



The eCon Planning Suite:

A Desk Guide for Using CPD Maps

Version: May 2018





UPDATES TO CPD MAPS DESK GUIDE

Date: May 2018

In Spring 2018, HUD released an update for CPD Maps that removed data layers and some system features. This version of the CPD Maps Desk Guide reflects these updates. Key changes include:

- Analytics Widget
 - The Analytics Widget was removed from CPD Maps
- Upload Widget
 - The Upload Widget was removed from CPD Maps
- Housing Market Analysis Data Layer
 - The Housing Market Analysis Data layer was removed from CPD Maps
- Data Classification Breaks
 - Geometric Intervals as a data classification breakdown has been removed from CPD Maps



Introduction	1
Data Provided by HUD in CPD Maps.....	2
Quick Start Guide	3
CPD Maps Basics.....	5
Accessing CPD Maps	5
Grantee Search Tool	5
Pan and Zoom	7
Map Overview	7
Basemap.....	7
Data Layers.....	13
Navigating CPD Maps and Functionality.....	14
Layers Widget	15
Custom Data Layers	15
Prepared Maps.....	15
Customizing Data Layers.....	17
Identify Tool	25
Legend Widget	26
Print Widget	26
Reports Widget	27
Data Toolkit Widget	32
Map Query Widget	35



Grantee Summary Widget	39
Telling Your Story With Maps and Data.....	40
Low- and Moderate-Income Concentrations	40
Areas of Minority Concentration	41
Target Areas	41
Need for Low-Income Rental Housing.....	42
Need for Housing Rehabilitation	43
Using Change Indicators to Support Market Analysis in CPD Maps	44
Appendix 1: Map Layers	47
Appendix 2: Map Query Variables.....	52
Appendix 3: Report Data Sets	56
Appendix 4: Information Available through the Identify Tool	76



INTRODUCTION

Every year, state, county, and local governments across the country receive block grants for community development and affordable housing from the U.S. Department of Housing and Urban Development (HUD). Each grantee agrees to develop a comprehensive planning document called a Consolidated Plan as a condition of receiving the funds. The Consolidated Plan identifies each community's most pressing needs in the areas of community development, affordable housing, and homelessness. It also lays out a strategy describing how available funding will be used to address the community's needs.

Given the scope of the Consolidated Plan, grantees need to collect and analyze large amounts of data to determine their priority needs and current market conditions. In an effort to make the data collection and analysis process easier for their grantees, HUD's Office of Community Planning and Development (CPD) has developed the eCon Planning Suite, a collection of online tools to help the grantees create market-driven, leveraged housing and community development plans and to streamline the entire grants management cycle into a cohesive planning framework.

One of the tools in the eCon Planning Suite is the CPD Maps website. CPD Maps offers a large amount of data in a way that is easy to access. The website allows grantees and the general public to search, query, and display information to identify trends and analyze the needs of their community. In addition to updated U.S. Census data, CPD Maps includes data sets that highlight the accomplishments and results of HUD programs by displaying Community Development Block Grant (CDBG), HOME Investment Partnerships Program (HOME), and other HUD-funded community assets.

Improved access to the data in CPD Maps mapping tool helps grantees more easily assess local needs and market conditions. As grantees gain a deeper understanding of their affordable housing and community development needs, they are better able to set priorities, target resources, and track outcomes. Moreover, CPD Maps is available to the public to facilitate meaningful community input and participation. The mapping and data reporting tools in CPD Maps work with the Consolidated Plan Template in IDIS Online, another tool in the eCon Planning Suite. Guidance for using these tools together is provided in this desk guide, as well as in the Desk Guide for the Con Plan Template in IDIS.

This Guide is designed to provide grantees with a basic overview of the functions of CPD Maps and how to use the tool to create maps and data sets that will support the development of their Consolidated Plan. Please see the [Glossary for CPD Maps](#) for a description of all CPD Maps terms. The [HUD Exchange](#) also provides a hub for the latest Consolidated Plan and eCon Planning Suite resources, updates, and information.



DATA PROVIDED BY HUD IN CPD MAPS

One of the main functions of CPD Maps is to provide grantees with current data to facilitate place-based, data-driven planning. Much of the demographic data is from the American Community Survey (ACS) 5-year estimates by the U.S. Census Bureau. Other data sources include, but are not limited to:

- Comprehensive Housing Affordability Strategy (CHAS) data
- Point-In-Time (PIT) and Housing Inventory Count (HIC) data for homeless data
- CDC HIV Surveillance Data and CAPERs for HOPWA data
- IDIS for HOME and CDBG data
- Other HUD information systems, such as the Public Housing Information Center (PIC), the Integrated Real Estate Management System (IREMS), and the LIHTC database
- Flood Plain information from FEMA

There are multiple ways to access, visualize and analyze this data through the various widgets in CPD Maps. This Desk Guide provides instruction on the use of each widget.

NOTE: CPD Maps data should not be used to determine CDBG eligibility using the Low- Mod Area (LMA) national objective. The layer does not account for grantees that qualify as exception communities (grantees who can use CDBG in areas where less than 51 percent of the population is at the low-moderate income level). Until HUD releases updated LMA data, grantees should continue to use 2006-2010 ACS data as described in CPD Notices 14-10 and 14-11 or conduct a local survey to determine LMA eligibility.



QUICK START GUIDE

The table below provides a broad overview of useful maps, data analysis and other tasks that you can do in CPD Maps. It also includes suggested widgets and features that can help accomplish each task. This can be used to better understand what each widget has to offer and where to look for what you are trying to do.

I Want To....	Features	Widget
Create a customized map with data on: <ul style="list-style-type: none"> • <i>Transportation</i> • <i>Environment</i> • <i>Activity and Property Locations</i> • <i>Community Indicators</i> • <i>Boundaries</i> • <i>Housing Market Analysis</i> 	<ul style="list-style-type: none"> • Use Identify Tool • Change transparency • Change data classification breaks • Compare data across geographies: <i>Census tracts, County, State</i> • Print map to PDF 	Layers
Create a prepared map including predefined datasets such as: <ul style="list-style-type: none"> • <i>Homebuyer Zones</i> • <i>Need for Rental Rehabilitation</i> • <i>Rental Market Near Transit</i> • <i>Housing Affordability Near Transit</i> • <i>Constrained Rental Supply</i> • <i>Workforce Development Opportunity</i> • <i>Workers with Long Commutes</i> • <i>Risk of Homelessness from Increased Rent</i> • <i>Risk of Homelessness from Housing Instability</i> 	<ul style="list-style-type: none"> • Use Identify Tool • Change transparency • Change data classification breaks • Compare data across geographies: <i>Census tracts, County, State</i> • Print map to PDF 	Layers
Create a map with CDBG or HOME grantee activities	<ul style="list-style-type: none"> • Filter point-based activities by year range • Filter point-based activities by grantee type: <i>All, State, Entitlement</i> • Apply year range to all data • Use Identify Tool • Change transparency • Change data classification breaks • Print map to PDF 	Layers
Generate an Excel report with data on: <ul style="list-style-type: none"> • <i>Demographics</i> • <i>Housing Needs</i> • <i>Housing Supply</i> • <i>Economic Context</i> • <i>Special Needs</i> 	<ul style="list-style-type: none"> • Select/create multiple target areas • Various levels of data aggregation: <i>Census tracts, Place, County Subdivision, County, State, National, CDBG, ESG, HOME, and HOPWA Grantees, CoC, and UGLG</i> • Compare target areas to reference geography: <i>Jurisdictional, County, State, National or Custom</i> • Create custom geographies using Drawing Tool • Export results to Excel report 	Reports



I Want To....	Features	Widget
Compare housing or economic development data across geographies and generate an Excel report	<ul style="list-style-type: none"> • Select up to 14 target areas • Compare target areas to reference geography: <i>Jurisdictional, County, State, National or Custom</i> • Create custom geographies using Drawing Tool • Export results to Excel report 	Data Toolkit
Identify geographies by similar characteristics based on: <ul style="list-style-type: none"> • <i>Demographics</i> • <i>Housing Needs</i> • <i>Housing Supply</i> • <i>Economic Context</i> • <i>Special Needs</i> 	<ul style="list-style-type: none"> • Select up to 3 variables • Query data by <i>Census tract, Place, County Subdivision, County, State</i> • Change variable min. and max. values • Generate result count from query parameters • Select/highlight specific geographies • Export results to Excel report with map 	Map Query
Generate Excel summary by grantee and CPD funding source (CDBG, HOME, ESG, HOPWA, CDBG-DR, CoC) including data on: <ul style="list-style-type: none"> • <i>5 year summary of grant allocation</i> • <i>Population</i> • <i>Median Household Income</i> • <i>Median Contract Rent</i> • <i>Median Value of Owner-Occupied Units</i> • <i># and % Households by HAMFI</i> • <i>Fair Market Rents</i> • <i>Rent Limits</i> 	<ul style="list-style-type: none"> • Requires Grantee Search Tool • Additional summary for CDBG-DR grantees including basic grantee demographic data, CDBG-DR awards data, summary of current DR grants • Export results to Excel report 	Grantee Summary



CPD MAPS BASICS

ACCESSING CPD MAPS

CPD Maps is a mapping tool available on the Internet at <http://egis.hud.gov/cpdmaps>. It is compatible with any Internet browser that has Javascript enabled.

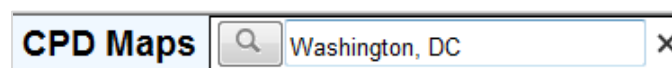
When you first open CPD Maps, the page will display a zoomed out map of the United States. The widget bar and Grantee Selection Tool are displayed at the top of the screen. The widget bar is described in detail in the [Navigating CPD Maps and Functionality](#) section.



GRANTEE SEARCH TOOL

Once CPD Maps opens, you can use the Grantee Search Tool to search for a grantee or unit of local government. While not required to use all CPD Maps features, selecting a grantee or other jurisdiction centers the map on that location and increases the functionality of CPD Maps, including:

- Displaying a bold border to clearly indicate the selected grantee or jurisdiction's boundary.
- For the Layers widget, you can illustrate theme classifications based on the geographies in the selected jurisdiction or state.
- For the Map Query widget, you can query at the Census tract level. You can also limit the query to the geographies within the selected grantee.
- For the Reports widget, you can use the selected grantee's jurisdiction, county or state as a reference data set to compare to a selected target area.

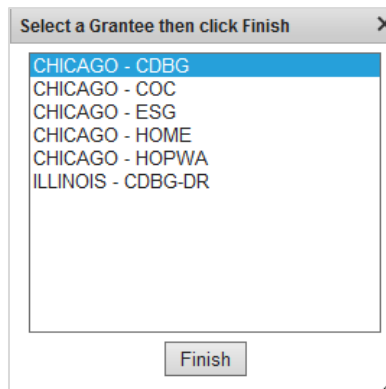


1. To select a grantee or other jurisdiction, type your target geography in the Grantee Search box using the following formats:
 - **State:** type the State's name or postal abbreviation
 - **Grantee or Other Unit of Government:** enter the search term and the State's name or postal abbreviation
2. Click the magnify glass or hit enter once you have entered the search term.

CPD Maps will display all grantees or units of local government that meet the search criteria.



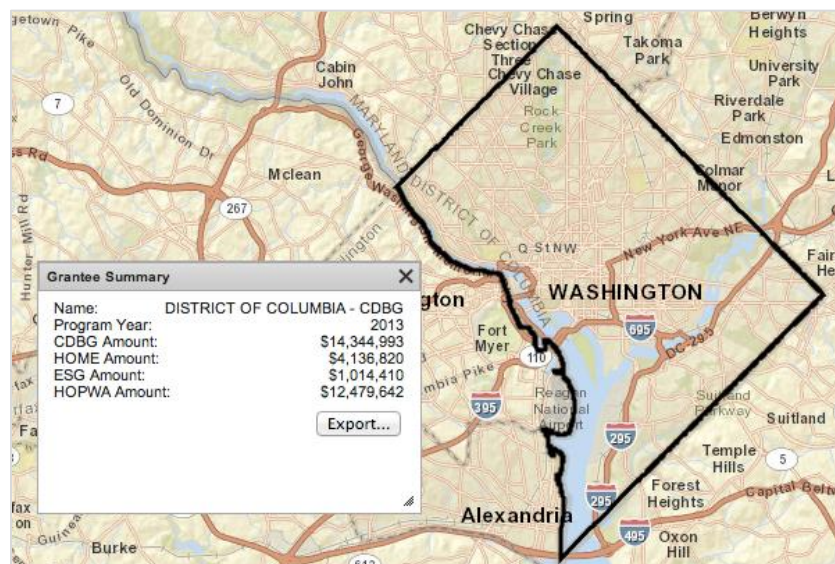
While a scroll bar does not display, depending on the size of the results box and entered query (such as searching for all grantees within a state), you may need to scroll through the displayed results to find the desired grantee. To scroll, either use the arrow keys on your keypad or click and drag downwards with your mouse.



NOTE: CPD Maps lists each CPD funding source (CDBG, HOME, ESG, HOPWA, CDBG-DR, and CoC) separately as some jurisdictions have different boundaries for different grant programs.

3. Select the appropriate grantee or jurisdiction from the list and click “Finish.”

State grantees may need to scroll through the list to find the State non-entitlement area. Once selected, CPD Maps will center the map on the selected geography and a Grantee Summary will automatically be generated. See Grantee Summary tool for available data.





PAN AND ZOOM

A zoom scale tool is displayed in the upper left corner of the map. To zoom the map in and view a smaller area, drag the zoom level up or click on the top arrow. To zoom the map out and view a larger area, drag the zoom level down or click the down arrow. You can also use the scroll bar on your mouse to zoom in or out.

The map's corresponding scale bar is displayed on the bottom left-hand corner of the map.

To move the map displayed on the screen to the north, east, south or west, pan the map by clicking and dragging the map in the direction you would like to display on the screen. Make sure to click and hold while dragging the map.



MAP OVERVIEW

A map overview to illustrate the location of the displayed area from a zoomed out perspective can be turned on by clicking the white arrow located in the upper right-hand corner of the map.

The map overview can be turned off by clicking the same white arrow.

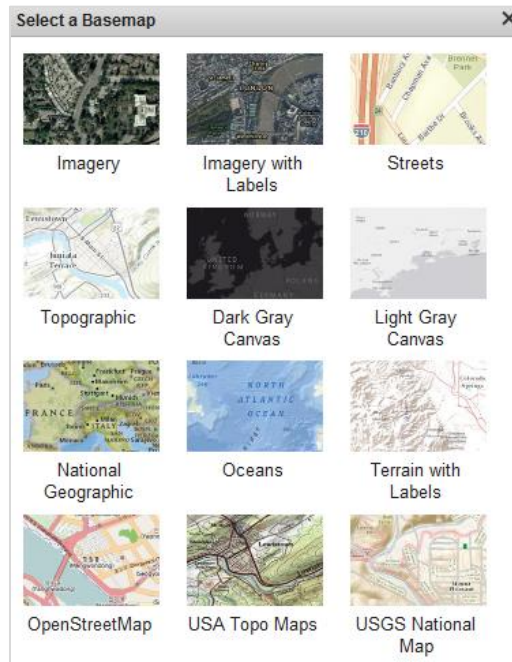
BASEMAP

You can choose among twelve basemaps: Imagery, Imagery with Labels, Streets, Topographic, Dark Gray Canvas, Light Gray Canvas, National Geographic, Oceans, Terrain with Labels, OpenStreetMap, USA Topo Maps, and USGS National Map. The default basemap is Streets.

