



# User Guide

**Affirmatively Furthering Fair Housing Data and Mapping Tool v. 4.0**

**U.S. Department of Housing and Urban Development**

**January 2017**



### Solution Information

	Information
Solution Name	Affirmatively Furthering Fair Housing Mapping Tool
Solution Acronym	AFFH
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Document Owner	Kathleen Cheeseman
Primary Segment Sponsor	Todd Richardson
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### Document History

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3.1	7/20/16	Vivek Srivastav	Final
4.0	1/10/2017	Dave Wirtanen	Final



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# 1 Getting Started

## 1.1 Software Version

4.0

## 1.2 Solution Requirements

To access and view AFFH-T, a PC or mobile device with a supported browser and Internet access is required.

## 1.3 Access Information

AFFH-T is a public-facing application. There are no user classes, profiles, or access restrictions such that all users have the same functional permissions.

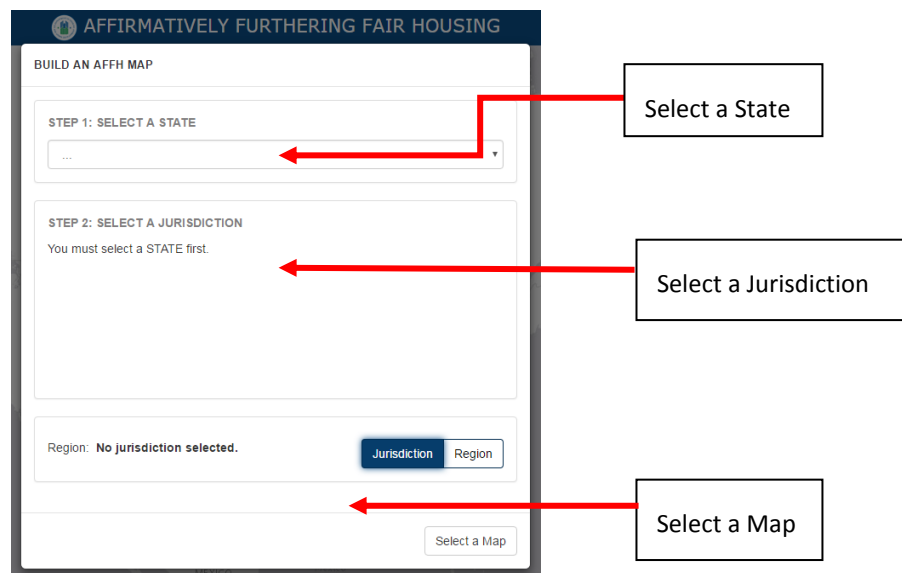
## 1.4 Logging On

Go to the AFFH-T site at: <http://egis.hud.gov/AFFHT>

## 1.5 Solution Menu

### The Affirmatively Furthering Fair Housing Data and Mapping Tool (AFFH-T)

The options below are available via the introduction page (application wizard) after entering state and jurisdiction criteria.

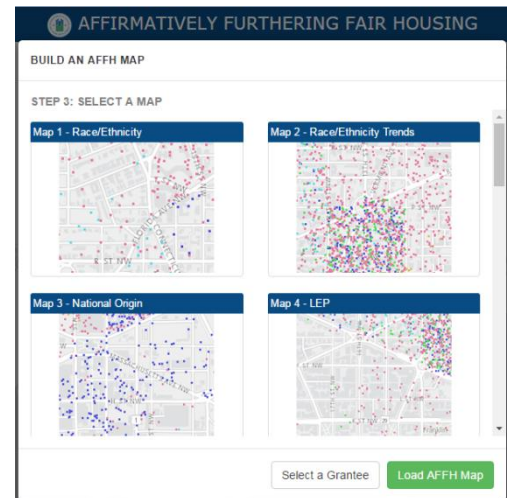




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The Affirmatively Furthering Fair Housing Tool (AFFH-T) will provide the following options:

- **Map 1** – Race/Ethnicity
- **Map 2** – Race/Ethnicity Trends
- **Map 3** – National Origin
- **Map 4** – LEP
- **Map 5** – Publicly Supported Housing and Race/Ethnicity
- **Map 6** – Housing Problems
- **Map 7** – Demographics and School Proficiency
- **Map 8** – Demographics and Job Proximity
- **Map 9** – Demographics and Labor Market
- **Map 10** – Demographics and Transit Trips
- **Map 11** – Demographics and Low Transportation Cost
- **Map 12** – Demographics and Poverty
- **Map 13** – Demographics and Environmental Health
- **Map 14** – Disability by Type
- **Map 15** – Disability by Age Group
- **Map 16** – Housing Tenure
- **Map 17** – Location of Affordable Rental Housing (% Rental Units Affordable to 50% AMI)



### 1.6 Changing User ID and Password

There is no user login needed to use AFFH-T.

### 1.7 Exit Solution

You can log out of the application at any time by closing the Web browser. After exiting the application, you can log into the application again by opening a new Web browser session and entering the AFFH-T URL.



## 2 Using the Solution (Online)

### HOW TO USE THIS GUIDE

The AFFH-T User Guide lays out basic descriptions of functions within the tool. While the guide does not detail all possible outcomes of the various functions, it provides an introduction to each function and basic guidelines to assist in troubleshooting unexpected results or errors. The user guide is formatted to follow the order of AFFH-T's functional tabs as they appear on the Select a Map page. However, users already familiar with the topics where assistance is needed can see the table of contents to find the appropriate section of the guide.

### ACCESSING AFFH-T

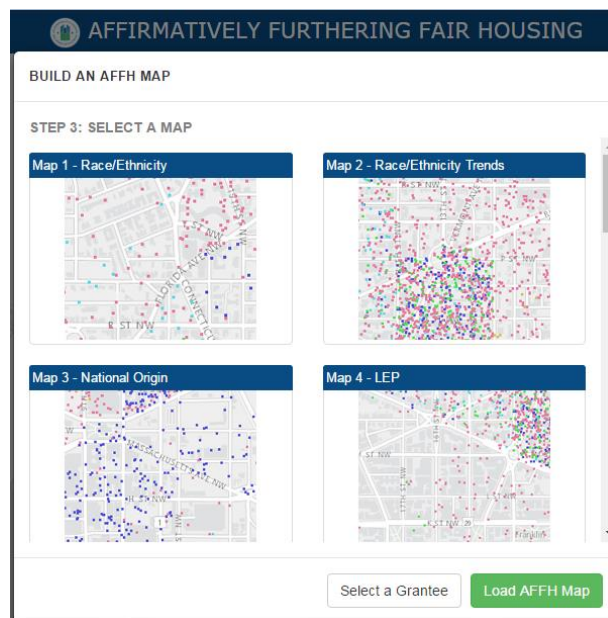
There is only one path to reach the AFFH-T

<http://egis.hud.gov/AFFHT>

### The Affirmatively Furthering Fair Housing Data and Mapping Tool (AFFH-T) & Application Wizard

The following options are available via the Choose a Map page after entering state and jurisdiction criteria:

- **Map 1 Race/Ethnicity** – Current race/ethnicity dot density map for Jurisdiction and Region with R/ECAPs
- **Map 2 Race/Ethnicity Trends** – Past (1990, 2000 and 2010) race/ethnicity dot density maps for Jurisdiction and Region with R/ECAPs
- **Map 3 National Origin** – Current 5 most populous national origin dot density map for Jurisdiction and Region with R/ECAPs
- **Map 4 LEP** – LEP persons by 5 most populous languages dot density map for Jurisdiction and Region with R/ECAPs
- **Map 5 Publicly Supported Housing and Race/Ethnicity** – Public Housing, Project-Based Section 8, Other Multifamily, and LIHTC locations mapped with race/ethnicity dot density map with R/ECAPs and distinguishing categories of publicly supported housing by color for the Jurisdiction and Region
- **Map 6 Housing Problems** - Households experiencing one or more housing burdens in Jurisdiction and Region with R/ECAPs with either race/ethnicity or national origin dot density







- **Map 7 Demographics and School Proficiency** – School Proficiency Index for Jurisdiction and Region with race/ethnicity, national origin, family status, and R/ECAPs
- **Map 8 Demographics and Job Proximity** – Jobs Proximity Index for Jurisdiction and Region with race/ethnicity, national origin, family status and R/ECAPs
- **Map 9 Demographics and Labor Market** – Labor Engagement Index with race/ethnicity, national origin, family status and R/ECAPs
- **Map 10 Demographics and Transit Trips** – Transit Trips Index for Jurisdiction and Region with race/ethnicity, national origin, family status and R/ECAPs
- **Map 11 Demographics and Low Transportation Cost** – Low Transportation Cost Index with race/ethnicity, national origin, family status and R/ECAPs
- **Map 12 Demographics and Poverty** – Low Poverty Index with race/ethnicity, national origin, family status and R/ECAPs
- **Map 13 Demographics and Environmental Health** – Environmental Health Index with race/ethnicity, national origin, family status and R/ECAPs
- **Map 14 Disability by Type** – Dot density map of the population of persons with disabilities by persons with vision, hearing, cognitive, ambulatory, self-care, and independent living difficulties with R/ECAPs for Jurisdiction and Region
- **Map 15 Disability by Age Group** – All persons with disabilities by age range (5-17)(18-64)(65+) with R/ECAPs
- **Map 16 Housing Tenure** – Housing Tenure by Owners or Renters with R/ECAPs
- **Map 17 Location of Affordable Rental Housing (% Rental Units Affordable to 50% AMI)** – Map of percent of rental units affordable, defined as units renting at or less than 30% of household income for a household with income at 50% of AMI.

## 2.1 Map 1 Race/Ethnicity – Current (2010) race/ethnicity dot density map for Jurisdiction and Region with R/ECAPs

To locate information regarding Current race/ethnicity dot density map for Jurisdiction and Region with R/ECAPs, click the Map 1- Race/Ethnicity button located on the Select a Map page.

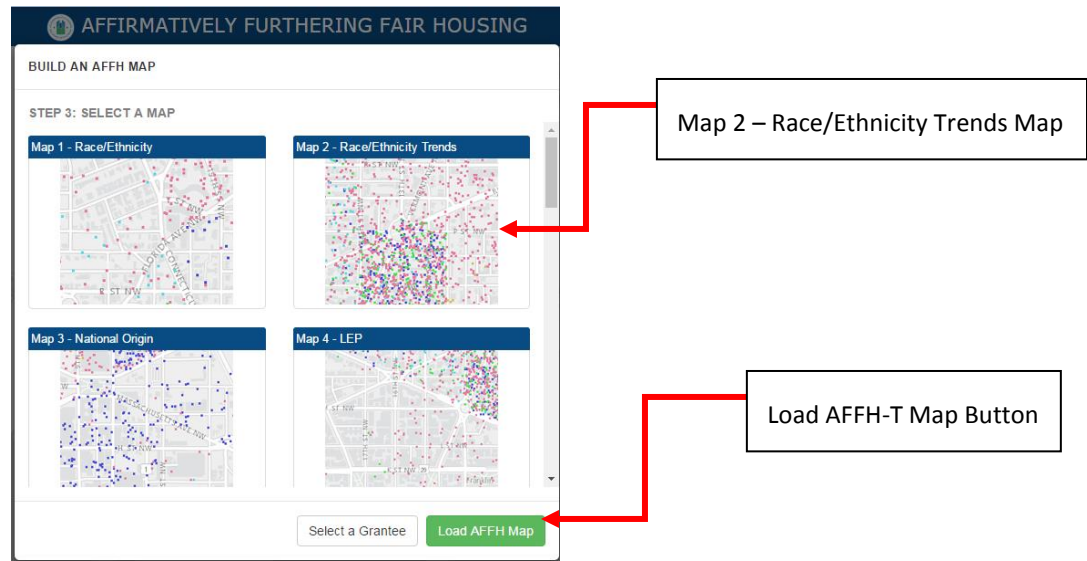


Select the Load AFFH-T Map Button located at the bottom right of the application wizard.



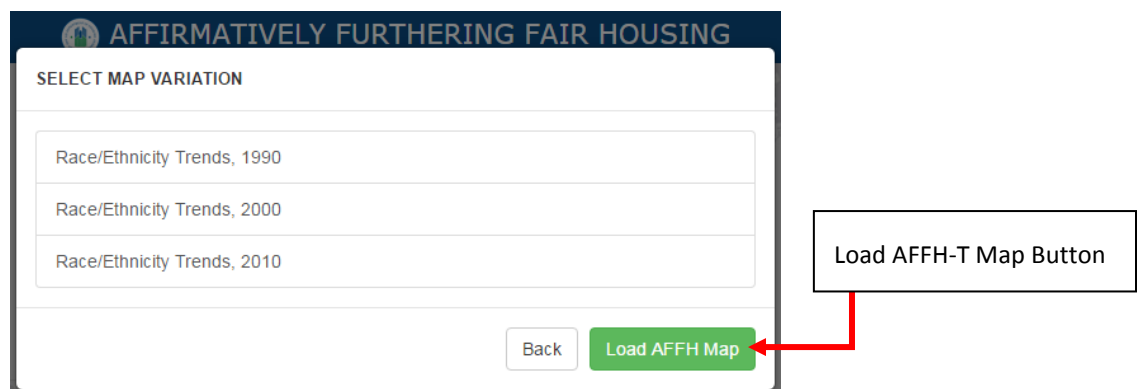
## 2.2 Map 2 Race/Ethnicity Trends – Past (1990, 2000 and 2010) race/ethnicity dot density maps for Jurisdiction and Region with R/ECAPs

To locate information regarding past race/ethnicity dot density map for Jurisdiction and Region with R/ECAPS, click the Map 2- Race/Ethnicity Trends button located on the application wizard.



Select the Load AFFH-T Map Button located at the bottom right of the application wizard.

The Select Map Variation screen will open. You can choose between Race/Ethnicity Trends, 1990; Race/Ethnicity Trends, 2000; or Race/Ethnicity Trends, 2010.

