

# Data Visualization in the NEW American FactFinder

Association of Public Data Users  
Annual Conference

September 21, 2011



# After viewing this presentation, you will be able to:

- 1. Create a Reference Map
- 2. Use Mapping Tools
- 3. Use Boundaries and Features
- 4. Find a Location
- 5. Use Map Markers
- 6. Map Data (Thematic Map)



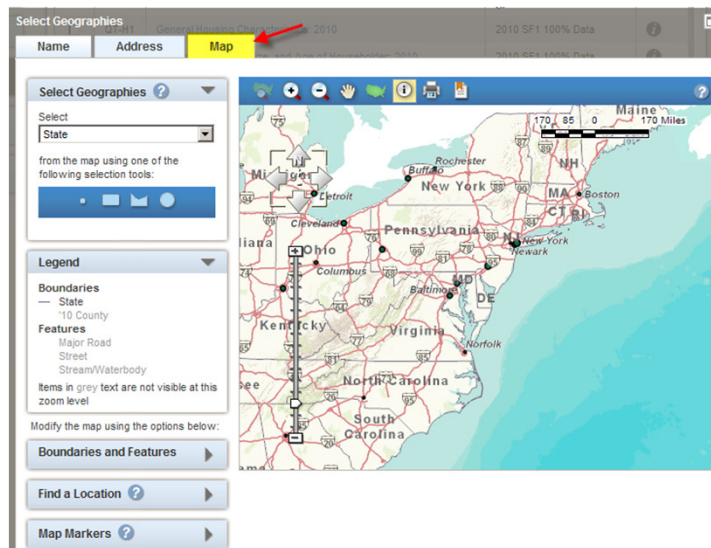
# Create a Reference Map

There are two ways to create a Reference Map, the first way:

- From the Main page, select Geographies:
  - Select Map tab

This sidebar contains several sections for user selection:

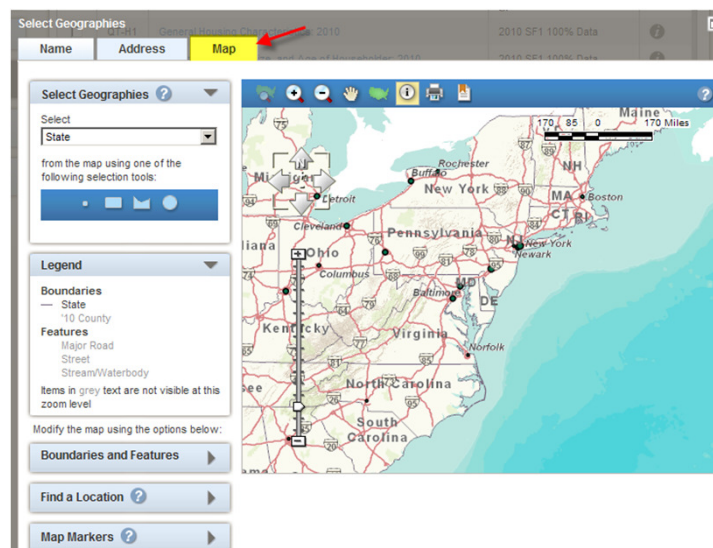
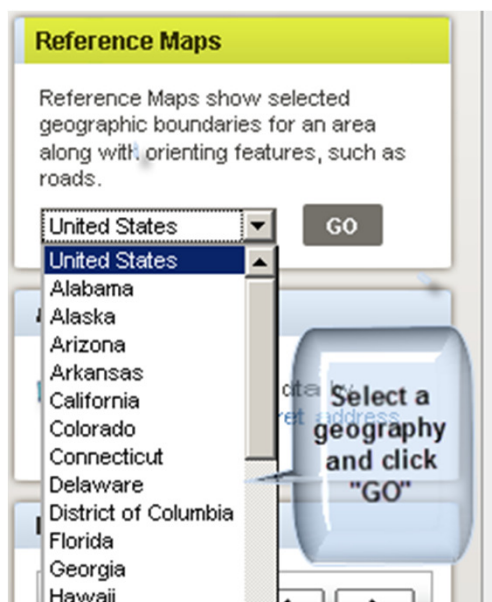
- Your Selections**: A section indicating that no selections have been made yet.
- Search within Results for...**: A search input field with a 'GO' button.
- Topics**: A button with a question mark icon and a right-pointing arrow.
- Geographies**: A button with a right-pointing arrow, labeled with '(states, counties, places,...)'.
- Population Groups**: A button with a right-pointing arrow, labeled with '(race, ancestry,...)'.
- Industry Codes**: A button with a right-pointing arrow, labeled with '(NAICS,...)'.



# Create a Reference Map

The second way to create a Reference Map:

- From the right-hand Main page Reference Maps link:



