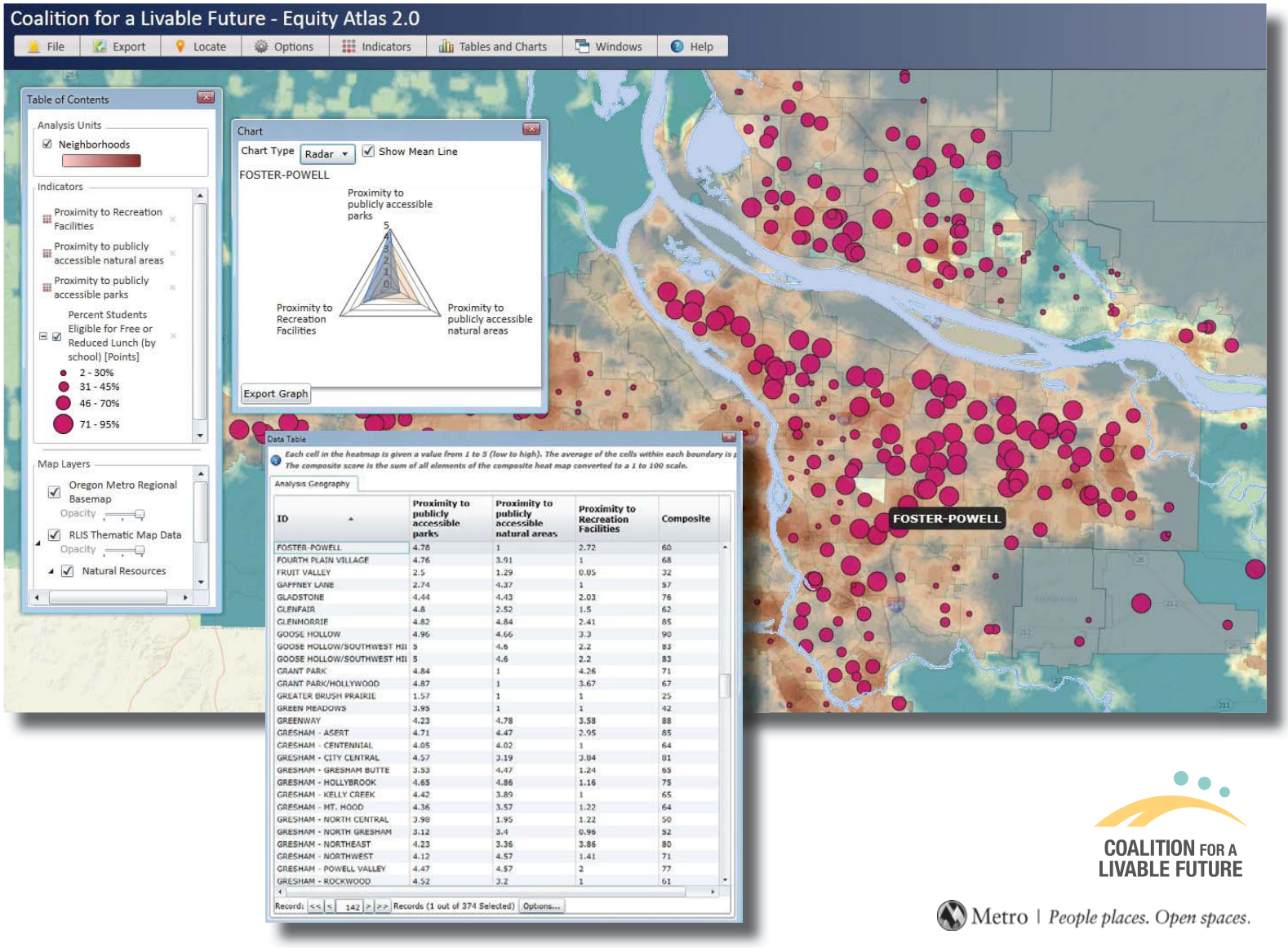
Regional Equity Atlas 2.0
Mapping Tool User Guide

Powered by Metro's Context Tool Engine

Coalition for a Livable Future
Equity Atlas 2.0
Powered by Metro DRC Context Tool Engine



COALITION FOR A LIVABLE FUTURE

Metro | People places. Open spaces.

Institute of Portland Metropolitan Studies

Portland State UNIVERSITY

Welcome to CLF's Regional Equity Atlas 2.0!

In 2007, the Coalition for a Livable Future (CLF) launched the nation's first Regional Equity Atlas, an analysis of equity conditions for the Portland-Vancouver metropolitan region that recognized the importance of place to the understanding of equity and the power of maps to communicate disparities across geography. The resulting analysis was a book of maps and data, in other words, an atlas.

This second edition of the Regional Equity Atlas enters the digital age not only as a website serving flat maps but as a powerful interactive, visual and analytical tool, powered by the Metro Data Resource Center's Context Tool Engine. The Regional Equity Atlas 2.0 Mapping Tool can be accessed online at: **https://gis.oregonmetro.gov/equityAtlas/**

The purpose of this user guide is to provide you with an roadmap of the tool and suggest ways to approach it. It focuses on three key elements that once explored, will help you to utilize the tool more effectively. These elements are:

- **Equity Atlas Road Map:** graphically illustrates the options that are available to you as you work through your mapping process.

- **Toolbar Dropdown Menus**: these dropdown menus provide access to all of the tools and contents of the Atlas Mapping Tool.

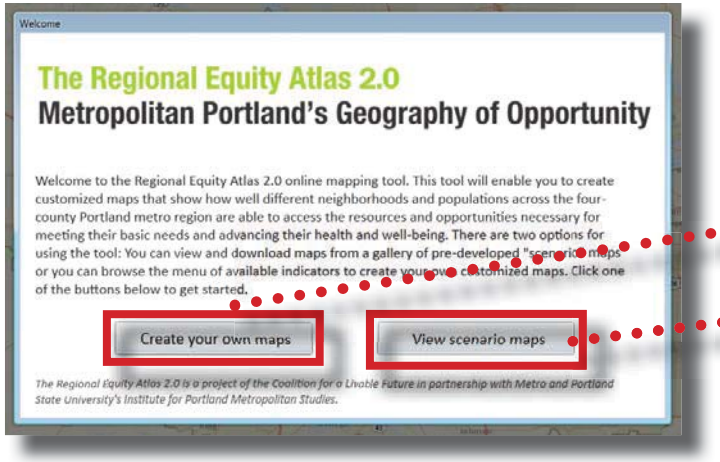
- **Table of Contents Window**: displays legends for all of the contents of your map. Right-clicking on table of contents items opens further options including display, draw-order, and export choices.

In addition, the guide describes how to use the Population Overlay reference layers, the Find a Location tool, how to change the symbologies of the various indicators, how to find particular Census tracts, and some advanced uses of exported Heatmap data.

TABLE OF CONTENTS

This guide was prepared by Meg Merrick, Ph.D.
Institute of Portland Metropolitan Studies
Portland State University
Coalition for a Livable Future, Publisher
2013

Equity Atlas 2.0 Road Map



THE REGIONAL EQUITY ATLAS 2.0

CREATE YOUR OWN MAPS

VIEW SCENARIO MAPS

Choose a Scenario

Add Indicators

Add Additional Indicators

Heatmaps | Shapes | Reference Layers | Analysis Units

Heatmaps | Shapes | Reference Layers

EDIT MAP

Add/Remove Indicators/ Analysis Units/ Map Layers/ Symbols

Change Layering

Add/Remove Map Scalebar/ North Arrow

Change Opacity

Change Colors/ Color Ramp

ANALYZE DATA

Data Table | Charts | Metadata

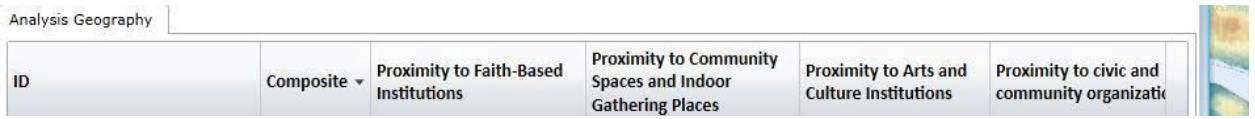
Select Chart Type

ADDITIONAL FUNCTIONS

Save .ctml file | Load .ctml file | Export Table | Export Map | Export Chart | Address Locator | Zoom

Quick Tips

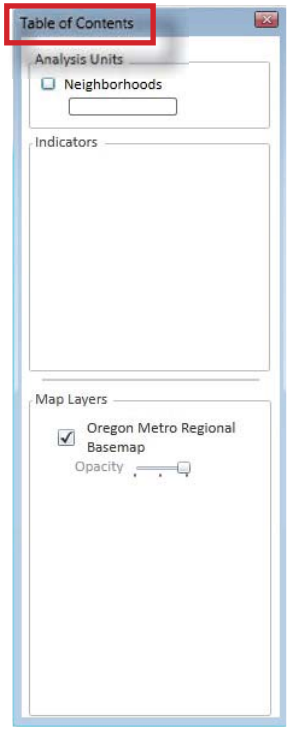
Toolbar



Pop-up Windows

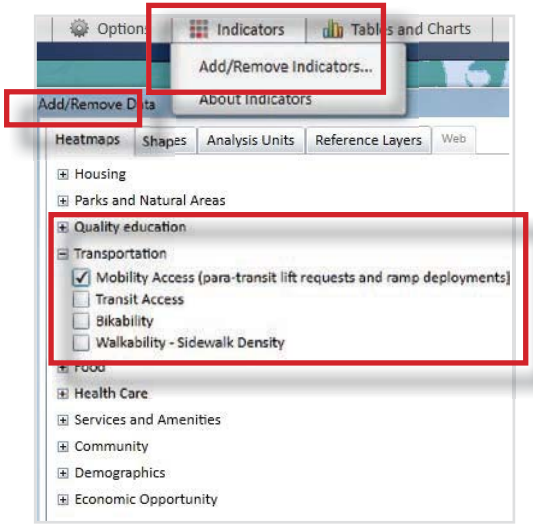
Pop-up windows are available as you scroll over the map only for the layer that is "in front" of the others.

Table of Contents



The Table of Contents window displays all of the Analysis Units, Indicators, and Map Layers (Reference Units that have been added to your map.

Add Indicators

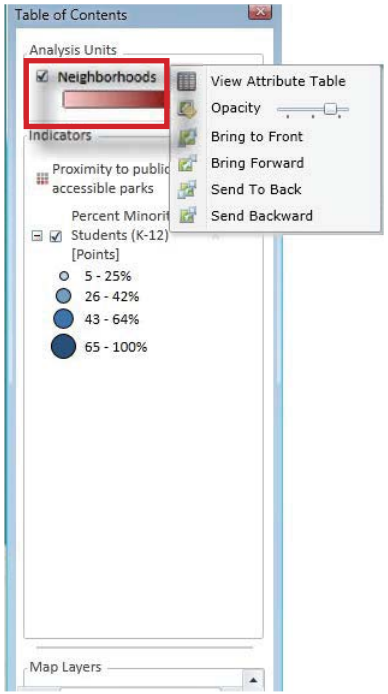


To add Indicators to the Table of Contents, click on the Indicators Tool in the Toolbar to open the Add/Remove Indicators window. There are two types of Indicators:

1. Heatmaps (composite scores possible)
   - Statistics are reported by the Analysis Units you have chosen
   - Statistics are reported as a 1-5 score for individual heatmaps, or a 1-100 composite score
2. Shapes (overlay only)
   - Reported statistics are the actual data

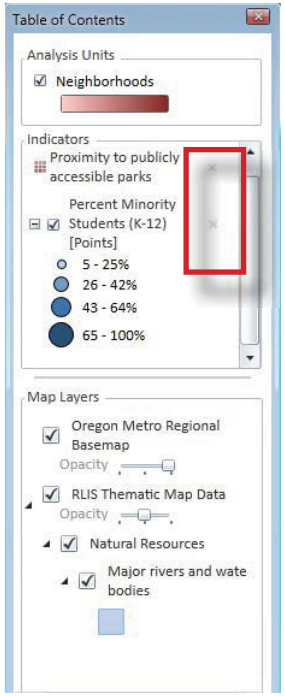
Indicators are organized by category. To see the indicators under each category, click on the "+" sign to the left of each category.

Right-Clicks



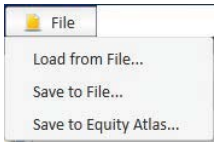
Right-click your mouse on the Analysis Units, Indicators, or Indicators' names In the Table of Contents window and a dropdown menu will appear.

Remove Indicators



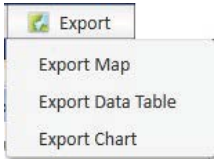
To remove an Indicator from the Table of Contents window, click on "x" to the right of the Indicator title. Map Layers may be removed by clicking them off.

Save/Load Files



Maps are saved by clicking on the File tool in the Toolbar. Maps are saved as "ctml" ("Context Tool Markup Language") files that can be Loaded into the Tool.

Export Options



Map image files (.jpg), data tables (.csv) and charts are exported by clicking on the Export tool in the Toolbar.

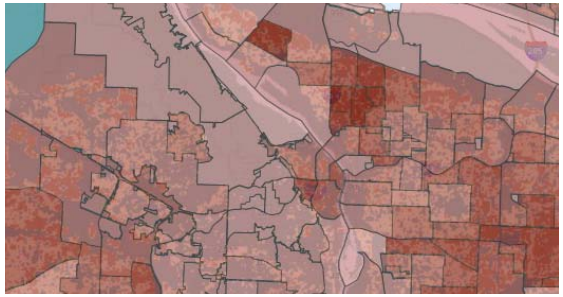
A Word About the Indicators

The indicators that are included in the Regional Equity Atlas Mapping Tool are displayed in two different formats: "**Heatmaps**" and "**Shapes**".

The **Heatmaps** were created from data with the highest geographic specificity: street addresses (such as the locations of grocery stores), XY coordinates or latitude and longitude (such as the locations of park entries), and the 2010 Census data where Census block level data (about the size of a city block) are available. The Heatmap data are displayed in pixels or cells representing a 264 foot by 264 foot grid (about the size of a downtown Portland city block, street centerline to street centerline).

With Heatmaps, the colors on the map represent the actual distribution of people or phenomena across the region.

Heatmaps are also statistical surfaces that can be aggregated and ranked using the Analysis Units in the tool by 2010 Census tracts, neighborhoods, cities, or counties. The results of this aggregation are given in a 1 to 5 score as **densities** (such as people per acre) or geographic **proximities** (or distances) that can be seen in the tables for the Heatmaps. The



names of the Heatmap indicators identify whether they are density or proximity measures.

Analysis Geography:

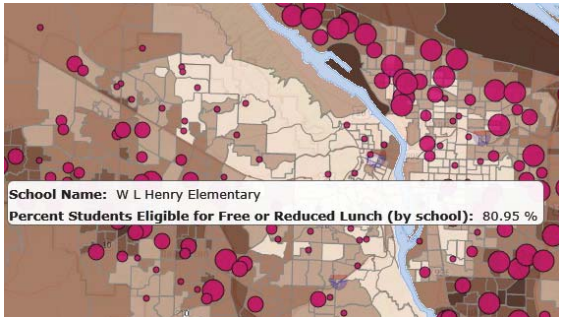
ID	Composite	Proximity to Faith-Based Institutions	Proximity to Community Spaces and Indoor Gathering Places	Proximity to Arts and Culture Institutions	Proximity to civic and community organizatio
GRANT PARK/HOLLYWOOD	100	5	5	5	5
HOLLYWOOD	97	4.96	4.9	4.93	4.91
MC UNCLAIMED #6	95	5	5	5	4.86
SABIN/IRVINGTON	95	4.46	4.89	4.93	4.91
GOOSE HOLLOW	91	4.8	4.97	4.99	4.99
HUMBOLDT	90	5	3.96	4.75	4.74
SABIN	89	4.74	4.61	4.64	4.59
KING	89	5	4.88	4.84	4.66
ARNADA	88	4.99	4.97	4.53	4.88
EVERGREEN	88	4.89	4.61	4.48	4.7
GRESHAM - CITY CENTRAL	88	4.82	4.78	4.58	4.64
IRVINGTON	86	4.98	4.77	4.72	4.83
DOWNTOWN	85	4.4	4.65	4.67	4.65
ALAMEDA-IRVINGTON	85	5	4.31	4.79	4.31
BOISE	84	4.9	4.72	4.78	4.98

Record: 19 Records (1 out of 374 Selected) Options...

Multiple proximity Heatmaps may be combined to create new Composite indicators. In the mapping tool, the Data Table for the Composite Heatmap shows the 1 to 5 score for each of the contributing indicators along with a 0 to 100 score for the Composite indicator.

The Composite score is a relative score (or proportional ranking), not an absolute measure. The tool gives a score of 100 to the Analysis Unit (2010 Census tract, neighborhood, city, or county) with the highest composite value in the region and a score of 0 to the Analysis Unit with the lowest value in the region. A composite score of 100 therefore does not mean a "perfect" score, merely the highest score available in the region. The remaining Analysis Units are assigned a score between 0 and 100 based on a proportional ranking of where they fit between 0 and 100. This means that the Composite scores are specific to each heatmap and/or combination of heatmaps and are not standardized across maps. Consequently, you can use the Composite scores to compare geographic areas to one another within a specific composite measure, but you cannot use them to compare geographic areas across different composite measures.

The indicators that are mapped as **Shapes** in the tool are vector layers, which means that the data are displayed in pre-set geographic units such as Census tracts or zip codes, or as points, which display the data by specific addresses or locations.



