

Summing and Counting in Google Sheets

using political donations data

1. Upload the csv file to Google Sheets

The screenshot shows a Google Sheet with the following data:

	A	B	C	D	E	F	G	H
1	DATE	TITLE	RETURN_STATUS					
2	Sep 12, 2018 03:	Part 2b - Statem	Data_as_submitted					
3								
4	GROUP_DATA							
5	Client_id	Political_Party	Return_type	Fiscal_period				
6	36035	Conservative Pa	Annual	2017				
7								
8	DETAIL_DATA							
9	Client_id	No	Contributor_last	Contributor_first	Contributor_mid	City	Province	Postal_code
10	36035	40065	<Anonymous>	Donation		OTTAWA	ON	K1P5G4
11	36035	12995	Aalbers	Henry	M	MACGREGOR	MB	R0H0R0
12	36035	17777	Aarbo	Elaine	F	ELK POINT	AB	T0A1A0
13	36035	26051	Aarbo	Jens	A	ELK POINT	AB	T0A1A0
14	36035	10224	Aaron	Jay		MONTREAL-OU	QC	H4X1N4
15	36035	41536	Aarssen	Peter	E	WYOMING	ON	N0N1T0
16	36035	5569	Aasen	Murray	K	TORONTO	ON	M4S3G4
17	36035	38428	Abarbanel	Noga		OTTAWA	ON	K1T3P1
18	36035	4088	Abbas	Sarah	A	REGINA	SK	S4W0R5
19	36035	26050	Abbatiello	Élisabeth		QUEBEC	QC	G2K1V2
20	36035	28783	Abbatiello	Frédéric		QUEBEC	QC	G1C8B4
21	36035	22714	Abbatiello	Gino	D	SAINT-GEORGE	QC	G5Z0A6
22	36035	28781	Abbatiello	Guillaume		QUEBEC	QC	G2L1A3

2. Copy and paste the table into a new worksheet and give it a name.

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Secure | <https://docs.google.com/spreadsheets/d/17D1gNgqsskvE53WEFuoB4Jk>

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ConservativeLeadershipContributions

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	A	B	C	D	E	F	G	H
1	DATE	TITLE	RETURN STATUS					
2	Sep 12,							
3								
4	GROUP							
5	Client_x			al_period				
6				2017				
7								
8	DETAIL							
9	Client_x			tributor_first	Contributor_mid	City	Province	Postal_co
10				ation		OTTAWA	ON	K1P5G4
11				ry	M	MACGREGOR	MB	R0H0R0
12				ne	F	ELK POINT	AB	T0A1A0
13				s	A	ELK POINT	AB	T0A1A0
14						MONTREAL-OU	QC	H4X1N4
15				ir	E	WYOMING	ON	N0N1T0
16				ray	K	TORONTO	ON	M4S3G4
17				a		OTTAWA	ON	K1T3P1
18				h	A	REGINA	SK	S4W0R5
19				abeth		QUEBEC	QC	G2K1V2
20				Jéric		QUEBEC	QC	G1C8B4
21				o	D	SAINT-GEORGE	QC	G5Z0A6
22				laime		QUEBEC	QC	G2H1A3

+

- Cut Ctrl+X
- Copy Ctrl+C
- Paste Ctrl+V
- Paste special >
- Insert 43748 rows
- Insert 15 columns
- Insert cells >
- Delete rows 1 - 43748
- Delete columns A - O
- Delete cells >
- Sort range...
- Randomise range
- Convert to links
- Unlink
- Insert link
- Open links Alt+Enter

ConservativeLeadershipContributions

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fx Conservative Party of Canada

