Mapping Ottawa Crime Rate Tutorial

In the previous tutorial, we created a table that provided the following: the actual number of crimes; the rate of offences per 100,000 calculated by the Ottawa police; the solvency percentage – an interesting statistic that we haven't really used, but is worth pursuing; and the added columns of "Year", "Ward", "Population" and the "Rate" per 1,000, a more realistic multiplier, given that most Ottawa wards only number in the tens of thousands as opposed to the hundreds of thousands.

Since it's broken down by ward, we're almost ready to pull this data into Google's Fusion Tables.

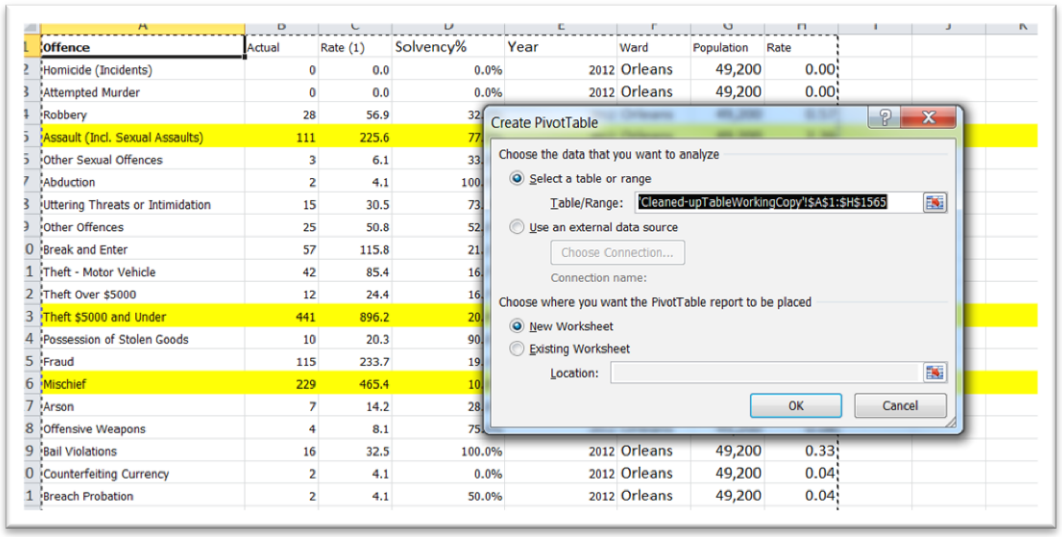
But first, a word about mapping, or data visualization (pages 107 to 111 in our textbook).

The key is figuring out what trend you want people to see. If you want to compare a common crime like break-and-enter rates for different wards, it's now possible because we've calculated the rate, or number of these incidents for every thousand residents. This allows us to create a map that identifies hotspots, using the darker colours to identify the troublesome locations.

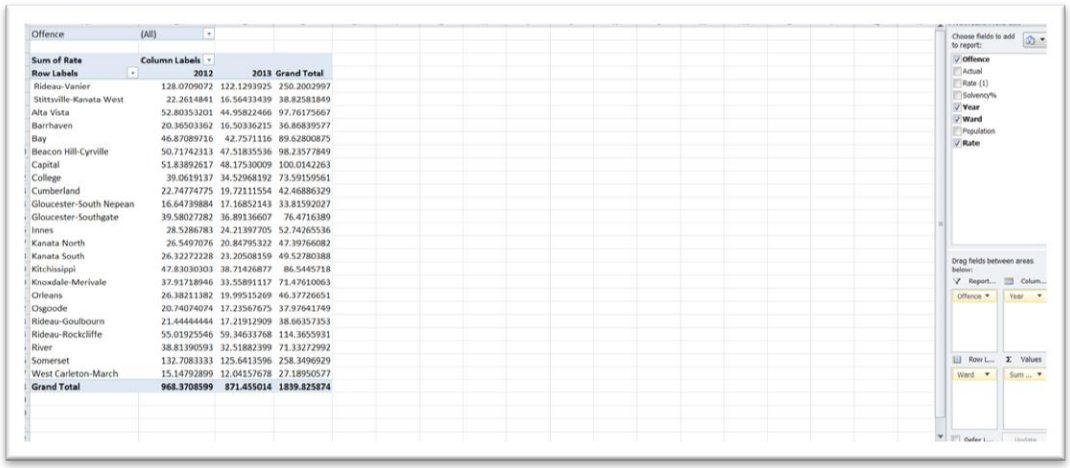
The first step to preparing this table is getting our cleaned-up data set into a pivot table, and then filtering it for the crime we want to map.

So let's get started!!

1) Create a pivot table.

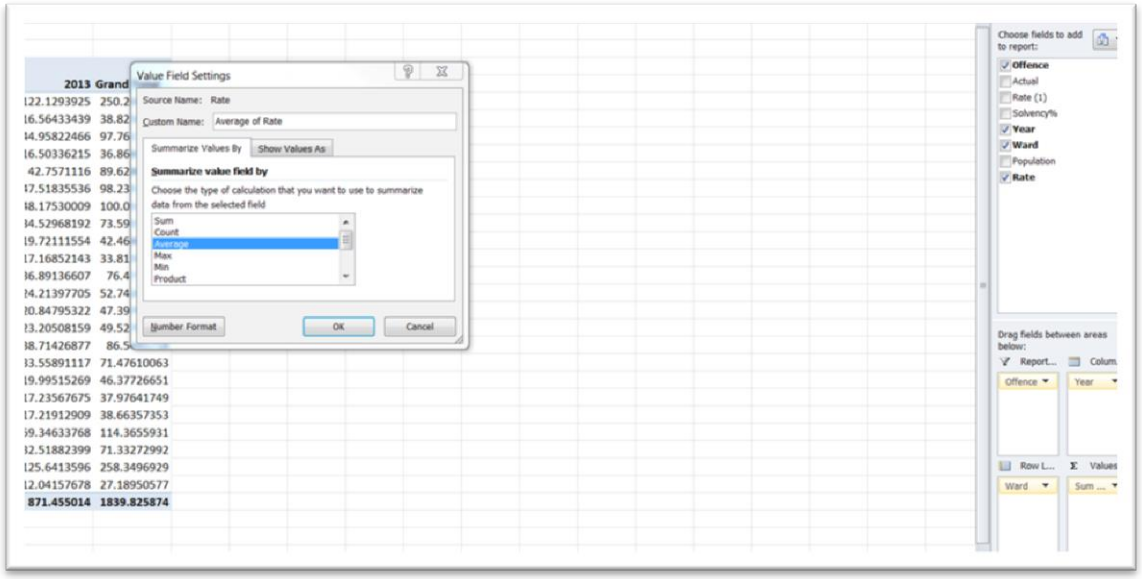


2) Place the Rate in the pivot table's "value" section, the wards in the "row" label section", and the Offence in the "report filter" section and the "year" in the "column" section.

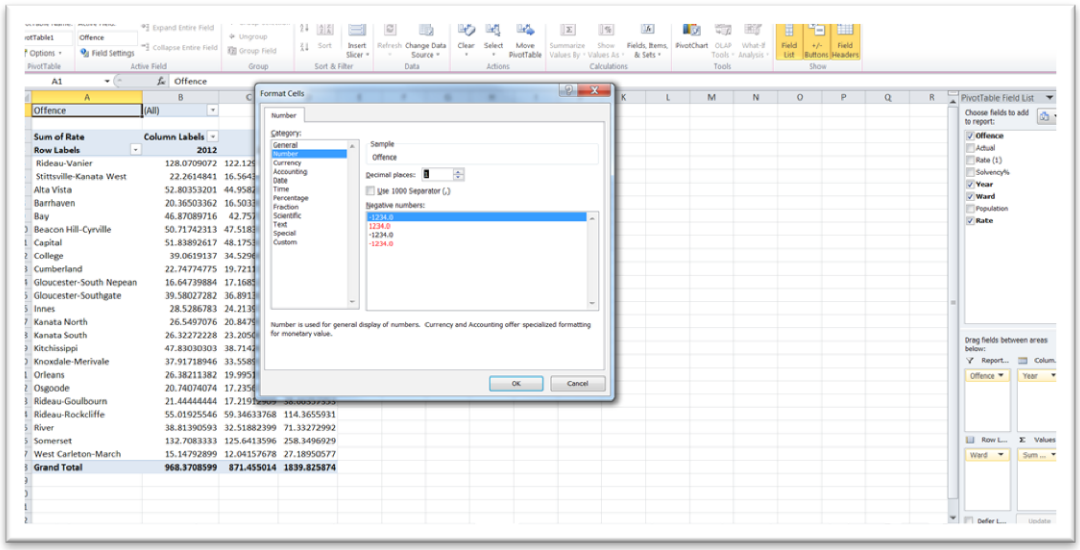


3) In the values section, let's ask the pivot table to take the "average" of the rates for the years 2012 and 2013. Average because when the police analyze crime rates, [they do so by comparing three-year periods]().
4) To obtain the average, our pivot table will simply display the values – in this case the rates we've calculated – in any format we tell it, and then take the average of the rates for the two years.

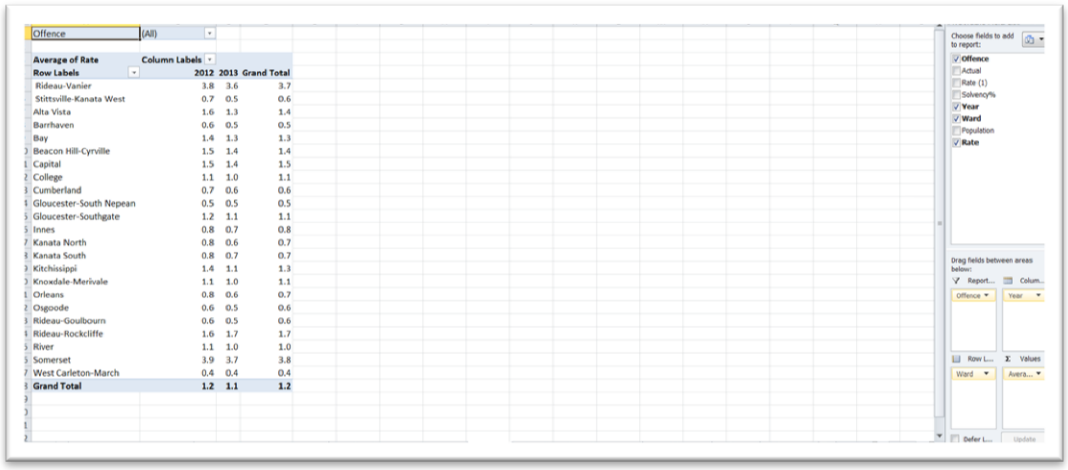
5) To get the average, go to the “value field settings” option in the pivot table’s value’s section, select the “Average” option in the dialog box ….



6) …….. and format the value as a number with one decimal place.



7) Select the OK tab to get back to the pivot table.



Offence	(All)

Average of Rate	Column Labels		
Row Labels	2012	2013	Grand Total
Rideau-Vanier	3.8	3.6	3.7
Stittsville-Kanata West	0.7	0.5	0.6
Alta Vista	1.6	1.3	1.4
Barrhaven	0.6	0.5	0.5
Bay	1.4	1.3	1.3
Beacon Hill-Cyrville	1.5	1.4	1.4
Capital	1.5	1.4	1.5
College	1.1	1.0	1.1
Cumberland	0.7	0.6	0.6
Gloucester-South Nepean	0.5	0.5	0.5
Gloucester-Southgate	1.2	1.1	1.1
Innes	0.8	0.7	0.8
Kanata North	0.8	0.6	0.7
Kanata South	0.8	0.7	0.7
Kitchissippi	1.4	1.1	1.3
Knoxdale-Merivale	1.1	1.0	1.1
Orleans	0.8	0.6	0.7
Osgoode	0.6	0.5	0.6
Rideau-Goulbourn	0.6	0.5	0.6
Rideau-Rockcliffe	1.6	1.7	1.7
River	1.1	1.0	1.0
Somerset	3.9	3.7	3.8
West Carleton-March	0.4	0.4	0.4
Grand Total	**1.2**	**1.1**	**1.2**

8) Select the Break and Enter offence in the pivot table's report

	A	B	C	D
1	Offence	Break and Enter		
2				
3	**Average of Rate**	**Column Labels**		
4	**Row Labels**	**2012**	**2013**	**Grand Total**
5	Rideau-Vanier	5.5	4.6	5.1
6	Stittsville-Kanata West	1.6	0.8	1.2
7	Alta Vista	5.0	3.6	4.3
8	Barrhaven	1.5	1.1	1.3
9	Bay	2.4	2.4	2.4
10	Beacon Hill-Cyrville	2.8	3.7	3.2
11	Capital	4.1	3.8	3.9
12	College	3.3	1.9	2.6
13	Cumberland	2.0	1.6	1.8
14	Gloucester-South Nepean	1.8	1.9	1.8
15	Gloucester-Southgate	2.0	2.1	2.0
16	Innes	1.8	1.2	1.5
17	Kanata North	2.3	0.9	1.6
18	Kanata South	1.5	1.2	1.3
19	Kitchissippi	6.0	3.5	4.8
20	Knoxdale-Merivale	2.5	2.1	2.3
21	Orleans	1.2	0.9	1.0
22	Osgoode	3.8	1.8	2.8
23	Rideau-Goulbourn	2.9	2.3	2.6
24	Rideau-Rockcliffe	3.9	4.3	4.1
25	River	3.1	2.0	2.6
26	Somerset	4.6	4.5	4.5
27	West Carleton-March	2.2	2.0	2.1
28	**Grand Total**	**2.9**	**2.4**	**2.6**
29				

filter.

9) Sort the Grand Total column in descending order.

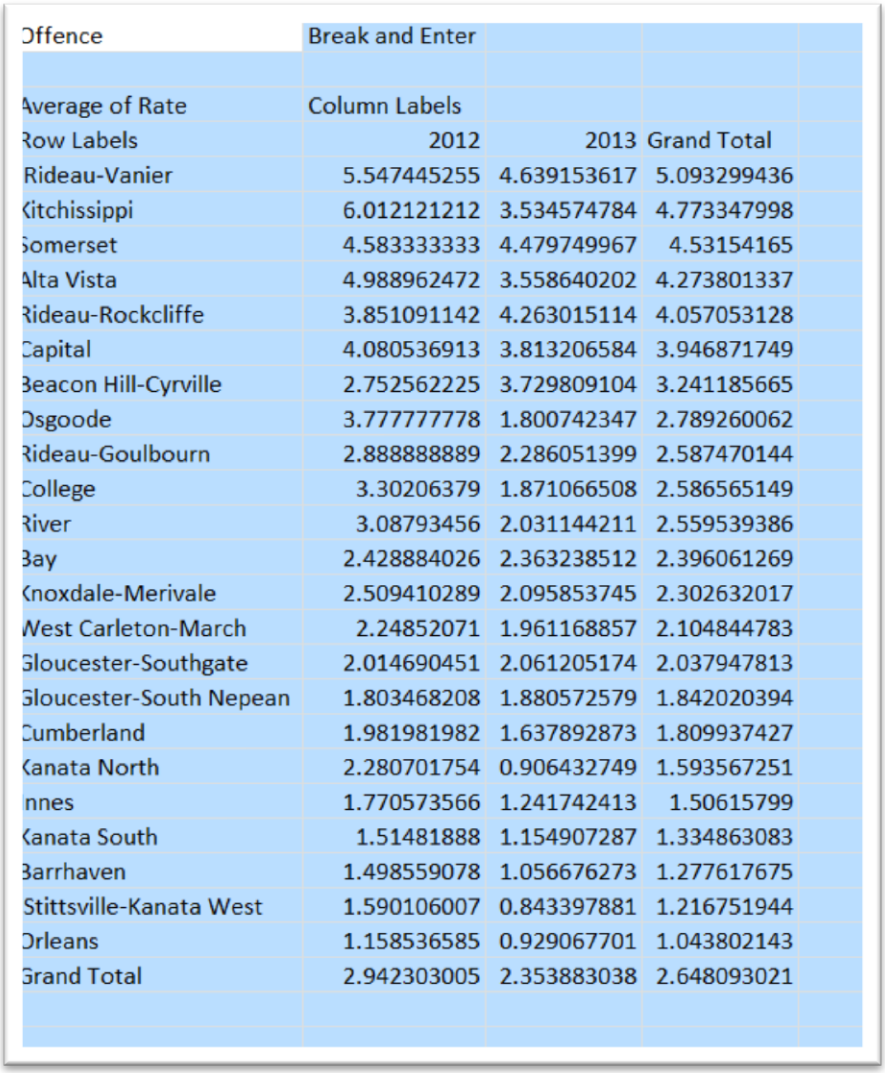
10) So let's break down what the pivot table has done: grouped the wards, displayed the rates of the offences by year, calculated the average of those two years in the "Grant Total" column, and then filtered the offences for just Break and Enter". We then sorted the Grand Total column in descending order to obtain the ward with the highest two-year average break-and-enter rate. But we're also free to just take the 2013 numbers if that's the year we

want to write about, given that it is the most recent data set of the Ottawa police's reported crime.

11) The largest number, Rideau-Vanier, is our hotspot, followed closely by Kitchissippi and Somerset. What's also interesting is Rideau-Rockcliffe – one of the nation capital's richest neighborhoods -- is also near the top and unlike many of the other wards, its rate is increasing.

12) Select the pivot table, and go to a new worksheet, using the paste special function (Pages 100-101 of the textbook), which allows us strips out the formula Excel used to create the pivot table and just give us the value or numbers. (NOTE: If you don't

use the past special, you'll just end up re-pasting the entire pivot

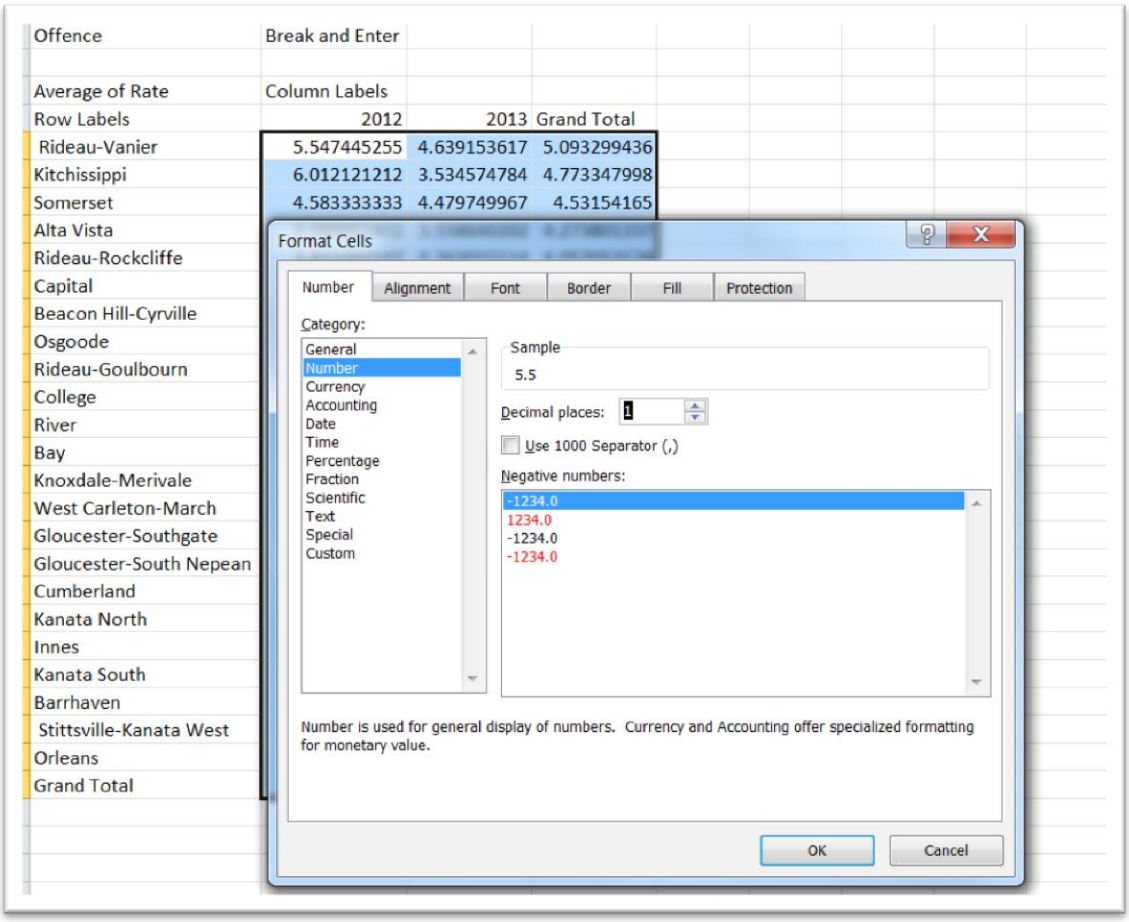


Offence	Break and Enter		
Average of Rate	Column Labels		
Row Labels	2012	2013	Grand Total
Rideau-Vanier	5.547445255	4.639153617	5.093299436
Kitchissippi	6.012121212	3.534574784	4.773347998
Somerset	4.583333333	4.479749967	4.53154165
Alta Vista	4.988962472	3.558640202	4.273801337
Rideau-Rockcliffe	3.851091142	4.263015114	4.057053128
Capital	4.080536913	3.813206584	3.946871749
Beacon Hill-Cyrville	2.752562225	3.729809104	3.241185665
Osgoode	3.777777778	1.800742347	2.789260062
Rideau-Goulbourn	2.888888889	2.286051399	2.587470144
College	3.30206379	1.871066508	2.586565149
River	3.08793456	2.031144211	2.559539386
Bay	2.428884026	2.363238512	2.396061269
Knoxdale-Merivale	2.509410289	2.095853745	2.302632017
West Carleton-March	2.24852071	1.961168857	2.104844783
Gloucester-Southgate	2.014690451	2.061205174	2.037947813
Gloucester-South Nepean	1.803468208	1.880572579	1.842020394
Cumberland	1.981981982	1.637892873	1.809937427
Kanata North	2.280701754	0.906432749	1.593567251
Innes	1.770573566	1.241742413	1.50615799
Kanata South	1.51481888	1.154907287	1.334863083
Barrhaven	1.498559078	1.056676273	1.277617675
Stittsville-Kanata West	1.590106007	0.843397881	1.216751944
Orleans	1.158536585	0.929067701	1.043802143
Grand Total	2.942303005	2.353883038	2.648093021

table.)

13) You'll notice that the paste special also strips away the formatting for the numbers. Reformat them with one decimal

place.



14) Since we know it's a break-and-enter table, let's label the worksheet tab as such, "BreakAndEnterTable".

15) Do some clean up. Delete the first two rows, and the “Grand Total row at the end because we won’t need it in Fusion Tables.

