Instructions on How to Read the ACS Summary File into Excel

It is strongly advised that data users read the 2015 Summary File Core Tech Doc before attempting to import data into Excel. The Core Tech Doc can be found at http://www.census.gov/programs-surveys/acs/technical-documentation/summary-file-documentation.html.

This document will provide an example of how to read into Excel the 2013 1-year estimates found in Sequence 1 for the state of Maryland. These same procedures can be followed for different data files and geographies.

To read the Summary File into Excel, users will need three files.

1. Summary file data
2. Excel template
3. Excel geography file

Procedures for accessing the summary file data:

1. Visit http://www2.census.gov/programs-surveys/acs/summary_file/
2. Choose year
3. Select **data/**
4. Choose file type
5. Choose file
    a. If accessing a particular sequence file, first choose State then choose file
    b. Note that the "US" worksheet only contains geographic summary levels that cross state boundaries. "US" is not data for the nation.

Procedures for accessing the Excel template:

1. Visit http://www.census.gov/programs-surveys/acs/data/summary-file.html
2. Choose desired year from tabs midway down the page
3. Select appropriate template zip file from Templates section

Procedures for accessing the geography file

1. Visit http://www2.census.gov/programs-surveys/acs/summary_file/
2. Choose year
3. Select **documentation/**
4. Select **geography/**
5. Choose desired geography file
    a. 1-year files are labeled **1_year_Mini_Geo**
    b. For 5-year estimates, select the **5yr_year_geo/** folder then choose a state file
    c. Note that geo files are not available for pre-2009 datasets

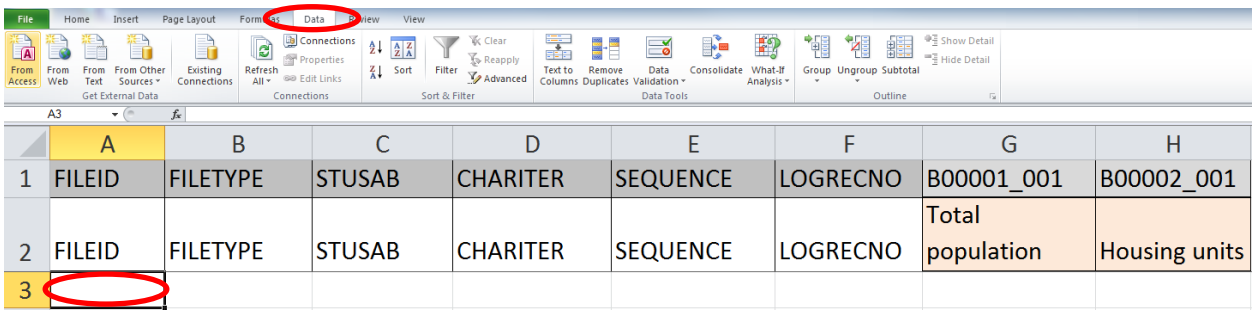
Unzip the files to a single local directory. Open the template and follow the steps below.
Note: The screenshots are for illustration purposes only and may not reflect current data

1) When the template file is open in Excel it should appear as below:

	A	B	C	D	E	F	G	H	I	J
1	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	B00001_001	B00002_001		
2	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	Total population	Housing units		
3										

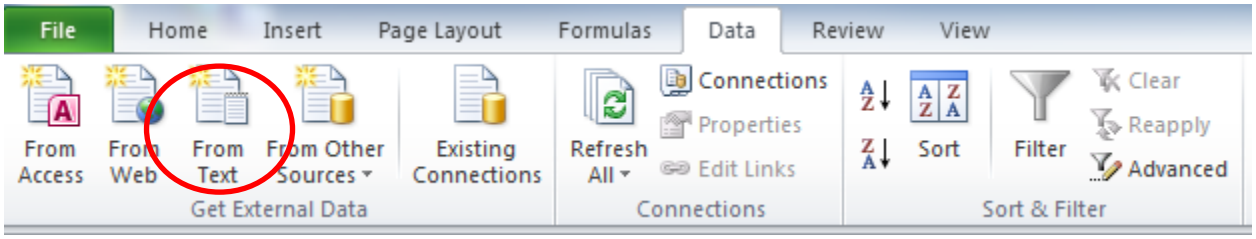
Note: You may want to adjust the column height and witdth.