	A	B	C	D	E	F	G
1	DATE	TITLE	RETURN_STATUS				
2	Sep 12, 2018 03:	Part 2b - Statem	Data_as_submitted				
3							
4	GROUP_DATA						
5	Client_id	Political_Party	Return_type	Fiscal_period			
6	36035	Conservative Pa	Annual	2017			
7							
8	DETAIL_DATA						
9	Client_id	No	Contributor_last	Contributor_first	Contributor_mid	City	Province
10	36035	40065	<Anonymous>	Donation		OTTAWA	ON
11	36035	12995	Aalbers	Henry	M	MACGREGOR	MB
12	36035	17777	Aarbo	Elaine	F	ELK POINT	AB
13	36035	26051	Aarbo	Jens	A	ELK POINT	AB
14	36035	10224	Aaron	Jay		MONTREAL-OU	QC
15	36035	41536	Aarssen	Peter	E	WYOMING	ON
16	36035	5569	Aasen	Murray	K	TORONTO	ON
17	36035	38428	Abarbanel	Noga		OTTAWA	ON
18	36035	4088	Abbas	Sarah	A	REGINA	SK
19	36035	26050	Abbatiello	Élisabeth		QUEBEC	QC
20	36035	28783	Abbatiello	Frédéric		QUEBEC	QC
21	36035	22714	Abbatiello	Gino	D	SAINT-GEORGE	QC
22	36035	28781	Abbatiello	Guillaume		QUEBEC	QC

+ ≡ ConservativeLeadershipContributions WorkingCopy Sheet2 Sheet3

3. Delete the first eight rows, and the three rows beneath the table so that we have a clean worksheet at the top and bottom.



ConservativeLeadershipContributions



File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

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	A	B	C	D	E	F
1	DATE	TITLE	RETURN_STATUS			
2	Sep 12, 2018 03	Part 2b - Statem	Data_as_submitted			
3						
4	GROUP_DATA					
5	Client_id	Political_Party	Return type	Fiscal period		
6	36035	Conservative				
7						
8	DETAIL_DATA					
9	Client_id	No				
10	36035	400				
11	36035	129				
12	36035	177				
13	36035	260				
14	36035	102				
15	36035	415				
16	36035	55				
17	36035	384				
18	36035	40				
19	36035	260				
20	36035	287				
21	36035	227				
22	36035	287				

- Cut Ctrl+X
- Copy Ctrl+C
- Paste Ctrl+V
- Paste special
- Insert 8 above
- Insert 8 below
- Delete rows 1 - 8
- Clear rows 1 - 8
- Hide rows 1 - 8
- Resize rows 1 - 8...
- Group rows 1 - 8
- Ungroup rows 1 - 8
- Get link to this range

or_midc	City	Pr
	OTTAWA	OM
	MACGREGOR	ME
	ELK POINT	AB
	ELK POINT	AB
	MONTREAL-OU	QC
	WYOMING	OM
	TORONTO	OM
	OTTAWA	OM
	REGINA	SK
	QUEBEC	QC
	QUEBEC	QC
	SAINT-GEORGE	QC
	QUEBEC	QC

+ ConservativeLead Sheet2 Sheet3

The screenshot shows a Google Sheets interface with the following data in the visible table:

	D	E	F	
43722	Roman	W	ETOBICOKE	ON
43723	Alexandre	A	TORONTO	ON
43724	Gerald		CARRYING PLA	ON
43725	Marienes		MOUNTAIN	ON
43726	Marienes		MOUNTAIN	ON
43727	Maureen	A	KITCHENER	ON
43728	Josie	A	BRAMPTON	ON
43729	Lindsay	J	ORLEANS	ON
43730	Martin		CHILLIWACK	BC
43731	May	E	LONDON	ON
43732	Meagan	J	Springfield	MB
43733	Zehavi		THORNHILL	ON
43734	Brian	G	GRAY CREEK	BC
43735				
43736	TOTAL_I			
43737	Client_id		our Amount_transferred	
43738	36035	6648351.51	6648351.51	6019467.66
43739				
43740				

- Now that we have a clean table, we want to determine who raised the most money and attracted the highest number of donors, two calculations that can yield interesting results. To do this, we will create a pivot table.
- Place your cursor anywhere inside the table, go to the “data” portion on the menu across the top, and select “Pivot table”.

