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.

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_0001H","DP02_0001L","DP02_0001S","DP02_0002E","DP02_0002H","DP02_0002L","DP02_0002S","DP02_0003E","DP02_0003H","DP02_0003L","DP02_0003S","DP02_0004E","DP02_0004H","DP02_0004L","DP02_0004S","DP02_0005E","DP02_0005H","DP02_0005L","DP02_0005S","DP02_0006E","DP02_0006H","DP02_0006L","DP02_0006S","DP02_0007E","DP02_0007H","DP02_0007L","DP02_0007S","DP02_0008E","DP02_0008H","DP02_0008L","DP02_0008S","DP02_0009E","DP02_0009H","DP02_0009L","DP02_0009S","DP02_0010E","DP02_0010H","DP02_0010L","DP02_0010S","DP02_0011E","DP02_0011H","DP02_0011L","DP02_0011S","DP02_0012E","DP02_0012H","DP02_0012L","DP02_0012S","DP02_0013E","DP02_0013H","DP02_0013L","DP02_0013S","DP02_0014E","DP02_0014H","DP02_0014L","DP02_0014S","DP02_0015E","DP02_0015H","DP02_0015L","DP02_0015S","DP02_0016E","DP02_0016H","DP02_0016L","DP02_0016S","DP02_0017E","DP02_0017H","DP02_0017L","DP02_0017S","DP02_0018E","DP02_0018H","DP02_0018L","DP02_0018S","DP02_0019E","DP02_0019H","DP02_0019L","DP02_0019S","DP02_0020E","DP02_0020H","DP02_0020L","DP02_0020S","DP02_0021E","DP02_0021H","DP02_0021L","DP02_0021S","DP02_0022E","DP02_0022H","DP02_0022L","DP02_0022S","DP02_0023E","DP02_0023H","DP02_0023L","DP02_0023S","DP02_0024E","DP02_0024H","DP02_0024L","DP02_0024S","DP02_0025E","DP02_0025H","DP02_0025L","DP02_0025S","DP02_0026E","DP02_0026H","DP02_0026L","DP02_0026S","DP02_0027E","DP02_0027H","DP02_0027L","DP02_0027S","DP02_0028E","DP02_0028H","DP02_0028L","DP02_0028S"]
```
**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

![Image of software interface with find and replace options]

STEP 8b

- Enter the following:
  - a. Find what: }
  - b. Replace: )

![Image of find and replace dialog box]

STEP 8c

- Click Replace All.

![Image of find and replace dialog box with replace all button highlighted]

STEP 8d
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.

---

**Table:**

<table>
<thead>
<tr>
<th>District</th>
<th>State</th>
<th>Zip Code</th>
<th>Population</th>
<th>Unemployment Rate</th>
<th>Median Household Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>District 1</td>
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<td>90010</td>
<td>350758</td>
<td>2.1</td>
<td>50,907</td>
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<td>156120</td>
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---

**Step 9b**
Now, we have our table, but we need to clean up the quotation marks and brackets.

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<td>4037</td>
<td>24.4</td>
<td>1.3</td>
</tr>
</tbody>
</table>

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

![Find and Replace dialog box](image1)

**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

![Find and Replace dialog box](image2)

**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

![Find and Replace dialog box](image3)
**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:*