
Top 1%	1,885	2,346	n.a.	125,225	n.a.	n.a.	204,702	n.a.
Top 0.1%	189	235	203,858	315,256	55%	252,704	395,491	57%
Top 0.01%	19	23	324,990	492,960	52%	401,030	602,930	50%
<b>General provincial government</b>								
Top 1%	849	927	135,691	189,286	39%	161,315	215,610	34%
Top 0.1%	85	93	191,250	250,150	31%	212,020	268,449	27%
Top 0.01%	8	9	230,640	299,539	30%	272,039	334,598	23%
<b>Municipalities</b>								
Top 1%	1,604	2,740	n.a.	126,351	n.a.	n.a.	147,501	n.a.
Top 0.1%	160	274	139,512	176,880	27%	154,745	206,557	33%
Top 0.01%	16	27	175,581	253,634	44%	183,808	288,165	57%
<b>School boards</b>								
Top 1%	2,084	2,621	n.a.	116,667	n.a.	n.a.	130,249	n.a.
Top 0.1%	208	262	140,146	157,852	13%	152,821	175,973	15%
Top 0.01%	21	26	168,133	200,945	20%	180,456	224,485	24%
<b>Government corporations</b>								
Top 1%	582	949	131,483	186,233	42%	155,947	239,925	54%
Top 0.1%	58	95	181,830	302,000	66%	260,463	428,925	65%
Top 0.01%	6	9	413,453	619,497	50%	498,539	790,185	59%

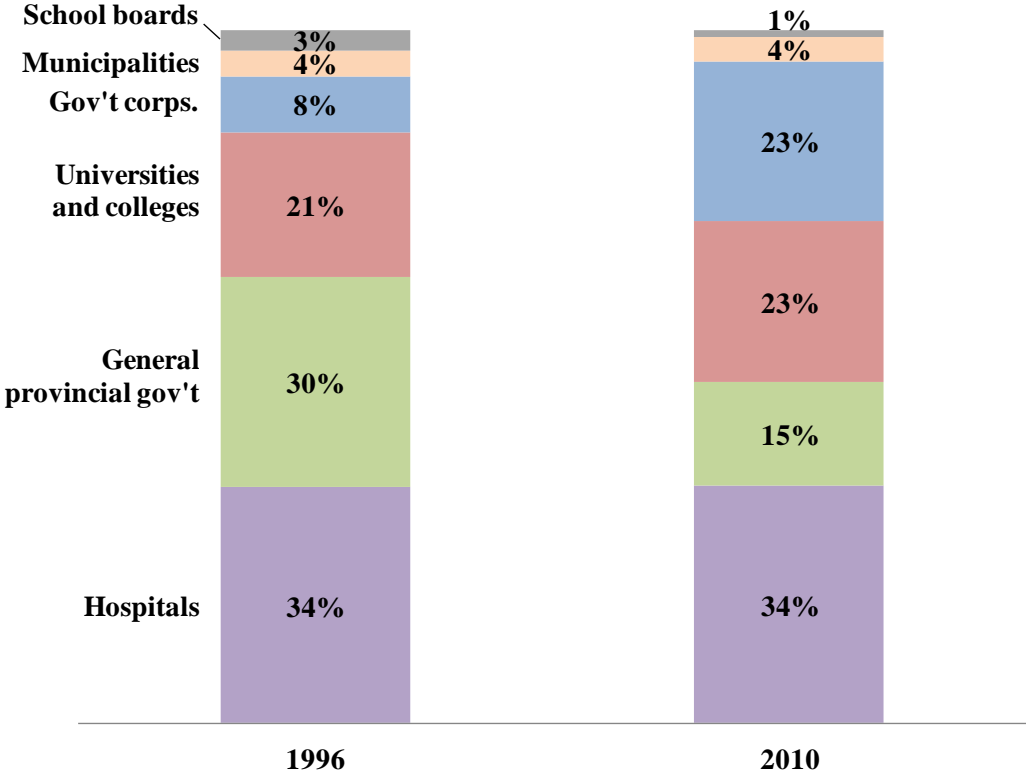
Notes to table: n.a. indicates that the 1% threshold was below the \$100,000 and hence all the incomes for that group could not be obtained. The All Ontario values are from a custom run provided by Statistics Canada from the T1FF taxfiler file. The number of individuals values are rounded by Statistics Canada during the disclosure process. All the remaining values in the table are from the Public Sector Salary Disclosure (PSSD) data published by the Ministry of Finance of the Government of Ontario,