1. To change the basemap, click on the Basemap widget.



Clicking the Basemap widget displays the “Select a Basemap” window, allowing you to select a new basemap. Each basemap is explained in more detail below.



Imagery

The imagery layer displays high resolution satellite imagery of the United States. The detail of the photo increases as you zoom in. This layer does not provide any labels. Using basic photo editing software, you can take a screenshot and annotate the map to indicate target areas, similar to the screenshot below.

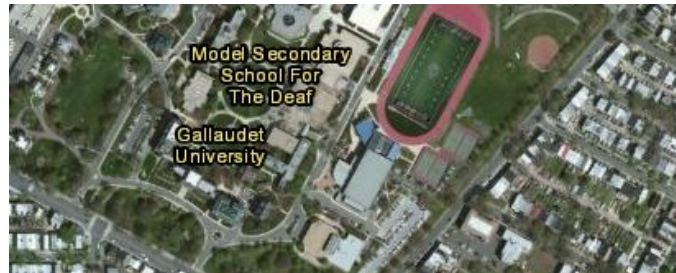


Note: Annotation Added



Imagery with Labels

The imagery with labels layer displays the same high-resolution satellite photographs as the imagery layer, but also includes labels of major streets, institutions, cities and other points. The number of labels displayed is also scale dependent, you can vary the number and position of labels by zooming the map in or out.



Streets

The Streets layer is the default background layer and provides a map similar to other online map sites such as Google Maps and MapQuest. Depending on the scale of the map (the zoom) and the area being viewed, the Streets layer can include street names, street address ranges, bodies of water, points of interest, and landmarks such as parks and shopping centers.



Topographic

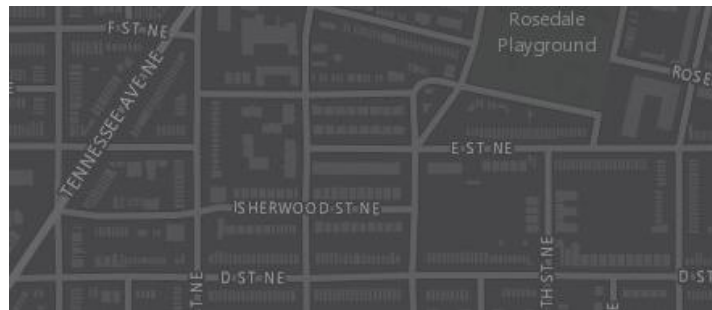
The Topographic layer includes the topographic and physical form of the displayed area as well as places, neighborhoods, open space, building forms and other features.





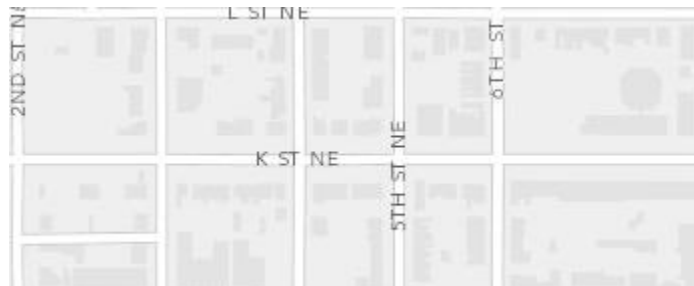
Dark Gray Canvas

The Dark Gray Canvas presents some detail, but not as much as the Streets basemap. The Dark Gray Canvas highlights lighter symbols that are presented on the map. Dark Gray Canvas still includes primary streets and reference points.



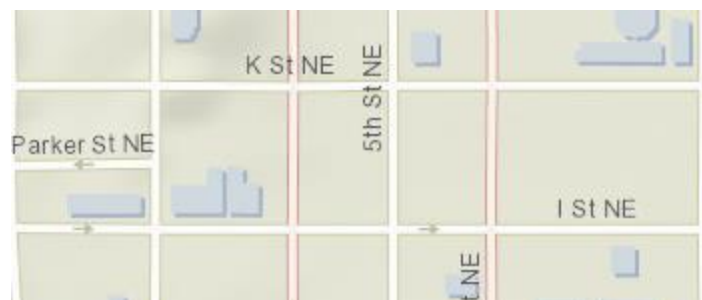
Light Gray Canvas

The Light Gray Canvas layer presents some detail, but not as much as the Streets or OpenStreetMap layers. It is useful when you want a clean background that will not distract the view with detailed street information from the presented layers. Light Gray Canvas still includes primary streets and reference points.



National Geographic

The National Geographic layer also displays some detail, but not as much as the Streets or OpenStreetMap layers. The layer also includes shaded relief topography.





Oceans

The Oceans layer displays marine water body names and other marine features as well as a simple display of physical forms on land.



Terrain with Labels

The Terrain with Labels layer illustrates relief shading of physical changes to the landscape. This layer also displays rivers, primary roads, and county lines. This layer only displays when zoomed out at a scale of greater than 1 inch = 1 mile.



OpenStreetMap

The OpenStreetMap layer displays data collected through the OpenStreetMap project, a collaborative effort to create a map accessible and editable to the public. The OpenStreetMap layer displays a high level of detail, similar to the Streets layer. For some areas, the OpenStreetMap layer may be more current than other street map base layers.





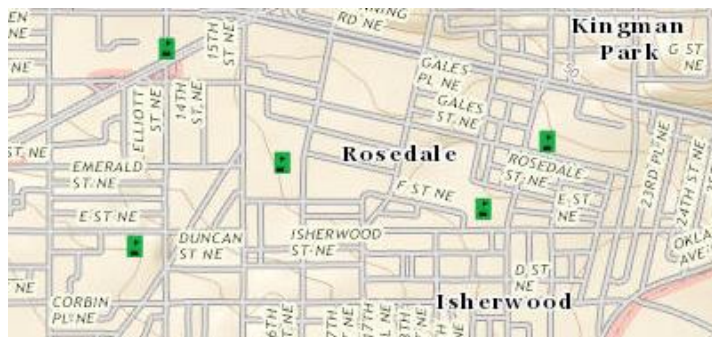
USA Topo Maps

The USA Topo Maps basemap provides topographic maps at various scales and also provides streets and landmarks and other points of interest.



USGS National Map

The USGS National Map layer displays data collected by the United States Geological Survey. The map includes boundaries, elevation, landmarks, structures, and streets.





DATA LAYERS

CPD Maps includes a series of demographic, housing, economic, and program activity data elements accessible via the [Layers widget](#). Each data layer is displayed in one of three different ways:



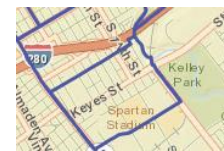
Theme-based layer: Data is displayed as a thematic shading of the Census tract or other geography.



Point-based layer: Data is displayed as an icon indicating the location of the data element.



Outline-based layer: Data is displayed as the boundary outline of the Census tract or other geography.



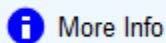
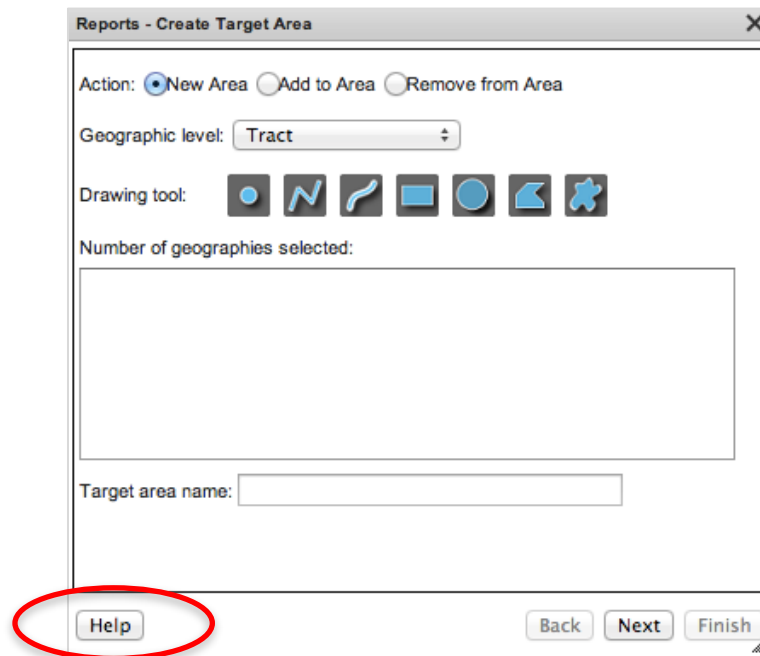


NAVIGATING CPD MAPS AND FUNCTIONALITY

Widgets provide most of CPD Maps' functionality. The widgets are displayed across the top of the map on the widget bar and include Layers, Legend, Print, Reports, Data Toolkit, Map Query, Grantee Summary, Basemap, and More Info. Simply click on a widget to open it. Even when closed, a widget will retain the status of the widget before it was closed until you search for a new location with the search tool or close out of CPD Maps completely.



For on-screen instruction when using the Reports, Data Toolkit, or Map Query widgets, click the "Help" button at the bottom left-hand corner of the dialog box.



Clicking the More Info widget directs you to the Consolidated Plan webpage on the HUD Resource Exchange where Desk Guides and other resource materials can be downloaded.



LAYERS WIDGET

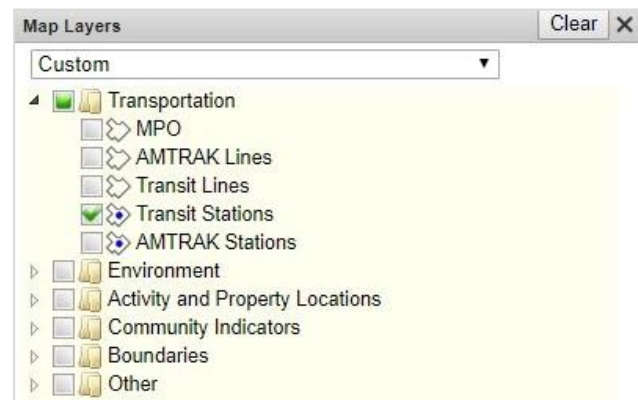
The Layers widget allows you to view various data layers on the map. You can either create map using a custom set of data layers or use one of the prepared maps, which includes a combination of data layers pertaining to a certain theme. A complete list of the available data layers is provided in Appendix 1.

NOTE: Some map layers may take longer than others to be displayed on the map.

CUSTOM DATA LAYERS

If “Custom” is selected, you select the data layers to be displayed based on the choices offered within the Layers widget.

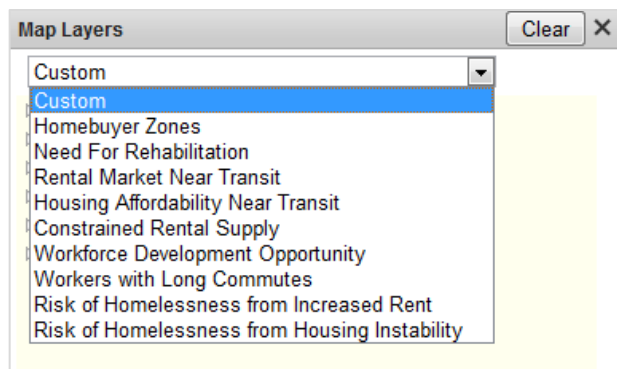
1. Click the triangle to the left of any data category to view the available associated layers.
2. Check the box next to the layer name to add the layer to your map.



PREPARED MAPS

When a prepared map is selected from the dropdown menu, a combination of data layers is made visible to communicate a specific theme or idea.

1. Click the dropdown menu to access the prepared maps.
2. Select one of the prepared maps below. Once selected, you can view which layers are turned on by seeing which data categories are marked in green.





List of Available Prepared Maps

- **Homebuyer Zones:**
 - Theme-based layer: Median Home Value
 - Outline-based layer: Vacancy Rates greater than 7%
- **Need for Rental Rehabilitation:**
 - Theme-based layer: Percent of Rental Housing Built before 1980
 - Outline-based layer: Low- and Moderate-income Census Tracts
 - Point-based layer: Public Housing Developments, LIHTC Properties, and HUD Multifamily Properties
- **Rental Market Near Transit:**
 - Theme-based layer: Change in Median Rent
 - Outline-based layer: Low- and Moderate-income Census Tracts
 - Point-based layer: Transit Lines, Transit Stations, HUD Multifamily Properties, and LIHTC Properties
- **Housing Affordability Near Transit:**
 - Theme-based layer: Percent of Renter Units Affordable to 50% AMI
 - Outline-based layer: Low- and Moderate-income Census Tracts
 - Point-based layer: Transit Lines, Transit Stations, HUD Multifamily Properties, and LIHTC Properties
- **Constrained Rental Supply:**
 - Theme-based layer: Change in Population
 - Outline-based layer: Difficult to Develop Areas
 - Point-based layer: Transit Lines and Transit Stations
- **Workforce Development Opportunity:**
 - Theme-based layer: % Point Change: Unemployment Rate
 - Outline-based layer: Low- and Moderate-income Census Tracts
 - Point-based layer: CDBG Economic Development Activities and CDBG Public Service Activities
- **Workers with Long Commutes:**
 - Theme-based layer: Percent of Commute Time greater than 60 Minutes
 - Outline-based layer: Low- and Moderate-income Census Tracts
 - Point-based layer: Transit Lines and Transit Stations
- **Risk of Homelessness from Increased Rent:**
 - Theme-based layer: Change in Median Rent
 - Outline-based layer: Low- and Moderate-income Census Tracts
 - Point-based layer: HUD Multifamily Properties, and LIHTC Properties
- **Risk of Homelessness from Housing Instability:**
 - Theme-based layer: Percent of Extremely Low-income Households with Overcrowding
 - Point-based layer: HUD Multifamily Properties, and LIHTC Properties



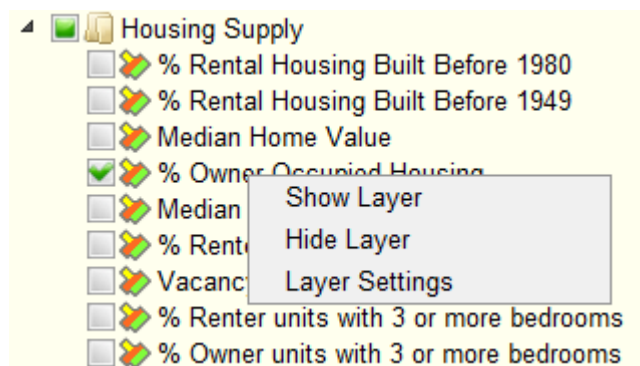
CUSTOMIZING DATA LAYERS

CPD Maps allows you to customize the appearance of your data layers including the map transparency/opacity, data classification breaks, geography type for some theme-based layers, and grantee type or year range for CDBG and HOME Investments.

