Texas Water Development Board
Clean Water and Drinking Water State Revolving Fund
Obtaining U.S. Census Bureau Data

To determine Disadvantaged Community eligibility in the Clean Water (CW) and Drinking Water (DW) State Revolving Fund (SRF) programs, the TWDB utilizes U.S. Census Bureau data, specifically the American Community Survey (ACS) 5-Year Estimates regarding Annual Median Household Income (AMHI), Total Population, Average Household Size and Unemployment Rate.

This data may be obtained through the TWDB's **American Community (ACS) 5-Year Estimates Memoranum** or **SRF PIF Guidelines** that can be found on our website or directly from the U.S. Census Bureau's Explore Census Data website at data.census.gov. TWDB will verify all Disadvantaged Community eligibility using project information submitted in the PIF and the corresponding ACS 5-Year Estimate data.

How Do I Obtain Annual Median Household Income (AMHI) Data from the *Explore Census Data* Website?

- Go to data.census.gov and Click "Advanced Search".
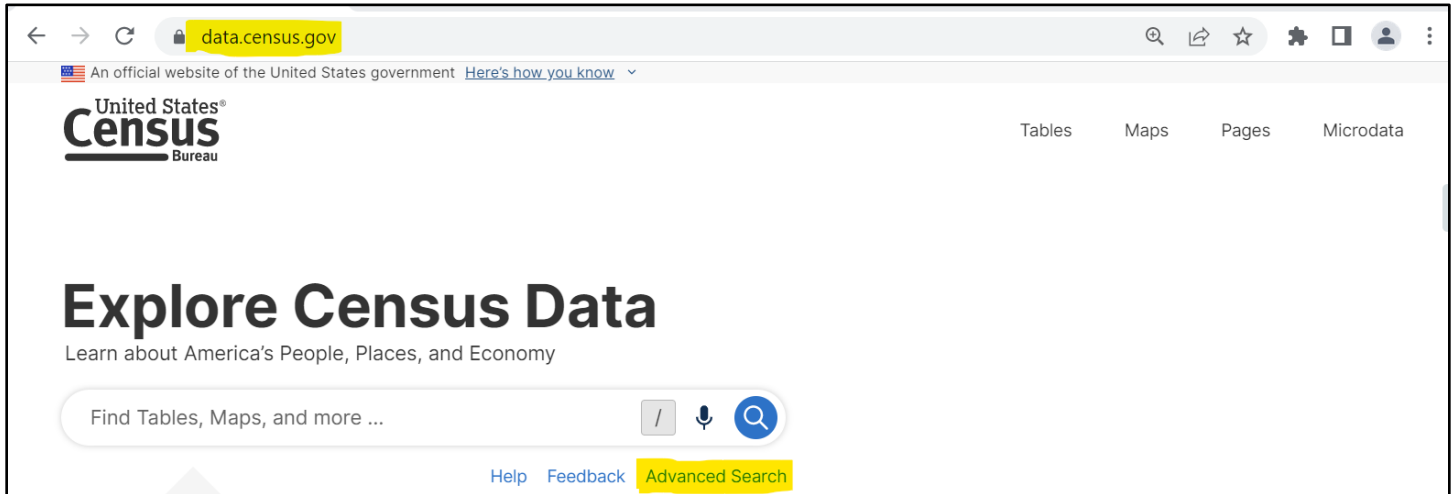
- In the Search Box, type B19013 to pull up the AMHI data (Median Household Income). Select the B19013 table.
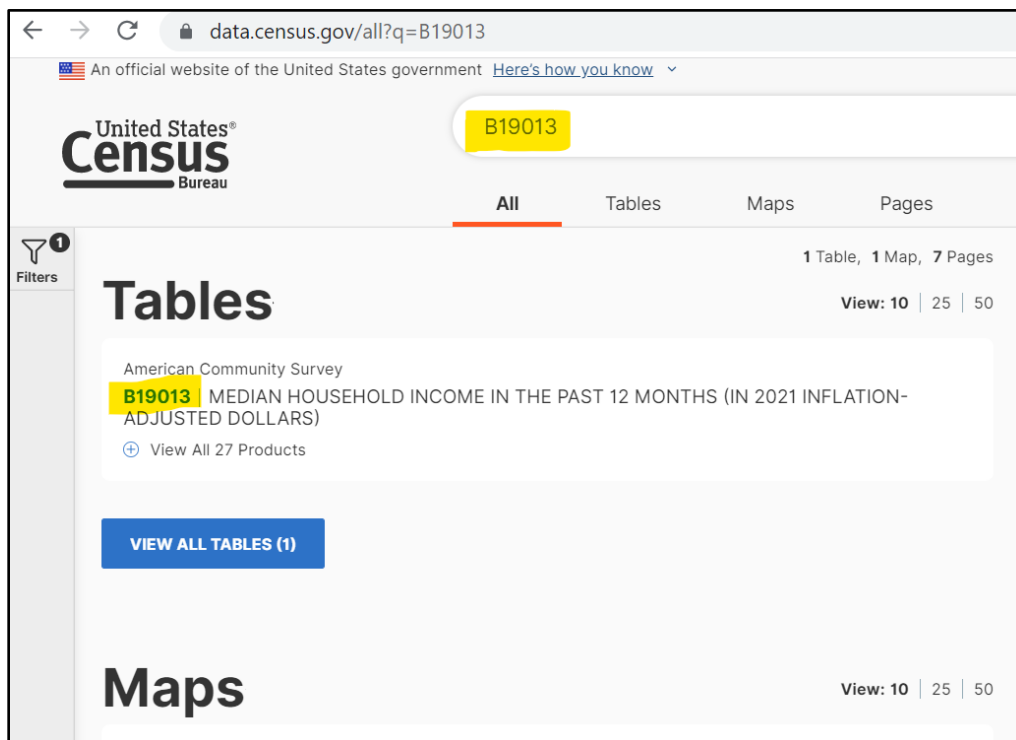
- The table may display the ACS 1-Year Estimates. **This needs to be changed to ACS 5-Year Estimates**. Select the down arrow on the table and select the appropriate ACS 5-Year Estimates. If you are unsure of which ACS 5-Year Estimates that applies to the current State Fiscal Year (SFY) Intended Use Plan (IUP), go to the TWDB's American Community Survey (ACS) 5-Year Estimates Memorandum.

