AHS Table Creator Help

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Tutorial with examples back to top

- 1. Create a simple table
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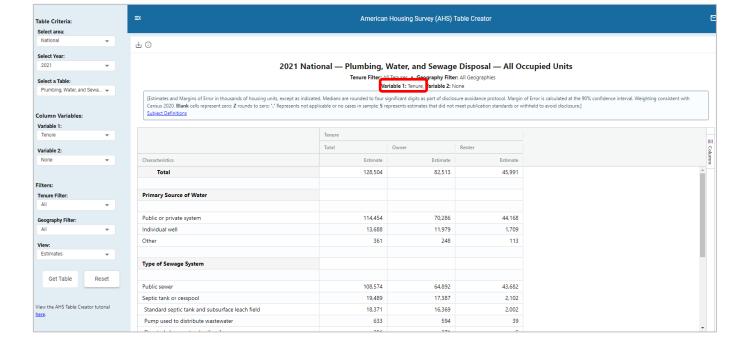
Create a simple table back to top

- NOTE: You can create a table by selecting an Area, Year, and a Table, while using the default selections for all other sections of the form.
- To create a table that shows plumbing characteristics at the national level of geography from the 2021
 AHS:
 - Select "National" from the Area selection box.
 - o Select "2021" from the Year selection box.
 - o Select "Plumbing, Water, and Sewage Disposal" from the Table selection box.
 - o Press the "Get Table" button at the bottom of the form.
 - \circ This creates the table below. NOTE: The table below is just an excerpt for demonstration purposes. The actual table has many more rows.



Create a table with column variables back to top

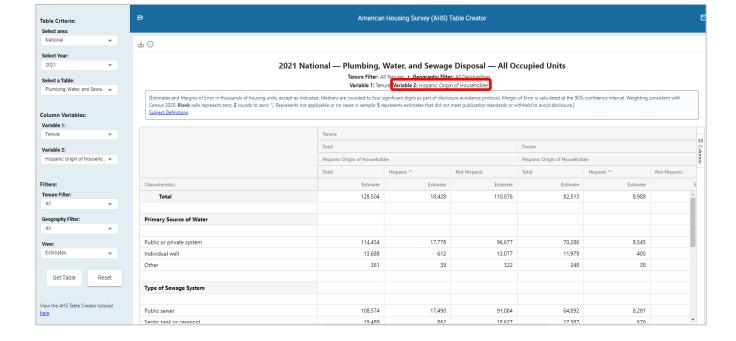
- NOTE: If you previously created the first example table, then use the "Reset" button in the tool to reset the form. The steps below presume you have not created the previous example table.
- To create a table that shows plumbing characteristics at the national level of geography by tenure from the 2021 AHS:
 - Select "National" from the Area selection box.
 - o Select "2021" from the Year selection box.
 - o Select "Plumbing, Water, and Sewage Disposal" from Table selection box.
 - Under Column Variables, select "Tenure" (under the General heading) from the Variable 1 selection box.
 - o Press the "Get Table" button at the bottom of the form.
 - This creates the table below. NOTE: The table below is just an excerpt for demonstration purposes. The actual table has many more rows.
 - NOTE: The column variable you selected appears below the table title (circled in red in the example below).



Create a table that displays nested column variables back to top

To create a table that nests the previously created Plumbing, Water, and Sewage Disposal by Tenure and by Hispanic origin:

- NOTE: If you previously created either of the other example tables, then
 use the "Reset" button in the tool to reset the form. The steps below
 presume you have not created the previous example table.
- Select "National" from the Area selection box.
- Select "2021" from the Year selection box.
- Select "Plumbing, Water, and Sewage Disposal" from the Table selection hox
- Under Column Variables, select "Tenure" (under the General heading) from the Variable 1 selection box.
- Under Column Variables, select "Hispanic Origin of Householder" (under the Demographics heading) from the Variable 2 selection box.
- o Press the "Get Table" button at the bottom of the form.
- This creates the table below -- notice that the counts of "Hispanic Origin of Householder" are nested within each value of "Tenure." NOTE: The table below is just an excerpt for demonstration purposes. The actual table has many more columns and rows.
- NOTE: The column variable you selected appears below the table title (circled in red in the example below).