	A	B	C	D
1	Row Labels	2012	2013	Grand Total
2	Rideau-Vanier	5.5	4.6	5.1
3	Kitchissippi	6.0	3.5	4.8
4	Somerset	4.6	4.5	4.5
5	Alta Vista	5.0	3.6	4.3
6	Rideau-Rockcliffe	3.9	4.3	4.1
7	Capital	4.1	3.8	3.9
8	Beacon Hill-Cyrville	2.8	3.7	3.2
9	Osgoode	3.8	1.8	2.8
10	Rideau-Goulbourn	2.9	2.3	2.6
11	College	3.3	1.9	2.6
12	River	3.1	2.0	2.6
13	Bay	2.4	2.4	2.4
14	Knoxdale-Merivale	2.5	2.1	2.3
15	West Carleton-March	2.2	2.0	2.1
16	Gloucester-Southgate	2.0	2.1	2.0
17	Gloucester-South Nepean	1.8	1.9	1.8
18	Cumberland	2.0	1.6	1.8
19	Kanata North	2.3	0.9	1.6
20	Innes	1.8	1.2	1.5
21	Kanata South	1.5	1.2	1.3
22	Barrhaven	1.5	1.1	1.3
23	Stittsville-Kanata West	1.6	0.8	1.2
24	Orleans	1.2	0.9	1.0
25				

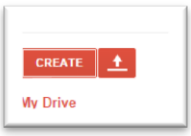
16) Change the “Row Labels” title in A1 to one that makes more sense. “Wards”, for instance.

17) Copy the table, open a new Excel work book and paste it, labeling the new workbook, “BreakAndEnterforFT”

18) This is the table we’ll pull into Fusion Tables.

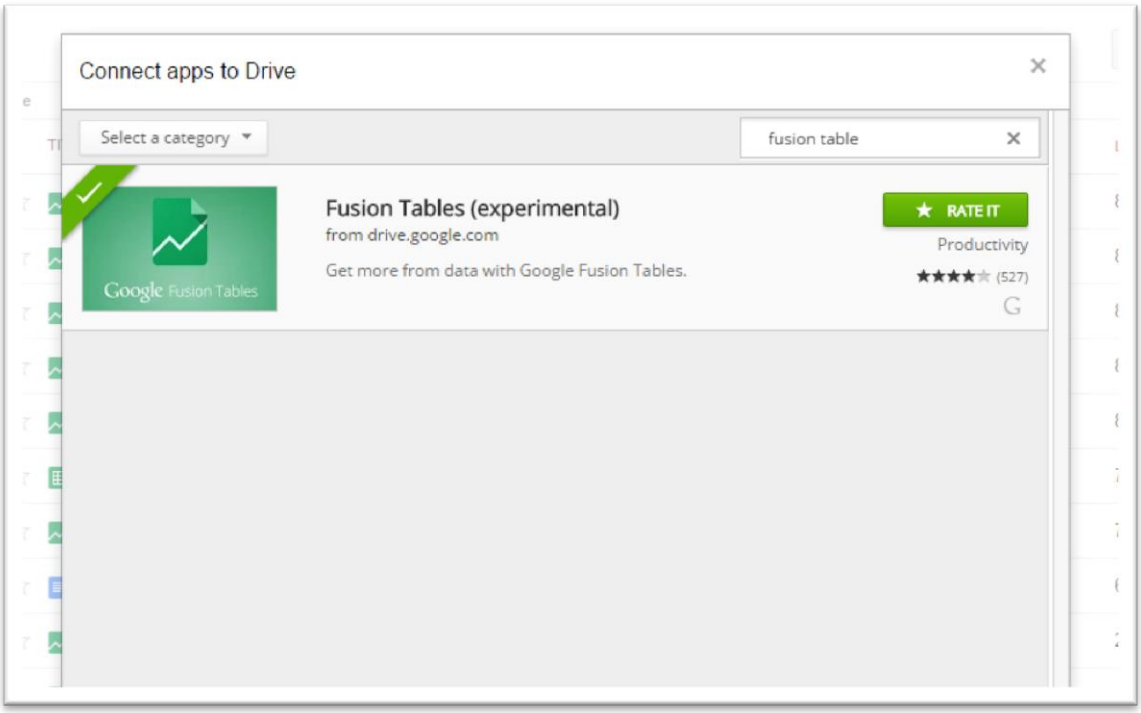
19) Go to your Google Drive.

20) Click on the “CREATE” tab to obtain your Fusion Table icon.



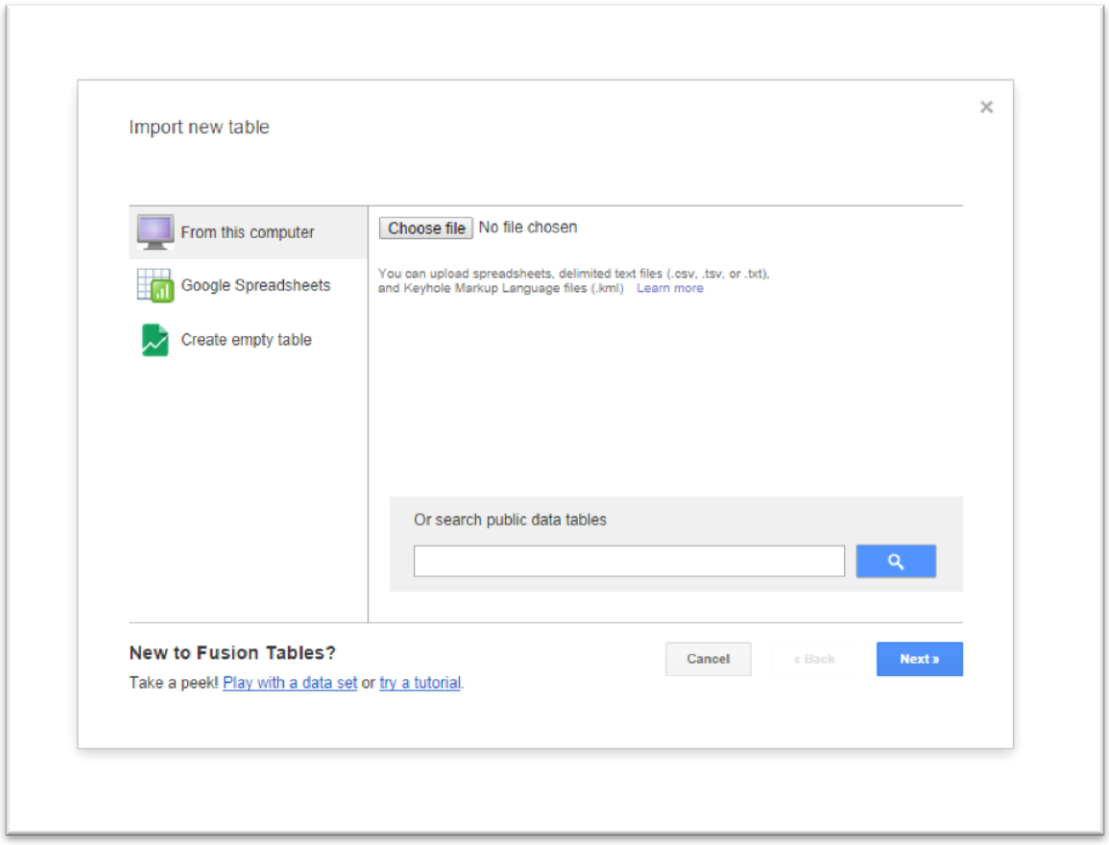
21) If you don’t have an icon, you’ll have to order one by clicking on the “Connect apps to Drive” option and typing “Fusion

Table” into the search bar.

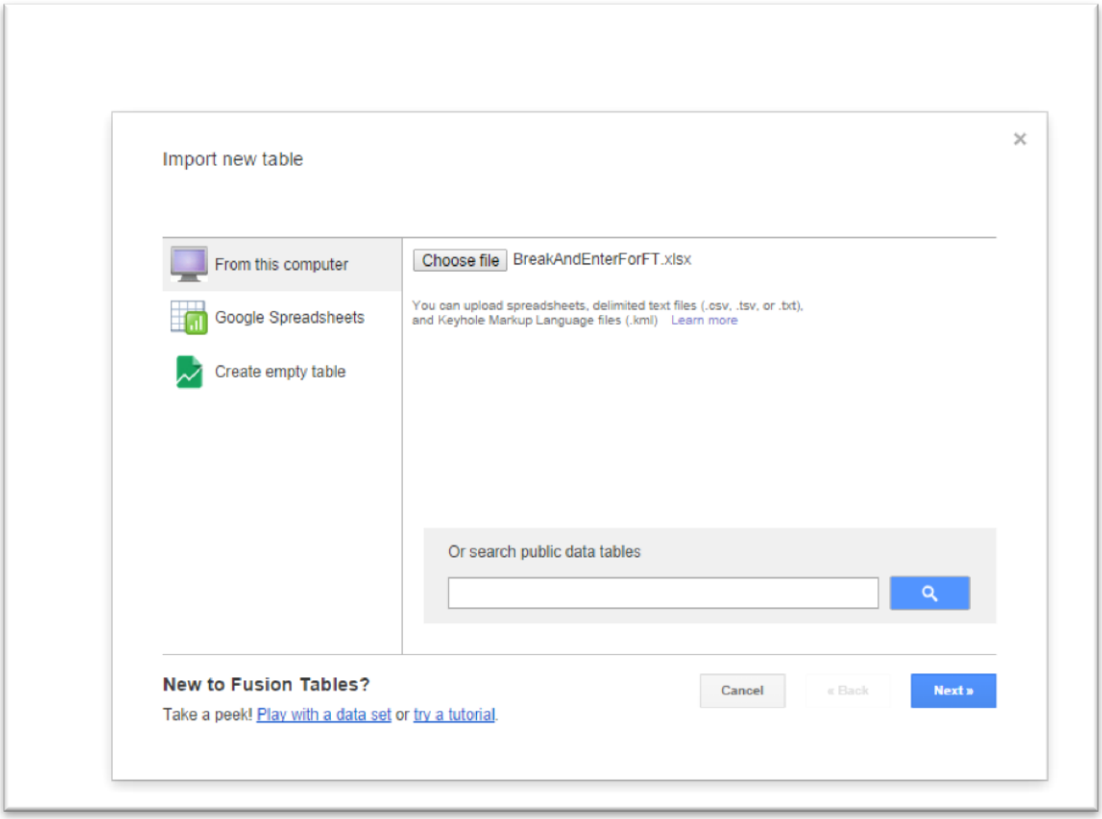


22) Fusion Tables is in a perpetual beta or experimental stage because Google is constantly improving it.

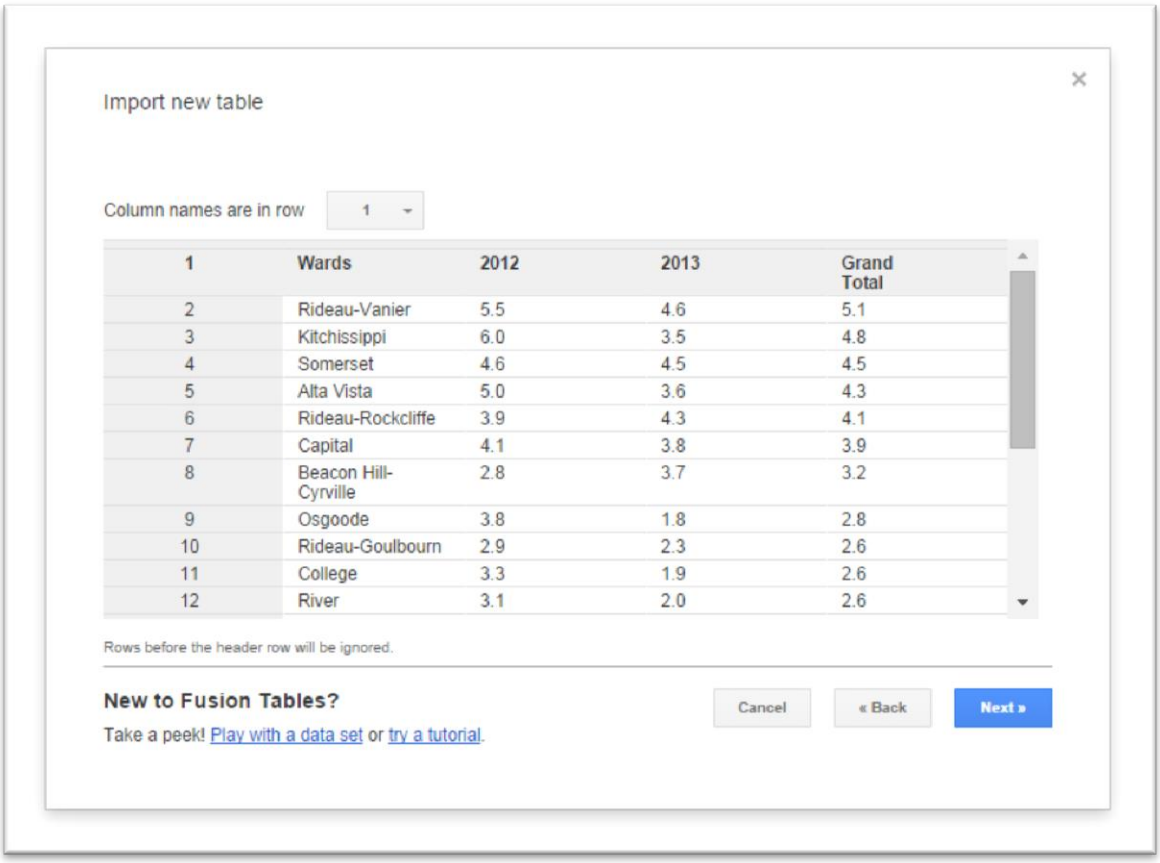
23) If you already have the icon, then select it to get to the "Import new table" box.



24) Browse for your file.



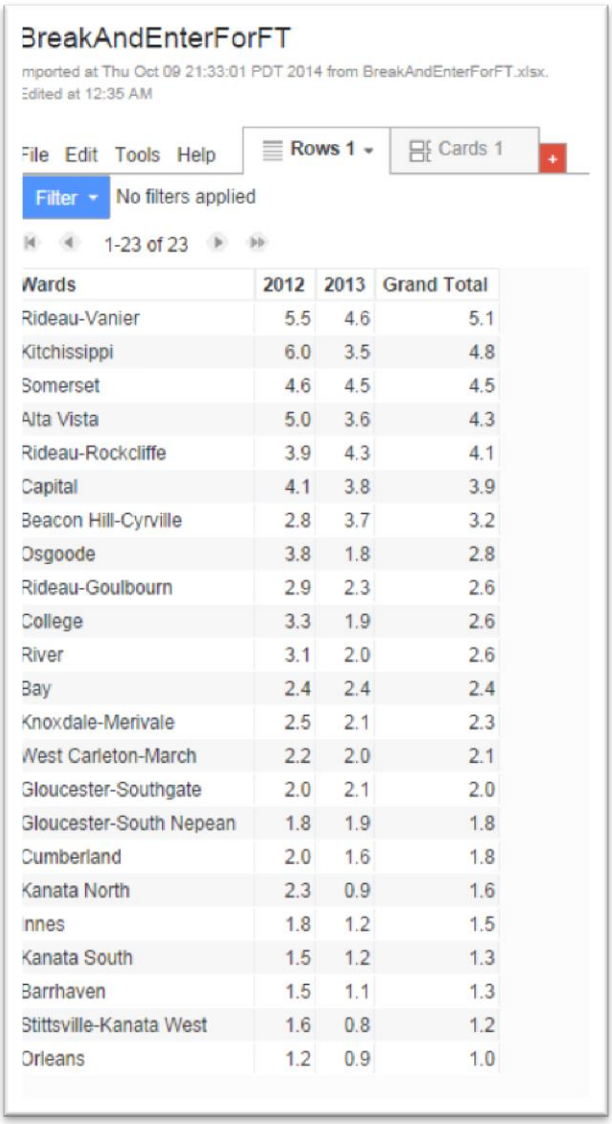
25) Select the “Next” tab.



26) Because we did the clean-up in Excel, a practice I would recommend, there is no need to give leave the “Column names are in row 1” setting as is and select the “Next” tab.

27) In the next dialog box, you’ll see a “Description” section where you can include extra details about the table that will be

for your eyes only. If you choose to ignore this, simply select the



BreakAndEnterForFT

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Edited at 12:35 AM

File Edit Tools Help | Rows 1 | Cards 1

Filter | No filters applied

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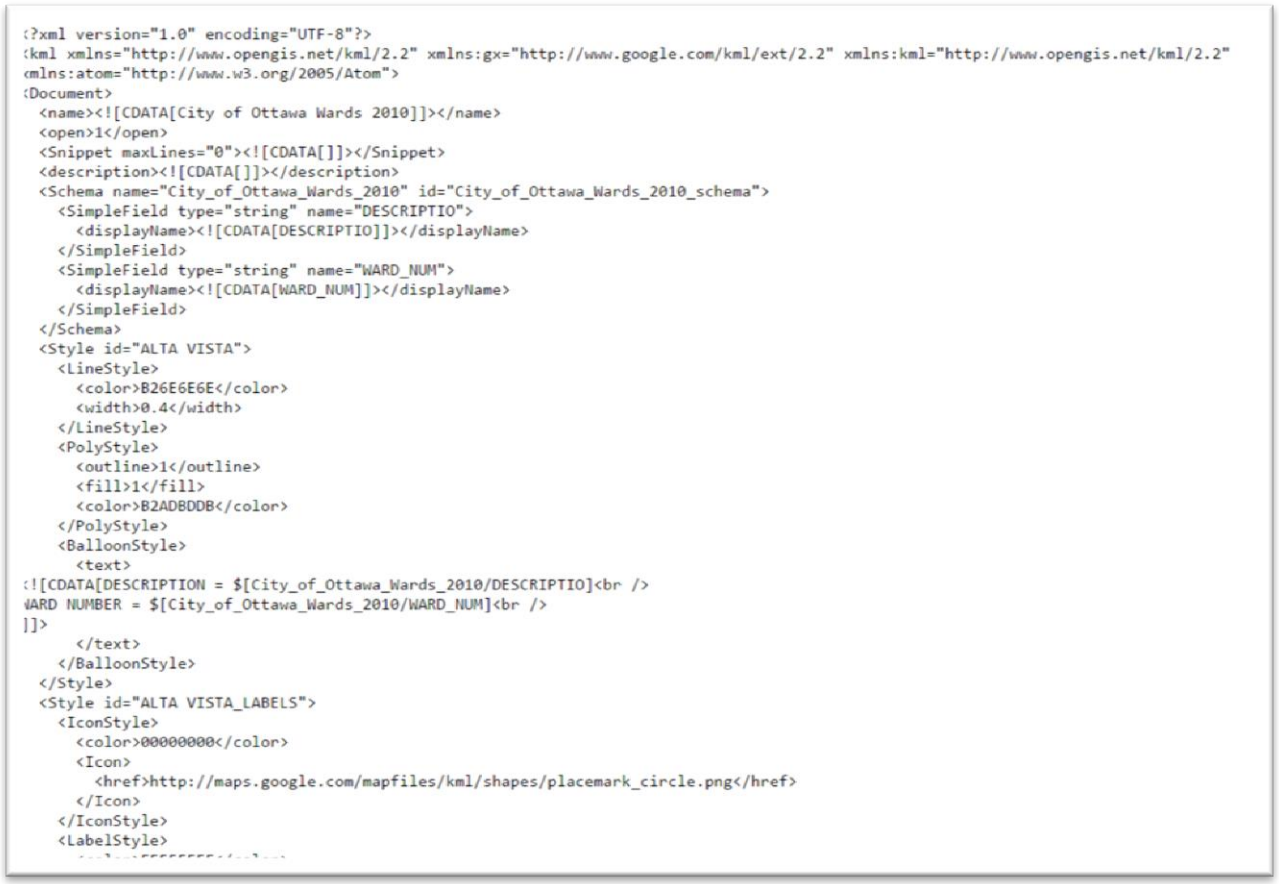
Wards	2012	2013	Grand Total
Rideau-Vanier	5.5	4.6	5.1
Kitchissippi	6.0	3.5	4.8
Somerset	4.6	4.5	4.5
Alta Vista	5.0	3.6	4.3
Rideau-Rockcliffe	3.9	4.3	4.1
Capital	4.1	3.8	3.9
Beacon Hill-Cyrville	2.8	3.7	3.2
Osgoode	3.8	1.8	2.8
Rideau-Goulbourn	2.9	2.3	2.6
College	3.3	1.9	2.6
River	3.1	2.0	2.6
Bay	2.4	2.4	2.4
Knoxdale-Merivale	2.5	2.1	2.3
West Carleton-March	2.2	2.0	2.1
Gloucester-Southgate	2.0	2.1	2.0
Gloucester-South Nepean	1.8	1.9	1.8
Cumberland	2.0	1.6	1.8
Kanata North	2.3	0.9	1.6
Innes	1.8	1.2	1.5
Kanata South	1.5	1.2	1.3
Barrhaven	1.5	1.1	1.3
Stittsville-Kanata West	1.6	0.8	1.2
Orleans	1.2	0.9	1.0

next tab to get the table.

28) Across the top of the table, there is no option to display this material as a map. That's because there are not geographic coordinates for Google to map. We can display this table as a chart or graph, but we want to create a heat map. So we'll have to merge it with a boundary file for the Ottawa wards, which you'll find at the city's open data site.

29) Normally, we would want to download the file with the "kml" extension, which stands for keyhole markup language, a format that Google uses.

30) However, I had problems pulling this file into Fusion Tables, so I've provided a clean-up version that you can option by clicking here to open a file that looks like this in a new page.