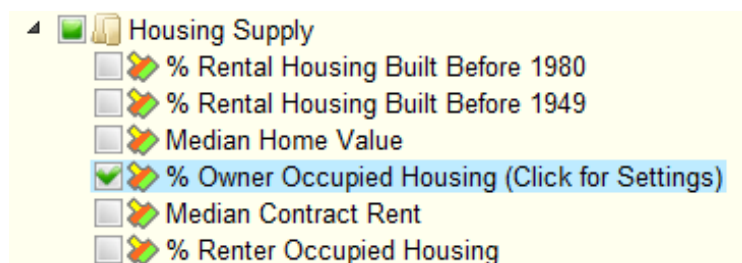
Accessing Layer Settings

There are two options to change the display settings of your data layers.

- **Option 1:** Right click the layer name and select “Layer Settings.”

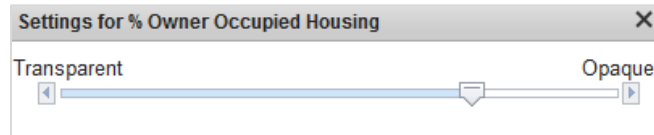


- **Option 2:** Hover your mouse over the layer name until the “Click for Settings” option appears. Left-click click the layer name to open the “Layers Settings” screen.





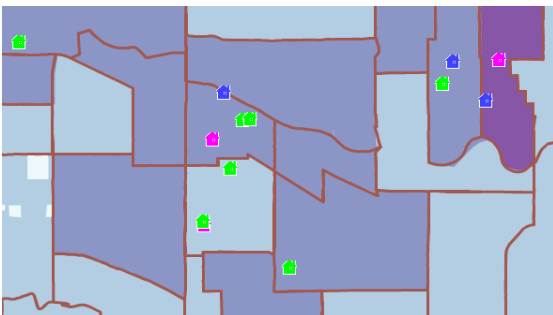
Changing Map Transparency/Opacity



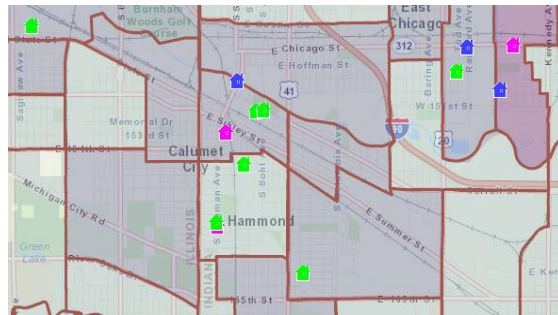
For theme-based and point-based layers, you can adjust the opacity of the layer by using the sliding scale pictured above. The default opacity setting is 75 percent for theme-based layers and 100 percent for point-based layers.

The maps below present cost-burden data as a theme-based layer with different opacities. In the left-hand map, the layer's opacity is set to 100 percent. This more clearly displays the cost-burden data but does not provide the viewer with any geographic reference such as street names. In the right-hand map, the layer's opacity is set to 50 percent. The viewer now has a geographic reference, but the tradeoff is that the cost-burden theme is less clear.

Layer Opacity = 100%



Layer Opacity = 50%





Customizing Data Classification Breaks

You can also customize data classification breaks or “class breaks” by changing the geography scale, number of class breaks, or classification type. Your map and legend will immediately update based on the selections made.

Settings for Median Household Income

Transparent Opaque

Data

Show thematic data by: Census Tract

Base map symbology/legend on characteristics of:

☒ National data ☐ Regional data ☐ Grantee jurisdiction data

Apply to all layers

Classification type: 5 Natural Breaks

Class break 1: less than or equal to 38459

Class break 2: from 38459 to 61745

Class break 3: from 61745 to 93641

Class break 4: from 93641 to 154474

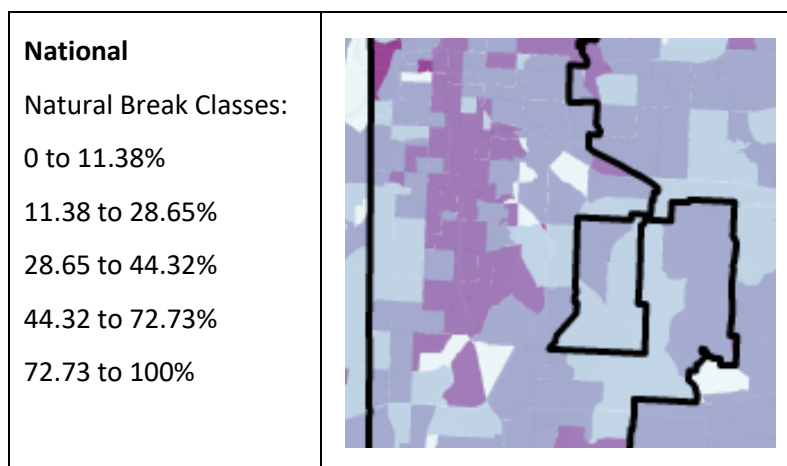
Class break 5: greater than 154474

Units: \$

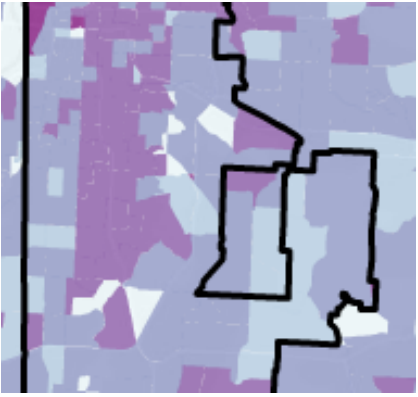
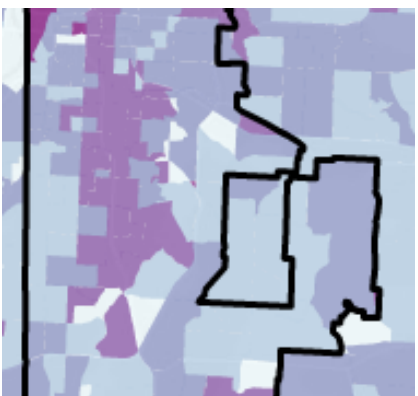
Changing the Geography Scale (Basing map symbology on characteristics of different geographies)

Class break ranges change depending on which geography scale you select due to the difference in the range of values across each geography type. CPD Maps will create five class breaks by default and generate unique data ranges for each break based on the range of values at the national, regional, or local jurisdiction level.

Below are maps of housing cost burden data for the same area, but changing the geography scales at the national, regional, and local levels.





<p>Regional</p> <p>Natural Break Classes:</p> <p>0 to 9.18%</p> <p>9.18 to 24.04%</p> <p>24.04 to 39.6%</p> <p>39.6 to 70.59%</p> <p>70.59 to 100%</p>	
<p>Local</p> <p>Natural Break Classes:</p> <p>0 to 12.31%</p> <p>12.31 to 30.33%</p> <p>30.33 to 45.18%</p> <p>45.18 to 70.59%</p> <p>70.59 to 100%</p>	

Changing the Number of Class Breaks or Classification Type

You can also modify the map by changing the number of classes (from two classes to five classes) as well the classification types (Natural, Equal, or Quantiles).

In addition to the pre-set data break options below, you can use the “Custom” classification type to manually change the data class breaks. This can be used to eliminate decimals from other settings for a more readable legend.

It is important to note that small adjustments to the number of classes and the breakpoints between classes can significantly alter the appearance of data displayed on the map.



NOTE: class breaks and legend must be the same for all maps to accurately compare a single data element.



Natural Breaks is the default classification. All classification breaks explained below.

- **Natural Breaks:** To create natural breaks, the system identifies breakpoints by looking for groupings and patterns in the underlying data to minimize the variations within each class and maximize the variations between classes.
- **Equal Intervals:** This classification makes the range of each class the same. For example, if you were classifying Census tracts into three categories using population, and the populations of the tracts ranged from 0 to 300, the three classes would be 0 to 100, 100 to 200, and 200 to 300. As a result, the number of Census tracts in each category will be different.
- **Quantiles:** This classification changes the range of each class so that each class contains the same number of geographies. For example, if you were classifying 30 Census tracts in a jurisdiction into 3 categories, the system would create breakpoints to ensure that 10 Census tracts fell into each category.

As you can see in the table, the map will look very different depending on the classification used.

Natural Breaks Classes: 0 to 11.38% 11.38 to 28.65% 28.65 to 44.32% 44.32 to 72.73% 72.73 to 100%	
Equal Intervals Classes: 0 to 20% 20 to 40% 40 to 60% 60 to 80% 80 to 100%	



Quantiles

Classes:

0 – 0%

0 to 22.99%

22.99 to 31.58%

31.58 to 42%

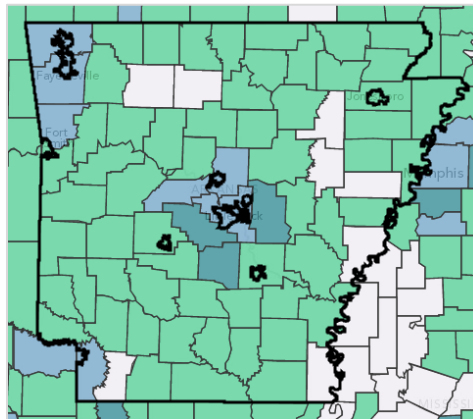
42 to 100%



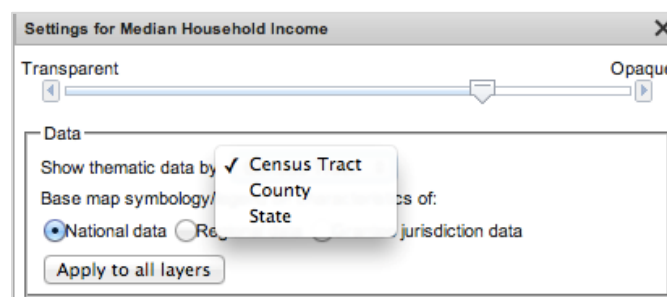


Changing Geography Type for Theme-based Layers

For some theme-based layers, you can display thematic data by Census tract, county, or state. This functionality allows comparisons across larger geographies and lets grantees display regional or state trends and differences more easily. Below is an example of data displayed by county over a larger geography.



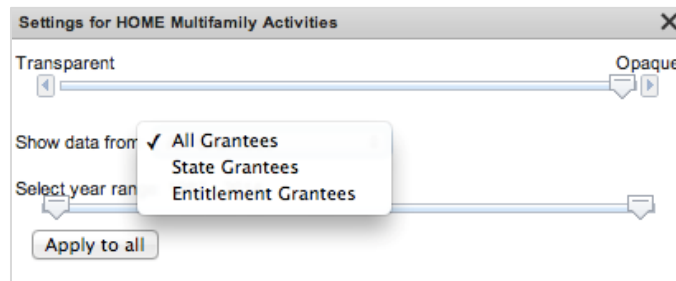
By clicking “Apply to all layers,” these settings can be applied to all thematic layers displayed during that CPD Maps session. Appendix 1 describes which data layers can be shown by county and state in addition to Census tract.





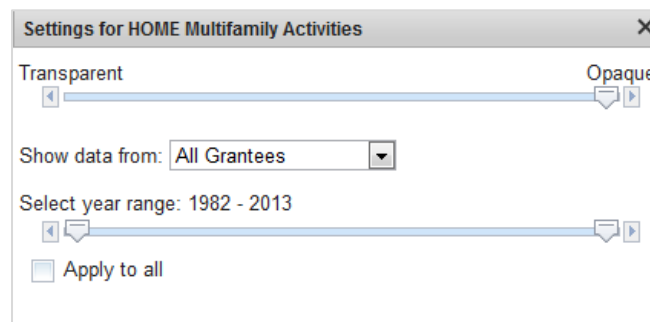
Grantee Type or Year Range for CDBG and HOME Investments

For point-based CDBG and HOME data layers (e.g. CDBG Economic Development Activities or HOME Multifamily Activities), the system allows you to show all investments in the area or just investments made by specific types of grantees by giving you the option to show data for all grantees, state grantees, or entitlement grantees.



For point-based CDBG and HOME data layers, you can also select the range of years to display data using the sliding year range scale. For instance, a map could display all HOME investments geocoded in IDIS from 1995 – 2000. The default setting is to display data from 1982 to present.

Moreover, for all point-based CDBG and HOME data layers, you can apply the year range settings for one layer to all other point-based layers. To apply the range to all data, click the button at the bottom of the settings screen titled “Apply to all.”



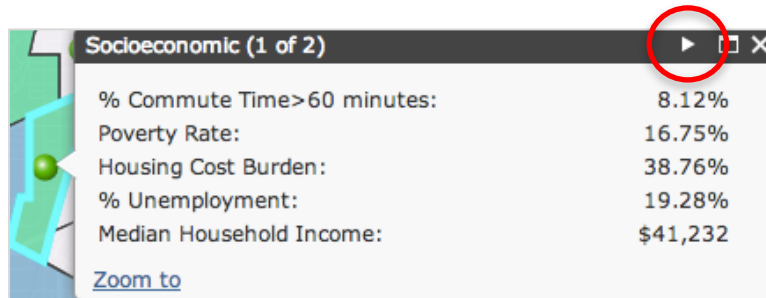


IDENTIFY TOOL

The Identify tool will display underlying data related to the layer displayed on the map for a selected geography or point. This underlying data available via the Identify Tool is accessed by using your pointer to click on a geography or point currently displayed on the map. An Info window will open containing the data associated with the theme or point-based layer you have displayed on the map. See Appendix 4 for the underlying data available for each map layer.



If you click on a map layer that includes multiple layers or activities (such as a single point that has received multiple allocations of CDBG funding), you can scroll through the multiple entries for that point using the arrows on the top right-hand corner of the info window.

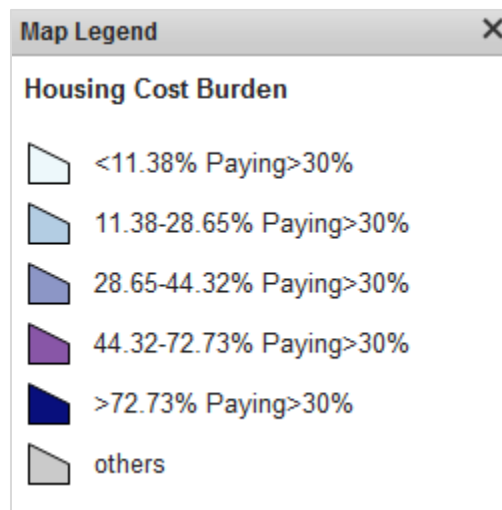




LEGEND WIDGET

The Legend widget automatically opens when data layers are turned on and displays that map's legend.