ConservativeLeadershipContributions

File Edit View Insert Format Data Tools Add-ons Help All changes saved in

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<Anonymous>

	C	D		H	
1	Contributor_last	Contributor_first	Contrib	Postal_code	
2	<Anonymous>	Donation		K1P5G4	
3	Aalbers	Henry	M	R0H0R0	
4	Aarbo	Elaine	F	T0A1A0	
5	Aarbo	Jens	A	T0A1A0	
6	Aaron	Jay		H4X1N4	
7	Aarssen	Peter	E	N0N1T0	
8	Aasen	Murray	K	M4S3G4	
9	Abarbanel	Noga		K1T3P1	
10	Abbas	Sarah	A	S4W0R5	
11	Abbatiello	Élisabeth		G2K1V2	
12	Abbatiello	Frédéric		G1C8B4	
13	Abbatiello	Gino	D	G5Z0A6	
14	Abbatiello	Guillaume		G2J1A3	
15	Abbatiello	Sébastien		G1H5M9	
16	Abbey	Beatrice	C	V7J3G9	
17	Abbey	David	J	MAPLE RIDGE BC	V2X6B9
18	Abbott	Christa	L	PORT AU PORT NL	A0N1T0
19	Abbott	David	G	NEEPAWA MB	R0J1H0
20	Abbott	David	G	NEEPAWA MB	R0J1H0
21	Abbott	Elizabeth		HUDSON QC	J0P1H0
22	Abbott	Elizabeth		HUDSON QC	J0P1H0

Sort sheet by column C, A → Z

Sort sheet by column C, Z → A

Sort range...

Create a filter

Filter views...

Data validation...

Pivot table...

Randomise range

Named ranges...

Protected sheets and ranges...

Split text into columns...

Group Alt+Shift+→

Ungroup Alt+Shift+←

ConservativeLeadershipContributions WorkingCopy Sheet2 Sheet3

ConservativeLeadershipContributions

File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

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	A	B	C	D	E	F	G	H	I	J	K	L
1		Columns										
2	Rows	Values										
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												

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Suggested

- Number of unique Contributor_last_name for each Province
- Number of unique Contributor_first_name for each Leadership_contestant
- Number of unique City for each Contributor_middle_initial

Rows [ADD](#)

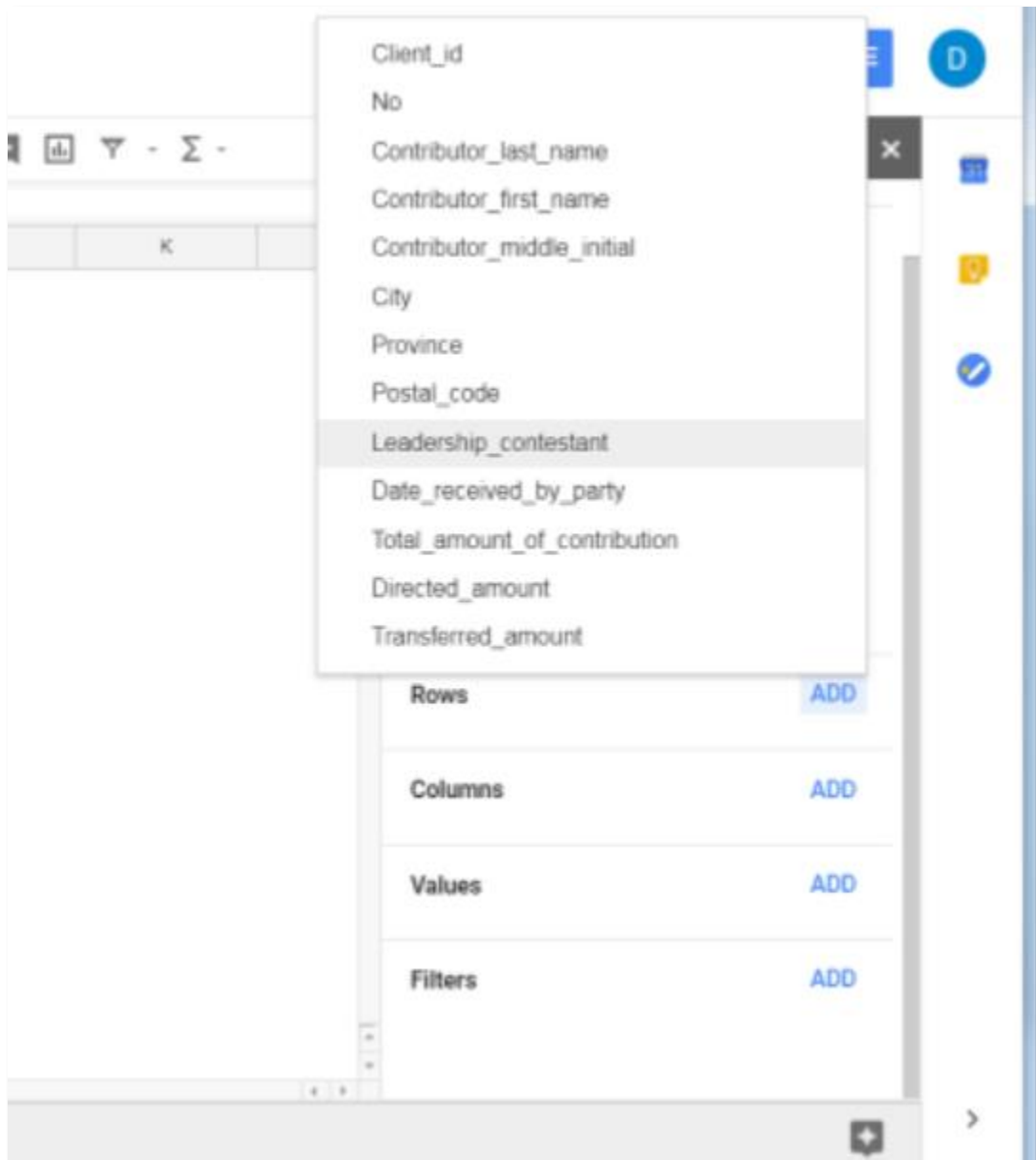
Columns [ADD](#)