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<mlns:atom="http://www.w3.org/2005/Atom">
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  <open>1</open>
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  <description><![CDATA[]]></description>
  <Schema name="City_of_Ottawa_Wards_2010" id="City_of_Ottawa_Wards_2010_schema">
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    </SimpleField>
    <SimpleField type="string" name="WARD_NUM">
      <displayName><![CDATA[WARD_NUM]]></displayName>
    </SimpleField>
  </Schema>
  <Style id="ALTA VISTA">
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    </LineStyle>
    <PolyStyle>
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      <fill>1</fill>
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    </PolyStyle>
    <BalloonStyle>
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WARD NUMBER = $[City_of_Ottawa_Wards_2010/WARD_NUM]<br />
]]>
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    </BalloonStyle>
  </Style>
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      <Icon>
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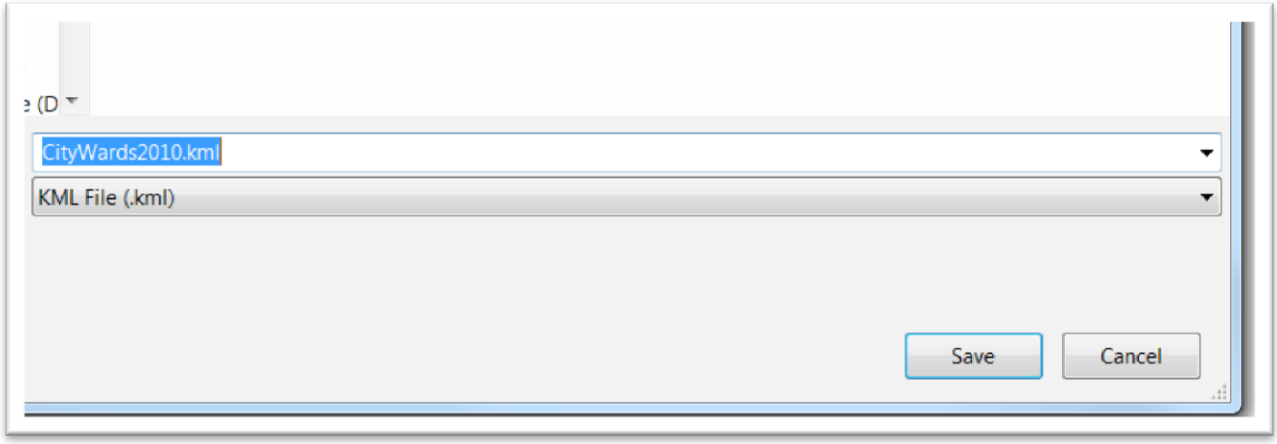
      </Icon>
    </IconStyle>
    <LabelStyle>
```

31) Right click and use the “save as” option that It should retain the kml extension.



32) Now pull this saved kml file into Fusion Tables using the same steps. (NOTE: this may work differently in particular browsers. For this tutorial, I’ve used Chrome.)

OttawaWards2010_QGIS

Imported at Sun Sep 28 12:17:36 PDT 2014 from OttawaWards2010_QGIS.kml.
Edited on September 28, 2014

File Edit Tools Help | Rows 1 | Cards 1 | Map of geometry

Filter | No filters applied

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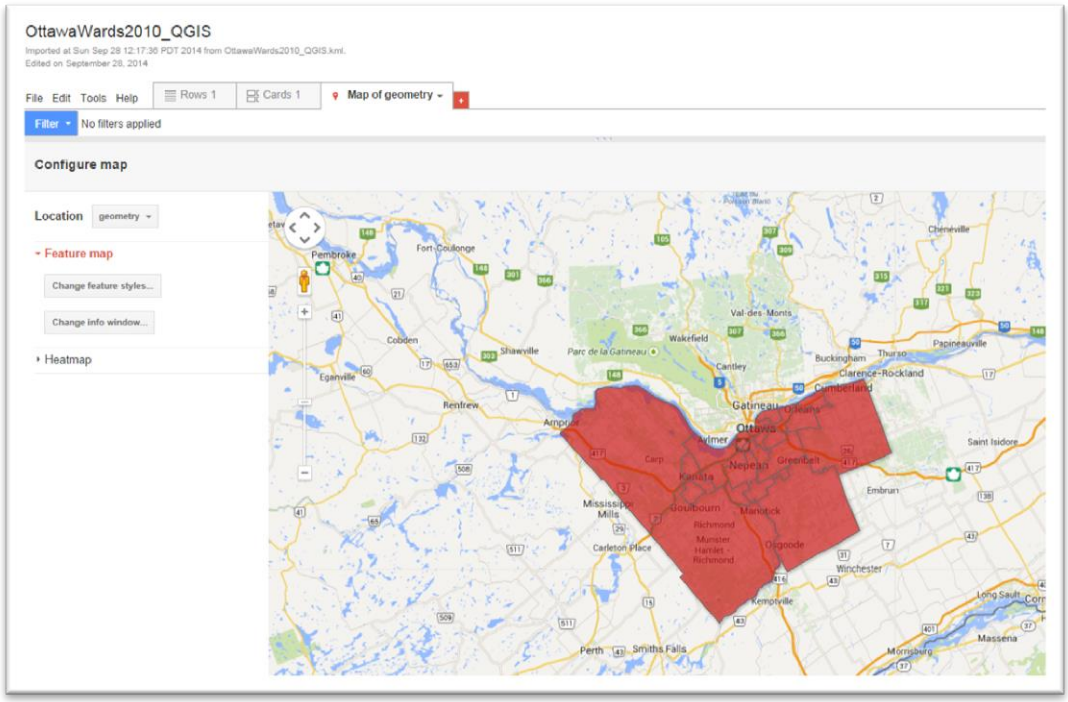
description	name	DESCRIPTIO	WARD_NUM	WARDNUMTEX	SHAPE_Leng	SHAPE_Area	geometry
		RIDEAU-GOULBOURN	21	Ward 21	131359.05817599999	736559936.72899997000	KML...
		BARRHAVEN	3	Ward 3	29730.22392580000	26227247.03550000100	KML...
		STITTSVILLE-KANATA WEST	6	Ward 6	22036.36801230000	23212974.99170000100	KML...
		KANATA SOUTH	23	Ward 23	19871.78596110000	16418739.66400000100	KML...
		GLOUCESTER-SOUTH NEPEAN	22	Ward 22	45545.49594790000	37013496.96880000100	KML...
		OSGOODE	20	Ward 20	105838.74161800000	463561580.74500000000	KML...
		KANATA NORTH	4	Ward 4	25997.76994820000	24235080.63199999900	KML...
		KNOXDALE-MERIVALE	9	Ward 9	36533.31731500000	47513023.87439999700	KML...
		COLLEGE	8	Ward 8	40055.35717720000	46077373.28790000100	KML...
		RIVER	16	Ward 16	32244.19158350000	26892629.74340000000	KML...
		BAY	7	Ward 7	39722.03229930000	64174614.34550000000	KML...
		KITCHISSIPPI	15	Ward 15	16441.44469520000	15130226.18770000000	KML...
		GLOUCESTER-SOUTHGATE	10	Ward 10	45788.22243010000	76159003.20720000600	KML...
		CAPITAL	17	Ward 17	19243.22612630000	10961789.06570000000	KML...
		ALTA VISTA	18	Ward 18	19302.22110480000	20433121.17790000100	KML...