Note: If no data layers are selected, or if the zoom level for the data layer causes the data to no longer displayed, the Legend will display "Please select a layer and/or zoom in."



PRINT WIDGET

The Print widget allows you to export the map to a .pdf file. If you accessed CPD Maps from the Consolidated Plan screens within the Integrated Disbursement and Information System (IDIS), the Print widget will also give you the option to Export the map to IDIS. The Print widget allows you to give the map a title and a subtitle that will be displayed in the printed or exported map.

The printed map includes the title, legend, scale bar, and date the map was created.



REPORTS WIDGET

The Reports widget will generate an Excel file containing data for a selected area. The target area for a report can include one or more geographies. You also have the option of including a reference data set in the report. For example, consider comparing the data for a neighborhood within a jurisdiction to the jurisdiction as a whole. Using the Reports widget, you first select the Census tracts that include the neighborhood as the target area, and then select the jurisdiction as the reference area. To use the Reports widget, take the following steps:

1. Click on the Reports widget on the CPD Maps toolbar.

2. Create your target area depending on the geography to be analyzed. First you will need to choose an “Action” and a “Geography Level.”

Action: create a new area or add/remove areas from their target area selection.

- *New Area:* Use to select a new area or to replace current selection.
- *Add to Area:* Use if you have an area selected and want to add additional areas to your current selection.
- *Remove from Area:* Use to remove one or more areas from existing selection.










Geographic level: select the type of geography to be used for data aggregation from the following: Tract, Place, County Subdivision, County, State, National, CDBG grantee, ESG grantee, HOME grantee, or HOPWA grantee, Continuum of Care (CoC), Unit of General Local Government (UGLG).

3. Select the appropriate drawing tool using the descriptions in the table below.

Once selected, the dialog box will minimize so you can view the map and select the desired geographies to include in the report. Some selections may take time to load. When finished with the selection, the system will highlight the selected areas on the map and the dialog box will re-open with a list all of the selected geographies.

NOTE: The drawing tool does not have the capability to return data for partial Census tracts. The resulting data set will include the data for all geographies that touch the line or shape drawn. For example, if you draw a rectangle that includes half of Census Tract 101 and half of Census Tract 102, the resulting data set will include the data for all of Census Tracts 101 and 102.

The drawing tools include Point, Line, Freehand Line, Rectangle, Circle, Polygon and Freehand Polygon.

Symbol	Drawing Tool Description
	Point tool: use to select discreet geographies such as one or two Census tracts, a jurisdiction or county
	Line tool: use to select areas along a straight corridor such as a street
	Freehand Line tool: use to select areas along a curved corridor such as a park boundary
	Rectangle tool: use to select areas such as a quadrant or broad geography
	Circle tool: use to select areas within a given distance of a point
	Polygon tool: use to select irregularly shaped areas such as neighborhoods or metro areas
	Freehand Polygon tool to select irregularly shaped areas such as neighborhoods or metro areas



4. Use the “Add to Area” and “Remove from Area” buttons as needed to revise your selected area. You will need to reselect the drawing tool every time you add or remove an area.

5. Create a name for the target area at the bottom of the dialog box.
6. Click “Next” to add an optional set of reference data and continue to step #7. If you do not wish to add a reference area, click “Finish” to generate the report.
7. Choose your reference data from the following: None (default), Jurisdictional (only available if a grantee was selected via the Grantee Search Tool), County, State, National or Custom.

If “Custom” is selected, you will use the same drawing tools described above. The data set name field can be edited to add a custom name to the reference geography.

8. Create a name for your reference area and click “Next.”



9. Choose the topics to include in the report by placing a checkmark next to each section and click “Next.” Please refer to Appendix 3 for a list of all of the data in each section.

NOTE: Special Needs data on Homelessness and HOPWA will only be displayed if the target or reference area are based on the CoC and HOPWA jurisdiction levels, respectively.

Reports - Choose the Topics to Include in the Report

- ☒ Demographics
 - ☒ Basic Summary
 - ☒ Person-level information
 - ☒ Household-level information
 - ☒ Family-level information
- ☒ Housing needs
 - ☒ Housing needs
 - ☒ Housing problems
 - ☒ Cost burden
 - ☒ Crowding
- ☒ Housing Supply
 - ☒ Summary of housing stock characteristics
 - ☒ Simple tabulations of multiple characteristics
 - ☒ Cross-tabulations of multiple characteristics
- ☒ Economic Context
 - ☒ Summary information about economic conditions
 - ☒ Simple tabulations of economic conditions
 - ☒ Educational attainment
 - ☒ Business by sector
- ☒ Special needs
 - ☒ Homelessness
 - ☒ HOPWA

Check All Uncheck All

Help Back Next Finish

10. Add a report title and subtitle and click “Finish.” The report will open in a new browser window or directly into Microsoft Excel. To export the data to IDIS, click the Export to IDIS button. This button is only available when CPD Maps is accessed from IDIS Online.

Reports - Set the Report Title and Subtitle

Title:
CPD Maps

Subtitle:
Consolidated Plan and Continuum of Care Planning Tool

Note: the report will be opened in new browser window, so please make sure you have your pop-up blocker turned off.

Additionally, the report will require Microsoft Excel Viewer if you don't have Microsoft Office installed. If needed, you can download the Microsoft Excel Viewer from:
<http://www.microsoft.com/en-us/download/details.aspx?id=10>

Help Back Next Finish



NOTE: If you do not have Excel, you can download and install the Excel viewer software using the link provided on the last dialog box of the Report widget. Your browser's pop-up blocker may also prevent this window from opening. If so, adjust your browser settings to allow pop-ups for this site: <http://eqis.hud.gov/cpdmaps/>.

11. In Excel, the data will be organized in several worksheets. Use the tabs across the bottom of the page to navigate between worksheets. The data shown are the aggregate totals of the areas selected.

When more than one geography is selected, data elements that measure medians or averages, such as Median Household Income or Average Household Size, will be listed as (N/A). These data elements will also be listed as (N/A) for custom geographies, such as CDBG Urban Counties and HOME Consortia. Please refer to Appendix 3 for a list of all of the data in each section.

12. Click the "X" in the upper right corner to close the Reports widget.



The Data Toolkit widget allows you to analyze housing and economic development data for a target area by comparing it to other geographies you identify. The widget includes two tools – Housing and Economic Development. Each tool will generate an Excel file that will allow the user to compare and contrast your target area to the reference geographies in various housing and economic development categories. For additional information, see the [Guide to the Data-Driven Planning Toolkit in CPD Maps](#).

1. Click on the Data Toolkit widget on the CPD Maps toolbar.
2. Create a target area by following steps 1-5 of the Report widget instructions. Click “Add” when finished to include the target area in the toolkit output.

Create a Custom Target Area: To create custom target areas such as neighborhoods or regions, select multiple geographies (Census tracts, counties, etc.) using the appropriate drawing tool. After selecting one or more geographies, enter the target area name at the bottom of the dialog box and click “Add.”

A screenshot of a software dialog box titled "Data Toolkit - Choose Target Area on the Map". The dialog box has a close button (X) in the top right corner. Inside, there are three radio buttons for "Action": "New Area" (selected), "Add to Area", and "Remove from Area". Below this is a "Geographic level:" dropdown menu currently set to "Tract". Underneath is a "Drawing tool:" section with seven icons: a blue circle, a blue line, a blue curved line, a blue rectangle, a blue circle with a cross, a blue square with a cross, and a blue star. Below the drawing tools is a label "Number of geographies selected:" followed by a large empty rectangular box. At the bottom of the dialog is a "Target area name:" label followed by a text input field. At the very bottom are three buttons: "Help", "Add", and "Show List".



3. Review your list of target area(s). You can choose to add another target area or remove an area.

Add Another: If you would like to add another target area, click “Add Another” and repeat step 2 until you have created all of your target areas. Unlike the Reports widget, the Data Toolkit allows you to create up to 14 target areas. To see the list of already selected target areas without making a new selection, click “Show List.” This returns you to the screen below.

Remove: To delete a target area from the list, click the name of the target area to select it and click “Remove” below the list. Please note that the “Remove” button is only clickable when a target area is highlighted.

Data Toolkit - Generate Toolkit

Target areas: 2

- DC (CDBG Grantee)
- Prince George's County

Remove

Select toolkit type: Economic Development ▼

Help Add Another Finish

4. Once the screen lists all of the target areas you want to include (up to 14), choose “Housing” or “Economic Development” from the “Select Toolkit Type” dropdown and click “Finish.”

NOTE: Make sure your pop-up blocker is turned off or allows pop-up windows from this site:

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



5. CPD Maps will generate an Excel file that is separated into the following four worksheets:
 - **Control Panel:** The Control Panel tab allows you to identify the target geography and provides guidance on how to use the tool for data analysis and comparison.
 - **Issue Identification:** The Issue Identification tab allows you to compare basic data elements to reference geographies.
 - **Issue Characterization:** The Issue Characterization tab allows you to compare the target geography to reference geographies using more detailed data than the issue identification tab. For instance, the Housing toolkit shows overcrowding broken down by rental and homeownership units and different household income levels.
 - **Issue Location:** This tab relates back to CPD Maps by providing guidance on threshold values to use in the Map Query widget (see [Map Query widget section](#)) to better understand where issues identified in the first two stages are located on the map.
6. Click the “X” in the upper right corner to close the Data Toolkit widget.



The Map Query widget will help you identify geographies, such as Census tracts or counties that are similar to each other based on selected criteria. For example, a state grantee can use the Map Query widget to find the counties in the State with the lowest median household incomes.

1. Select “National” or “Grantee Jurisdiction” as the query level. The Grantee Jurisdiction level will be available only if you used the Grantee Search Tool to select a grantee.
2. Select the type of geography you would like to query. Choices include Census Tract, Place, County Subdivision (Cousub), County, and State. When finished, click “Next.”

NOTE: Census tracts can only be queried when the query level is set to Grantee Jurisdiction.

A screenshot of a software dialog box titled "Multivariate Query - Choose Level and Geography Type". The dialog has a close button (X) in the top right corner. Inside the dialog, the text "Current grantee: DISTRICT OF COLUMBIA - CDBG" is displayed. Below this, under the heading "Query level:", there are two radio button options: "National" and "Grantee Jurisdiction*", with the latter being selected. Under the heading "Geography type:", there are five radio button options: "Tract*", "Place", "Cousub", "County", and "State", with "Tract*" being selected. At the bottom of the main content area, a note reads "*only available if a grantee was chosen". At the bottom of the dialog, there are five buttons: "Help", "Export", "Back", "Next", and "Finish". The "Next" button is highlighted with a darker background.



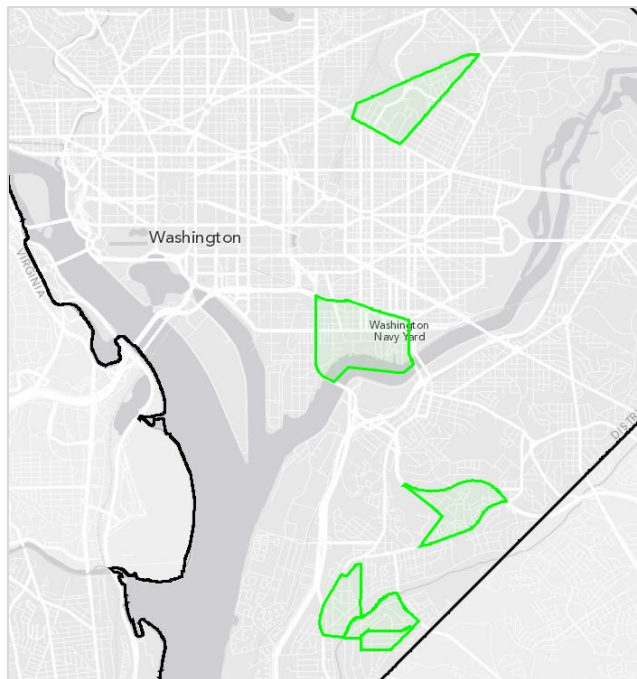
3. Select up to three variables that you would like to query. To see a list of all the variables available, refer to Appendix 2. When finished, click “Next.”

4. Define the query range for each variable you selected previously by dragging the slider to the desired minimum and maximum values. When done, click “Finish.”

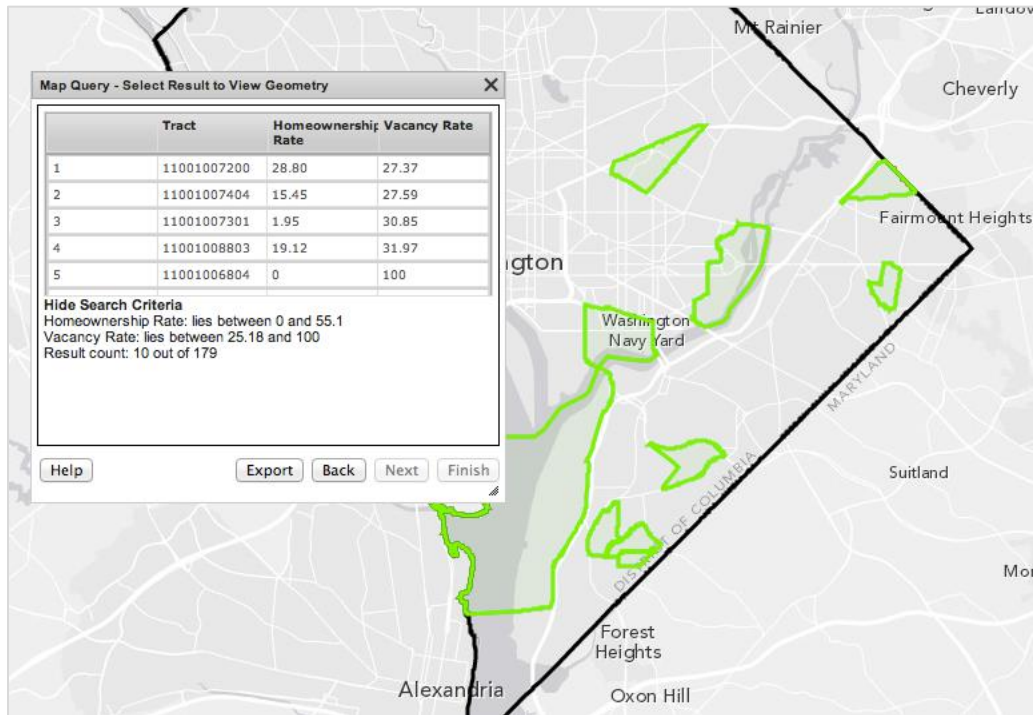
Result Count: The Result Count at the bottom of the box displays the number of geographies that fall between the minimum and maximum values. This will update as you drag the slider.



5. View the results of your query on the map. All of the geographies that met the query parameters will be outlined. At this point, the widget offers several different features:
- If you click on one of the geographies listed in the result set, the system will center the map and shade the selected geography.
 - If you click on an outlined geography on the map, the geography will be shaded in the map and the tract will be shaded in the table.
 - If you click on the column headers for the result set, the results will be sorted according to the values in that column. To reverse the sort order (i.e. from ascending to descending), click on the column header again.
 - If you click “Back”, you will be returned to the previous step where you can edit the query parameters.