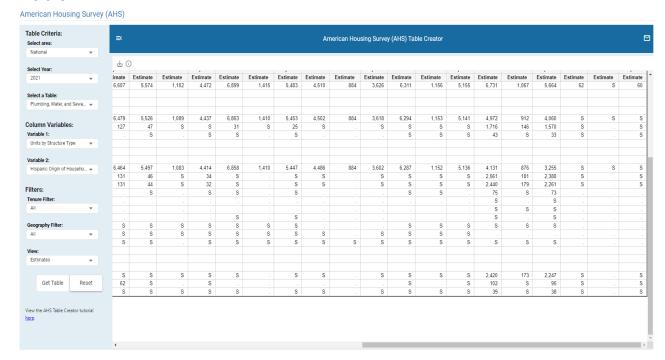
New features back to top

In 2023, the AHS Table Creator the following features were added to improve the tool's usability:

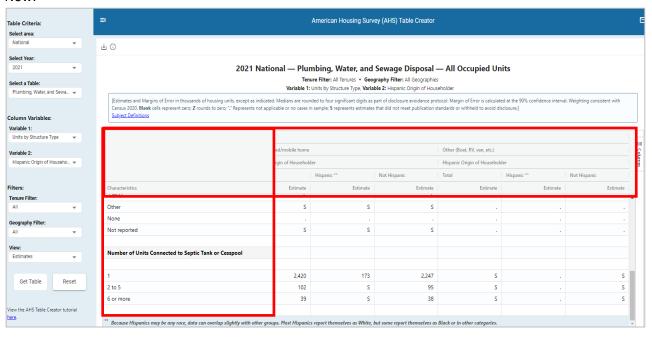
Frozen column headings and "Characteristics" column:

Before, when scrolling right or down through a table, the headings would disappear. Now, the column headings and "Characteristics" column stay displayed no matter how far to the right you scroll or how far down you scroll.

Before:

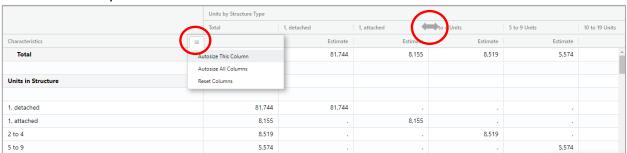


Now:



Ability to change column width:

Columns of a table can now be resized to be larger/smaller by moving your cursor to the vertical rule in the boxhead at the top of the table until the double-headed arrow appears, as seen below, then clicking and dragging to the desired column width. A column menu has also been added to the 'Characteristics' column. Users can use this menu to resize this column or all columns with one button click. They can also reset the column widths back to their defaults.

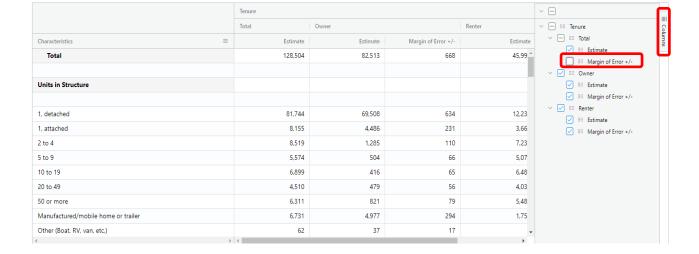


Moving columns within a column variable:

Clicking and holding the left mouse button allows users to drag columns to a different position in the table. Columns cannot be moved outside of their column group. This can also be done using the tool panel.

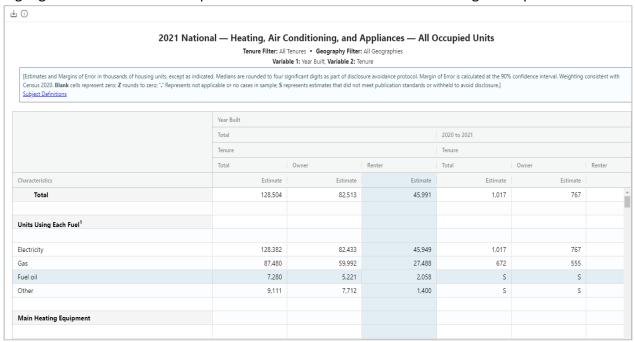
Tool panel:

A new column tool panel was added, allowing users to collapse, hide, and/or move columns. When boxes are checked or unchecked, the table changes to display the column selections made, as do downloaded files. In the example below, the Margin of Error box is no longer checked. As a result, the Margin of Error column that would normally appear to the right of the Total column is no longer displaying.