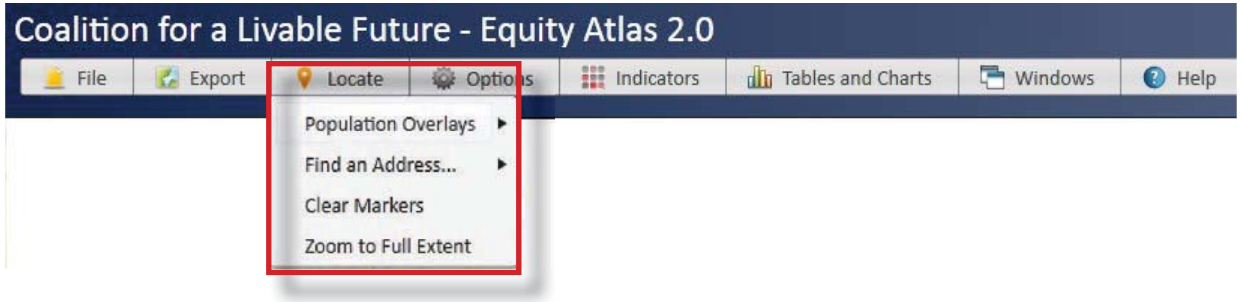
Although some Shape maps can be layered to view the relationships between different indicators, the data for the Shape indicators cannot be combined to create Composite indicators.

Equity Atlas 2.0 Toolbar Dropdown Menu Road Map

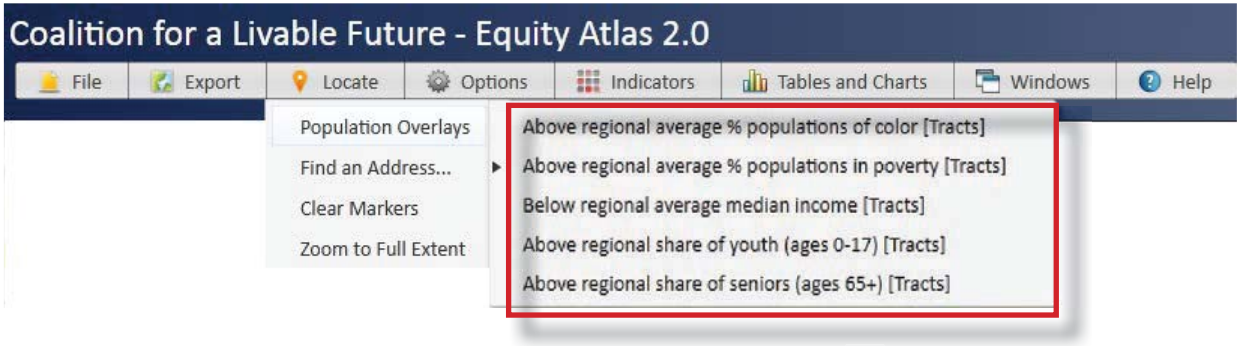
File

Export

Locate



Locate: Population Overlays



FILE
Allows you to:

- Load from File: load a ".ctml" ("Context Tool Markup Language" file - a previously saved map)
- Save to File: Save a ".ctml" file to your computer, flash drive, cloud space, etc. This can be loaded into the Equity Atlas tool at a later time.

EXPORT
Allows you to:

- Export your map (".jpg" or ".png" file)
- Export a data table (".jpg" file)
- Export a chart (".jpg" file)

LOCATE
Options include:

- Population Overlays
- Find an Address
- Clear Markers
- Zoom to Full Extent

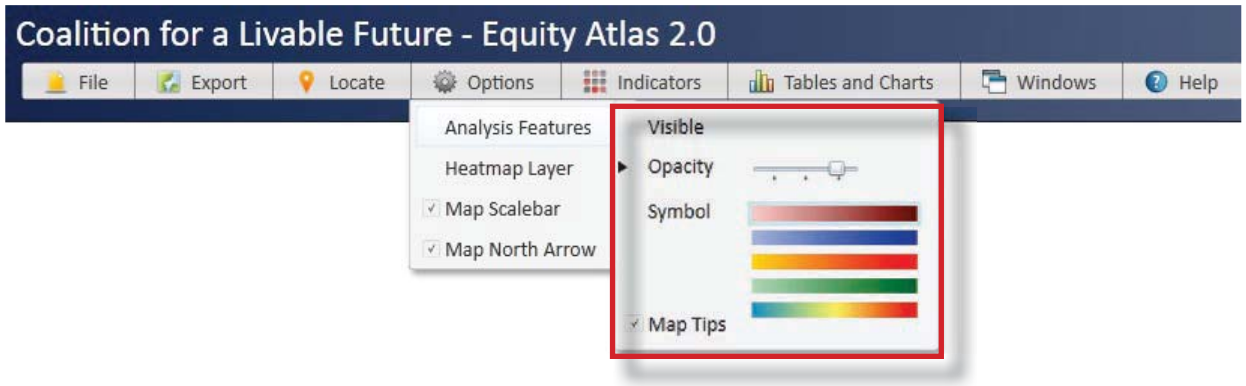
Population Overlays include:

- Above regional average % populations of color (Tracts)
- Above regional average % populations in poverty (Tracts)
- Below regional average median income (Tracts)
- Above regional share of youth (ages 0-17) (Tracts)
- Above regional share of seniors (ages 65+) (Tracts)

Locate: Locate Address

Options

Options: Analysis Features



Find an Address
A marker will appear on the map after you type in an address and click on "Submit"

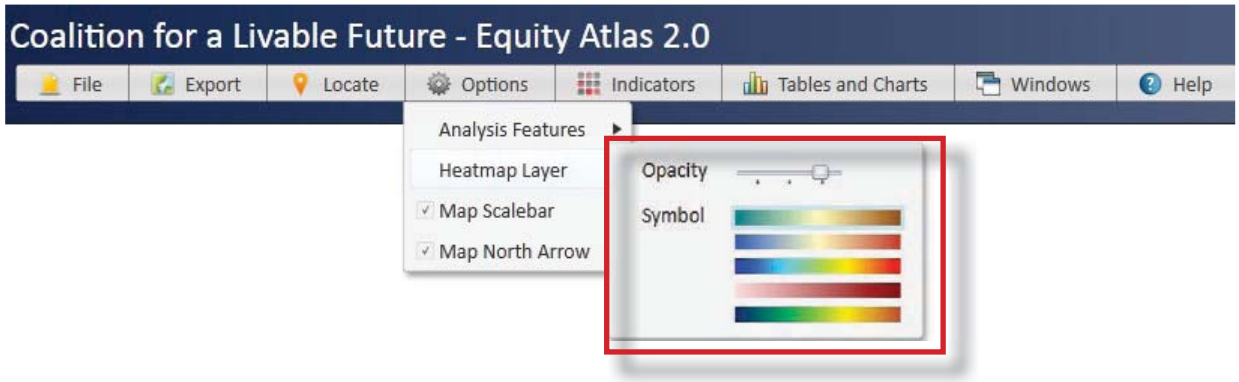
OPTIONS
Controls the appearance of the following map elements:

- Analysis Features
- Heatmap Layer
- Map Scalebar (on/off)
- Map North Arrow (on/off)

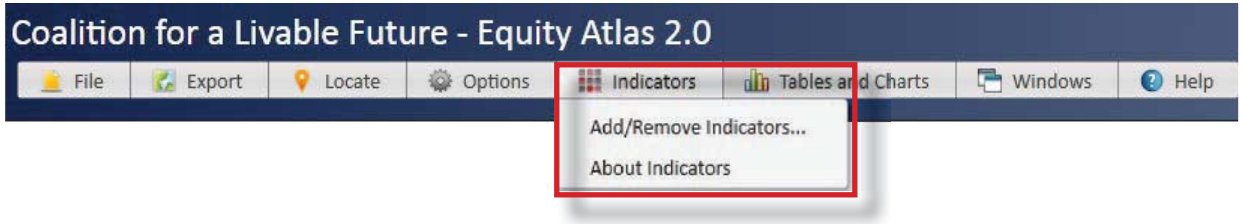
Analysis Features Options:

- Visibility (on/off)
- Opacity (transparency)
- Symbol (color scheme)
- Visibility of the "map tips" from the pointer tool

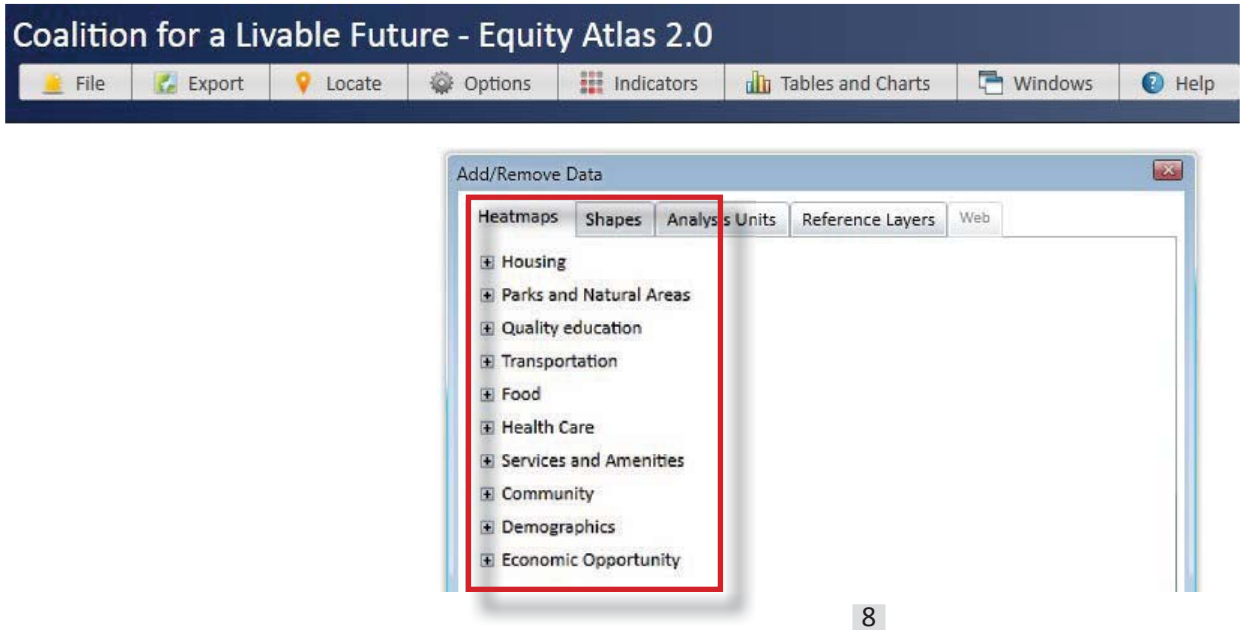
Options: Heatmap Layer



Indicators



Indicators: Add/Remove Indicators: Heatmaps



Heatmap Layer Options:

- Change opacity (transparency)
- Change color scheme

INDICATORS

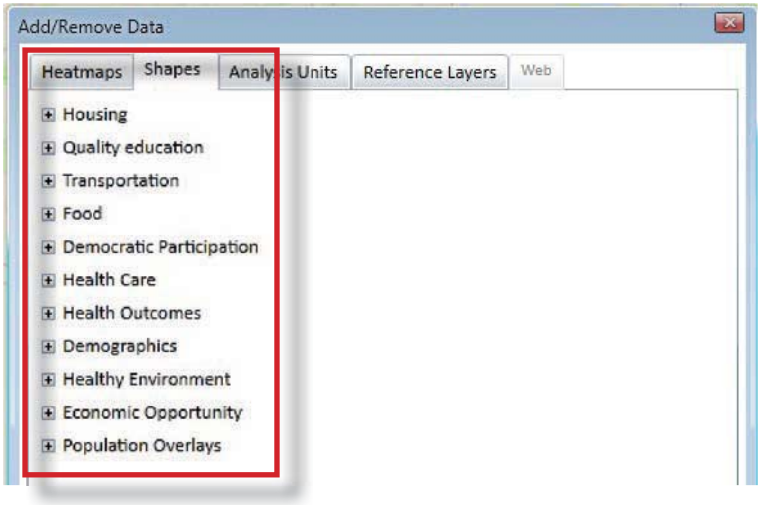
- Add/Remove Indicators: Allows you to add and remove Indicators to and from the map.
- About Indicators: Takes you to a web page with comprehensive metadata for all of the indicators in the tool..

Heatmaps (General Categories)

Click on + to expand the options

- Housing
- Parks and Natural Areas
- Quality Education
- Transportation
- Food
- Health Care
- Services and Amenities
- Community
- Demographics
- Economic Opportunity

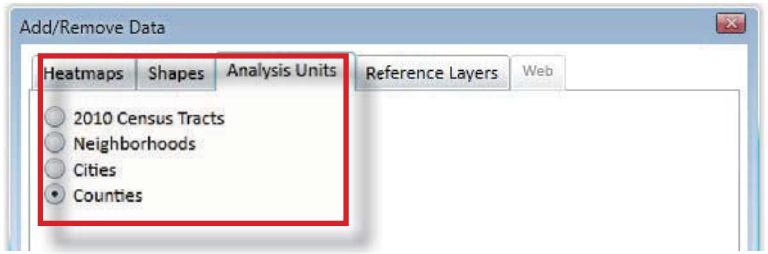
Indicators: Add/Remove Indicators: Shapes



Shapes (General Categories)
Click on + to expand the options

- Housing
- Quality Education
- Transportation
- Food
- Demographic Participation
- Health Care
- Health Outcomes
- Demographics
- Healthy Environment
- Economic Opportunity
- Population Overlays

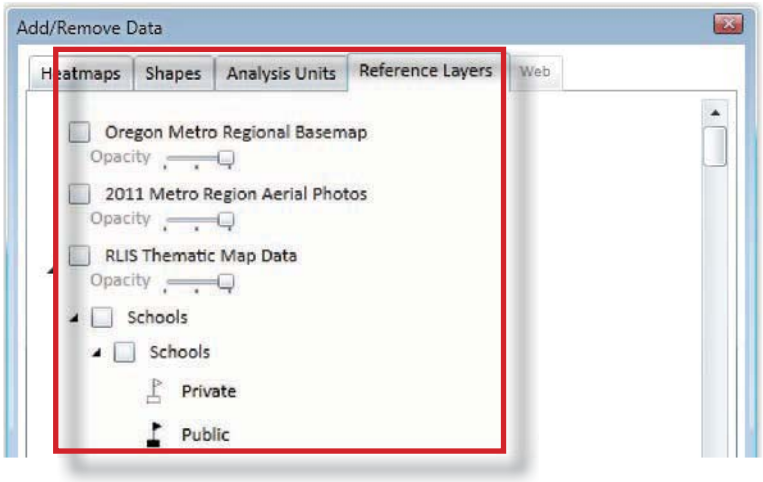
Indicators: Add/Remove Indicators: Analysis Units



Analysis Units
Allows you to report statistics from the Heatmaps by:

- 2010 Census Tracts
- Neighborhoods
- Cities
- Counties

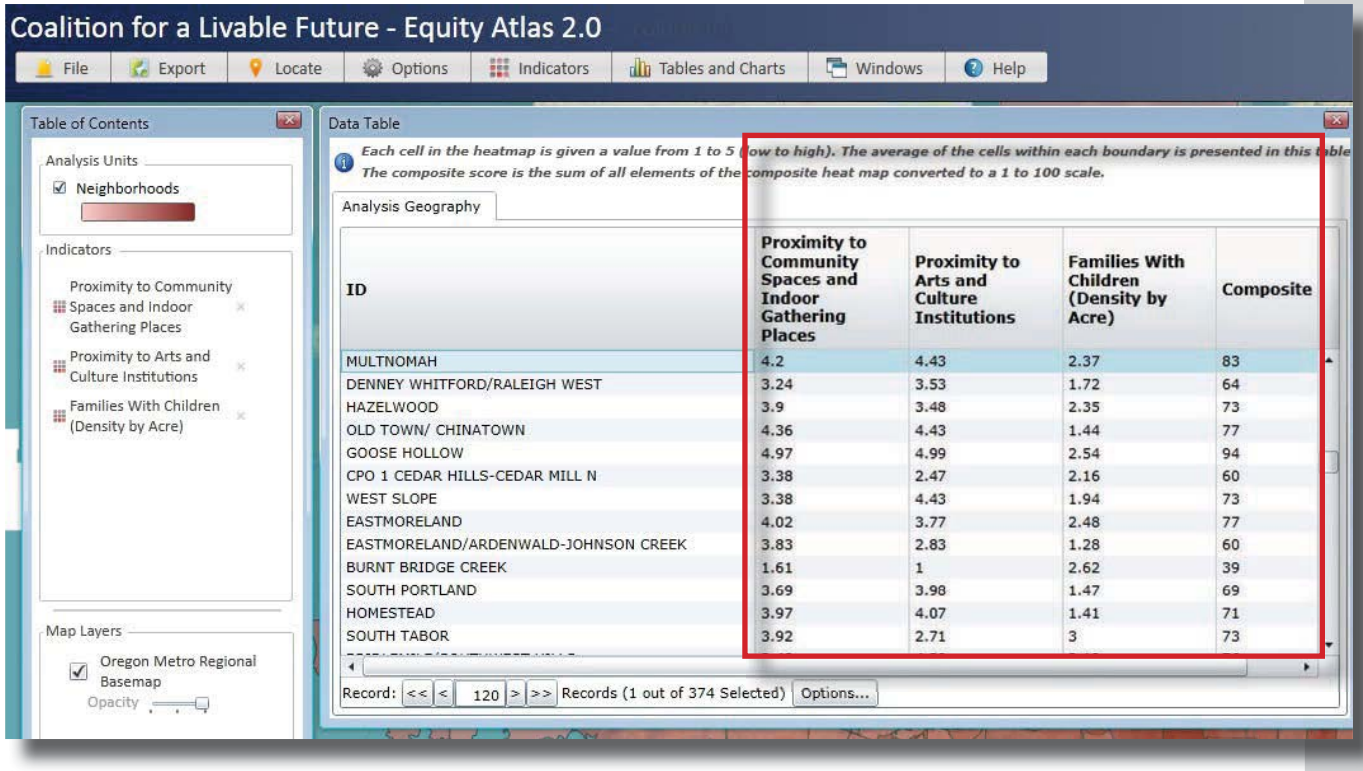
Indicators: Add/Remove Indicators: Reference Layers



Reference Layers
Allows you to turn on background maps, roads, and points to help you to identify locations on your map. These include:

- Oregon Metro Regional Basemap
- 2011 Aerial Photos
- Schools
- Transportation
- Natural Resources
- City Boundaries
- Neighborhoods
- Parks
- Zoning

Tables and Charts: Data Table



TABLES AND CHARTS
Data Table
Data tables are available for all of the Heatmaps and are based on the analysis units you have chosen from the "Indicators" dropdown menu.