Display of Census tracts that meet query parameters



List of Query Results

- Export the Map Query criteria and results to Excel by clicking on the “Export” button.

*NOTE: Make sure your pop-up blocker is turned off or accepts pop-ups from this site:
<http://eqis.hud.gov/cpdmaps>.*

The Excel report includes three worksheets:

- **Data:** Includes the geographic area (tract, place, etc.) and data variable(s) for the query results.
- **Criteria:** Includes the criteria used in the query.
- **Map:** Displays a map of the area with the queried geographies outlined in green.

NOTE: If you close the Map Query widget, the map will no longer highlight the geographies within the result set. However, the query is saved and will be displayed again if you open the Map Query widget during the same session.



GRANTEE SUMMARY WIDGET

The Grantee Summary widget will automatically appear once a grantee is selected via the Grantee Search Tool. The dialog box will list CPD allocations for the grantee.

Grantee Summary	
Name:	Buffalo
Program Year:	2015
CDBG Amount:	\$12,635,721
HOME Amount:	\$2,398,152
ESG Amount:	\$1,159,066
HOPWA Amount:	\$546,763
<input type="button" value="Export..."/>	

Grantee Summary	
Grantee Name:	Illinois
Population:	12224804
Low-mod population:	91060
Total of CDBG-DR Awards:	\$221,441,438
Total CDBG-DR Draws Across Awards:	\$156,628,413
Total CDBG-DR Funds Available Across Awards:	\$64,813,024
CDBG-DR Awards:	Data currently unavailable
<input type="button" value="Export..."/>	

Depending on the CPD allocation type, the Grantee Summary will include the following detailed information, which can be downloaded to Excel by clicking the “Export” button:

CDBG, HOME, ESG, HOPWA, CoC or UGLG Grantees:

- A history of the five most recent years of grant allocations
- Summary data including total population, median household income, median contract rent, and median value of owner-occupied units
- Number and percent of households by income level
- Fair Market Rents
- HOME Rent Limits

CDBG-DR Grantee

- Basic grantee demographic data
- CDBG-DR awards data
- Summary of all current DR grants

NOTE: Make sure your pop-up blocker is turned off or accepts pop-ups from this site:

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



TELLING YOUR STORY WITH MAPS AND DATA

Maps can help you describe your community's housing and community development needs in ways that can be difficult to do with a narrative or charts and graphs. When data is mapped, geographic trends and patterns emerge that will help you identify your community's needs and chart strategies for addressing them. Different data sets can also be combined on a map to show connections between multiple issues.

This section will explore five examples of using CPD Maps to help you with the development of your Consolidated Plan. The examples are meant to provide practical ways to use the maps and widgets to explore and analyze your communities. You can always add and change the data to create a map that is more meaningful and informative to you.

Each of the examples below demonstrate ways to use the tools of CPD Maps—such as the [Layer Reports](#), and [Map Query](#) widgets—to tell your story. For instructions on how to use these widgets, please reference the respective sections of the Desk Guide. However, these examples provide only a cursory introduction to each tool's capacity, and you will find that CPD Maps provides a wide range of options to present the complex housing and community development issues in your community.

LOW- AND MODERATE-INCOME CONCENTRATIONS

CPD Maps provides three levels of income data based on ACS data: Extremely Low Income (0–30 percent AMI), Low Income (0–50 percent AMI) and Moderate Income (0–80 percent AMI). Each of these income layers is available in the Community Indicators > Housing Need tab of the Layers widget.

For each income level, the following data sets are available:

- % Extremely Low Income (ELI)/Low/Mod- Income Households
- % ELI/Low/Mod-income Households With Any of the Housing Problems
- % ELI/Low/Mod-income Households With Substandard Housing
- % ELI/Low/Mod-income Households With Overcrowding
- % ELI/Low/Mod-income Households With Severe Cost Burden

NOTE: CPD Maps data should not be used to determine CDBG eligibility using the Low- Mod Area (LMA) national objective. The layer does not account for grantees that qualify as exception communities (grantees who can use CDBG in areas where less than 51 percent of the population is at the low-moderate income level). Until HUD releases updated LMA data, grantees should continue to use 2006-2010 ACS data as described in CPD Notices 14-10 and 14-11 or conduct a local survey to determine LMA eligibility.



AREAS OF MINORITY CONCENTRATION

The Consolidated Plan regulations at 24 CFR Part 91.210 require that grantees define the term “area of minority concentration” and then identify and describe those areas in the jurisdiction that meet the definition. CPD Maps provides several ways to map this data.

The Layers widget can help you create color-themed maps that depict concentrations of each race and ethnicity in the Community Indicators > Demographic > Race/Ethnicity tab. The color themes are based on the race/ethnicity’s percentage of the total population in the Census tract. By default, the Census tracts will be classified into five categories using the Natural Breaks classification system. You can edit the number of categories and the ranges of each category by configuring the data display (see [Customizing Maps](#) section).

USING THE MAP QUERY WIDGET

Grantees may also consider using the Map Query widget in conjunction with the theme-based layers to identify areas of minority concentration. Using the Map Query widget, you can identify Census tracts and geographies that indicate large percentages of certain race categories. Some sample Map Query data layers that help identify these areas are listed below. The path to find each variable is provided in parentheses.

- **Total Households** (Demographic > Summary information)
- **% White Alone (not Hispanic)** (Demographic > Race/Ethnicity)
- **Any of the race/ethnicity categories** (Demographic > Race/Ethnicity)

TARGET AREAS

The Consolidated Plan regulations at 24 CFR 91.215(a) require grantees to indicate their general priorities for allocating investment geographically within the jurisdiction. Although target areas are not required, the Consolidated Plan template in IDIS provides space for grantees to identify locally designated target areas where concentrated and coordinated efforts such as revitalization, foreclosure recovery efforts, or transit-oriented development are to be carried out through multiple activities.

Concentrating resources to focus on a specific area of need can have a multiplier effect where the whole is greater than the sum of the individual activities. For example, if a program rehabilitates 10 homes throughout a city, the overall visual effect is negligible. However, if all 10 homes are located on the same street or in the same neighborhood, the program has benefitted not just the individual homeowners but the overall vitality of the neighborhood as well.

In the Consolidated Plan template in IDIS, there are five types of target areas: a Neighborhood Revitalization Strategy Area (NRSA) for entitlement grantees, a Community Revitalization Strategy Area (CRSA) for state grantees, a Community Development Financial Institution (CDFI) target area, a Local



Target Area, and Other Target Area. Both the NRSA/CRSA and CDFI designations give the grantee flexibility within the CDBG regulations in terms of meeting national objectives (for more information regarding these designations, see 24 CFR part 570, subpart C).

The Reports widget in CPD Maps can help you analyze the data of your community and experiment with combining smaller geographies, such as Census tracts for entitlement communities or counties for state grantees, into a target area. The Reports tool will aggregate the data from individual geographies into one report that you can compare to the grantee as a whole, the county, or the state.

USING THE REPORTS WIDGET

1. Click on the Reports widget. On the first page, select one or more Census tracts to include as your target area by using one of the seven tools provided to select your area of interest. Similarly, a state grantee may select one or more counties by using “County” as the “Target Jurisdiction Level” in the Reports widget. For detailed instruction, please refer to the [Reports widget](#) section. When finished, click “Next.”
2. On the second page, choose Jurisdictional or County as the reference area. By doing so, the final report will contain data for both your target and reference area so differences and discrepancies can be highlighted.

NEED FOR LOW-INCOME RENTAL HOUSING

Several different variables in CPD Maps can help explain the need for low-income rental housing. A straightforward approach is to use cost burden data. A household’s cost burden is defined as the percentage of annual household income needed to pay housing costs. A household that pays less than 30 percent of income for housing has “affordable” housing and is not “cost-burdened.” Households spending more than 30 percent of income for housing costs are considered to be “cost-burdened.” Households spending more than 50 percent are considered to be “severely cost-burdened.”

Housing Cost Burden and Renter Unit Affordability data can be displayed in the Layers widget by selecting Community Indicators >Housing Need > Affordability.

Part of the overall purpose of the Consolidated Plan is to reduce “the isolation of income groups within a community or geographical area through the spatial de-concentration of housing opportunities for persons of lower income” (24 CFR 91.1(a)(1)(ii)). In this spirit, grantees can use the data available in CPD Maps to not only identify areas within their jurisdiction that have large concentrations of low-income renters, but also identify areas that have a lack of affordable rental housing.



USING THE REPORTS WIDGET

The Reports widget has several data sets that can help identify concentrations of low-income renters and also areas that lack affordable rental units:

- Housing Supply – Number and percentage of renter-occupied units by contract rent
- Housing Supply – Renter-occupied units by contract rent and bedrooms
- Housing Supply – Number of occupied housing units by tenure and presence of selected housing conditions
- Housing Supply – Units Affordable to Households (by income level)
- Housing Needs – Housing Problems (renter) (multiple tables)
- Housing Needs – Cost Burden > 30% (renter) (by household type and income level)
- Housing Needs – Cost Burden > 50% (renter) (by household type and income level)

USING THE MAP QUERY WIDGET

The Map Query widget will allow you to identify similar geographies based on their underlying data. The following variables can help grantees identify concentrations of low-income households with high cost burdens, and areas in their jurisdiction with a lack of affordable rental units: The path to find each variable in the multivariate query is provided in parentheses.

- **% of households with income below 50% HAMFI** (Demographic > Household Level information)
- **% of households with cost burden (paying > 30%)** (Housing Needs > Housing Problems)
- **% of households with severe cost burden (paying > 50%)** (Housing Needs > Housing Problems)
- **Renter units affordable to 30% HAMFI** (Housing Supply > Housing Affordability by Tenure)
- **Renter units affordable to 50% HAMFI** (Housing Supply > Housing Affordability by Tenure)

NEED FOR HOUSING REHABILITATION

Housing Rehabilitation is a common use of CDBG and HOME funds. Grantees can use the age of housing stock as a proxy for the condition of housing.

USING THE LAYERS WIDGET

The Layers widget provides a map called the “Need for Rehabilitation.” To view this map, open the Layers widget and select “Need for Rehabilitation” from the dropdown menu at the top of the widget. The map will add a color-themed map layer displaying the percentage of rental housing in each Census tract that was built before 1980. The map will also add an outline-theme layer that depicts Census tracts where more than 50% of the population qualifies as low-moderate income (earning less than 80% of the area median income). The map also displays the locations of LIHTC Properties, HUD Multifamily Properties, and Public Housing Developments.



USING THE REPORTS WIDGET

The Reports widget has several data sets that can help you identify concentrations of older housing stock:

- Housing Supply – Median age of structure for renter-occupied units (part of the first table within Housing Supply, entitled “Summary Information for Characteristics of the Housing Stock)
- Housing Supply – Number of occupied units by tenure and year structure built

USING THE MAP QUERY WIDGET

The Map Query widget will allow you to identify geographies based on their underlying data. The following variables can help grantees identify concentrations of older housing stock. The path to find each variable in the multivariate query is provided in parentheses.

- **% of owner units built 1949 or earlier** (Housing Supply > Characteristics of Housing Stock)
- **% of renter units built 1949 or earlier** (Housing Supply > Characteristics of Housing Stock)
- **% of renter units built before 1980** (Housing Supply > Characteristics of Housing Stock)

USING CHANGE INDICATORS TO SUPPORT MARKET ANALYSIS IN CPD MAPS

The Consolidated Plan regulations require that grantees engage in a market analysis. A market analysis can help to ensure that funded projects are appropriate to local housing and labor market conditions. CPD Maps offers a range of tools to support grantees in this part of their planning process.

An important element of market analysis involves gathering and interpreting information about the choices being made by private investors in real estate, ranging from owner occupants to landlords to business owners. These choices reveal demand in the market, and are reflected by such factors as income, property values, employment—and particularly by changes in these patterns of investment.

As a result, among the most important data for a grantee to consider are *trends*—i.e., changes in population, housing, and economic conditions *over time*—and how these trends affect the local housing and employment market.

CPD Maps includes a number of Census tract level “change variables” that help display variations in the community and identify growing and declining areas. The variables in CPD Maps are based on changes between the 2000 Census and the most current ACS data available for CPD Maps.

The change variables in CPD Maps can help generate maps to answer questions about market trends in three major areas:



- **Economic trends:** In what parts of the community is the unemployment rate increasing or decreasing? Where is the total number of jobs increasing or decreasing? Which employment sectors are growing or shrinking? (e.g., Manufacturing? Education and Health? Retail?) And in what parts of the community are these employment characteristics changing (i.e., growing or declining) the most?
 - Change variables, such as “% Change in Unemployment Rate” and “Change in Total Jobs,” are available as theme-based layers in the Layers widget under Community Indicators > Economic Development. Change indicators are also available via the Map Query widget under Economic Context > Employment.
- **Demographic trends:** In what parts of the community is population increasing or decreasing? Among which age groups? Where is poverty increasing or decreasing? Where is income going up or down? Where is the number of housing units growing or declining? And in which neighborhoods are these trends most pronounced?
 - Change variables, such as “% Change in Poverty Rate” and “Change in Population,” are available as theme-based layers in the Layers widget under Community Indicators > Demographic > General.
- **Housing supply trends:** Where are home values or rents increasing or decreasing? Where is the vacancy rate growing or shrinking? Where is the number of occupied housing units going up or down? And where are these changes most extreme?
 - Change variables, such as “Change in Median Home Value” and “Change in Median Rent,” are available as theme-based layers in the Layers widget under Community Indicators > Housing Supply.

By evaluating these trends, grantees can conduct a more effective analysis of market conditions. For example, this data can be used to anticipate future pressures on home affordability, prioritize areas for long-term redevelopment strategies, identify neighborhoods with likely future appreciation, and locate target areas near jobs in growing economic sectors.

The following examples describe housing market conditions, as illuminated by these change variables, along with strategies grantees might use in response:

- *Where housing values are low or moderate and increasing*, grantees may want to develop units for long-term affordability;
- *Where values are moderate and stable*, grantees may be able to promote owner-occupancy with modest per-unit subsidies for homebuyer assistance and moderate rehabilitation;
- *Where values are low but the neighborhood is anchored by increasing employment opportunities and/or access to transportation*, grantees may decide that a tightly targeted revitalization strategy will attract future private investment;
- *Where values are low and declining and vacancy is high and increasing*, grantees may elect to focus on blight removal and land banking for future redevelopment.



Additionally, by providing a measure of the *scale* of these trends, CPD Maps can help grantees identify areas where they can realistically expect to affect investment choice in the broader market through a reasonable CPD investment.

USING THE LAYERS WIDGET

The Layers widget provides change indicators under the categories of “Economic Development,” “Demographic: General,” and “Housing Supply.” Select one of these change indicators as the thematic layer, along with additional outline-based or point-based layers. Select only one change indicator for a given map. As with other theme-based layers, you can right click the variable and select configure to change the classification type for the layer, or to change the number of class breaks.

