# The sunshine list tutorial

Every year, the Ontario government updates its online database of public servants earning more than $100,000 a year, colloquially known as the "sunshine" list. Other provinces like Alberta have followed suit with their own lists.

Ontario's release produces the predictable stories about the top-earning civil servants. While the stories are serviceable, and can be pumped out on deadline, they are not the most creative use of this data. There are better stories buried in the numbers. Stories about hospitals, school boards, towns and cities, colleges and universities.

For instance, which cities spend the greatest number of their overtime budgets on firefighters and police? Which top-earning hospital CEO's have continued to receive generous raises while nurses and other front-line staff endure wages freezes and cutbacks? How many of the top earners are women? And which universities have the highest rate (as opposed to numbers) of professors earning more than $100,000 for every 1,000 students?

Arguably, answers to these kinds of questions produce more interesting stories than those cranked out on deadline. But to do so, it's necessary to get the data into Excel.

The sunshine list is subject of much discussion in chapters three and four. But let's use this tutorial to break down the most recent data set to compare Carleton University and the University of Ottawa to see which institution possesses the highest rate of top salary earners.

We'll download a complete data set, thankfully provided by the Globe and Mail, which allows for endless analysis.

So let's get started!

1) Download the sunshine list from the Globe and Mail [website](website).
2) Paste the URL into the first available cell in the first row, and save the file as a backup.
3) Rename the first worksheet "Original".
4) Copy and paste the table into a second worksheet to be renamed as "WorkingCopy"
5) Clean up the data set by eliminating the first five rows so that the first cell in each column contains a name.

| First name | Last name | Employer | Position | Name_Employer_Position |
|---|---|---|---|---|
| THOMAS | MITCHELL | Ontario Power Generation | President & Chief Executive Officer | MITCHELL, THOMAS, Ontario Power Generation, President & Chief Executive Officer |
| WAYNE | ROBBINS | Ontario Power Generation | Chief Nuclear Officer | ROBBINS, WAYNE, Ontario Power Generation, Chief Nuclear Officer |
| JOHN | MURPHY | Ontario Power Generation | Executive Vice President, Strategic Initiativ | MURPHY, JOHN, Ontario Power Generation, Executive Vice President, Strategic Initia |
| WILLIAM | MORIARTY | University of Toronto | President and Chief Executive Officer, Univ | MORIARTY, WILLIAM, University of Toronto, President and Chief Executive Officer, L |
| ROBERT S. | BELL | University Health Network | President and Chief Executive Officer | BELL, ROBERT S., University Health Network, President and Chief Executive Officer |
| CARMINE | MARCELLO | Hydro One | President & Chief Executive Officer | MARCELLO, CARMINE, Hydro One, President & Chief Executive Officer |
| WILLIAM | REICHMAN | Baycrest Centre for Geriatric Care | President and Chief Executive Officer | REICHMAN, WILLIAM, Baycrest Centre for Geriatric Care, President and Chief Execut |
| RODNEY | PHILLIPS | Ontario Lottery & Gaming Corporation | President and Chief Executive Officer | PHILLIPS, RODNEY, Ontario Lottery & Gaming Corporation, President and Chief Exec |

6) Once we have a clean dataset, it's always a good idea to apply the filter to begin "interviewing the data" (A process the textbook discusses on page 123).
7) Re-format the numbers in the "Benefits" and "Salary" columns as currency with no decimal places.
8) Filter the table for Carleton and the University of Ottawa, and sort the "Salary" column in descending order to see who earns the most. No surprise that the two university presidents are in the top five, though Roseann Runte's benefits package is surprisingly high

compared to Allan Rock's.



9) This is interesting. To get a bit more context, let's see how her benefits as a percent of the total income compares to Allan Rock and the others on the list.

10) De-activate the filter to return to the unfiltered table.

11) Let's combine the values in "Benefits" and "Salary" columns in a new column we will call "Total_Salary".



