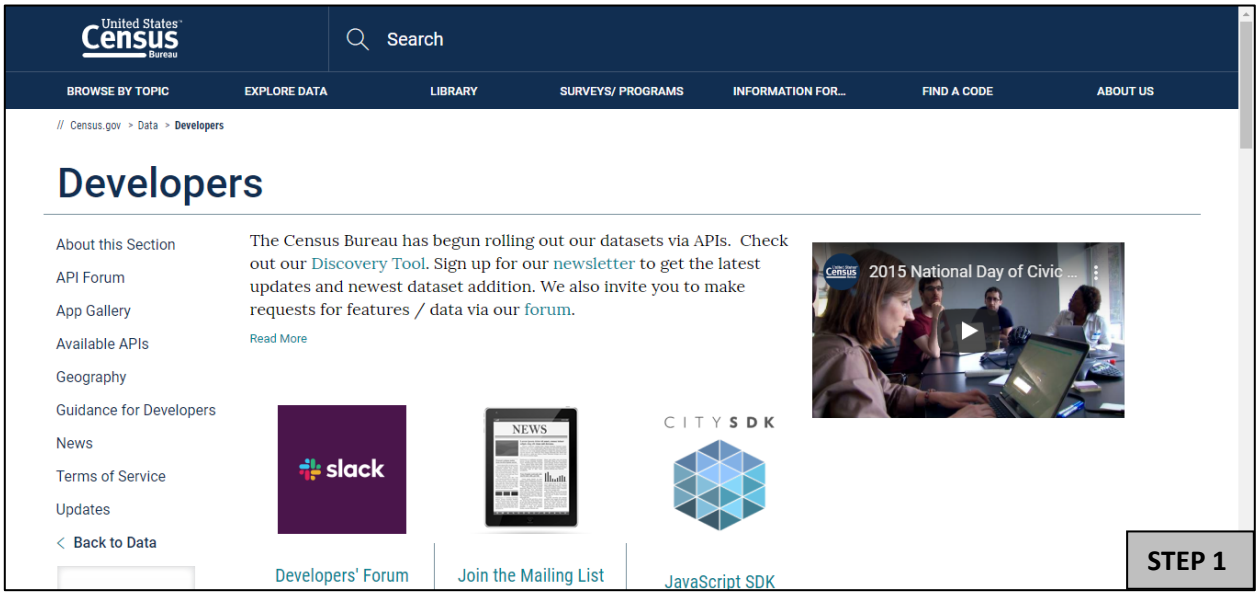
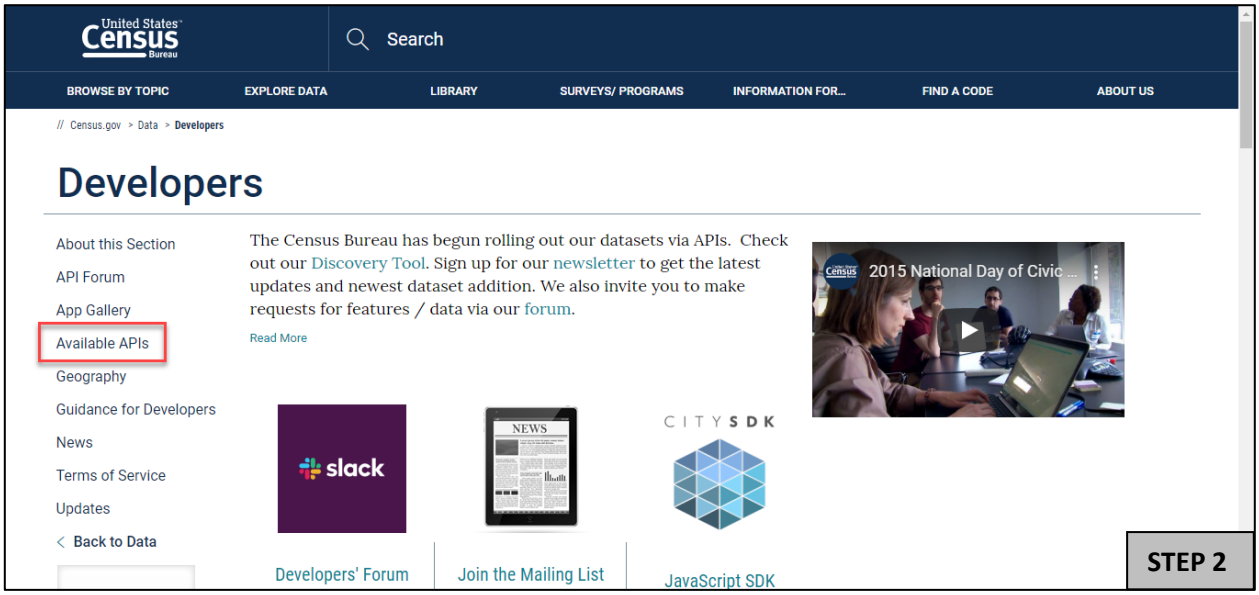
Instruction for Downloading Data from the Census Data API:
2018 American Community Survey 1-Year Data Profiles for All Congressional Districts in the U.S. for the 116th Congress

Follow these steps for building an API call (or a URL) for pulling data from the 2018 American Community Survey 1-Year Data Profiles for All Congressional Districts in the U.S. for the 116th Congress.

