Using Microdata Access
With CPS ASEC – How to Create Poverty Estimates From the CPS ASEC

data.census.gov/mdat

Select a Dataset & Vintage

Select Dataset
CPS Annual Social and Economic (March) Supplement
CPSASBC

Select Vintage
MAR 2019
201903

NEXT
To use Microdata Access, go to data.census.gov/mdat.

Microdata Access should work properly using any web browser.
The landing page allows you to select your dataset and vintage.
Currently, the following datasets can be found in Microdata Access:
(Note: Any of these can be used to get poverty estimates except for the “CPS Basic Monthly” dataset)
- ACS 1-Year Estimates – Public Use Microdata Sample
- ACS 1-Year Estimates – Puerto Rico Public Use Microdata Sample
- ACS 5-Year Estimates – Public Use Microdata Sample
- ACS 5-Year Estimates – Puerto Rico Public Use Microdata Sample
- CPS Annual Social and Economic (March) Supplement
- CPS Basic Monthly
The vintages available are dependent on the dataset.
- ACS 1-Year Estimates are available back to 2004 (2005 for Puerto Rico)
- ACS 5-Year Estimates are available back to 2009
- CPS ASEC March Supplement datasets are available back to March 2014
- CPS Basic Monthly datasets are available back to January 1994
For this walkthrough, we’ll use the March 2019 CPS Annual Social and Economic (March) Supplement. Once these are selected, hit the NEXT button found in the lower right of the screen.
The SELECT VARIABLES screen is the next screen that appears. You can choose the variables that you need by clicking the checkbox next to it. To find the variables more quickly, you can use the search bar to search for the desired variable/label. You can view specific details about the variable by clicking on the DETAILS dropdown.

You can explore the full set of variables and values in the CPS ASEC Data Dictionary at https://thedataweb.rm.census.gov/ftp/cps_ftp.html
For this example, we are going to create a cross tabulation on the number of people in poverty by age. You can search in the variable list for “pov_univ” (this is the poverty universe recode). You can then add the POV_UNIV variable to your Data Cart by clicking the checkbox next to it.
Now you want to search in the variable list for “FAMLIS”. FAMLIS is one of the variables you can use to create different income-to-poverty ratios. You can then add the FAMLIS variable to your Data Cart by clicking the checkbox next to it.

Other income-to-poverty variables you can use for the CPS ASEC files are: PERLIS, POVLL or FRSPOV to get the different income-to-poverty ratios.
Now that you have the poverty universe and income-to-poverty ratio variable, FAMLIS, in your cart, you can now search for variables you want in your table. For this walkthrough, we’ll search for the Age variable, “A_AGE,” and click the checkbox next to it. When the checkbox is selected, a yellow message box appears at the top of the screen to alert you that, “This variable is continuous and can only go to ‘Values in table cells’. You must create a group (recode) to use elsewhere.”

This means that a recode must be created in order to use this variable in more than just the ‘Values in table cells’ option (more on creating recodes later).
We can keep track of the number of variables we’ve selected by looking at the right side of the screen and/or the number next to the “DATA CART (3)—if we accidentally failed to include one of our desired variables, we’ll be able to tell, right away, by checking the number we have selected.

Now that we have our three variables selected, let’s click on the SELECT GEOGRAPHIES tab.
Now that we’re on the SELECT GEOGRAPHIES tab, let’s choose our geography. For the CPS ASEC only Nation and State geographies are available. If you do not select a geography, Nation will be used as the default geography.

Now we can move to the DATA CART tab.
This is how your DATA CART tab should look. Your selected variables should be displayed on the left side of the screen (highlighted in the green box). The information for the variable you have highlighted on the left will be displayed on the right side of the screen (highlighted in the purple box)—this section is used to create the recodes.

Let’s look at the DATA CART tab in detail.
In the Selected Variables box, you can see your selected variables, along with the current number of responses associated with that variable. For example, POV_UNIV, the poverty universe variable, has 2 different response options (Person not in poverty universe and Person in poverty universe).

You can also click on the trashcan icon to remove a variable from your list.
In the “Poverty universe indicator (POV_UNIV)” box, you’ll find the current information about the variable, such as the Response Label and the value range.

Since we only want the people in the poverty universe, let’s uncheck the box for the “PERSON NOT IN POVERTY UNIVERSE.” This way the ones not in the poverty universe will not show up in the table.

Now you see we are only using one of the two responses.
Now we are going to create the A_AGE recode groups. Click on the A_AGE variable on the left hand side.