USING THE REPORTS WIDGET

Although the change indicators described above are not available through the Reports widget in CPD Maps, these reports include several related data sets showing current data. Market influences can be identified in these reports by comparing the selected target geography with appropriate “reference” geography, such as the surrounding county or the state. These comparisons illustrate the competitive pressures on the target geography for investment compared to other markets in the region. A number of data sets under the categories of “Demographic,” “Economic Context,” and “Housing Supply” may offer salient comparisons.

USING THE MAP QUERY WIDGET

The Map Query widget provides access to several data sets useful for market analysis. Since multivariate query allows users to set a range for up to three variables, it can help identify Census tracts where a number of characteristics converge. For example, a grantee seeking to use HOME funds to develop a walk-to-work program with local employers might look for Census tracts that meet the following three characteristics:

- Change in total jobs > 0 (i.e., growth in the number of jobs);
- At least 20% of owner-occupied units affordable at 80% of area median income; and
- Average travel time to work less than 20 minutes.

Note, however, that the appropriate variables and the selected ranges must be customized for specific communities and types of projects.



APPENDIX 1: MAP LAYERS

The following table describes the available data layers and data types found in the Layers widget.

Data Layer	Data Type (Thematic, Outline or Point)	Thematic Data at County/State Level
TRANSPORTATION		
Metropolitan Planning Organization (MPO)	Outline	n/a
AMTRAK Lines	Outline	n/a
Transit Lines	Outline	n/a
Transit Stations	Point	n/a
AMTRAK Stations	Point	n/a
ENVIRONMENT		
State Clean Water Needs Survey (CWNS):	Thematic	No
100 Year Flood Plain – Q3	Thematic	n/a
100 Year Flood Plain – DFIRM	Thematic	n/a
500 Year Flood Plain – Q3	Thematic	n/a
ACTIVITY AND PROPERTY LOCATIONS		
CDBG		
CDBG Activities Funding	Thematic	No
CDBG Activity Count	Thematic	No
CDBG Acquisition Activities	Point	n/a
CDBG Economic Development Activities	Point	n/a
CDBG Housing Activities	Point	n/a
CDBG Public Improvement Activities	Point	n/a
CDBG Public Service Activities	Point	n/a
Other CDBG Activities	Point	n/a
HOME		
HOME Activities Funding	Thematic	No
HOME Activities Count	Thematic	No
HOME Homeowner Activities Funding	Thematic	No
HOME Homeowner Activities Count	Thematic	No
HOME Multifamily Activities Funding	Thematic	No



Data Layer	Data Type (Thematic, Outline or Point)	Thematic Data at County/State Level
HOME Multifamily Activities Count	Thematic	No
HOME Multifamily Activities	Point	n/a
Environmental Reviews		
Tiered Environmental Reviews	Point	n/a
Environmental Reviews	Point	n/a
Other		
Voucher Concentration	Thematic	No
NSP Completed Activities	Thematic	No
FHA REO	Thematic	No
Public Housing Developments	Point	n/a
Low Income Housing Tax Credit Properties	Point	n/a
HUD Multifamily Properties	Point	n/a
USDA Rural Housing	Point	n/a
COMMUNITY INDICATORS		
Economic Development		
% Commute Time >60 minutes	Thematic	Yes
% Unemployment	Thematic	Yes
% Point Change: Unemployment Rate	Thematic	No
Change in Total Jobs	Thematic	No
Change in Agriculture, Mining, Oil and Gas Extraction Jobs	Thematic	No
Change in Construction Jobs	Thematic	No
Change in Manufacturing Jobs	Thematic	No
Change in Wholesale Trade Jobs	Thematic	No
Change in Retail Trade Jobs	Thematic	No
Change in Transportation and Warehousing Jobs	Thematic	No
Change in Information Jobs	Thematic	No
Change in Finance, Insurance, and Real Estate Jobs	Thematic	No
Change in Professional, Scientific, and Management Services Jobs	Thematic	No
Change in Education and Health Care Services Jobs	Thematic	No
Change in Arts, Entertainment, Accommodations Jobs	Thematic	No



Data Layer	Data Type (Thematic, Outline or Point)	Thematic Data at County/State Level
Change in Other Services Jobs	Thematic	No
Demographic		
<i>Race/Ethnicity</i>		
White alone (not Hispanic)	Thematic	Yes
Black or African American alone (not Hispanic)	Thematic	Yes
American Indian / Alaskan Native alone (not Hispanic)	Thematic	Yes
Asian alone (not Hispanic)	Thematic	Yes
Native Hawaiian / Pacific Islander alone (not Hispanic)	Thematic	Yes
Some other race alone (not Hispanic)	Thematic	Yes
Two or more races (not Hispanic)	Thematic	Yes
Persons of Hispanic origin	Thematic	Yes
<i>General</i>		
Median Household Income	Thematic	Yes
Poverty Rate	Thematic	Yes
Total Households	Thematic	Yes
Average Household Size	Thematic	Yes
% Non-English Speaking	Thematic	Yes
Change in Housing Units	Thematic	No
Change in Median HH Income	Thematic	No
% Point Change: Poverty Rate	Thematic	No
Change in Population	Thematic	No
Change in Population Age 0-17	Thematic	No
Change in Population Age 18-24	Thematic	No
Change in Population Age 25-65	Thematic	No
Change in Population Age 65+	Thematic	No
<i>Other</i>		
HIV Rates by County Per 100,000 Population	Thematic	Yes
Housing Supply		
% Rental Housing Built Before 1980	Thematic	Yes
% Rental Housing Built Before 1949	Thematic	Yes



Data Layer	Data Type (Thematic, Outline or Point)	Thematic Data at County/State Level
Median Home Value	Thematic	Yes
% Owner Occupied Housing	Thematic	Yes
Median Contract Rent	Thematic	Yes
% Renter Occupied Housing	Thematic	Yes
Vacancy Rate	Thematic	Yes
% Renter units with 3 or more bedrooms	Thematic	Yes
% Owner units with 3 or more bedrooms	Thematic	Yes
% of structures with 5-19 units	Thematic	Yes
% of structures with 20 or more units	Thematic	Yes
Change in Median Home Value	Thematic	No
% Point Change: Owner Occupied	Thematic	No
Change in Median Rent	Thematic	No
% Point Change: Vacancy Rate	Thematic	No
% Point Change: Rental Vacancy Rate	Thematic	No
% Point Change: Owner Vacancy Rate	Thematic	No
Change in Occupied Units	Thematic	No
Vacancy Rate > 10%	Outline	n/a
Vacancy Rate > 7%	Outline	n/a
Housing Need		
<i>Affordability</i>		
% Renter units affordable to 30% HAMFI	Thematic	Yes
% Renter units affordable to 50% HAMFI	Thematic	Yes
% Renter units affordable to 80% HAMFI	Thematic	Yes
% Owner units affordable to 50% HAMFI	Thematic	Yes
% Owner units affordable to 80% HAMFI	Thematic	Yes
% Owner units affordable to 100% HAMFI	Thematic	Yes
Housing Cost Burden	Thematic	Yes
<i>Extreme Low-Income</i>		
% Extremely Low-Income (ELI) Households	Thematic	Yes
% of ELI Households With Any of 4 Severe Housing Problems	Thematic	Yes



Data Layer	Data Type (Thematic, Outline or Point)	Thematic Data at County/State Level
% of ELI Households With Substandard Housing	Thematic	Yes
% of ELI Households With Overcrowding	Thematic	Yes
% of ELI Households With Severe Cost Burden	Thematic	Yes
<i>Moderate Income</i>		
% Moderate-Income (MI) Households	Thematic	Yes
% of MI Households With Any of 4 Severe Housing Problems	Thematic	Yes
% of MI Households With Substandard Housing	Thematic	Yes
% of MI Households With Overcrowding	Thematic	Yes
% of MI Households With Severe Cost Burden	Thematic	Yes
<i>Low Income</i>		
% Low-Income (LI) Households	Thematic	Yes
% of LI Households With Any of 4 Severe Housing Problems	Thematic	Yes
% of LI Households With Substandard Housing	Thematic	Yes
% of LI Households With Overcrowding	Thematic	Yes
% of LI Households With Severe Cost Burden	Thematic	Yes
BOUNDARIES		
Grantee Boundaries		
CDBG Grantee	Thematic	No
HOME Grantee	Thematic	No
ESG Grantee	Thematic	No
HOPWA Grantee	Thematic	No
Continuum of Care (CoC)	Outline	n/a
Unit of General Local Government (UGLG)	Outline	n/a
Other		
NSP1 Target Areas	Outline	No
NSP2 Target Areas	Outline	No
NSP3 Target Areas	Outline	No
SCRIP Grantees	Outline	n/a
Choice Grantees	Outline	n/a
Census Tracts	Outline	n/a



Data Layer	Data Type (Thematic, Outline or Point)	Thematic Data at County/State Level
Low-Mod Census Tracts (NOTE: Incorrectly labeled as Low-Mod Block Groups in CPD Maps)	Outline	n/a
113 th Congressional Districts	Outline	n/a
Qualified Census Tracts	Outline	n/a
Difficult to Develop Areas	Outline	n/a
Rural Innovation Fund	Outline	n/a
Communities Containing Colonias	Point	n/a
Challenge Grantees	Point	n/a
OTHER		
Census Tract Labels	Outline (label)	n/a
112 th Congressional Districts Labels	Outline (label)	n/a

APPENDIX 2: MAP QUERY VARIABLES

The following table lists all available variables for the Map Query widget.

DEMOGRAPHIC > SUMMARY
Total Population
Total Households
Homeownership Rate
Average Household Size over occupied housing units
Median Household Income in past 12 months
DEMOGRAPHIC > PERSON-LEVEL INFORMATION
% of population over 5 years that speak English 'not at all'
Poverty Rate
DEMOGRAPHIC > RACE ETHNICITY
% White alone (not Hispanic)
% Black or African American alone (not Hispanic)
% American Indian or Alaska Native alone (not Hispanic)



% Asian alone (not Hispanic)
% Native Hawaiian or other Pacific Islander alone (not Hispanic)
% Some other race alone (not Hispanic)
% Two or more races (not Hispanic)
% of Persons of Hispanic origin
AGE
% of the population age 0-17
% of the population age 18-24
% of the population age 25-64
% of the population age 65 and over
DEMOGRAPHIC > HOUSEHOLD LEVEL INFORMATION
% of households with one or more people under 18 years
% of households with one or more people 60 years and over
% of one person households
% of households with income - 30% HAMFI
% of households with income - 50% HAMFI
% of households with income - 80% HAMFI
% of households with income - 100% HAMFI
HOUSING NEEDS > HOUSING PROBLEMS
% of households with 1 of 4 housing unit problems
% of households with 1 of 4 severe housing problems
% of households with substandard housing
% of households with overcrowding
% of households with cost burden (paying > 30%)
% of households with severe cost burden (paying > 50%)
of households at risk of homelessness (multiple unrelated renter households with overcrowding)
HOUSING SUPPLY > CHARACTERISTICS OF THE HOUSING STOCK
Total Housing Units
Vacancy Rate
Median value of owner occupied units
Median contract rent for renter occupied units
Median number of rooms



% of owner units built 1949 or earlier
% of renter units built 1949 or earlier
% of renter units built before 1980
% of renter units with 3 or more bedrooms
% of owner units with 3 or more bedrooms
HOUSING SUPPLY > HOUSING AFFORDABILITY BY TENURE
Renter units affordable to 30% HAMFI
Renter units affordable to 50% HAMFI
Renter units affordable to 80% HAMFI
Owner units affordable to 50% HAMFI
Owner units affordable to 80% HAMFI
Owner units affordable to 100% HAMFI
ECONOMIC CONTEXT > LABOR FORCE
Unemployment Rate
Average Travel Time to Work
ECONOMIC CONTEXT > UNEMPLOYMENT BY AGE GROUP
% age 16-24 unemployed
% age 25-65 unemployed
% over age 65 unemployed
ECONOMIC CONTEXT > TRAVEL TIME TO WORK
% traveling < 30 minutes (Note: This data element is incorrectly listed as % traveling > 30 minutes in CPD Maps and will be corrected in a future release)
% traveling 30-59 minutes
% traveling 60+ minutes
ECONOMIC CONTEXT > EDUCATIONAL ATTAINMENT BY EMPLOYMENT STATUS
% employed with less than high school
% employed with high school graduate (or equivalent)
% employed with some college or Associate's degree
% employed with a Bachelor's degree or higher
% unemployed with less than high school
% unemployed with high school graduate (or equivalent)
% unemployed with some college or Associate's degree



% unemployed with a Bachelor's degree or higher
ECONOMIC CONTEXT > EMPLOYMENT (TRACT ONLY)
Change in Total Jobs
Change in Agriculture, Mining, Oil and Gas Extraction
Change in Construction
Change in Manufacturing
Change in Wholesale Trade
Change in Retail Trade
Change in Transportation and Warehousing
Change in Information
Change in Finance, Insurance and Real Estate
Change in Professional, Scientific, Management Services
Change in Education and Health Care Services
Change in Arts, Entertainment, Accommodations
Change in Other Services



APPENDIX 3: REPORT DATA SETS

This appendix displays each table and data element available through the Excel-based CPD Maps report organized by the topic category and subcategory as displayed in the Reports widget.

DEMOGRAPHIC

BASIC SUMMARY

Summary Information for Basic Demographic and Socioeconomic Characteristics*	Target(s)
Total Population:	
Total Households:	
Homeownership Rate:	
Average Household Size of Occupied Housing Units:	
Average Household Size of Owner occupied Housing Units:	
Average Household Size of Renter occupied Housing Units:	
Median Household Income In The Past 12 Months:	
Aggregate Household Income In The Past 12 Months:	
Median Family Income In The Past 12 Months:	
Median Nonfamily Household Income In The Past 12 Months:	

Source: American Community Survey

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.



PERSON-LEVEL

Person-level Information*	Number	Percent
Population 5 years and over that speak English 'not at all':		
Persons in Poverty (Universe: Persons whose poverty status is determined):		
Poverty Rate:		
Persons in Poverty in Family Households:		
Persons in Poverty in non-Family Households:		

Source: American Community Survey

*Data can be used to support Anti-Poverty Strategy (screen SP-70) of the Strategic Plan.