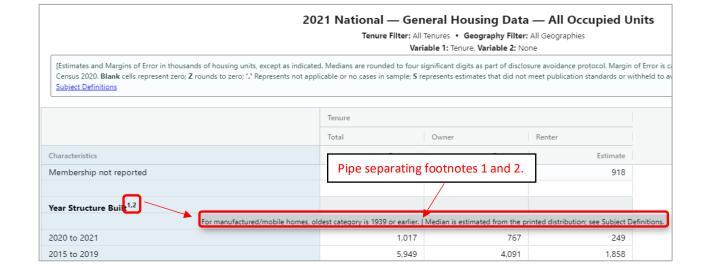
Row/column highlighting:

Users can now highlight rows and columns based on where the cursor is in the table. See blue highlight below. This could help users locate the row and column headings for a particular cell.



Footnote tool tips:

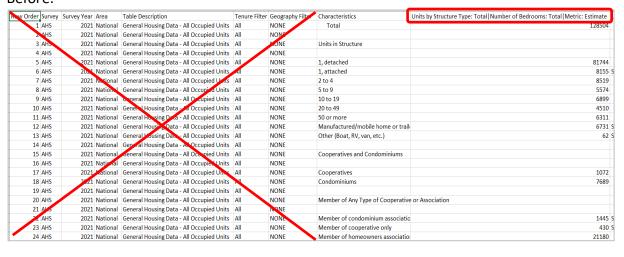
When a data user hovers over a row label with a footnote, a tooltip appears displaying the footnote's text. If more than one footnote applies to a row, the text for both footnotes will appear in the tooltip, separated by a pipe (|). See below for an example. (Note: The footnotes are also available at the bottom of the table, as they were before.)

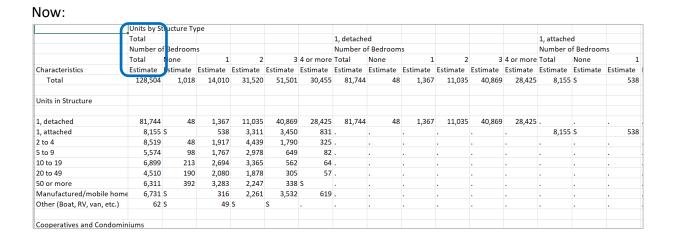


CSV downloads:

Extraneous metadata columns (Row Number, Survey, Survey Year, Area, Table description, Tenure Filter, and Geography filter) were removed from the CSV downloads, as seen by the red 'X' below. Header titles have been parsed into separate rows to make it looks more like the HTML and Excel versions in that the headers look more like spanners (headers that span more than 1 column). In the example below, before the column header circled in red below used to say, "Units by Structure Type: Total | Number of Bedrooms: Total | Metric: Estimate", with the header titles separated by pipes (|). Now, however, the header titles are separated into different rows (circled in blue below).

Before:





Downloading back to top

HTML is the default download option. You can also download tables in Excel and CSV formats. Click

the down arrow) on the top tool bar and choose the Excel option. A box may pop up asking you: "Do you want to open or save TableX.xlsx from census.gov?" Click "Open." The Excel file should open in a few seconds. Once downloaded, the file will appear in your downloads folder and the file name will show the survey followed by the date, as shown below.



Upon opening the file, note that the survey and date are also included at the bottom of the table, as shown below.

Source: U.S. Census Bureau, American Housing Survey Generated On: 12/06/2022, 04:13 PM

Rounding and median/mean formatting back to top

Estimates and Margins of Error are displayed in thousands of housing units, except as indicated. For example, a median row label may be followed by (dollars), indicating the data are no longer in thousands of housing units. Estimates and Margins of Error have different levels of precision for National tables and State/Metro tables. National tables are rounded to the nearest thousand (e.g., 100 represents 100,000), while Metro and State tables are rounded to the nearest hundred (e.g., 100.3 represents 100,300). Beginning in 2015, all medians (and means beginning in 2019), except Year Structure Built, have been rounded to four significant digits as part of the disclosure avoidance protocol. Blank cells represent true zeros and a Z represents an estimate that rounds to zero. "Rounds to zero" refers to values that amount to less than half the unit of measurement shown (e.g., less than

500 housing units in National tables and less than 50 units in State/Metro tables, except in median, mean or percent rows where another unit of measure may be indicated in parenthesis). In addition, cell suppression results in the symbol, S, which represents estimates that did not meet publication standards.