		SOMERSET	14	Ward 14	11458.28433790000	6380164.66626999990	KML...
		RIDEAU-VANIER	12	Ward 12	15172.59039180000	7951860.19261999990	KML...
		RIDEAU-ROCKCLIFFE	13	Ward 13	25921.09452730000	19838707.23580000200	KML...
		BEACON HILL-CYRVILLE	11	Ward 11	26012.65087230000	19598778.37310000100	KML...
		INNES	2	Ward 2	33018.16519180000	40385597.68660000000	KML...
		ORLEANS	1	Ward 1	29237.16541400000	25385949.00690000100	KML...
		WEST CARLETON-MARCH	5	Ward 5	122388.21694100001	765569539.50300002000	KML...
		CUMBERLAND	19	Ward 19	98794.87086030000	379836566.30000001000	KML...

33) In addition to the ward names, this file has the geographic information Google will need to display the wards on a map. To see the boundaries, click on the “Map of geometry” tab (NOTE: A tab we did not see in the break-and-enter table.)

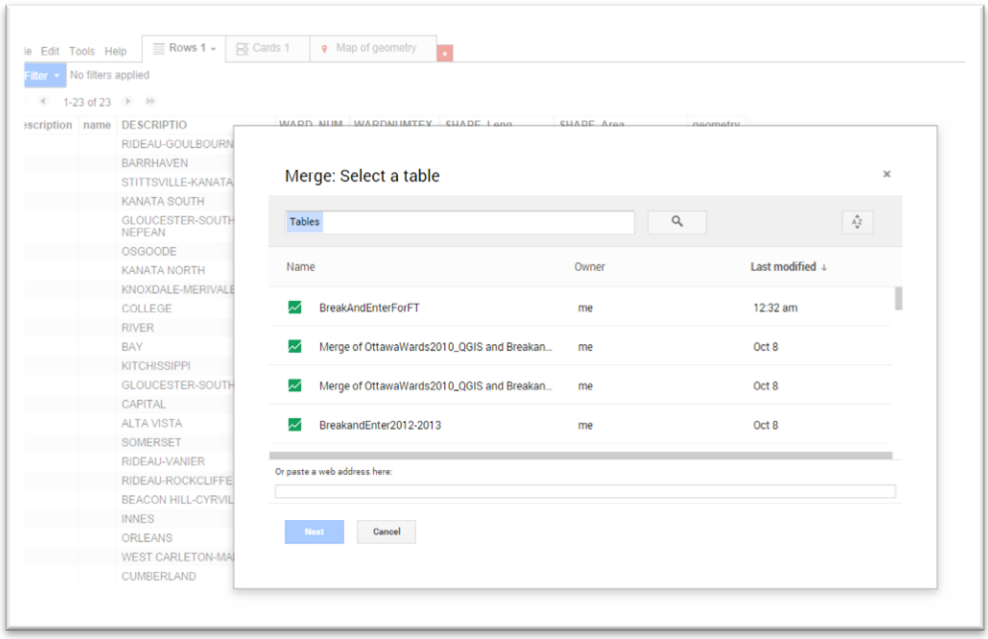


34) Don’t worry about the colour for now. The key is to notice the ward boundaries.

35) Click the “Rows” tab at the top to return to the table view.

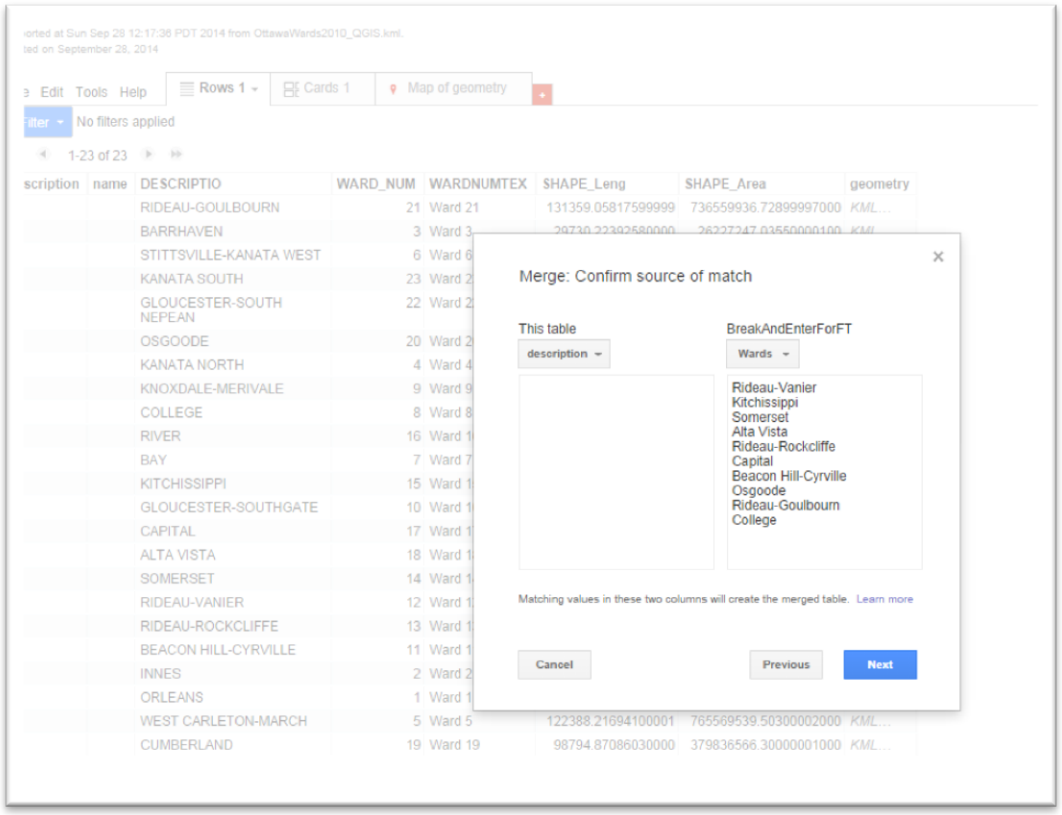
36) We’re going to “merge” this table with the break-and-enter table.

37) Go to “File” in the menu, and choose the “Merge” option.



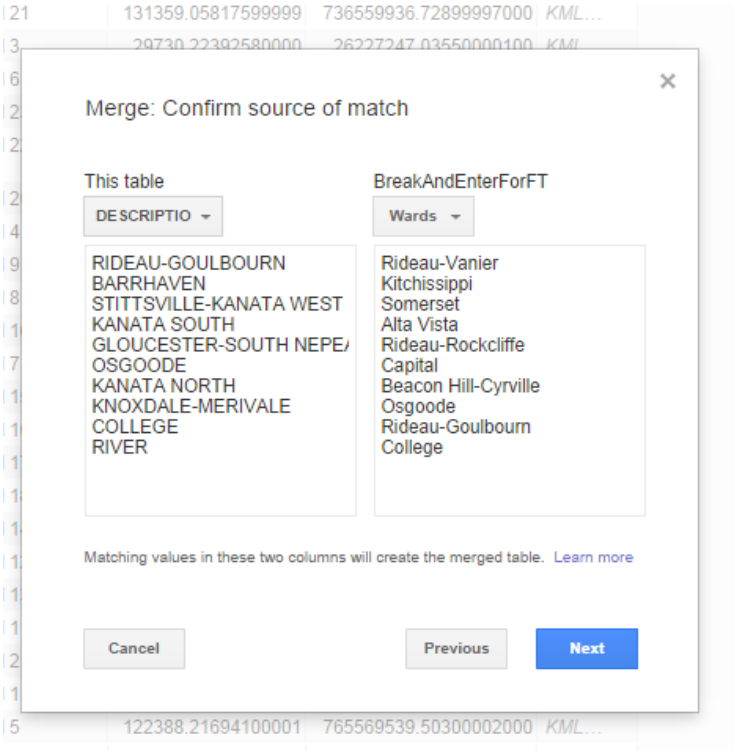
38) I’ve got a few more tables in my file, so don’t get thrown off by the number of tables.

39) Select the BreakandEnterForFT table, and then the “Next” tab.

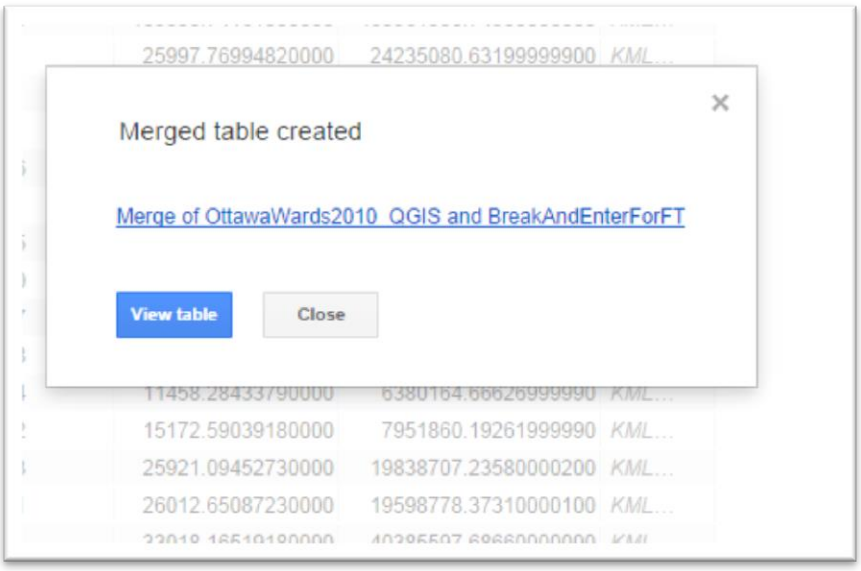


40) We’ll merge the Wards fields from the BreakAndEnterFT file (already identified) with the kml file’s “Description” field that contains the ward names. In order to perform a complete merge, the names in both tables must correspond, that means the same

spelling, including hyphens and accents, if there are French names.



41) Select “Next”, and then “Merge”



42) The merge is successful.

43) Select “View table” …..

Merge of OttawaWards2010_QGIS and BreakAndEnterForFT

Edited at 12:53 AM

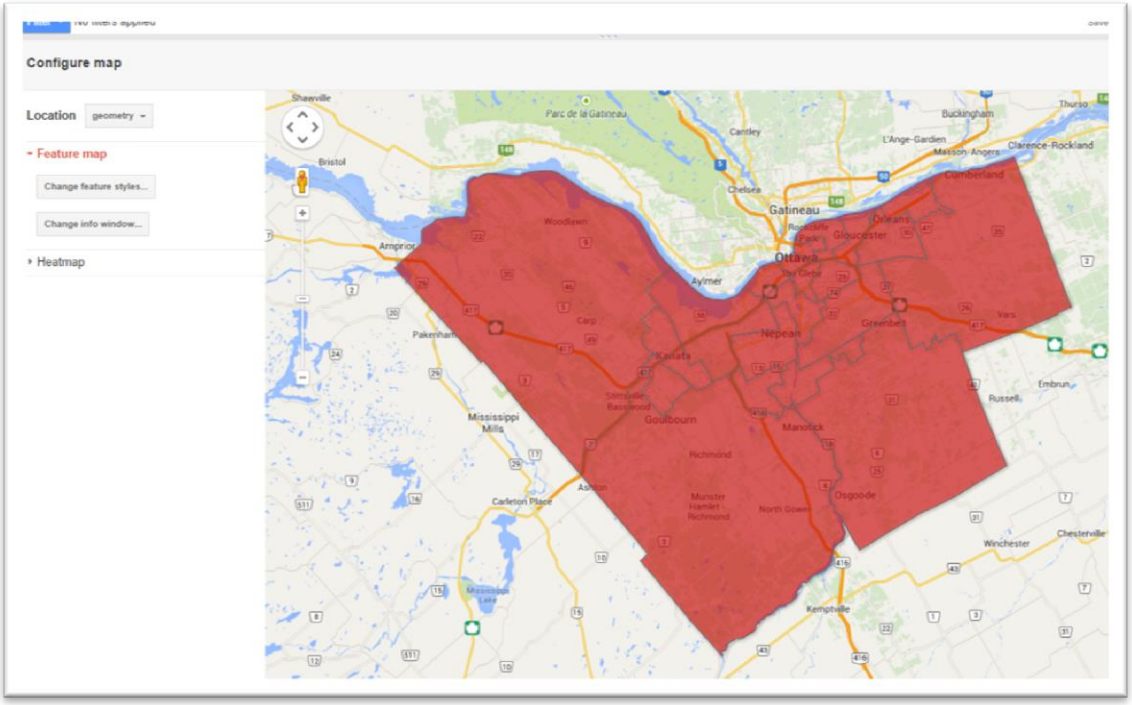
File Edit Tools Help | Rows 1 | Cards 1 | Map of geometry

Filter | No filters applied

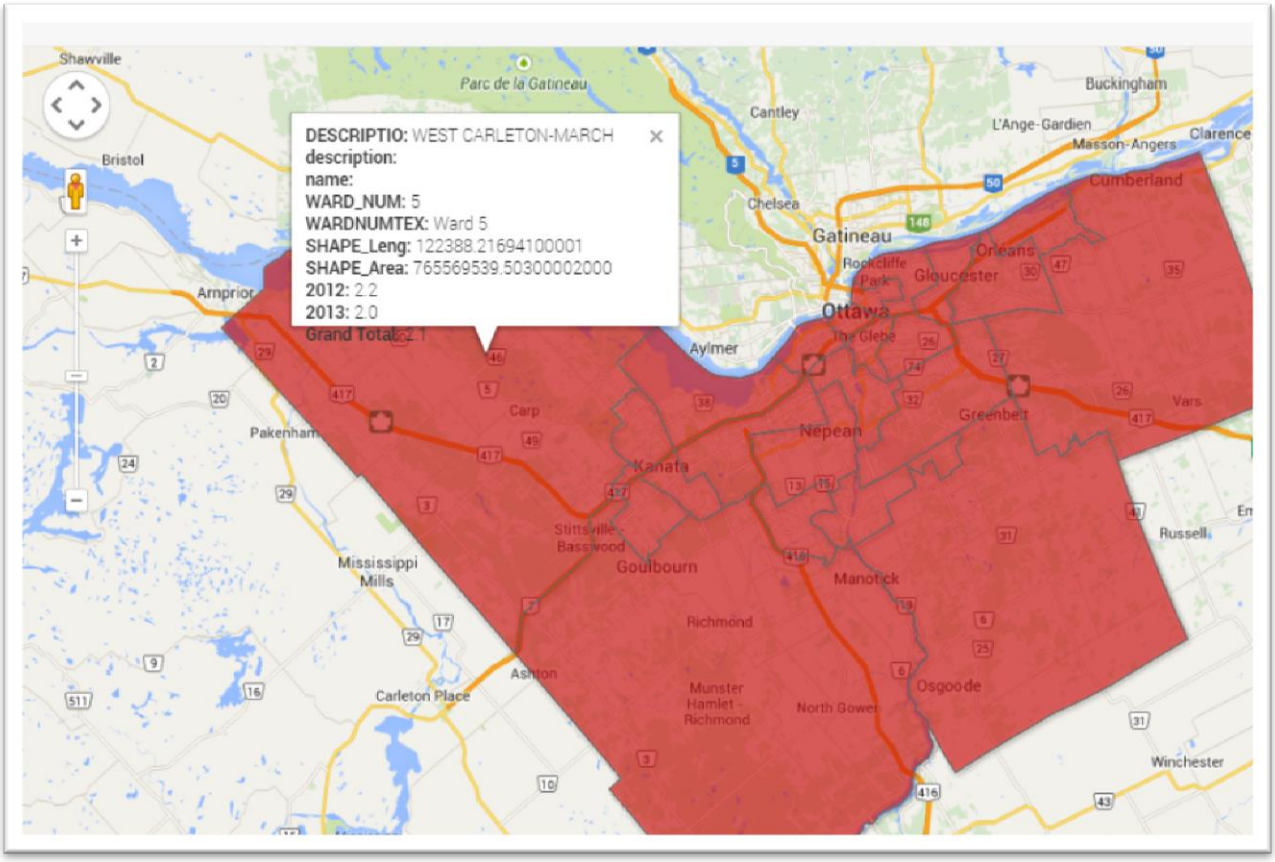
1-23 of 23

DESCRIPTIO	description	name	WARD_NUM	WARDNUMTEX	SHAPE_Leng	SHAPE_Area	geometry	2012	2013	Grand Total
ALTA VISTA			18	Ward 18	19302.22110480000	20433121.17790000100	KML...	5.0	3.6	4.3
BARRHAVEN			3	Ward 3	29730.22392580000	26227247.03550000100	KML...	1.5	1.1	1.3
BAY			7	Ward 7	39722.03229930000	64174614.34550000000	KML...	2.4	2.4	2.4
BEACON HILL-CYRVILLE			11	Ward 11	26012.65087230000	19598778.37310000100	KML...	2.8	3.7	3.2
CAPITAL			17	Ward 17	19243.22612630000	10961789.06570000000	KML...	4.1	3.8	3.9
COLLEGE			8	Ward 8	40055.35717720000	46077373.28790000100	KML...	3.3	1.9	2.6
CUMBERLAND			19	Ward 19	98794.87086030000	379836566.30000001000	KML...	2.0	1.6	1.8
GLOUCESTER-SOUTH NEPEAN			22	Ward 22	45545.49594790000	37013496.96880000100	KML...	1.8	1.9	1.8
GLOUCESTER-SOUTHGATE			10	Ward 10	45788.22243010000	76159003.20720000600	KML...	2.0	2.1	2.0