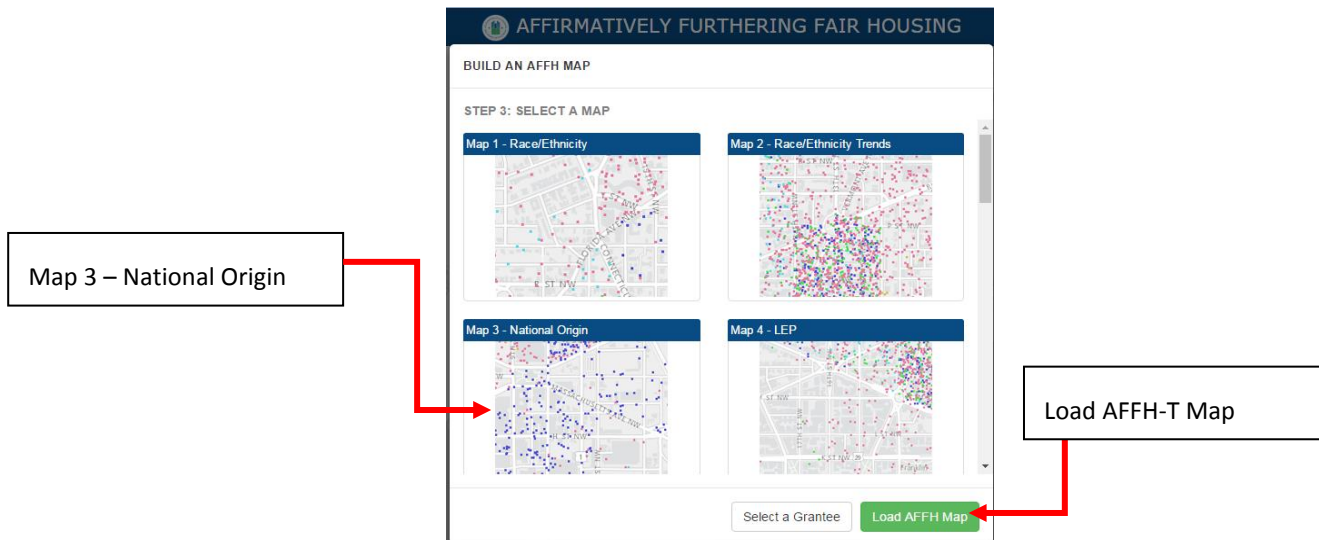


Select the Load AFFH-T Map Button located at the bottom right of the application wizard.



### 2.3 Map 3 National Origin – Current 5 most populous national origin groups dot density map for Jurisdiction and Region with R/ECAPs

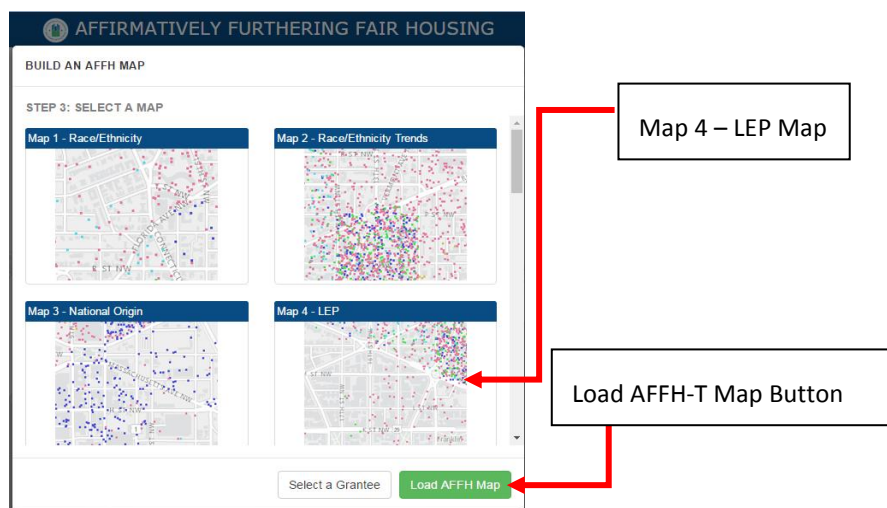
To locate information regarding Current national origin (5 most populous) dot density map for Jurisdiction and Region with R/ECAPs, click the Map 3 - National Origin button located on the application wizard.



Select the Load AFFH-T Map Button located at the bottom right of the application wizard.

### 2.4 Map 4 LEP – LEP persons by 5 most populous languages dot density map for Jurisdiction and Region with R/ECAPs

To locate information regarding LEP persons speaking the 5 most commonly used languages for Jurisdiction and Region with R/ECAPs, click the Map 4 - LEP button located on the application wizard.

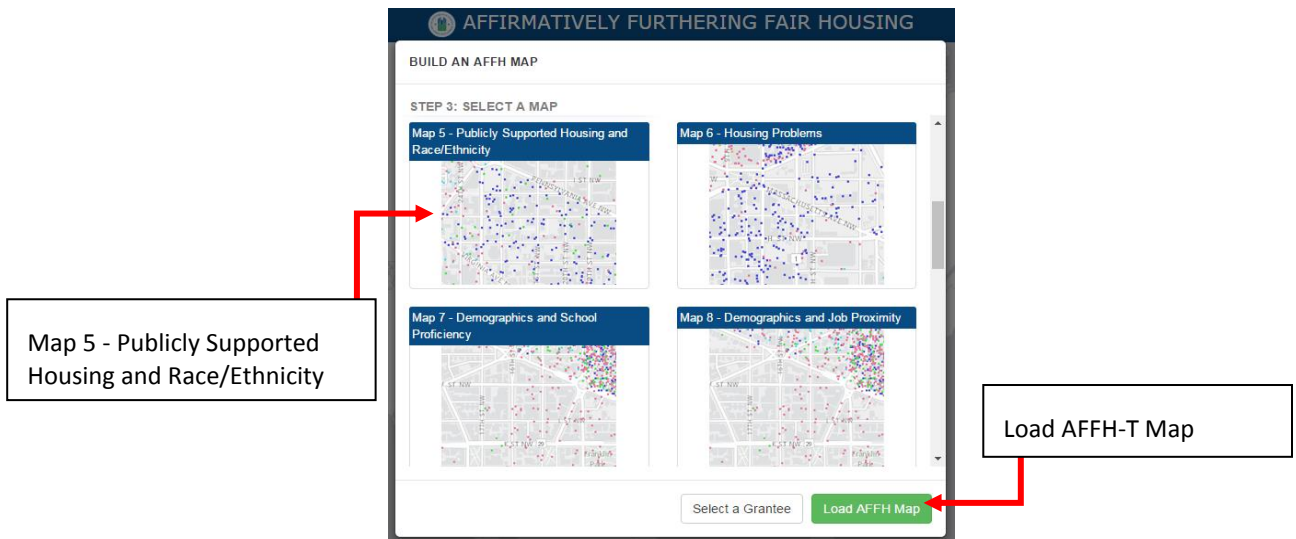


Select the Load AFFH-T Map Button located at the bottom right of the application wizard.



## 2.5 Map 5 Publicly Supported Housing and Race/Ethnicity – Public Housing, Project-Based Section 8, Other Multifamily, and LIHTC locations mapped with race/ethnicity dot density map with R/ECAPs, distinguishing categories of publicly supported housing by color, for the Jurisdiction and Region

To locate information regarding Public Housing, Project-Based Section 8, Other Multifamily, and LIHTC locations mapped with race/ethnicity dot density map with R/ECAPs and to distinguish categories of publicly supported housing by color, click the Map 5 – Publicly Supported Housing and Race/Ethnicity button located on the application wizard.



Select the Load AFFH-T Map Button located at the bottom right of the application wizard.

Map 5 contains both the Map Query feature and property icons with popup information





## User Guide

Click a green "Other Multifamily" property icon, shown highlighted in blue, for information about that multifamily property displayed in a popup.

Other Multifamily property icon

Other Multifamily	
Project Name	Las Bougainvilleas
Property Code	800075802
Address	1223 37th Ave
City	Oakland
State	CA
ZIP	94601
Census 2010 Tract Id	06001406100
Program Type	Other Multi Text

Click the Map Query button to open the Map Query form.

Map Query button

Data from the popup will appear in the form. You can alter parameters before running the query.



# User Guide

**Run Query button**

Click the **Run Query** button to execute the operation

You can use the Export to Excel button **Export to Excel** to generate an Excel spreadsheet in addition to viewing on screen/in the grid.

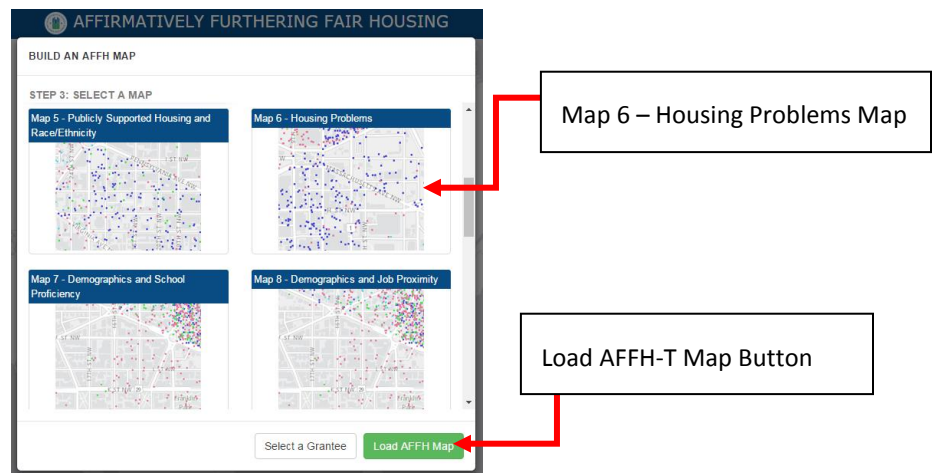
Project Name	Program Type	Tract ID	Property Asian Pct	Tract Asian Pct	Property Hispanic Pct	Tract Hispanic Pct	Property Black Pct	Tract Black Pct	Property White Pct
Playa Del Alameda	PBIRA	06001429500	5.00%	37.42%	32.00%	9.22%	39.00%	7.70%	24.00%
Playa Del Alameda	LIHTC	06001429500		37.42%		8.22%		7.70%	
Apt's									
Shinsei Gardens	LIHTC	06001429700		30.23%		12.04%		14.23%	

**Export to Excel**



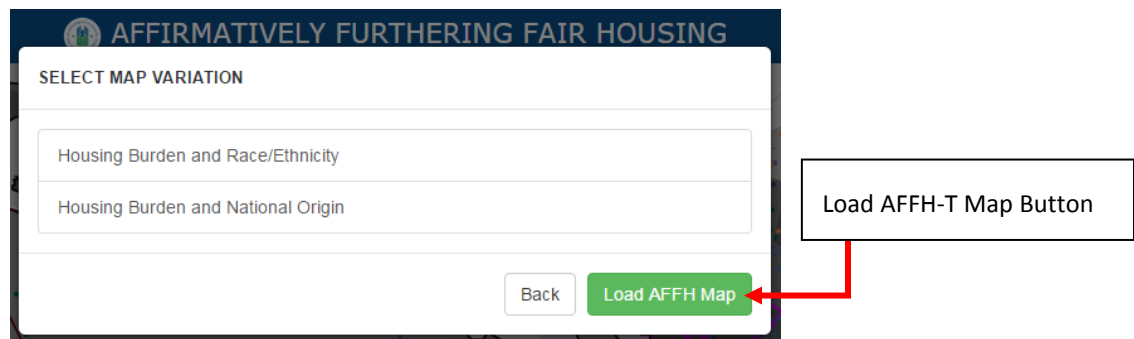
## 2.6 Map 6 Housing Problems – Housing Problems thematic map with Race/Ethnicity or National Origin dot density map and R/ECAPs, for the Jurisdiction and Region

To locate information regarding Housing Problems thematic map with Race/Ethnicity or National Origin dot density map and R/ECAPs, click the Map 6 - Housing Problems button located on the application wizard.



Select the Load AFFH-T Map button located at the bottom right of the application wizard.

The Select Map Variation screen will open. You can choose between Housing Burden and Race/Ethnicity or Housing Burden and National Origin.

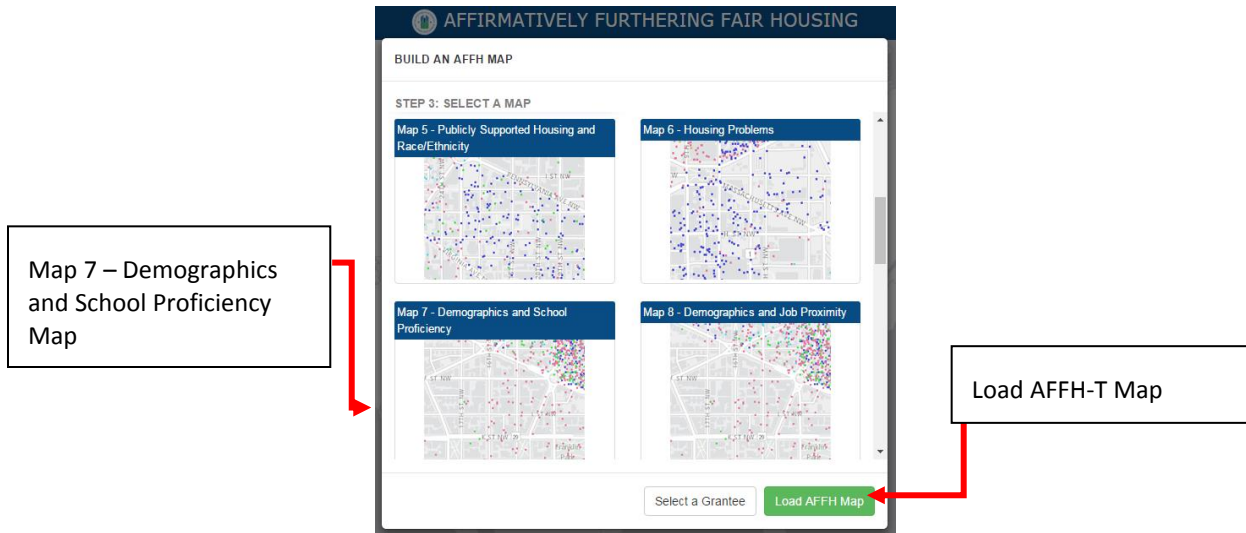


Select the Load AFFH-T Map Button located at the bottom right of the application wizard.