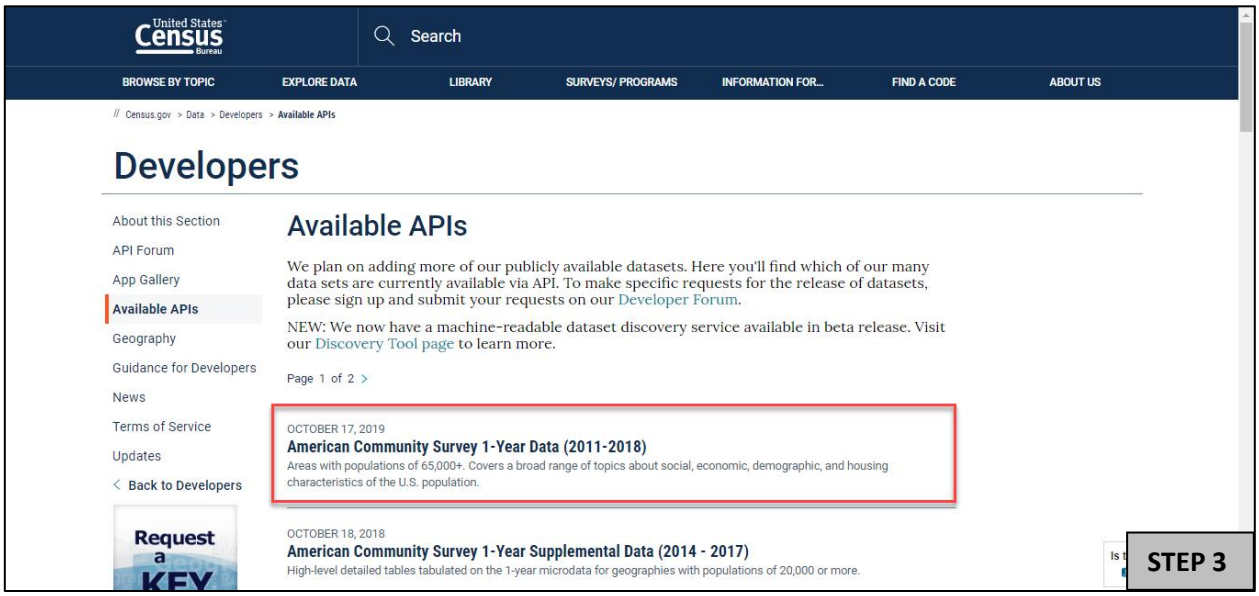
Step 1: Using Firefox or Chrome web browser, go to the census.gov Developers Page at: https://www.census.gov/developers/.



Step 2. On the left side of the screen, click on "Available APIs".



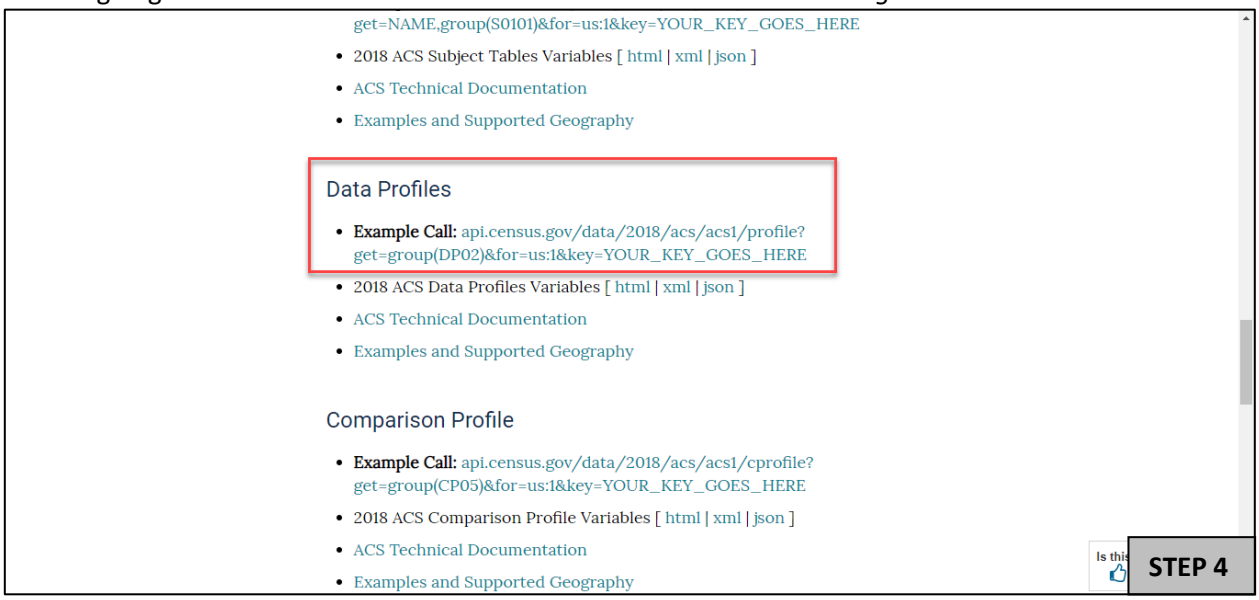
Step 3: Click on American Community Survey 1-Year Data (2011-2018).



Step 4. Scroll down until you see “Data Profiles.” Under data profiles, you should see “Example Call”. Copy/paste the URL into Firefox or Chrome if you are not already using these web browsers.

https://api.census.gov/data/2018/acs/acs1/profile?get=group(DP02)&for=us:1&key=YOUR_KEY_GOES_HERE

We are going to use this URL to build an API call for table DP02 for *all congressional districts*.



Step 5. There are three parts of the URL that you will need to change:

a) First, add the geographic area name, NAME, to the URL.
At the **(?get=)** portion of the URL add "**NAME,**" Adding NAME will give us the labels associated with the geographies instead of only the geographic code.

api.census.gov/data/2018/acs/acs1/profile?get=NAME,group(DP02)&for=us:1&key=YOUR_KEY_GOES_HERE

b) Since we want to build a URL for the "all congressional districts," change the section of the URL from the U.S. to all congressional districts. Change the (**&for=us:1**) to (**&for=congressional%20district:***).

api.census.gov/data/2018/acs/acs1/profile?get=NAME,group(DP02)&for=congressional%20district:*&key=YOUR_KEY_GOES_HERE

c) Last, delete the portion of the URL, **&key=YOUR_KEY_GOES_HERE**.

api.census.gov/data/2018/acs/acs1/profile?get=NAME,group(DP02)&for=congressional%20district:*

There are more geographies available, and you can find the complete list here: https://api.census.gov/data/2018/acs/acs1.html. Clicking the geographies link will show you the list of geographies available, but the examples will show you how to build URLs (or API calls) for all the geographies.