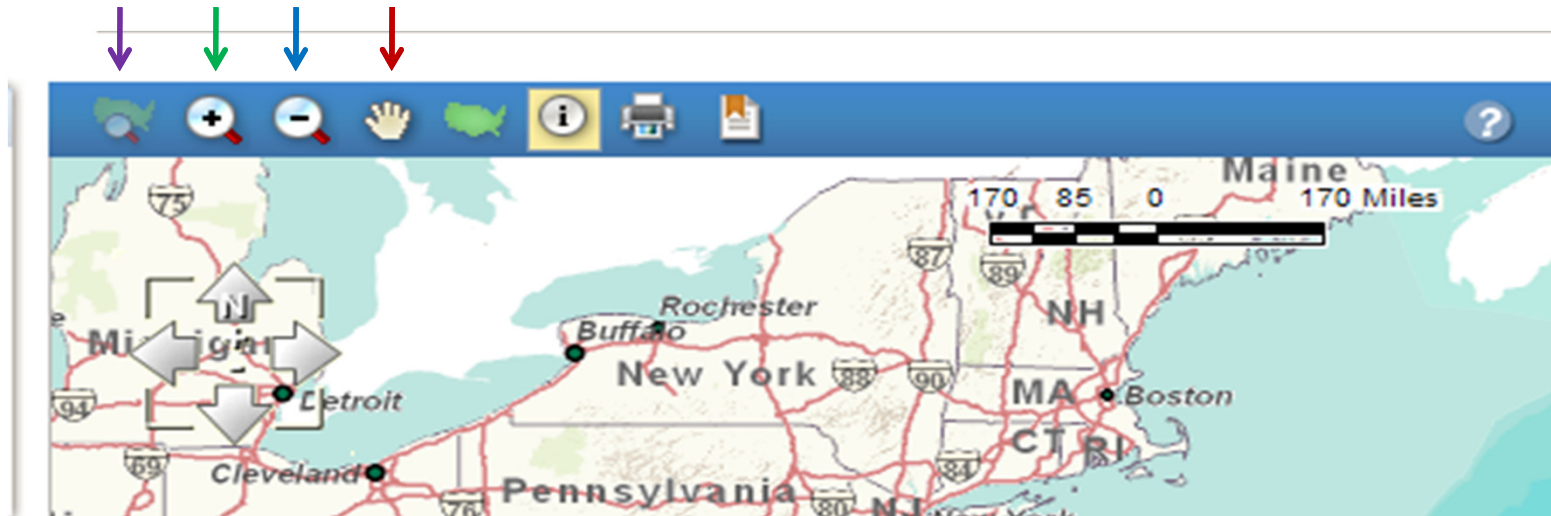
# Mapping Tools

**Zoom to state** – this becomes available when viewing the national map

**Zoom in** – choose and define an area to zoom into

**Zoom out** – choose and define an area to zoom out

**Pan** – click and drag the map around





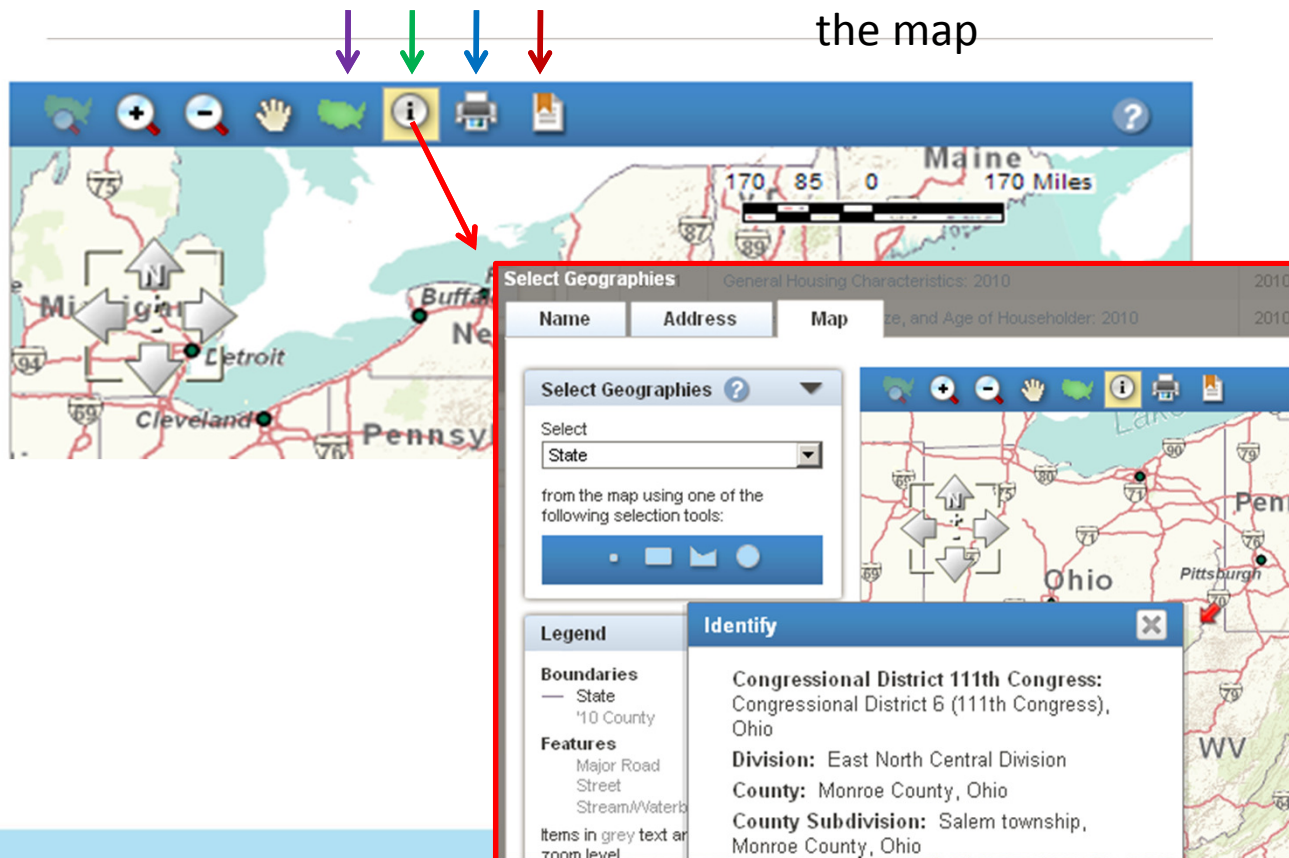
# Mapping Tools Con't

**U.S. Map view** - takes you to the Nation view

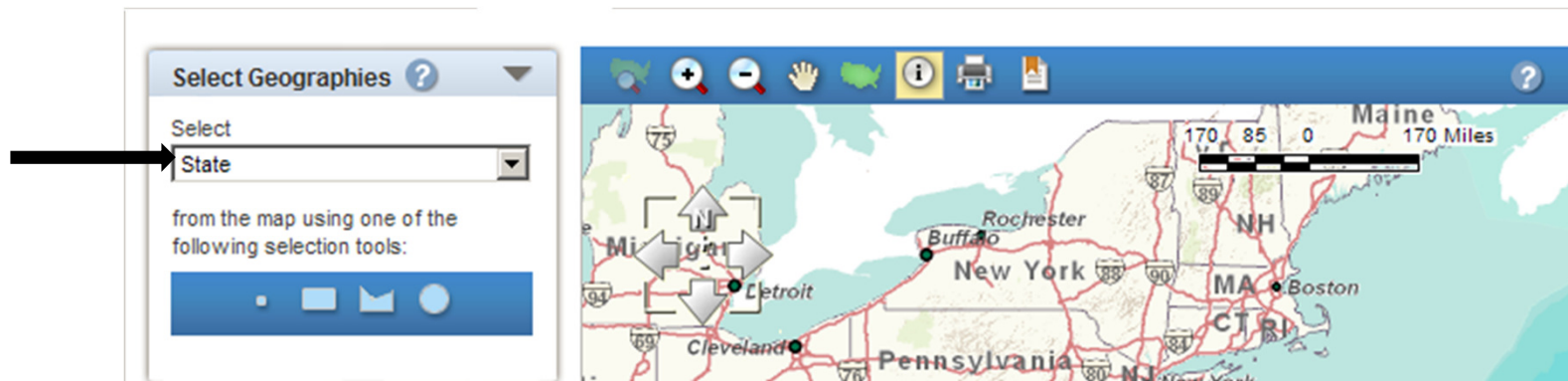
**Identify** – double click a place on the map

**Print** – Opens a .PDF allowing you to print or save the map

**Bookmark / Save query**



# Mapping Tools – Select Geographies



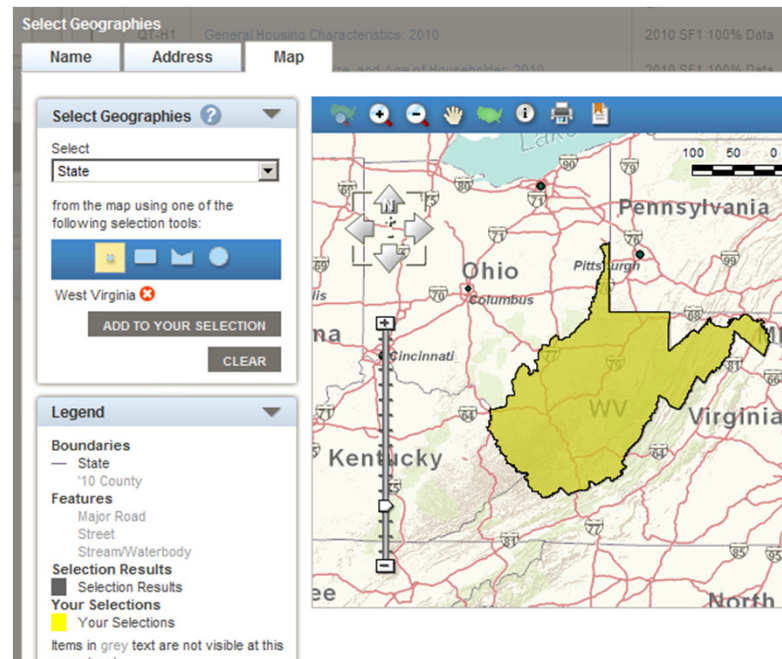
## Selection tools

The selection tool is based on the Select pull-down. State, County and County Subdivision are some of the available options, you can also select the blocks if you zoom in. The options change as you zoom in/out.