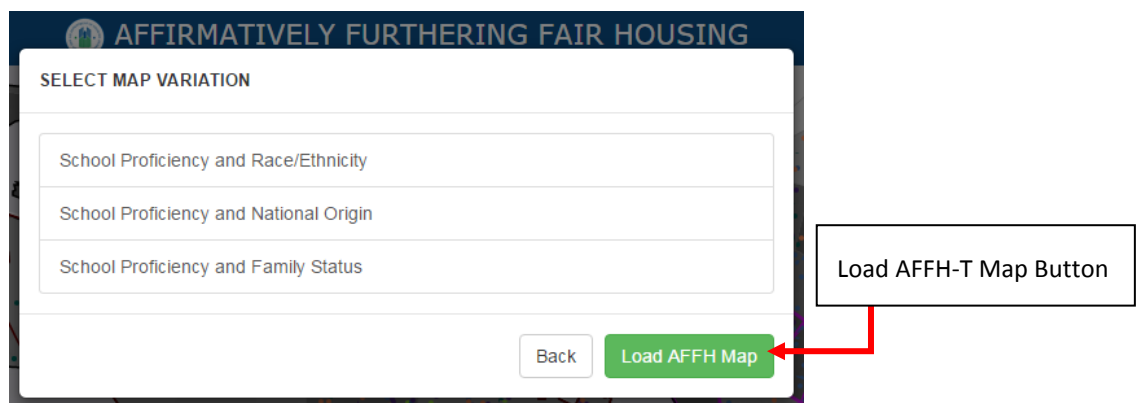
## 2.7 Map 7 Demographics and School Proficiency – School proficiency thematic map for Jurisdiction and Region with race/ethnicity, national origin, and family status maps and R/ECAPs

To locate information regarding school proficiency index for Jurisdiction and Region with race, ethnicity, national origin, family status, and R/ECAPs, click the Map 7 - Demographics and School Proficiency button located on the application wizard.



Select the Load AFFH-T Button located at the bottom right of the application wizard.

The Select Map Variation screen comes up. You can choose School Proficiency and Race/Ethnicity, School Proficiency and National Origin, or School Proficiency and Family Status.



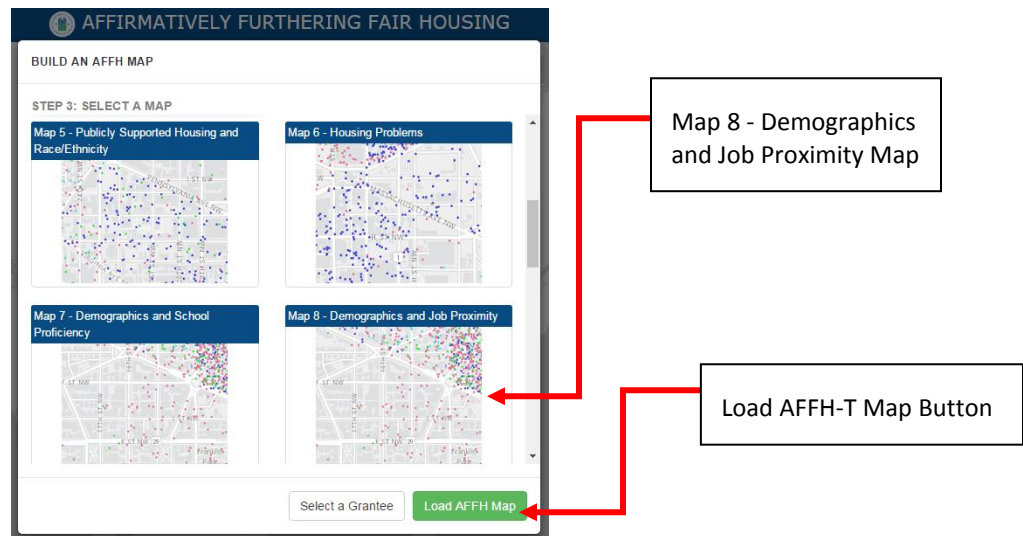
Select the Load AFFH-T Map Button located at the bottom right of the application wizard.





## 2.8 Map 8 Demographics and Job Proximity – Job proximity thematic map for Jurisdiction and Region with race/ethnicity, national origin, and family status maps and R/ECAPs

To locate information regarding jobs proximity index for Jurisdiction and Region with race/ethnicity, national origin, family status and R/ECAPs, click the Map 8 - Demographics and Jobs Proximity button located on the application wizard.



Select the Load AFFH-T Map Button located at the bottom right of the application wizard.

The Select Map Variation screen will appear, allowing you to choose Job Proximity and Race/Ethnicity, Job Proximity and National Origin, or Job Proximity and Family Status.

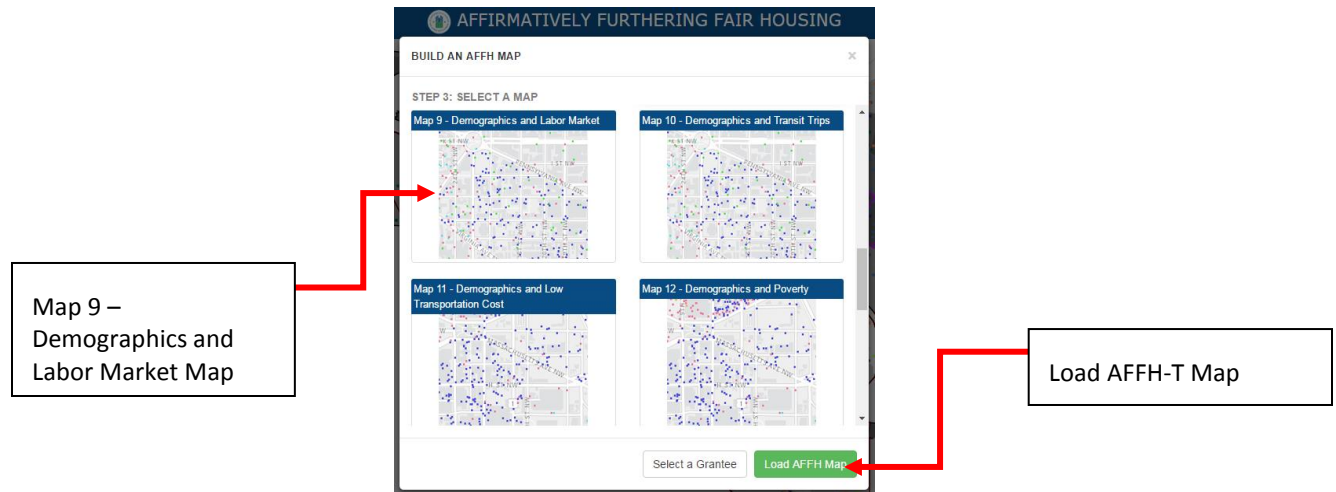


Select the Load AFFH-T Map Button located at the bottom right of the application wizard.



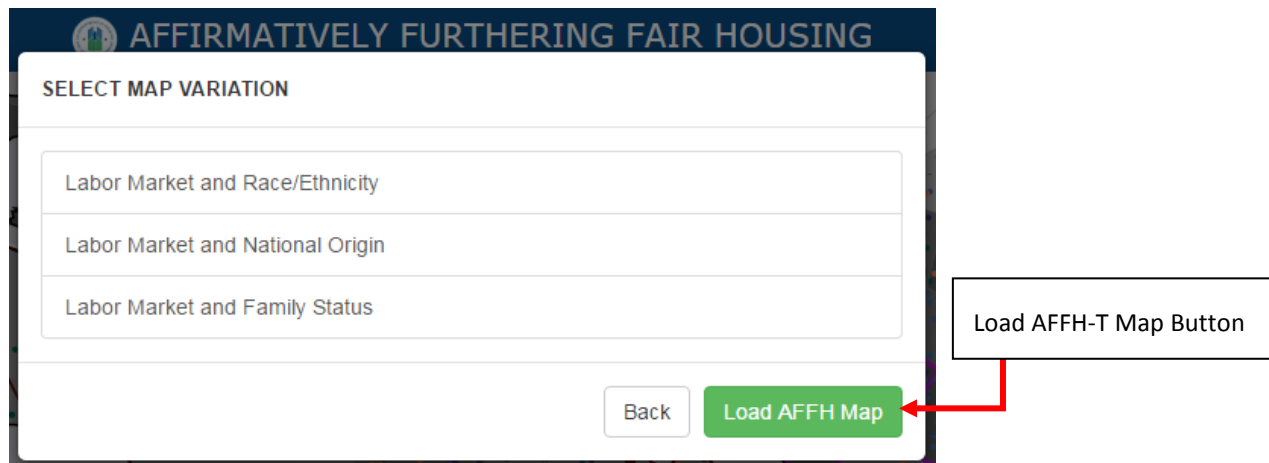
## 2.9 Map 9 Demographics and Labor Market – Labor engagement thematic map for Jurisdiction and Region with race/ethnicity, national origin, and family status maps and R/ECAPs

To locate information regarding labor engagement index with race/ethnicity, national origin, family status and R/ECAP's, click the Map 9 - Demographics and Labor Market button located on the application wizard.



Select the Load AFFH-T Map Button located at the bottom right of the application wizard.

The Select Map Variation screen will appear, allowing you to choose Labor Market and Race/Ethnicity, Labor Market and National Origin, or Labor Market and Family Status.

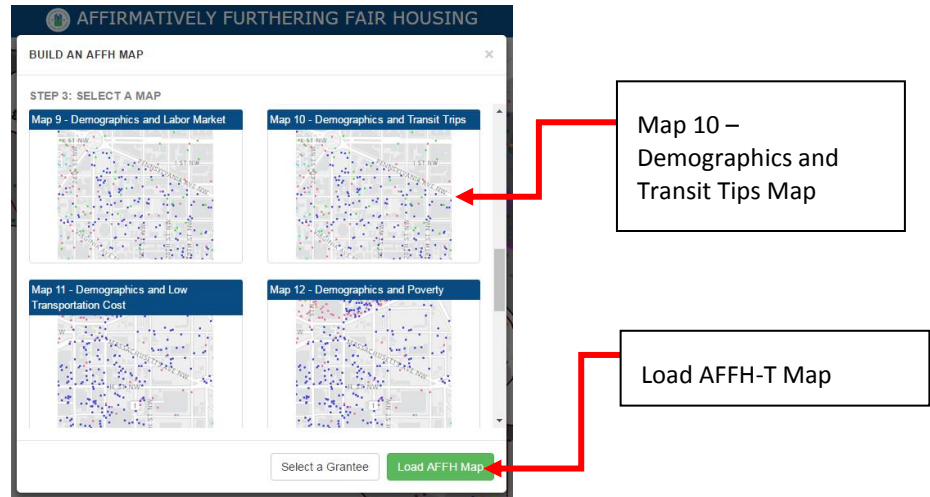


Select the Load AFFH-T Map Button located at the bottom right of the application wizard.



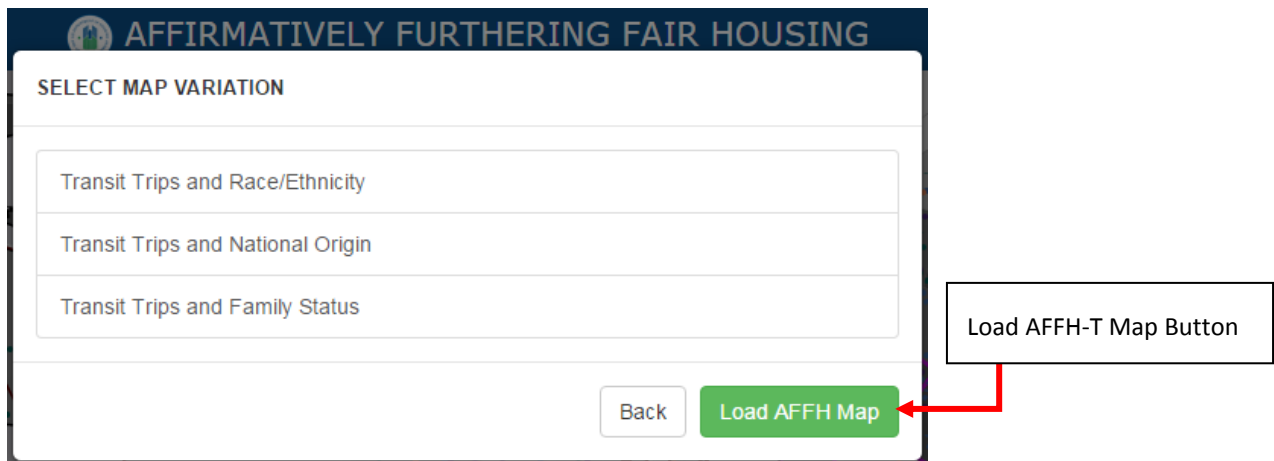
## 2.10 Map 10 Demographics and Transit Trips – Transit proximity thematic map for Jurisdiction and Region with race/ethnicity, national origin, and family status maps and R/ECAPs

To locate information regarding the transit trips index for jurisdiction and region with race/ethnicity, national origin, family status and R/ECAPs, click the Map 10- Demographics and Transit Trips button located on the application wizard.



Select the Load AFFH-T Map Button located at the bottom right of the application wizard.