Census API: Datasets in /data/2018/acs/acs1 and its descendants

Title	Description	Vintage	Dataset Name	Geography List	Variable List	Group List	Tag List	Examples	Developer Documentation	API Base URL
American Community Survey: 1-Year Estimates: Detailed Tables 1-Year	The American Community Survey (ACS) is an ongoing survey that provides data every year -- giving communities the current information they need to plan investments and services. The ACS covers a broad range of topics about social, economic, demographic, and housing characteristics of the U.S. population. Much of the ACS data provided on the Census Bureau's Web site are available separately by age group, race, Hispanic origin, and sex. Summary files, Subject tables, Data profiles, and Comparison profiles are available for the nation, all 50 states, the District of Columbia, Puerto Rico, every congressional district, every metropolitan area, and all counties and places with populations of 65,000 or more. Detail Tables contain the most detailed cross-tabulations published for areas 65k and more. The data are population counts. There are over 31,000 variables in this dataset.	2018	acs, acs1	geographies	variables	groups	tags	examples	documentation	https://api.census.gov/data/2018/acs/acs1
American Community Survey: 1-Year Estimates: Comparison Profiles 1-Year	The American Community Survey (ACS) is an ongoing survey that provides data every year -- giving communities the current information they need to plan investments and services. The ACS covers a broad range of topics about social, economic, demographic, and housing characteristics of the U.S. population. Much of the ACS data provided on the Census Bureau's Web site are available separately by age group, race, Hispanic origin, and sex. Summary files, Subject tables, Data profiles, and Comparison profiles are available for the nation, all 50 states, the District of Columbia, Puerto Rico, every congressional district, every metropolitan area, and all counties and places with populations of 65,000 or more. Comparison profiles are similar to data profiles but also include comparisons with past-year data. The current year data are compared with each of the last four years of data and include statistical significance testing. There are over 1,000 variables in this dataset.	2018	acs, acs1, cprofile	geographies	variables	groups	N/A	examples	documentation	https://api.census.gov/data/2018/acs/acs1/cprofile
ACS 1-Year Profile Tables	The American Community Survey (ACS) is an ongoing survey that provides data every year -- giving communities the current information they need to plan investments and services. The ACS covers a broad range of topics about social, economic, demographic, and housing characteristics of the U.S. population. Much of the ACS data provided on the Census Bureau's Web site are available separately by age group, race, Hispanic origin, and sex. Summary files, Subject tables, Data profiles, and Comparison profiles are available for the nation, all 50 states, the District of Columbia, Puerto Rico, every congressional district, every metropolitan area, and all counties and places with populations of 65,000 or more. Data profiles contain broad social, economic, housing, and demographic information. The data are presented as population counts and percentages. There are over 1,000 variables in this dataset.	2018	acs, acs1, profile	geographies	variables	groups	N/A	examples	documentation	https://api.census.gov/data/2018/acs/acs1/profile

3 datasets

Step 6: After making these adjustments to the URL, the final query is:
https://api.census.gov/data/2018/acs/acs1/profile?get=NAME,group(DP02)&for=congressional%20district:*