Values [ADD](#)

Filters [ADD](#)

ConservativeLeadershipContributions WorkingCopy Pivot Table 1 Sheet2 Sheet3

6. Select the “ADD” tab to the right of the “Rows” option in the “Pivot table editor”, and then “Leadership_contestant”.



7. In the “Values” section of the “Pivot table editor”, use the same method to add the “Total_amount_of_contribution” column.

- Client_id
- No
- Contributor_last_name
- Contributor_first_name
- Contributor_middle_initial
- City
- Province
- Postal_code
- Leadership_contestant
- Date_received_by_party
- Total_amount_of_contribution
- Directed_amount
- Transferred_amount

Calculated Field

Values

ADD

Filters

ADD

Leadership_contestant	SUM of Total_amount_of_contribution
Andrew Saxton	102533.25
Andrew Scheer	667093.85
Brad Trost	252416.36
Chris Alexander	135483
Daniel Lindsay	4025
Deepak Ohrai	24619.5
Erin O'Toole	675198.2
Kellie Leitch	722069.96
Kevin O'Leary	1406645.48
Lisa Raitt	281201.5
Maxime Bernier	1479308.07
Michael Chong	394610
Pierre Lemieux	331412.84
Rick Peterson	78433
Steven Blaney	61477.5
Tony Clement	31825
Grand Total	6648351.51

8. Let's format the numbers as currency.

Leadership_contestant	SUM of Total_amount_of_contribution
Andrew Saxton	102533.25
Andrew Scheer	667093.85
Brad Trost	252416.36
Chris Alexander	135483
Daniel Lindsay	4025
Deepak Ohrai	24619.5
Erin O'Toole	675198.2
Kellie Leitch	722069.96
Kevin O'Leary	1406645.48
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Maxime Bernier	1479308.07
Michael Chong	394610
Pierre Lemieux	331412.84
Rick Peterson	78433
Steven Blaney	61477.5
Tony Clement	31825
Grand Total	6648351.51

9. In the "Pivot table editor" to the right, under the "Order" subheading in the "Rows" selection, chose "Descending", and "SUM of Total" under the "Sort by" heading.

Pivot table editor [Close]

WorkingCopy!A1:M43734 [Grid Icon]

Suggested [Dropdown Arrow]

Rows [ADD]

Leadership_contestant [X]

Order: Descending [Dropdown Arrow] Sort by: SUM of Total_... [Dropdown Arrow]

Show totals

Columns [ADD]

Values [ADD]

Total_amount_of_contribution [X]

Summarise by: SUM [Dropdown Arrow] Show as: Default [Dropdown Arrow]

Filters [ADD]

	A	B	C	D
1	Leadership_cont	SUM of Total_ar		
2	Maxime Bernier	\$1,479,308.07		
3	Kevin O'Leary	\$1,408,645.48		
4	Kellie Leitch	\$722,089.98		
5	Erin O'Toole	\$875,198.20		
6	Andrew Scheer	\$867,093.85		
7	Michael Chong	\$394,610.00		
8	Pierre Lemieux	\$331,412.84		
9	Lisa Raitt	\$281,201.50		
10	Brad Trost	\$252,416.38		
11	Chris Alexander	\$135,483.00		
12	Andrew Saxton	\$102,533.25		
13	Rick Peterson	\$78,433.00		
14	Steven Blaney	\$61,477.50		
15	Tony Clement	\$31,825.00		
16	Deepak Obhrai	\$24,618.50		
17	Daniel Lindsay	\$4,025.00		
18	Grand Total	\$6,648,351.51		
19				
20				
21				
22				
23				