INNES			2	Ward 2	33018.16519180000	40385597.68660000000	KML...	1.8	1.2	1.5
KANATA NORTH			4	Ward 4	25997.76994820000	24235080.63199999900	KML...	2.3	0.9	1.6
KANATA SOUTH			23	Ward 23	19871.78596110000	16418739.66400000100	KML...	1.5	1.2	1.3
KITCHISSIPPI			15	Ward 15	16441.44469520000	15130226.18770000000	KML...	6.0	3.5	4.8
KNOXDALE-MERIVALE			9	Ward 9	36533.31731500000	47513023.87439999700	KML...	2.5	2.1	2.3
ORLEANS			1	Ward 1	29237.16541400000	25385949.00690000100	KML...	1.2	0.9	1.0
OSGOODE			20	Ward 20	105838.74161800000	463561580.74500000000	KML...	3.8	1.8	2.8
RIDEAU-GOULBOURN			21	Ward 21	131359.05817599999	736559936.72899997000	KML...	2.9	2.3	2.6
RIDEAU-ROCKCLIFFE			13	Ward 13	25921.09452730000	19838707.23580000200	KML...	3.9	4.3	4.1
RIDEAU-VANIER			12	Ward 12	15172.59039180000	7951860.19261999990	KML...	5.5	4.6	5.1
RIVER			16	Ward 16	32244.19158350000	26892629.74340000000	KML...	3.1	2.0	2.6
SOMERSET			14	Ward 14	11458.28433790000	6380164.66626999990	KML...	4.6	4.5	4.5
STITTSVILLE-KANATA WEST			6	Ward 6	22036.36801230000	23212974.99170000100	KML...	1.6	0.8	1.2
WEST CARLETON-MARCH			5	Ward 5	122388.21694100001	765569539.50300002000	KML...	2.2	2.0	2.1

44) … and the “Map of geometry” tab.

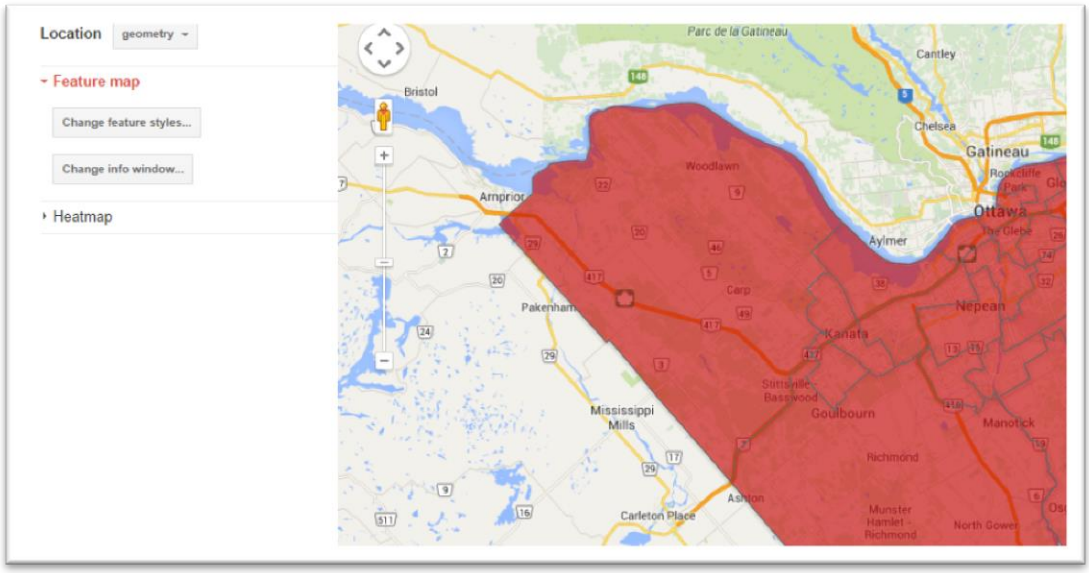


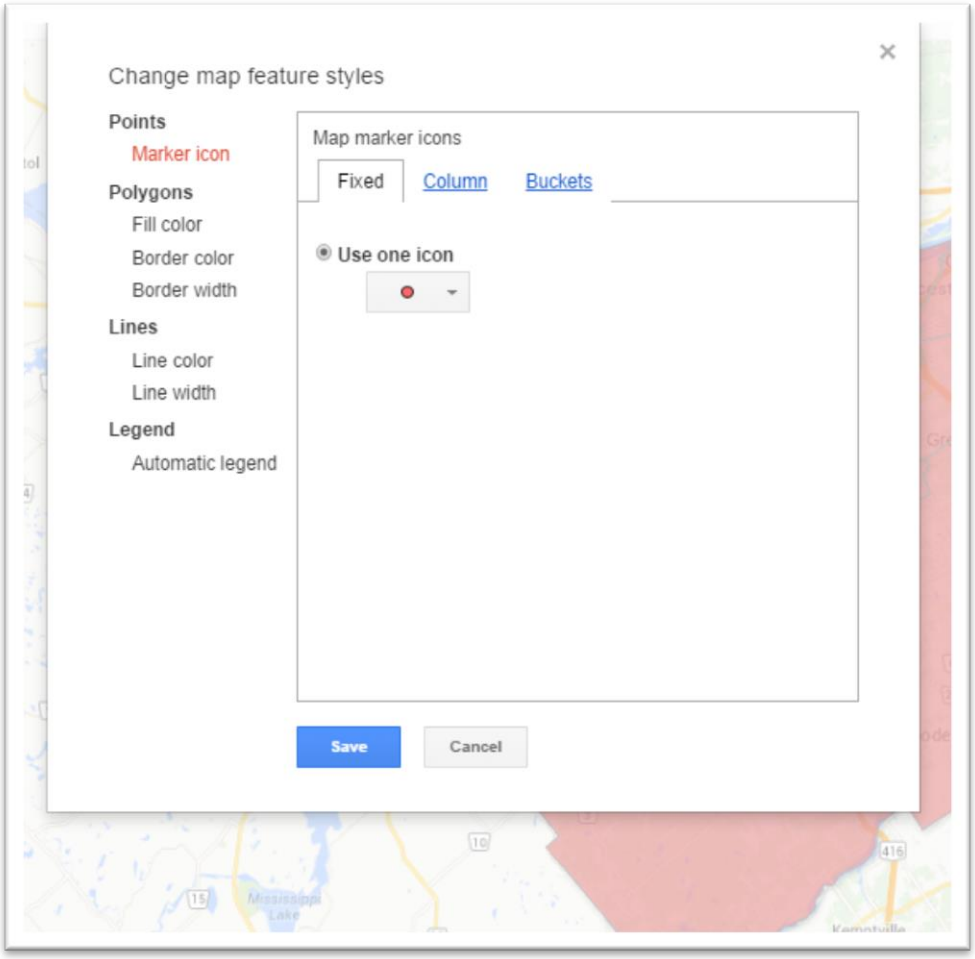
45) It’s tempting to conclude that this is no different from the previous one. But click within any of the boundaries and you’ll see that indeed the tables have been merged.



46) We’ll have to assign colours to our map.

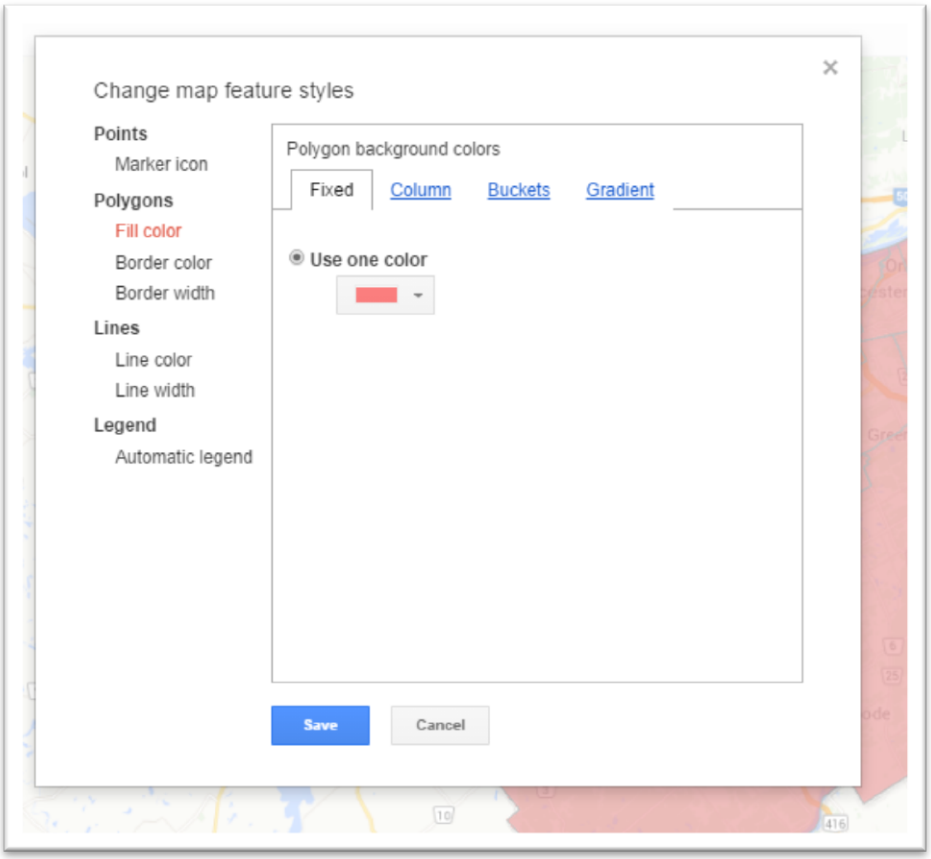
47) Select the Change feature styles tab``.



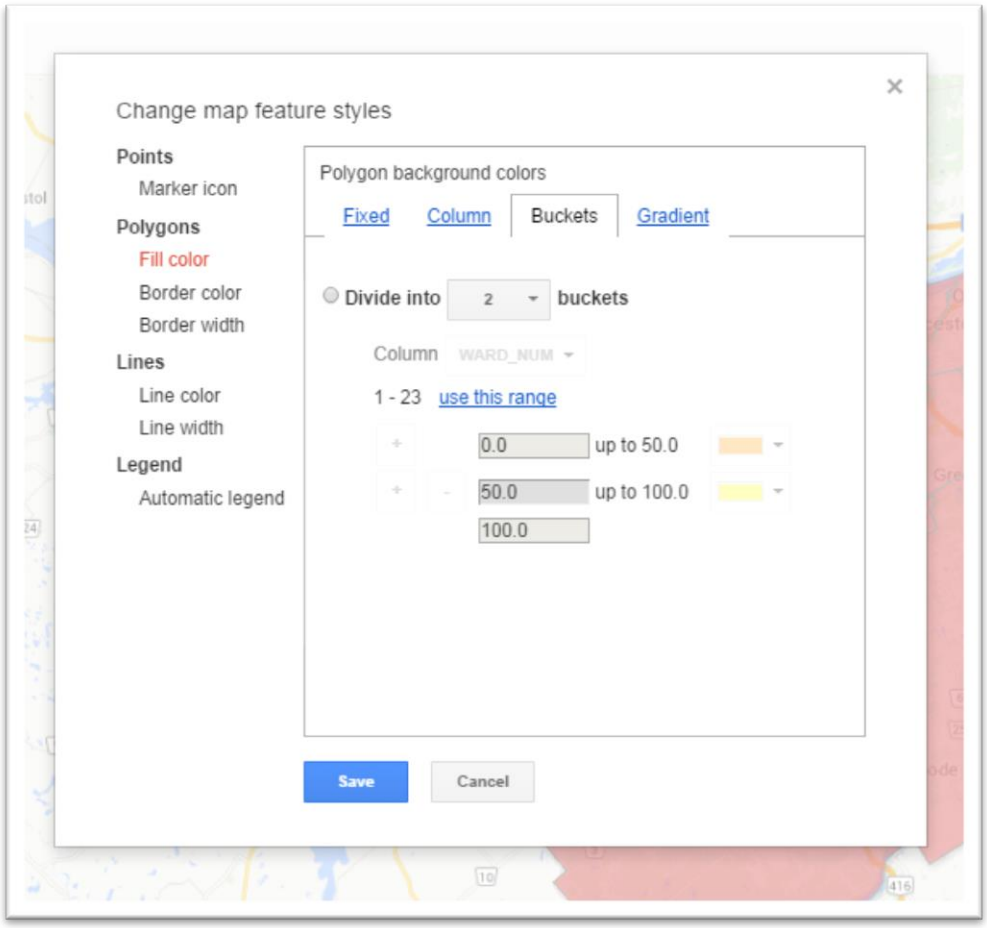


48)

49) Under the Polygon section, select the “Fill color” option….

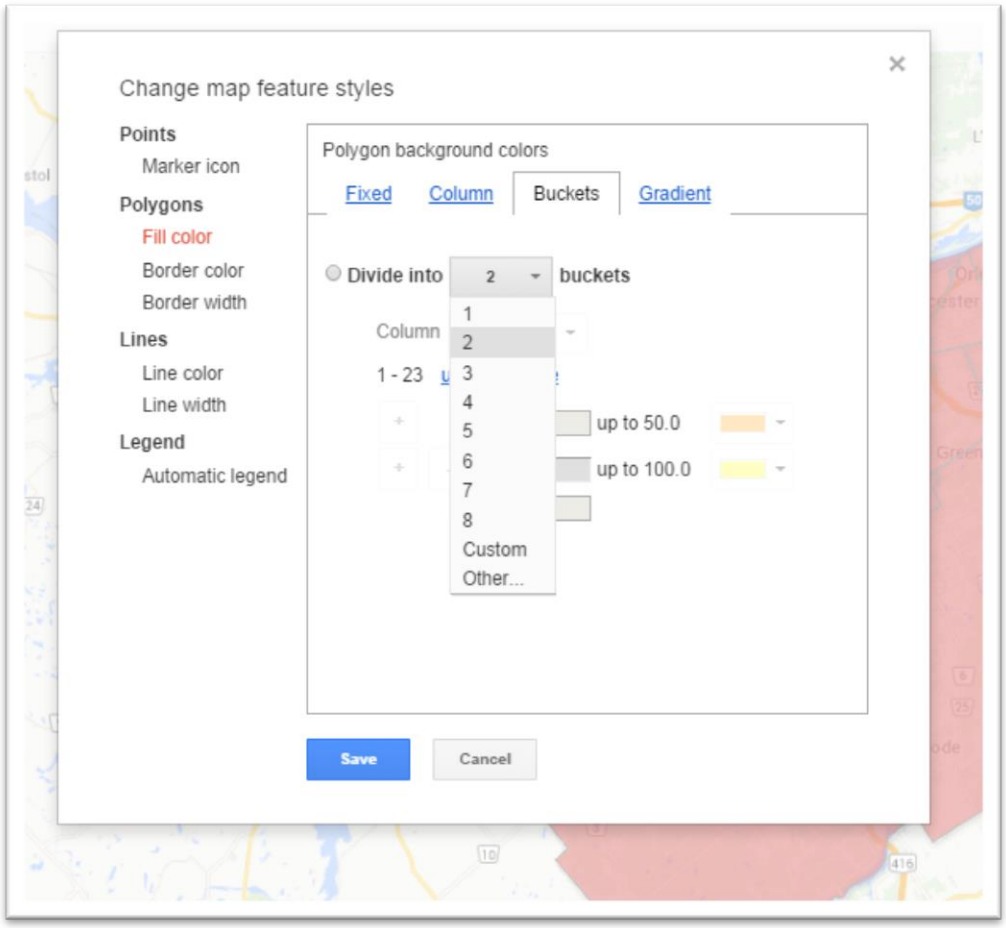


50) …. And then the “Buckets” category.



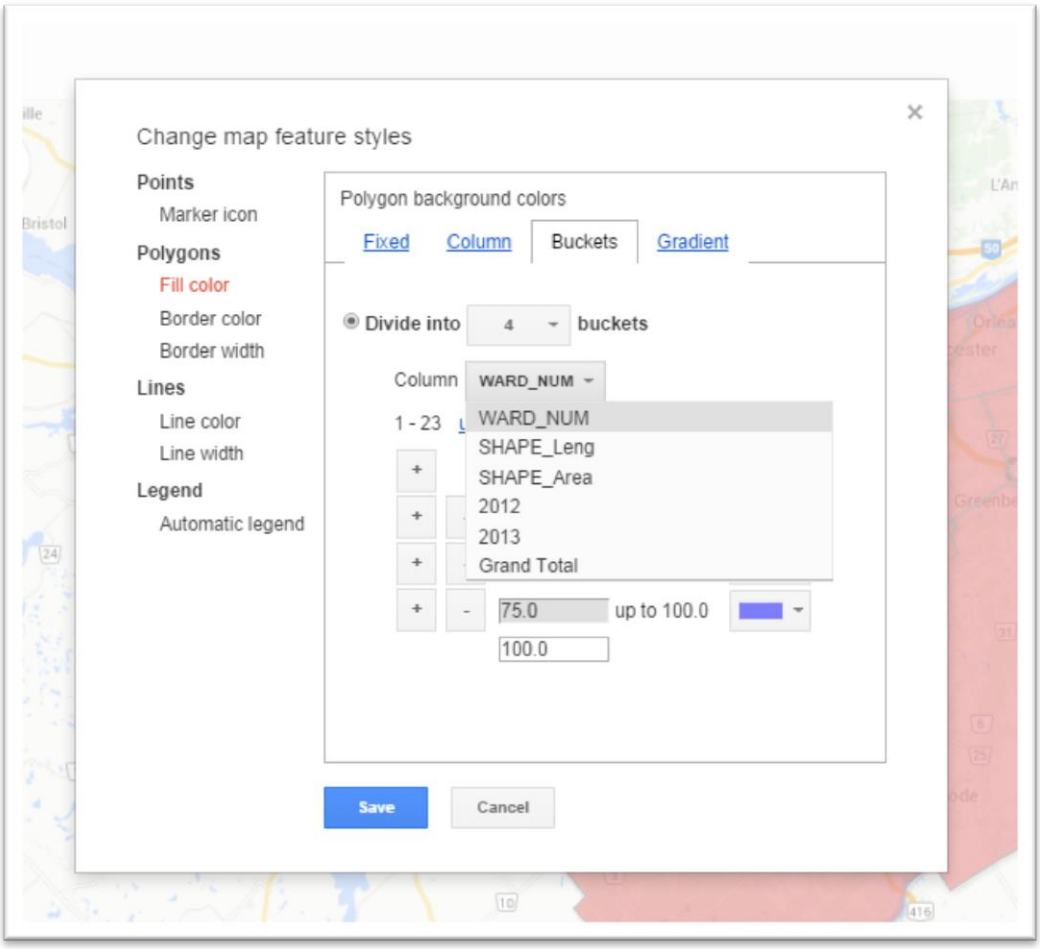
51) This is where it helps to know your data, for you’ll have to figure out how you want select your numbers into groups or

"buckets". For the sake of simplicity, let's choose four categories.



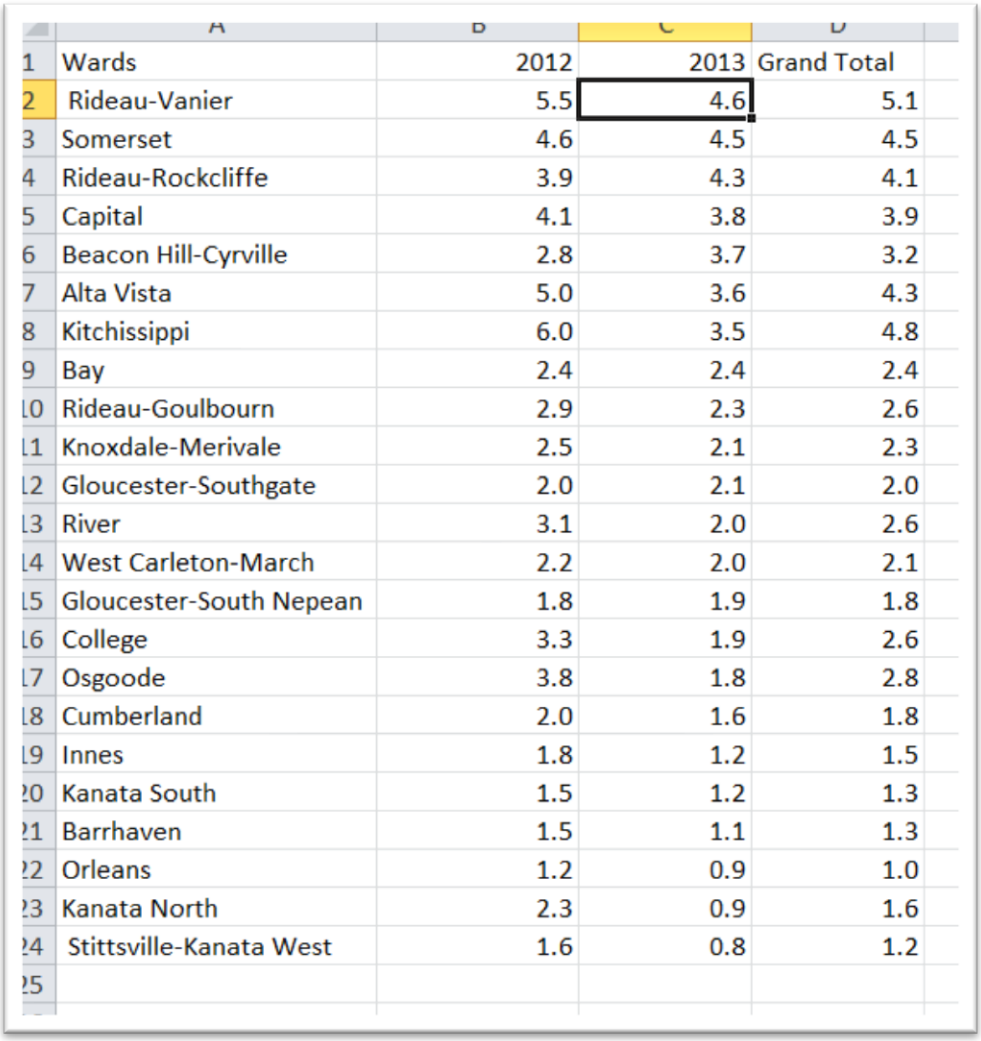
52) We want to group the values in the 2013 field, given that it's the most recent year. (However, as we explained before, you can choose the Grand Total, which you can rename as Average of Two years, or the 2012 column, depending on how you're using

the numbers in your story.



53) You'll notice that it gives us the range of values in the 2013 column. We want to select our categories from the least to the most.

54) To figure out how you want to divide the numbers, return to your 2013 column in the Excel table and sort it in descending

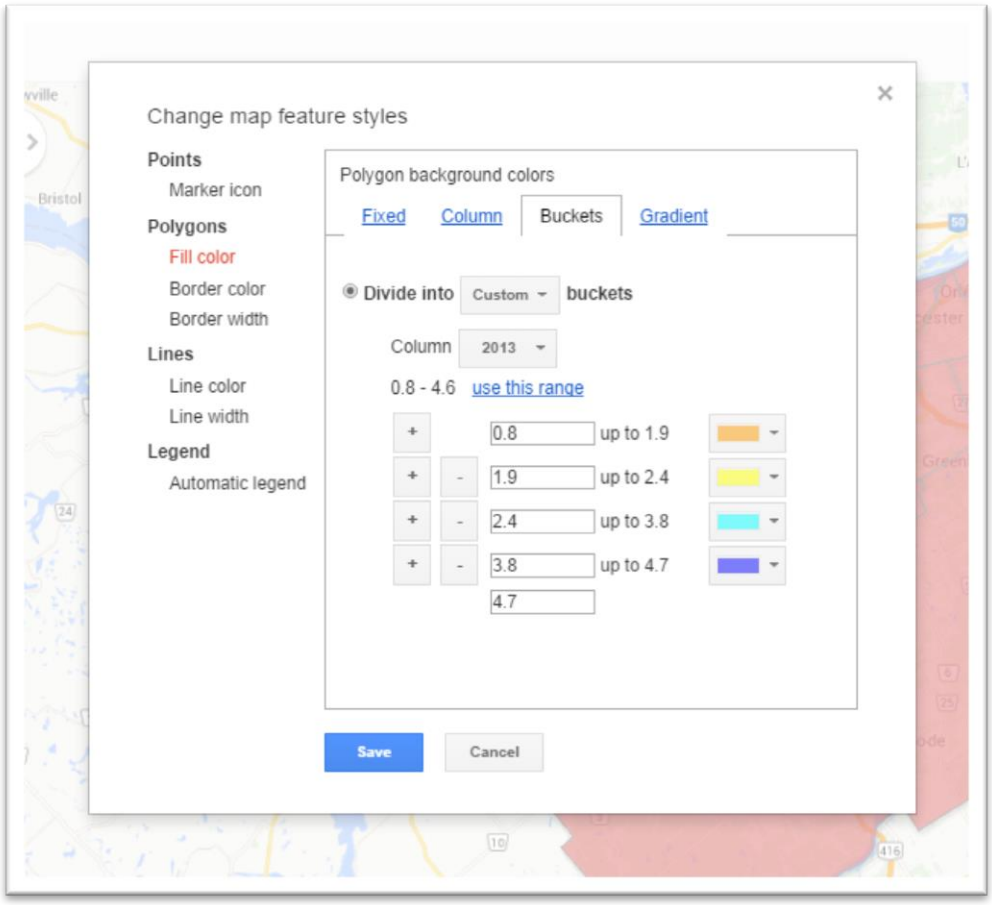


	A	B	C	D
1	Wards	2012	2013	Grand Total
2	Rideau-Vanier	5.5	4.6	5.1
3	Somerset	4.6	4.5	4.5
4	Rideau-Rockcliffe	3.9	4.3	4.1
5	Capital	4.1	3.8	3.9
6	Beacon Hill-Cyrville	2.8	3.7	3.2
7	Alta Vista	5.0	3.6	4.3
8	Kitchissippi	6.0	3.5	4.8
9	Bay	2.4	2.4	2.4
10	Rideau-Goulbourn	2.9	2.3	2.6
11	Knoxdale-Merivale	2.5	2.1	2.3
12	Gloucester-Southgate	2.0	2.1	2.0