- Find the ACS 5-year estimates that represents your service/project area by selecting "**Geos.**" This will allow you to refine the search area into State, County, Place (City), Tract, Block Group. Make sure the correct ACS 5-year estimates is selected for the current SFY IUP. In the screenshot below it shows "2020: ACS 5-Year Estimates" from the drop-down menu as an example.

Many cities in Texas can be selected using "Place". If the project is more focused within a City or not adequately covered by a "Place", then use the Census Tracts and Block Groups.

*EXAMPLE to obtain the AMHI for "Block Group 1, Census Tract 6713, Fort Bend County, Texas," select "**Geos**", then Block Group, then Texas, then Fort Bend County, then Census Tract 6713, then Block Group 1.*

How Do I Find the Geographic Areas from the *Explore Census Data* Website to Use for Disadvantaged Community Eligibility Calculations?

The geographic areas used to gather data from for your Disadvantaged Community eligibility calculations should match the project service area as closely as possible. In many cases, this will require using Census Block Group data instead of Census Place or County data.

To find the geographic areas that most closely match your project service area, follow the steps below:

- Go to data.census.gov and click "Maps".
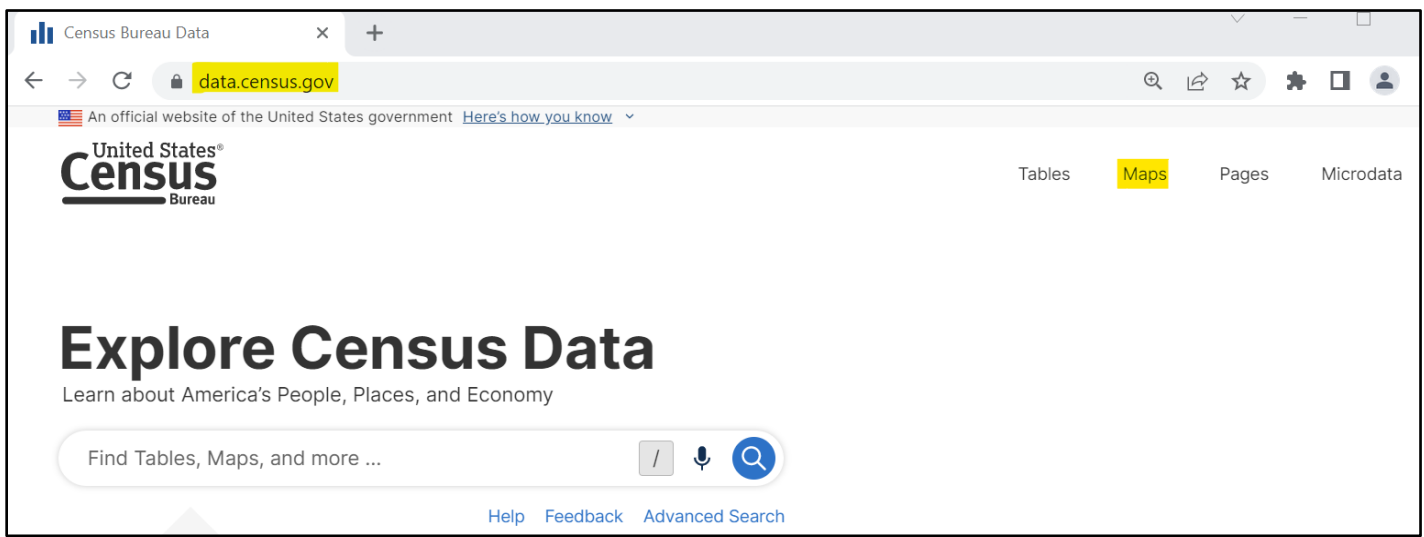
TIP: For ease of use. click the double arrows on the "Filters" and "Results" windows to hide those windows and make the "Selection Map" window larger.
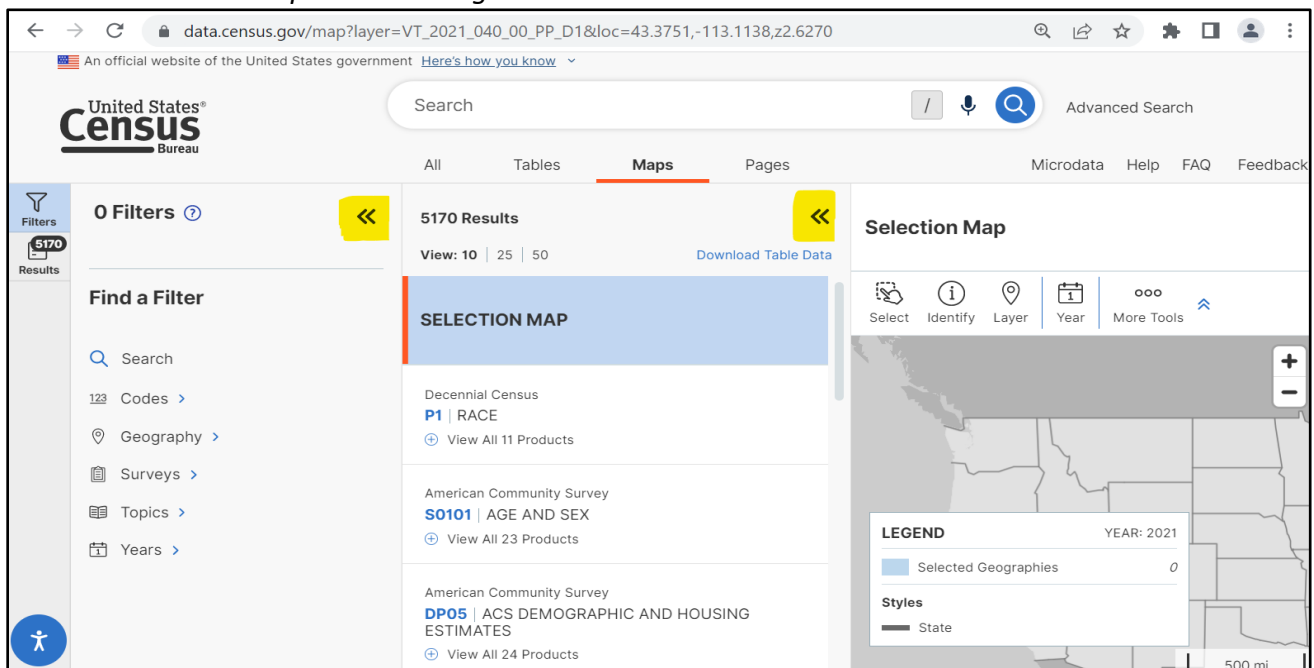
- In the "Selection Map" window, click the "Year" tab and select the appropriate year from the drop-down menu. In most cases, select the most recent year; this will align with the most recent ACS 5-year estimates that are used for AMHI information in the SRF programs.