Cell suppression back to top

Suppressed cells display as an 'S'. Suppression can occur for any of the following reasons:

- When the coefficient of variation (CV) is greater than or equal to 30%, the estimate is suppressed;
- When a median or mean uses a variable not available on the Public Use File (PUF) and the cell count is less than 10, the median or mean is suppressed. Interpolated medians (e.g., Year Structure Built) have a suppression threshold of less than 3;
- When an estimate uses a variable not available on the Public Use File (PUF) and unweighted cell counts are less than 3, the estimate is suppressed. State data are not on the PUF, therefore suppression rules are applied;
- When the unweighted cell count of a "related" estimate is less than 3, the estimate is suppressed;
- When a "child" estimate has a "parent" estimate with an unweighted cell count of less than 3, the "child" estimate is suppressed. Parent indicators are rows that have other rows indented under them. The indented rows are the child rows that, when added together, sum up to the parent row; or
- When an estimate is repeated anywhere in a table and the original estimate is suppressed, the repeated estimate will also be suppressed and vice versa.
- When an estimate is related to a repeated estimate that is less than 3, the estimate is suppressed;
- When an estimate is not applicable or has no cases in sample AND has related cells that are suppressed, the "." will be replaced with an 'S'.

To do this, we grouped mutually exclusive indicators within each table stub, according to parent/child relationships in order to identify which rows were "related" to one another. This allowed us to determine which related cells needed to be suppressed in order to prevent disclosure (by subtraction) of any other cells within the group where at least one of the cells had an unweighted count of less than 3. There are 5 dimensions in Table Creator: Table, Variable 1, Variable 2, Tenure filter, and Geography filter. The suppression algorithm works across these multiple dimensions to ensure that suppression is consistent when executing separate but overlapping filter selections.

Missing values back to top

Cells with no data:

When there are no records for a particular cell, the software will place a '.' in the cell. A '.' is the result of one of the following scenarios: 1.) there were no housing units in the sample that met those conditions, or 2.) you are trying to cross tabulate two variables that do not share the same universe (the figure is not applicable because the column heading and stub line yield impossible, absurd, or meaningless results). Cross tabulations showing a "." in Table Creator were displayed as an X, or not applicable, in published AHS summary tables prior to 2011.

Entire columns with no data:

If a valid column has no records for ANY of the rows in the table, the column will NOT display at all. It will NOT be listed with the missing values symbol for all rows (or columns) unless at least one row of the column has data. Some table combinations are intentionally disabled because some variables do not make sense to cross tabulate. For example, if you select the Mortgage Characteristics table and then choose Tenure as your column variable, the Renter column will not display. The Tenure filter automatically defaults to owner-occupied units only because renters cannot have a mortgage.

Other table combinations may result in columns that do not display because there are no housing units in the sample that met the criteria selected. For example, if you select the 2019 General Housing table for Los Angeles-Long Beach using the 2010 Urban Area column variable, the table will render, but the Urban Cluster column will not display.

Entire tables with no data:

Tables that yield no data in any row or column will not display at all. Using the example above, if you add the Urban Cluster geography filter to the same 2019 General Housing table for Los Angeles-Long Beach using ANY column variable, the table will not render because there are no housing units in Los Angeles-Long Beach that meet the Urban Cluster criteria. Instead, the message below will display:

The table you requested does not contain any estimates. This occurs when there are no housing units in the AHS sample that meet the criteria you selected.

You can try:

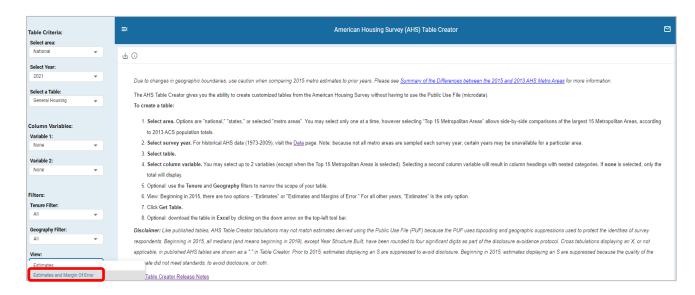
- Broadening your search criteria by deselecting a filter category.
- Visiting the American Housing Survey Table Creator Help Guide for more information about missing values.

Row and column variable ranges back to top

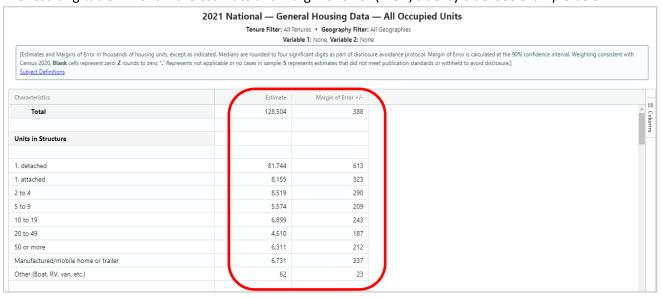
Variables involving ranges are pre-defined and cannot be customized. For example, square footage ranges are 'Less than 500,' '500 to 749,' etc. and cannot be changed. Ranges can only be manipulated using the Public Use File.