Hit the Enter key to pull the results. The results are in json format. Below are the first few lines.


```
[["NAME","GEO_ID","DP02_0001E","DP02_0001M","DP02_0001PE","DP02_0001PM","DP02_0002E","DP02_0002M","DP02_0002PE","DP02_0002PM","DP02_0003E","DP02_0003M","DP02_0003PE","D
P02_0003PM","DP02_0004E","DP02_0004M","DP02_0004PE","DP02_0004PM","DP02_0005E","DP02_0005M","DP02_0005PE","DP02_0005PM","DP02_0006E","DP02_0006M","DP02_0006PE","DP02_00
06PM","DP02_0007E","DP02_0007M","DP02_0007PE","DP02_0007PM","DP02_0008E","DP02_0008M","DP02_0008PE","DP02_0008PM","DP02_0009E","DP02_0009M","DP02_0009PE","DP02_0009PM",
"DP02_0010E","DP02_0010M","DP02_0010PE","DP02_0010PM","DP02_0011E","DP02_0011M","DP02_0011PE","DP02_0011PM","DP02_0012E","DP02_0012M","DP02_0012PE","DP02_0012PM","DP02_
0013E","DP02_0013M","DP02_0013PE","DP02_0013PM","DP02_0014E","DP02_0014M","DP02_0014PE","DP02_0014PM","DP02_0015E","DP02_0015M","DP02_0015PE","DP02_0015PM","DP02_0016E"
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","DP02_0022PE","DP02_0022PM","DP02_0023E","DP02_0023M","DP02_0023PE","DP02_0023PM","DP02_0024E","DP02_0024M","DP02_0024PE","DP02_0024PM","DP02_0025E","DP02_0025M","DP0
2_0025PE","DP02_0025PM","DP02_0026E","DP02_0026M","DP02_0026PE","DP02_0026PM","DP02_0027E","DP02_0027M","DP02_0027PE","DP02_0027PM","DP02_0028E","DP02_0028M","DP02_0028
PE","DP02_0028PM","DP02_0029E","DP02_0029M","DP02_0029PE","DP02_0029PM","DP02_0030E","DP02_0030M","DP02_0030PE","DP02_0030PM","DP02_0031E","DP02_0031M","DP02_0031PE","D