2) Place your cursor in cell A3 and select the **Data** tab in the Excel tool bar.

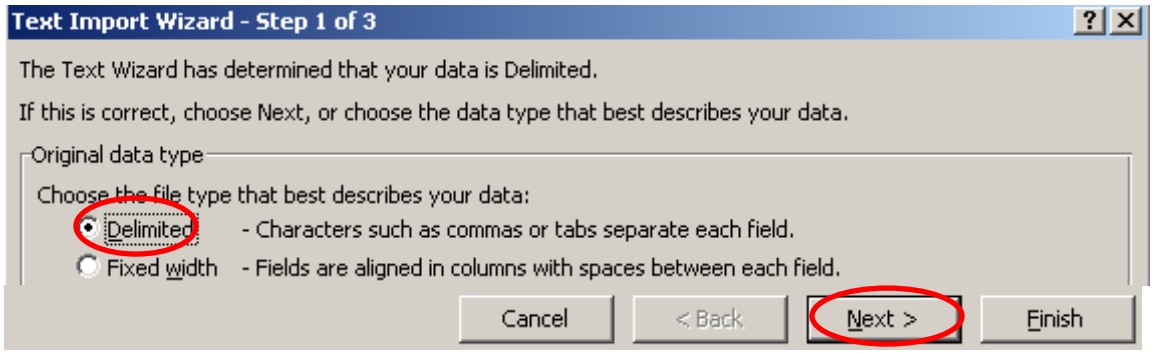


	A	B	C	D	E	F	G	H
1	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	B00001_001	B00002_001
2	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	Total population	Housing units
3								

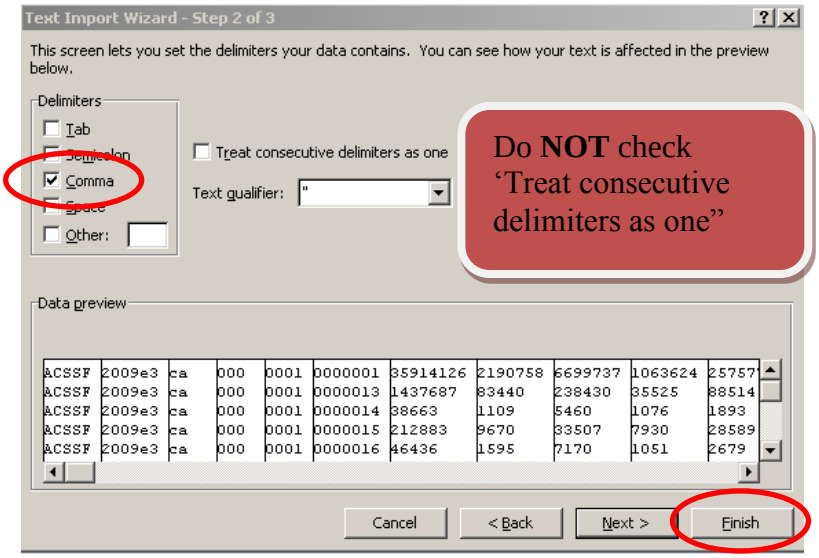
3) To import the Summary File text file into Excel, select **From Text** in the **Get External Data** section of the tool bar, then choose the desired estimate file. In this example, we are opening the estimate file for Maryland (e20131md0001000.txt).



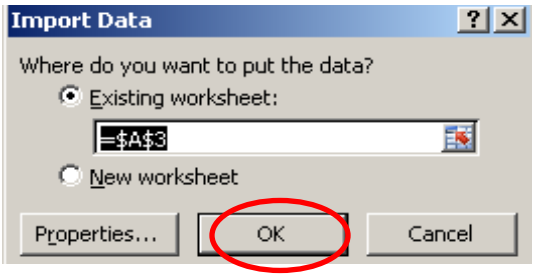
4) Step 1 of the Text Import Wizard will appear. Under **Original data type** choose **Delimited**, then select **Next**.