Then click the + CREATE CUSTOM GROUP button.
As soon as you click the + CREATE CUSTOM GROUP button, a new variable (the recode you have created) will be added to the Selected Variables list. Our recode is called A_AGE_RC1. You’ll also notice that we now have four variables in our DATA CART.
Before we do anything else, let’s go over some things about this recode. First, we can rename the recode to something that makes sense. Let’s call ours first recode “Age 0-17.” Click on, or next to, the “Not Elsewhere Classified” text in the Group Label box, delete it, and type “Age 0-17” in that spot. Now we need to change to value for the age. Change value to “0 to 17”, then check the save group.
You can also change the Recode Label by selecting the pencil icon next to the Demographics, Age flag recode text. Once you are happy with the label, click on the check mark in the green circle.
Let’s call ours second recode “Age 18-64.” Click on the “Edit Group.” In the Group Label box, delete text, and type “Age 18-64” in that spot. Now we need to change the value for the age to “18 to 64,” then check the save groups.
Let’s call ours last recode “Age 65-85.” Click on the “Edit Group.” In the Group Label box, delete text, and type “Age 65-85” in that spot. Since the only age group left is 65 to 85 we don’t have to change the value for age. Then check the save groups.
Here we have our 3 age recode groups. NOTE that we took the single response group for age and used that to create three recode groups.

Next, we are going to do a recode for the FAMLIS variable.
The `FAMLIS` variable has four different response values, which means we can create up to four custom groups. For this example, we are only going to create two custom groups using all four values. First, click on `+CREATE CUSTOM GROUP`.
Let’s call our first group “Below poverty” and check the box next to “Below low-income level,” then save the group.
Next, we want to edit the “Not Elsewhere Classified” group for the remain values. Let’s call our second group “Above poverty” and check the last 3 boxes, then save the group.
Above you will notice that we divided the 4 response values into 2 groups. Now that we have our groups/variables, let’s move to the TABLE LAYOUT tab.
This tab provides a preview of your table. As you can see, all variables are in the column. The ??? act as placeholders for the data that will populate the table.

You can make modifications to the table by clicking on a row header or column header, holding the mouse, and dragging it to the spot you would like it to be.

However, for this example, we are going to rearrange the table on the next few screens.

Now let’s click on the below “View Table” button.
You may notice that the values in the table cells default to “Average of Demographics, Age (A_AGE).” We don’t want the average age for this example, so let’s click on the dropdown menu and select “Count.”
Let's rearrange our table layout. Let's move the “FAMLIS” pills from the “On Columns” down to “Not on Table” and the “POV_UNIV” pills from “On Columns”, over to “On Rows.”
By having the POV_UNIV in the “On Rows” section we get the total number of people in the poverty universe.
If we move the FAMLIS_RC1 to the “On Columns” section the resulting table displays the total number of people below poverty and above poverty.

<table>
<thead>
<tr>
<th>Poverty - ratio family income/low-income level recode (FAMLIS_RC1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty universe Indicator</td>
</tr>
<tr>
<td>Person in poverty universe</td>
</tr>
</tbody>
</table>
Now let’s move the POV_UNIV pill in the “On Columns”, section and the A_AGE_RC1 pill in the “On Rows” section. Now our table displays the total people in the poverty universe by age.
By replacing the POV_UNIV pill with the FAMLIS_RC1 pill in the “On Columns,” section we get the number of people below poverty and above poverty by age.
Clicking on the MORE TABLE OPTIONS will give you an opportunity to further customize your table or download/share it.
If you click on Customize Table (from the MORE TABLE OPTIONS button), you will return to the TABLE LAYOUT tab.
If you click on Download (from the MORE TABLE OPTIONS button), you’ll go to the DOWNLOAD tab. Here you can download the table as a CSV file, extract the raw data, copy the bookmark for the table, or copy API queries.
Check the box next to Download table view (.CSV) to download the table as a CSV file and hit the DOWNLOAD button. Open the downloaded file. It will automatically open in Excel.
To extract raw data in a JSON file, check the box next to Extract raw data (.JSON). Be sure that the weight files you would like are also selected. Then hit the DOWNLOAD button. It may take a few moments for the JSON file to be produced. Once it has finished downloading, open it. (Some users may need to click on “show in folder” and then open it in a browser.)
To copy the bookmark, select the COPY BOOKMARK button. Open a new window in your browser and paste the URL into the URL bar. Hit enter. It may initially look as though it has taken you to the landing page for Microdata Access. However, if you wait a few seconds, it will automatically open the Custom Table pane that is shown above.
To copy the API queries, select either the COPY API GET QUERY or the COPY API TABULATE QUERY buttons. Open a new window in your browser and paste the URL into the URL bar. Hit enter. This will make the API call. The data can then be pulled into an Excel document.
Questions?

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