13	River	3.1	2.0	2.6
14	West Carleton-March	2.2	2.0	2.1
15	Gloucester-South Nepean	1.8	1.9	1.8
16	College	3.3	1.9	2.6
17	Osgoode	3.8	1.8	2.8
18	Cumberland	2.0	1.6	1.8
19	Innes	1.8	1.2	1.5
20	Kanata South	1.5	1.2	1.3
21	Barrhaven	1.5	1.1	1.3
22	Orleans	1.2	0.9	1.0
23	Kanata North	2.3	0.9	1.6
24	Stittsville-Kanata West	1.6	0.8	1.2
25				

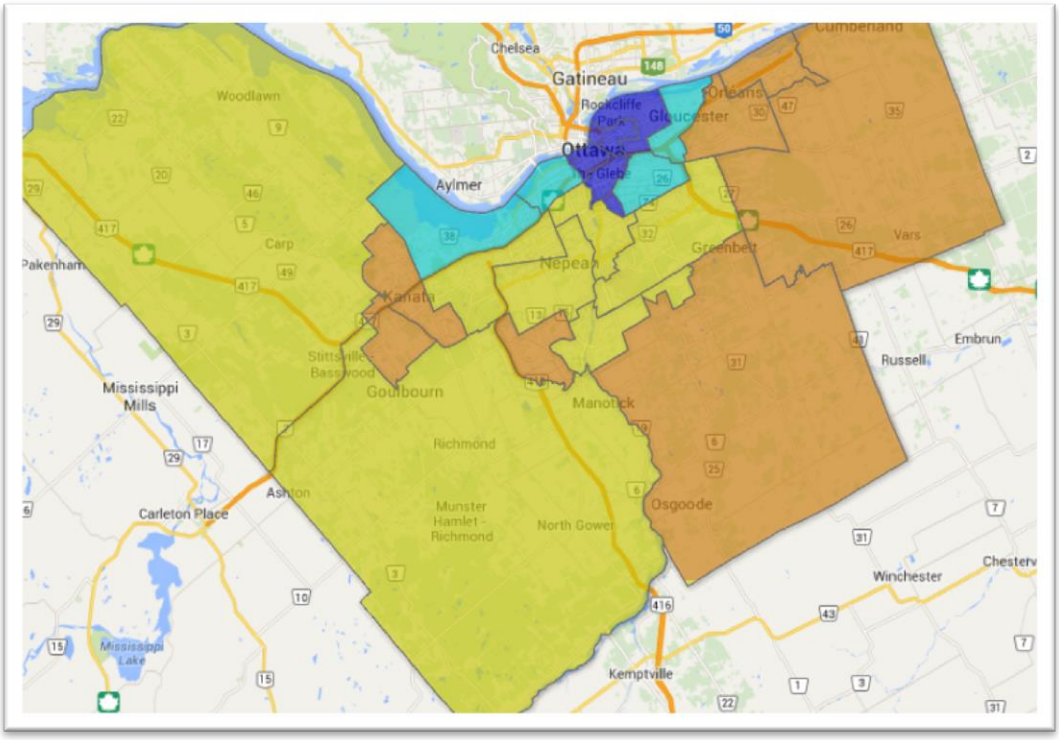
order.

55) In choosing our four categories, let's call 0.8 to 1.9 category one; 1.9 to 2.4 category two; 2.4 to 3.8 category three; and 3.8 to 4.7 category four. (NOTE: The top end of the range is always slightly greater than the recorded value in your spreadsheet. If you make the number exact, Google will not map the top ward, leaving it blank. NOTE_2: This is where it helps to have two screens)

56) Now let's plug in that range in or Fusion Table.

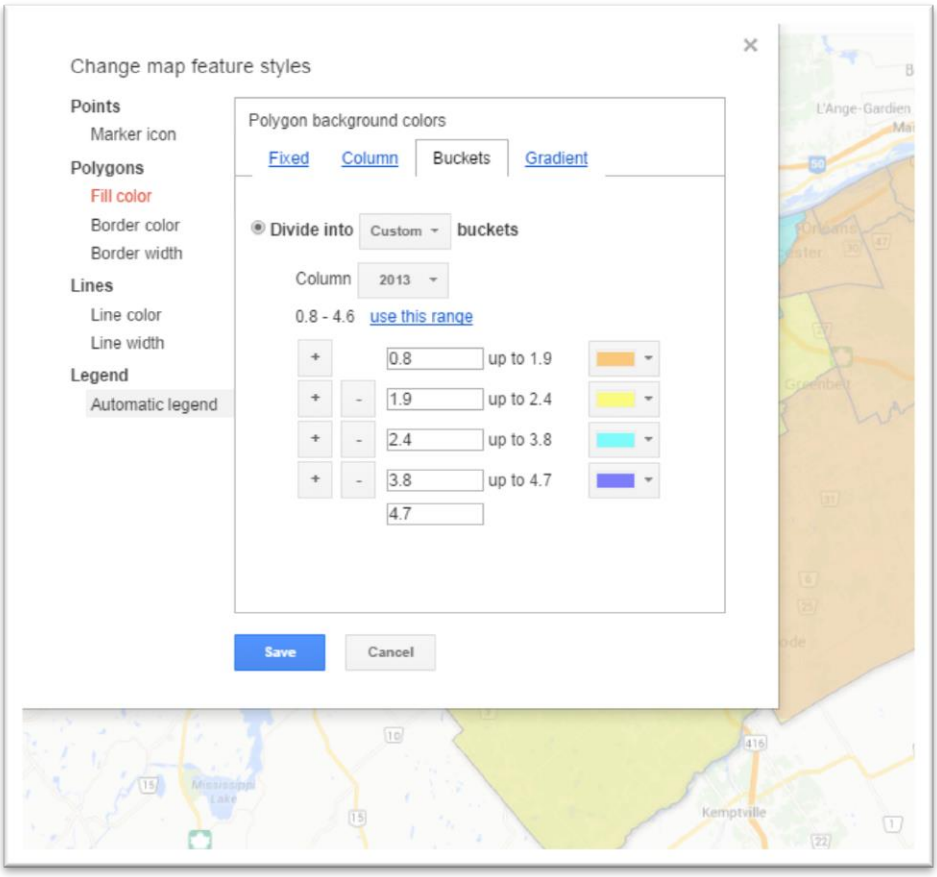


57) Hot the save button to see the result.



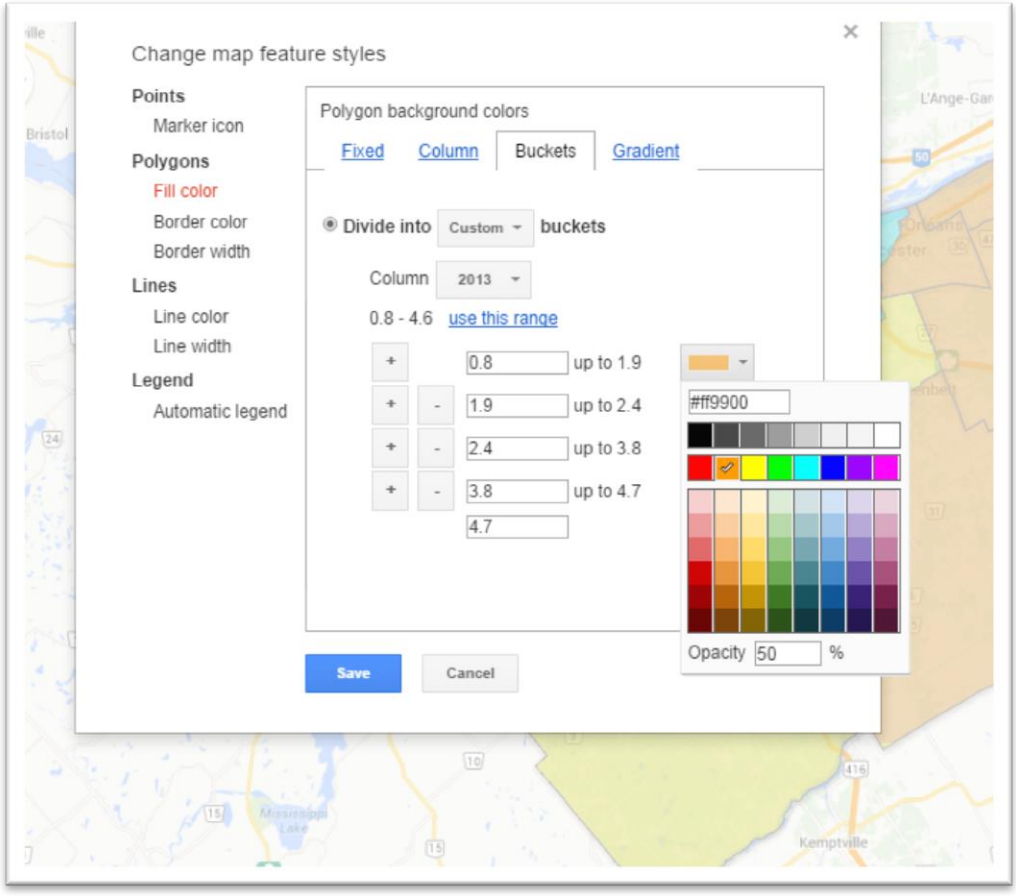
58) Yikes!!!! That's an ugly map. Though we can guess, our hotspot's location is unclear. It may be a better idea for our colour ramp to be consistent. So let's return to the bucket section by re-

selecting the “Change feature styles” tab.



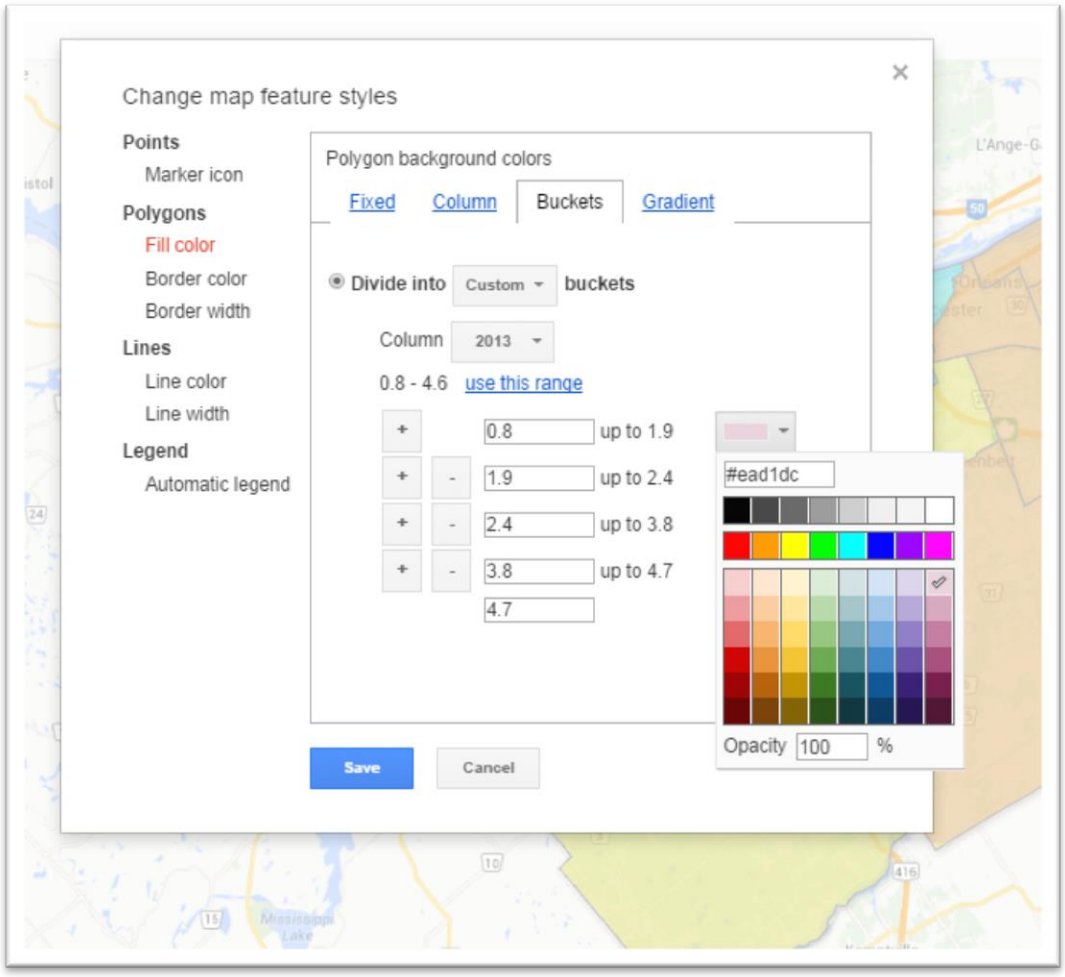
59) We’ll change the colours for the four categories.

60) Select the arrow to the right of the first colour tab to produce a menu.

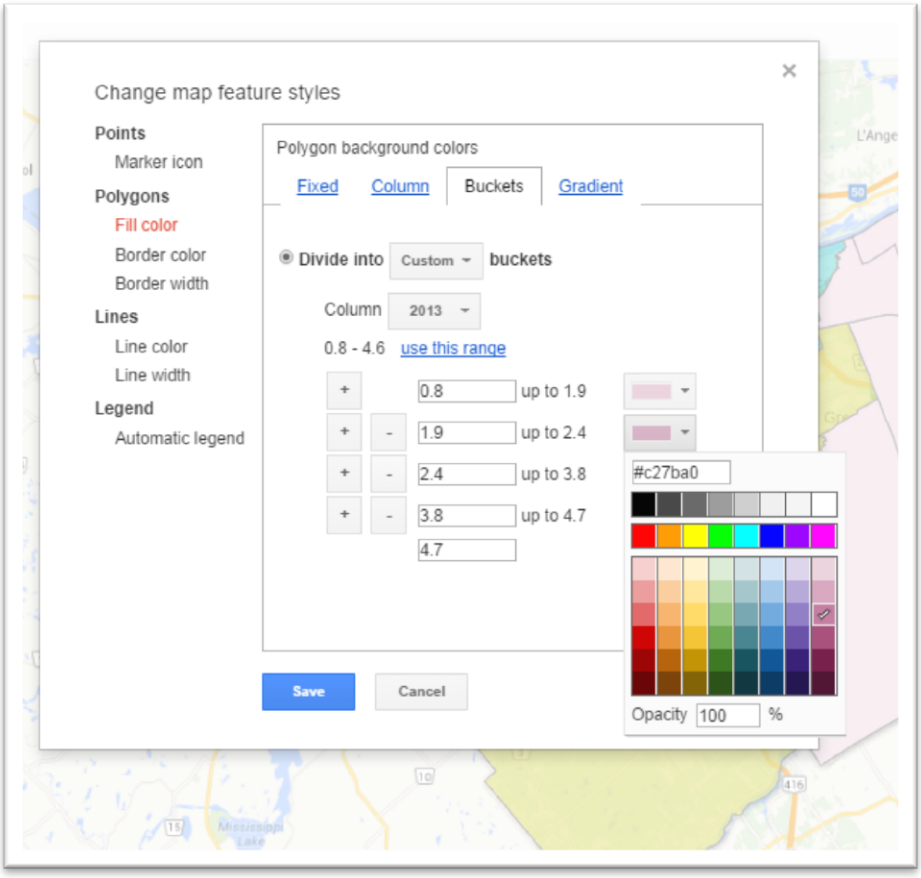


61) Let's use the purple colour ramp to the far right. For the first category, select the lightest colour in the ramp and increase the "Opacity to 100", a feature that will make the map sharper and

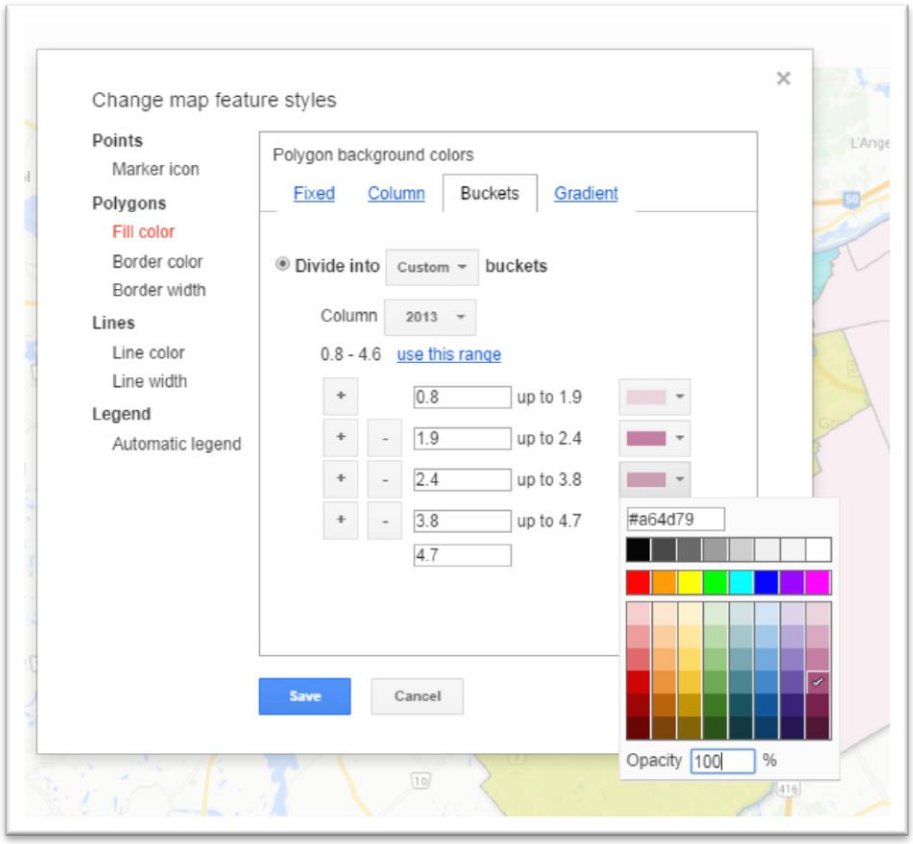
brighter.


Change map feature styles
Points
Marker icon
Polygons
Fill color
Border color
Border width
Lines
Line color
Line width
Legend
Automatic legend
Polygon background colors
Fixed
Column
Buckets
Gradient
Divide into
Custom
buckets
Column
2013
0.8 - 4.6
use this range
0.8
up to 1.9
1.9
up to 2.4
2.4
up to 3.8
3.8
up to 4.7
4.7
#ead1dc
Opacity
100
%
Save
Cancel

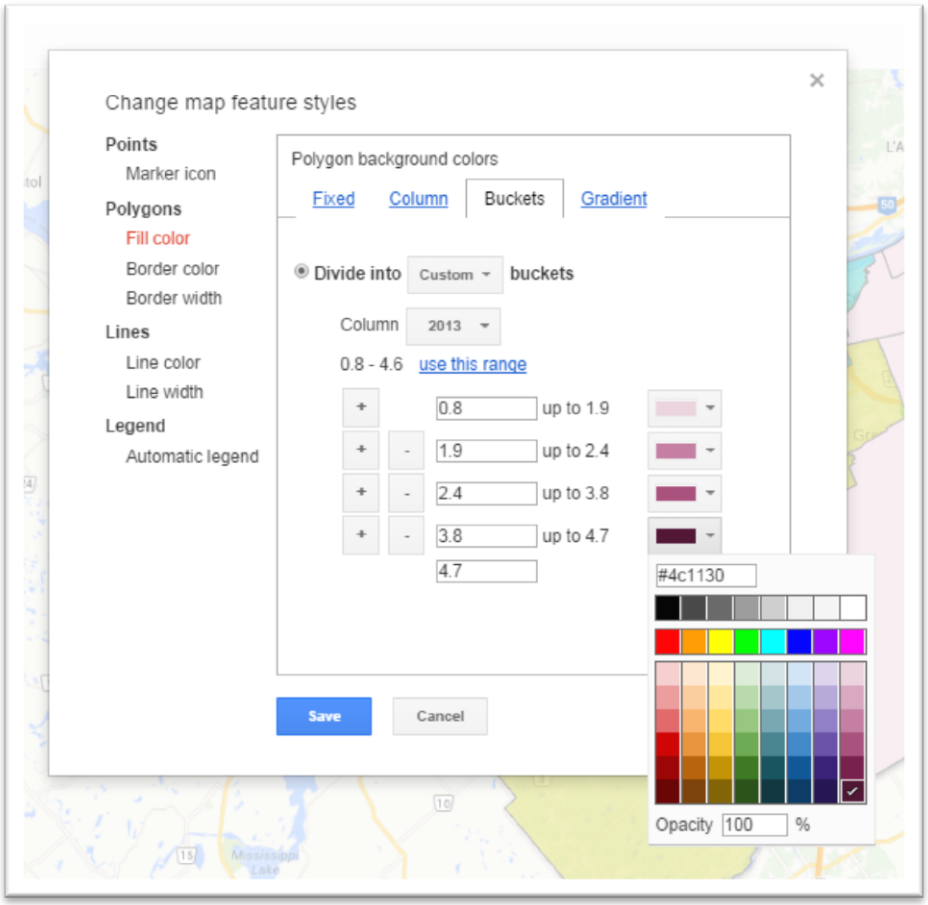
62) Repeat the process for the next colour, selecting a slightly darker colour that we can distinguish from the first one.



63) Repeat the process for the next category.

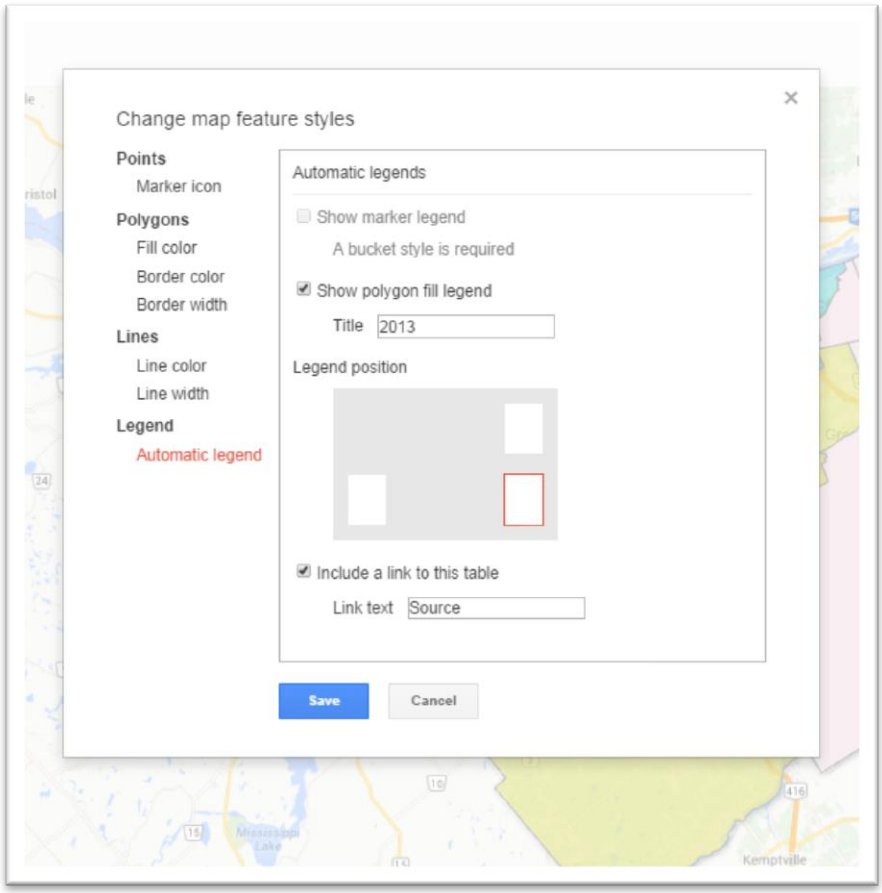


64) And finally, the last category, using darkest colour that will stand out.

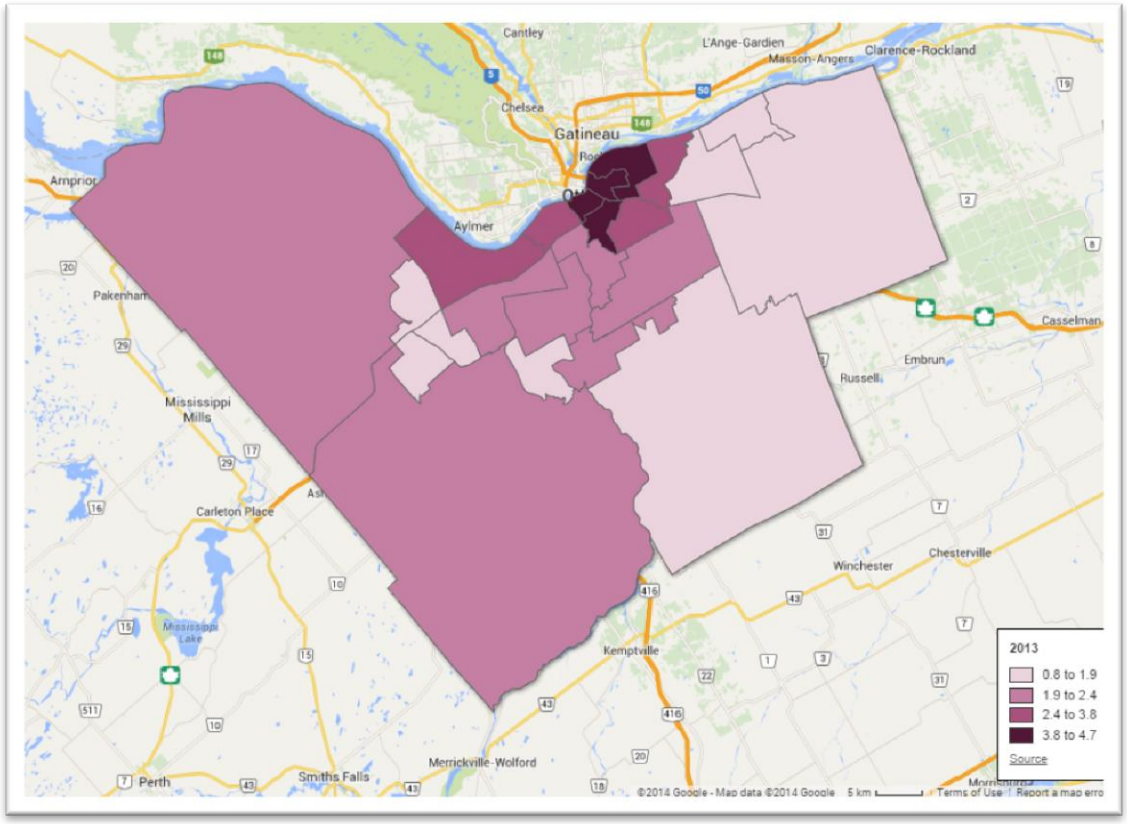


65) Before we see what this looks like in the map, we'll have to create a legend to help readers understand the significance of the colours. To do this, we'll need a legend, one of Google's newest features.

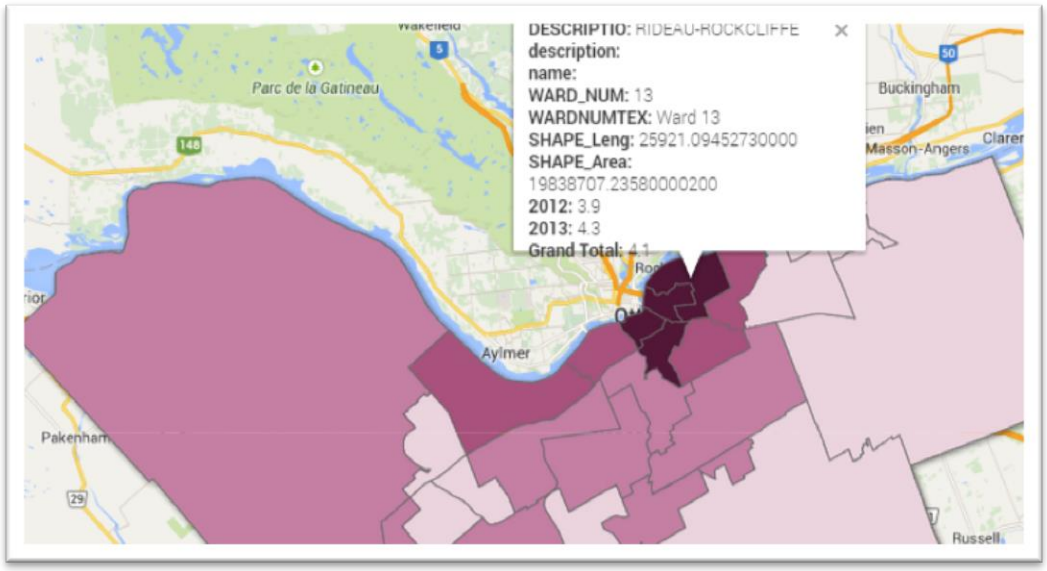
66) Select the “Automatic Legend” tab, and then check the “Show polygon fill legend” box.



67) Now we can save the result.

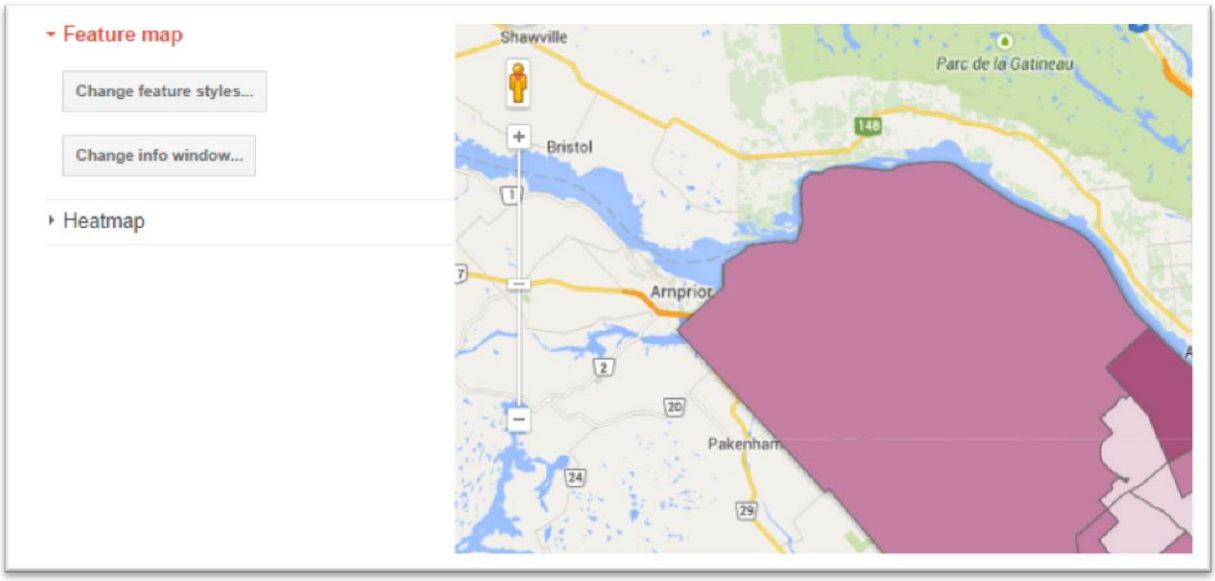


68) Clicking on the darkest wards will produce information in a pop-up box.

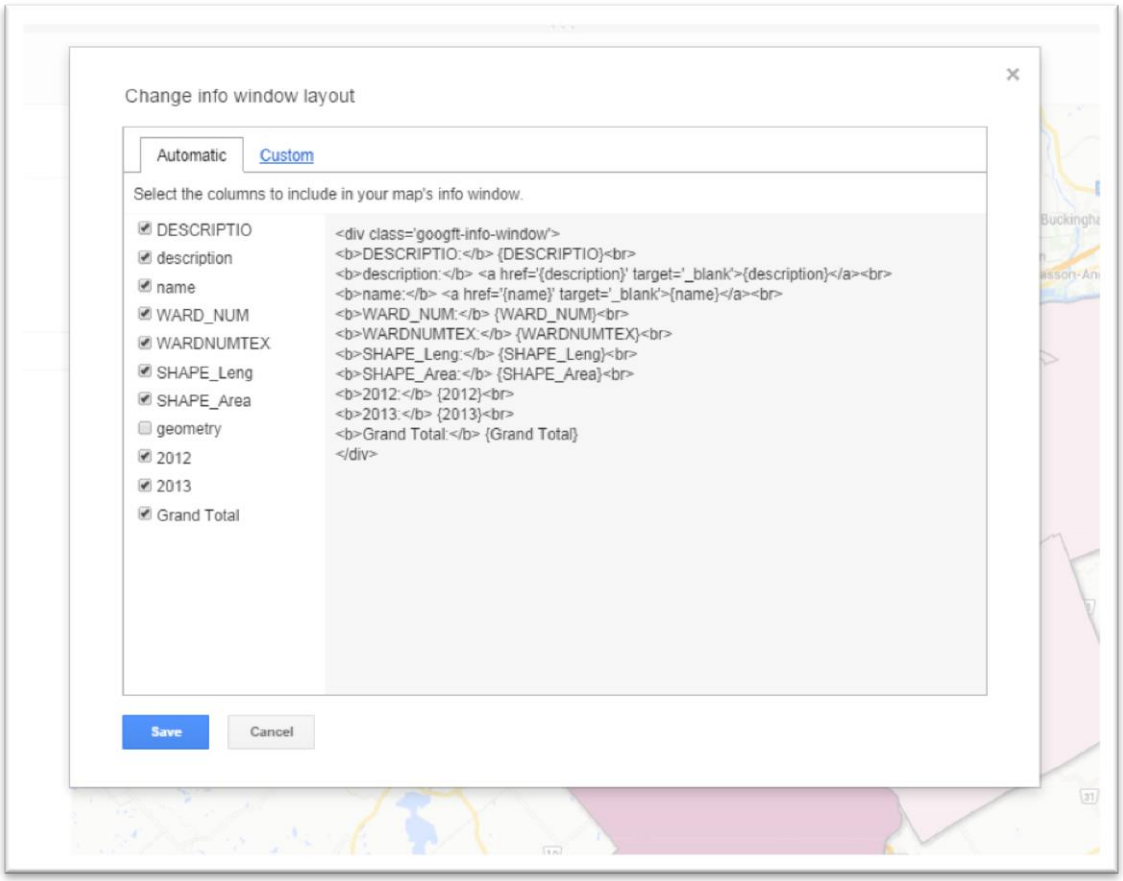