  NOTE: It is very important to select the correct year, as the boundaries for the various Census areas change at least every 10 years.
  For example:
  - **If you need to find data from the 2015 - 2019 ACS 5-year estimates, you will need to select "2019" in the "Year" tab**
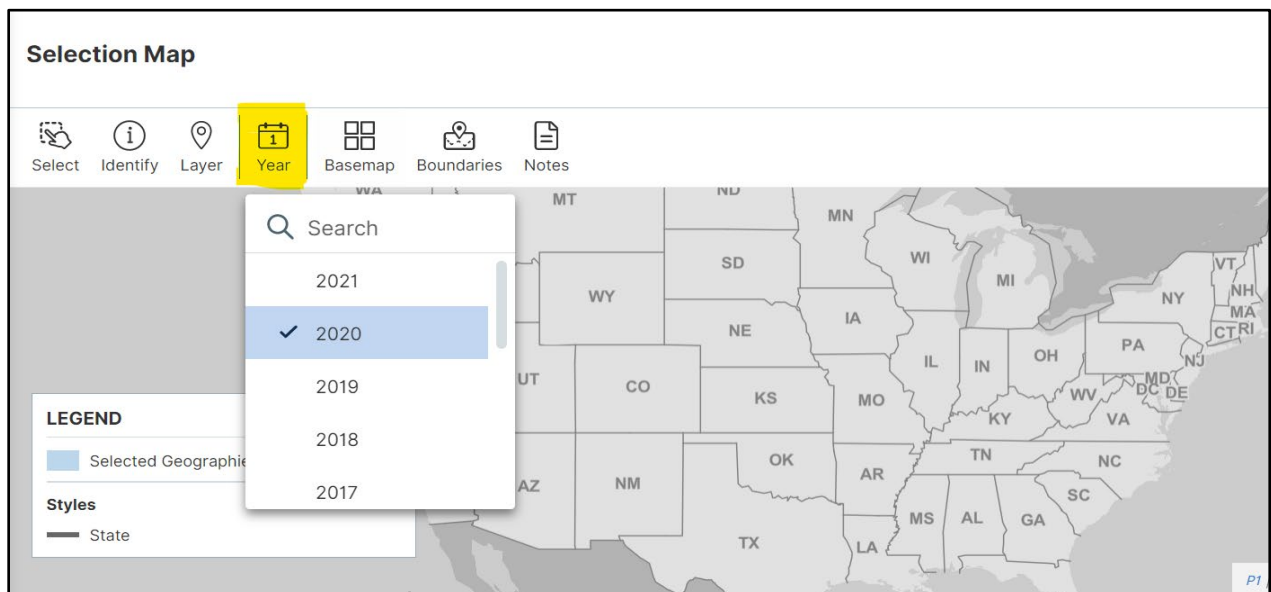 - **If you need to find data from the 2017 - 2021 ACS 5-year estimates, you will need to select "2021" in the "Year" tab.**

  You will notice that some of the boundaries of Census Places, Census Tracts, Census Block Groups, and others will be different from 2019 to 2020 due to changes between the 2010 Census and the 2020 Census.

- Find your service area on the map by using the "+" and "-" buttons in the top right corner of the map to zoom in or zoom out, or using your mouse curser to click and drag the map to the correct location, or enter the city/county name in the search bar.