5) Step 2 of the Excel Text Import Wizard will appear. Under **Delimiters** choose **Comma**. Users may select **Finish** to import the file or select **Next** to format the Excel columns.



6) A Pop up window will appear to confirm cell A3 as the correct cell. Select **OK**.



7) The summary file will be imported into Excel as shown below:

	A	B	C	D	E	F	G	H
1	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	B00001_001	B00002_001
2	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	Total population	Housing units
3	ACSSF	2.01E+04	md	0	1	1	93628	37688

Row 1 – Contains a unique identifier of Table ID and Line Number with a "_" between them
Row 2 – Contains the associated metadata for each unique Identifier
Row 3 – Is the first Row of the imported data

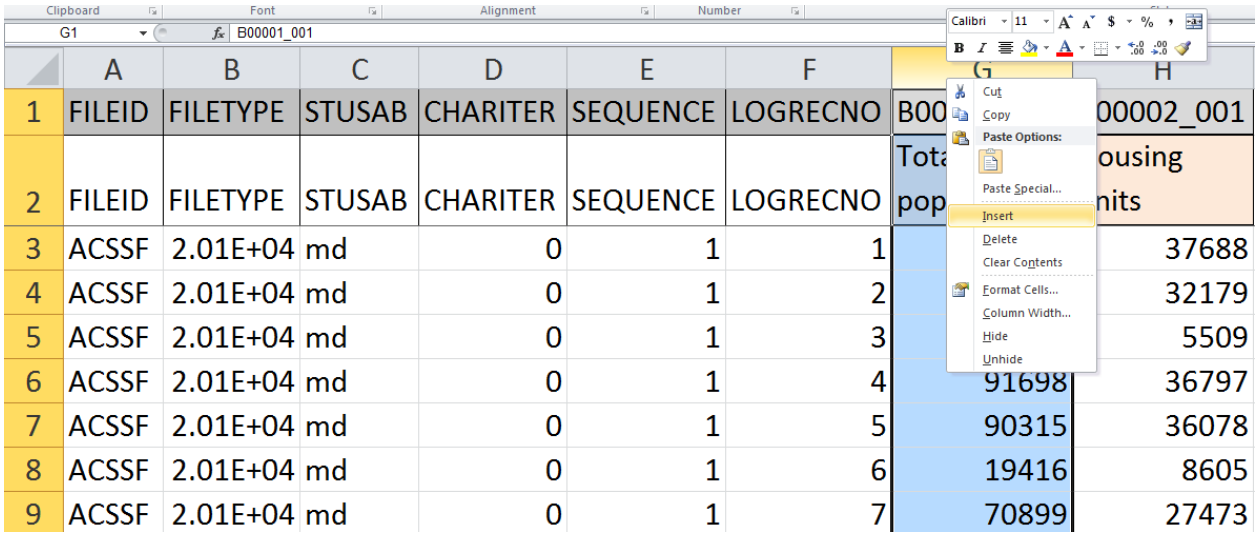
	A	B	C	D	E	F	G	H
1	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	B00001_001	B00002_001
2	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	Total population	Housing units
3	ACSSF	2.01E+04	md	0	1	1	93628	37688

Column A – Is a constant value of "ACSSF" (stands for ACS Summary File)
Column B – Contains the associated metadata for each unique Identifier
Column C – Is the first Row of the imported data

8) Read in the estimates and margins of error for each sequence needed. For example, here is the screenshot of the estimates for sequence 1:

