


## Live Exercise Based on Published Story, with Downloadable Data from the Story



Summary: On March 24, 2016, CBC News posted a [story](#) based on the latest findings of the so-called sunshine list, a yearly inventory of Ontario public servants that earn more than \$100,000 a year. Other provinces like [Alberta](#) have followed Ontario's lead in not only publishing this material, but making it available in the kind of downloadable, machine-readable formats that we discussed in chapters two and three.

Traditionally, when the latest version of the Ontario list is released at the end of the fiscal year on March 31, stories tend to quickly focus on the bureaucrats who made the most. The CBC News story falls into this category, though with a wrinkle, comparing the top earners to arguably the province's most influential person, the Premier.

Deadline pressures and an incomplete knowledge of applying many of the analytical skills we've covered in this book, mean that the stories -- with a few exceptions like the Toronto Star's story about the lists gender inequity -- are run-off-the-mill and predictable. However, it doesn't have to be that way. For instance, by simply downloading two years' worth of data (sadly and inexplicably, salaries posted [before 2014](#) are unavailable in machine-readable format), you use the sorting and filtering that we learned in chapter four, to tell better stories.

## What you will learn:

1. How to download the sunshine list datasets.
2. How to create a master table.
3. How to use sorting, filtering and a bit of math, to find better stories

## Task 1: How to download the sunshine list datasets.

Go to the Ontario public sector salary disclosure page which looks like this.

### Public sector salary disclosure 2015: all sectors and seconded employees

Information on all public sector employees who were paid \$100,000 or more in 2015 and are subject to the *Public Sector Salary Disclosure Act*.

This data is presented in the language in which it was provided.

[Show/hide columns](#)

Searches include hidden columns

Last name	First name	Salary Paid	Employer	Job title
Weisbrodt	Jorn	\$207,692.37	Toronto Festival of Arts, ...	Artistic Director
Parlee	Forrest	\$108,709.89	Mitacs Inc.	Director, Partnerships
Wagner	John Clyde	\$168,230.79	Toronto Festival of Arts, ...	Executive Producer
Yue	Jenny	\$114,158.53	Colleges Ontario	Senior Manager, Finance ...
Macdonald	Christine	\$100,789.02	Mitacs Inc.	Director, Business Devel...
Udovic	Natasha	\$129,807.63	Toronto Festival of Arts, ...	Senior Director, Corporat...
Tanos	Antonia	\$102,222.20	Toronto Organizing Com...	Senior Project Managem...
Webb	Paul	\$105,001.75	King's University College	Professor
Abbas	Sadiq	\$107,970.20	Algonquin College	Professor
Abboud	Nadim	\$108,974.48	Algonquin College	Professor
Adamyk	Mike	\$107,920.28	Algonquin College	Professor
Agate	Jeffery M.	\$121,234.72	Algonquin College	Associate Director, Stude...
Al-Azzawi	Abdul	\$107,920.20	Algonquin College	Professor
Alexander	Doug	\$106,084.10	Algonquin College	Professor
Ali	Sabah	\$100,523.70	Algonquin College	Professor
Allaire	Dan	\$114,817.15	Algonquin College	Manager, Client Support ...
Allan	Wilma	\$103,883.00	Algonquin College	Program Quality Assuran...
Allen	Ian D.	\$108,489.36	Algonquin College	Professor
Almuhtadi	Wahab	\$110,779.56	Algonquin College	Professor

1 2 3 ... Next > Last >

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[Print selection](#) [Download JSON](#) [Download CSV](#)

Select the “Download CSV” tab and save the file on your hard-drive.


Because we’ll want to analyse two years’ worth of data, let’s do the same for the 2014 numbers, which you’ll find at: <https://www.ontario.ca/page/public-sector-salary-disclosure-act-disclosures-2014>

## Public Sector Salary Disclosure Act: Disclosures for 2014

This page is an archive of the Public Sector Salary Disclosure for 2014. The most current Public Sector Salary Disclosure information is available at [ontario.ca/salarydisclosure](http://ontario.ca/salarydisclosure).

Employers subject to the *Public Sector Salary Disclosure Act* are required to annually disclose the names, position titles, salaries and taxable benefits of their employees who are paid \$100,000 or more in a year.

This data is presented in the language in which it was provided.