69) That, too, is pretty ugly, and contains too much information. In this situation, we only need the barest of details. So let's de-select some of these categories by selecting the "Change info window" tab.

70)



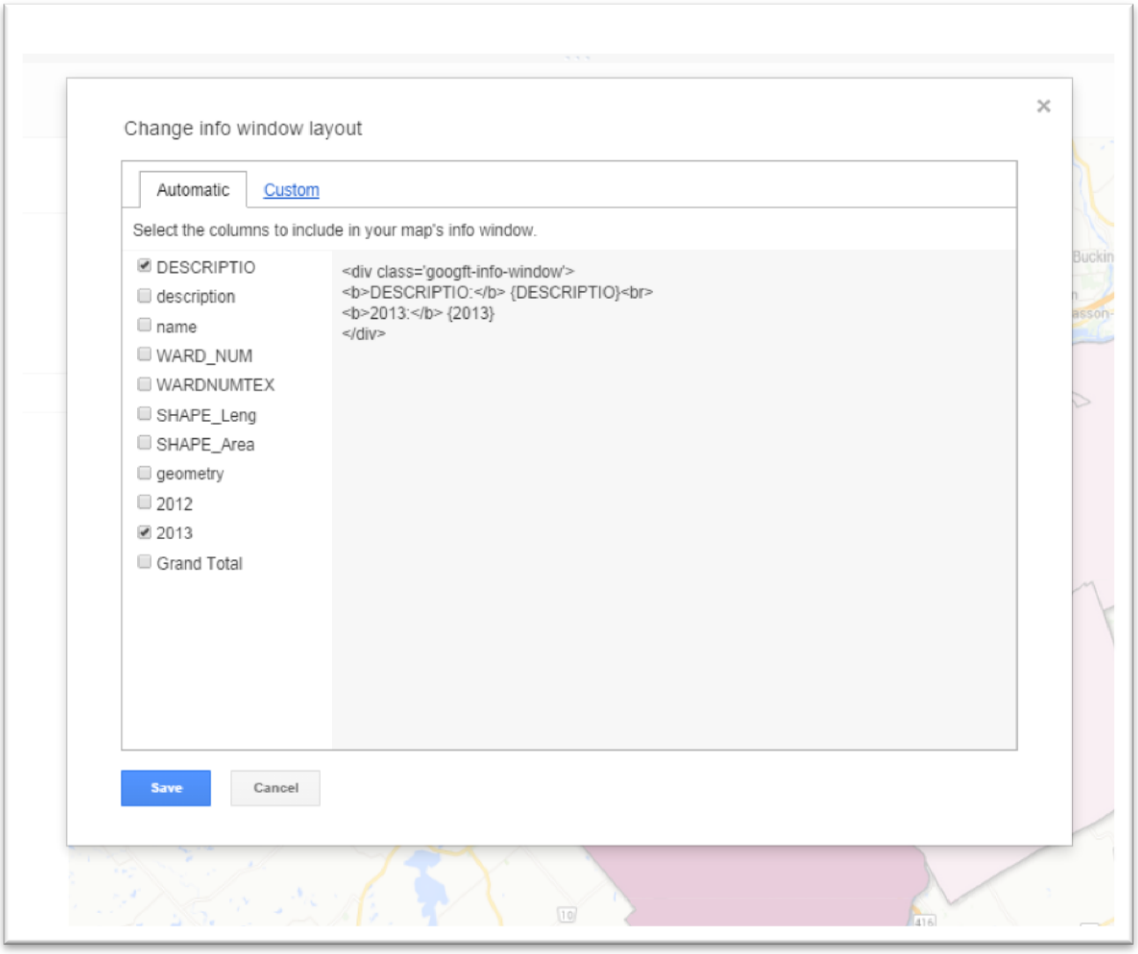
71)

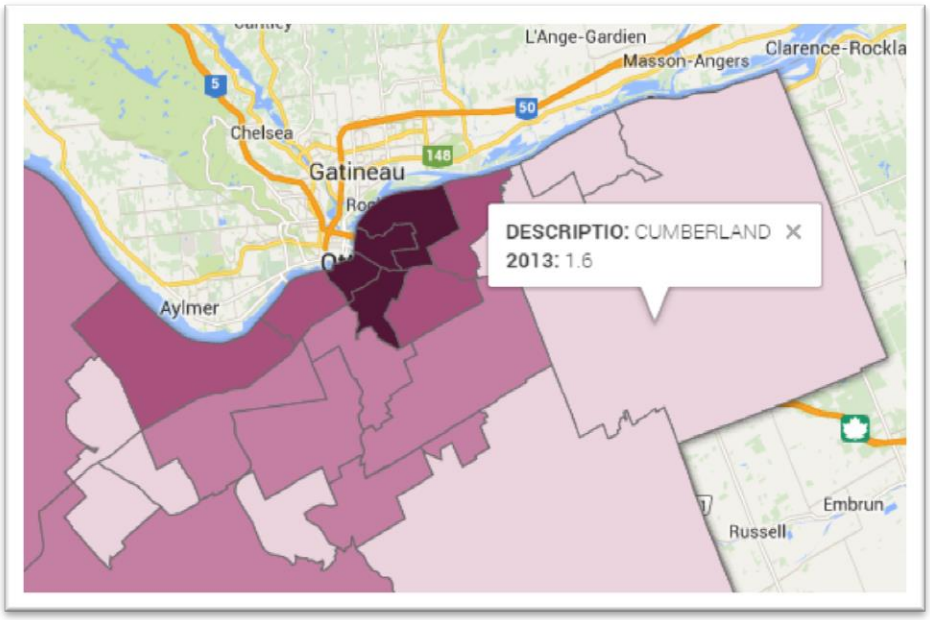

Change info window layout
Automatic
Custom
Select the columns to include in your map's info window.
DESCRIPTIO
description
name
WARD_NUM
WARDNUMTEX
SHAPE_Leng
SHAPE_Area
geometry
2012
2013
Grand Total

DESCRIPTIO: {DESCRIPTIO}
description: {description}
name: {name}
WARD_NUM: {WARD_NUM}
WARDNUMTEX: {WARDNUMTEX}
SHAPE_Leng: {SHAPE_Leng}
SHAPE_Area: {SHAPE_Area}
2012: {2012}
2013: {2013}
Grand Total: {Grand Total}

Save
Cancel

72) We only want the ward name " Description" and the value in "2013".

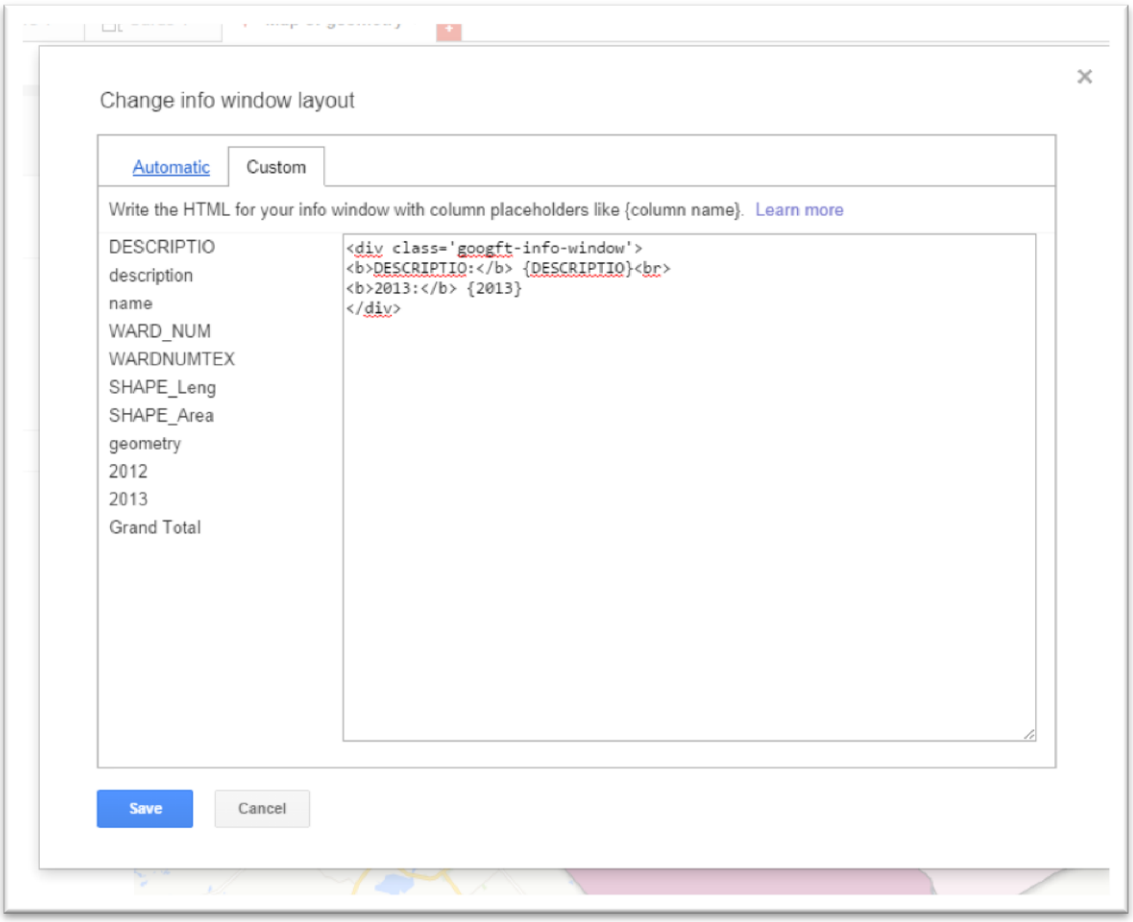




73)

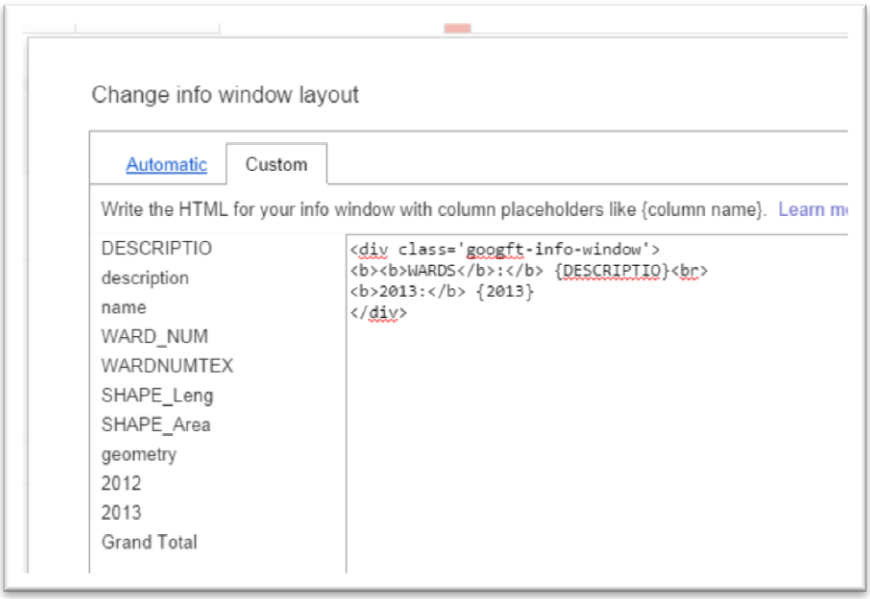
74) Clicking within many of the other boundaries, will produce pop-ups where the content spills beyond the boundaries. To solve this problem, you can make adjustments in the “Change info window layout’s” “Custom” section. With a little bit of HTML knowledge, you can manually change the name of the files to the

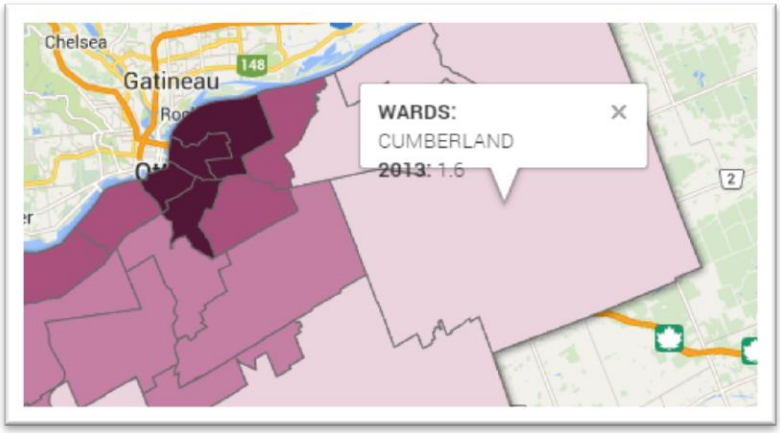
left of the colons.



75) For instance, if you want to replace the name "DESCRIPTION" with a label that will make more sense to your

readers, you can change it to “WARDS”, and even highlight it in bold.

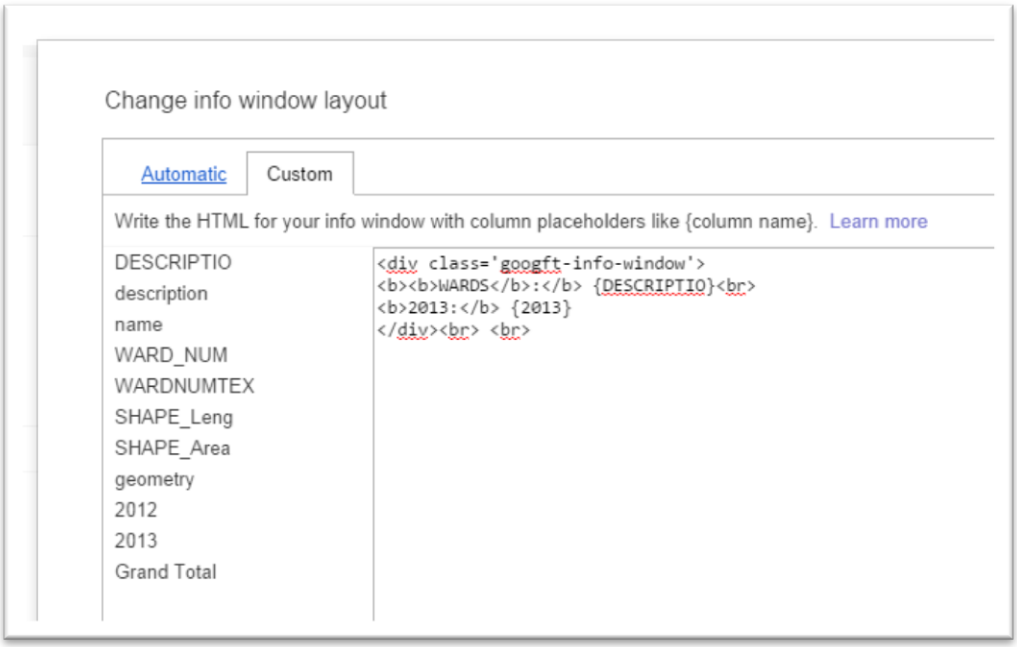


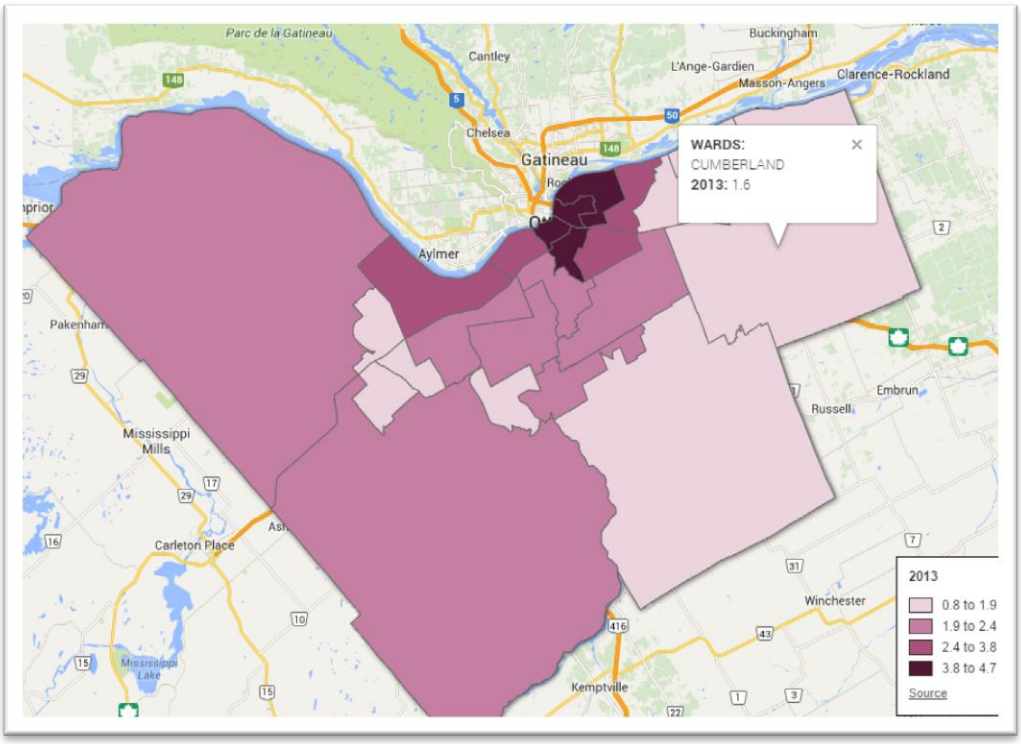


76)

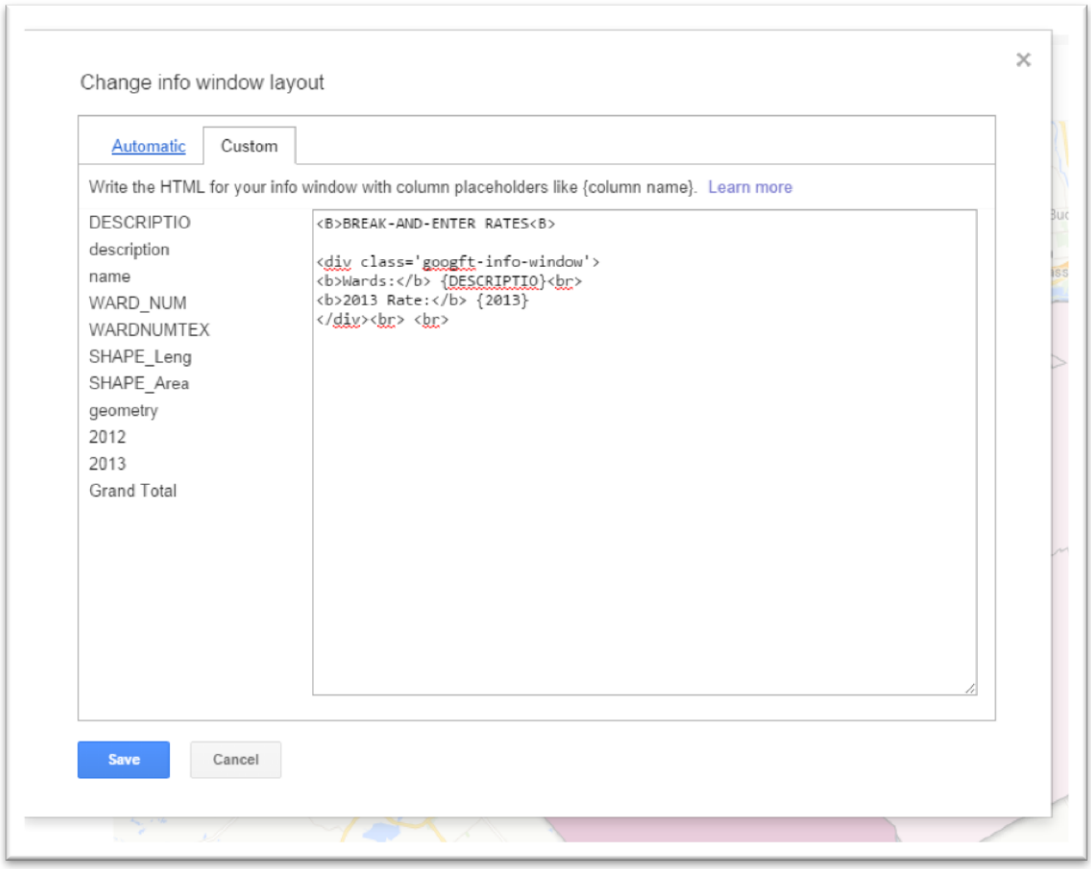
77) Not bad, but now we can see that the content is spilling outside the boundaries, making the numbers difficult to read.

78) Return to the “Change info window layout” box, and then the “Custom” tab, and add two line break tags
, which will extend the paragraph, which in this case will be the white space at the bottom of the pop-up box.



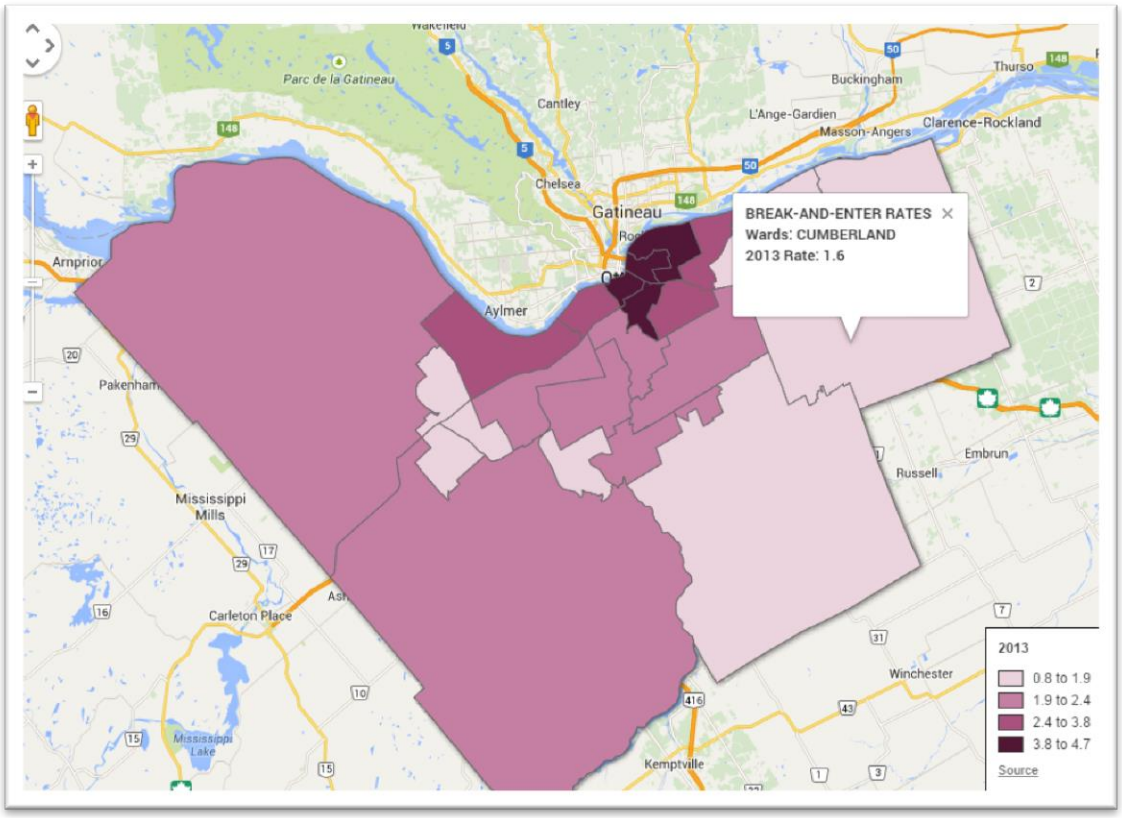


79) Returning to the “Custom” tab, you can now play around a bit more with the pop-up box’s content by giving it a title in bold, changing the Ward name to lower case so that it doesn’t clash with the title, and making the 2013 title a bit more descriptive.

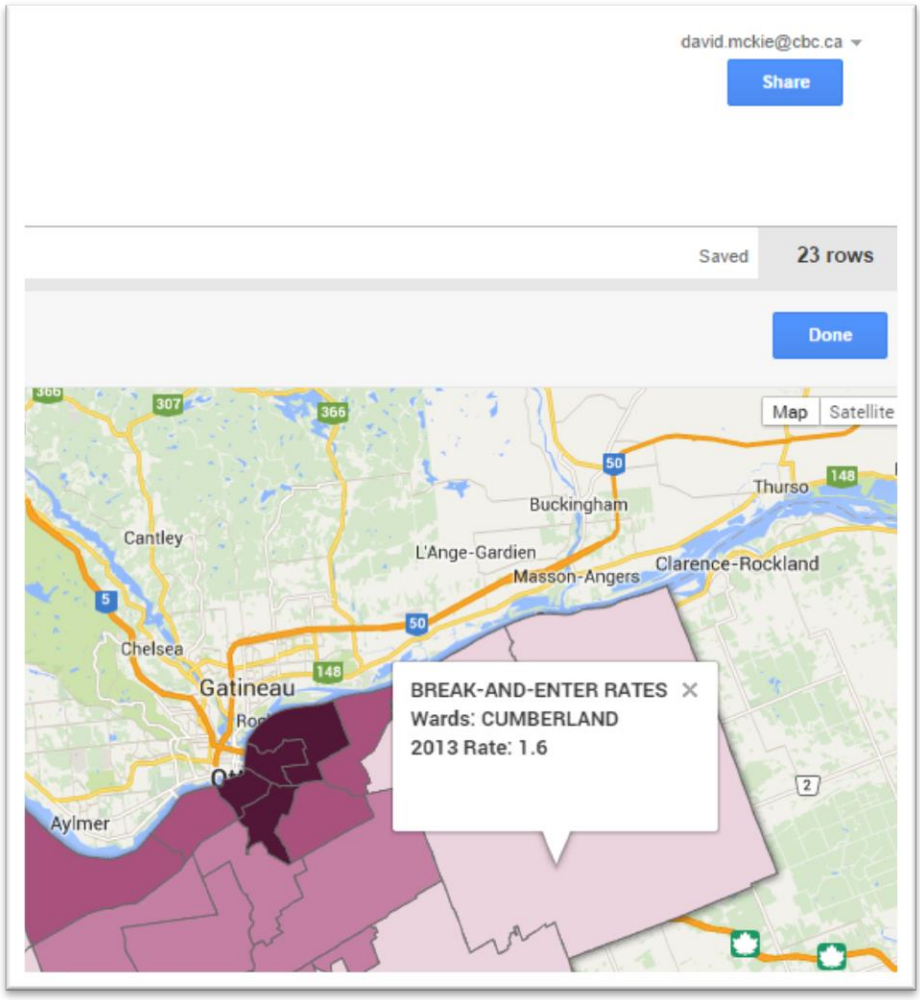

Change info window layout
Automatic
Custom
Write the HTML for your info window with column placeholders like {column name). Learn more
DESCRIPTIO
description
name
WARD_NUM
WARDNUMTEX
SHAPE_Leng
SHAPE_Area
geometry
2012
2013
Grand Total
<B>BREAK-AND-ENTER RATES<B>

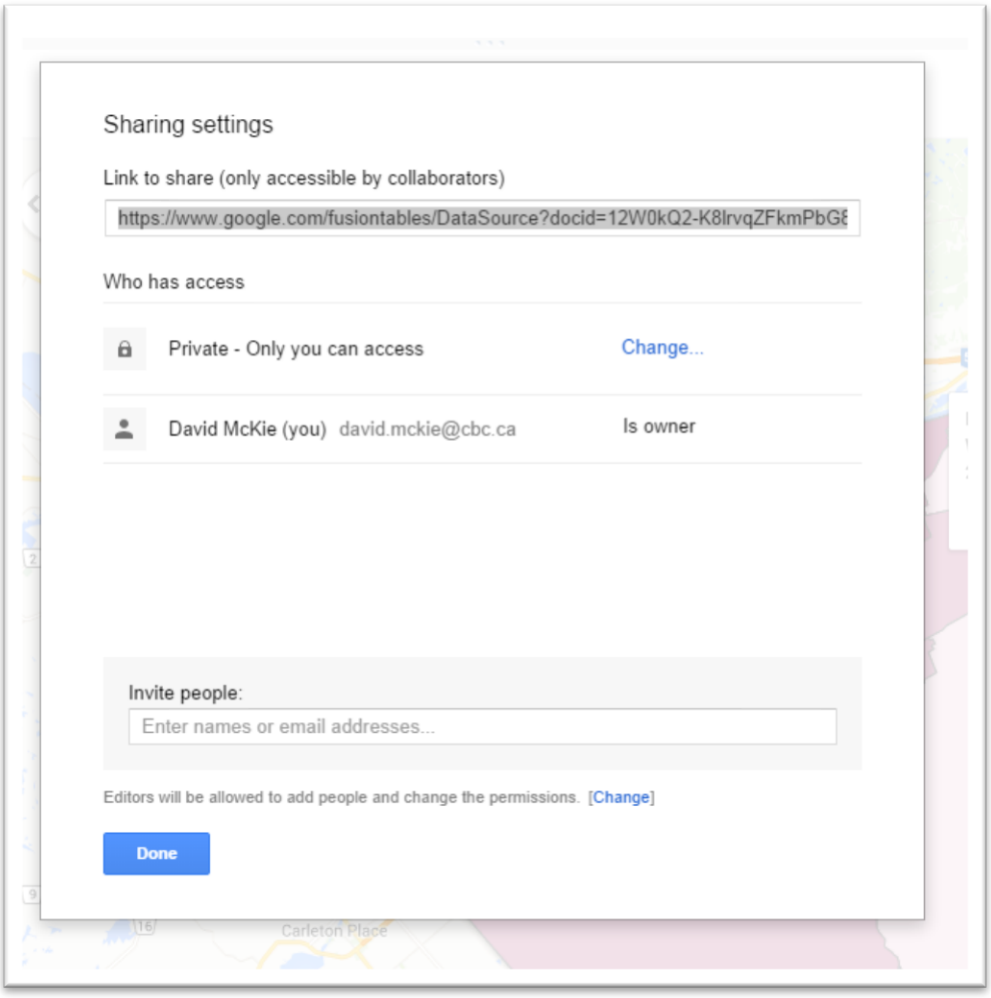
Wards: {DESCRIPTIO}
2013 Rate: {2013}

Save
Cancel

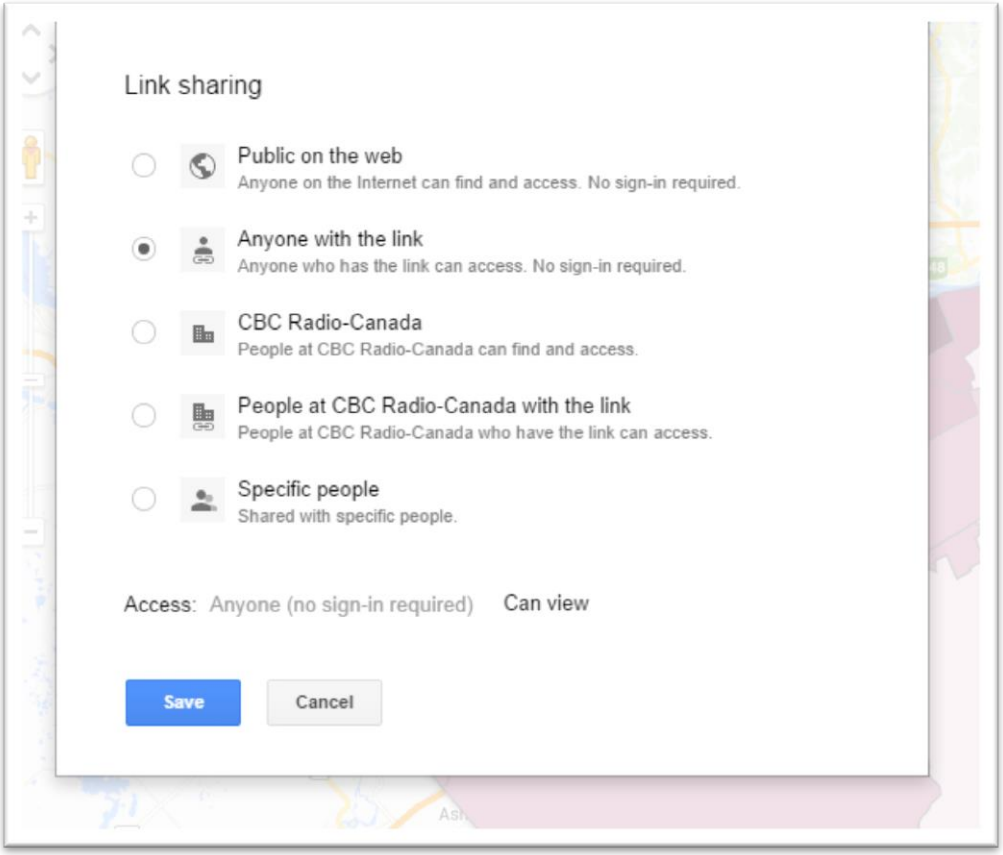


80) That's a lot better. Now we want to "Share" it so that the world can see, or at least the people we designate like an editor, producer or colleague.

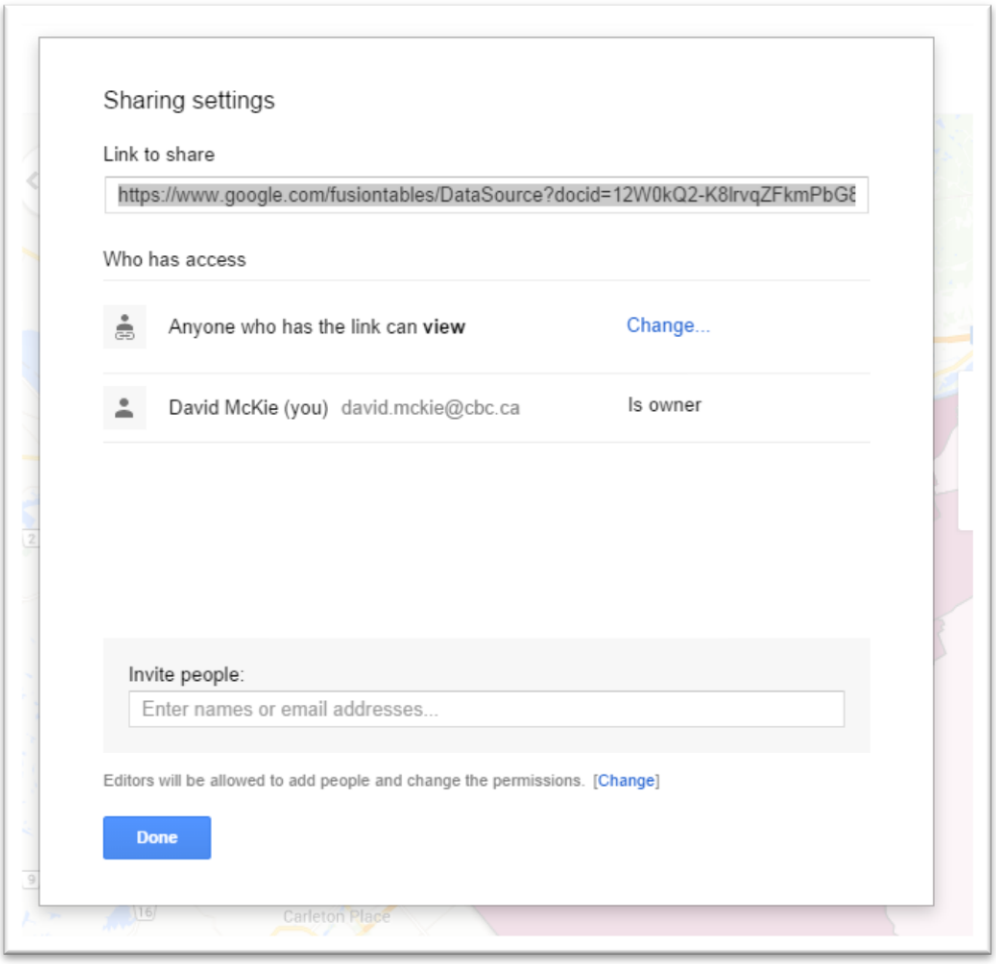

david.mckie@cbc.ca
Share
Saved
23 rows
Done
Map
Satellite
Buckingham
Thurso
Cantley
L'Ange-Gardien
Masson-Angers