	A	B	C	D	E	F	G	H
1	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	B00001_001	B00002_001
2	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	Total population	Housing units
3	ACSSF	2.01E+04	md	0	1	1	93628	37688
4	ACSSF	2.01E+04	md	0	1	2	80234	32179
5	ACSSF	2.01E+04	md	0	1	3	13394	5509
6	ACSSF	2.01E+04	md	0	1	4	91698	36797
7	ACSSF	2.01E+04	md	0	1	5	90315	36078
8	ACSSF	2.01E+04	md	0	1	6	19416	8605
9	ACSSF	2.01E+04	md	0	1	7	70899	27473
10	ACSSF	2.01E+04	md	0	1	8	1383	719
11	ACSSF	2.01E+04	md	0	1	9	1930	891
12	ACSSF	2.01E+04	md	0	1	10	3313	1610
13	ACSSF	2.01E+04	md	0	1	11	1492	651
14	ACSSF	2.01E+04	md	0	1	12	7620	2874
15	ACSSF	2.01E+04	md	0	1	13	12779	5191
16	ACSSF	2.01E+04	md	0	1	14	1309	488
17	ACSSF	2.01E+04	md	0	1	15	2914	1068
18	ACSSF	2.01E+04	md	0	1	16	1372	578

9a) Next, you need to pad zeroes for the logical record number LOGRECNO. Add a column next to LOGRECNO. To do this, highlight column G, then right click and select **Insert**.



	A	B	C	D	E	F	G	H
1	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	B00	00002_001
2	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	Tota pop	ousing nits
3	ACSSF	2.01E+04	md	0	1	1		37688
4	ACSSF	2.01E+04	md	0	1	2		32179
5	ACSSF	2.01E+04	md	0	1	3		5509
6	ACSSF	2.01E+04	md	0	1	4	91698	36797
7	ACSSF	2.01E+04	md	0	1	5	90315	36078
8	ACSSF	2.01E+04	md	0	1	6	19416	8605
9	ACSSF	2.01E+04	md	0	1	7	70899	27473

9b) For cells G1 and G2, make LOGRECNO the label.

	A	B	C	D	E	F	G	H	I
1	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	B00001_001	B00002_001
2	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	Total population	Housing units
3	ACSSF	2.01E+04	md	0	1	1		93628	37688
4	ACSSF	2.01E+04	md	0	1	2		80234	32179
5	ACSSF	2.01E+04	md	0	1	3		13394	5509
6	ACSSF	2.01E+04	md	0	1	4		91698	36797
7	ACSSF	2.01E+04	md	0	1	5		90315	36078

9c) Highlight cell G3 and enter the formula **=REPT("0",7-LEN(F3))&F3**, then press Enter.

	A	B	C	D	E	F	G	H	I
1	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	B00001_001	B00002_001
2	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	Total population	Housing units
3	ACSSF	2.01E+04	md	0	1	1	=REPT("0",7-LEN(F3))&F3		37688
4	ACSSF	2.01E+04	md	0	1	2		80234	32179
5	ACSSF	2.01E+04	md	0	1	3		13394	5509
6	ACSSF	2.01E+04	md	0	1	4		91698	36797

	A	B	C	D	E	F	G	H	I
1	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	B00001_001	B00002_001
2	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	Total population	Housing units
3	ACSSF	2.01E+04	md	0	1	1	0000001	93628	37688
4	ACSSF	2.01E+04	md	0	1	2		80234	32179
5	ACSSF	2.01E+04	md	0	1	3		13394	5509
6	ACSSF	2.01E+04	md	0	1	4		91698	36797

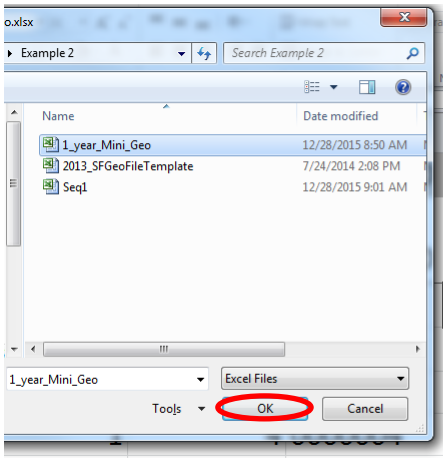
9d) Next, you must apply this formula to all cells in column G. One way to do this is by clicking on cell G3 then moving your cursor over the bottom right corner so that it becomes a small cross. Click your mouse and drag the cell to the last row of the spreadsheet.