12) Add the values in "Benefits" and "Salary". To review this and other math calculations, re-read chapter four in Computer-Assisted Reporting.



13) Copy the formula in column G to the bottom. Always be sure to scroll the bottom to make sure that the new values fill the entire column. Sometimes this doesn't happen because there may be a blank field that stops Excel from copying the formula. If this is

the case, you'll have to manually continue the process.

| First name | Last name | Employer | Position | Benefits | Salary | Total_Salary |
|---|---|---|---|---|---|---|
| THOMAS | MITCHELL | Ontario Power Generat | President & Chief Executive Officer | $6,774 | $1,714,000 | $1,720,774 |
| WAYNE | ROBBINS | Ontario Power Generat | Chief Nuclear Officer | $4,863 | $915,851 | $920,714 |
| JOHN | MURPHY | Ontario Power Generat | Executive Vice President, Strategic Initiative | $6,899 | $903,971 | $910,870 |
| WILLIAM | MORIARTY | University of Toronto | President and Chief Executive Officer, Univ | $1,835 | $772,547 | $774,382 |
| ROBERT S. | BELL | University Health Netw | President and Chief Executive Officer | $74,641 | $753,992 | $828,634 |
| CARMINE | MARCELLO | Hydro One | President & Chief Executive Officer | $3,654 | $724,917 | $728,571 |
| WILLIAM | REICHMAN | Baycrest Centre for Ger | President and Chief Executive Officer | $15,632 | $722,875 | $738,507 |
| RODNEY | PHILLIPS | Ontario Lottery & Gami | President and Chief Executive Officer | $828 | $722,677 | $723,505 |
| HOWARD | WETSTON | Ontario Securities Comi | Chair and Chief Executive Officer | $1,717 | $715,073 | $716,790 |
| MARY | HADDAD | The Hospital for Sick Ch | President and Chief Executive Officer | $19,003 | $712,400 | $731,403 |
| BARRY | MCLELLAN | Sunnybrook Health Scie | President & Chief Executive officer | $49,311 | $709,500 | $758,811 |
| JOSEPH | MAPA | Mount Sinai Hospital | President and Chief Executive Officer | $3,519 | $703,147 | $706,666 |
| MURRAY | MARTIN | Hamilton Health Scienc | President and Chief Executive Officer | $17,565 | $695,065 | $712,630 |
| CATHERINE | ZAHN | Centre for Addiction & I | President & Chief Executive Officer | $74,115 | $674,999 | $749,115 |
| DONN W. | HANBIDGE | Ontario Power Generat | Senior Vice President & Chief Financial Offi | $5,956 | $664,974 | $670,930 |
| KEVIN | SMITH | St. Joseph's Healthcare | Chief Executive Officer, St. Joseph's Health | $65,731 | $647,070 | $712,801 |
| MICHELLE | DIEMANUELE | Trillium Health Partners | President & Chief Executive Officer | $3,323 | $643,125 | $646,448 |
| DUNCAN | STEWART | The Ottawa Hospital | CEO and Scientific Director | $22,594 | $638,523 | $661,118 |
| JOHN B. | KITTS | The Ottawa Hospital | President | $69,861 | $630,485 | $700,346 |
| FRANK | CHIAROTTO | Ontario Power Generat | Senior Advisor Joint Ventures | $10,903 | $605,839 | $616,741 |
| PIERRE F. | TREMBLAY | Ontario Power Generat | President Canadian Nuclear Partners | $3,110 | $593,400 | $596,510 |
| MARK | FULLER | Ontario Pension Board | President and Chief Executive Officer | $621 | $592,894 | $593,515 |
| BONNIE | ADAMSON | London Health Sciences | President and Chief Executive Officer | $19,527 | $581,625 | $601,151 |
| COLIN | ANDERSEN | Ontario Power Authorit | Chief Executive Officer | $1,064 | $573,027 | $574,091 |
| ROBERT | VINSON | Woodstock Hospital | Radiologist | $2,866 | $566,738 | $569,604 |
| ROBERT | ROBERTS | University of Ottawa He | President | $319 | $565,591 | $565,909 |
| SANDY | STRUTHERS | Hydro One | Chief Administrative Officer & Chief Financ | $1,305 | $565,059 | $566,364 |