Clarence-Rockland
Chelsea
Gatineau
Aylmer
BREAK-AND-ENTER RATES
Wards: CUMBERLAND
2013 Rate: 1.6


Sharing settings
Link to share (only accessible by collaborators)
https://www.google.com/fusiontables/DataSource?docid=12W0kQ2-K8lrvqZFkmPbG8
Who has access
Private - Only you can access
Change...
David McKie (you) david.mckie@cbc.ca
Is owner
Invite people:
Enter names or email addresses...
Editors will be allowed to add people and change the permissions. [Change]
Done
Carleton Place

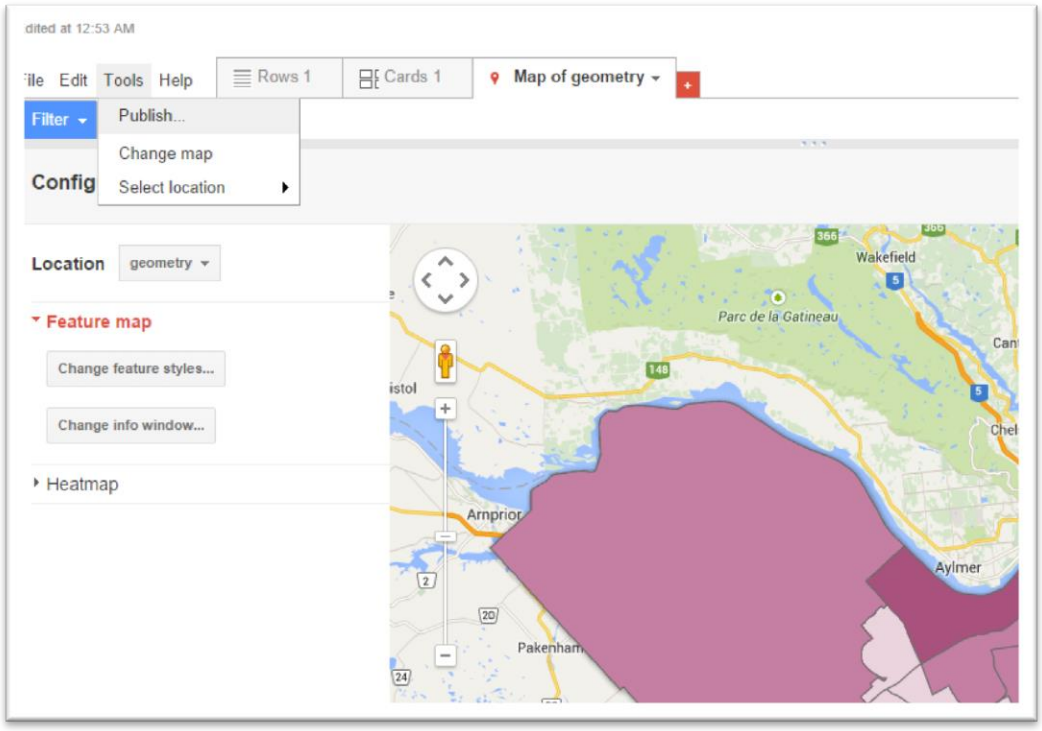
81) Select the “Change” link to alter the “Private” setting, and check the radio box beside the “Anyone with the link” option.

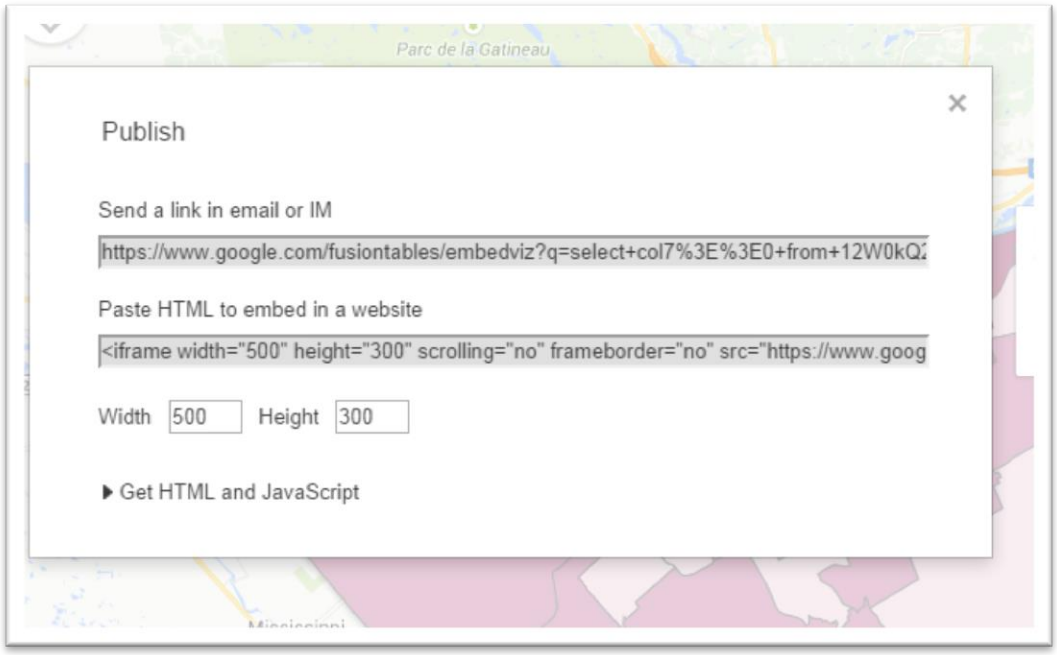


82) Save these settings.

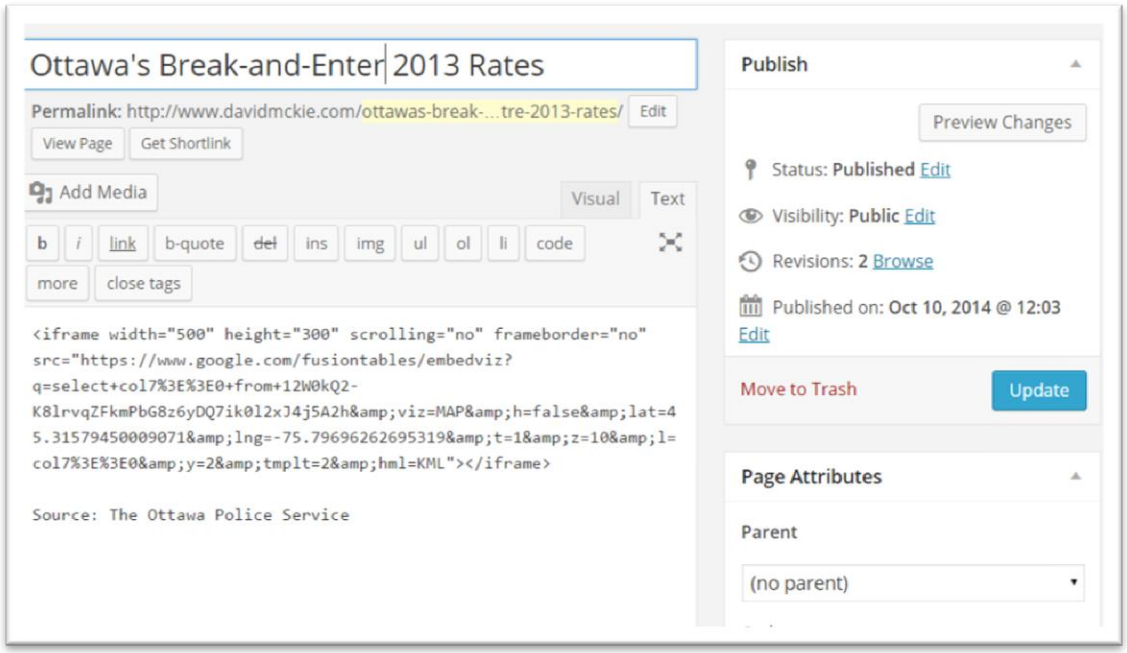


83) Now you have a link you can share. But what if we want to embed this map into our blog post? To do that, let's go to "Tools" drop-down menu and choose the "Publish" option.

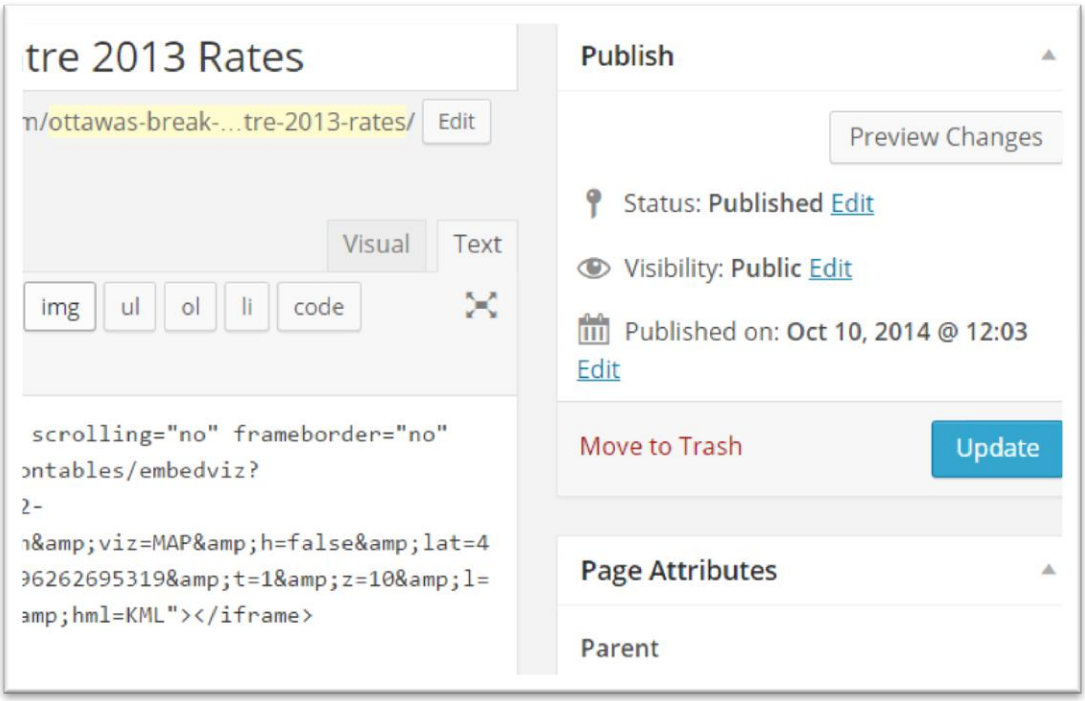




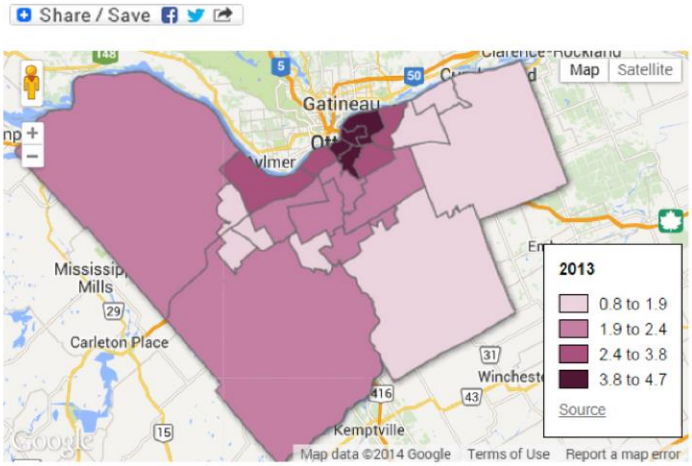
84) Select the HTML code and copy the code which you can paste into your Wordpress' "Text" or HTML view give it a title, and a line at the bottom of the embed code indicating the source.



85) Select the Publish tab and then view the page by selecting the “Preview Changes” tab (NOTE: do this without switching to the “Visual” tab. You won’t see the table in the Visual tab anyway, and for some strange reason, Wordpress can mess up the embed code. So when place your embed code into the html or Text view, just preview it right away and Wordpress preserves the coding, allowing you to return to the Visual tab and continue adding text.)



Ottawa's Break-and-Enter 2013 Rates



Source: The Ottawa Police Service

86) If you want to change the height and width dimensions, you can return to the html view to do so.

87) Now you have your map that identifies hotspots.

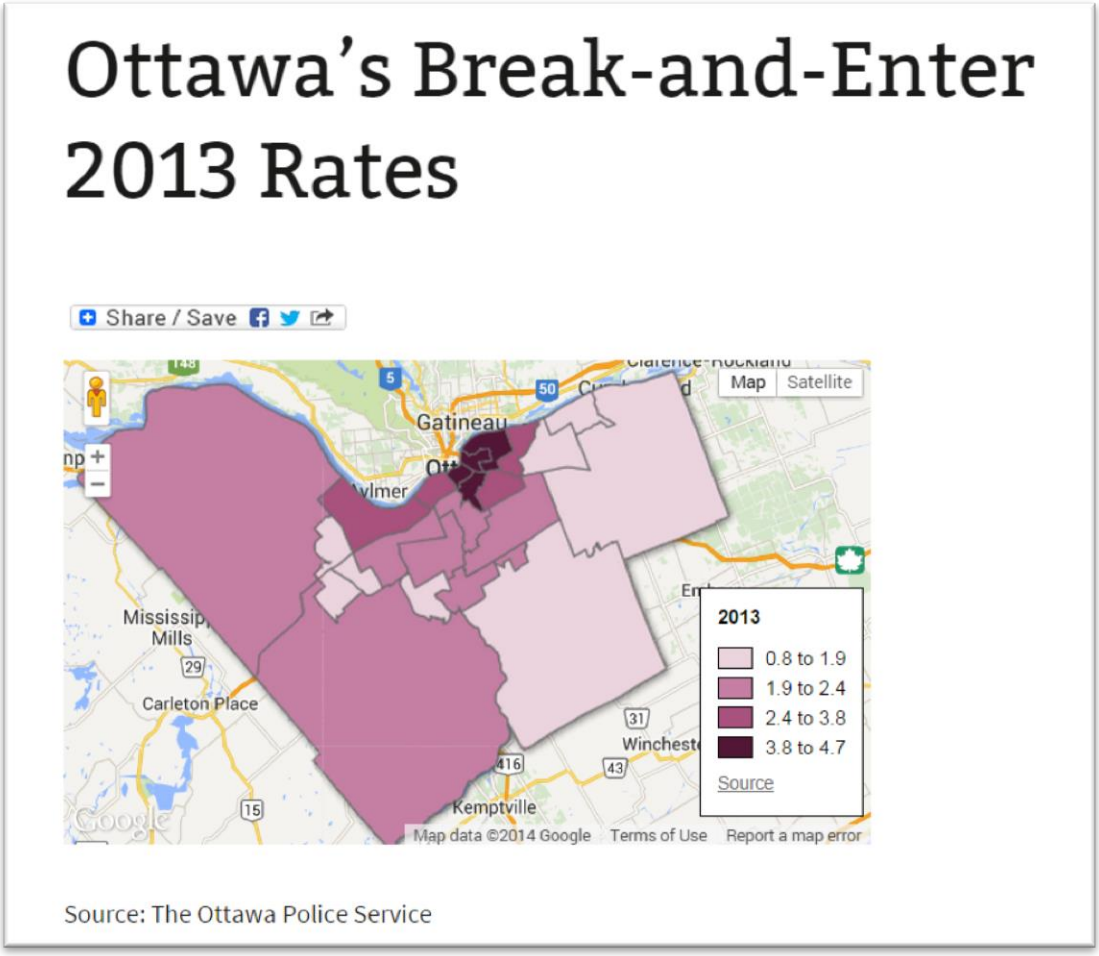
88) So think about what we've done in these tutorials. We've gone from this.

89) To this.

90)

	A	B	C	D
1	Wards	2012	2013	Grand Total
2	Rideau-Vanier	5.5	4.6	5.1
3	Somerset	4.6	4.5	4.5
4	Rideau-Rockcliffe	3.9	4.3	4.1
5	Capital	4.1	3.8	3.9
6	Beacon Hill-Cyrville	2.8	3.7	3.2
7	Alta Vista	5.0	3.6	4.3
8	Kitchissippi	6.0	3.5	4.8
9	Bay	2.4	2.4	2.4
10	Rideau-Goulbourn	2.9	2.3	2.6
11	Knoxdale-Merivale	2.5	2.1	2.3
12	Gloucester-Southgate	2.0	2.1	2.0
13	River	3.1	2.0	2.6
14	West Carleton-March	2.2	2.0	2.1
15	Gloucester-South Nepean	1.8	1.9	1.8
16	College	3.3	1.9	2.6
17	Osgoode	3.8	1.8	2.8
18	Cumberland	2.0	1.6	1.8
19	Innes	1.8	1.2	1.5
20	Kanata South	1.5	1.2	1.3
21	Barrhaven	1.5	1.1	1.3
22	Orleans	1.2	0.9	1.0
23	Kanata North	2.3	0.9	1.6
24	Stittsville-Kanata West	1.6	0.8	1.2
25				

91) To this.



92) The heat map reflects the numbers in the pivot table above. In other words, it's another way of allowing your audience to see the numbers, and we've used colours to direct the eye towards the highest areas of concentration.