	A	B	C	D	E	F	G	H	I
1	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	B00001_001	B00002_001
2	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	Total population	Housing units
98	ACSSF	2.01E+04	md	0	1	96	0000096	7620	2874
99	ACSSF	2.01E+04	md	0	1	97	0000097	9513	4559
100	ACSSF	2.01E+04	md	0	1	98	0000098	12779	5191
101	ACSSF	2.01E+04	md	0	1	99	0000099	1309	488
102	ACSSF	2.01E+04	md	0	1	100	0000100	2914	1068
103	ACSSF	2.01E+04	md	0	1	101	0000101	1372	578
104	ACSSF	2.01E+04	md	0	1	102	0000102	2287	842
105	ACSSF	2.01E+04	md	0	1	103	0000103	4558	1701
106	ACSSF	2.01E+04	md	0	1	104	0000104	3844	1520
107	ACSSF	2.01E+04	md	0	1	105	0000105	4372	1589
108	ACSSF	2.01E+04	md	0	1	106	0000106	16262	6227
109	ACSSF	2.01E+04	md	0	1	107	0000107	14288	5420
110	ACSSF	2.01E+04	md	0	1	108	0000108	1397	536
111	ACSSF	2.01E+04	md	0	1	109	0000109	2600	978
112	ACSSF	2.01E+04	md	0	1	110	0000110	1453	597
113									

10a) Add geographies by using common merged keys. Insert two extra columns next to the padded LOGRECNO column G, label them GEOID and Geography Name.

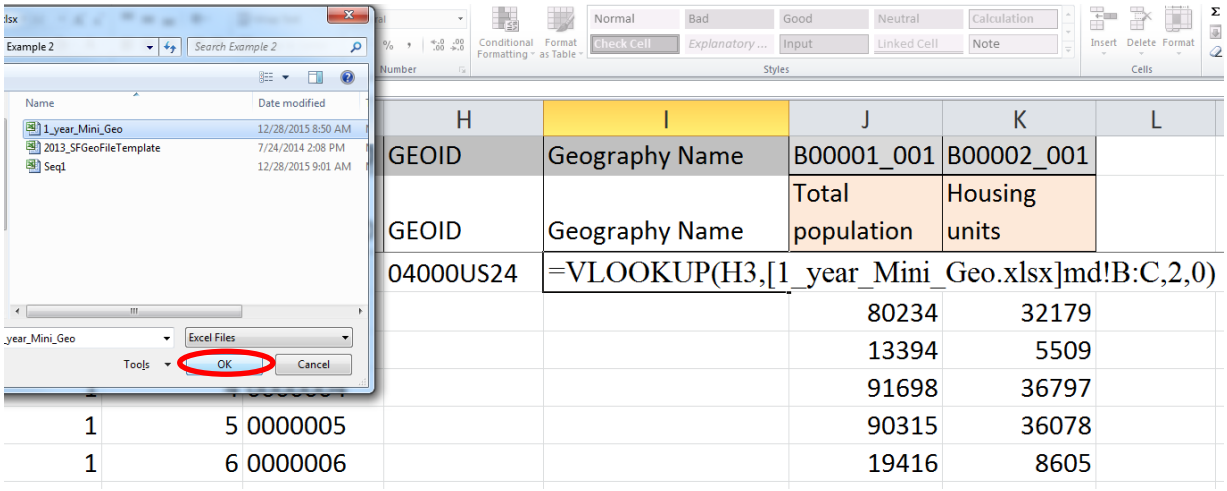
	D	E	F	G	H	I	J	K
1	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	GEOID	Geography Name	B00001_001	B00002_001
2	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	GEOID	Geography Name	Total population	Housing units
3	0	1	1	0000001			93628	37688
4	0	1	2	0000002			80234	32179
5	0	1	3	0000003			13394	5509