# Select Geographies – Point Tool

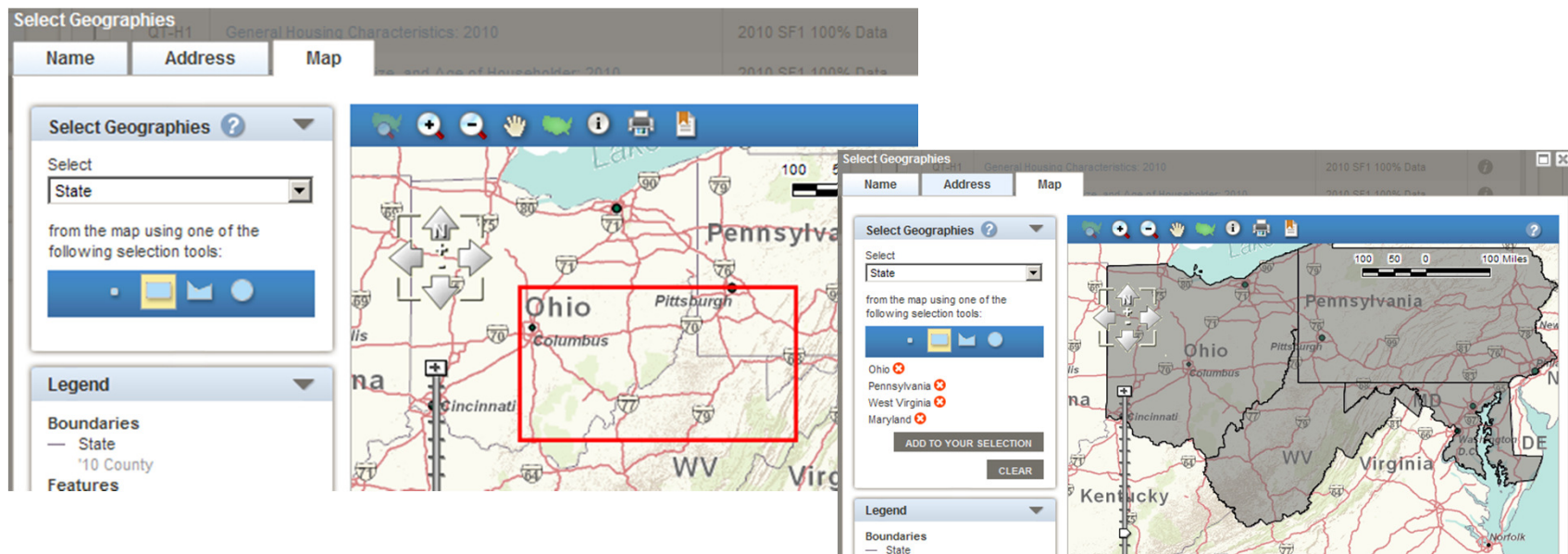
With “State” in Select and using the left most tool, click on West Virginia. West Virginia is highlighted in yellow and the selection is listed in the left panel with a red X, In Addition, there are now two gray boxes that allow you to either “add to your selection” or “clear”.





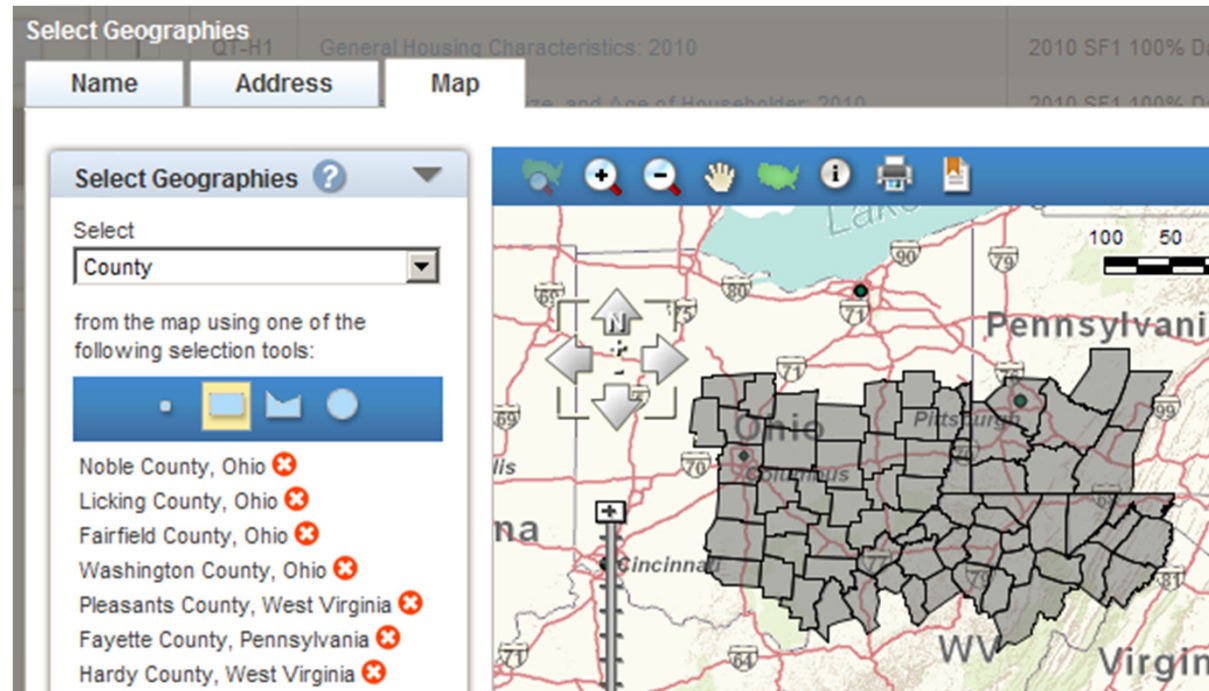
# Select Geographies – Rectangle Tool

With “State” in Select and using the second tool from the left, click just above and to the left of the “O” in Ohio, move the mouse down and to the right. Then, click to make your selection. In this example, we have selected Ohio, West Virginia, Maryland and Pennsylvania.