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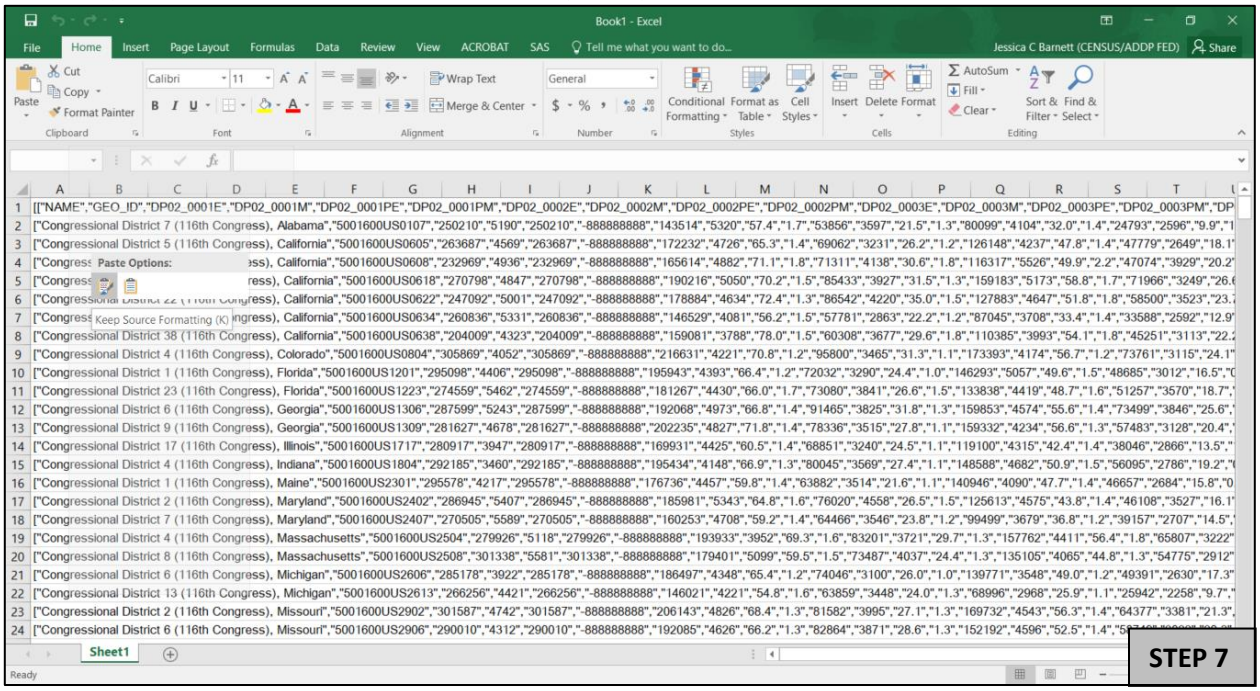
Step 7: Copy all of these results into MS Excel:

a) Press Ctrl-A to select all contents on the page

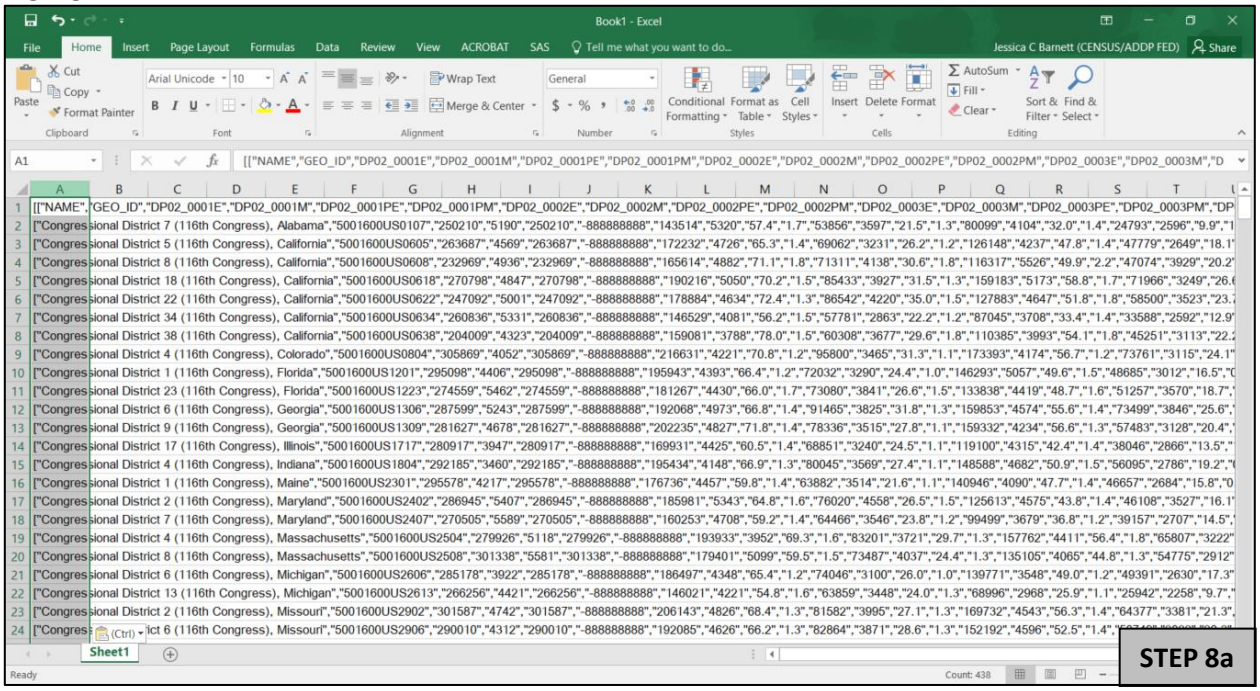
b) Press Ctrl-C to copy

c) Paste into the first cell of MS Excel (Ctrl-V)

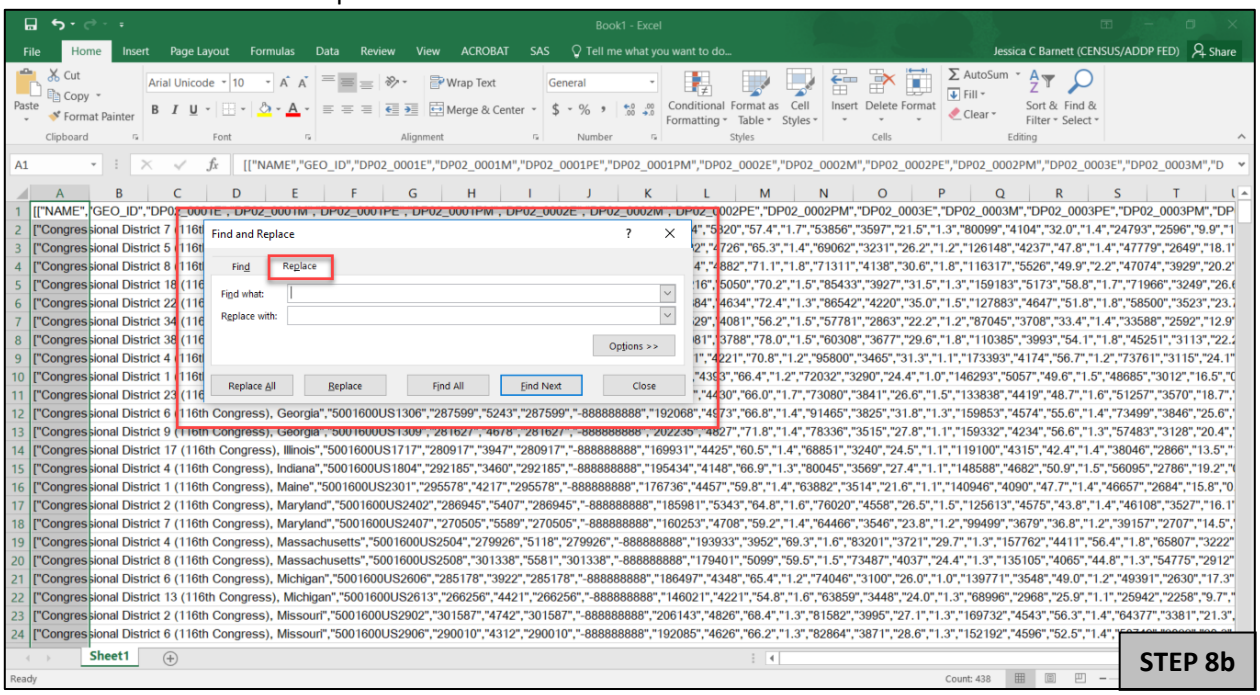


Step 8: Next, we need to format the results in Excel by removing the comma between (116th Congress) and the states.

a) Highlight Column A in Excel.



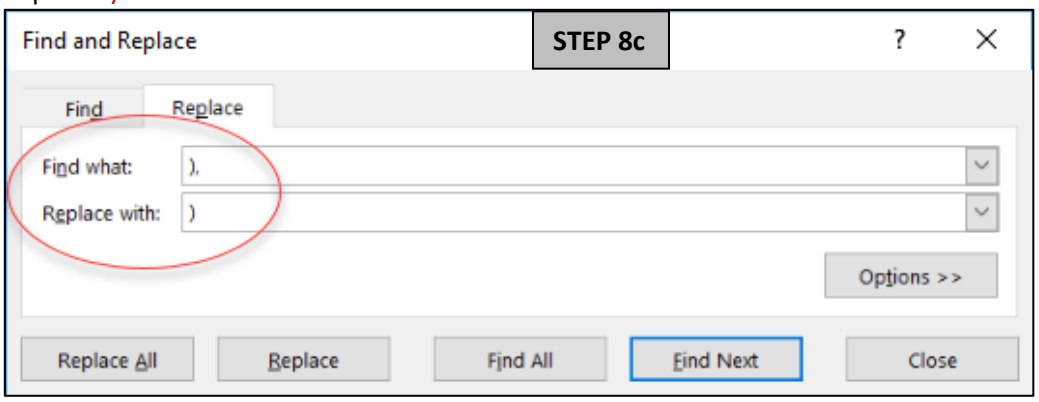
b) Press Ctrl- F and click the Replace Tab



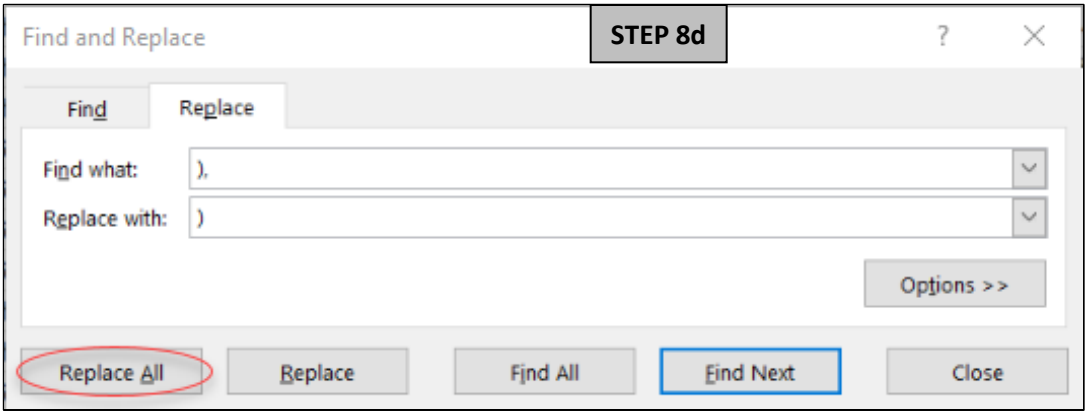
c) Enter the following:

a. Find what:),

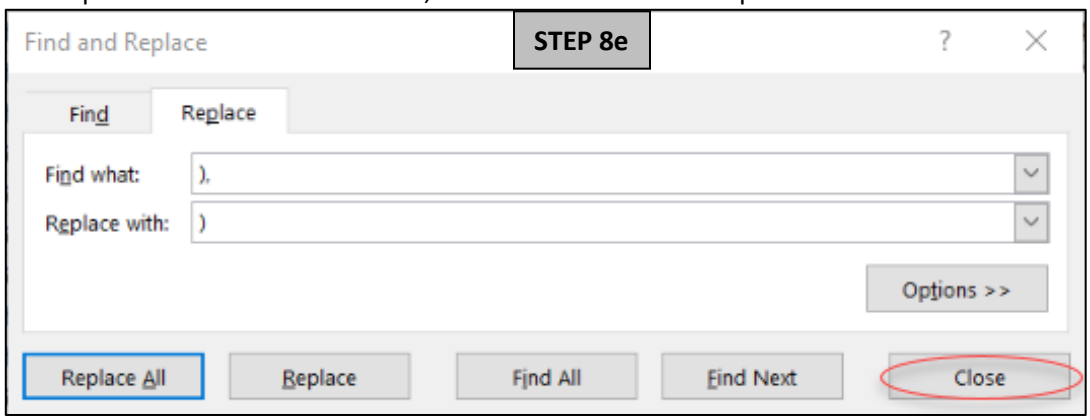
b. Replace:)



d) Click Replace All.



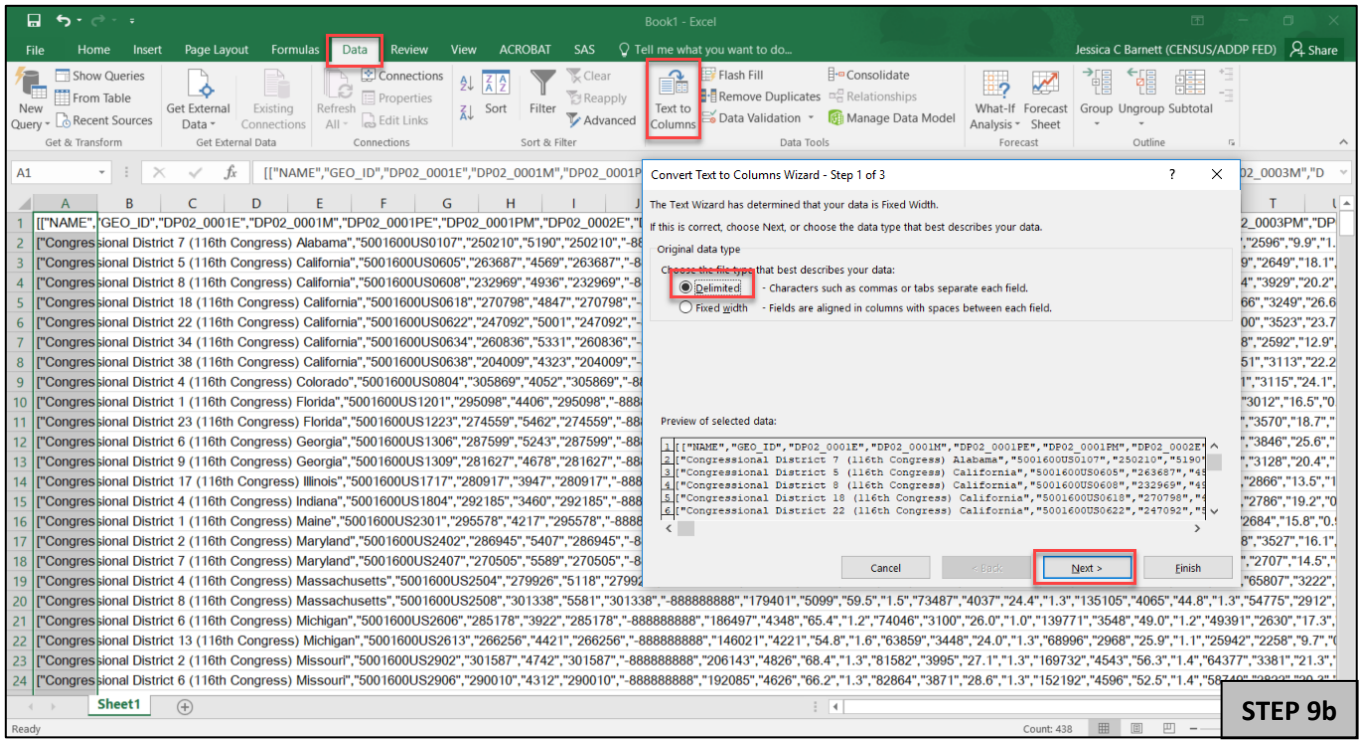
e) Once all replacements have been made, close out the Find and Replace box.



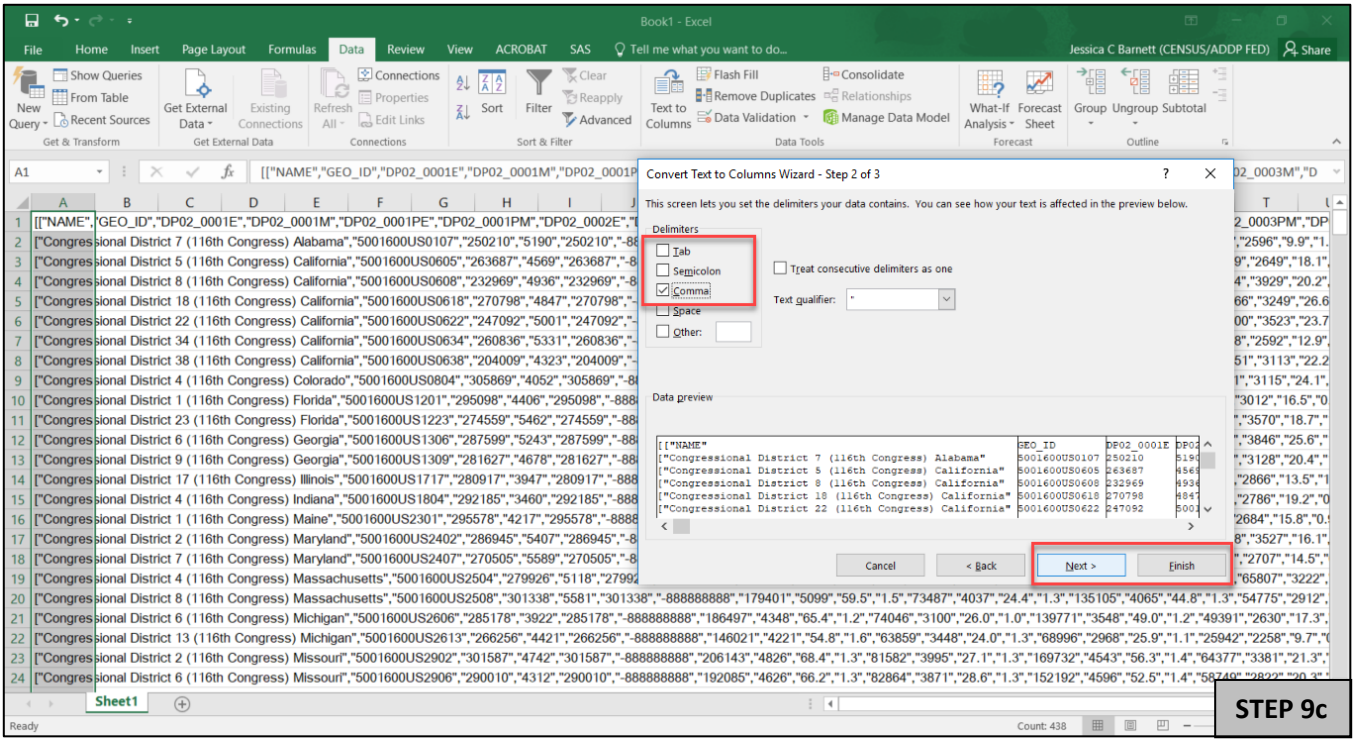
Step 9: Now convert the text to columns.

a) Highlight column A again.

b) Click Data -> Click Text to Columns -> Select Delimited -> Click Next.



c) Uncheck Tab and Check Comma -> Click Next -> Click Finish.



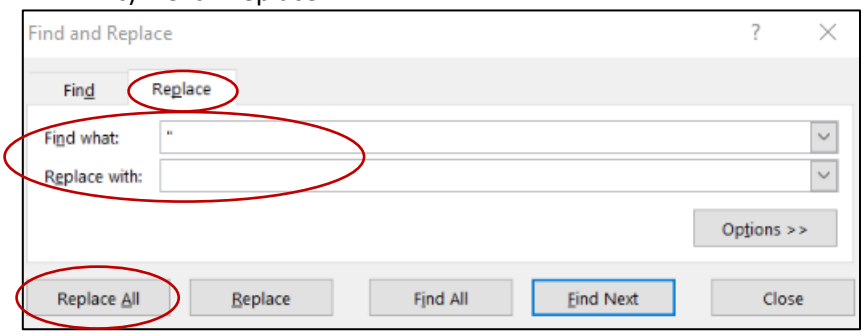
Now, we have our table, but we need to clean up the quotation marks and brackets.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	[["NAME"	GEO_ID	DP02_000	DP02_000	DP02_000	DP02_000	DP02_000	DP02_000	DP02_000	DP02_000	DP02_000	DP02_000	DP02_000	DP02_000