**Table 2: Membership of Ontario Public Sector Employees in the Top 1%, Top 0.1% and Top 0.01% of the Overall Ontario Employment Earnings Distribution, by Subsector, 1996 and 2010**

	<i>Number of individuals</i>		<i>Average income (2010\$)</i>		<i>% of subsector employees</i>		<i>% of taxfilers</i>	
	1996	2010	1996	2010	1996	2010	1996	2010
<b>All Ontario Taxfilers</b>	4,853,400	6,014,300						
top 1%	48,500	60,100	\$333,919	\$449,600				
top 0.1%	4,900	6,000	\$1,171,664	\$1,620,000				
top 0.01%	490	600	\$3,618,875	\$5,177,700				
<b>Universities and colleges</b>	96,967	148,397						
Ontario's top 1%	325	575	\$187,087	\$256,504	0.34%	0.39%	0.01%	0.01%
Ontario's top 0.1%	0	1	-	\$1,041,881	-	0.00%	-	0.00%
Ontario's top 0.01%	0	0	-	-	-	-	-	-
<b>Hospitals</b>	188,515	234,606						
Ontario's top 1%	532	850	\$207,095	\$301,700	0.28%	0.36%	0.01%	0.01%
Ontario's top 0.1%	0	2	-	\$743,304	-	0.00%	-	0.00%
Ontario's top 0.01%	0	0	-	-	-	-	-	-
<b>General provincial gov't</b>	84,945	92,713						
Ontario's top 1%	474	372	\$173,503	\$249,377	0.56%	0.40%	0.01%	0.01%
Ontario's top 0.1%	0	0	-	-	-	-	-	-
Ontario's top 0.01%	0	0	-	-	-	-	-	-
<b>Municipalities</b>	160,400	274,008						
Ontario's top 1%	58	87	\$168,374	\$246,287	0.04%	0.03%	0.00%	0.00%
Ontario's top 0.1%	0	0	-	-	-	-	-	-
Ontario's top 0.01%	0	0	-	-	-	-	-	-
<b>School boards</b>	208,434	262,055						
Ontario's top 1%	46	23	\$169,916	\$227,277	0.02%	0.01%	0.00%	0.00%
Ontario's top 0.1%	0	0	-	-	-	-	-	-
Ontario's top 0.01%	0	0	-	-	-	-	-	-
<b>Gov't corporations</b>	58,162	94,922						
Ontario's top 1%	135	574	\$206,808	\$268,871	0.23%	0.60%	0.00%	0.01%
Ontario's top 0.1%	1	3	\$656,827	\$1,047,599	0.00%	0.00%	0.00%	-
Ontario's top 0.01%	0	0	-	-	-	-	-	-
<b>Ontario public sector</b>	797,424	1,106,700						
Ontario's top 1%	1,570	2,481	\$190,267	\$273,152	0.20%	0.22%	0.03%	0.04%
Ontario's top 0.1%	1	6	\$656,827	\$945,214	0.00%	0.00%	0.00%	0.01%
Ontario's top 0.01%	0	0	-	-	-	-	-	-

Notes to table: From Public Sector Salary Disclosure (PSSD) data published by the Ministry of Finance of the Government of Ontario as compared to thresholds obtained from custom run by Statistics Canada on T1FF file, as described in Table 1.

**Figure 1: Breakdown of Public Sector Membership in Ontario's 1%, by Subsector, 1996 and 2010**





**Table 3: Membership of Ontario University Employees in the Top 1% of the Overall Ontario Employment Earnings Distribution, by University, 1996 and 2010**