  TIP: It might be helpful to use a different base map, which shows more labels on the map. You can do this by clicking the "Basemap" tab and selecting the "Detailed" option.
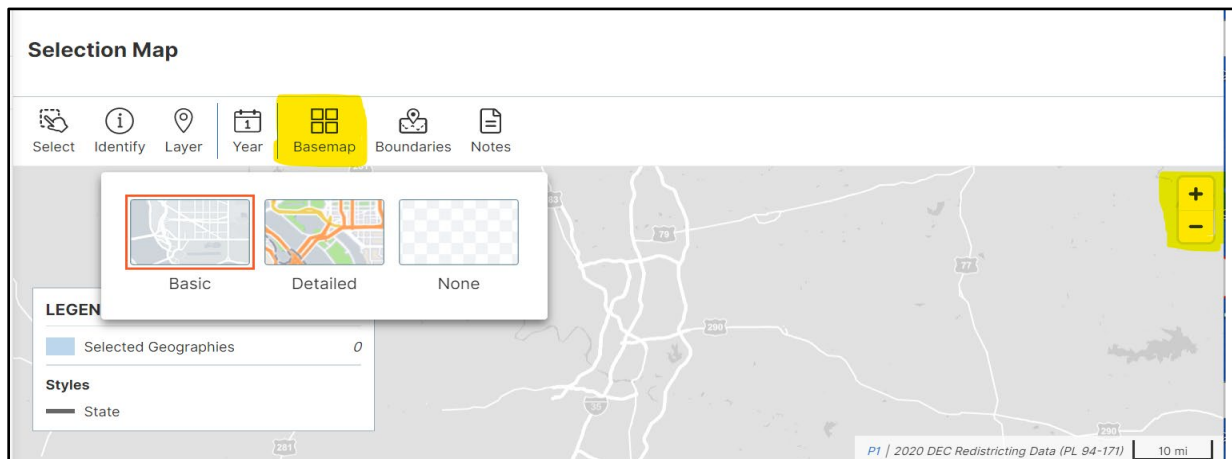
- Once you have located the map over your service area, you can find the appropriate layer to display on the map. Layers that are typically most useful are:
 - County (the entire county)
  - Place (typically going to be incorporated towns and cities, but some unincorporated places are also included)
  - Census Block Group (typically smaller than Places) (TIP this layer may not show up in the selected year, you may need to select a new year to see this data).

- Click the "Layer" tab and select the layer from the drop-down menu you would like to use.