The data from the Heatmaps are classified according to a 1-5 scale (proximity: 1=farthest; 5=closest) (density: 1=least dense; 5=most dense).

The Composite score combines the individual 1-5 scores, for each indicator you have included in your map, into a 1-100 composite score for easy comparison.

Note: *The tables may be exported as .csv files.*

Tables and Charts: Charts

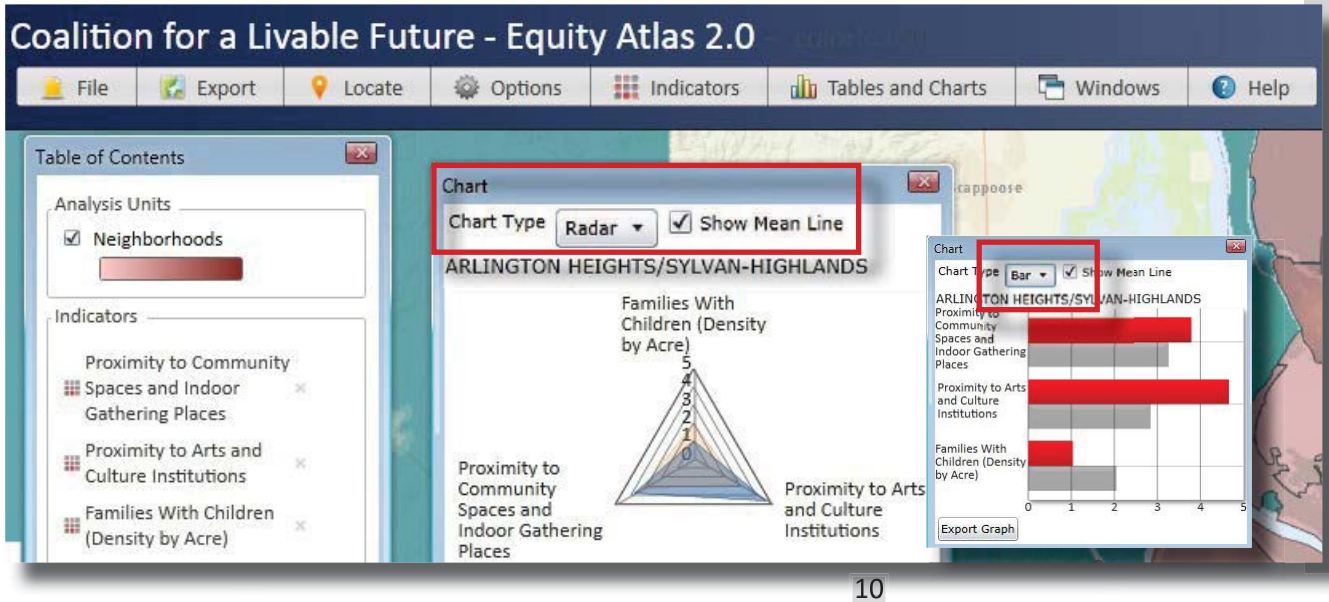


Chart
The Chart option allows you to display the Heatmap data using a variety of chart types including bar charts, column charts, radar charts for 3 or more indicators, line charts, and area charts.

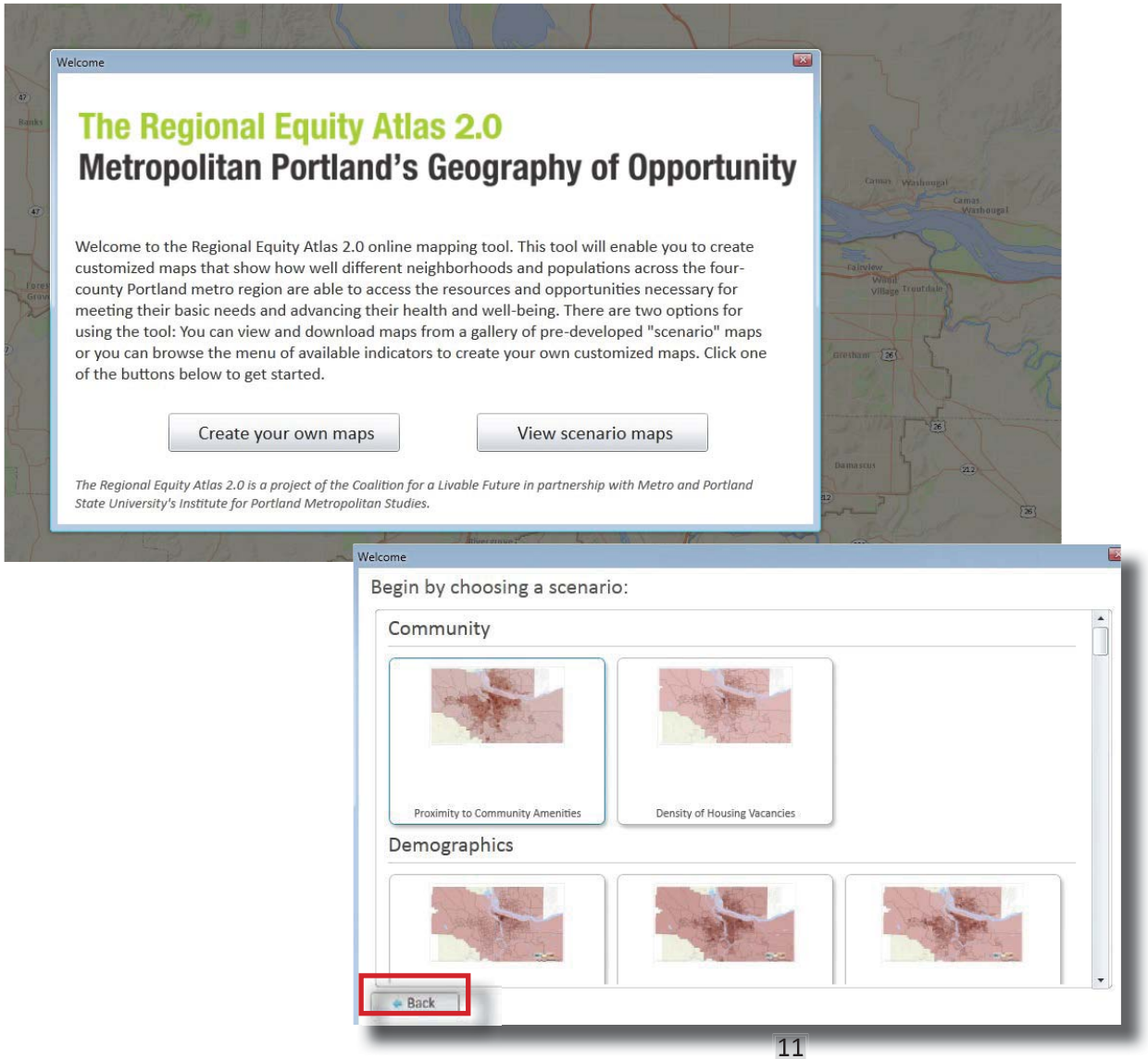
The chart tool also allows you to include the region's statistical mean for each indicator in the charts

As you move the cursor over the map, the charts change to reflect the underlying data.

Note: the charts may be exported as .jpg files.

Windows

Windows: Welcome



WINDOWS
Windows includes the following options:

- Welcome
- Table of Contents

Welcome
If you choose "Create you own maps" (when you open the Atlas Tool) when you click on the "Welcome" option in the toolbar Windows menu, the Welcome window of the Atlas will appear.

If, however, you clicked on the "View scenario maps" option and opened a Scenario, the "Begin by choosing a scenario" window will re-open when you click on the "Welcome" option. Scroll down to see the complete list of scenarios.

Note: *You may click on the "Back" button to get to the Atlas' Welcome window.*

Scenario themes include:

- Community
- Demographics
- Education
- Food
- Health
- Healthy Environment
- Housing
- Parks
- Transportation

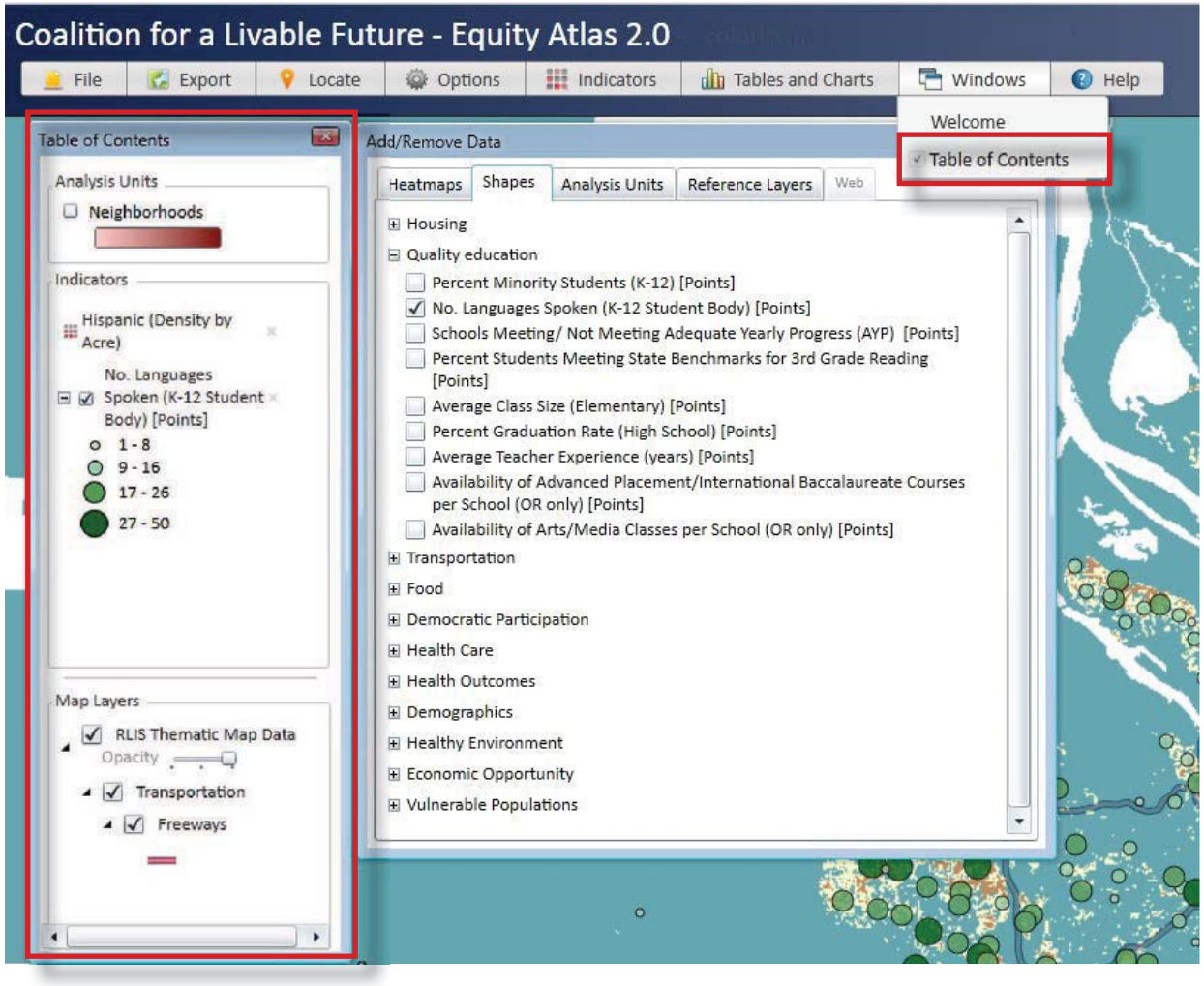
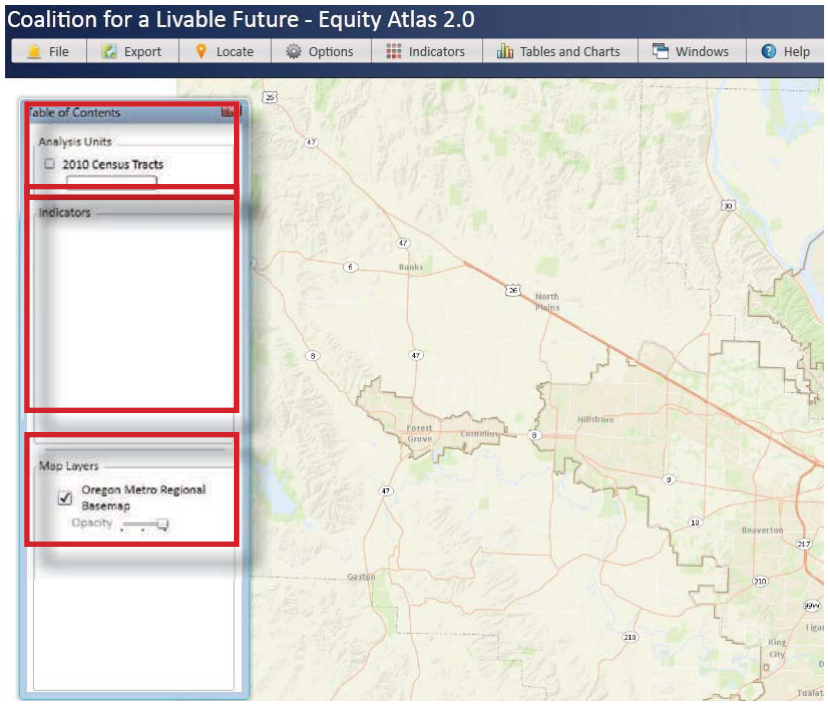


Table of Contents
Clicking on this option opens the Table of Contents window.

The Table of Contents window displays all of the data and layers that have been added to the map from the "Indicators" menu. The map data and layers are organized as:

- Analysis Units
- Indicators (Heatmaps, Shapes)
- Map Layers (Reference Layers)

Equity Atlas 2.0 Table of Contents Overview



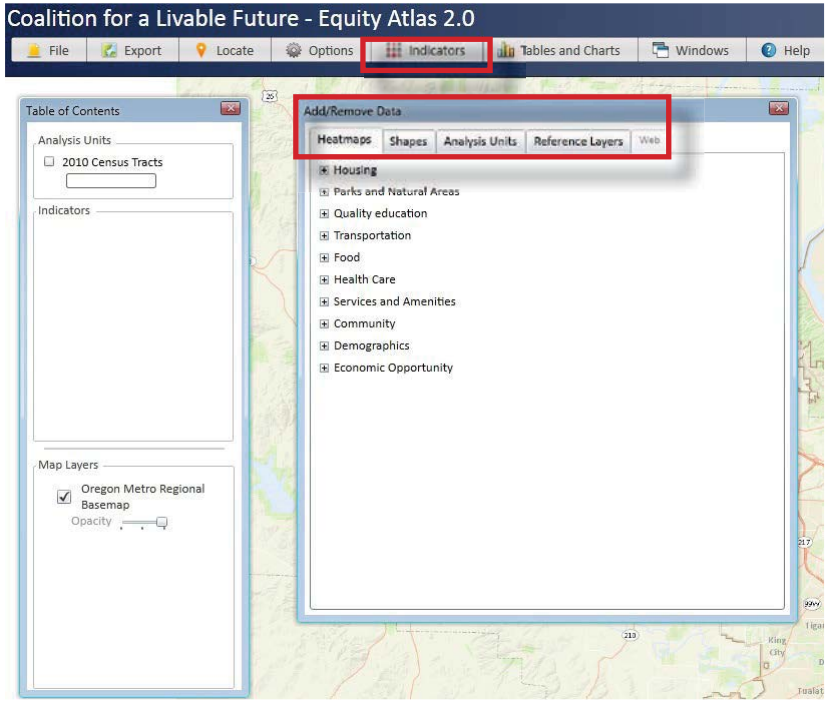


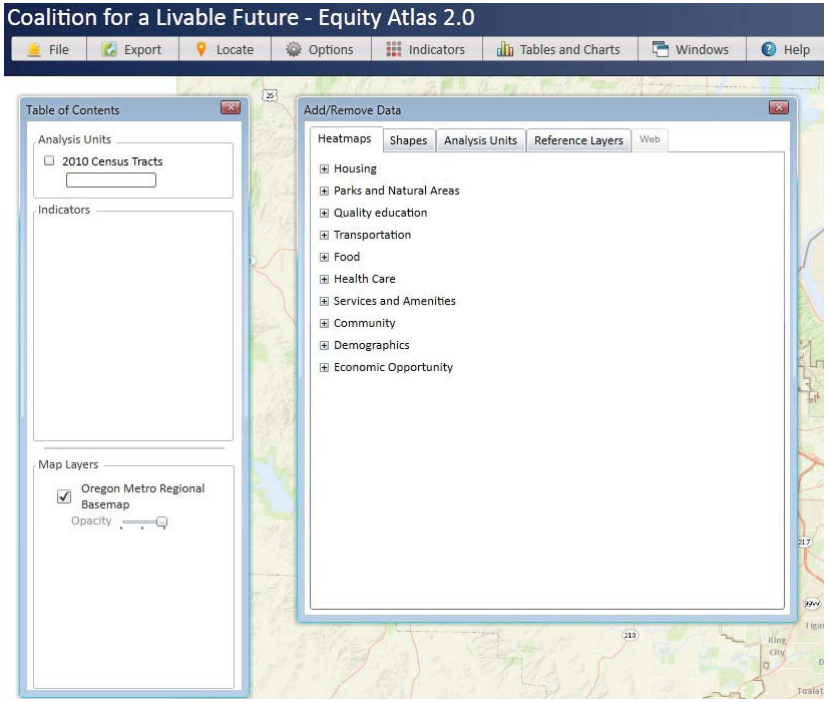
TABLE OF CONTENTS
When you choose the "**Create you own maps**" option, the atlas displays the Table of Contents window as follows:

- **Analysis Units:** 2010 Census Tracts, unchecked (invisible)
- **Indicators**: blank
- **Map Layers**: Oregon Metro Regional Basemap, checked on (visible)

When you choose a "**Scenario**," the Table of Contents window will contain the Analysis Units, Indicators, and Map Layers that are included with the Scenario.