2	["Congressional District 7 (116th Congress) Alabama"	5001600U	250210	5190	250210	-8.9E+08	143514	5320	57.4	1.7	53856	3597	21.5	1.3
3	["Congressional District 5 (116th Congress) California"	5001600U	263687	4569	263687	-8.9E+08	172232	4726	65.3	1.4	69062	3231	26.2	1.2
4	["Congressional District 8 (116th Congress) California"	5001600U	232969	4936	232969	-8.9E+08	165614	4882	71.1	1.8	71311	4138	30.6	1.8
5	["Congressional District 18 (116th Congress) California"	5001600U	270798	4847	270798	-8.9E+08	190216	5050	70.2	1.5	85433	3927	31.5	1.3
6	["Congressional District 22 (116th Congress) California"	5001600U	247092	5001	247092	-8.9E+08	178884	4634	72.4	1.3	86542	4220	35	1.5
7	["Congressional District 34 (116th Congress) California"	5001600U	260836	5331	260836	-8.9E+08	146529	4081	56.2	1.5	57781	2863	22.2	1.2
8	["Congressional District 38 (116th Congress) California"	5001600U	204009	4323	204009	-8.9E+08	159081	3788	78	1.5	60308	3677	29.6	1.8
9	["Congressional District 4 (116th Congress) Colorado"	5001600U	305869	4052	305869	-8.9E+08	216631	4221	70.8	1.2	95800	3465	31.3	1.1
10	["Congressional District 1 (116th Congress) Florida"	5001600U	295098	4406	295098	-8.9E+08	195943	4393	66.4	1.2	72032	3290	24.4	1
11	["Congressional District 23 (116th Congress) Florida"	5001600U	274559	5462	274559	-8.9E+08	181267	4430	66	1.7	73080	3841	26.6	1.5
12	["Congressional District 6 (116th Congress) Georgia"	5001600U	287599	5243	287599	-8.9E+08	192068	4973	66.8	1.4	91465	3825	31.8	1.3