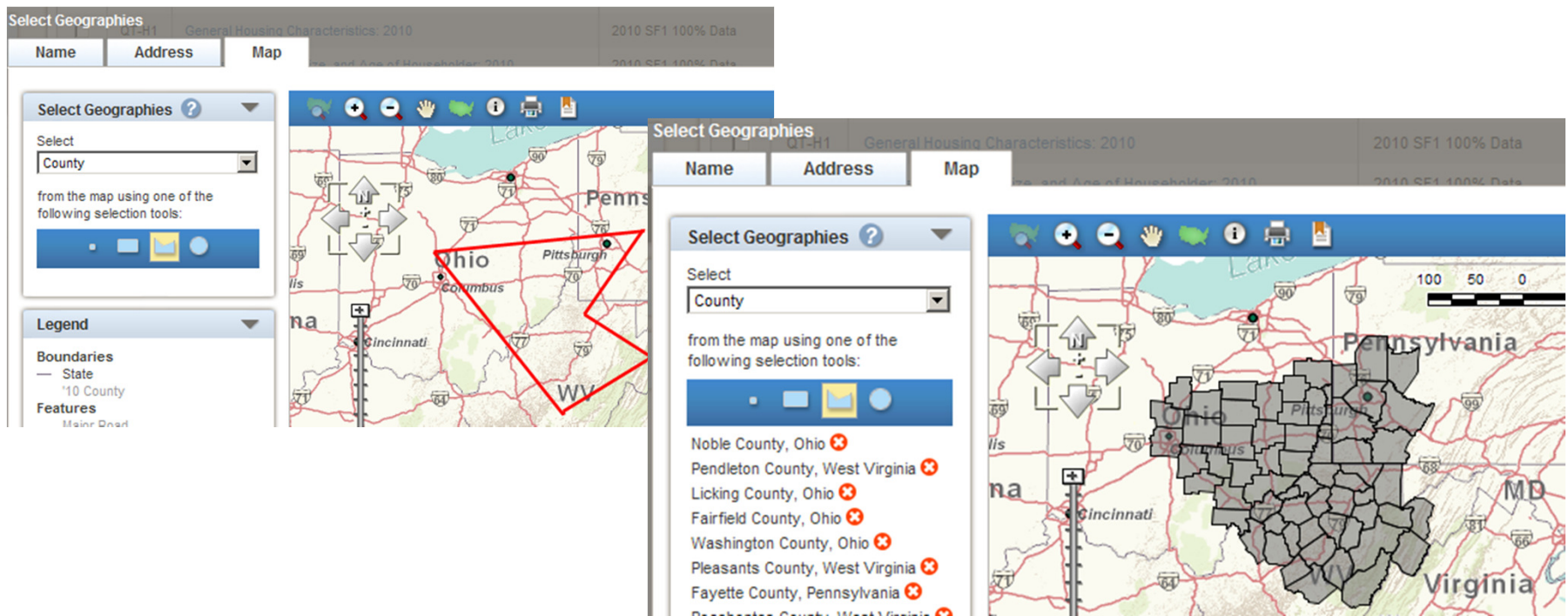
# Select Geographies – Select Counties

Let us use the same tool with a different choice in the Select Drop-down, choose County. Now when you draw the box, the counties are selected. Individual counties can be removed by clicking the red “X” next to the county you wish to remove.



# Select Geographies – Polygon Tool

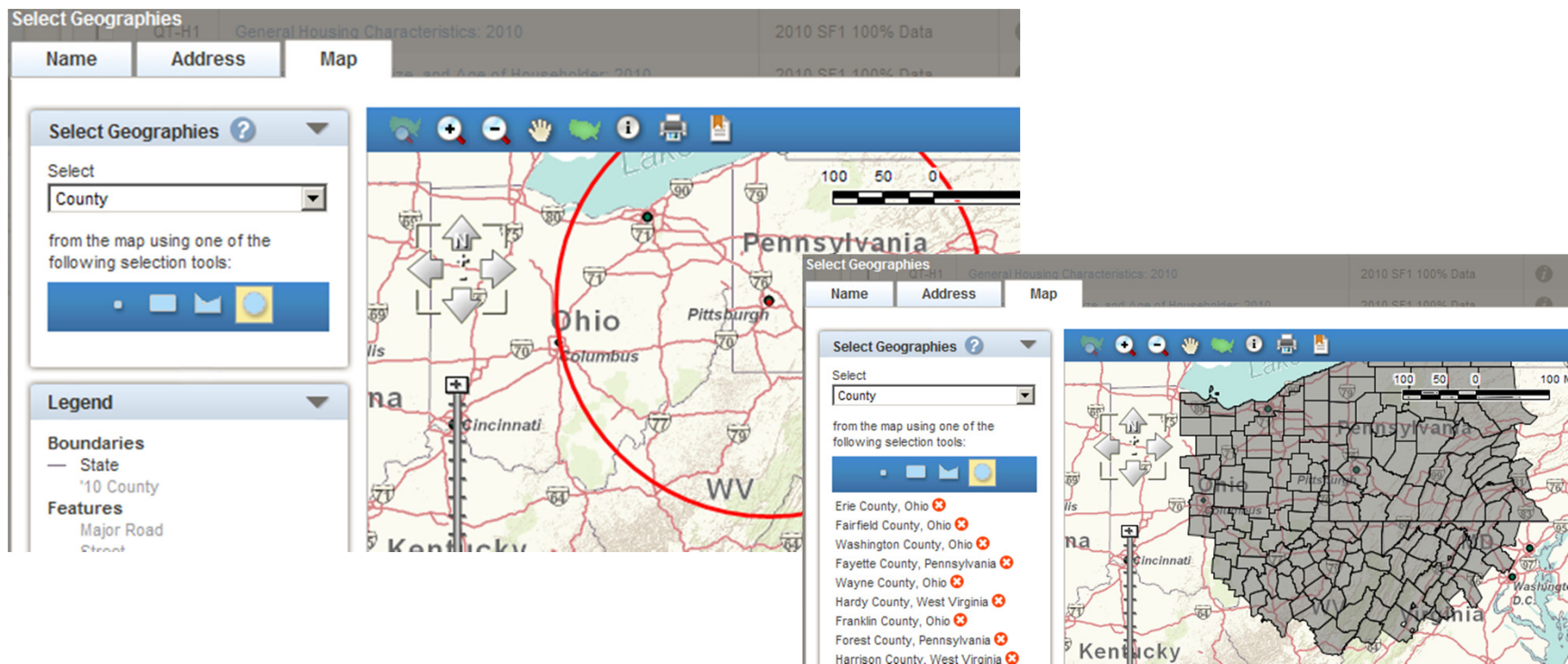
The third tool allows us to make a custom selection shape, to end the drawing double click, this has allowed me to avoid Maryland.





# Selection Geographies – Circle Tool

The tool to the far right allows us to make a selection based on a center point and expanding, lets click on Pittsburgh and pull the tool out to the left and click Columbus.





# Boundaries and Features

Take note that you can select different years. Current years are 2000, 2007, 2008 and 2010.