Note: *You may add and remove Analysis Units, Indicators, and Map Layers to the Scenario by clicking on the "Indicators" button on the*

Table of Contents: Add Data
To change or add data to the Table of Contents, click on the "Indicators" button on the toolbar and click on the desired tab at the top of the Add/Remove Data window.



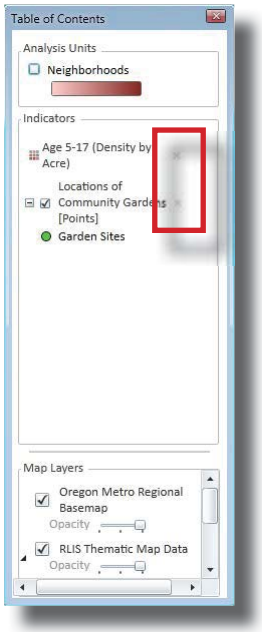


Table of Contents: Add Data
The Table of Contents window organizes the Add/Remove Data as follows:

- **Analysis Units**=Analysis Units
- **Indicators**=Heatmaps and Shapes
- **Map Layers**=Reference Layers

Note: *Indicators may be removed by clicking the "x" to the right of each Indicator name.*

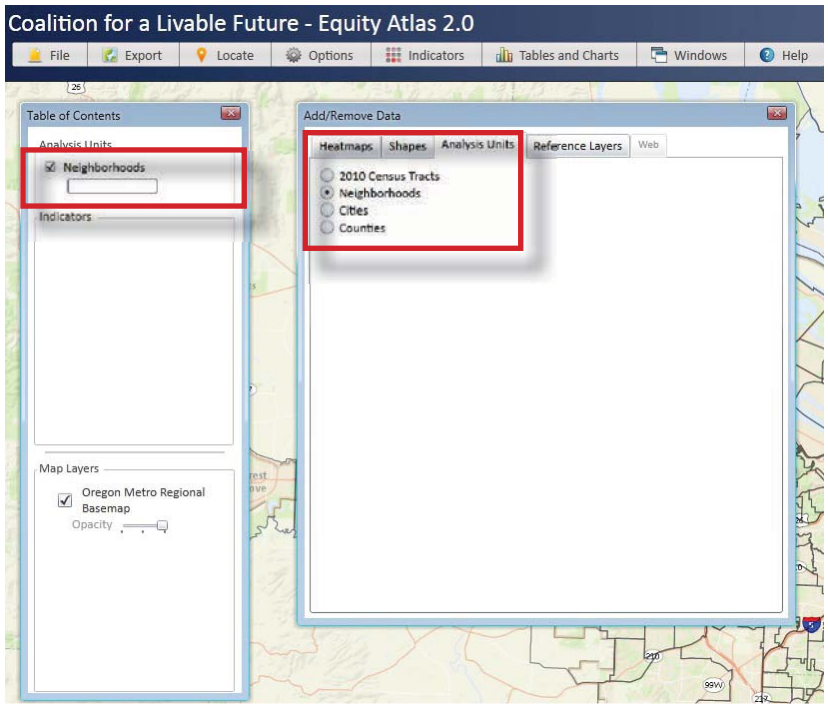
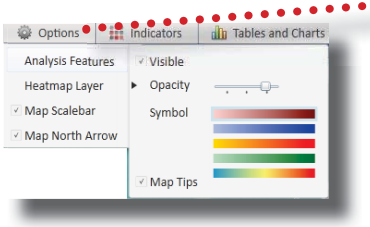
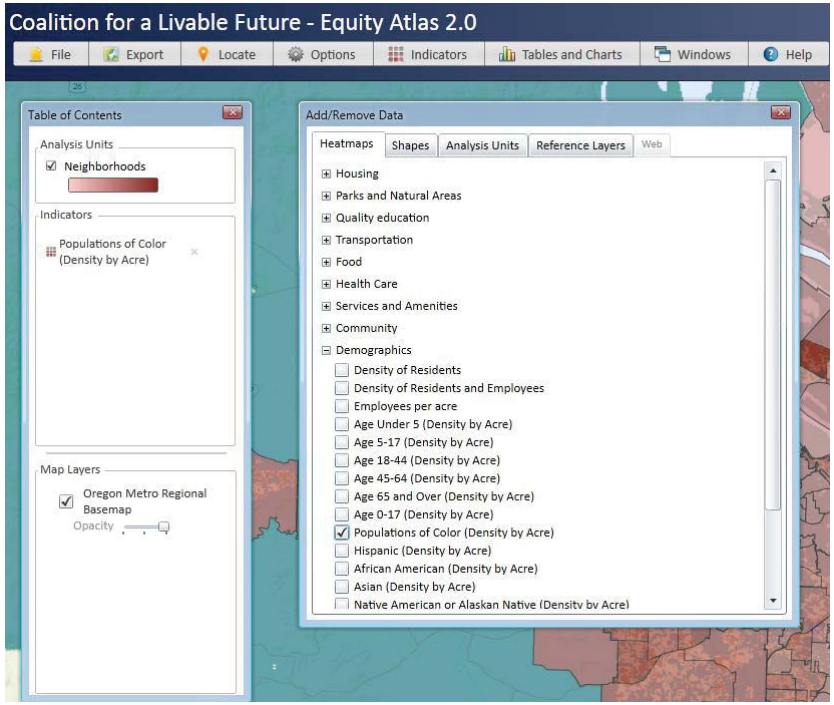


Table of Contents:
Change Analysis Units
To change the Analysis Units, click on the Analysis Units tab in the Add/Remove Data window, and click on the button that corresponds with your choice. It will now appear under Analysis Units in the Table of Contents window.



You may view the options for displaying the Analysis Units by clicking on the Options button on the toolbar.



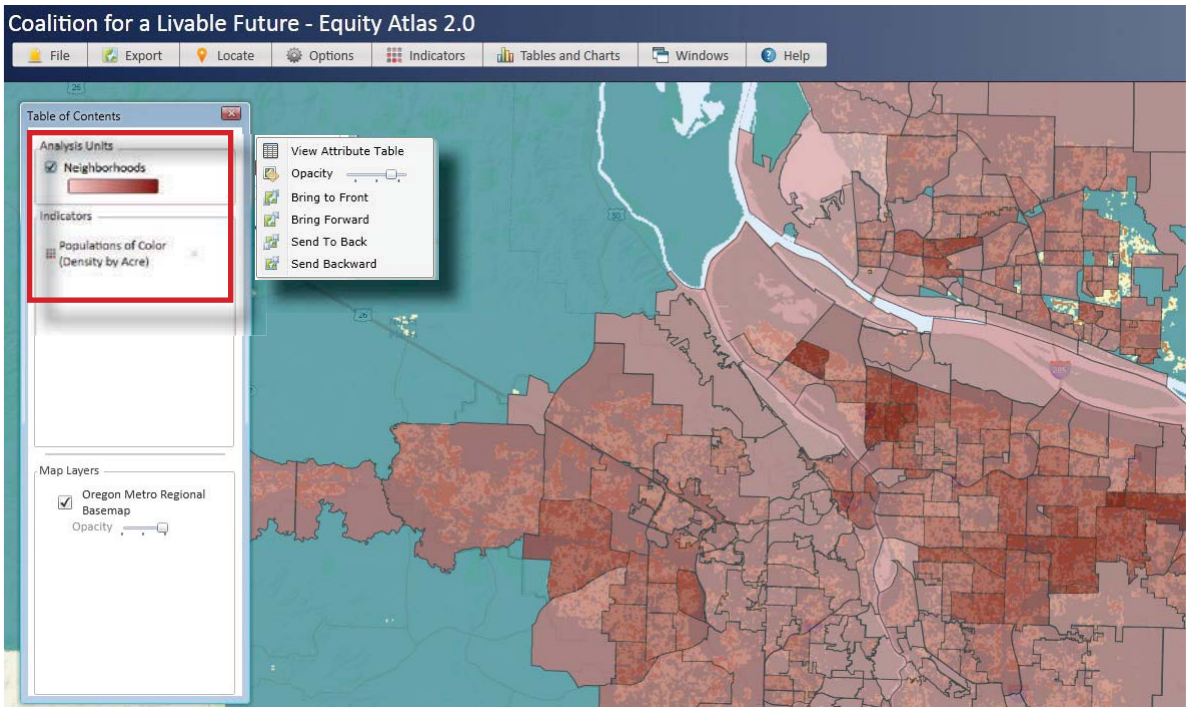


Table of Contents: Add Indicators
To add Indicators to the Table of Contents window, there are two types of data available: Heatmaps and Shapes.

Heatmap Indicators
The data that are depicted as Heatmaps are data whose **source data** are at the highest spatial resolution possible, either data that have XY geographic coordinates or Census block level data.

Heatmaps measure proximity and density. They are color-coded so that the darker the color the higher the proximity or density rank.

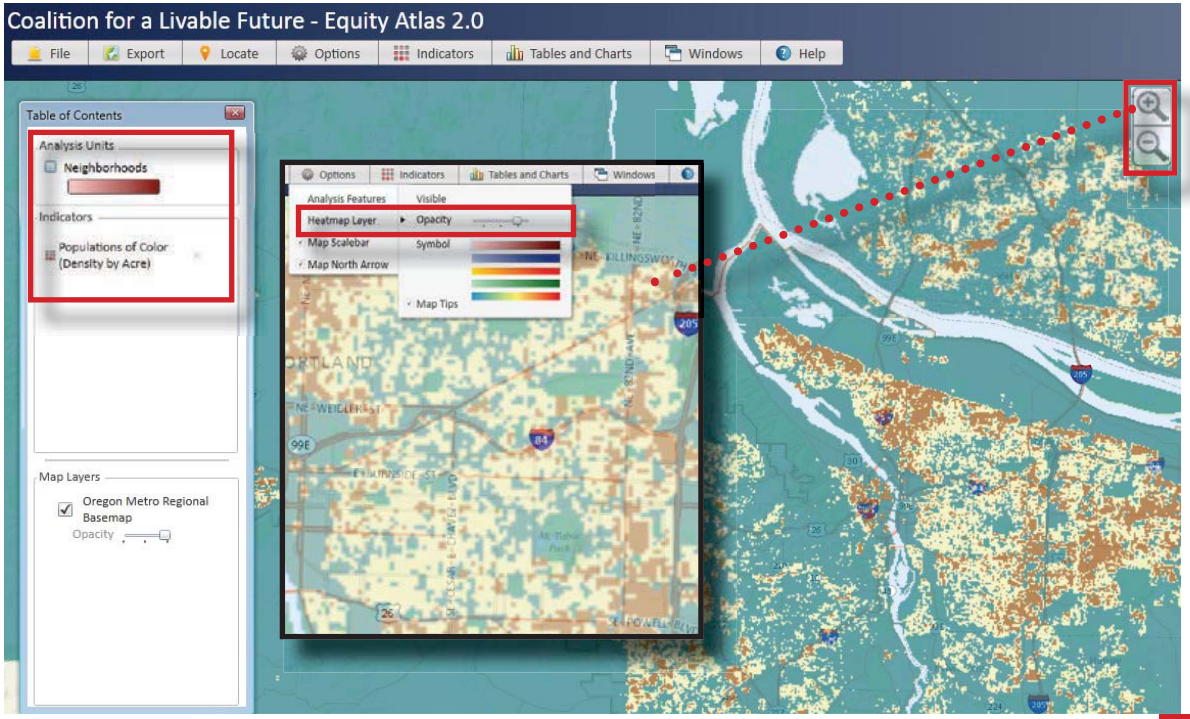
Heatmaps offer the greatest degree of analytical power in the Regional Equity Atlas Mapping Tool. The Heatmap layers are represented as rasters (or pixels) that cover the entire map area. Each raster cell for each Heatmap layer contains a value that can be aggregated and ranked (1 to 5) by any of the Analytical Units. The values of the raster cells for multiple Heatmaps may be combined and ranked (1 to 100) to create Composite scores for the Analysis Units you have chosen.

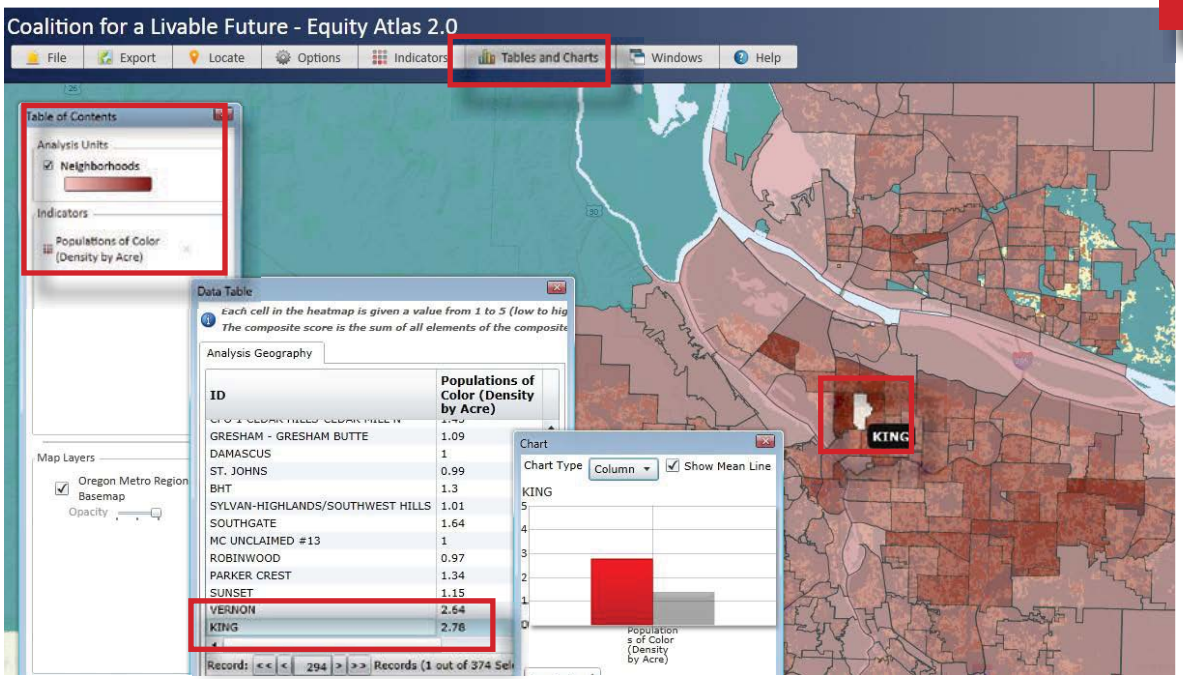
Heatmaps/Analysis Units Display
If the Analysis Units are checked "on," when you add a Heatmap, the tool will create a visual display that represents a statistical score of the Heatmap data by the Analysis Unit from light brown (the lowest value) to dark brown (the highest value).

- **Analysis Units checked "on"**
- **Indicator/Heatmap checked "on"**

Right-click on the Analysis Unit name and more options appear:

- **View Attribute Table**
- **Opacity (transparency)**
- **Bring to Front**
- **Bring to Forward**
- **Send to Back**
- **Send Backward**





Heatmaps/Analysis Units Display
To see the Heatmap on its own, click "off" the Analysis Units.