14) Re-apply the filter for Carleton and the University of Ottawa, and then sort the "Total_Salary" column in descending order to see who earns the most.

| | First nam | Last name | Employer | Position | Benefits | Salary | Total_Sala |
|---|---|---|---|---|---|---|---|
| 191 | ROSEANN | RUNTE | Carleton University | President | $45,704 | $358,473 | $404,177 |
| 202 | ALLAN | ROCK | Université d'Ottawa | Recteur / President | $1,304 | $395,000 | $396,304 |
| 283 | JACQUES | BRADWEJN | Université d'Ottawa | Doyen / Dean | $43 | $386,998 | $387,042 |
| 390 | DALE | CORBETT | Université d'Ottawa | Professeur(e) titulaire / Full Professor | $43 | $332,500 | $332,543 |
| 747 | LOUIS | DE MELO | Université d'Ottawa | Vice-recteur(rice) / Vice-President | $43 | $300,000 | $300,043 |

15) Given that her benefit package was the highest among the top five, it's no surprise that Carleton's Roseann Runte has the highest total salary.

16) Now let's do one more calculation: the benefits as a percent of the total salary.

17) Remove the filter to take us back to the entire table. (NOTE: It's necessary to de-activate the filter each time you alter the table.)

**18)** Create a new column and call it "Benefits_%_of_total".

| | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 1 | First name | Last name | Employer | Position | Benefits | Salary | Total_Salary | Benefits_%_of_total |
| 2 | THOMAS | MITCHELL | Ontario Power Generat | President & Chief Executive Officer | $6,774 | $1,714,000 | $1,720,774 | |
| 3 | WAYNE | ROBBINS | Ontario Power Generat | Chief Nuclear Officer | $4,863 | $915,851 | $920,714 | |
| 4 | JOHN | MURPHY | Ontario Power Generat | Executive Vice President, Strategic Initiativ | $6,899 | $903,971 | $910,870 | |
| 5 | WILLIAM | MORIARTY | University of Toronto | President and Chief Executive Officer, Univ | $1,835 | $772,547 | $774,382 | |
| 6 | ROBERT S | BELL | University Health Netw | President and Chief Executive Officer | $74,641 | $753,993 | $828,634 | |

**19)** To get the percent of total, divide benefits by the total salary and then express the value as a percentage. (Pages 74 and 75 of the textbook discuss percentages)

| | First name | Last name | Employer | Position | Benefits | Salary | Total_Salary | Benefits_%_of_total |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | THOMAS | MITCHELL | Ontario Power Generat | President & Chief Executive Officer | $6,774 | $1,714,000 | $1,720,774 | 0.49 |
| 3 | WAYNE | ROBBINS | Ontario Power Generat | Chief Nuclear Officer | $4,863 | $915,851 | $920,714 | |
| 4 | JOHN | MURPHY | Ontario Power Generat | Executive Vice President, Strategic Initiativ | $6,899 | $903,971 | $910,870 | |
| 5 | WILLIAM | MORIARTY | University of Toronto | President and Chief Executive Officer, Univ | $1,835 | $772,547 | $774,382 | |