10b) Add GEOID by using LOGRECNO as the common merged key from both Seq1.xls and 1_year_Mini_Geo.xls. Highlight cell H3 and enter the formula
=VLOOKUP(G3,[1_year_Mini_Geo.xlsx]md!B:C,2,0)
Press enter then locate and select the geography file when prompted.
*Note - "**1_year_Mini_Geo.xlsx**" and "**md**" in the above formula should change to reflect the particular file and state you are attempting to open.*



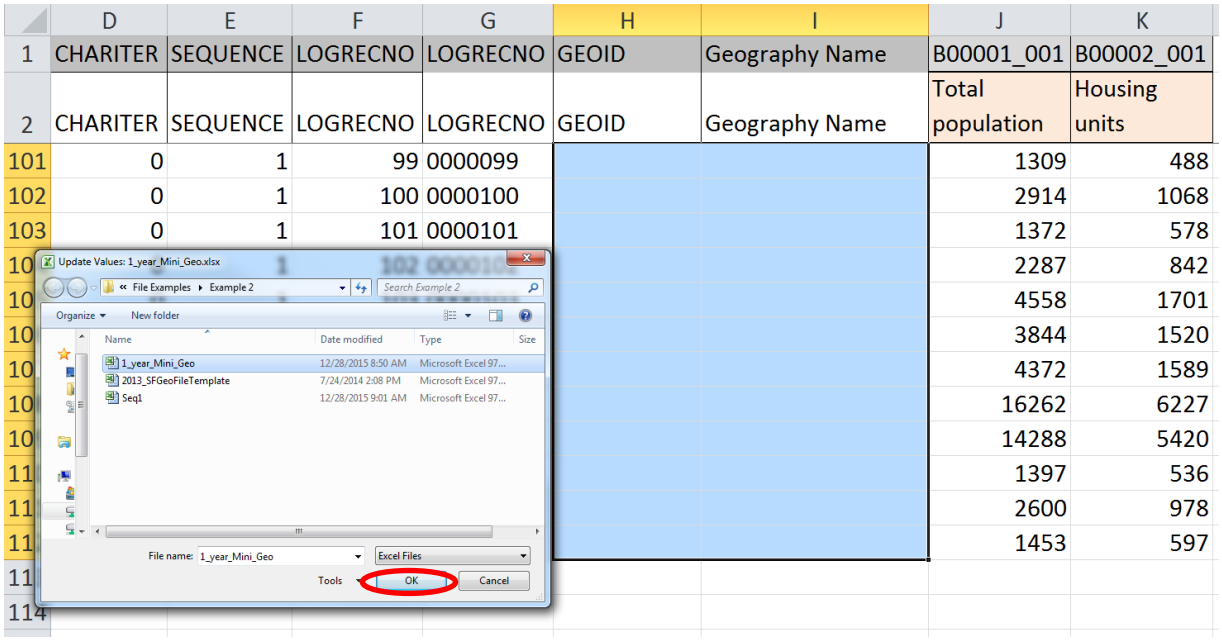
H	I	J	K
GEOID	Geography Name	B00001_001	B00002_001
GEOID	Geography Name	Total population	Housing units
=VLOOKUP(G3,[1_year_Mini_Geo.xlsx]md!A:B,2,0)			
		80234	32179
		13394	5509
		91698	36797
		90315	36078

10c) Add geography names by using GEOID as the common merged key from both Seq1.xlsx and 1_year_Mini_Geo.xls. Highlight cell I3 and enter the formula:
=VLOOKUP(H3,[1_year_Mini_Geo.xlsx]md!C:D,2,0)
Press enter then locate and select the geography file when prompted.
The note from Step 10b also applies to this step



			H	I	J	K	L
			GEOID	Geography Name	B00001_001	B00002_001	
			GEOID	Geography Name	Total population	Housing units	
			04000US24	=VLOOKUP(H3,[1_year_Mini_Geo.xlsx]md!B:C,2,0)			
					80234	32179	
					13394	5509	
					91698	36797	
1	5	0000005			90315	36078	
1	6	0000006			19416	8605	

10d) Highlight both cells H3 and I3 and drag the formula to the bottom of the spreadsheet as done in Step 9d, then choose the geography file when prompted.