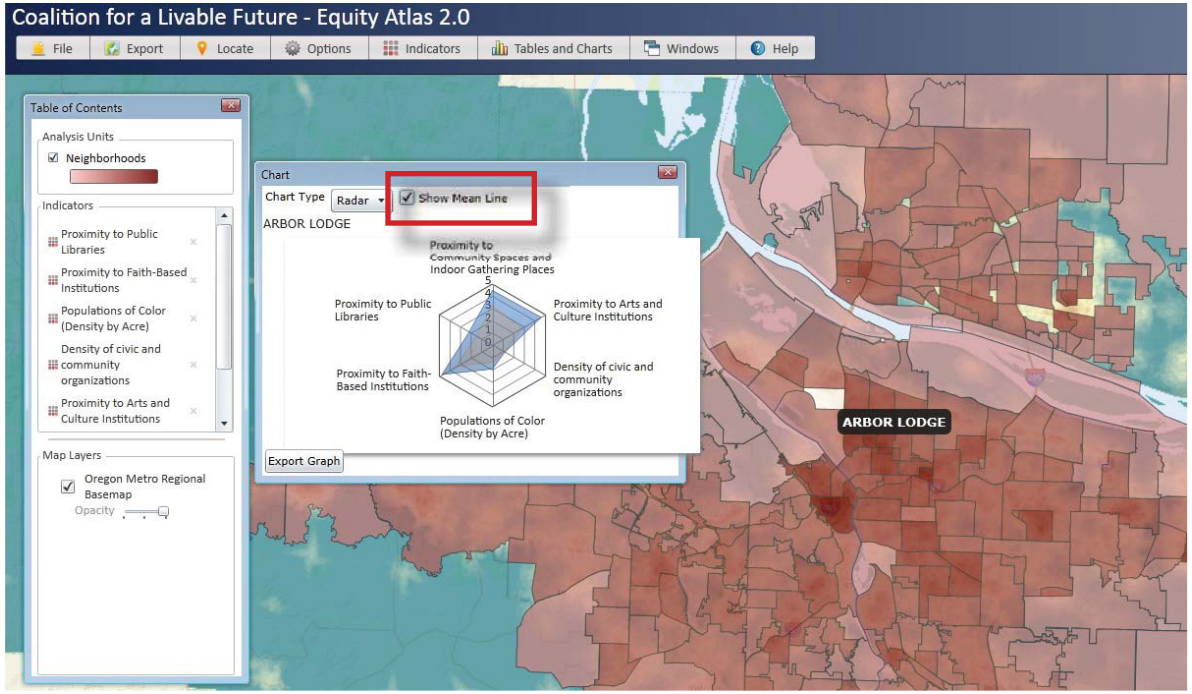
- **Analysis Units checked "off"**
- **Indicators/Heatmap checked "on"**

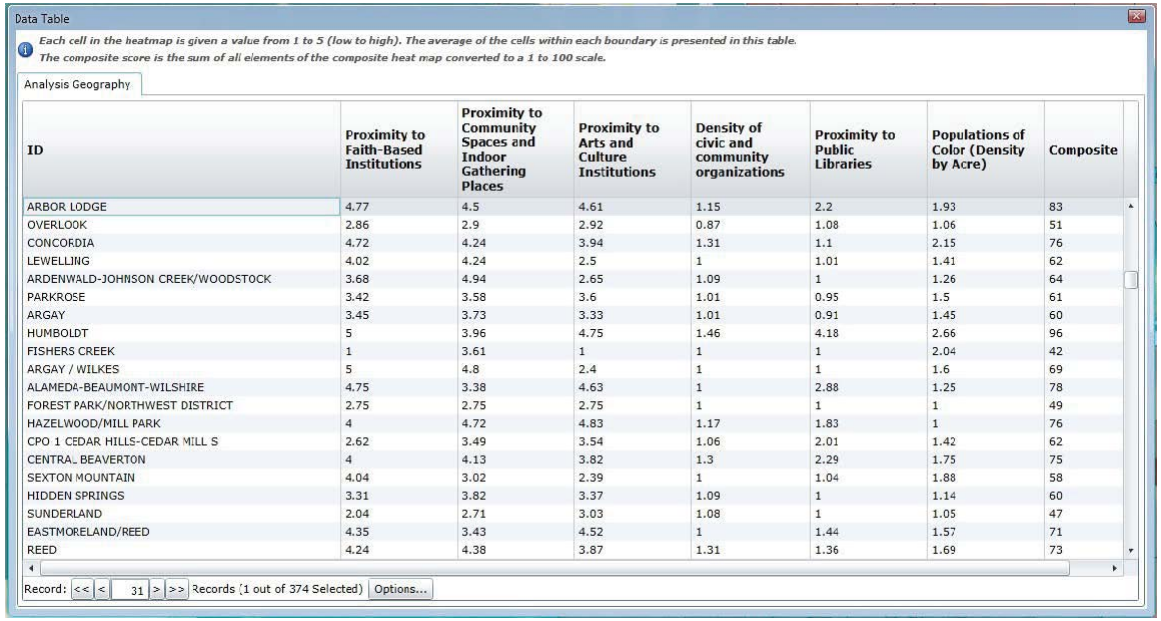
Note: *You may want to zoom in to the Heatmap (using the magnifying glass at the upper right of the Equity Atlas Mapping Tool window) to see greater detail. You may also want to adjust the Heatmap's opacity to see features in the underlying Base Map by clicking on Options in the Toolbar and Heatmap Layer to reveal the Opacity slider.*

Heatmaps, Analysis Units, and Comparative Statistics
When you add a Heatmap, the Atlas tool creates comparative statistics on a 1 to 5 scale for single variables and on a 1 to 100 scale for multiple Heatmap variables (Composite).

To generate these statistics for the Analysis Units that you have chosen, make sure that Analysis Units are "on," click the "Tables and Charts" dropdown menu, and click on either the Data Table or Chart option. As you scroll over the map, the statistic for the underlying Analysis Unit will be highlighted in the map, table and/or the chart.

Note: *When using Analysis Units to generate statistics, it is important to keep in mind that for the density heatmaps in the mapping tool, particularly the demographic indicators, the statistics represent relative rather than absolute numbers. For example, a score of "5" on the Hispanic density map represents the areas with the highest densities of Hispanics in the region; a score of "5" on the Hawaiian/ Pacific Islander map also represents the areas with the highest densities of Hawaiian/ Pacific Islanders in the region. However, because the overall number of Hispanics in the region is much higher than the overall number of Hawaiian/ Pacific Islanders, Census tracts, neighborhoods, cities, and counties with the highest densities of Hispanics will most likely have larger absolute numbers of Hispanics than the same areas with the highest densities of Hawaiian/ Pacific Islanders. What this means is that you can use the statistics to compare the relative densities of the Hispanic population across different geographic areas, but you cannot use the "1" to "5" scores to compare the actual numbers of Hispanics with the actual numbers of Hawaiian/ Pacific Islanders in a geographic area.*





Data Table

Each cell in the heatmap is given a value from 1 to 5 (low to high). The average of the cells within each boundary is presented in this table.
The composite score is the sum of all elements of the composite heat map converted to a 1 to 100 scale.

Analysis Geography

ID	Proximity to Faith-Based Institutions	Proximity to Community Spaces and Indoor Gathering Places	Proximity to Arts and Culture Institutions	Density of civic and community organizations	Proximity to Public Libraries	Populations of Color (Density by Acre)	Composite
ARBOR LODGE	4.77	4.5	4.61	1.15	2.2	1.93	83
OVERLOOK	2.86	2.9	2.92	0.87	1.08	1.06	51
CONCORDIA	4.72	4.24	3.94	1.31	1.1	2.15	76
LEWELLING	4.02	4.24	2.5	1	1.01	1.41	62
ARDENWALD-JOHNSON CREEK/WOODSTOCK	3.68	4.94	2.65	1.09	1	1.26	64
PARKROSE	3.42	3.58	3.6	1.01	0.95	1.5	61
ARGAY	3.45	3.73	3.33	1.01	0.91	1.45	60
HUMBOLDT	5	3.96	4.75	1.46	4.18	2.66	96
FISHERS CREEK	1	3.61	1	1	1	2.04	42
ARGAY / WILKES	5	4.8	2.4	1	1	1.6	69
ALAMEDA-BEAUMONT-WILSHIRE	4.75	3.38	4.63	1	2.88	1.25	78
FOREST PARK/NORTHWEST DISTRICT	2.75	2.75	2.75	1	1	1	49
HAZELWOOD/MILL PARK	4	4.72	4.83	1.17	1.83	1	76
CPO 1 CEDAR HILLS-CEDAR MILL S	2.62	3.49	3.54	1.06	2.01	1.42	62
CENTRA.. BEAVERTON	4	4.13	3.82	1.3	2.29	1.75	75
SEXTON MOUNTAIN	4.04	3.02	2.39	1	1.04	1.88	58
HIDDEN SPRINGS	3.31	3.82	3.37	1.09	1	1.14	60
SUNDERLAND	2.04	2.71	3.03	1.08	1	1.05	47
EASTMORELAND/REED	4.35	3.43	4.52	1	1.44	1.57	71
REED	4.24	4.38	3.87	1.31	1.36	1.69	73

Record: << < 31 > >> Records (1 out of 374 Selected) Options...

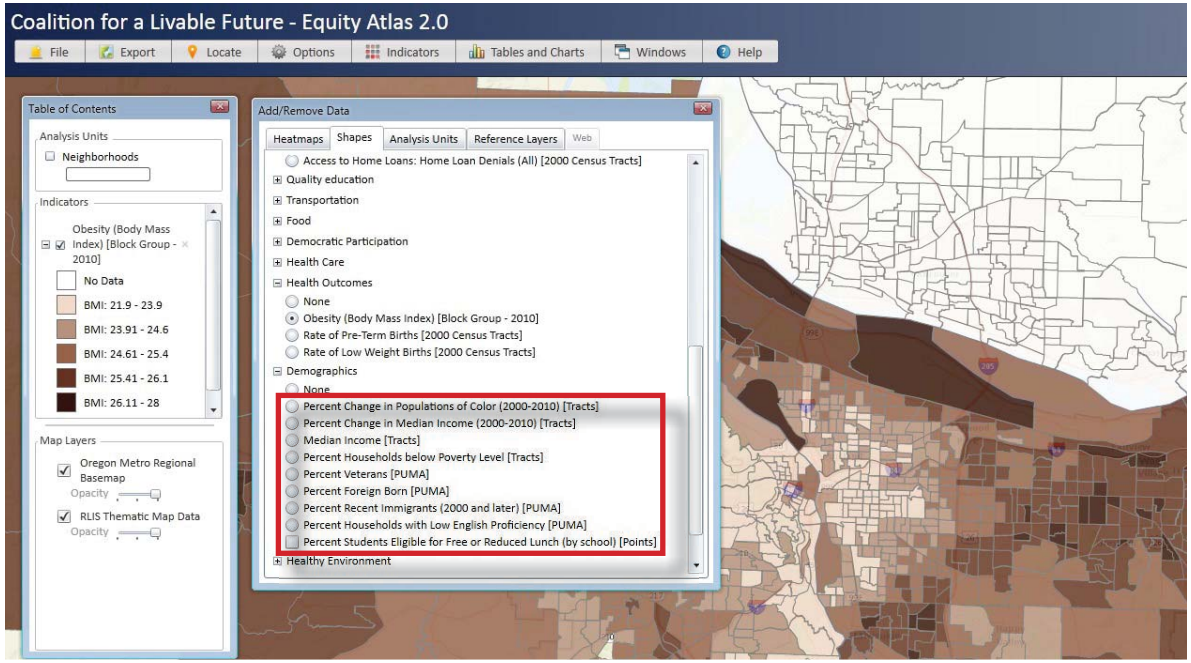
Heatmaps/Analysis Units Display
Multiple Heatmaps can render and generate statistics by the chosen Analysis Units at once. Statistics can be shown as a chart, with or without the Regional Mean Line, or in a table.

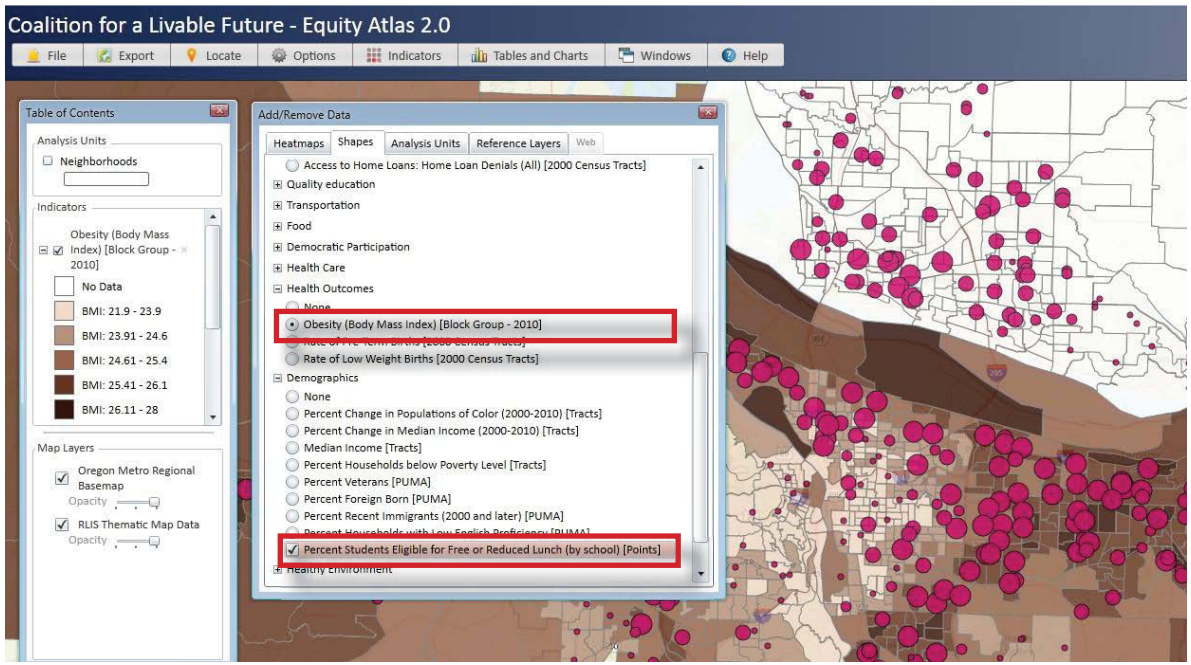
To see the Regional Mean Line, click on the box, Show Mean Line, at the upper center of the Chart window. The Regional Mean Line is shown in beige whereas the measurements for each Heatmap Indicator is shown in blue.

The statistics are calculated using a 1-5 scale (1=least access; 5=most access) for the individual indicators.

The tool also generates a Composite score using a 1-100 scale that combines all of the indicator scores together.

Note: *It is highly recommended that the Composite scores be used only when the scores for the contributing indicators have been considered. This is because rather than contributing equally to the composite score, in some cases, some factors may contribute significantly more than others. When the composite score doesn't appear to make sense, always check the contributing scores.*





Shapes Indicators
To add "Shape" indicators to the map, click on the Shapes tab in the Add/ Remove Data menu (located in the Indicators dropdown menu).

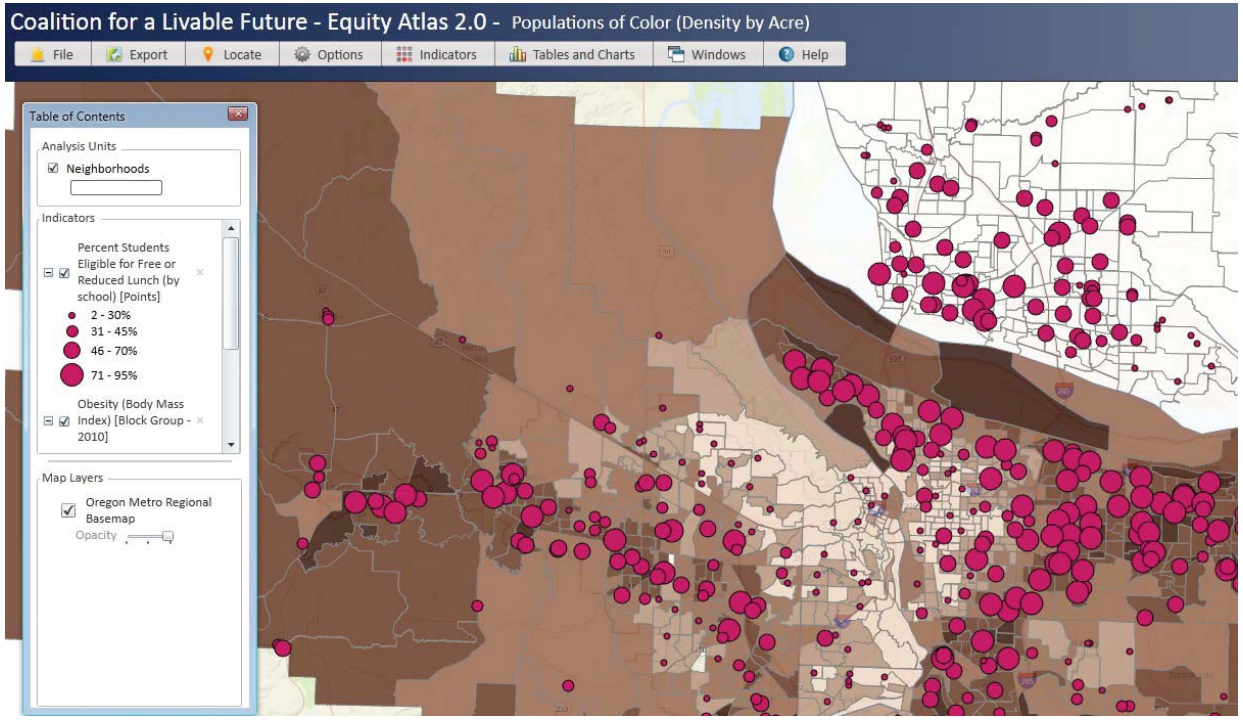
Shapes are displayed as points (schools and address locations) and polygons (Census Block Groups, Tracts, and PUMAs; zip codes; parks and natural spaces). The type of Shape that is used for each Indicator is shown in parentheses after its title.