**20)** Copy the formula, making sure that it reaches the bottom of the column.

**21)** Sort the new column in descending order.

| | First name | Last name | Employer | Position | Benefits | Salary | Total_Salary | Benefits_%_of_total |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | ANDREA | RIEKSTINS | The Hospital for Sick Ch | International Senior Project Manager | $103,081 | $110,904 | $213,985 | 48.29 |
| 3 | COLIN | DART | Turning Point Youth Ser | Executive Director | $72,000 | $123,000 | $195,000 | 36.99 |
| 4 | ALLISON | FISHER | Wabano Centre for Abc | Executive Director | $46,925 | $118,500 | $165,425 | 28.49 |
| 5 | ILHAM | AKHUNDOV | University of Waterloo | Lecturer | $31,127 | $101,909 | $133,036 | 23.49 |
| 6 | STEPHEN | NEW | University of Waterloo | Lecturer | $31,145 | $110,271 | $141,416 | 22.09 |

**22)** Though the Carleton president's benefits package is high as a raw number, it doesn't even crack the top five when calculated as a percent of the total salary. Andrea Riekstins of The Hospital for Sick Children's has benefits that make up about half her income. By contrast, Roseann Runte's benefits package is 11.3% of her total salary, still high compared to the average ( a calculation you should perform using the instructions of chapter four of the textbook), but far lower than Riekstins'.

**23)** We're not saying that there's anything wrong with benefits making up a large portion of the total salary. But it sure does raise some interesting questions that could lead to a more interesting story compared to the typical deadline-driven fare.

24) Now let's get back to the Carleton-University of Ottawa table.

25) Apply the filter for both institutions, copy the table and paste it into a new worksheet, name the worksheet "Carleton_UofO", and re-adjust the width of the columns so that the entire table is visible on the screen.

| First name | Last name | Employer | Position | Benefits | Salary | Total_Salary | Benefits_%_of_tota |
|---|---|---|---|---|---|---|---|
| ROSEANN | RUNTE | Carleton University | President | $45,704 | $358,473 | $404,177 | 11.31 |
| NOELLA | BEAUSOLEIL | Université d'Ottawa | Directeur(trice) / Director | $443 | $100,147 | $100,590 | 0.41 |
| JULIA | THOMPSON | Carleton University | Manager | $340 | $102,133 | $102,473 | 0.31 |
| PHILIP | ROURKE | Carleton University | Executive Director | $432 | $130,253 | $130,685 | 0.31 |
| ALLAN | ROCK | Université d'Ottawa | Recteur / President | $1,304 | $395,000 | $396,304 | 0.31 |
| MICHELLE | LEBLANC | Université d'Ottawa | Bibliothécaire / Librarian | $216 | $100,143 | $100,359 | 0.21 |
| MARINA | PAVLOVIC | Université d'Ottawa | Professeur(e) adjoint(e) / Assistant Professor | $158 | $110,565 | $110,724 | 0.11 |
| COLLEEN | NEELY | Carleton University | Professional Librarian | $140 | $105,570 | $105,710 | 0.11 |
| PETER | TAHON | Université d'Ottawa | Professeur(e) titulaire / Full Professor | $72 | $135,225 | $135,297 | 0.11 |
| WILLIAM | KIESER | Université d'Ottawa | Chercheur(se) universitaire / Research Fellow | $43 | $100,000 | $100,043 | 0.01 |
| THIERRY | MESANA | Université d'Ottawa | Professeur(e) titulaire / Full Professor | $43 | $100,000 | $100,043 | 0.01 |
| REBECCA | MARGOLIS | Université d'Ottawa | Professeur(e) agrégé(e) / Associate Professor | $43 | $100,040 | $100,083 | 0.01 |
| AMELIA | HOPE | Université d'Ottawa | Professeur(e) de langue / Language Teacher | $43 | $100,079 | $100,123 | 0.01 |
| DANIEL | LEGAULT | Université d'Ottawa | Directeur(rice) administratif(ve) / Chief Administrative Officer | $43 | $100,248 | $100,292 | 0.01 |
| GEORGES | LANTHIER | Université d'Ottawa | Conseiller(ère) / Advisor | $43 | $100,340 | $100,383 | 0.01 |
| VINCENT | MIRZA | Université d'Ottawa | Professeur(e) adjoint(e) / Assistant Professor | $43 | $100,345 | $100,388 | 0.01 |
| VALÉRIE | DAOUST | Université d'Ottawa | Professeur(e) adjoint(e) / Assistant Professor | $43 | $100,489 | $100,532 | 0.01 |
| ELIZABETH | MARSHMAN | Université d'Ottawa | Professeur(e) adjoint(e) / Assistant Professor | $43 | $100,489 | $100,532 | 0.01 |
| ANDRÉ | FORGET | Université d'Ottawa | Chef (principaux) stationnaire / Chief Operating Engineer | $43 | $100,555 | $100,598 | 0.01 |