10. Now that we know Maxime Bernier raised the most cash, let's see who had the largest number of donors.
11. Select the "ADD" tab to the right of "Values" in the "Pivot table editor".
12. Add "Client_ID. But instead of summarising by "SUM", we will summarise by "COUNT", which you can obtain from the short-cut menu by clicking the downward arrow.

Rows

ADD

Leadership_contestant

×

SUM

COUNTA

COUNT

COUNTUNIQUE

AVERAGE

MAX

MIN

MEDIAN

PRODUCT

STDEV

STDEVP

VAR

VARP

ADD

ADD

×

×

SUM

▼

Default

▼

Filters

ADD

The screenshot shows a Google Sheets spreadsheet with the following data:

	A	B	C	D	E	F	G
1	Leadership_cont	SUM of Total_arr	COUNT of Client				
2	Maxime Bernier	\$1,479,308.07	9716				
3	Kevin O'Leary	\$1,406,645.48	10779				
4	Kellie Leitch	\$722,089.98	4389				
5	Erin O'Toole	\$675,198.20	3077				
6	Andrew Scheer	\$667,093.85	4265				
7	Michael Chong	\$394,610.00	1807				
8	Pierre Lemieux	\$331,412.84	3973				
9	Lisa Raitt	\$281,201.50	1435				
10	Brad Trost	\$252,416.36	2032				
11	Chris Alexander	\$135,493.00	459				
12	Andrew Saxton	\$102,533.25	280				
13	Rick Peterson	\$78,433.00	361				
14	Steven Blaney	\$61,477.50	1016				
15	Tony Clement	\$31,825.00	41				
16	Deepak Obhrai	\$24,618.50	99				
17	Daniel Lindsay	\$4,025.00	4				
18	Grand Total	\$6,648,351.51	43733				
19							
20							
21							
22							
23							
24							

13. We can see that Maxime Bernier had fewer donors than Kevin O'Leary.

14. To sort the "Count of Client" in descending order, return to the "Pivot table editor", click the downward arrow under the "Sort by" option in the "Rows" section, and select the "Count of

Client_ID" option.