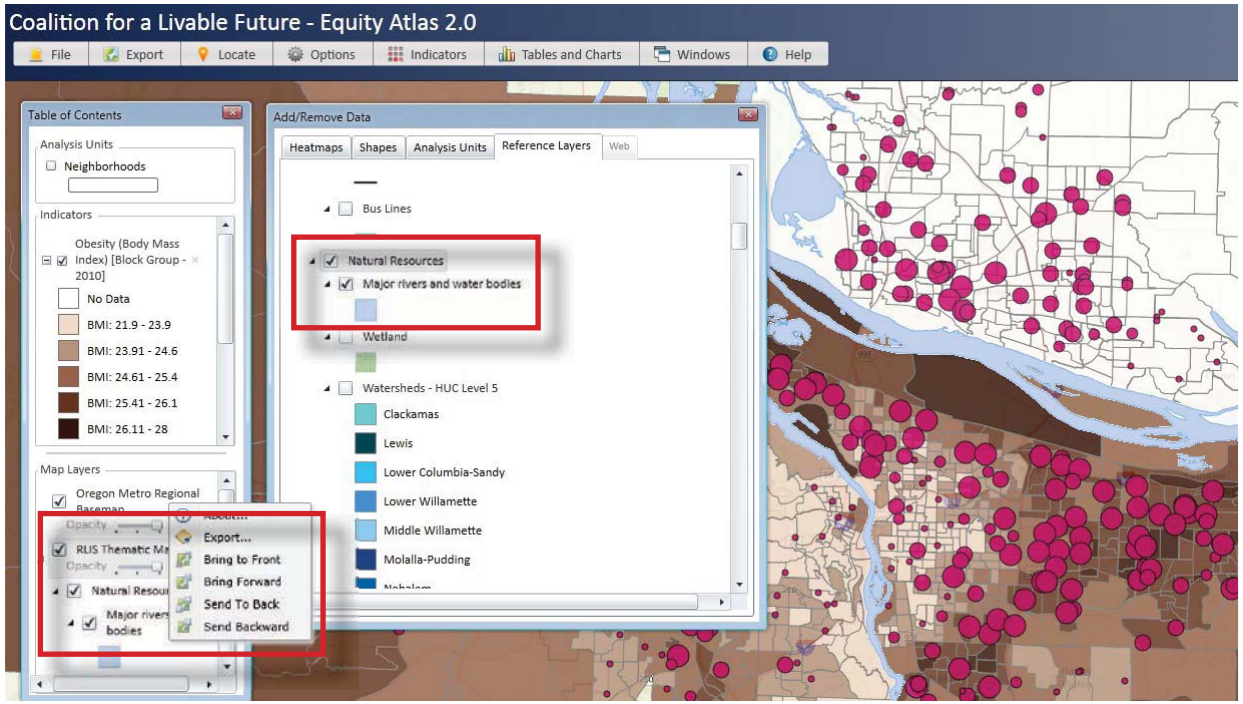
Note: *You will notice that some of the Shape Indicators are displayed in 2010 Census Tracts and others in 2000 Census Tracts. Census Tract boundaries change when populations significantly grow or decline. Whenever possible, 2010 Census boundaries are used, but, in some cases, the data were only available aggregated to 2000 Census boundaries.*

Unlike Heatmaps, Shapes are considered to be vector layers (as opposed to raster layers) where the data are displayed in pre-set geographic units rather than raster cells (or pixels). Shape Indicator data *may not* be re-aggregated to the Analysis Units, nor can their data be ranked and combined into composite scores.

However, an advantage of the Shape Indicators is that **you can view the actual data** (rather than a rank or score). You can do this by opening the Shape's Attribute Table or by mousing-over the map.

Note: *Points and polygons may be displayed together but only one polygon indicator can be displayed at a time. Additionally, point and polygon Shapes may be displayed with Heatmaps.*





Adding Reference (Map) Layers
As you view your map, you may find it easier to identify locations on the map by adding additional Reference or Map Layers to your map.

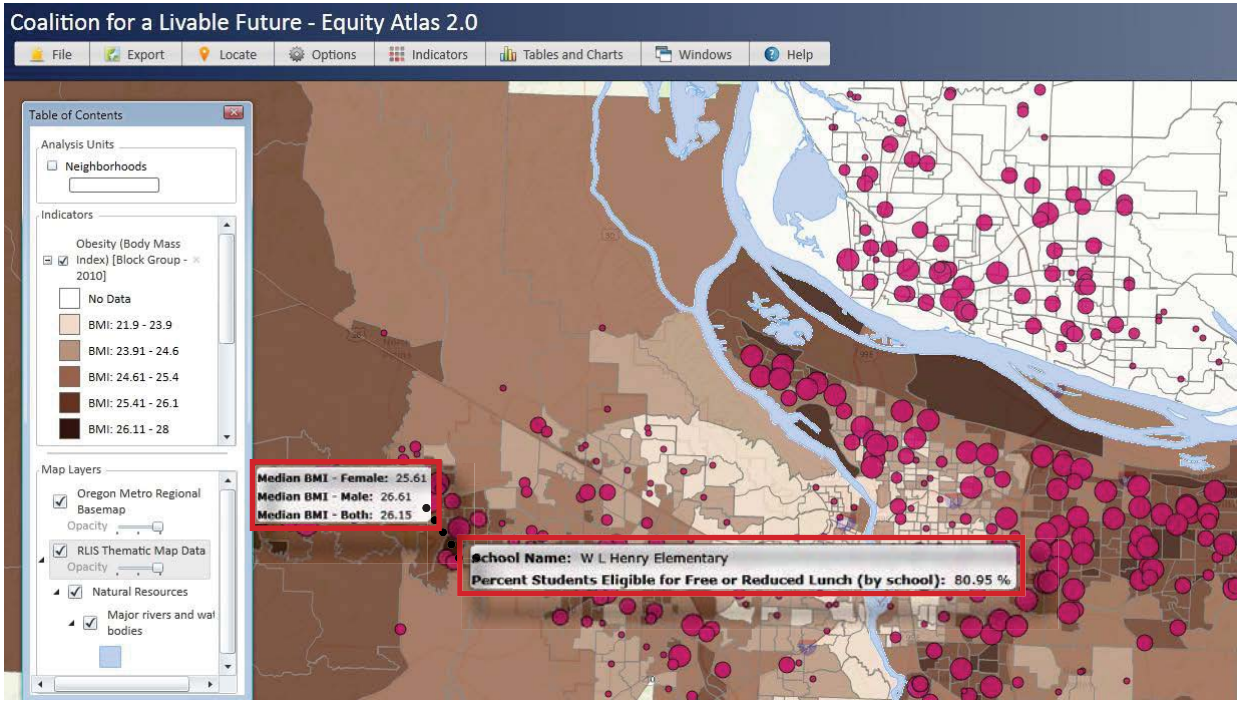
To add a new Reference Layer to your map, click on the Indicators tool in the Toolbar and click on Add/Remove Indicators to open the Add/Remove Indicators window.

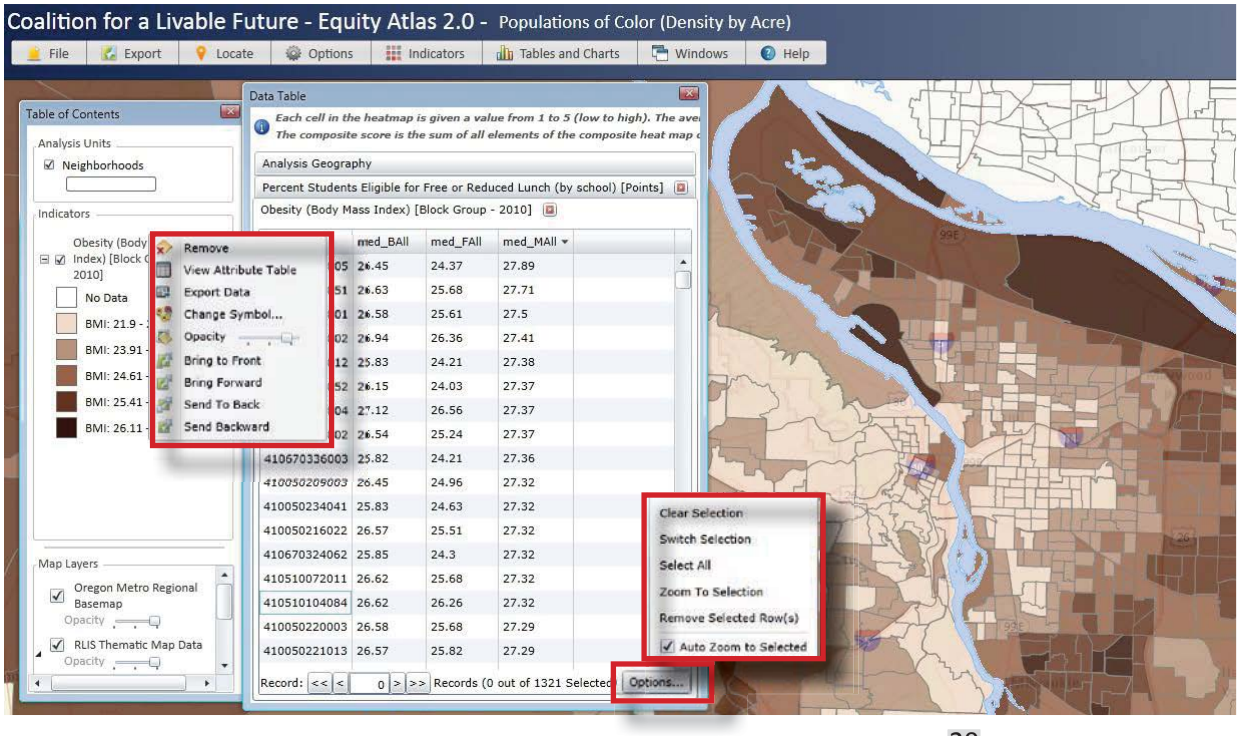
Next, click on the Reference Layers tab and use the scroll bar on the right side of the window to view the options. The options are:

- Oregon Metro Regional Basemap (default) (includes opacity slider)
- 2011 Metro Region Aerial Photos (includes opacity slider)
- RLIS Thematic Map Data (includes opacity slider)

Note: The RLIS Thematic Map Data includes a sub-menu of a variety of map layers. To make these visible, you will need to click on the category headings for each category and sub-category within which the layer is nested. For example, to make Major Rivers and Water Bodies visible, you will need to click on the box next to that layer and also click on the box next to Natural Resources (which is the category that Major Rivers and Water Bodies is nested within) and the box next to RLIS Thematic Map Data (the category within which the Natural Resources is nested within).

To bring a Map Layer to Front, right click on the main menu item to reveal the options.





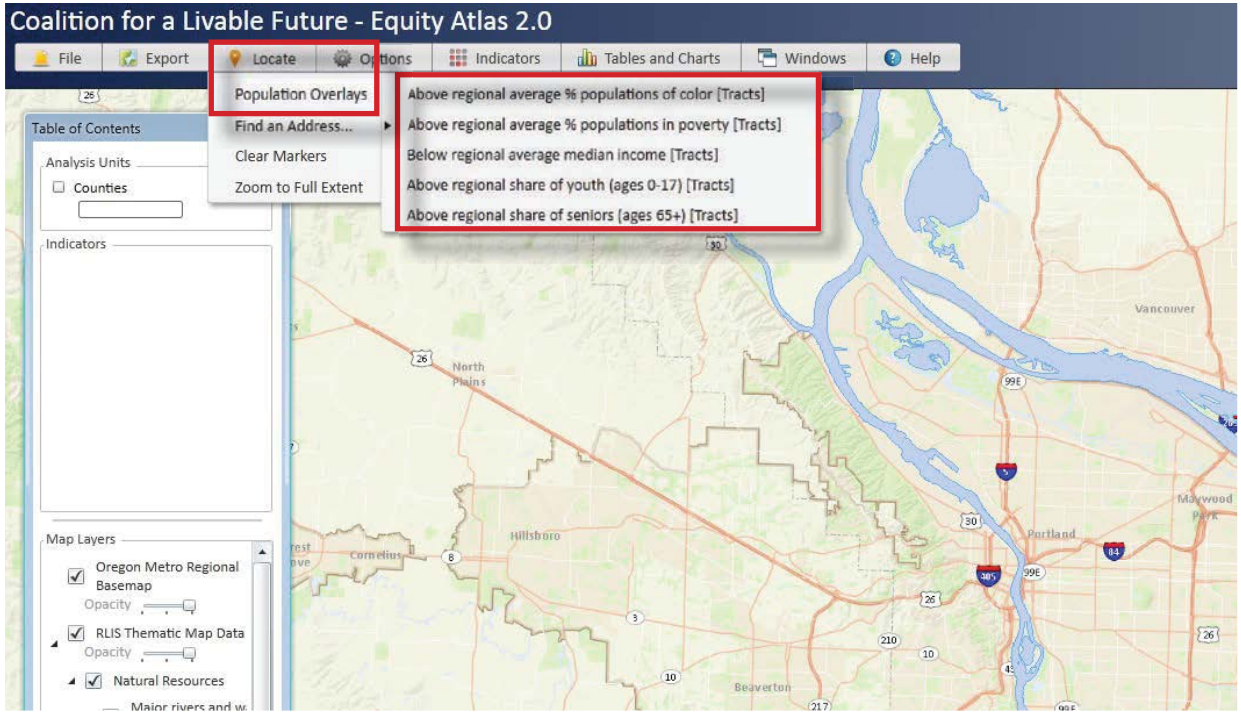
Shapes: Map Data
There are several ways to view the data that underlie Shapes. These include:

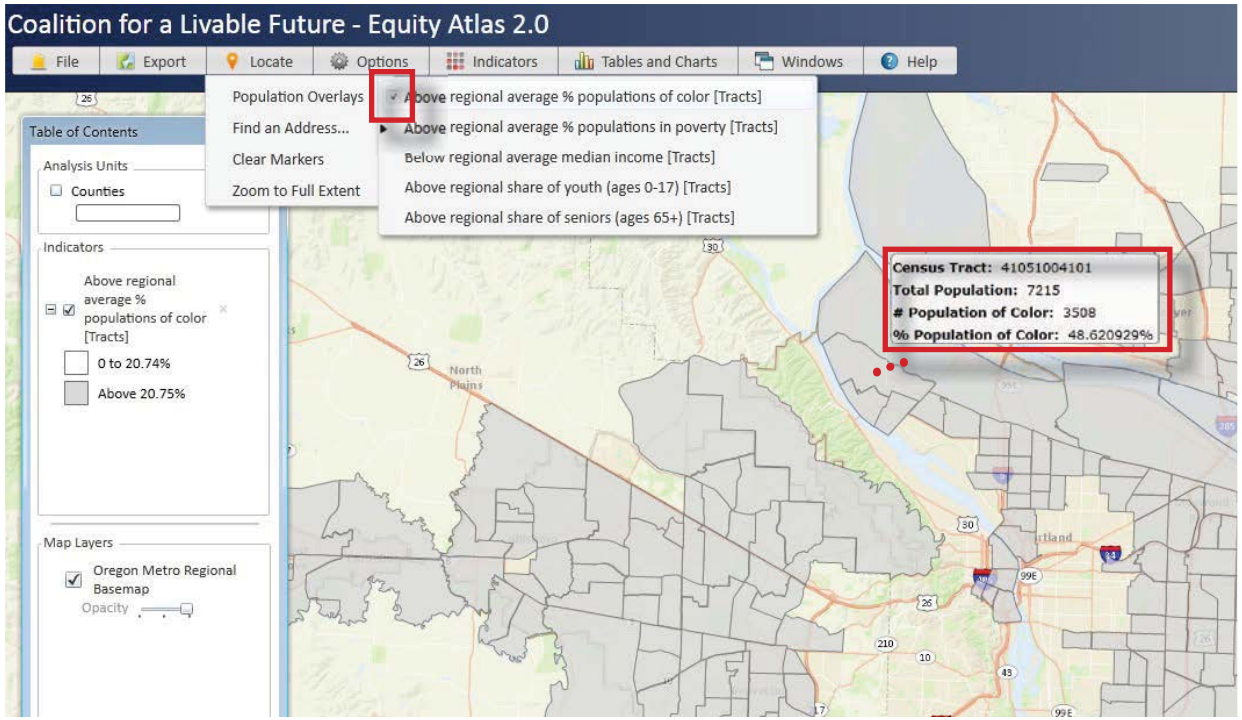
- Mouse scroll-over
- Data Table (Attribute Table)

As you scroll over the shapes on your map with the mouse, a pop-up window will show the statistics for each geographic unit that is mapped. For example, if the Shape Indicator is mapped by 2010 Census Tracts, the pop-up window will show the statistics for each Census Tract as you scroll over it.

Shapes: Map Data: Tables
You may also view and export the data table for each Shape. To do this, right-click on the Shape name in the Table of Contents and either View Attribute Table (to view in the tool) or Export Data (to save the table as a .csv file that can be opened in Excel).