  TIP: It is suggested that you look at both the Census Block Group layer and the Place layer to determine which will allow you to get the most accurate data for your project service area. When using the Census Block Group layer, you will typically be identifying multiple Census Block Groups that cover the project service area.
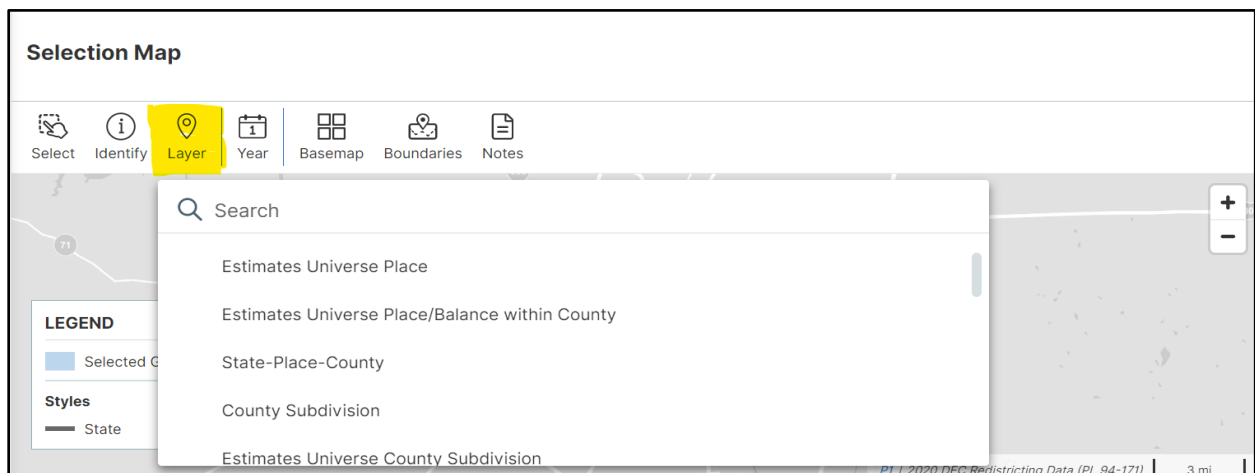
- For Census Block Data, Click on any of the areas on the map and when the pop-up box appears, click "Select". This will highlight that area and then you can click another area, click "Select", and both areas will be highlighted.
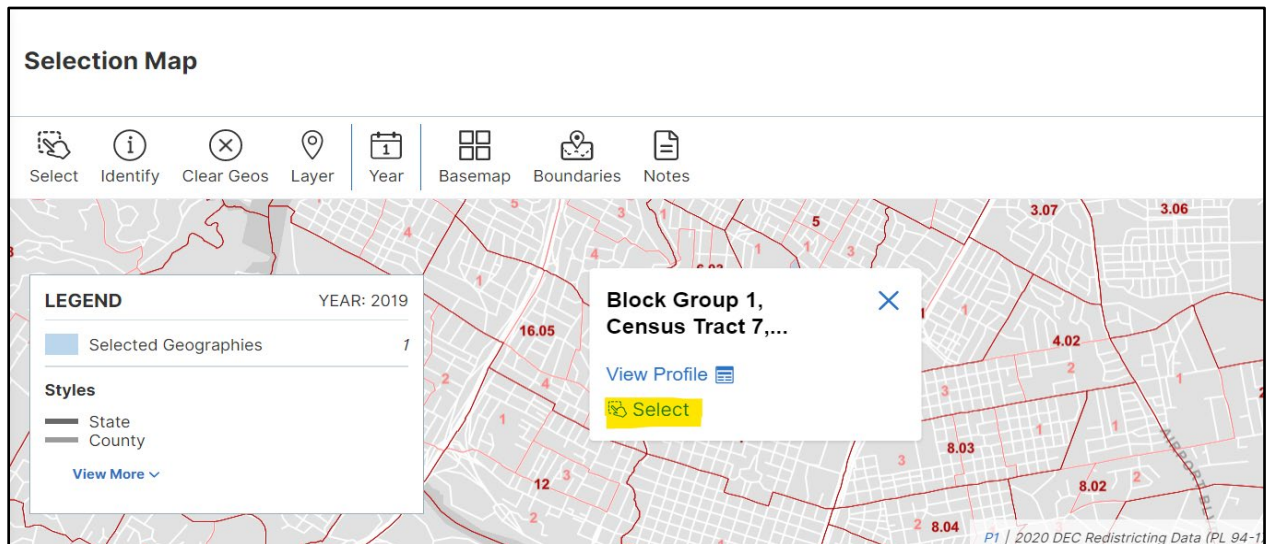
- Record which areas are selected, and these will be the areas that you will gather the AMHI, population and average household size from, as shown in the following steps of this document.
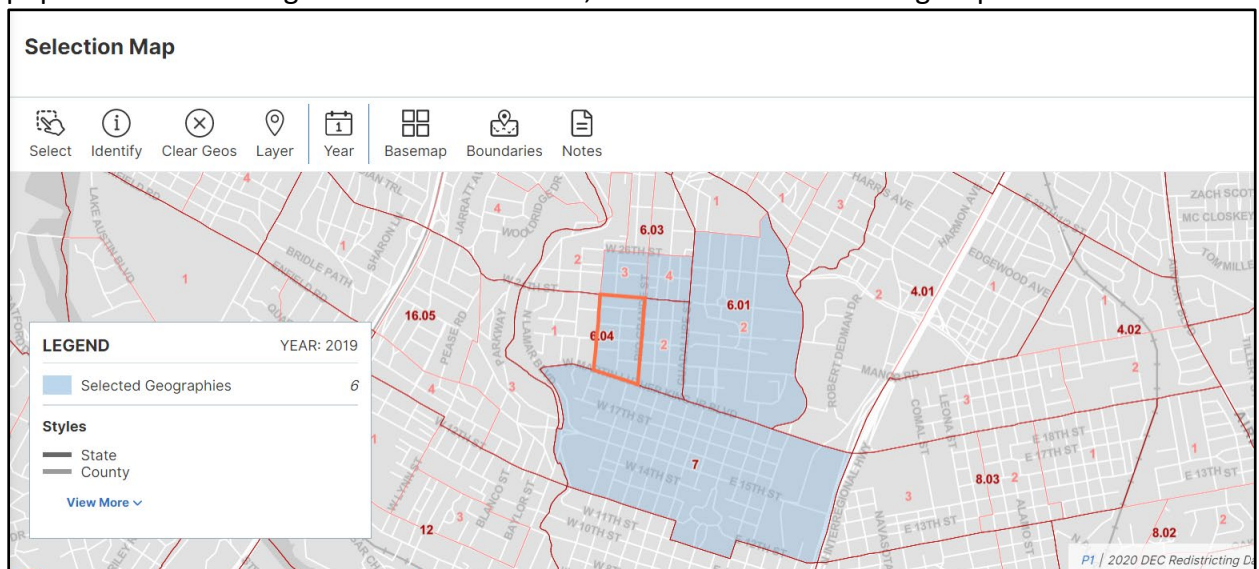
How Do I Obtain Average Household Size Data from the *Explore Census Data Website?*