13	["Congressional District 9 (116th Congress) Georgia"	5001600U	281627	4678	281627	-8.9E+08	202235	4827	71.8	1.4	78336	3515	27.8	1.1
14	["Congressional District 17 (116th Congress) Illinois"	5001600U	280917	3947	280917	-8.9E+08	169931	4425	60.5	1.4	68851	3240	24.5	1.1
15	["Congressional District 4 (116th Congress) Indiana"	5001600U	292185	3460	292185	-8.9E+08	195434	4148	66.9	1.3	80045	3569	27.4	1.1
16	["Congressional District 1 (116th Congress) Maine"	5001600U	295578	4217	295578	-8.9E+08	176736	4457	59.8	1.4	63882	3514	21.6	1.1
17	["Congressional District 2 (116th Congress) Maryland"	5001600U	286945	5407	286945	-8.9E+08	185981	5343	64.8	1.6	76020	4558	26.5	1.5
18	["Congressional District 7 (116th Congress) Maryland"	5001600U	270505	5589	270505	-8.9E+08	160253	4708	59.2	1.4	64466	3546	23.8	1.2
19	["Congressional District 4 (116th Congress) Massachusetts"	5001600U	279926	5118	279926	-8.9E+08	193933	3952	69.3	1.6	83201	3721	29.7	1.3
20	["Congressional District 8 (116th Congress) Massachusetts"	5001600U	301338	5581	301338	-8.9E+08	179401	5099	59.5	1.5	73487	4037	24.4	1.3
21	["Congressional District 6 (116th Congress) Michigan"	5001600U	285178	3922	285178	-8.9E+08	186497	4348	65.4	1.2	74046	3100	26	1
22	["Congressional District 13 (116th Congress) Michigan"	5001600U	266256	4421	266256	-8.9E+08	146021	4221	54.8	1.6	63859	3448	24	1.3
23	["Congressional District 2 (116th Congress) Missouri"	5001600U	301587	4742	301587	-8.9E+08	206143	4826	68.4	1.3	81582	3995	27.1	1.3