Universities and Colleges Institution	Number of individuals in Ontario's 1%			Average salary of individuals in Ontario's 1%		
	1996	2010	% change	1996	2010	% change
University of Toronto	138	219	59%	\$184,631	\$254,857	38%
University of Western Ontario	47	61	30%	201,973	250,732	24%
McMaster University	25	40	60%	188,407	264,023	40%
York University	21	62	195%	177,728	249,883	41%
University of Ottawa	20	13	-35%	183,935	264,813	44%
Queen's University	19	33	74%	187,975	254,796	36%
University of Windsor	7	13	86%	178,145	235,830	32%
Wilfrid Laurier University	7	8	14%	191,785	244,948	28%
University of Guelph	6	12	100%	185,749	253,473	36%
University of Waterloo	6	21	250%	199,249	291,016	46%
Brock University	4	7	75%	183,957	248,553	35%
Ryerson University	4	14	250%	184,087	271,967	48%
Laurentian University	3	2	-33%	177,541	264,408	49%
Algonquin College of Applied Arts and Technology	2	3	50%	203,583	262,157	29%
St. Clair College of Applied Arts and Technology	2	1	-50%	159,452	295,680	85%
Carleton University	1	6	500%	209,866	244,277	16%
Centennial College	1	4	300%	176,135	260,920	48%
Conestoga College of Applied Arts & Technology	1	2	100%	162,301	279,497	72%
George Brown College of Applied Arts and Technology	1	2	100%	181,797	284,650	57%
Georgian College of Applied Arts & Technology	1	1	0%	167,699	278,475	66%
Humber College	1	7	600%	170,069	261,362	54%
Lakehead University	1	1	0%	219,425	219,872	0%
Mohawk College of Applied Arts and Technology	1	3	200%	165,251	237,788	44%
Niagara College of Applied Arts & Technology	1	2	100%	189,904	270,192	42%
Seneca College of Applied Arts and Technology	1	4	300%	162,424	266,036	64%
Sheridan College of Applied Arts and Technology	1	3	200%	163,287	242,820	49%
Sir Sandford Fleming College	1	1	0%	179,471	281,359	57%
St. Lawrence College Saint-Laurent	1	1	0%	161,818	284,044	76%
Trent University	1	4	300%	199,006	276,113	39%
Cambrian College of Applied Arts & Technology	0	1	-	-	227,155	-
Collège Boréal	0	1	-	-	244,278	-
Confederation College of Applied Arts and Technology	0	1	-	-	267,793	-
Durham College of Applied Arts & Technology	0	1	-	-	269,626	-
Fanshaw College	0	1	-	-	265,949	-
La Cité collégiale	0	1	-	-	324,278	-
Lambton College	0	1	-	-	279,717	-
Loyalist College	0	1	-	-	259,227	-
Nipissing University	0	2	-	-	265,121	-
Sault College	0	1	-	-	266,678	-

Notes to table: From Public Sector Salary Disclosure (PSSD) data published by the Ministry of Finance of the Government of Ontario as compared to thresholds obtained from custom run by Statistics Canada on T1FF file, as described in Table 1.

## Appendix 1

The most recent disclosure data published in spring of 2013 resembles much of the earlier trends discussed. Indeed the top earners in universities and colleges, hospitals, municipalities and government corporations had salary growth rates higher than those in the general provincial government, and school boards. Ontario taxfiler data for 2012 was not available at the time of writing.

**Table 1A: Trends in Top Employment Earnings in Ontario, by Public Subsector, 1996 and 2012**

	Threshold (\$2010)			Average income (\$2010)		
	1996	2012	% change	1996	2012	% change
<b>Universities and colleges</b>						
Top 1%	\$134,990	\$175,218	30%	\$157,965	\$216,436	37%
Top 0.1%	194,406	278,637	43%	223,080	333,253	49%
Top 0.01%	262,705	406,362	55%	295,081	464,450	57%
<b>Hospitals</b>						
Top 1%	n.a.	121,477	n.a.	n.a.	206,057	n.a.
Top 0.1%	203,858	355,140	74%	252,704	408,343	62%
Top 0.01%	324,990	488,622	50%	401,030	566,815	41%
<b>General provincial government</b>						
Top 1%	135,691	183,449	35%	161,315	212,980	32%
Top 0.1%	191,250	251,564	32%	212,020	270,178	27%
Top 0.01%	230,640	299,363	30%	272,039	340,917	25%
<b>Municipalities</b>						
Top 1%	n.a.	124,244	n.a.	n.a.	146,682	n.a.
Top 0.1%	140,396	174,735	24%	155,530	207,073	33%
Top 0.01%	176,092	250,613	42%	184,343	285,163	55%
<b>School boards</b>						
Top 1%	n.a.	114,109	n.a.	n.a.	127,627	n.a.
Top 0.1%	140,146	156,931	12%	152,821	173,801	14%
Top 0.01%	168,133	203,280	21%	180,456	224,332	24%
<b>Government corporations</b>						
Top 1%	131,483	180,233	37%	155,947	235,833	51%
Top 0.1%	181,830	296,902	63%	260,463	425,455	63%
Top 0.01%	413,453	534,500	29%	498,539	802,357	61%

**Note:** FMS public sector employment data was discontinued in March 2012. As a result the 2012 employment figures were obtained by averaging the figures for January, February and March.