Race	Number	Percent
White alone (not Hispanic)		
Black or African American alone (not Hispanic)		
American Indian and Alaska Native alone (not Hispanic)		
Asian alone (not Hispanic)		
Native Hawaiian and Other Pacific Islander alone (not Hispanic)		
Some other race alone (not Hispanic)		
Two or more races (not Hispanic)		
Persons of Hispanic Origin		
Total		

Source: American Community Survey

Age	Number	Percent
Population Age 0–17		
Population Age 18–24		
Population Age 25–64		
Population Age 65 and over		
Total		

Source: American Community Survey



HOUSEHOLD-LEVEL

Household Information	Number	Percent
Households with one or more people under 18 years:		
Households with one or more people 60 years and over:		
One person Household:		

Source: American Community Survey

Household Income in the Past 12 Months	Number	Percent
Less than \$14,999		
\$15,000 to \$24,999		
\$25,000 to \$34,999		
\$35,000 to \$44,999		
\$45,000 to \$59,999		
\$60,000 to \$74,999		
\$75,000 to \$99,999		
\$100,000 to \$124,999		
\$125,000 to \$149,999		
\$150,000 or more		
Total		

Source: American Community Survey



FAMILY-LEVEL

Family-level Information*	Number	Percent
Families with Income in the past 12 months below poverty level:		
Families in poverty, owner occupants:		
Families in poverty, renter occupants:		

Source: American Community Survey

*Data can be used to support Anti-Poverty Strategy (screen SP-70) of the Strategic Plan.

Household*	0–30% HAMFI	>30–50% HAMFI	>50–80% HAMFI	>80–100% HAMFI	>100% HAMFI
Total Households					
Small Family Households**					
Large Family Households**					
Household contains at least one person 62–74 years of age					
Household contains at least one person age 75 or older					
Households with one or more children 6 years old or younger**					
**Note: The asterisk for these three variables is no longer relevant and will be removed in an upcoming release of CPD Maps. The data is now available for all income categories listed in this table.					

Source: CHAS

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.



HOUSING NEEDS

HOUSING NEEDS

Occupancy*	Number	Percentage
Households with 1 or more occupants per room		
Owner Households with 1.00 or less occupants per room		
Owner Households with 1.01 to 1.50 occupants per room		
Owner Households with 1.51 or more occupants per room		
Renter Households with 1.00 or less occupants per room		
Renter Households with 1.01 to 1.50 occupants per room		
Renter Households with 1.51 or more occupants per room		

Source: American Community Survey

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.

Costs	Number	Percentage
Paying > 30%		
Earning Less than \$34,999 paying > 30%		
Earning More Than \$35,000 paying > 30%		
Owner Occupied Earning Less than \$35,000 paying > 30%		
Owner Occupied Earning More than \$35,000 paying > 30%		
Renter Occupied Earning Less than \$35,000 paying > 30%		

Source: American Community Survey



HOUSING PROBLEMS

Households with one of the listed needs (renter)*	0–30% AMI	30–50% AMI	50–80% AMI	80–100% AMI	Total
Substandard Housing – Lacking complete plumbing or kitchen facilities					
Severely Overcrowded – With >1.51 people per room (and complete kitchen and plumbing)					
Overcrowded – With 1.01-1.5 people per room (and none of the above problems)					
Housing cost burden greater than 50% of income (and none of the above problems)					
Housing cost burden greater than 30% of income (and none of the above problems)					
Zero/negative Income (and none of the above problems)					

Source: CHAS

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.

Households with one of the listed needs (owner)*	0–30% AMI	30–50% AMI	50–80% AMI	80–100% AMI	Total
Substandard Housing – Lacking complete plumbing or kitchen facilities					
Severely Overcrowded – With >1.51 people per room (and complete kitchen and plumbing)					
Overcrowded – With 1.01-1.5 people per room (and none of the above problems)					
Housing cost burden greater than 50% of income (and none of the above problems)					
Housing cost burden greater than 30% of income (and none of the above problems)					
Zero/negative Income (and none of the above problems)					

Source: CHAS

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.



Households with one or more severe housing problems: Lacks kitchen or bathroom, severe overcrowding, severe cost burden (renter)*	0–30% AMI	30–50% AMI	50–80% AMI	80–100% AMI	Total
Having 1 or more of four housing problems					
Having none of four housing problems					
Household has negative income, but none of the other housing problems					

Source: CHAS

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.

Households with one or more severe housing problems: Lacks kitchen or bathroom, severe overcrowding, severe cost burden (owner)*	0–30% AMI	30–50% AMI	50–80% AMI	80–100% AMI	Total
Having 1 or more of four housing problems					
Having none of four housing problems					
Household has negative income, but none of the other housing problems					

Source: CHAS

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.



COST BURDEN

Cost Burden > 30% (renter)*	0–30% AMI	30–50% AMI	50–80% AMI	Total
Small Related				
Large Related				
Elderly				
Other				
Total need by income				

Source: CHAS

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.

Cost Burden > 30% (owner)*	0–30% AMI	30–50% AMI	50–80% AMI	Total
Small Related				
Large Related				
Elderly				
Other				
Total need by income				

Source: CHAS

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.

Cost Burden > 50% (renter)*	0–30% AMI	30–50% AMI	50–80% AMI	Total
Small Related				
Large Related				
Elderly				
Other				
Total need by income				

Source: CHAS

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.

Cost Burden > 50% (owner)*	0–30% AMI	30–50% AMI	50–80% AMI	Total
Small Related				
Large Related				
Elderly				
Other				
Total need by income				

Source: CHAS

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.



CROWDING

Crowding - More than one person per room (renter)*	0–30% AMI	30–50% AMI	50–80% AMI	80–100% AMI	Total
Single family households					
Multiple, unrelated family households					
Other, non-family households					
Total need by income					

Source: CHAS

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.

Crowding – More than one person per room (owner)*	0–30% AMI	30–50% AMI	50–80% AMI	80–100% AMI	Total
Single family households					
Multiple, unrelated family households					
Other, non-family households					
Total need by income					

Source: CHAS

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.



HOUSING SUPPLY

SUMMARY INFORMATION FOR CHARACTERISTICS OF THE HOUSING STOCK

Summary Information for Characteristics of the Housing Stock*	Target(s)
Total housing units	
Vacancy Rate	
Median value for owner-occupied units	
Median value for owner-occupied units with a mortgage	
Median value for owner-occupied units without a mortgage	
Median contract rent for renter-occupied units	
Median age of structure for renter-occupied units	
Median number of rooms for owner-occupied units	
Median number of rooms for renter-occupied units	

Source: American Community Survey

*Table correlates with screens MA-10 and MA-15 of the Market Analysis of the Consolidated Plan template.

SIMPLE TABULATIONS OF HOUSING CHARACTERISTICS

Number and percentage of occupied housing units by structure type*	Number	Percentage
1-unit Detached		
1-unit Attached		
2 to 4 Units		
5 to 19 Units		
20 or More Units		
Other (mobile home, RV, etc.)		
Total		

Source: American Community Survey

*Table correlates with screen MA-10 of the Market Analysis of the Consolidated Plan template.



Number and percentage of occupied housing units by bedrooms*	Number	Percentage
No bedroom		
1 bedroom		
2 bedrooms		
3+ bedrooms		
Total		

Source: American Community Survey

*Table correlates with screen MA-10 of the Market Analysis of the Consolidated Plan template.

Number and percentage of owner-occupied housing units by bedrooms*	Number	Percentage
No bedroom		
1 bedroom		
2 bedrooms		
3+ bedrooms		
Total		

Source: American Community Survey

*Table correlates with screen MA-10 of the Market Analysis of the Consolidated Plan template.

Number and percentage of renter-occupied housing units by bedrooms*	Number	Percentage
No bedroom		
1 bedroom		
2 bedrooms		
3+ bedrooms		
Total		

Source: American Community Survey

*Table correlates with screen MA-10 of the Market Analysis of the Consolidated Plan template.

Number and percentage of renter-occupied units by contract rent*	Number	Percentage
No cash rent		
\$0–\$499		
\$500–\$599		



\$600–\$699		
\$700–\$799		
\$800–\$899		
\$900–\$999		
\$1000–\$1249		
\$1250–\$1499		
\$1500–\$1999		
\$2000 or More		
Total		

Source: American Community Survey

*Table correlates with screen MA-15 of the Market Analysis of the Consolidated Plan template.

Renter-occupied units by contract rent and bedrooms*	Bedrooms	Number	Percent
Less Than \$200	None		
Less Than \$200	1		
Less Than \$200	2		
Less Than \$200	3+		
\$200–\$499	None		
\$200–\$499	1		
\$200–\$499	2		
\$200–\$499	3+		
\$500–\$999	None		
\$500–\$999	1		
\$500–\$999	2		
\$500–\$999	3+		
\$1000 or More	None		
\$1000 or More	1		
\$1000 or More	2		
\$1000 or More	3+		



No Cash Rent	None		
No Cash Rent	1		
No Cash Rent	2		
No Cash Rent	3+		

Source: American Community Survey

*Table correlates with screen MA-15 of the Market Analysis of the Consolidated Plan template.

CROSS-TABULATIONS OF MULTIPLE CHARACTERISTICS

Number of occupied housing units by tenure and household size	Owner	Renter	Total
	# and %	# and %	# and %
1 Person Household			
2 Person Household			
3 Person Household			
4 Person Household			
5 Person Household			
6+ Person Household			
Total			

Source: American Community Survey

Number of occupied housing units by tenure and year structure built*	Owner	Renter	Total
	# and %	# and %	# and %
Built 2000 or later			
Built 1980–1999			
Built 1950–1979			
Built 1949 or earlier			
Total			

Source: American Community Survey

*Table correlates with screen MA-20 of the Market Analysis of the Consolidated Plan template.



Number of occupied housing units by tenure and presence of selected housing conditions*	Owner	Renter	Total
	# and %	# and %	# and %
None of the selected housing conditions			
1 selected conditions			
2 selected conditions			
3 selected conditions			
4 selected conditions			
Total			
Selected housing conditions = (1) lacks complete plumbing facilities, (2) lacks complete kitchen facilities, (3) housing costs greater than 30 percent of household income, (4) more than one person per room.			

Source: American Community Survey

*Table correlates with screen MA-20 of the Market Analysis of the Consolidated Plan template.

Units Affordable to Households Earning*	Owner	Renter
30% HAMFI		
50% HAMFI		
80% HAMFI		
100% HAMFI		

Source: CHAS

*Table correlates with screen MA-20 of the Market Analysis of the Consolidated Plan template.

Households with Children Present*	Owner	Renter
0-30% HAMFI		
30-50% HAMFI		
50-80% HAMFI		
80-100% HAMFI		
> 100% HAMFI		

Source: CHAS

*Table correlates with screen NA-10 of the Needs Assessment of the Consolidated Plan template.



ECONOMIC CONTEXT

SUMMARY OF INFORMATION ABOUT ECONOMIC CONDITIONS

Summary Information about Economic Conditions*	Target(s)
Total In Civilian Labor Force	
Civilian employed population 16 years and over	
Unemployment Rate	
Average travel time to work	

Source: American Community Survey

*Table correlates with screen MA-45 of the Market Analysis of the Consolidated Plan template.

SIMPLE TABULATIONS OF ECONOMIC CONDITIONS

Unemployment by Age Group*	Number	Percent
Age 16–24		
Age 25–65		
Over Age 65		
Total		

Source: American Community Survey

*Table correlates with screen MA-45 of the Market Analysis of the Consolidated Plan template.



Occupation*	Number	Percentage	Median Income
Management, business, and financial occupations			
Farming, fishing and forestry occupations			Available 2012
Service occupations			
Sales and office occupations			
Construction, extraction, maintenance, and repair occupations			
Production, transportation, and material moving occupations			
Total			

Source: American Community Survey

*Table correlates with screen MA-45 of the Market Analysis of the Consolidated Plan template.

Travel Time to Work*	Number	Percentage
Less than 30 minutes		
30 to 59 minutes		
60 or more minutes		
Total		

Source: American Community Survey

*Table correlates with screen MA-45 of the Market Analysis of the Consolidated Plan template.

EDUCATIONAL ATTAINMENT

Educational Attainment*	Age 18–24	Age 25–34	Age 35–44	Age 45–64	Age 65+
Less than 9th grade					
9th to 12th grade no diploma					
High school graduate, GED, or alternative					
Some college, no degree					
Associate's degree					
Bachelor's degree					
Graduate or professional degree					

Source: American Community Survey

*Table correlates with screen MA-45 of the Market Analysis of the Consolidated Plan template.



Educational Attainment*	Median Earnings in the Past 12 Months
Less than high school graduate	
High school graduate (includes equivalency)	
Some college or Associate's degree	
Bachelor's degree	
Graduate or Professional Degree	

Source: American Community Survey

*Table correlates with screen MA-45 of the Market Analysis of the Consolidated Plan template.

Educational Attainment*	In Labor Force Civilian Employed	In Labor Force – Unemployed	Not In Labor Force
Less than high school graduate			
High school graduate (includes equivalency)			
Some college or Associate's degree			
Bachelor's degree or higher			
Graduate or Professional Degree			

Source: American Community Survey

*Table correlates with screen MA-45 of the Market Analysis of the Consolidated Plan template.

BUSINESS ACTIVITY

Business by Sector*	Number of Workers	Number of Jobs	Share of Workers (%)	Share of Jobs (%)	Jobs Less Workers (%)
Agriculture, Mining, Oil and Gas Extraction					
Arts, Entertainment, Accommodations					
Construction					
Education and Health Care Services					
Finance, Insurance, and Real Estate					
Information					
Manufacturing					



Other Services [except Public Administration]					
Professional, Scientific, Management Services					
Public Administration					
Retail Trade					
Transportation and Warehousing					
Wholesale Trade					
Total					

Source: American Community Survey and ESRI Business Analyst Package

*Table correlates with screen MA-45 of the Market Analysis of the Consolidated Plan template.

SPECIAL NEEDS

HOMELESSNESS

The homelessness data is only available for Continuum of Care jurisdictions. Jurisdictions will need to work with their continuum of care to estimate their portion of this data.

Population experiencing homelessness on a given night*	Sheltered	Unsheltered
Persons in Households with Adult(s) and Child(ren)		
Persons in Households with Only Children		
Persons in Households with only Adults		
Chronically Homeless Individuals		
Chronically Homeless Families	Available 2014	Available 2014
Veterans		

Source: Point in Time (PIT) Data

*Table correlates with screen NA-40 of the Needs Assessment of the Consolidated Plan template.



Facilities Targeted to Homeless Persons*	Emergency Shelter Year Round Beds (Current and New)	Emergency Shelter Voucher/ Seasonal/ Overflow Beds	Transitional Housing Beds (Current and New)	Permanent Supportive Housing Beds (Current and New)	Permanent Supportive Housing Beds Under Development
Households with Adult(s) and Children					
Households with Only Children					
Households with Only Adults					
Chronically Homeless Households					
Veterans					

Source: Housing Inventory Count (HIC) (Note: This source is incorrectly labeled in CPD Maps as Homeless Inventory Chart and will be updated in future CPD Maps release)

*Table correlates with screen MA-30 of the Market Analysis of the Consolidated Plan template.

HOPWA

The HOPWA data is only available for HOPWA target jurisdictions.

Current HOPWA Formula Data*
Cumulative cases of AIDS reported
Area incidence of AIDS
Rate per population
Number of new cases prior year (3 years of data)
Rate per population (3 years of data)

Source: CDC Surveillance Data

*Table correlates with screen NA-45 of the Needs Assessment of the Consolidated Plan template for HOPWA grantees.