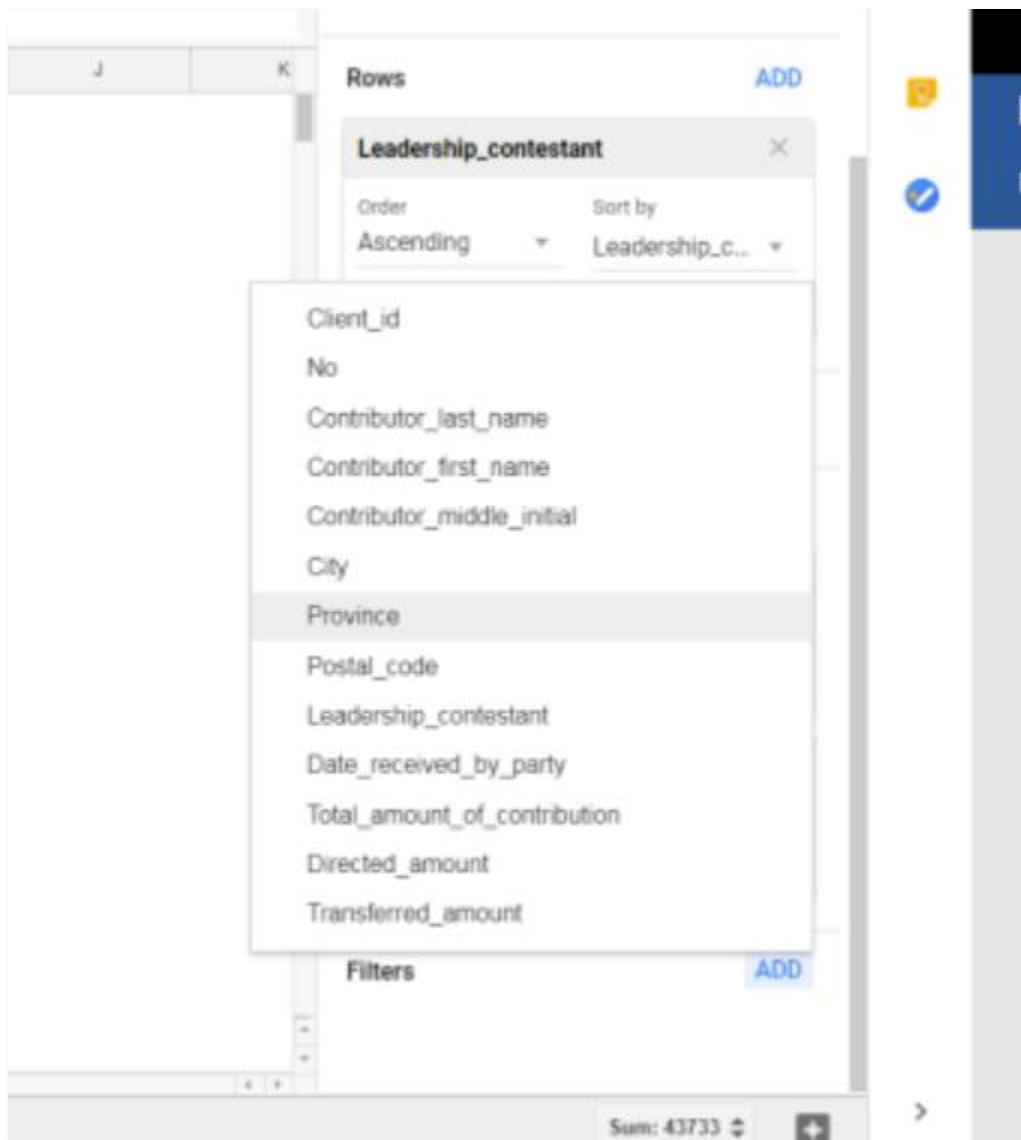
The image shows a screenshot of a Pivot table editor interface. The main window is titled "Pivot table editor" and contains a Pivot table with columns labeled "M" and "N". The editor is currently editing the "Leadership_contestant" field. A dropdown menu is open, showing three options: "Leadership_contestant", "SUM of Total_amount_of_contribution", and "COUNT of Client_id". The "COUNT of Client_id" option is highlighted with a red rectangular box. The editor also shows settings for "Order" (Descending) and "Sort by" (SUM of Total...). Below the dropdown, there are settings for "Values as: Columns" (Columns) and "Summarise by" (SUM), with "Show as" set to Default.

15. Since the order is already “descending”, we don’t have to worry about sorting.

	A	B	C	D	E	F
1	Leadership_cont	SUM of Total_arr	COUNT of Client			
2	Kevin O'Leary	\$1,406,645.48	10779			
3	Maxime Bernier	\$1,479,308.07	9716			
4	Kellie Leitch	\$722,089.98	4389			
5	Andrew Scheer	\$667,093.85	4265			
6	Pierre Lemieux	\$331,412.84	3973			
7	Erin O'Toole	\$675,198.20	3077			
8	Brad Trost	\$252,416.38	2032			
9	Michael Chong	\$394,610.00	1807			
10	Lisa Raitt	\$281,201.50	1435			
11	Steven Blaney	\$61,477.50	1016			
12	Chris Alexander	\$135,483.00	459			
13	Rick Peterson	\$78,433.00	361			
14	Andrew Saxton	\$102,533.25	280			
15	Deepak Obhrai	\$24,618.50	99			
16	Tony Clement	\$31,825.00	41			
17	Daniel Lindsay	\$4,025.00	4			
18	Grand Total	\$6,648,351.51	43733			
19						
20						
21						
22						