## Appendix 2

The highest earners in Ontario's universities and colleges saw, on average, a 79% real growth in their salaries from 1996 to 2010. High growth rates were not unique to universities. Many colleges had above-average growth in the salaries of their top earners.

**Table 3A: Salary of Highest Earners in Universities and Colleges, by Institution, 1996 and 2010, (\$2010)**

<b>Institution</b>	<b>1996</b>	<b>2010</b>	<b>% change</b>
University of Toronto	\$365,075	\$697,020	91%
University of Western Ontario	\$336,046	\$469,837	40%
Wilfrid Laurier University	\$293,392	\$354,871	21%
Queen's University	\$273,198	\$382,800	40%
McMaster University	\$269,675	\$448,977	66%
University of Waterloo	\$244,533	\$1,041,881	326%
York University	\$242,088	\$480,030	98%
Algonquin College	\$240,361	\$332,576	38%
University of Guelph	\$234,050	\$440,590	88%
University of Windsor	\$230,506	\$317,000	38%
University of Ottawa	\$221,815	\$395,000	78%
Lakehead University	\$219,425	\$219,872	0%
Brock University	\$217,460	\$333,576	53%
Carleton University	\$209,866	\$320,072	53%
Ryerson University	\$204,325	\$365,000	79%
Trent University	\$199,006	\$310,259	56%
Laurentian University of Sudbury	\$190,994	\$304,647	60%
Niagara College Canada	\$189,904	\$329,224	73%
George Brown College	\$181,797	\$353,647	95%
Sir Sandford Fleming College	\$179,471	\$281,359	57%
Centennial College	\$176,135	\$306,867	74%
Humber College	\$170,069	\$403,406	137%
Georgian College	\$167,699	\$278,475	66%
Mohawk College	\$165,251	\$276,114	67%
Sheridan College Institute	\$163,287	\$256,431	57%
Seneca College	\$162,424	\$379,510	134%
Conestoga College	\$162,301	\$351,928	117%
St. Lawrence College	\$161,818	\$284,044	76%
St. Clair College	\$160,771	\$295,680	84%
Sault College	\$153,798	\$266,678	73%
Confederation College	\$151,797	\$267,793	76%
Nipissing University	\$151,172	\$277,600	84%
Durham College	\$149,923	\$269,626	80%
Loyalist College	\$149,573	\$259,227	73%
La Cité collégiale	\$146,285	\$324,278	122%
Cambrian College	\$146,268	\$227,155	55%
Collège Boréal	\$146,158	\$244,278	67%
Fanshawe College	\$143,097	\$265,949	86%
Lambton College	\$139,944	\$279,717	100%
<b>Average salary of highest earners</b>	<b>\$197,712</b>	<b>\$351,102</b>	<b>79%</b>

## References

Alvaredo, Facundo, Anthony B. Atkinson, Thomas Piketty, and Emmanuel Saez (2012) *The World Top Incomes Database*, <http://g-mond.parisschoolofeconomics.eu/topincomes/>, accessed 5 May 2013

Atkinson, Anthony B., and Thomas Piketty (2007) *Top Incomes over the Twentieth Century: a Contrast between Continental European and English-speaking Countries* (Oxford: Oxford University Press)

Atkinson, Anthony B., Thomas Piketty, and Emmanuel Saez (2011) 'Top Incomes in the long run of history,' *Journal of Economic Literature* 49, 3–71

Bakija, Jon, Adam Cole, and Bradley T. Heim (2012) 'Jobs and income growth of top earners and the causes of changing income inequality,' <http://web.williams.edu/Economics/wp/BakijaColeHeimJobsIncomeGrowthTopEarners.pdf>, accessed 20 April 2012

Bebchuk, Lucian A., and Jesse M. Fried (2004) *Pay without Performance: The Unfulfilled Promise of Executive Compensation* (Cambridge, MA: Harvard University Press)

Clemens, Jason and Milagros Palacios (2013), *Comparing Public and Private Compensation in Canada*, Fraser Institute Research Study, accessed at <http://www.fraserinstitute.org/research-news/display.aspx?id=19519> on May 5, 2013.

Dehaas, Josh (2013) <http://oncampus.macleans.ca/education/2013/04/01/why-universities-should-consider-pay-cuts/> posted April 1, 2013, accessed May 5, 2013

Essaji, Azim and Sue Horton (2010) "Silent Escalation: Salaries of Senior University Administrators in Ontario, 1996-2005," *Higher Education*, 59(3): 303-322.