- In the Search Box, type in **B25010** to pull up average household size data.
- Select "**Geos**" to refine your geographical area. Make sure the correct ACS data is selected from the drop-down menu (Tip: ACS data should match what was used in the AMHI data, ACS 5-Year Estimates).

*EXAMPLE: to obtain the average household size for "Block Group 1, Census Tract 6713, Fort Bend County, Texas," Select "**Geos**", then Block Group, then Texas, then Fort Bend County, then Census Tract 6713, then Block Group 1.*

How Do I Obtain Total Population Data from the *Explore Census Data* Website?

- In the Search Box, type in B01003 to pull up total population data.
- Select "**Geos**" to refine your geographical area. Make sure the correct ACS data is selected from the drop-down menu.
- To determine what ACS 5-Year Estimates to use for current population and prior population in the current SFY IUP, refer to TWDB's American Community Survey (ACS) 5-Year Estimates Memorandum on the website. *Example below shows the "2020: ACS 5-Year Estimates" used for the current population and the "2016: ACS 5-Year Estimates" used as the prior population.*

American Community Survey

B01003 | TOTAL POPULATION

2020: ACS 5-Year Estimates Detailed Tables ∨ | Universe: Total population

| Notes | Geos | Years | Topics | Surveys | Codes | Hide | Transpose | Margin of Error | Restore | Excel | CSV | ZIP | Print | Map |

Block Group 1, Census Tract 6713, Fort Bend County, Texas

Label	Estimate	Margin of Error
Total	2,420	±758

American Community Survey

B01003 | TOTAL POPULATION

2016: ACS 5-Year Estimates Detailed Tables ∨ | Universe: Total population

| Notes | Geos | Years | Topics | Surveys | Codes | Hide | Transpose | Margin of Error | Restore | Excel | CSV | ZIP | Print | More Data | Map |

Block Group 1, Census Tract 6713, Fort Bend County, Texas

Label	Estimate	Margin of Error
Total	2,702	±421

How Do I Obtain Unemployment Rate Data from the *Explore Census Data Website?*

- In the Search Box, type in B23025 to pull up unemployment rate data.
- Select "**Geos**" to refine your geographical area. Make sure the correct ACS data is selected from the drop-down menu.
- To determine Unemployment Rate, divide the Civilian Labor Force: Unemployed by the Civilian Labor Force: Total. In the example below, you will divide 122 (Unemployed) by 1,285 (Civilian labor force total) and multiply by 100 to get a 9.49% unemployment rate.

American Community Survey

B23025 | EMPLOYMENT STATUS FOR THE POPULATION 16 YEARS AND OVER

2020: ACS 5-Year Estimates Detailed Tables ∨ | Universe: Population 16 years and over

| Notes | Geos | Years | Topics | Surveys | Codes | Hide | Transpose | Margin of Error | Restore | Excel | CSV | ZIP | Print | Map |

Block Group 1, Census Tract 6713, Fort Bend County, Texas

Label	Estimate	Margin of Error
∨ Total:	1,630	±371
∨ In labor force:	1,285	±325
∨ Civilian labor force:	1,285	±325
Employed	1,163	±341
Unemployed	122	±87
Armed Forces	0	±14
Not in labor force	345	±150

My Project Includes More Than One Geographical Area, How Do I Include All Relevant Areas in My Data Search?

- Select "**Geos**" to refine the geographical area. Select all relevant areas. Make sure the correct ACS data is selected from the drop-down menu. See example below.