Margins of Error back to top

Starting in 2015, tables include the added ability for users to display the Margin of Error (MOE) for each estimate. To display MOEs, click the View drop-down box at the bottom of the Table Criteria menu panel and select "Estimates and Margins of Error" (circled in red in the example below). Then click the "Get Table" button.



The resulting table will show the estimate and margin of error (MOE) side-by-side. See example below.



Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented using a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the AHS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Topical Coverage back to top

Most of the tables in the AHS Table Creator are included every survey year, with only minor changes—so data users can track changes in important housing statistics over time. These tables are considered "core" tables. Other selected tables rotate in and out of the survey, depending on the survey year and are considered "topical" tables that. Occasionally "topical" information is included in a core table if it fit with the content in the table. For more information about topical questions, see the Topical Module History Report.

Geography back to top

When selecting a geography in Table Creator, note that some geographies are not sampled every survey year. To see what Metros were surveyed in each year, see the Quick Guide to Metro Area Histories: 1974 and Beyond.

Because geographic boundaries change over time, AHS metropolitan areas are not always consistent over time and do not always match OMB definitions. To reduce confusion, detailed metropolitan areas names are displayed below the table title. When comparing a metropolitan area between different survey years, use these detailed metropolitan area names to determine if they are comparable.

2015 and Later:

Starting in 2015, the AHS metro area definitions match the official Office of Management and Budget (OMB) delineations. From 2015 onwards, AHS metros match Core Based Statistical Areas

(CBSA) definitions of that year by the same name. For more information, see www.census.gov/programs-surveys/metro-micro.html.

Crosswalk between 2013 and 2015:

Due to changes in geographic boundaries, use caution when comparing 2015 metro estimates to prior years. Please see <u>Summary of the Differences between the 2015 and 2013 AHS Metro Areas</u> for more information.

1985 to 2013:

For more on differences in metro area definitions from 1985 to 2013, see Metropolitan Area Histories and Geography, Public Use File: 1985- 2013.

Table Specifications back to top

A frequent question of AHS Public Use File (PUF) users is, "How can I replicate the results in the AHS Table Creator?" The "AHS Table Specifications" is organized to correspond exactly to each AHS summary table that is currently available in the AHS Table Creator. Each row provides the SAS code logic needed to replicate most summary table estimates. Table specification files are available from the Data section of the Census AHS website (https://www.census.gov/programs-surveys/ahs/data.html). To locate the table specifications, choose the survey year you want, click on the link to the PUF, and then choose the National PUF or the Metropolitan PUF. For 2015 and subsequent years, the AHS Table Specifications include estimates for user verification. Estimates calculated using the PUF might not be exactly the same as those published in the AHS summary tables due to disclosure avoidance techniques applied to the PUF. When differences occur, an explanation is provided.

About the American Housing Survey back to top

Click on the About the American Housing Survey link above to find information about the purpose, sponsoring agency, frequency, historical background, topical coverage, and methodology of the Survey.

Technical Documentation back to top

Click on the Technical Documentation link above to access Appendices of the Summary Report for each survey year. Appendices include:

Subject Definitions – This document provides definitions and explanations of table stub titles (row headings in bold) and column headings.

Sample Design and Weighting – This document provides information on how housing units were selected to be part of the sample and how each housing unit in the sample is weighted. It is found in the Accuracy of the Data section on the Technical Documentation link above. Note that starting with the 2015 AHS, this Appendix was combined with the Errors documentation.

Historical Changes – This document is a complete list of changes to the questionnaire and to the tables that have occurred since the previous survey.

Errors – This document includes descriptions of the types of sampling and nonsampling errors and provides formulas for constructing confidence intervals. Note that starting with the 2015 AHS, this Appendix was combined with the Sample Design and Weighting documentation.

Didn't find what you were looking for? back to top

Try the AHS microdata. The PUF microdata, (a.k.a. Public Use File) are files containing individual household responses to the survey questions, which can be used to generate custom tables. Data can be downloaded in SAS and ASCII formats. To get to the microdata, click on the AHS Data page, select a year tab at the top and then click on "Public Use File (PUF)". To recreate any of the AHS Table Creator tables, you can use the AHS Table Specifications, located on the AHS Data page (click the National or Metropolitan PUF link). The specifications show the variable(s) used to tabulate each row. The PUF Codebook is a searchable web application that provides information about each variable and where to find it on the PUF.