The Select Map Variation screen will appear, allowing you to choose Transit Trips and Race/Ethnicity, Transit Trips and National Origin, or Transit Trips and Family Status.



Select the Load AFFH-T Map Button located at the bottom right of the application wizard.



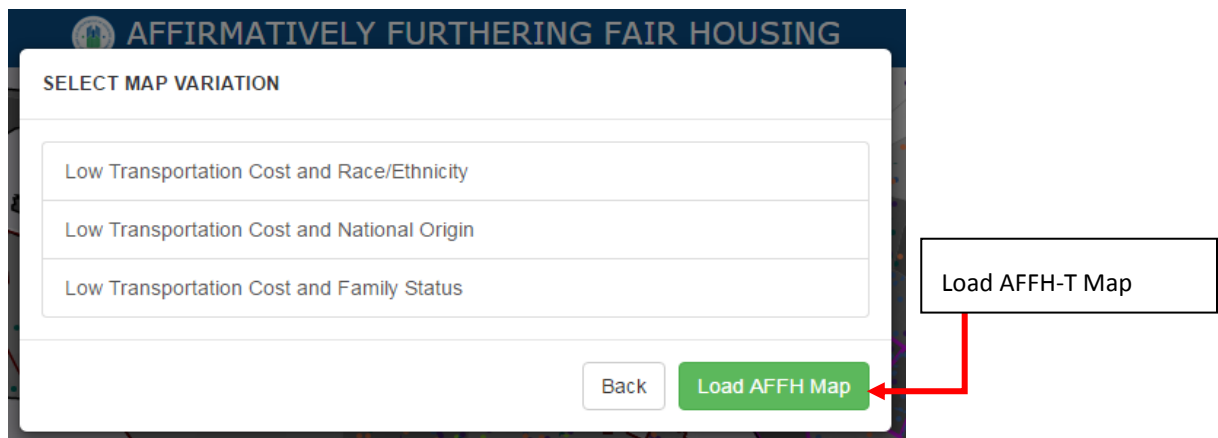
## 2.11 Map 11 Demographics and Low Transportation Cost – Low transportation cost thematic map for Jurisdiction and Region with race/ethnicity, national origin, and family status maps and R/ECAPs

To locate information regarding transportation cost index with race/ethnicity, national origin, family status and R/ECAPs, click the Map 11 - Demographics and Low Transportation Cost button located on the application wizard.



Select the Load AFFH-T Map Button located at the bottom right of the application wizard.

The Select Map Variation screen will appear, allowing you to choose Low Transportation Cost and Race/Ethnicity, Low Transportation Cost and National Origin, or Low Transportation Cost and Family Status.

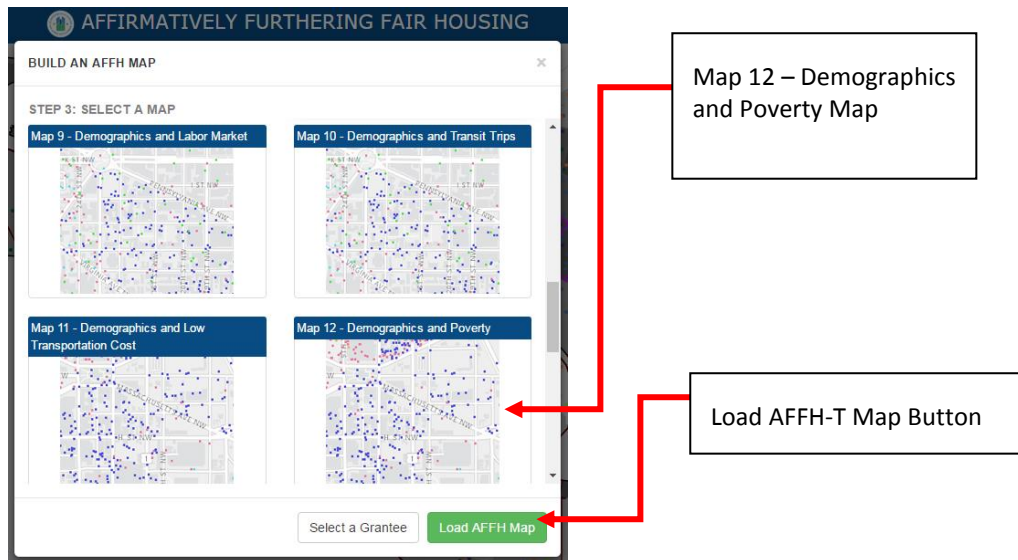


Select the Load AFFH-T Map Button located at the bottom right of the application wizard.



## 2.12 Map 12 Demographics and Poverty – Low poverty thematic map for Jurisdiction and Region with race/ethnicity, national origin, and family status maps and R/ECAPs

To locate information regarding poverty index with race/ethnicity, national origin, family status and R/ECAPs, click the Map 12 - Demographics and Poverty button located on the application wizard.



Select the Load AFFH-T Map Button located at the bottom right of the application wizard.

The Select Map Variation screen will appear, allowing you to choose Poverty and Race/Ethnicity, Poverty and National Origin, or Poverty and Family Status.

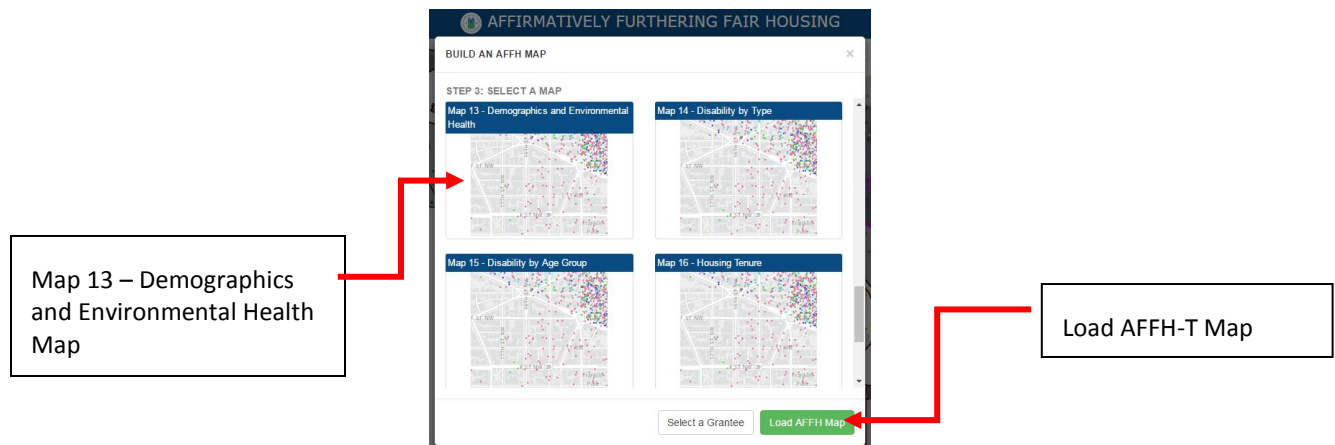


Select the Load AFFH-T Map Button located at the bottom right of the application wizard



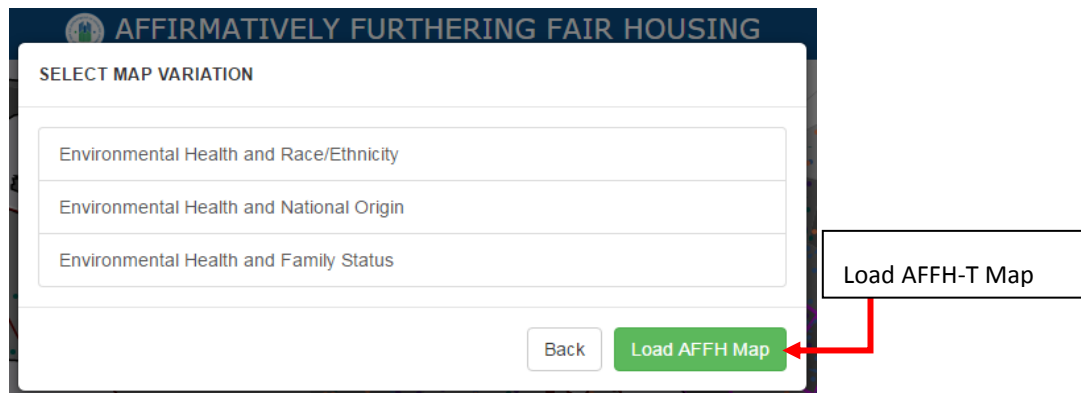
## 2.13 Map 13 Demographics and Environmental Health – Environmental health thematic map for Jurisdiction and Region with race/ethnicity, national origin, and family status maps with R/ECAPs

To locate information regarding environmental health index with race/ethnicity, national origin, family status and R/ECAPs, click the Map 13 – Demographics and Environmental Health button located on the application wizard.



Select the Load AFFH-T Map Button located at the bottom right of the application wizard.

The Select Map Variation screen will appear, allowing you to choose Environmental Health and Race/Ethnicity, Environmental Health and National Origin, or Environmental Health and Family Status

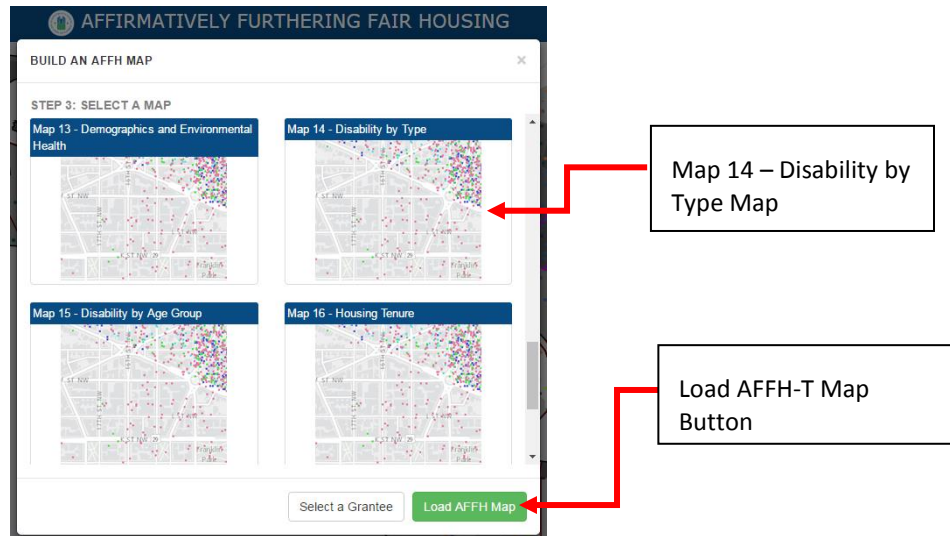


Select the Load AFFH-T Map Button located at the bottom right of the application wizard.



## 2.14 Map 14 Disability by Type – Disability by Type thematic map for Jurisdiction and Region with Hearing, Vision and Cognitive Disability or Ambulatory, Self-Care and Independent Living Disability maps and R/ECAPs

To locate information regarding Disability by Type map for Jurisdiction and Region with Hearing, Vision and Cognitive Disability or Ambulatory, Self-Care and Independent Living Disability maps and R/ECAPs, click the Map 14 – Disability by Type button located on the application wizard.



Select the Load AFFH-T Map Button located at the bottom right of the application wizard.

The Select Map Variation screen will appear, allowing you to choose Hearing, Vision and Cognitive Disability or Ambulatory, Self-Care and Independent Living Disability

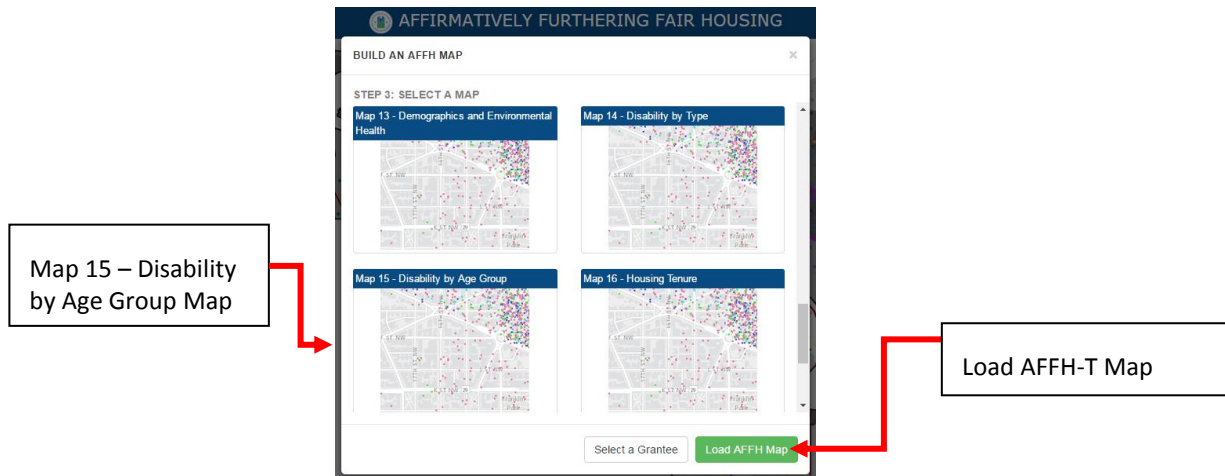


Select the Load AFFH-T Map Button located at the bottom right of the application wizard.