- Once you have selected all relevant areas, download the document by selecting "Excel."

- Open the Excel document and go to the Data tab. Your data will look like the example below (next page).

TIP: Before downloading each data set, remove the "Margin of Error" from your data set. When the "+/- Margin of Error" button is highlighted in blue, that means that the Margin of Error field in on. To turn off, click that button and the blue highlight will go away, meaning the Margin of Error field is off.

American Community Survey

B25010 | AVERAGE HOUSEHOLD SIZE OF OCCUPIED HOUSING UNITS BY TENURE

2020: ACS 5-Year Estimates Detailed Tables ∨ | Universe: Occupied housing units

Label	Block Group 1, Census Tract...	Block Group 2, Census Trac...	Block Group 1, Census Tract...
	Estimate	Estimate	Estimate
∨ Average household size --			
∨ Total:	2.91	3.62	2.81
Owner occupied	3.49	3.41	3.02
Renter occupied	2.75	4.54	2.44

Prorated Tables - Examples

For projects that serve more than one geographic area, with information from multiple census tracts or block groups, a prorated data table must be used to display the data found. The retrieved data must be organized in table format and prorated according to the percentage of household connections.

See the following examples for more information on preparing prorated data tables: 1) Prorated U.S. Census Data for Total Population, AMHI, and Household Size; 2) Change in Population; and 3) Unemployment Rates.

1) **Prorated U.S. Census Data– Total Population, AMHI, and Household Size** at the **Block Group Level**

A	B	C	D	E	F	G	H	I	J		
US Census Tract	Block Group	Pop. 2021	AMHI	Average Household Size	Number of Household Connections	Household Connections as a % of Total Household Connections	Entity's Current Population (ExF)	Entity's AMHI (DxG)	Entity's Average Household Size (ExG)	County	Source
x523	1	1,279	$29,712	2.94	200	12.33%	588	$3,664	0.36	ABC	ACS 5 -Year Estimates
x523	2	5,079	$60,399	3.5	66	4.07%	231	$2,458	0.14	ABC	ACS 5 -Year Estimates
x524	1	4,683	$43,149	3.19	1,000	61.65%	3,190	$26,602	1.97	ABC	ACS 5 -Year Estimates
x524	4	1,439	$45,781	2.96	356	21.95%	1,054	$10,048	0.65	ABC	ACS 5 -Year Estimates
Total					1,622	100.00%	5,063	$42,772	3.12		

Notes:
1. On the above example table, Columns A, B, C, D, and E are obtained from the Census data.
2. Columns F and G (related to the household connections) are provided by the entity.
3. Columns H, I, and J are calculations based on data within the table.
4. This table can serve as documentation to support a request for a Socioeconomic Survey (See WRD-285).

2) **Prorated U.S. Census Data – Change in Population** at the **Block Group Level**

A	B	C	D	E	F	G	H	I		
US Census Tract	Block Group	Pop 2017	Pop 2021	% Change in population 2017 to 2021	Average Household Size	Number of Current Household Connections	Household Connections as a % of Total Household Connections	% Change in Population 2017 to 2021(ExH)	County	Source
x523	1	1,240	1,279	3.15%	2.94	200	12.33%	0.39%	ABC	ACS 5 -Year Estimates
x523	2	5,106	5,079	-0.53%	3.5	66	4.07%	0.02%	ABC	ACS 5 -Year Estimates
x524	1	4,683	4,683	-9.09%	3.19	1,000	61.65%	-5.60%	ABC	ACS 5 -Year Estimates
x524	4	1,439	1,439	2.79%	2.96	356	21.95%	0.61	ABC	ACS 5 -Year Estimates
Total						1,622	100.00%	-4.62%		

3) **Prorated U.S. Census Data – Unemployment Rates** at the **Census Tract Level**

A US Census Tract	B Unemployment rate	C Average Household Size	D Number of Current Household Connections	E Household Connections as a % of Total Household Connections	F Unemployment Rate (CxE)	County	Source
x523	6.2%	3.20	266	16.40%	1.0%	ABC	ACS 5 -Year Estimates
x524	5.7%	3.00	1,356	83.60%	4.8%	ABC	ACS 5 -Year Estimates
Total			1,622	100.00%	5.8%		