**Search table**   **Filter table by Sector**

[Show/hide columns](#)

Searches include hidden columns

Table

Last name	First Name	Salary Paid	Employer	Job title
Almond	Margot	\$123,153.63	Aboriginal Affairs	Director, Corporate Man...
Aniol	Richard	\$102,860.59	Aboriginal Affairs	Senior Negotiator / Négo...
Bennett	Phyllis	\$114,399.48	Aboriginal Affairs	Manager, Issues Manage...
Bird	Anne	\$103,033.91	Aboriginal Affairs	Team Lead / Chef d'équi...
Bliss	Rose	\$102,045.84	Aboriginal Affairs	Manager, Performance ...
Carr	Douglas	\$185,661.92	Aboriginal Affairs	Assistant Deputy Ministe...
Carty	Stephen	\$124,414.83	Aboriginal Affairs	Director, Negotiations / ...
Chabot	Marie Lise	\$110,862.89	Aboriginal Affairs	Strategic Policy Advisor /...
Chan	Milton	\$126,258.75	Aboriginal Affairs	Chief of Staff / Chef de c...
Clarke	Catherine	\$101,747.32	Aboriginal Affairs	Manager, Controllersh...
Coleman	Gregory	\$129,057.03	Aboriginal Affairs	Director, Communicatio...
Crimp	Tanya	\$104,403.53	Aboriginal Affairs	Executive Assistant / Att...
De Launay	David	\$209,909.59	Aboriginal Affairs	Deputy Minister / Sous...
Derbyshire	Robert	\$100,175.22	Aboriginal Affairs	Senior Policy Advisor / C...
Didluck	David	\$141,002.60	Aboriginal Affairs	Assistant Deputy Ministe...
Eedy	Lars	\$103,084.89	Aboriginal Affairs	Senior Advisor / Conseill...
Gennings	Melanie	\$107,025.05	Aboriginal Affairs	Director, Strategic Planni...
Hansen	Lise	\$119,289.05	Aboriginal Affairs	Senior Negotiator / Négo...
Kary	Alan	\$111,930.84	Aboriginal Affairs	Team Lead, Special Proje...

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1 - 20 of 111655 items

[Print selection](#) [Download JSON](#) [Download CSV](#)

Download the CSV file.

Opening both files reveals that they are identical with the same number of columns, headings and datatypes.

Sector	Last name	First name	Salary Paid	Taxable Benefits	Employer	Job title	Calendar year
Other Public Sector Employers	Weisbrodt	Jorn	\$207,692.37	\$1,272.92	Toronto Festival of Arts, Culture and Creativity	Artistic Director	2015
Other Public Sector Employers	Parlee	Forrest	\$108,709.89	\$0.00	Mitacs Inc.	Director, Partnerships	2015
Other Public Sector Employers	Wagner	John Clyde	\$168,230.79	\$867.92	Toronto Festival of Arts, Culture and Creativity	Executive Producer	2015
Other Public Sector Employers	Yue	Jenny	\$114,158.53	\$131.94	Colleges Ontario	Senior Manager, Finance And Administration	2015
Other Public Sector Employers	Macdonald	Christine	\$100,789.02	\$0.00	Mitacs Inc.	Director, Business Development and Team Lead Ontario	2015
Other Public Sector Employers	Udovic	Natasha	\$129,807.63	\$867.92	Toronto Festival of Arts, Culture and Creativity	Senior Director, Corporate Partnerships	2015
Other Public Sector Employers	Tanos	Antonia	\$102,222.20	\$3,664.48	Toronto Organizing Committee for the 2015 Pan American and Parapan American Ga	Senior Project Management Analyst / Analyste principale	2015
Universities	Webb	Paul	\$105,001.75	\$822.01	King's University College	Professor	2015
Colleges	Abbas	Sadiq	\$107,970.20	\$85.86	Algonquin College	Professor	2015

Sector	Last name	First Name	Salary Paid	Taxable Benefits	Employer	Job title	Calendar year
Government of Ontario - Ministries	Almond	Margot	\$123,853.63	\$204.96	Aboriginal Affairs	Director, Corporate Management / Directrice, gestion minist&mielle	2014
Government of Ontario - Ministries	Aniol	Richard	\$102,860.59	\$173.98	Aboriginal Affairs	Senior Negotiator / N&gociateur principal	2014
Government of Ontario - Ministries	Bennett	Phyllis	\$114,389.48	\$169.54	Aboriginal Affairs	Manager, Issues Management and Media Relations / Chef, gestions des questions d'in&A	2014
Government of Ontario - Ministries	Bird	Anne	\$103,033.91	\$176.37	Aboriginal Affairs	Team Lead / Chef d'&equipe	2014
Government of Ontario - Ministries	Bliss	Rose	\$102,045.84	\$176.66	Aboriginal Affairs	Manager, Performance Measures and Data / Chef, mesures et donn&es de rendement	2014
Government of Ontario - Ministries	Carr	Douglas	\$185,661.92	\$298.74	Aboriginal Affairs	Assistant Deputy Minister, Negotiations and Reconciliation / Sous-ministre adjoint, n&A	2014
Government of Ontario - Ministries	Carly	Stephen	\$124,414.83	\$204.96	Aboriginal Affairs	Director, Negotiations / Directeur, n&A	2014
Government of Ontario - Ministries	Chabot	Marie Lise	\$110,862.89	\$182.00	Aboriginal Affairs	Strategic Policy Advisor / Conseill&A	2014
Government of Ontario - Ministries	Chan	Milton	\$126,258.75	\$217.44	Aboriginal Affairs	Chief of Staff / Chef de cabinet	2014