**Select Geographies** ?

Select  
State

from the map using one of the following selection tools:

**Legend**

**Boundaries**

- State
- '10 County

**Features**

- Major Road
- Street
- Stream/Waterbody

Items in grey text are not visible at this zoom level

Modify the map using the options below:

**Boundaries and Features**

**Display Boundaries and Features from** 2010 ?

**Boundaries** **Features**

Boundary	Label	Name
<input type="checkbox"/>	<input type="checkbox"/>	Region
<input type="checkbox"/>	<input type="checkbox"/>	Division
<input type="checkbox"/>	<input type="checkbox"/>	2010 County Subdivision
<input type="checkbox"/>	<input type="checkbox"/>	2010 Subbarrio
<input type="checkbox"/>	<input type="checkbox"/>	2010 Block
<input type="checkbox"/>	<input type="checkbox"/>	2010 Census Tract
<input type="checkbox"/>	<input type="checkbox"/>	2010 Block Group
<input type="checkbox"/>	<input type="checkbox"/>	2010 Place
<input type="checkbox"/>	<input type="checkbox"/>	2010 Consolidated City
<input type="checkbox"/>	<input type="checkbox"/>	2010 Alaska Native Regional Corpor
<input type="checkbox"/>	<input type="checkbox"/>	2010 American Indian Area/Alaska t Land
<input type="checkbox"/>	<input type="checkbox"/>	2010 Tribal Subdivision

# Boundaries and Features

As you make selections, notice that the label selections are independent of the Boundaries and the Features selections.

Display Boundaries and Features from 2010

**Boundaries** **Features**

Boundary	Label	Name
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Region
<input type="checkbox"/>	<input type="checkbox"/>	Division
<input type="checkbox"/>	<input type="checkbox"/>	2010 County Subdivision
<input type="checkbox"/>	<input type="checkbox"/>	2010 Subbarrio
<input type="checkbox"/>	<input type="checkbox"/>	2010 Block
<input type="checkbox"/>	<input type="checkbox"/>	2010 Census Tract
<input type="checkbox"/>	<input type="checkbox"/>	2010 Block Group
<input type="checkbox"/>	<input type="checkbox"/>	2010 Place
<input type="checkbox"/>	<input type="checkbox"/>	2010 Consolidated City

Select Geographies

Name Address Map

Select Geographies ?

Select State

from the map using one of the following selection tools:

Legend

**Boundaries**

☐ State

☐ '10 County

☐ '10 Block

**Features**

☐ Major Road

☐ Street

☐ Stream/Waterbody

☐ Airport

Items in grey text are not visible at this zoom level

Modify the map using the options below:

**Boundaries and Features**

Find a Location ?

Display Boundaries and Features from 2010

**Boundaries** **Features**

Feature	Label	Name
<input type="checkbox"/>	<input type="checkbox"/>	Jeep Trail
<input type="checkbox"/>	<input type="checkbox"/>	Alley, Walkway
<input type="checkbox"/>	<input type="checkbox"/>	Railroad
<input type="checkbox"/>	<input type="checkbox"/>	Pipeline, Powerline
<input type="checkbox"/>	<input type="checkbox"/>	Military Installation
<input type="checkbox"/>	<input type="checkbox"/>	Hospital
<input type="checkbox"/>	<input type="checkbox"/>	Jail
<input type="checkbox"/>	<input type="checkbox"/>	School
<input type="checkbox"/>	<input type="checkbox"/>	Church
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Airport
<input type="checkbox"/>	<input type="checkbox"/>	Lookout Tower
<input type="checkbox"/>	<input type="checkbox"/>	Golf Course
<input type="checkbox"/>	<input type="checkbox"/>	Cemetery

CLEAR ALL

UPDATE CLOSE

# Boundaries and Features

You will need to click update for your selections to show on the map.

The screenshot displays the 'Select Geographies' interface, which is used for selecting boundaries and features for a map. The interface is divided into several sections:

- Display Boundaries and Features from:** A dropdown menu set to '2010'.
- Boundaries:** A table with columns 'Boundary', 'Label', and 'Name'. It lists various geographic levels with checkboxes for selection.
- Features:** A table with columns 'Feature', 'Label', and 'Name'. It lists various features with checkboxes for selection.
- Legend:** A section showing the visual representation of the selected boundaries and features.
- Buttons:** 'UPDATE' and 'CLOSE' buttons are located at the bottom right of the interface.

The 'Boundaries' table is as follows:

Boundary	Label	Name
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Region
<input type="checkbox"/>	<input type="checkbox"/>	Division
<input type="checkbox"/>	<input type="checkbox"/>	2010 County Subdivision
<input type="checkbox"/>	<input type="checkbox"/>	2010 Subbarrio
<input type="checkbox"/>	<input type="checkbox"/>	2010 Block
<input type="checkbox"/>	<input type="checkbox"/>	2010 Census Tract
<input type="checkbox"/>	<input type="checkbox"/>	2010 Block Group
<input type="checkbox"/>	<input type="checkbox"/>	2010 Place
<input type="checkbox"/>	<input type="checkbox"/>	2010 Consolidated

The 'Features' table is as follows:

Feature	Label	Name
<input type="checkbox"/>	<input type="checkbox"/>	Jeep Trail
<input type="checkbox"/>	<input type="checkbox"/>	Alley, Walkway
<input type="checkbox"/>	<input type="checkbox"/>	Railroad
<input type="checkbox"/>	<input type="checkbox"/>	Pipeline, Powerline
<input type="checkbox"/>	<input type="checkbox"/>	Military Installation
<input type="checkbox"/>	<input type="checkbox"/>	Hospital
<input type="checkbox"/>	<input type="checkbox"/>	Jail
<input type="checkbox"/>	<input type="checkbox"/>	School
<input type="checkbox"/>	<input type="checkbox"/>	Church
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Airport
<input type="checkbox"/>	<input type="checkbox"/>	Lookout Tower
<input type="checkbox"/>	<input type="checkbox"/>	Golf Course
<input type="checkbox"/>	<input type="checkbox"/>	Cemetery

The 'Legend' section shows the following items:

- Boundaries:**
  - ☐ State
  - ☐ '10 County
  - ☐ '10 Block
- Features:**
  - ☐ Major Road
  - ☐ Street
  - ☐ Stream/Waterbody
  - ☐ Airport

Items in grey text are not visible at this zoom level.

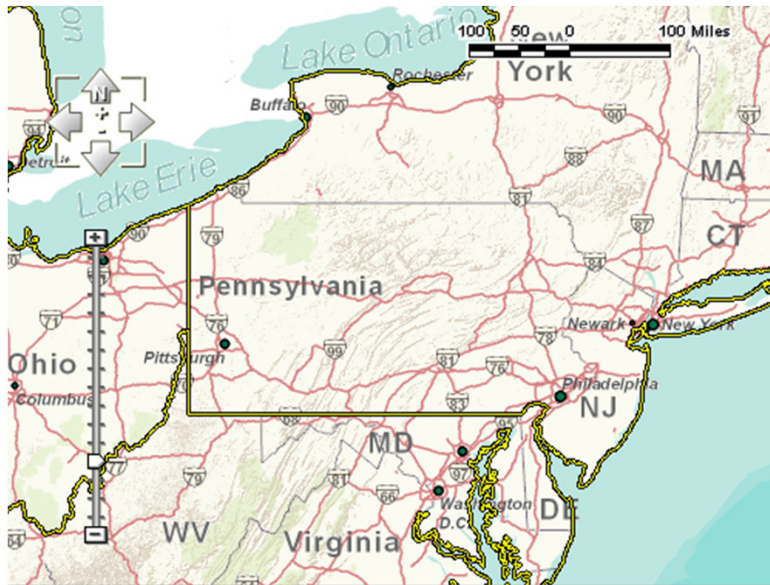
Modify the map using the options below:

**Boundaries and Features**

**Buttons:** 'CLEAR ALL', 'UPDATE', 'CLOSE'.

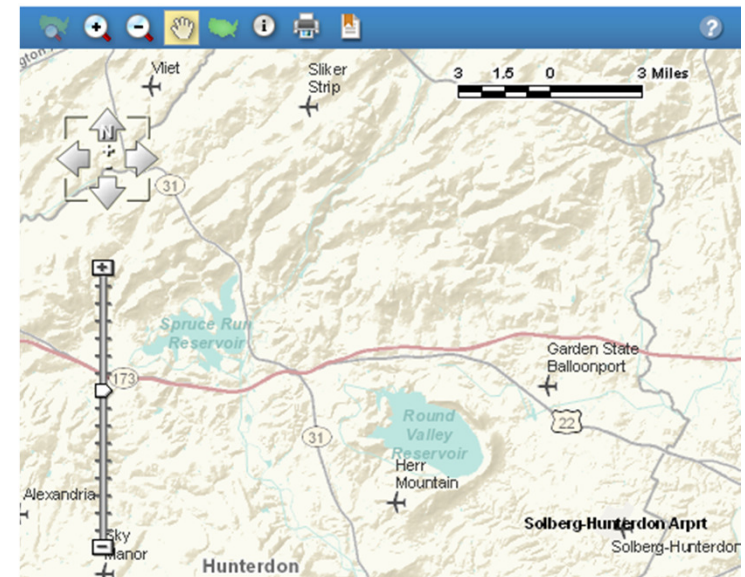
# Boundaries and Features

Boundaries



Notice the outline  
around the regions

Features



When you zoom you can see  
the features; in this example  
airports





# Find a Location

The image displays the Google Maps search interface. On the left, a partial view of the search bar shows the 'Find by' dropdown menu open, with 'place name' selected. Below it, a list of search options is visible: 'place name', 'address', and 'latitude / longitude'. To the right, a full view of the search bar is shown, including fields for 'street address', 'city', 'state', and 'zip', along with a 'GO' button.

The Find a Location, Find by drop down has three options. They are place name, Address, latitude/longitude. Let's use the address option.

# Find a Location

**Boundaries and Features** ▶

**Find a Location ?** ▼

Find by  
address ▼

Reposition the map using a street address:

street address  
city  
state  
-- select

**Find a Location ?** ▼

Find by  
address ▼

Reposition the map using a street address:

street address  
4600 Silver Hill Rd

city  
Suitland

state  
Maryland ▼

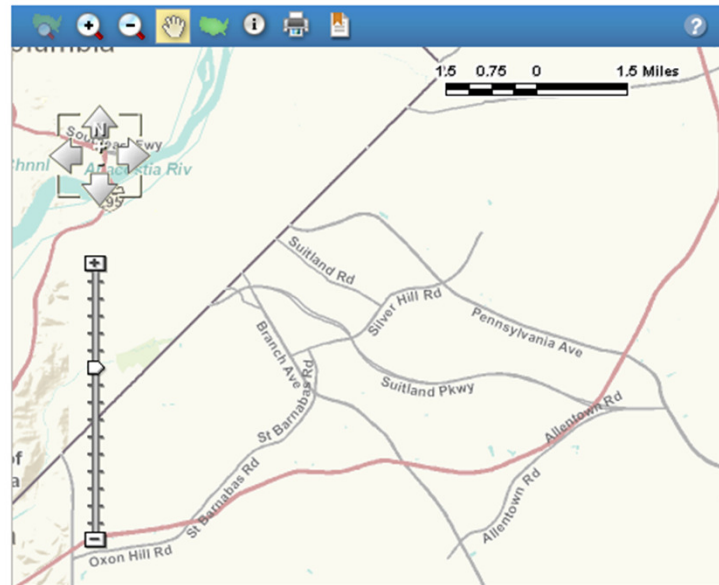
zip  
20746

GO

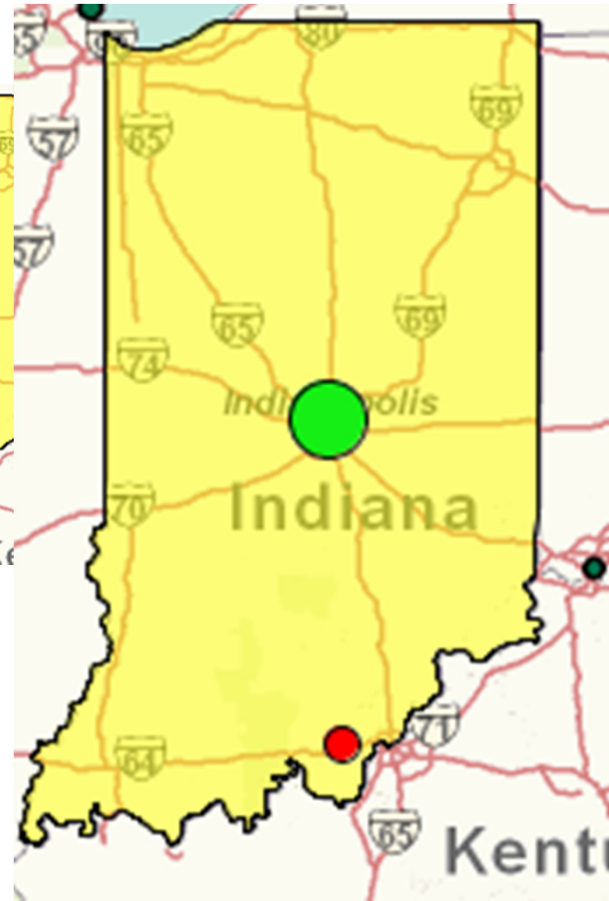
Click

**Map Markers ?** ▶

Fill in the address and click GO.  
Your map will zoom to that address  
as seen below, Place and Lat/Long  
work the same way.



# Map Markers



Place a point –  
used to designate a  
reference point, you  
can change the color  
and size

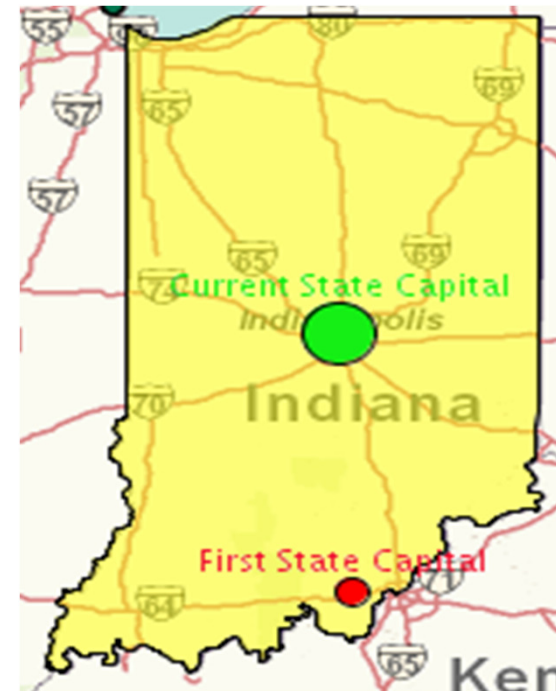


# Map Markers



Undo last mark – this allows you to remove the last marker you added  
Clear all markers – selecting this tool removes all markers

Add Text – select your color and size; then, enter your text; Click on the map to place the text





# Mapping Data

To map data, you must have a table containing at least two or more “like” geographies, i.e.,. two cities, two counties, two states...you get the idea.