26) Create a pivot table (discussed in the textbook on pages 87-99).

27) Remember, Excel has an annoying habit of inserting columns and worksheets to the left. If you're more comfortable reading left-to-right, simply drag the worksheet tab to the right of your "Carleton_UofO" worksheet and label it "PivotTable_Employee_Count".

Carleton_UofO    PivotTable_Employee_Count
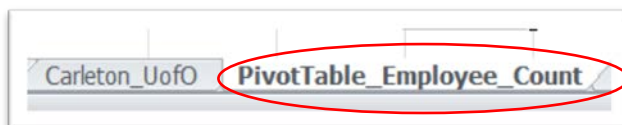
28) Drag the "Employer" column in the pivot table's "Row Labels" section, and place the "Total _Salary" in "Values" section.

29) Make sure to "Count" – not "SUM" – the values, to give us the number of employees for each institution.



30) So University of Ottawa has 1.8, or almost double the number of employees earning more than $100,000.

31) The problem with raw numbers is that they usually lack context. For example, it could be that U. of O. has more employees in this income bracket because it's a larger university.

32) That's easy enough to check by consulting the fact sheets for Carleton the U. of O.

## Carleton UNIVERSITY

Search

## About Carleton

WELCOME    FACTS & REPORTS ∨    HISTORY    IN THE COMMUNITY    STRATEGIC PLAN    UNIVERSITY EXECUTIVE ∨    ABOUT OTTAWA    CONTACT

## Quick Facts

Note: these figures are based on 2013-14, unless otherwise noted.

### Students (November 1, 2013)

| | |
|---|---|
| Full-time undergraduate: 19,910 | Full-time graduate: 3,047 |
| Part-time undergraduate: 4,239 | Part-time graduate: 627 |
| Total undergraduate: 24,149 | Total graduate: 3,674 |
| Total full-time: 22,957 | Total part-time: 4,866 |
| Total: 27,823 | |

33)

## UNIVERSITY OF OTTAWA - QUICK FACTS 2013

uOttawa
L'Université canadienne
Canada's university

- Largest bilingual (English-French) university in the world
- World's first French immersion undergraduate program
- Among Canada's top 10 research universities
- Located in Ottawa, Canada's capital city, within walking distance of Parliament Hill
- About 200 undergraduate programs and over 185 graduate programs
- Fourth largest co-operative education program in Canada

### STUDENTS (Fall 2012)

#### ADMISSIONS*

| | Undergraduate | Graduate |
|---|---|---|
| Applications | 56,200 | 8,100 |
| Enrollments | 9,900 | 2,200 |

*Excludes undergraduate admissions to the Faculty of Medicine and transfers between direct-entry faculties. Figures are rounded to the nearest hundred.