## 2.15 Map 15 Disability by Age Group – Disability by Age Group thematic map for Jurisdiction and Region for all persons with disabilities by age range (5-17)(18-64)(65+) with R/ECAPs

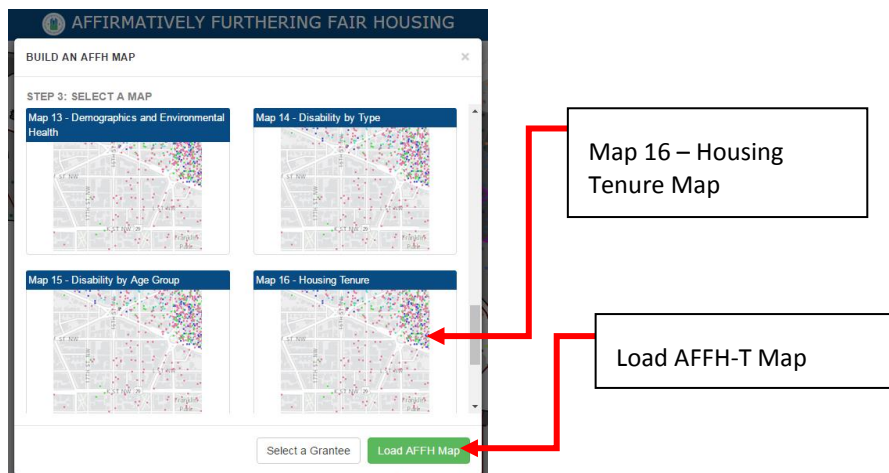
To locate information regarding Disability by Age Group map for Jurisdiction and Region for all persons with disabilities by age range (5-17)(18-64)(65+) with R/ECAPs click the Map 15 – Disability by Age Group button located on the application wizard.



Select the Load AFFH-T Button located at the bottom right of the application wizard.

## 2.16 Map 16 Housing Tenure – Housing Tenure thematic map by Owners or Renters with R/ECAPs for Jurisdiction and Region

To locate information regarding Housing Tenure by Owners or Renters with R/ECAPs for Jurisdiction and Region, click the Map 16 – Housing Tenure button located on the application wizard.



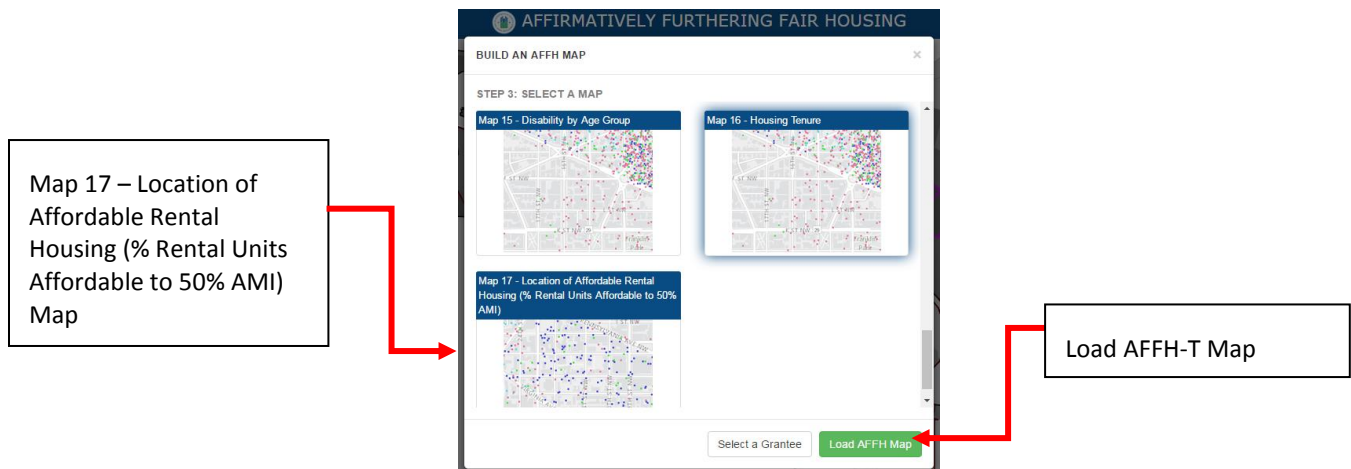
Select the Load AFFH-T Map Button located at the bottom right of the application wizard.





## 2.17 Map 17 Location of Affordable Rental Housing (% Rental Units Affordable to 50% AMI) – Thematic Map of percent of rental units affordable, defined as units renting at or less than 30% of household income for a household with income at 50% of AMI for Jurisdiction and Region.

To locate information regarding Location of Affordable Rental Housing (% Rental Units Affordable to 50% AMI), click the Map 17 – Location of Affordable Rental Housing (% Rental Units Affordable to 50% AMI) button located on the application wizard.



Select the Load AFFH-T Map Button located at the bottom right of the application wizard.

## 2.18 Zoom In/Out

There are several ways to zoom in or out on the map. Use the zoom buttons located on the left side of the map in the toolbar or double-click anywhere in the map to zoom in one level.



## 2.19 Toggle Audible Alert

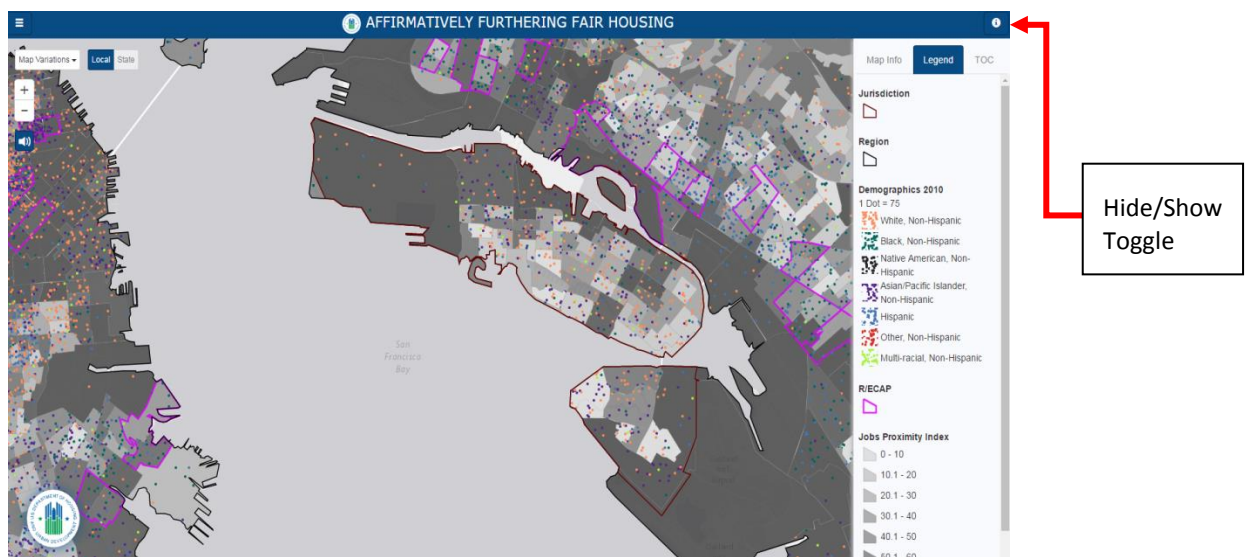
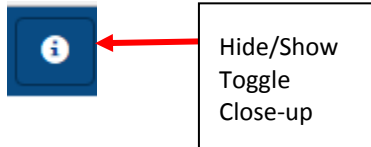
There is an audible alert to indicate when a map has completely loaded or a function has been completed. This function can be turned on or off by using the Toggle Audible Alert button located on the left side of the map in the toolbar.





## 2.20 Hide/Show Map Info, Legend and TOC (Table of Contents) Area on Map

Users can hide or display the Information area by clicking the button on the right side of the AFFH-T top bar as shown below. When clicked, the Information area disappears. When clicked again, the Information area reappears.





## 2.21 Map Information

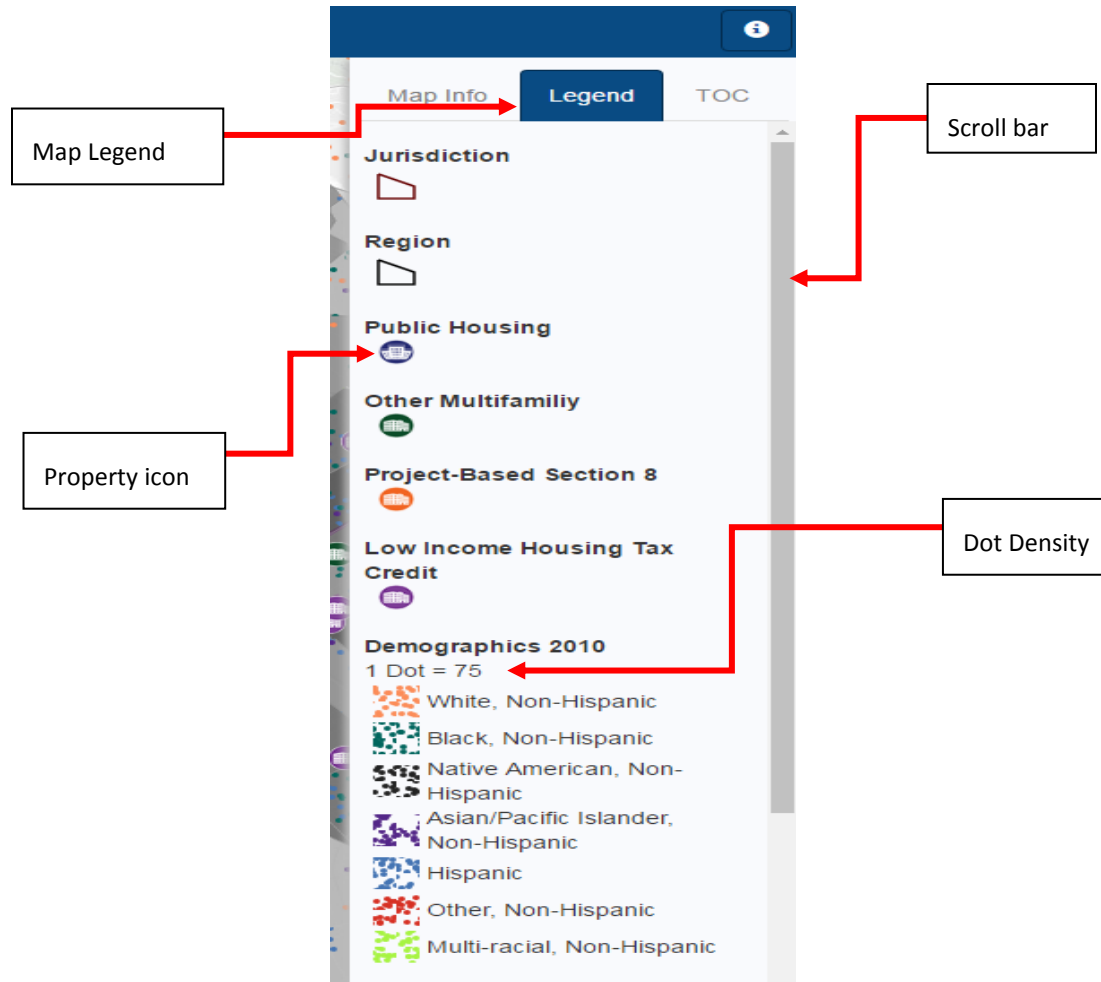


The Map Information box provides the user with detailed information as to what information they are currently viewing. This information might include:

- Map Name
- Map Number
- Map Description
- Jurisdiction
- Region



## 2.22 Map Layers - Legend



The Legend indicates the symbolism, classifications, and color for each selected map layer.



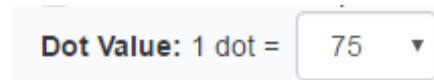
## 2.23 Map Layers - Table of Contents

The Table of Contents lists every layer on the map to show what the features in each layer represent.

The screenshot shows the 'Table of Contents' (TOC) panel in a mapping application. The panel is titled 'TOC' and contains a list of map layers, each with a visibility toggle (checkbox) and a slider control. The layers listed are: Jurisdiction, Region, Public Housing, Other Multifamily, Project-Based Section 8, Low Income Housing Tax Credit, Demographics 2010, and TRACT. The 'Demographics 2010' layer is expanded to show sub-layers: White, Non-Hispanic; Black, Non-Hispanic; Native American, Non-Hispanic; Asian/Pacific Islander, Non-Hispanic; Hispanic; Other, Non-Hispanic; and Multi-racial, Non-Hispanic. At the bottom of the panel, there is a 'Dot Value' control set to 75. Red callout boxes with arrows point to various UI elements: 'Table of Contents' points to the TOC tab; 'Visibility Toggle' points to the checkbox for 'Public Housing'; 'Scroll bar' points to the vertical scrollbar on the right side of the list; 'Slider' points to the slider control for 'Low Income Housing Tax Credit'; and 'Dot Density' points to the 'Dot Value' dropdown menu.