# Mapping Data

For our example, we are going to select two States; Indiana and Kentucky using the 2010 Census table P1 Race (PL 94-171) . From this point, click on Create a Map

U.S. Census Bureau AMERICAN FactFinder

MAIN SEARCH WHAT WE PROVIDE USING FACTFINDER Feedback FAQs Glossary Help

Results - Click [Back to Search](#) to select other tables or geographies

[BACK TO SEARCH](#) Result 1 of 1 [VIEW ALL](#)

P1 RACE  
Universe: Total population ⓘ  
2010 Census Redistricting Data (Public Law 94-171) Summary File

Table View [Map View](#)

Actions: [Modify Table](#) [Bookmark](#) [Download](#) [Create a Map](#) [View Table Notes](#)

NOTE: For information on confidentiality protection, nonsampling error, and definitions, see <http://www.census.gov/prod/cen2010/pl94-171.pdf>

NOTE: Change to the California, Connecticut, Mississippi, New Hampshire, Virginia, and Washington P. L. 94-171 Summary Files as delivered.

	Indiana	Kentucky
Total:	6,483,802	4,339,367

# Mapping Data

Notice the Create a Map is blue along with the data in the columns of our table, the other table actions are grayed out.

Table View

Map View

Actions: [Modify Table](#) | [Bookmark](#) | [Download](#) | [Create a Map](#)

To select a data item for your Thematic Map, move the mouse cursor over the table and click a cell. [?](#)  
Click [Cancel](#) to return to the Table View with no Map View selected.

[View Table Notes](#)

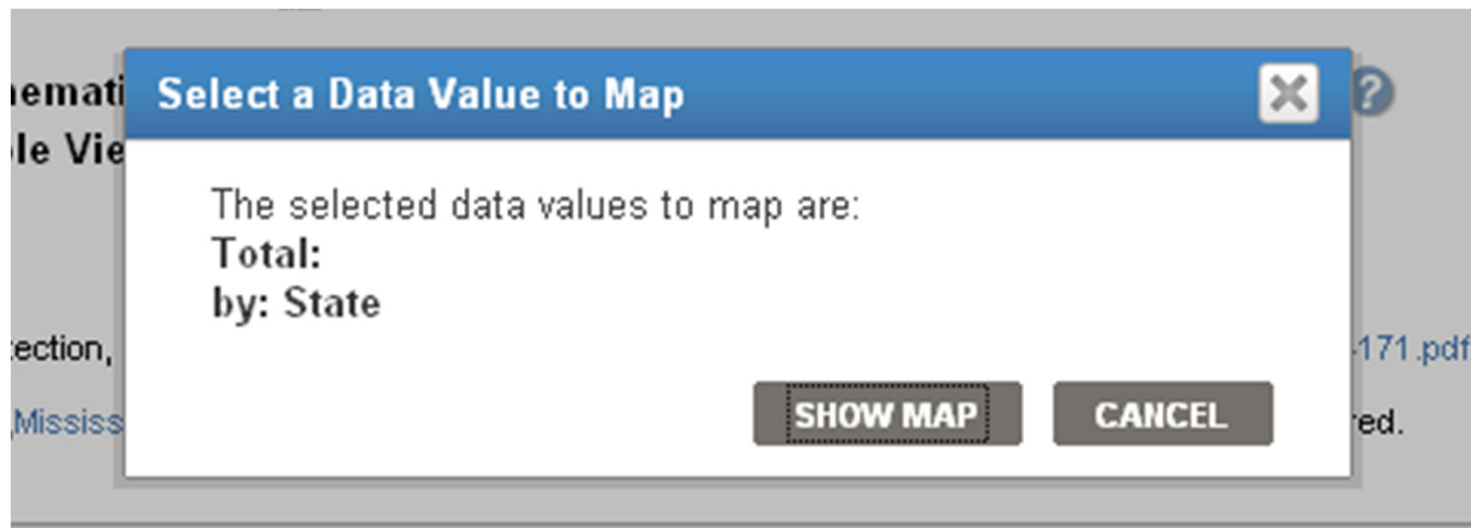
NOTE: For information on confidentiality protection, nonsampling error, and definitions, see <http://www.census.gov/prod/cen2010/pl94-171.pdf>  
NOTE: Change to the [California, Connecticut, Mississippi, New Hampshire, Virginia, and Washington P. L. 94-171 Summary Files as delivered.](#)

	Indiana	Kentucky
Total:	6,483,802	4,339,367
Population of one race:	6,355,901	4,264,159
White alone	5,467,906	3,809,537
Black or African American alone	591,397	337,520
American Indian and Alaska Native alone	18,462	10,120