Fortin, Nicole, David Green, Thomas Lemieux, Kevin Milligan, and Craig Riddell (2012) "Canadian inequality: recent developments and policy options," *Canadian Public Policy* 38, 121–45.

Gomez, Rafael and Steven Wald (2010), "When public-sector salaries become public knowledge: Academic salaries and Ontario's Public Sector Salary Disclosure Act", *Canadian Public*, volume 53, issue 1, 107–126.

Government of Ontario (2013), *Ontario's Economic Outlook and Fiscal Plan*. Accessed at <http://www.fin.gov.on.ca/en/budget/ontariobudgets/2013/bk1.html> on May 5, 2013.

Hacker, Jacob, and Paul Pierson (2010) *Winner-Take-All Politics, How Washington Made the Rich Richer and Turned Its Back on the Middle Class* (New York: Simon and Schuster)

Jensen, Michael C., and Kevin J. Murphy (2004) 'Remuneration: where we've been, how we got to here, what are the problems, and how to fix them,' European Corporate Governance Institute Working Papers Series in Finance No. 44/2004, <http://www.cgscenter.org/library/Board/Remuneration.pdf> accessed May 5, 2013

McMahon, Tamsin (2012), "Ontario hospitals publish salaries of top executives, unveil 'exorbitant' packages", *National Post* January 3, 2012. Accessed at <http://news.nationalpost.com/2012/01/03/ontario-hospitals-publish-salaries-of-top-executives-unveil-exorbitant-packages/> on May 5, 2013.

Murphy, Brian, Paul Roberts, and Michael Wolfson (2007) 'High income Canadians,' in *Perspectives on Labour and Income, Statistics Canada*, September, accessed at <http://www.statcan.gc.ca/pub/75-001-x/2007109/article/4096885-eng.htm> on 5 July 2012

Murphy, Brian and Michael R. Veall (2012) "A Tale of Two Cities? The Surge of Top Incomes at the City Level in Canada, paper presented at *Thinking Outside the Box: A Conference in Celebration of Thomas J. Courchene*, Queens University, October.

Piketty, Thomas, Emmanuel Saez, and Irina Stantcheva (2011) 'Optimal taxation of top labor incomes: a tale of three elasticities,' NBER Working Paper No. 17616.

Reiter, Kristin L., Guillermo A. Sandoval, Adalsteinn D. Brown and George H. Pink (2009), "CEO Compensation and Hospital Financial Performance", *Medical Care Research and Review*, 725-738.

Saani, Habib and Brian Murphy (2010), "High wage Canadians in the public and private sectors", presentation to the Statistics Canada socioeconomic conference, April 27, 2010.

Saez, Emmanuel, Joel Slemrod, and Seth Giertz (2012) 'The elasticity of taxable income with respect to marginal tax rates: a critical review,' *Journal of Economic Literature* 50, 3-50

Saez, Emmanuel, and Michael R. Veall (2005) 'The evolution of high incomes in Northern America: lessons from Canadian evidence,' *American Economic Review* 95, 831-49.

Saez, Emmanuel and Michael R. Veall (2007), "The evolution of high incomes in Canada, 1920-2000," in *Top Incomes over the Twentieth Century: A Contrast Between Continental European and English-Speaking Countries*, ed. Anthony B. Atkinson and Thomas Piketty (Oxford: Oxford University Press).

Sen, Anindya, Hideki Ariizumi, and Natasha De Sousa (2009) "How do we reward ourselves? Evidence on the returns to publications" paper presented at the Canadian Economics Association Meetings, Toronto.

Sen, Anindya, Marcel Voia and Francis Woolley (2010) "Hot or not: How appearance affects earnings and productivity in academia", Carleton University Working Paper (*Carleton Economic Papers*) CEP 10-07.

Schnarr, Karin. "Can't Get No Satisfaction: Examining the Link between Patient Satisfaction and CEO Compensation." *Academy of Management Proceedings*. Vol. 2012. No. 1. Academy of Management, 2012, 1-1.

Slemrod, Joel, ed. (2000) *Does Atlas Shrug? The Economic Consequences of Taxing the Rich* (Cambridge: Cambridge University Press)

Veall, Michael R. (2012), "Top income shares in Canada: recent trends and policy implications," *Canadian Journal of Economics*, 45, No. 4, 1247-1272.