#### UNDERGRADUATE ACADEMIC PROFILE (Fall 2011)*

| | |
|---|---|
| Admission average | 82.9% |
| % of students with an admission average of 85% or higher | 41.1% |

*Students entering directly from an Ontario secondary school.
Source: Ontario Universities Application Centre (OUAC)

#### FINANCIAL AID TO STUDENTS (2011-2012)

| | $ millions |
|---|---|
| Scholarships and bursaries* | |
|   Undergraduate | 39.0 |
|   Graduate | 28.5 |
| Teaching assistantships | 15.2 |
| Research assistantships | 21.7 |
| Work-Study Program | 6.3 |

* Includes internal and external sources of funding

#### CO-OP PROGRAMS

| | Undergraduate | Graduate |
|---|---|---|
| Number of programs | 68 | 7 |

#### ENROLLMENT

| By program and gender | Female | Male | Total |
|---|---|---|---|
| Undergraduate | 21,459 | 14.241 | 35,700 |
| Master's | 2,510 | 1,788 | 4,298 |
| Doctorate | 903 | 833 | 1,736 |
| Other graduate | 201 | 92 | 293 |

| By language used | | Headcount | % of total |
|---|---|---|---|
| English | | 29,035 | 69.1 |
| French | | 12,992 | 30.9 |

| By faculty | Under. | Grad. | Total | % |
|---|---|---|---|---|
| Arts | 6,464 | 832 | 7296 | 17.4 |
| Education | 1,609 | 737 | 2346 | 5.6 |
| Engineering | 2,623 | 1103 | 3,726 | 8.9 |
| Health Sciences | 3,918 | 710 | 4,628 | 11.0 |
| Law | 2,079 | 148 | 2,227 | 5.3 |
| Management (Telfer) | 3,870 | 297 | 4,167 | 9.9 |
| Medicine | 2,148 | 460 | 2,608 | 6.2 |
| Science | 4,037 | 471 | 4,508 | 10.7 |
| Social Sciences | 8,952 | 1,357 | 10,309 | 24,5 |
| Programs administered by Graduate Studies | | 212 | 212 | 0.5 |
| **Total** | **35,700** | **6,327** | **42,027** | **100.0** |

34)     27, 823 students are enrolled in Carleton, compared to 42,027 at the University of Ottawa. U. of O., then, has an enrollment that is 50% higher. However, it possesses twice as many employees in the $100,000-plus income bracket compared to Carleton.

35)     While interesting, it's still difficult to compare the two without using a rate. In this case, the number $100,000-plus employees per thousand students. Rates allow for comparison when discussing everything from crime to poverty. Rates allow for comparisons between countries, provinces, cities, neighborhoods, and so on.

36)     To get the rate for the two universities, create a new column to the right of the pivot table's "Count of Total-Salary" column, and call it "Enrolment."

37)     Plug in the enrolment for Carleton and for the U. of O.

| | A | B | C |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | Row Labels | Count of Total_Salary | Enrolment |
| 4 | Carleton University | 698 | 27,823 |
| 5 | Université d'Ottawa | 1246 | 42,027 |
| 6 | Grand Total | 1944 | |

38)     Create another column, call it Rate, and enter the formula that will produce the rate, in this case the number of employees

for every 1,000 students.

| | A | B | C | D |
|---|---|---|---|---|
| | D4 | ▼ | $f_x$ =(B4/C4)*1000 | |
| 1 | | | | |
| 2 | | | | |
| 3 | **Row Labels** ▼ | **Count of Total_Salary** | **Enrolment** | **Rate** |
| 4 | Carleton University | 698 | 27,823 | 25.1 |
| 5 | Université d'Ottawa | 1246 | 42,027 | 29.6 |
| 6 | **Grand Total** | **1944** | | |

39)     Check out the formula in the formula bar above columns B and C. We divided the number of employees by the number of students, placed that calculation in bracket so that Excel performs it first, and then multiply by 1,000 to obtain the rate per 1,000 students. We used 1,000, but could have really used a higher or lower number.  For instance, it could have been the number of employees for every 10,000 students, a rate that would make have made more sense if enrolment for both institutions was in the tens of thousands. (Consult pages 81 and 82 of the textbooks to learn more about calculating rates.)

40)     So now we can compare the two universities. The University of Ottawa has a higher rate, or ratio, of employees earning more than $100,000.