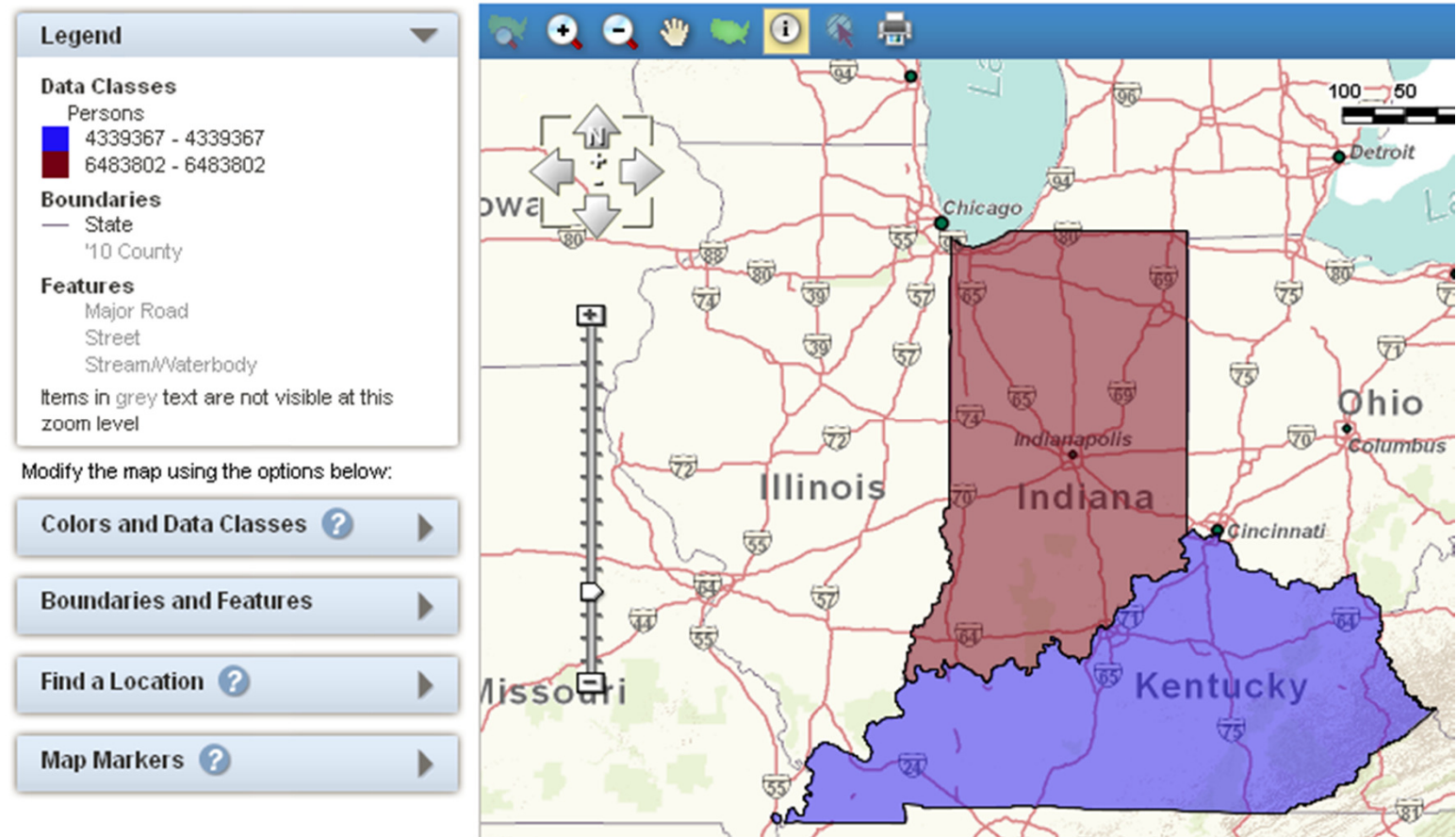


# Mapping Data

Clicking on the total population of Indiana this popup is displayed, click Show Map



# Mapping Data



# Mapping Data

Notice the Select Geographies function is only available for Reference Maps

## Reference Map

**Select Geographies ?**

Select

State

from the map using one of the following selection tools:

• □ ✉ ●

**Legend**

**Boundaries**

- State
- '10 County

**Features**

- Major Road
- Street
- Stream/Waterbody

Items in grey text are not visible at this zoom level

## Thematic Map

**Legend**

**Data Classes**

- Persons
- 601723 - 601723
- 5773552 - 5773552

**Boundaries**

- State
- '10 County

**Features**

- Major Road
- Street
- Stream/Waterbody

Items in grey text are not visible at this zoom level



# Mapping Data

Notice the addition of the Colors and Data Classes option. This option is not available for Reference Maps.

## Reference Map

Modify the map using the options below:

Boundaries and Features ▶

Find a Location ? ▶

Map Markers ? ▶

## Thematic Map

Modify the map using the options below:

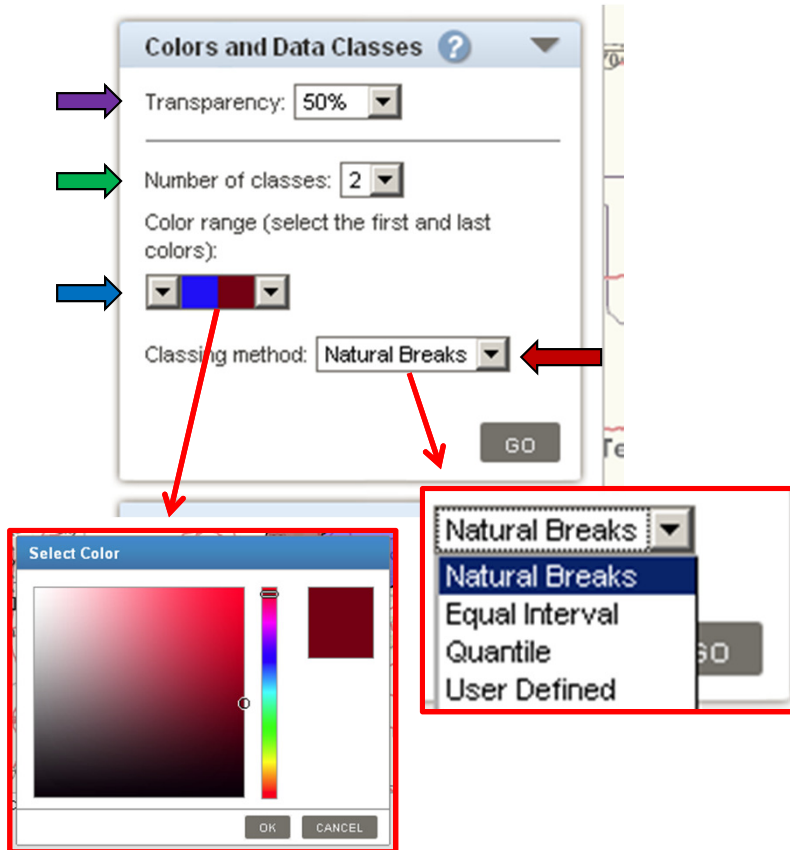
Colors and Data Classes ? ▶

Boundaries and Features ▶

Find a Location ? ▶

Map Markers ? ▶

# Mapping Data



**Transparency**- the lower the transparency, the more detail you will see on your map and thus the higher the transparency, the less detail you will see on your map.

**Number of classes** – Since we only have two states, the options are limited to two, if you were looking at multiple counties in multiple states, your choices increase to seven.

**Color Range** – this option is tied to the number of classes - the color range is endless, so find what works best for you. To change the color, select one of the dropdowns. Select your color, then use the other dropdown to select the color for that end of the scale.

**Classing method** - the options are Natural Breaks, Equal Interval, Quantile and User Defined the default is Natural Breaks.

# Mapping Data

**Colors and Data Classes ?**

Transparency: 50%

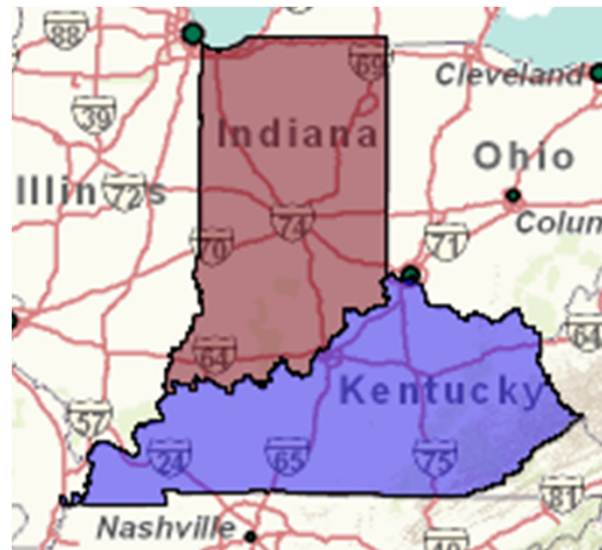
Number of classes: 2

Color range (select the first and last colors):

Classing method: Natural Breaks

GO

**GO** – applies all the options you have selected





# Questions & Answers