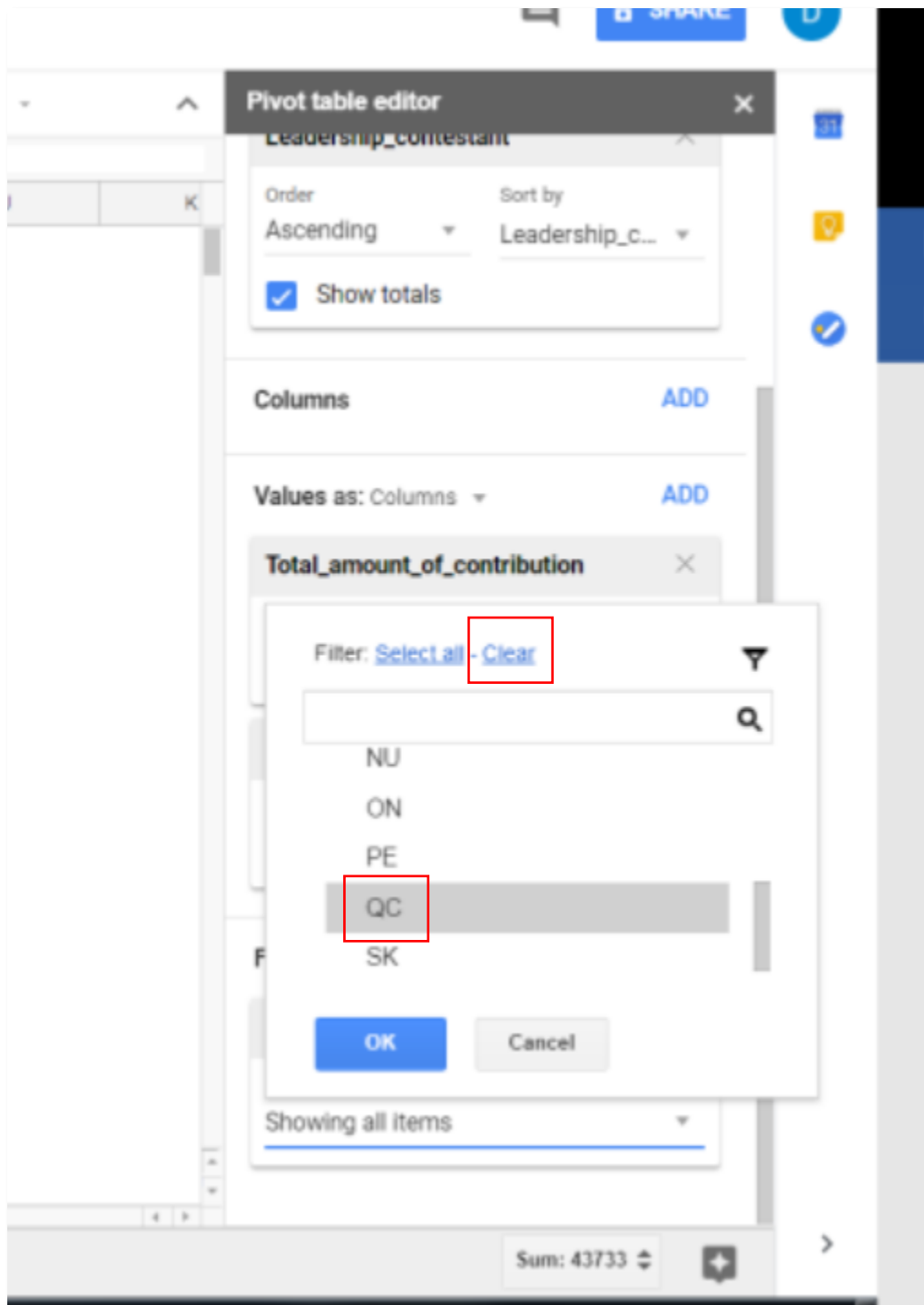
16. The highest number of folks donated to Kevin O’Leary.
17. Summing and counting the contributions results in different stories. Maxime Bernier raised the most money, but not the highest number of donors.
18. Now let’s use a filter to draw more analysis from the data. Quebec turned out to be an important province, a place one would expect native son Maxime Bernier to perform the best.

19. Select the ADD tab to the right of “Filters” in the “Pivot Table editor”.



20. Select “Province”.

21. Clear the selections in the resulting dialog box, and select QC (Quebec).



22. Bernier raised the most money in Quebec, as well as the highest number of donors, results which could provide a hint of how he'll do in La Belle Province in the federal election.
23. Try adding different provinces to the "Filters" section to see how the other jurisdictions fared.
24. You can also choose more than one province.
25. Selecting certain provinces, or combinations, conveys important information about how candidates fared in different parts of the country, resulting in possible follow-up stories in the days to come.