Once the Data Table (Attribute Table) is open, you can click on the Options button on the lower right-hand corner of the table for options such as selections, zooming to selection, or automatic zoom to the feature on the map that corresponds with the selected record. You may also manually select records in the table to select.





Adding Population Overlays

The Locate menu bar includes Population Overlays for several key populations of interest:

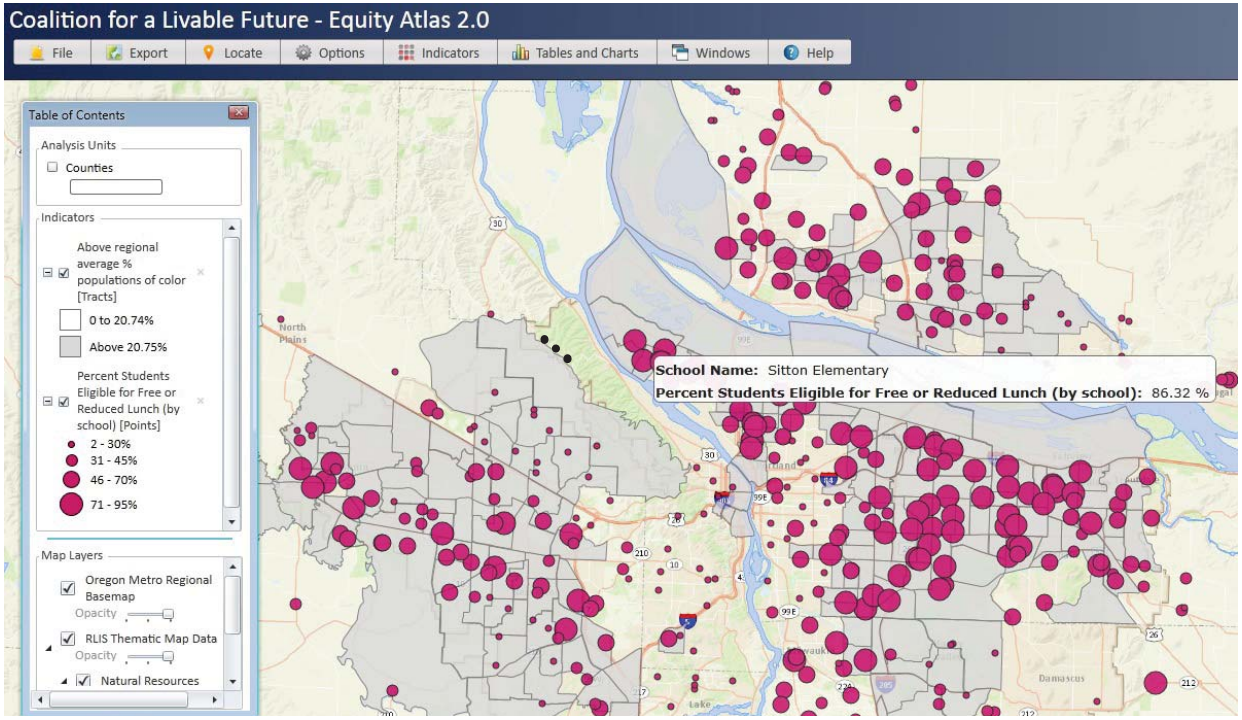
- Above regional average percent populations of color
- Above regional average percent populations in poverty
- Below regional average median household income
- Above regional share of youth (ages 0-17)
- Above regional share of seniors (ages 65 and over)

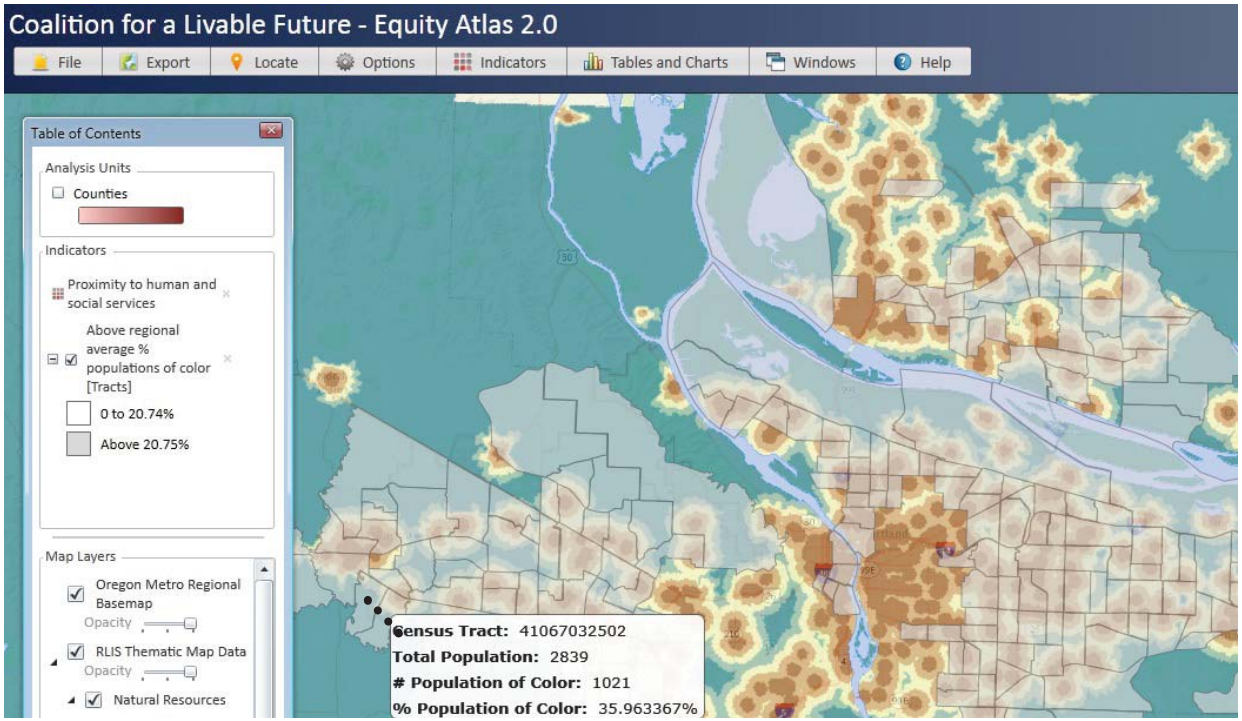
The overlays use light grey shading to highlight the Census Tracts with the populations that fit the criteria for each overlay. For example, if you select "Above regional average percent populations of color," the overlay will highlight the Census Tracts that have densities of populations of color that are above the regional average.

The overlays are intended to be layered with other indicators for quick viewing of the relationship between those indicators and key demographic indicators.

When you add a Population Overlay to your map, a check mark will appear in the Population Overlays dropdown menu.

As you scroll across your map, the Census Tract ID number and relevant statistics for each Tract will appear.

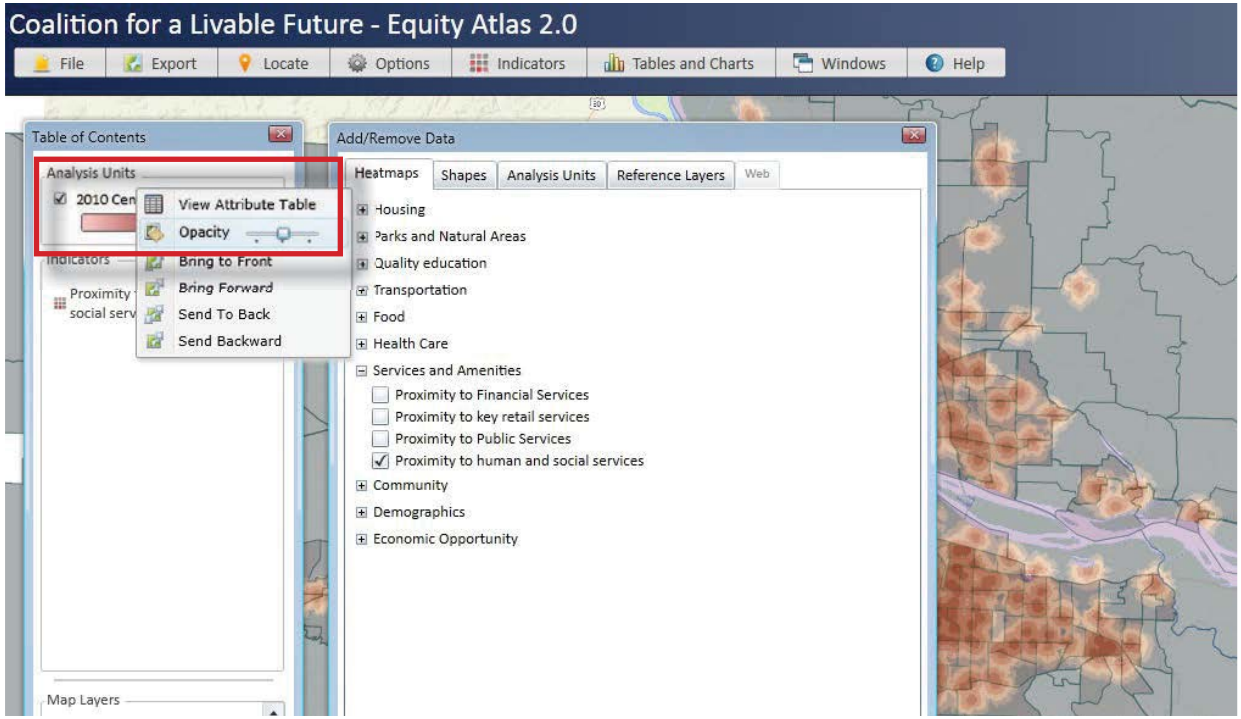


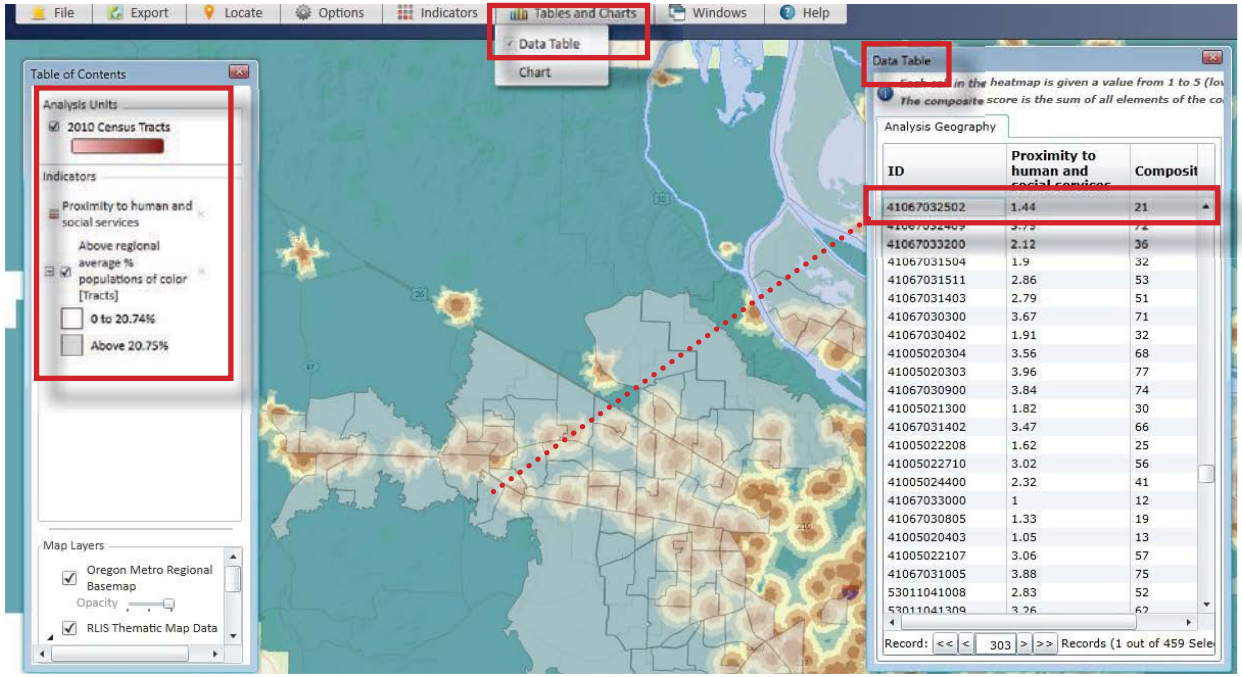


Population Overlays and Indicators
These Shape layers are intended to provide a **reference** that allows you to locate these populations in relationship to other indictors (Shapes and Heatmaps) — where they overlap and where they don't.

Note: *To view the Heatmap densities beneath the Population Overlay reference layers, adjust the Opacity of the Population Overlay layer by right-clicking on its title in the Table of Contents window.*

Adding Population Overlays

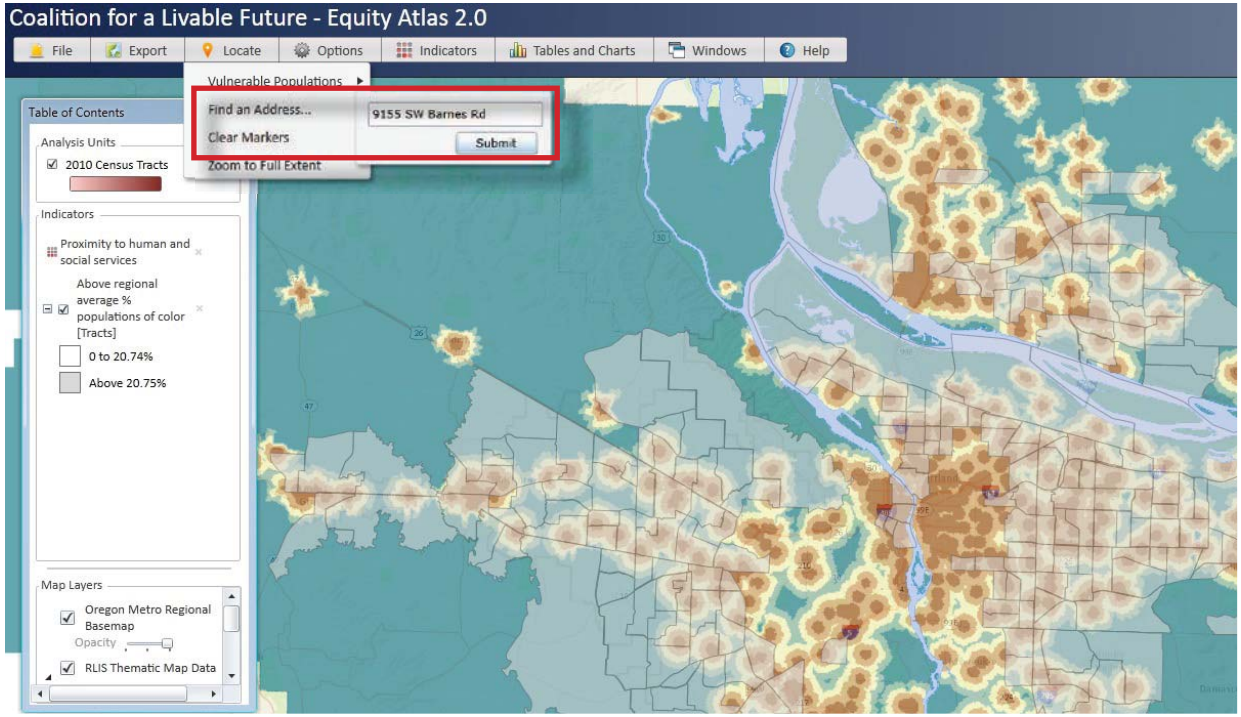


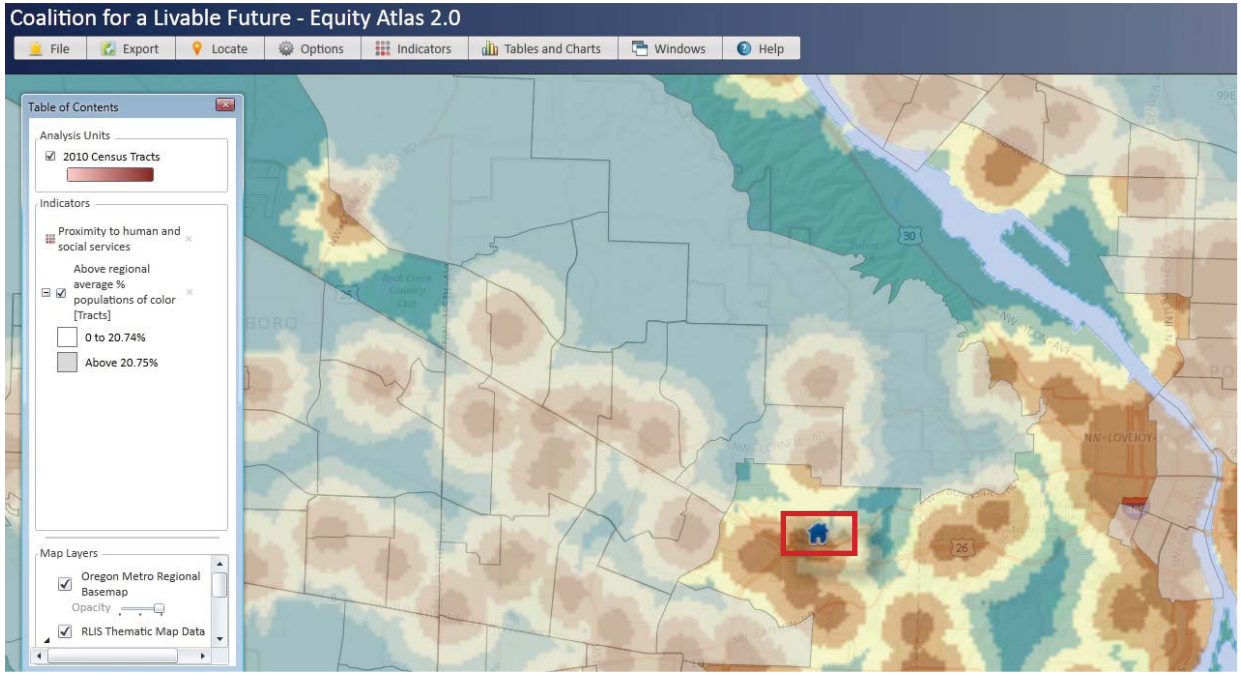


Adding Population Overlays: Viewing Heatmap Statistics

You may view the Population Overlays with the Heatmaps. Although the Population Overlay data (which are Shapes) cannot be combined with the Heatmap data, you can view Heatmap data for corresponding Population Overlay geographies by doing the following:

- Change the Analysis Unit to 2010 Census Tracts to match the geographic units of the Population Overlay layer.
- Add a Heatmap Indicator.
- Adjust the Opacity of the Analysis Units to make the Heatmap visible by right-clicking on the title of the Analysis Units in the Table of Contents Window.
- Add a Population Overlay layer.
- Adjust the Opacity of the Population Overlay layer so that the Heatmap and the Population Overlay layer can be seen simultaneously.
- Add a Data Table by clicking on the Tables and Charts tool in the toolbar.
- When you click on each Census Tract in the map, the corresponding data in the table will be highlighted.