## 2.24 Dot Density Renderer

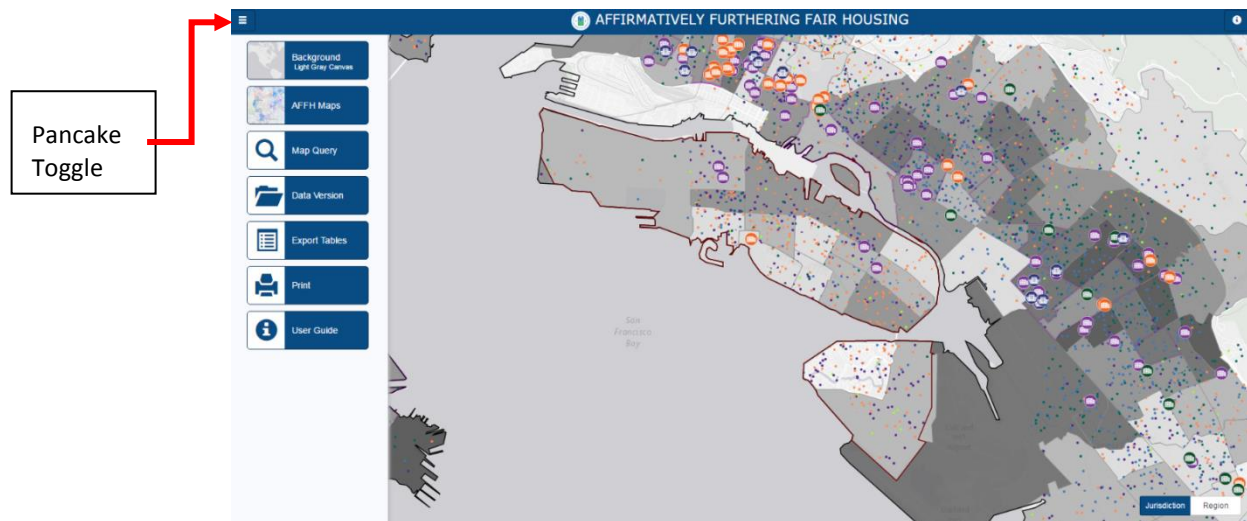
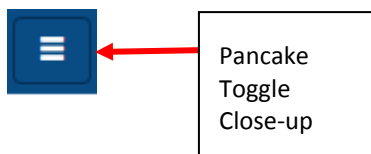


The Dot Density Renderer included in the TOC (Table of Contents) allows for the creation of dot density visualizations on data. Users can use dot density maps to visualize the variation in spatial density of a discrete spatial phenomenon. The Dot Density Renderer is adjusted via a drop-down menu that allows the user to choose one value from a list. When the drop-down list is inactive, it displays a single value. When activated, it displays a list of values in a drop-down menu, from which the user may select one. The Dot Density Renderer can be adjusted in increments of 5, starting at 1 and ending at 100. By default, the Dot Density Renderer is set to 75.

**Note: Dots are plotted randomly within tracts or block groups and do not represent actual locations.**

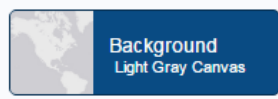
## 2.25 Hide/Show Application Tabs

Users can hide or display the application tabs by clicking the pancake on the left side of the AFFH-T top bar as shown below. When clicked, the Information area appears. When clicked again, the Information area disappears.



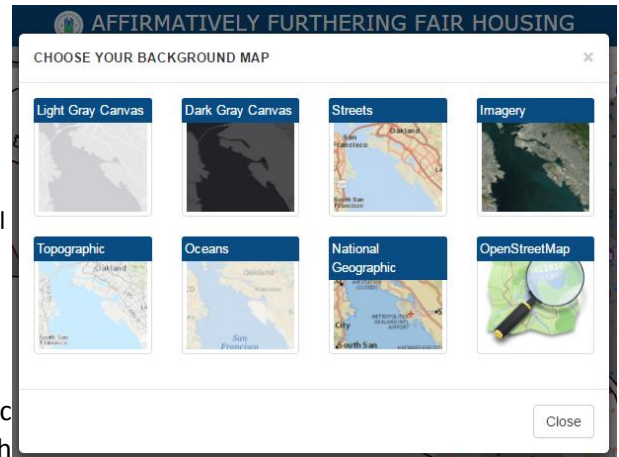


## 2.26 Specify Background Button



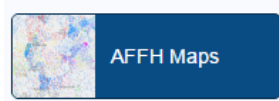
By clicking the Background button, users can specify one of 8 detail levels for a displayed map background:

- **Light Gray Canvas** – Draws attention to thematic content by providing a neutral background with minimal colors, labels, and features
- **Dark Gray Canvas** – Draws attention to thematic content by providing a dark background with minimal colors, labels, and features
- **Streets** – Presents highway-level data for world and street-level data
- **Imagery** – Displays imagery plus layers showing boundaries, places, and transportation, including street names
- **Topographic** – Displays topographic maps, which include boundaries, cities, water features, physiographic features, parks, landmarks, transportation, and buildings
- **Oceans** – Displays as a basemap that includes bathymetry, surface and subsurface feature names, and derived depths. This map is designed to be used as a basemap by marine GIS professionals and as a reference map by users interested in ocean data.
- **National Geographic** – Displays as a general reference map for information and educational purposes. This map is also designed to be used as a basemap by GIS professionals and other users for creating Web maps and Web mapping applications
- **OpenStreetMap** – Displays a map based upon a collaborative project that creates a free, editable map of the world

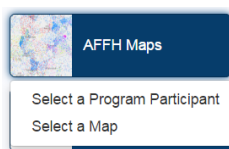




## 2.27 AFFH-T Maps Button

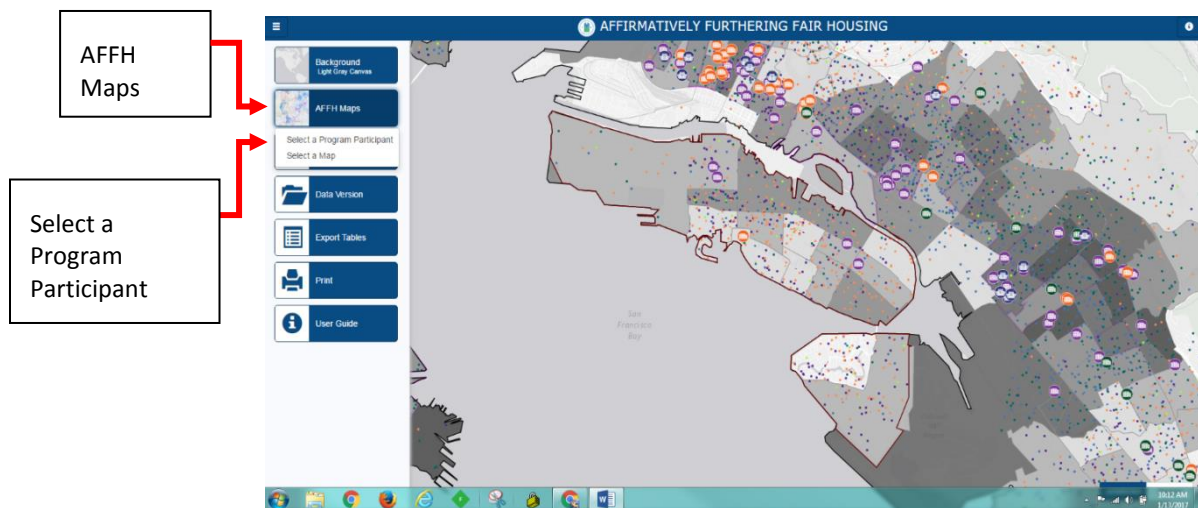


By clicking the AFFH Maps tab, users can select one of 17 maps. The drop-down menu on this button not only allows you to select a map, but also to change grantee (Program Participant). Choose “Select a Program Participant” to choose State and Jurisdiction, and choose “Select a Map” to navigate directly to the Select a Map screen.



## 2.28 Select a Grantee (Program Participant)

The Select a Grantee (Program Participant) screen, as shown below, is the landing page for AFFH-T. It allows users to view the list of Grantees by State and Jurisdiction from the drop-down menus. You can return to the Select a Program Participant screen from any screen within AFFH-T by selecting the AFFH-T Maps button and clicking “Select a Program Participant” in the dropdown.

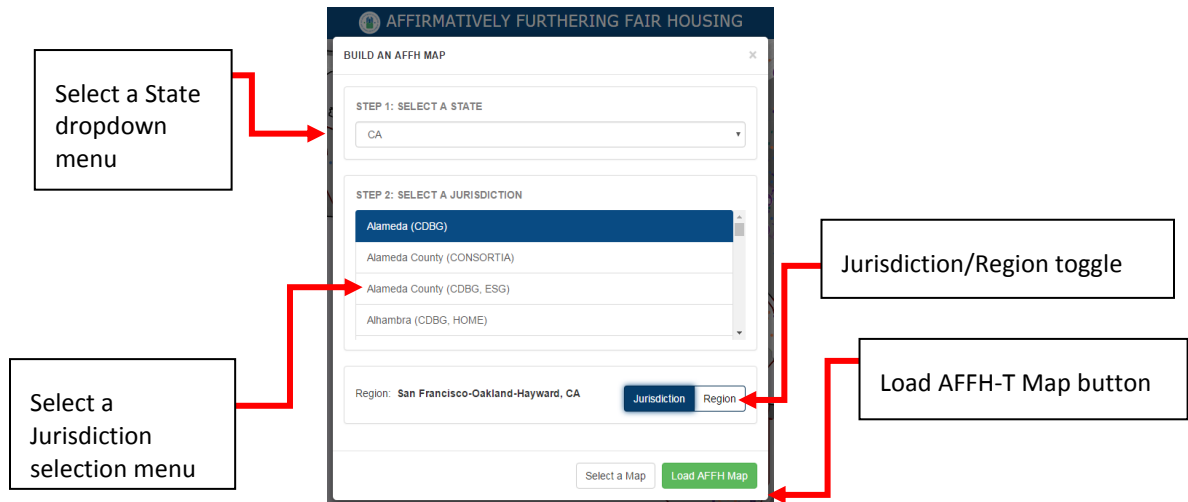




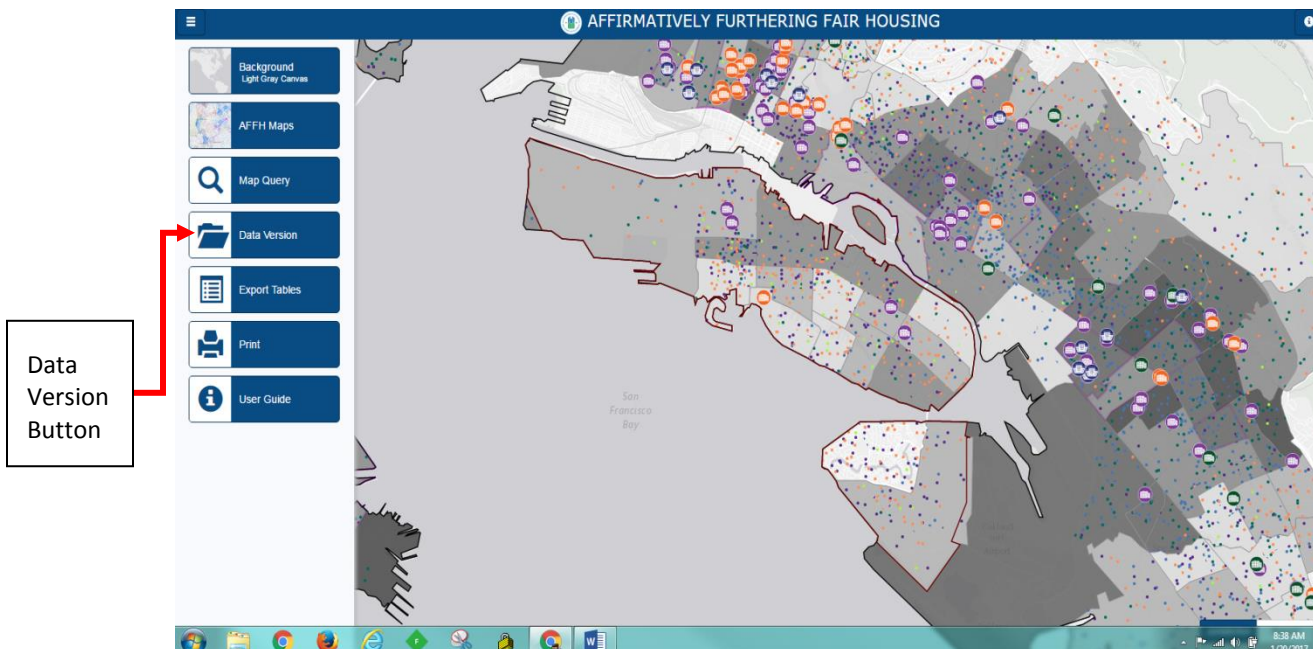


As shown below the following options are presented to users:

- A state selection dropdown
- A jurisdiction selection dropdown
- A toggle slider that allows users to select either Jurisdiction or Region for view type
- The option to select “Load AFFH Map” which will display items the user has selected and “Select a Map,” which will allow the user to return to the map wizard.



## 2.29 Data Version Button





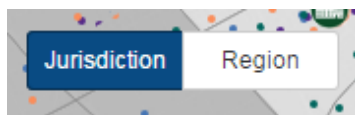
## User Guide

The Data Version Button allows the user to select previous data versions. When a user uses the AFFH-T, by default the maps and tables in the AFFH-T are created using the most recent data available. However, if a user wants to access maps and tables using the previous data versions, they can do so with the Data Version Button. It is accessed by clicking on the pancake on the top left of the AFFH-T top bar (Sec. 2.25) to open the applications tabs. The user also has the option to access more information by clicking on the hyperlink in the description portion of the window and is labeled “HUD Exchange AFFH page”.

The screenshot shows a dialog box titled "SELECT DATA VERSION:" with a close button (X) in the top right corner. The dialog contains a table with three columns: "Name:", "Date Created:", and "Description:". There are two rows of data. The first row has a blue "In Use" button, the name "AFFHT0002", the date "12/31/2016", and the description "Jan 2017 - Present" followed by a hyperlink "See HUD Exchange AFFH page for more details.". The second row has a green "Select" button, the name "AFFHT0001", the date "6/30/2016", and the description "Jul 2016 - Jan 2017" followed by a hyperlink "See HUD Exchange AFFH page for more details.". A "Close" button is located at the bottom right of the dialog. Two red callout boxes with arrows point to the dialog: one labeled "Current Data Version" points to the first row, and one labeled "Hyperlink" points to the hyperlink in the second row.

	Name:	Date Created:	Description:
In Use	AFFHT0002	12/31/2016	Jan 2017 - Present See HUD Exchange AFFH page for more details.
Select	AFFHT0001	6/30/2016	Jul 2016 - Jan 2017 See HUD Exchange AFFH page for more details.