## Task 2: How to create a master table.

This means that we can combine the files into a master table, allowing us to analyze for salary increases, for instance.

Open a new worksheet, copy and paste the 2015 table. Scroll the first available cell in the first column.

115530	Universities	Zikic	Jelena	
115531	Universities	Zimmerman	Brett	
115532	Universities	Zoidl	Georg	
115533	Universities	Zryd	Michael	
115534	Universities	Zwick	Detlev	
115535				
115536				
115537				

Copy the 2014 table -- minus the headers because we already have them -- place your cursor on A115535, and paste.

115530	Universities	Zikic	Jelena	\$186,254.12	\$854.40	York University	Associate Professor
115531	Universities	Zimmerman	Brett	\$117,833.28	\$702.32	York University	Associate Professor
115532	Universities	Zoidl	Georg	\$193,974.48	\$1,053.44	York University	Professor
115533	Universities	Zryd	Michael	\$133,374.84	\$793.62	York University	Associate Dean / Associate Professor
115534	Universities	Zwick	Detlev	\$213,986.04	\$1,086.04	York University	Associate Professor
115535	Government of Ontario - Ministries	Almond	Margot	\$123,153.63	\$204.96	Aboriginal Affairs	Director, Corporate Management / Directrice, gestion minist
115536	Government of Ontario - Ministries	Aniol	Richard	\$102,860.59	\$173.98	Aboriginal Affairs	Senior Negotiator / Négociateur principal
115537	Government of Ontario - Ministries	Bennett	Phyllis	\$114,399.48	\$189.51	Aboriginal Affairs	Manager, Issues Management and Media Relations / Chef, g
115538	Government of Ontario - Ministries	Rind	Anne	\$103,033.41	\$126.32	Aboriginal Affairs	Team Lead / Chef d'Équipe

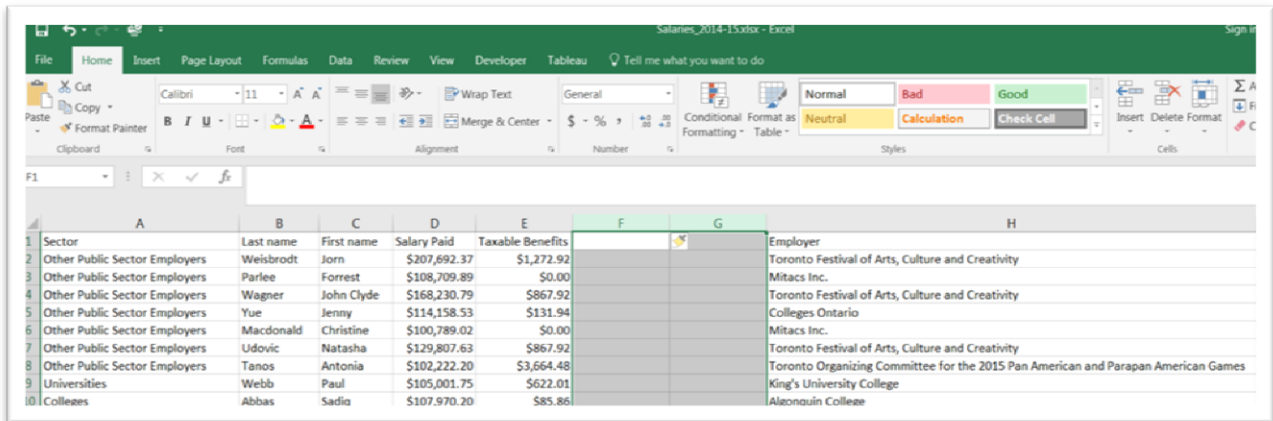
Your master table should have 227,190 records, which includes the column headers.