	D	E	F	G	H	I	J	K
1	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	GEOID	Geography Name	B00001_001	B00002_001
2	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	GEOID	Geography Name	Total population	Housing units
101	0	1	99	0000099			1309	488
102	0	1	100	0000100			2914	1068
103	0	1	101	0000101			1372	578
10							2287	842
10							4558	1701
10							3844	1520
10							4372	1589
10							16262	6227
10							14288	5420
11							1397	536
11							2600	978
11							1453	597
11								
114								

Your final spreadsheet should look as follows:

	A	B	C	D	E	F	G	H	I	J	K
1	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	GEOID	Geography Name	B00001_001	B00002_001
2	FILEID	FILETYPE	STUSAB	CHARITER	SEQUENCE	LOGRECNO	LOGRECNO	GEOID	Geography Name	Total population	Housing units
3	ACSSF	2.01E+04	md	0	1	1	0000001	04000US24	Maryland	93628	37688
4	ACSSF	2.01E+04	md	0	1	2	0000002	04001US24	Maryland -- Urban	80234	32179
5	ACSSF	2.01E+04	md	0	1	3	0000003	04043US24	Maryland -- Rural	13394	5509
6	ACSSF	2.01E+04	md	0	1	4	0000004	040A0US24	Maryland -- In metropolitan or micropolitan sta	91698	36797
7	ACSSF	2.01E+04	md	0	1	5	0000005	040C0US24	Maryland -- In metropolitan statistical area	90315	36078
8	ACSSF	2.01E+04	md	0	1	6	0000006	040C1US24	Maryland -- In metropolitan statistical area -- in	19416	8605
9	ACSSF	2.01E+04	md	0	1	7	0000007	040C2US24	Maryland -- In metropolitan statistical area -- nc	70899	27473
10	ACSSF	2.01E+04	md	0	1	8	0000008	040E0US24	Maryland -- In micropolitan statistical area	1383	719
11	ACSSF	2.01E+04	md	0	1	9	0000009	040G0US24	Maryland -- Not in metropolitan or micropolitar	1930	891
12	ACSSF	2.01E+04	md	0	1	10	0000010	040H0US24	Maryland -- Not in metropolitan statistical area	3313	1610
13	ACSSF	2.01E+04	md	0	1	11	0000011	05000US24001	Allegany County, Maryland	1492	651
14	ACSSF	2.01E+04	md	0	1	12	0000012	05000US24003	Anne Arundel County, Maryland	7620	2874
15	ACSSF	2.01E+04	md	0	1	13	0000013	05000US24005	Baltimore County, Maryland	12779	5191
16	ACSSF	2.01E+04	md	0	1	14	0000014	05000US24009	Calvert County, Maryland	1309	488
17	ACSSF	2.01E+04	md	0	1	15	0000015	05000US24013	Carroll County, Maryland	2914	1068
18	ACSSF	2.01E+04	md	0	1	16	0000016	05000US24015	Cecil County, Maryland	1372	578
19	ACSSF	2.01E+04	md	0	1	17	0000017	05000US24017	Charles County, Maryland	2287	842
20	ACSSF	2.01E+04	md	0	1	18	0000018	05000US24021	Frederick County, Maryland	4558	1701
21	ACSSF	2.01E+04	md	0	1	19	0000019	05000US24025	Harford County, Maryland	3844	1520
22	ACSSF	2.01E+04	md	0	1	20	0000020	05000US24027	Howard County, Maryland	4372	1589

11) Repeat steps 1 through 10 using the margin of error file to obtain the margins of error for the same sequence for Maryland. The template contains two spreadsheet tabs, “E” and “M”, to accommodate both the estimates and margins of error.