Current HOPWA Surveillance Data*	
Number of Persons living with HIV (PLWH)	
Area Prevalence (PLWH per population)	
Number of new HIV cases reported last year	

Source: CDC HIV Surveillance Data

*Table correlates with screen NA-45 of the Needs Assessment of the Consolidated Plan template for HOPWA grantees.



Type of HOPWA Assistance*	Number of Units Designated or Available for People with HIV/AIDS and their families
Tenant based rental assistance	
Permanent housing in facilities	
Short-term Rent, Mortgage, and Utility	
Short-term or transitional housing facilities	
Permanent housing placement	

Source: HOPWA Grantee CAPER and HOPWA Beneficiary Verification Worksheet

*Table correlates with screen MA-35 of the Market Analysis of the Consolidated Plan template for HOPWA grantees.

Type of HOPWA Assistance*	Estimates of Unmet Need
Tenant based rental assistance	
Short-term Rent, Mortgage, and Utility	
Facility Based Housing (Permanent, short-term or transitional)	

Source: HOPWA Grantee CAPER and HOPWA Beneficiary Verification Worksheet

*Table correlates with screen NA-45 of the Needs Assessment of the Consolidated Plan template for HOPWA grantees.



APPENDIX 4: INFORMATION AVAILABLE THROUGH THE IDENTIFY TOOL

This appendix describes the information displayed for each map layer when using the identify tool. Depending on the variable, this may include additional information or aggregate data from multiple layers and layer categories onto a single display.

Layer Category	Map Layer(s)	Associated Identify Box Title	Identify Results
Transportation	MPO	MPO	<ul style="list-style-type: none"> • MPO Name • Physical Address City • State • Transportation Management Area
Transportation	Amtrak Lines	Amtrak	<ul style="list-style-type: none"> • Number of Tracks • Passenger Railroad Operations
Transportation	Transit Lines	Transit_link	<ul style="list-style-type: none"> • State FIPS • Transit Type • System • Routes Served • GRD_ELEV (Elevated) • Urbanized Area • Amtrak • Status • Source
Transportation	Transit Stations	Transit_sta	<ul style="list-style-type: none"> • Station Name • Street Address, City • Urbanized Area • Status of Station • Source of Data
Transportation	Amtrak Station	Amtrk_sta	<ul style="list-style-type: none"> • Name • Station Code • Station Address • City • State • Station Type



Layer Category	Map Layer(s)	Associated Identify Box Title	Identify Results
Environment	State Clean Water Needs Survey	CWNS Needs by State	<ul style="list-style-type: none"> • State • Septic Needs • Nonpoint Needs • WWTP Needs • WPipe Needs • CSO Storm Needs • WQ Total Needs
Environment	100 Year Flood Plain - Q3	NA	<ul style="list-style-type: none"> • NA
Environment	100 Year Flood Plain - DFIRM	NA	<ul style="list-style-type: none"> • NA
Environment	500 Year Flood Plain - Q3	NA	<ul style="list-style-type: none"> • NA
Activity and Property Locations-CDBG	<ul style="list-style-type: none"> • CDBG Activities Funding • CDBG Activities Count 	CDBG Activities	<ul style="list-style-type: none"> • Census Tract Number • Total Acquisition Count • Total Acquisition Funding • Total Housing Count • Total Housing Funding • Total Public Improvements Count • Total Public Improvements Funding • Total Public Services Count • Total Public Services Funding • Total Other Activities Count • Total Other Activities Funding • Total Activities • Total Funding
Activity and Property Locations-CDBG	<ul style="list-style-type: none"> • CDBG Acquisition Activities • CDBG Economic Development Activities • CDBG Housing Activities • CDBG Public Improvement Activities • CDBG Public Service Activities • CDBG Other Activities 	CDBG Activities	<ul style="list-style-type: none"> • Activity Name • Activity Type • Completion Date • Total Funds • Grantee Name



Layer Category	Map Layer(s)	Associated Identify Box Title	Identify Results
Activity and Property Locations-HOME	<ul style="list-style-type: none"> HOME Activities Funding HOME Activities Count HOME Homeownership Activities Funding HOME Homeownership Activities Count HOME Multifamily Activities Funding HOME Multifamily Activities Count 	HOME	<ul style="list-style-type: none"> Tract Total Count Total Funding Homebuyer Assistance Count Homebuyer Assistance Funding Homeowner Rehab Count Homeowner Rehab Funding Tenant-Based Rental Assistance Count Tenant-Based Rental Assistance Funding Multifamily Rental Count Multifamily Rental Funding
Activity and Property Locations-HOME	HOME Multifamily Activities	HOME	<ul style="list-style-type: none"> Grantee Name Total Units Total HOME Units Total HOME Funds Completion Date
Activity and Property Locations-Other	Voucher Concentration	Voucher Concentration	<ul style="list-style-type: none"> Number of Vouchers Vouchers as a % of Total Housing Units
Activity and Property Locations-Other	NSP Completed Activities	NSP Activity by Tract	<ul style="list-style-type: none"> Construction Activities Homebuyer Assistance Activities Demolition Activities Land Bank Activities Acquisition Activities Other Activities Total NSP Activities
Activity and Property Locations-Other	FHA REO Properties by Block Group	FHA REO	<ul style="list-style-type: none"> State, County, Tract, Block Group REO Count
Activity and Property Locations-Other	Public Housing Developments	Public Housing Development	<ul style="list-style-type: none"> Development Name Occupancy Rate Number of Units



Layer Category	Map Layer(s)	Associated Identify Box Title	Identify Results
Activity and Property Locations-Other	Low Income Housing Tax Credit (LIHTC) Properties	LIHTC Property	<ul style="list-style-type: none"> • Project Name • Total Number of Units • Total Number of Low-Income Units • Year Placed in Service • Total Dollar Amount of HOME Funds • Total Dollar Amount of CDBG Funds
Activity and Property Locations-Other	HUD Multifamily Properties	HUD Multifamily Properties	<ul style="list-style-type: none"> • Property Name • Number of Units • Number of Assisted Units
Activity and Property Locations-Other	USDA Rural Housing	USDA Rural Housing	<ul style="list-style-type: none"> • Rental Housing Type • Number of Units



Layer Category	Map Layer(s)	Associated Identify Box Title	Identify Results
Community Indicators-Economic Development Community Indicators-Demographic-General Community Indicators-Housing Supply	<ul style="list-style-type: none"> • % Point Change Unemployment Rate • Change in Housing Units • Change in Median Household Income • % Point Change in Poverty Rate • Change in Population • Change in Population by age • Change in Median Home Value • % Point Change in Vacancy Rate • % Point Change in Rental Vacancy Rate • % Point Change in Owner Vacancy Rate • Change in Occupied Units 	Census Tract Change 2000 to 2006-2010	<ul style="list-style-type: none"> • % Point Change in Unemployment Rate • % Point Change in Homeownership Rate • % Point Change in Vacancy Rate • % Point Change in Rental Vacancy Rate • % Point Change in For Sale Vacancy Rate • % Point Change in Poverty Rate • % Change in Population • % Change in Median Household Income • % Change in Housing Units • % Change in Households • % Change in Real Contract Rent • % Change in Real Median Home value • % Change in Population (age 0-17) • % Change in Population (age 18-24) • % Change in Population (age 25-64) • % Change in Population (age 65 and over)
Community Indicators-Economic Development Community Indicators-Demographic-General Community Indicators-Housing Need-Affordability	<ul style="list-style-type: none"> • Poverty Rate • % Commute Time > 60 minutes • Housing Cost Burden • % Unemployment • Median Household Income 	Socioeconomic	<ul style="list-style-type: none"> • Poverty Rate • % Commute Time > 60 minutes • Housing Cost Burden • Median Household Income • % Unemployment



Layer Category	Map Layer(s)	Associated Identify Box Title	Identify Results
Community Indicators-Economic Development	<ul style="list-style-type: none"> • Change in Total Jobs • Change in Construction Jobs • Change in Manufacturing Jobs • Change in Wholesale Trade Jobs • Change in Retail Trade Jobs • Change in Transportation and Warehousing Jobs • Change in Information Jobs • Change in Finance, Insurance, and Real Estate Jobs • Change in Professional, Scientific, and Management Services Jobs • Change in Education and Health Care Services Jobs • Change in Arts, Entertainment, Accommodations Jobs • Change in Agriculture, Mining, Oil and Gas Extraction Jobs • Change in Other Services Jobs 	LED	<ul style="list-style-type: none"> • Change in Total Jobs • Change in Construction Jobs • Change in Manufacturing Jobs • Change in Wholesale Trade Jobs • Change in Retail Trade Jobs • Change in Transportation and Warehousing Jobs • Change in Information Jobs • Change in Finance, Insurance, and Real Estate Jobs • Change in Professional, Scientific, and Management Services Jobs • Change in Education and Health Care Services Jobs • Change in Arts, Entertainment, Accommodations Jobs • Change in Agriculture, Mining, Oil and Gas Extraction Jobs • Change in Other Services Jobs



Layer Category	Map Layer(s)	Associated Identify Box Title	Identify Results
Community Indicators- Demographic	<ul style="list-style-type: none"> • Average Household Size • Total Households • % Non-English Speaking • All Race/Ethnicity layers 	Demographic	<ul style="list-style-type: none"> • White alone (not Hispanic) • Black or African American alone (not Hispanic) • American Indian / Alaskan Native alone (not Hispanic) • Asian alone (not Hispanic) • Native Hawaiian / Pacific Islander alone (not Hispanic) • Some other race alone (not Hispanic) • Two or more races (not Hispanic) • Persons of Hispanic origin • Total Households • Average Household Size • % Non-English Speaking
Community Indicators – Demographic - Other	<ul style="list-style-type: none"> • HIV Rates by County per 100,000 Population 	HIV Rates by County per 100,000 Population	<ul style="list-style-type: none"> • Rate per 100,000 Population • County Name • Disease • Year • Race • Sex • Age Group • Transmission Category • Population • Cases



Layer Category	Map Layer(s)	Associated Identify Box Title	Identify Results
Community Indicators- Housing Supply	<ul style="list-style-type: none"> • % Rental Housing Built Before 1980 • % Rental Housing Built Before 1949 • Median Home Value • % Owner Occupied Housing • Median Contract Rent • % Renter Occupied Housing • Vacancy Rate • % Renter Units with 3 or more Bedrooms • % Owner Units with 3 or more Bedrooms • % of Structures with 5-19 Units • % of Structures with 20 or more Units 	Housing	<ul style="list-style-type: none"> • % Renter Occupied Housing • Median Contract Rent • Vacancy Rate • % Rental Housing Built Before 1949 • % of Structures with 20 or more Units • % Rental Housing Built Before 1980 • % Owner Occupied Housing • % Renter Units with 3 or more Bedrooms • Median Home Value • % Owner Units with 3 or more Bedrooms • % of Structures with 5-19 Units



Layer Category	Map Layer(s)	Associated Identify Box Title	Identify Results
<p>Community Indicators- Housing Need- Affordability</p> <p>Community Indicators- Housing Need- Extremely Low Income</p> <p>Community Indicators- Housing Need- Low Income</p> <p>Community Indicators- Housing Need- Moderate Income</p>	All Housing Need layers	CHAS	<ul style="list-style-type: none"> • % of Moderate Income (MI) Households With Overcrowding • % of Owner Units Affordable to 100% HAMFI • % of Renter units Affordable to 50% HAMFI • % of MI Households with Substandard Housing • % Renter units Affordable to 30% HAMFI • % Owner units Affordable to 80% HAMFI • Moderate Income Households (0-80% AMI) • Low Income Households (0-50% AMI) • % of Moderate Income (MI) Households With Any of the Four Severe Housing Problems • % of Owner Units Affordable to 50% HAMFI • % of Low Income (LI) Households with Severe Cost Burden • % of Low Income (LI) Households with Substandard Housing • % of Renter units Affordable to 80% HAMFI# • % of Low Income (LI) Households with Overcrowding • % of Low Income (LI) Households with Any of the Four Severe Housing Problems • % of MI households with Severe Cost Burden



Layer Category	Map Layer(s)	Associated Identify Box Title	Identify Results
Boundaries-Grantee Boundaries	<ul style="list-style-type: none"> • CDBG Grantee • HOME Grantee • ESG Grantee • HOPWA Grantee 	<ul style="list-style-type: none"> • CDBG Grantee • HOME Grantee • ESG Grantee • HOPWA Grantee 	<ul style="list-style-type: none"> • Grantee Name • CDBG Amount • HOME Amount • ESG Amount • HOPWA Amount • Program Year
Boundaries-Grantee Boundaries	<ul style="list-style-type: none"> • CoC 	<ul style="list-style-type: none"> • CoC Grantee 	<ul style="list-style-type: none"> • Continuum of Care Name • CoC Code • Pro Rata Need
Boundaries-Grantee Boundaries	<ul style="list-style-type: none"> • UGLG 	<ul style="list-style-type: none"> • UGLG Grantee 	<ul style="list-style-type: none"> • Unit of General Local Government Name • Sum Level • UGLG Key
Boundaries-Other	<ul style="list-style-type: none"> • NSP1 Target Areas • NSP2 Target Areas • NSP3 Target Areas 	<ul style="list-style-type: none"> • NSP1 Target Area • NSP2 Target Area • NSP3 Target Area 	<ul style="list-style-type: none"> • Grantee Name • NSP Grant # • Grant Amount
Boundaries-Other	SCRIP Grantees	SCRIP Grantees	<ul style="list-style-type: none"> • Grant Number • Applicant • City and State • Status • Funding
Boundaries-Other	Choice Grantees	Choice Grantees	<ul style="list-style-type: none"> • Grant Number • Lead Applicant • Co-Applicant • Project City and State • Existing PHA Development • Grant Type • Grant Year
Boundaries-Other	Census Tracts	Census Tract	<ul style="list-style-type: none"> • Census Tract Number
Boundaries-Other	Low-Mod Census Tracts	Low-Mod Tract	<ul style="list-style-type: none"> • Census Tract Number • % Low-Mod
Boundaries-Other	Congressional District	113th Congressional Districts	<ul style="list-style-type: none"> • State • District Number • Current Representative



Layer Category	Map Layer(s)	Associated Identify Box Title	Identify Results
Boundaries-Other	Qualified Census Tracts	Qualified Census Tracts	<ul style="list-style-type: none"> Qualified Tract
Boundaries-Other	Difficult to Develop Areas	Difficult to Develop Areas	<ul style="list-style-type: none"> Name Metro Name
Boundaries-Other	Rural Innovation Fund	RIF Grantee	<ul style="list-style-type: none"> Grantee Grant Type Grant Amount
Boundaries-Other	Communities Containing Colonias	Colonias Communities	<ul style="list-style-type: none"> Name
Boundaries-Other	Challenge Grantees	Challenge Grantees	<ul style="list-style-type: none"> Grant Number Legal name Street Address, City, State, and Zip HUD Funding DOT Funding Total award Leverage Type Status
Other - Other	<ul style="list-style-type: none"> Census Tract Labels 113th Congressional Districts Labels 	NA	<ul style="list-style-type: none"> NA