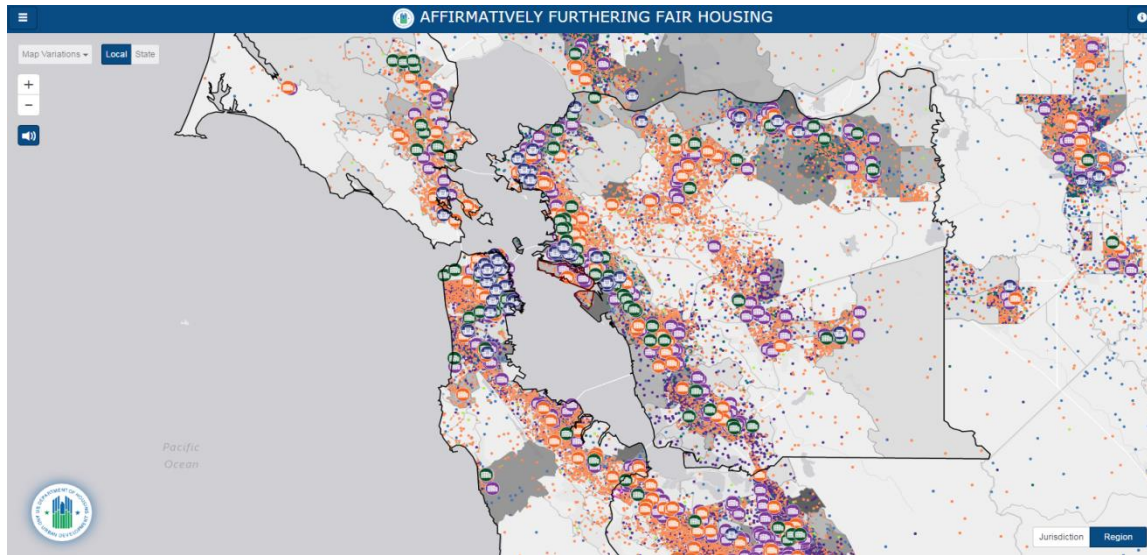
### 2.30 Toggle Jurisdiction/Region Button



The Toggle Jurisdiction/Region button is located in the lower right side of the screen and allows users to switch back and forth between two alternate views on the screen: regional view and jurisdictional view. Users should note that the Toggle Jurisdiction/Region button will not be displayed at the same time the Information area is displayed. Users will need to hide the Information area in order to access the Toggle Jurisdiction/Region button. Section 2.20 above provides instructions on how to hide or display the Information area.

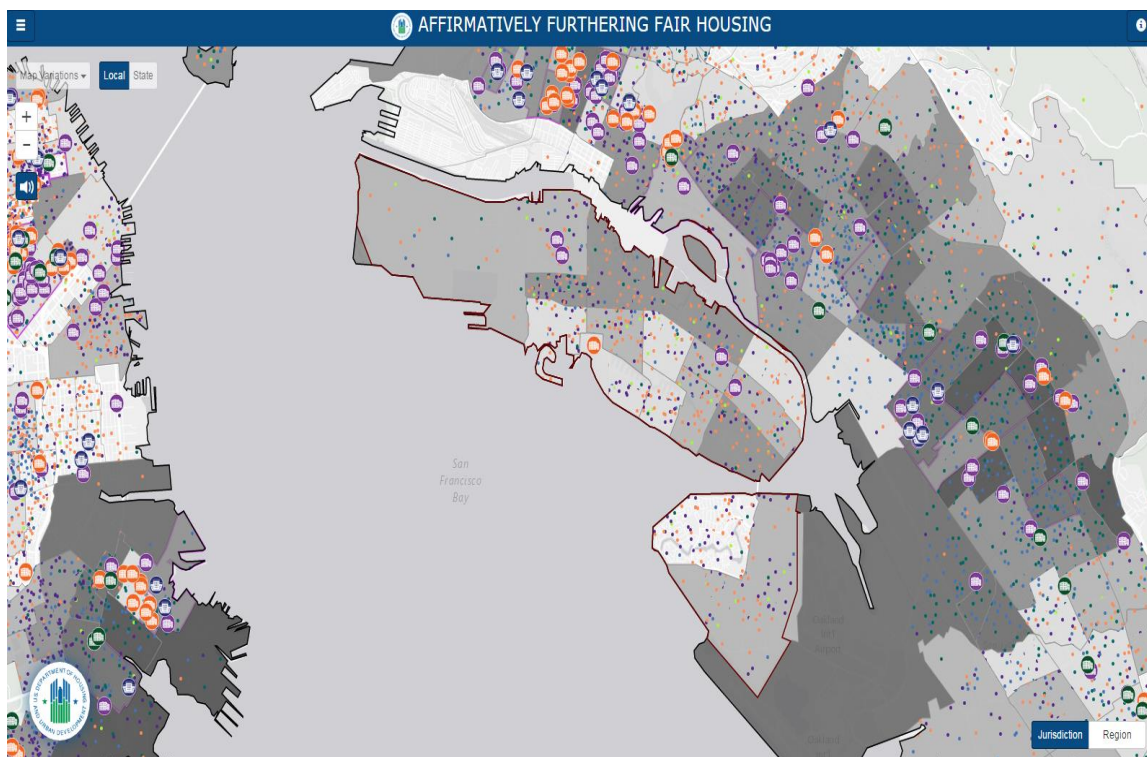


### Regional View



Toggle button

### Jurisdictional View

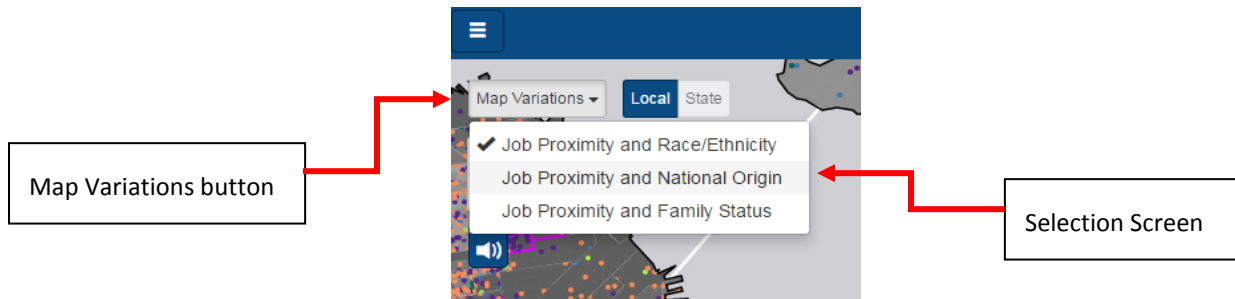


Toggle button



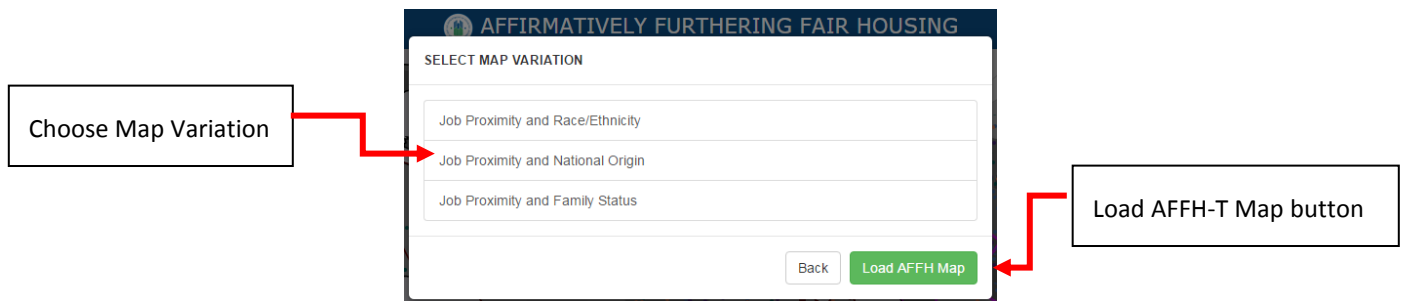
### 2.31 Map Variations Button

The *Map Variations* button is located below the pancake on the top left side of the map and allows users to choose amongst variations of the selected map when available. Utilize the dropdown arrow on the Map Variations button to open the selection screen.



### 2.32 Select Map Variation (not applicable to all maps)

The Select Map Variation pop-up window allows users to choose amongst variations of the selected map. Select the correct map variation that is appropriate, then select Load AFFH-T Map. This feature is available when the user first chooses a map or when the AFFH-T Maps button (see 2.25) is utilized.



### 2.33 Thematic Maps (not applicable to all maps)

In some of the thematic maps in the AFFH-T, the class breaks and range of values in the map reflect natural breaks based on regional-level data.

Natural breaks classes are based on natural groupings inherent in the data. Class breaks that best group similar values and that maximize the differences between classes are identified. The features are divided into classes whose boundaries are set where there are relatively big differences in the data values. Natural breaks classification is best used for mapping data values that are not evenly distributed, but instead tend to cluster into groups as natural breaks places clustered values in the same class.<sup>1</sup>

<sup>1</sup> [ [https://doc.arcgis.com/en/maps-for-office/design-and-use/classification-methods.htm#ESRI\\_SECTION1\\_976A24FBBF0648E18463A8097EE79B55](https://doc.arcgis.com/en/maps-for-office/design-and-use/classification-methods.htm#ESRI_SECTION1_976A24FBBF0648E18463A8097EE79B55) ]



## User Guide

The following list of maps provide data using natural breaks based on regional-level distribution of the data:

- Map 5 – Public Housing, Project-Based Section 8, Other Multifamily, and LIHTC locations mapped with race/ethnicity dot density map with R/ECAPs and distinguishing categories of publicly supported housing by color for the Jurisdiction and Region
- Map 6 - Households experiencing one or more housing burdens in Jurisdiction and Region with R/ECAPs with either race/ethnicity or national origin dot density
- Map 16 – Housing Tenure by Owners or Renters with R/ECAPs
- Map 17 – Map of percent of rental units affordable, defined as units renting at or less than 30% of household income for a household with income at 50% of AMI

The remaining thematic maps use class breaks based on percentile rankings:

- Map 7 – Demographics and School Proficiency
- Map 8 – Demographics and Job Proximity
- Map 9 – Demographics and Labor Market
- Map 10 – Demographics and Transit Trips
- Map 11 – Demographics and Low Transportation Cost
- Map 12 – Demographics and Poverty
- Map 13 – Demographics and Environmental Health



### 3 Report Capabilities

The following reports are available:

- Table 1 Demographics – Tabular demographic data for Jurisdiction and Region (including total population, the number and percentage of persons by race/ethnicity, national origin [10 most populous], LEP [10 most populous], disability [by disability type], sex, age range [under 18, 18-64, 65+], and households with children)
- Table 2 Demographic Trends – Tabular demographic trend data for Jurisdiction and Region (including the number and percentage of persons by race/ethnicity, total national origin [foreign born], total LEP, sex, age range [under 18, 18-64, 65+], and households with children)
- Table 3 Racial/Ethnic Dissimilarity – Tabular race/ethnicity dissimilarity index for Jurisdiction and Region
- Table 4 R/ECAP Demographics – Tabular data for the percentage of racial/ethnic groups, families with children, and national origin groups (10 most populous) for the Jurisdiction and Region who reside in R/ECAPs.
- Table 5 Publicly Supported Housing Units by Program Category – Tabular data for total units by 4 categories of publicly supported housing in the Jurisdiction (Public Housing, Project-Based Section 8, Other Multifamily, Housing Choice Voucher [HCV] Program) for the Jurisdiction
- Table 6 Publicly Supported Housing Residents by Race/Ethnicity – Tabular race/ethnicity data for 4 categories of publicly supported housing (Public Housing, Project-Based Section 8, Other Multifamily, HCV) in the Jurisdiction compared to the population as a whole, and to persons earning 30% AMI, in the Jurisdiction
- Table 7 R/ECAP and Non-R/ECAP Demographics by Publicly Supported Housing Program Category – Tabular data on publicly supported housing units and R/ECAPs for the Jurisdiction
- Table 8 Demographics of Publicly Supported Housing Developments by Program Category – Development-level demographics by Public Housing, Project-Based Section 8, and Other Multifamily for the Jurisdiction
- Table 9 Demographics of Households with Disproportionate Housing Needs – Tabular data of total households in the Jurisdiction and Region and the total number and percentage of households experiencing one or more housing burdens by race/ethnicity and family size in the Jurisdiction and Region
- Table 10 Demographics of Households with Severe Housing Cost Burden – Tabular data of the total number of households in the Jurisdiction and Region and the number and percentage of households experiencing severe housing burdens by race/ethnicity for the Jurisdiction and Region
- Table 11 Publicly Supported Housing by Program Category: Units by Number of Bedrooms and Number of Children – Tabular data on the number of bedrooms for units of 4 categories of



publicly supported housing (Public Housing, Project-Based Section 8, Other Multifamily, HCV) for the Jurisdiction

- Table 12 Opportunity Indicators by Race/Ethnicity – Tabular data of opportunity indices for school proficiency, jobs proximity, labor-market engagement, transit trips, low transportation cost, low poverty, and environmental health for the Jurisdiction and Region by race/ethnicity and among households below the Federal poverty line
- Table 13 Disability by Type – Tabular data of persons with vision, hearing, cognitive, ambulatory, self-care, and independent living disabilities for the Jurisdiction and Region
- Table 14 Disability by Age Group – Tabular data of persons with disabilities by age range (5-17, 18-64, and 65+) for the Jurisdiction and Region
- Table 15 Disability by Publicly Supported Housing Program Category – Tabular data on disability and publicly supported housing for the Jurisdiction and Region
- Table 16 Homeownership and Rental Rates by Race/Ethnicity

### 3.1 Report Procedures

#### 3.1.1 Export Tables Button

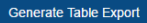



The Export Tables button allows the user to access reports and opens the Generate Table pop-up.