227186	Other Public Sector Employers	Landau	Stacy	\$138,167.57
227187	Other Public Sector Employers	Scott	Paula	\$103,944.61
227188	Other Public Sector Employers	Parr	Andrew	\$115,000.64
227189	Other Public Sector Employers	Mann	Harminder Ni	\$114,753.95
227190				
227191				
227192				
227193				

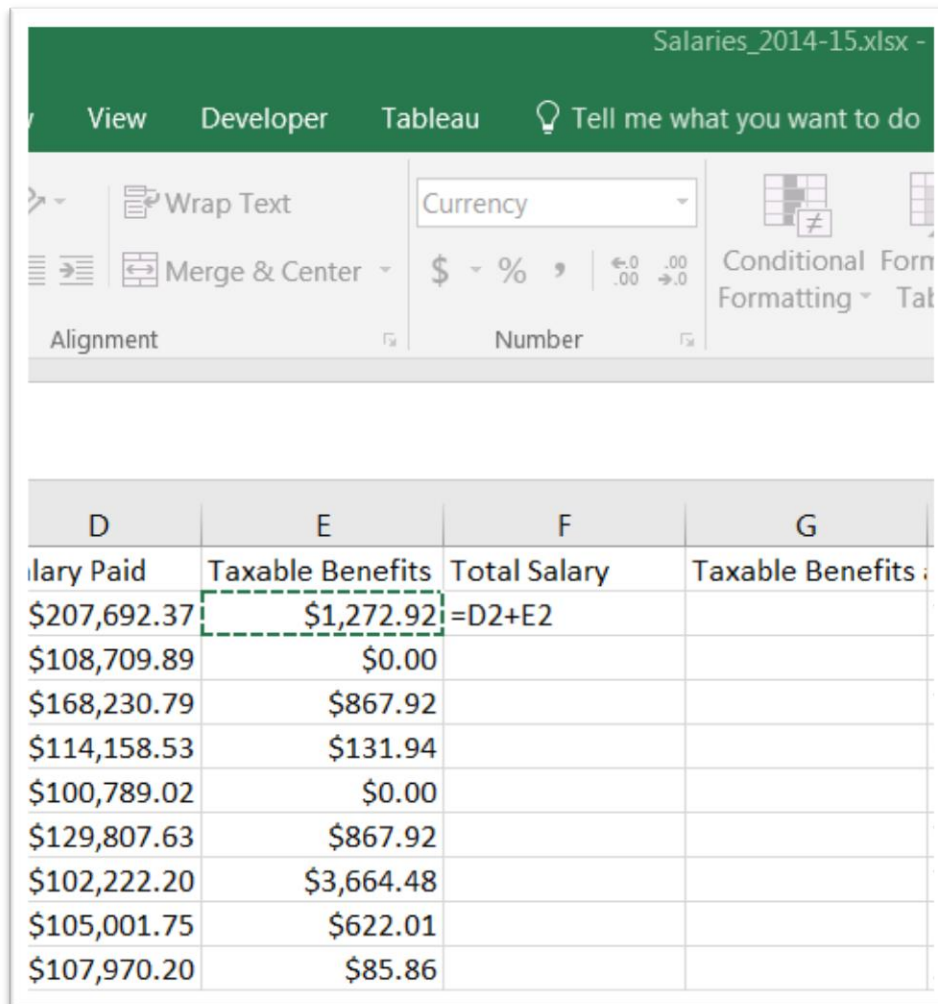
Rename the worksheet to something like “Salaries\_2014-15”, and save the table as an Excel workbook, using the same label. (NOTE: When working with csv files, it is important to save them as Excel workbooks, which allows for adding multiple worksheets)

Now before we begin searching for better stories, let’s add a few more columns.

Insert two columns to the right of column E, taxable benefits.






Label column F, “Total Salary”, which will combine the values in the Salary Paid and Taxable Benefits columns. Label column G “Taxable Benefits as % of Total income”, and use the “+” operator to add the values in the two salaries columns.