24	["Congressional District 6 (116th Congress) Missouri"	5001600U	290010	4312	290010	-8.9E+08	192085	4626	66.2	1.3	82864	3871	28.6	1.3

Step 10: To remove the quotation marks and brackets:

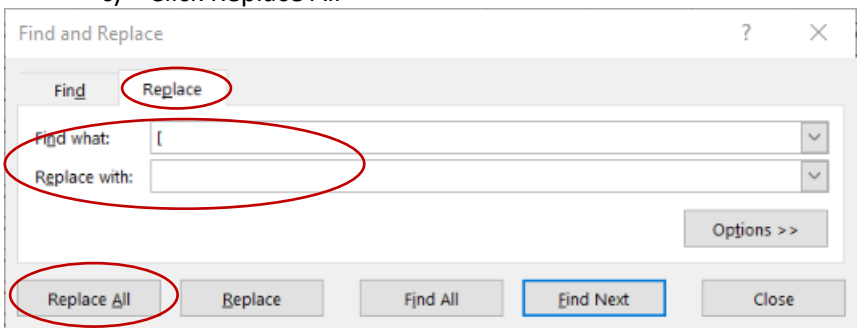
Quotation Marks

a) Press Ctrl- F and click the Replace tab.
b) Enter the following:
   - Find what: “
   - Replace: *(leave this blank)*
c) Click Replace All



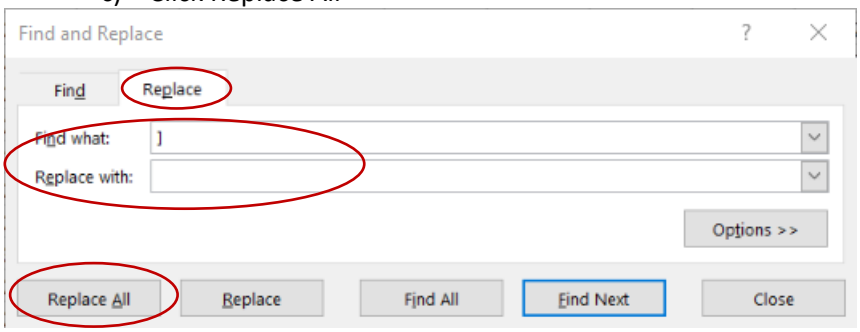
Left Brackets

a) Press Ctrl- F and click the Replace tab.
b) Enter the following:
   - Find what: [
   - Replace: *(leave this blank)*
c) Click Replace All



Right Brackets

a) Press Ctrl- F and Click the Replace Tab
b) Enter the following
   - Find what:]
   - Replace: *(leave this blank)*
c) Click Replace All



Step 11: Change instances of -888888888 and -999999999 to (X).

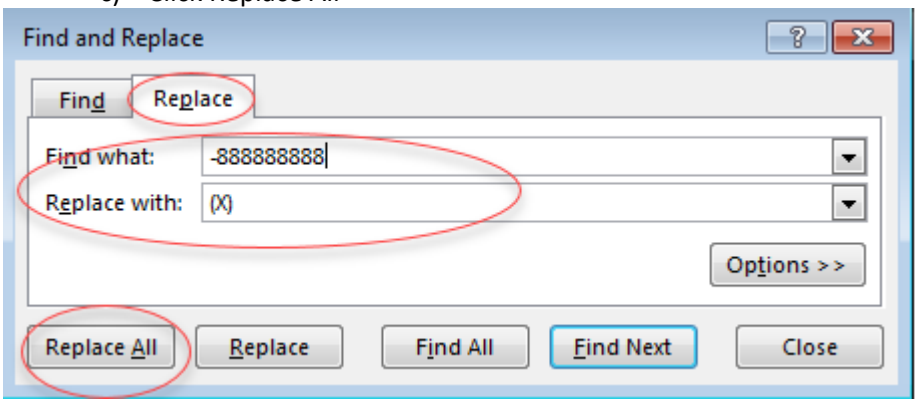
-888888888

a) Press Ctrl- F and click the Replace tab.

b) Enter the following:

- Find what: -888888888
- Replace: *(X)*

c) Click Replace All



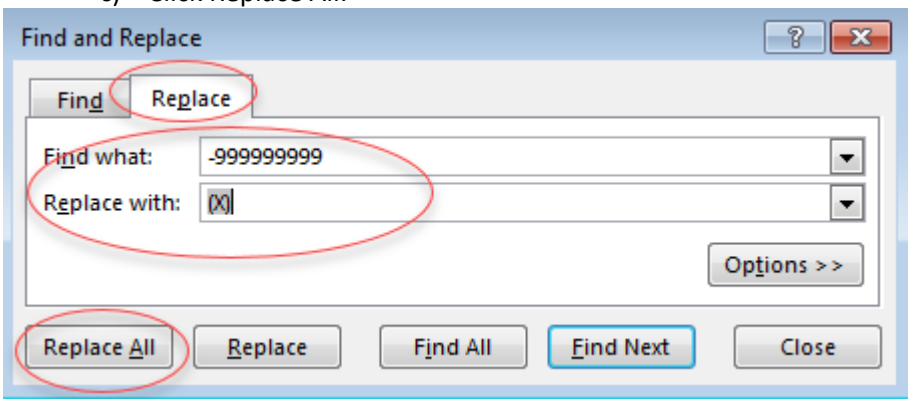
-999999999

a) Press Ctrl- F and click the Replace tab.

b) Enter the following:

- Find what: -999999999
- Replace: *(X)*

c) Click Replace All.



Step 12: Repeat these steps for Tables DP02PR, DP03, DP04, and DP05.

Another option is to change **group(DP02)** to **group(DP02PR)**, etc. in the URL below and start with Step 6.

https://api.census.gov/data/2018/acs/acs1/profile?get=NAME,group(DP02PR)&for=congressional%20district:*