#### 3.1.2 Generate Table

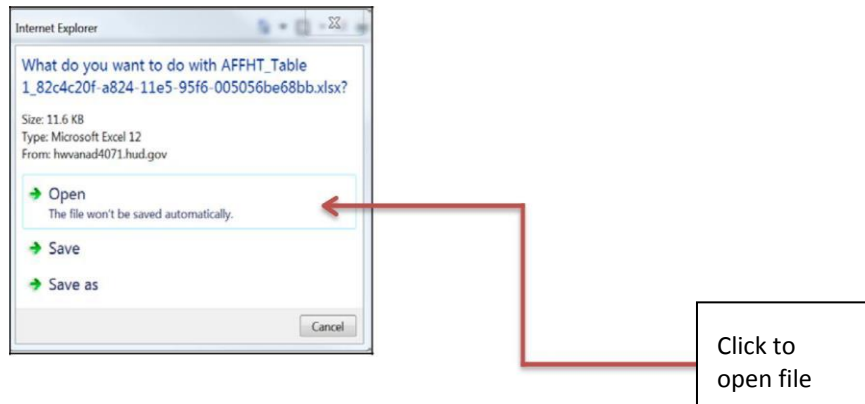
The Generate Table pop-up allows users to choose amongst 16 different tables and export the results to an Excel file. You can choose one table from which to export files, or you can select All Tables to see information from every table.



After you click the Generate Table Export button , the user will get a “Generating Table File...” message until the Download Table File clickable link  appears when the Excel file is ready to download.



Click the link to download the file. Depending on your browser, you will get a message similar to the one below asking what you want to do with the file. Shown is an example from Internet Explorer.



The popup will close. You may then close the Excel file and go back to the Generate Table popup.

The following sections show how to select and generate a report for each table.

### 3.1.3 Table 1 - Demographics

To access information regarding demographics, click the Table 1 - Demographics button located in the Generate Table pop-up.



Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.





### 3.1.4 Table 2 - Demographics Trends

To access information regarding demographic trends, click the Table 2 - Demographics Trends button located in the Generate Table pop-up.



Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.

### 3.1.5 Table 3 - Racial/Ethnic Dissimilarity Trends

To access information regarding Racial/Ethnic Dissimilarity Trends, click the Table 3- Racial/Ethnic Dissimilarity Trends button located in the Generate Table pop-up.



Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.



### 3.1.6 Table 4 – R/ECAP Demographics

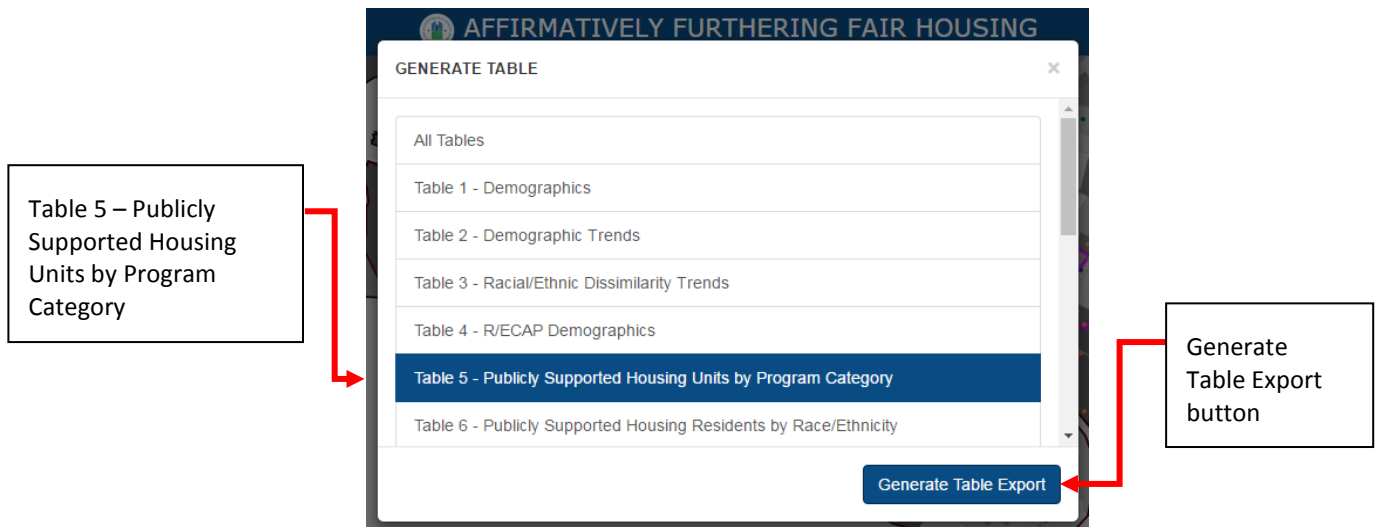
To access information regarding R/ECAP Demographics, click the Table 4 – R/ECAP Demographics button located in the Generate Table pop-up.



Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.

### 3.1.7 Table 5 – Publicly Supported Housing Units by Program Category

To access information regarding Publicly Supported Housing Units by Program Category, click the Table 5 - Publicly Supported Housing Units by Program Category button located in the Generate Table pop-up.



Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.



### 3.1.8 Table 6 – Publicly Supported Housing Residents by Race/Ethnicity

To access information regarding Publicly Supported Housing Residents by Race/Ethnicity, click Table 6 - Publicly Supported Housing Residents by Race/Ethnicity button located in the Generate Table pop-up.



Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.

### 3.1.9 Table 7 – R/ECAP and Non-R/ECAP Demographics by Publicly Supported Housing Program Category

To access information regarding R/ECAP and Non-R/ECAP Demographics by Publicly Supported Housing Program Category, click the Table 7 - R/ECAP and Non-R/ECAP Demographics by Publicly Supported Housing Program Category button located in the Generate Table pop-up.



Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.



### 3.1.10 Table 8 – Demographics of Publicly Supported Housing Developments by Program Category

To access information regarding Demographics of Publicly Supported Housing Developments by Program Category, click the Table 8 - Demographics of Publicly Supported Housing Developments by Program Category button located in the Generate Table pop-up.



Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.

### 3.1.11 Table 9 - Demographics of Households with Disproportionate Housing Needs

To access information regarding Demographics of Households with Disproportionate Housing Needs, click the Table 9 - Demographics of Households with Disproportionate Housing Needs button located in the Generate Table pop-up.



Select the Generate Export Table button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.



### 3.1.12 Table 10 - Demographics of Households with Severe Housing Cost Burden

To access information regarding Demographics of Households with Severe Housing Cost Burden, click the Table 10 - Demographics of Households with Severe Housing Cost Burden button located in the Generate Table pop-up.



Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.

### 3.1.13 Table 11 - Publicly Supported Housing by Program Category: Units by Number of Bedrooms and Number of Children

To access information regarding Publicly Supported Housing by Program Category: Units by Number of Bedrooms and Number of Children, click Table 11 - Publicly Supported Housing by Program Category: Units by Number of Bedrooms and Number of Children button located in the Generate Table pop-up.



Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening or saving the generated Excel file.



### 3.1.14 Table 12 – Opportunity Indicators by Race/Ethnicity

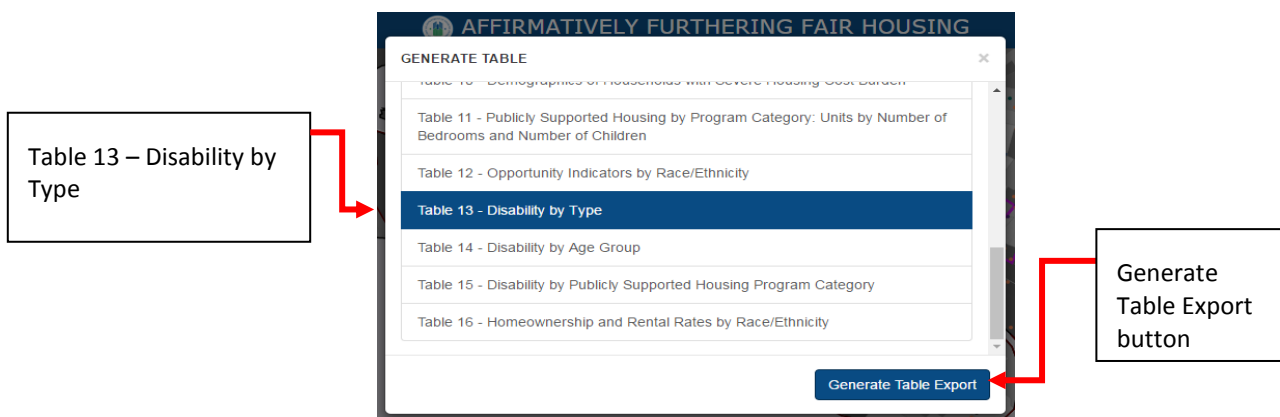
To access information regarding the Opportunity Indicators by Race/Ethnicity, click the Table 12 - Opportunity Indicators by Race/Ethnicity button located in the Generate Table pop-up.



Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.

### 3.1.15 Table 13 – Disability by Type

To access information regarding Disability by Type, click the Table 13 – Disability by Type button located in the Generate Table pop-up.

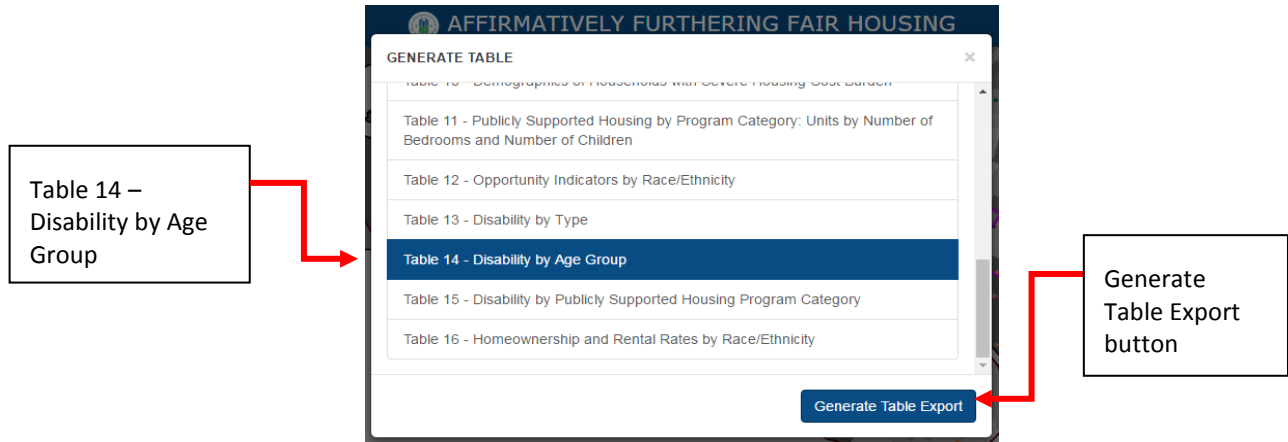


Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.



### 3.1.16 Table 14 - Disability by Age Group

To access information regarding Disability by Age Group, click the Table 14 - Disability by Age Group button located in the Generate Table pop-up.



Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.

### 3.1.17 Table 15 - Disability by Publicly Supported Housing Program Category

To access information regarding Disability by Publicly Supported Housing Program Category, click the Table 15 - Disability by Publicly Supported Housing Program Category button located in the Generate Table pop-up.

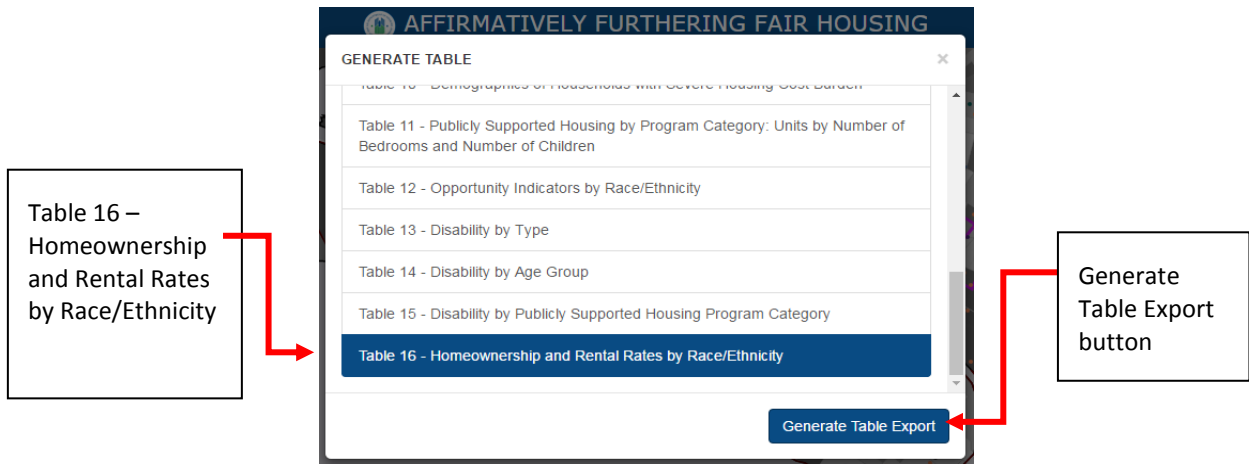


Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.



### 3.1.18 Table 16 – Homeownership and Rental Rates by Race/Ethnicity

To access information regarding Homeownership and Rental Rates by Race/Ethnicity, click the Table 16 – Homeownership and Rental Rates by Race/Ethnicity button located in the Generate Table pop-up.



Select the Generate Table Export button located at the bottom right of the pop-up. Follow instructions in section 3.1.2 for opening and saving the generated Excel file.





### 4 Getting Help

For other information on the AFFH-T Data and Mapping Tool, please see additional resources on the HUD Exchange page, under the tab “AFFH-T Data and Mapping”: <https://www.hudexchange.info/programs/AFFH-T/resources/>

If you have any questions regarding the AFFH-T Data and Mapping Tool, please go to the HUD Exchange by visiting <https://www.hudexchange.info/AFFH-T>, and submit your question through the Ask-A-Question feature. HUD staff will work to provide you with answers. Please stay connected to HUD Exchange to access AFFH-T resources such as trainings, fact sheets, and guidance materials.