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	D	E	F	G
	Salary Paid	Taxable Benefits	Total Salary	Taxable Benefits
	\$207,692.37	\$1,272.92	\$208,965.29	
	\$108,709.89	\$0.00	\$108,709.89	
	\$168,230.79	\$867.92	\$169,098.71	
	\$114,158.53	\$131.94	\$114,290.47	
	\$100,789.02	\$0.00	\$100,789.02	
	\$129,807.63	\$867.92	\$130,675.55	
	\$102,222.20	\$3,664.48	\$105,886.68	
	\$105,001.75	\$622.01	\$105,623.76	
	\$107,970.20	\$85.86	\$108,056.06	
	\$108,974.48	\$129.56	\$109,104.04	
	\$107,920.28	\$122.31	\$108,042.59	
	\$121,234.72	\$304.47	\$121,539.19	
	\$107,920.20	\$115.32	\$108,035.52	
	\$106,084.10	\$129.56	\$106,213.66	
	\$100,523.70	\$129.56	\$100,653.26	
	\$114,817.15	\$292.97	\$115,110.12	
	\$103,883.00	\$261.54	\$104,144.54	
	\$108,489.36	\$85.86	\$108,575.22	

In column G, we'll calculate the taxable benefits as a percent of the total salary.

	F	G
its	Total Salary	Taxable Benefits
92	\$208,965.29	=E2/F2
00	\$108,709.89	
92	\$169,098.71	
94	\$114,290.47	
00	\$100,789.02	
92	\$130,675.55	
48	\$105,886.68	
01	\$105,623.76	

To get the percentage, we divide the taxable benefit by the total salary, and reformat the number as a percent with one decimal point ( a skill we learned in the tutorial on doing basic math like calculate percents ).

	G
	Taxable Benefits
29	0.6%
89	0.0%
71	0.5%
47	0.1%
02	0.0%
55	0.7%
68	3.5%
76	0.6%
06	0.1%



These new columns will come in especially handy for the suggested exercises at the end of this tutorial.

First order of business is filtering the table to find the Premier's salary. Activate the filter, and select the last name Wynne from the column B's drop-down menu.

	A	B	C	D	E	F	G	H	I	J
1	Sector	Last name	First name	Salary Paid	Taxable Benefi	Total Salary	Taxable Benefi	Employer	Job title	Calendar Year
0044	Government of Ontario - Legislative Assembly and Offices	Wynne	Kathleen	\$208,974.00	\$400.80	\$209,374.80	0.2%	Legislative Assembly	Premier / Premièrre ministre	2015
4711	Hospitals and Boards of Public Health	Wynne	Christine	\$103,009.35	\$585.33	\$103,594.68	0.6%	Hamilton Health Sciences	Pharmacist	2015
6067	Municipalities and Services	Wynne	Travers	\$154,757.65	\$885.22	\$155,642.87	0.6%	City of Toronto - Police Service	Sergeant	2015
29245	Government of Ontario - Legislative Assembly and Offices	Wynne	Kathleen	\$208,974.00	\$411.30	\$209,385.30	0.2%	Legislative Assembly	Premier / Premièrre ministre	2014
63613	Municipalities and Services	Wynne	Travers	\$131,888.78	\$819.78	\$132,708.56	0.6%	City of Toronto - Police Service	Sergeant	2014

You can see in the total salary column, F, that she earned \$209,385.30 and \$209,374.80 in 2014 and 2015, respectively. In essence, the same, with a slight adjustment to her taxable benefits. According to the CBC story, Kathleen Wynne salary (not including taxable benefits) was “3,682nd spot on the list. That means 3,681 people earned more than the boss. You can test that claim by returning to the 2015 list you downloaded, sorting the salary column in descending order, and searching for the Premier's name.

It almost checks out. She occupies the 3689<sup>th</sup> spot, meaning there were 3,688 people ahead of her.

### Task 3: How to use sorting, filtering and a bit of math, to find better stories

Slight imprecisions notwithstanding, there is so much more than can be done with this data. For instance, because we have the salaries for two years, we can plug the table into a pivot table, select employees from a certain sector, filter for the ones who were on the payroll for both years and determine, copy the filtered pivot table, and use the paste-special tool to plug the new table into a separate worksheet.

From there, we could create a new column to calculate the percent difference, sort the result in descending order to see who got the largest increase.

Or if you wanted to do something much easier, sort column G, “Taxable Benefits as % of Total income”, in order to see who got the highest amount. In both instances, your findings could lead to interesting stories.

As well, you could filter for hospitals to see how administrators are being paid and compare their salary increases with the rank and file, who may have endured years of wage freezes. The same can be done with municipal employees, which could lead to stories about well-paid employees like paramedics, fire fighters and police officers whose salary range is below \$100,000, but find themselves on the list. This could mean that the city is footing massive overtime bills, perhaps supporting worker claims that they're short-staffed and overworked.

The possibilities are endless. And it begins with downloading two files, combining them, and creating two new columns.