Find an Address

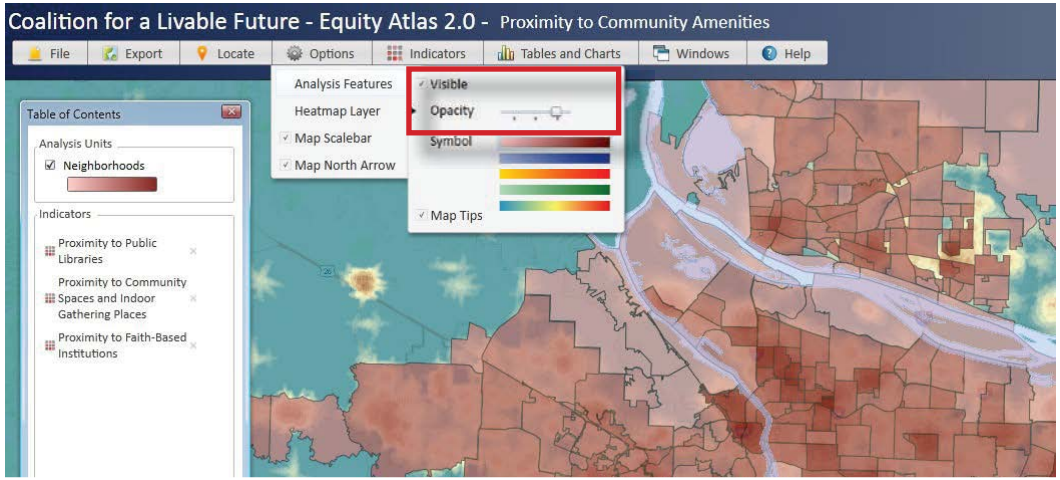
Find an Address
You can add a "Marker" for a location that is of particular interest to your map by clicking on the Locate tool in the toolbar and clicking on Find an Address.

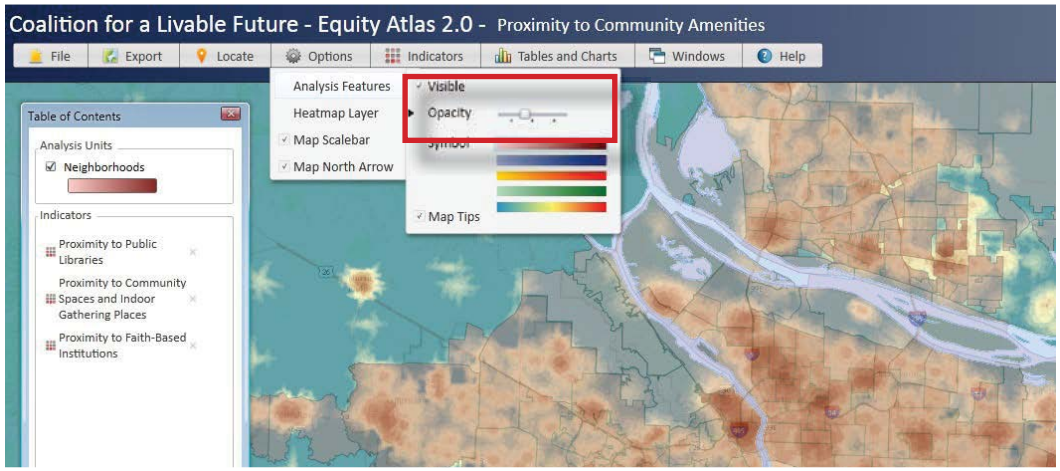
Type in a street address and click on Submit.

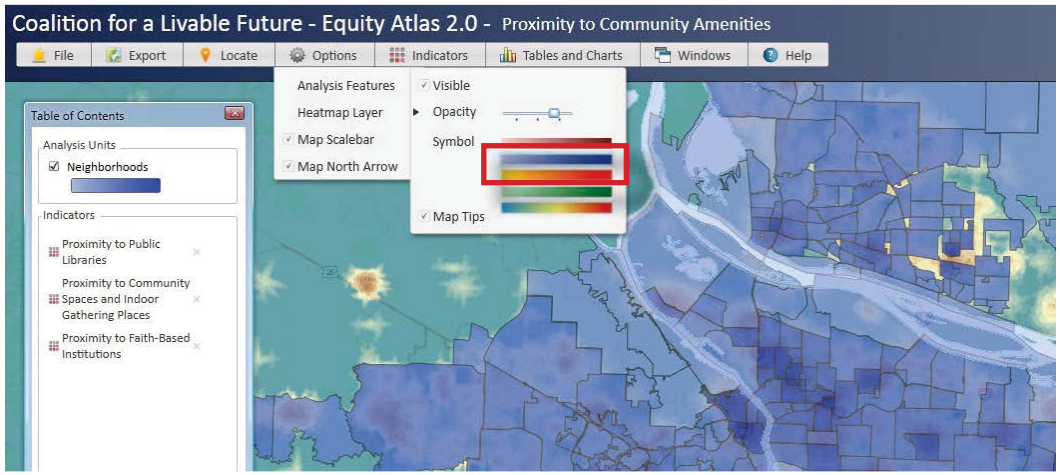
Note: *Currently, the Find an Address feature only works for addresses in Clackamas, Multnomah, and Washington counties.*

When you click Submit, the map will zoom in to the location and a marker will be placed there.

To remove the marker from your map, click on the Locate tool in the toolbar and then click on Clear Markers in the dropdown menu.





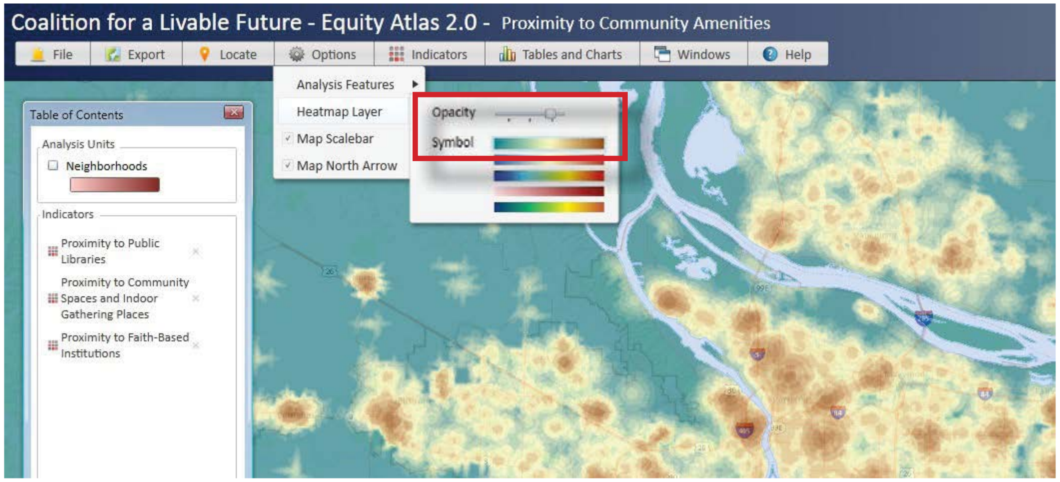


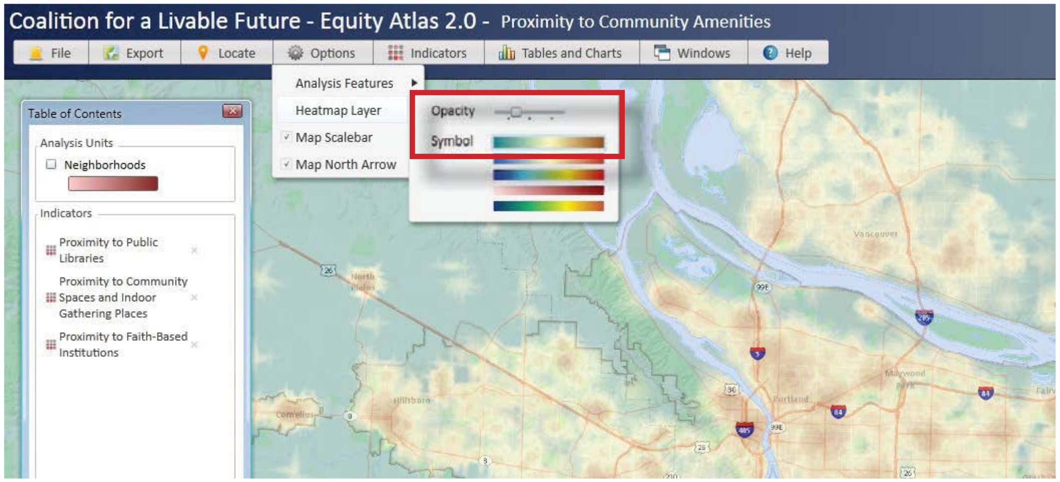
CHANGING SYMBOLOGY
You can change the opacity (transparency) and the colors of the Analysis Units and the Indicators. There are several ways to do this.

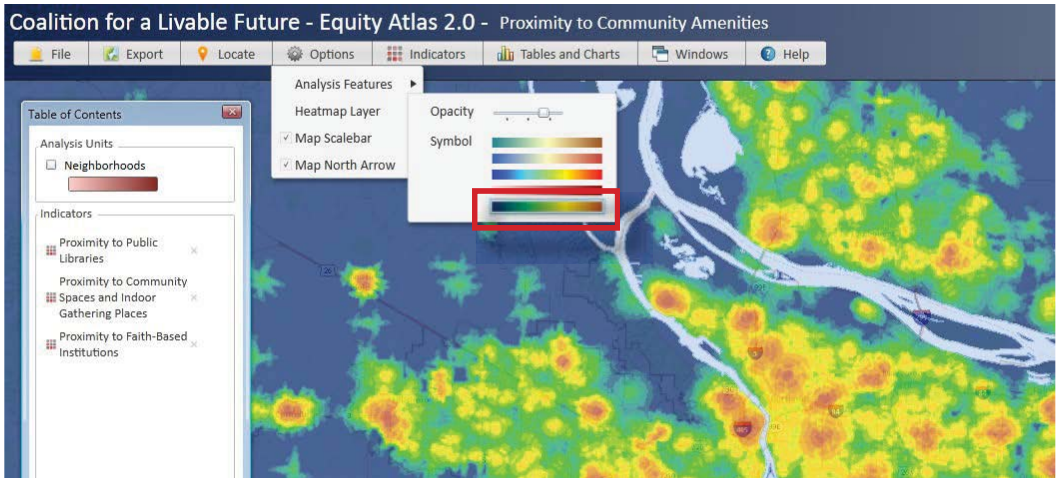
Options Dropdown Menu: Analysis Units
The **opacity**, or transparency, of the Analysis Units which cover or reveal underlying Heatmaps, can be changed by moving the Opacity Slider to the right (opaque) or left (transparent).

The **color** of the Analysis Units can be changed by selecting a color ramp from the Symbol choices.

Note: *The Map Tips (i.e. the pop-up windows that show data as you mouse-over and pause over each geographic unit on the map) may be turned "off" here as well.*



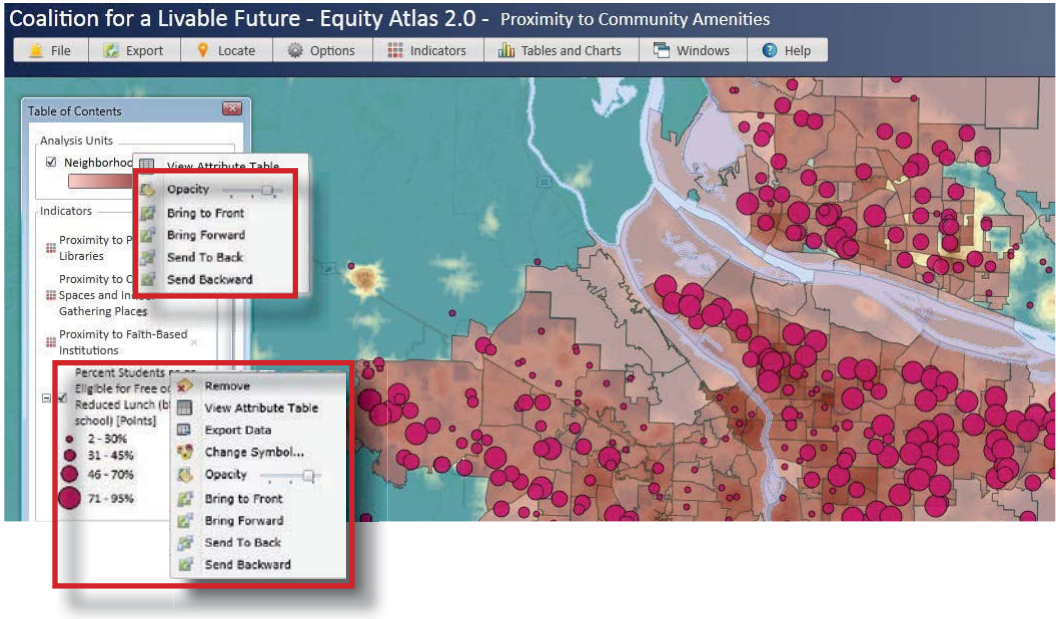


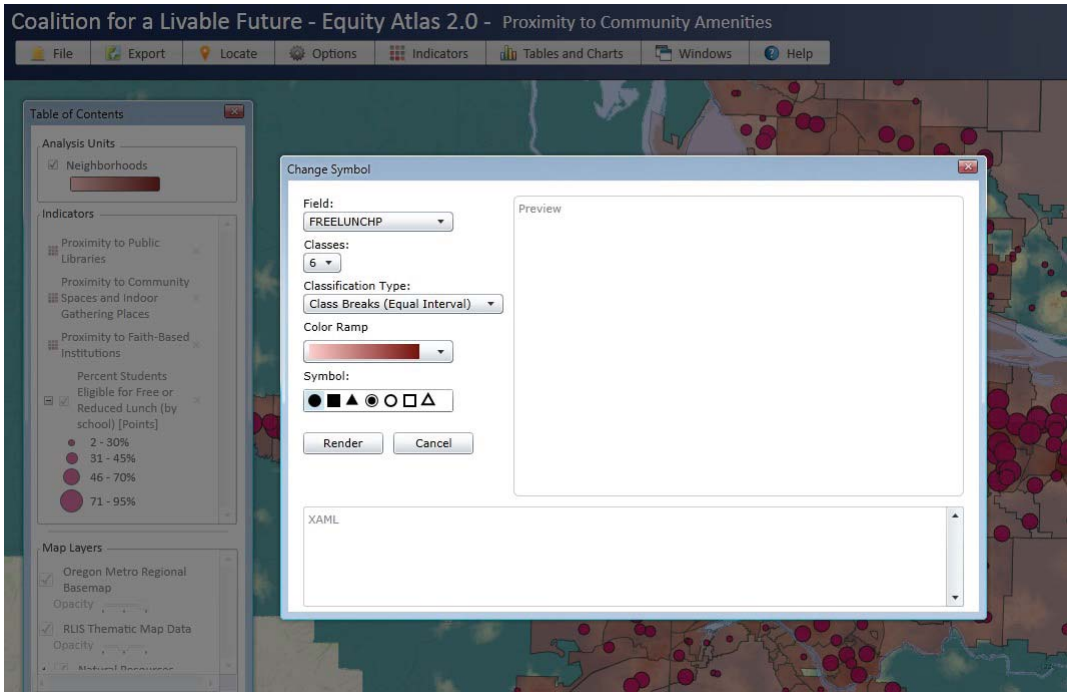


CHANGING SYMBOLOGY
Options Dropdown Menu:
Heatmap Layer

The **opacity**, or transparency, of the Heatmaps can be changed by moving the Opacity Slider to the right (opaque) or left (transparent).

The **color** of the Heatmaps can be changed by selecting a color ramp from the Symbol choices.





CHANGING SYMBOLOGY
in the Table of Contents

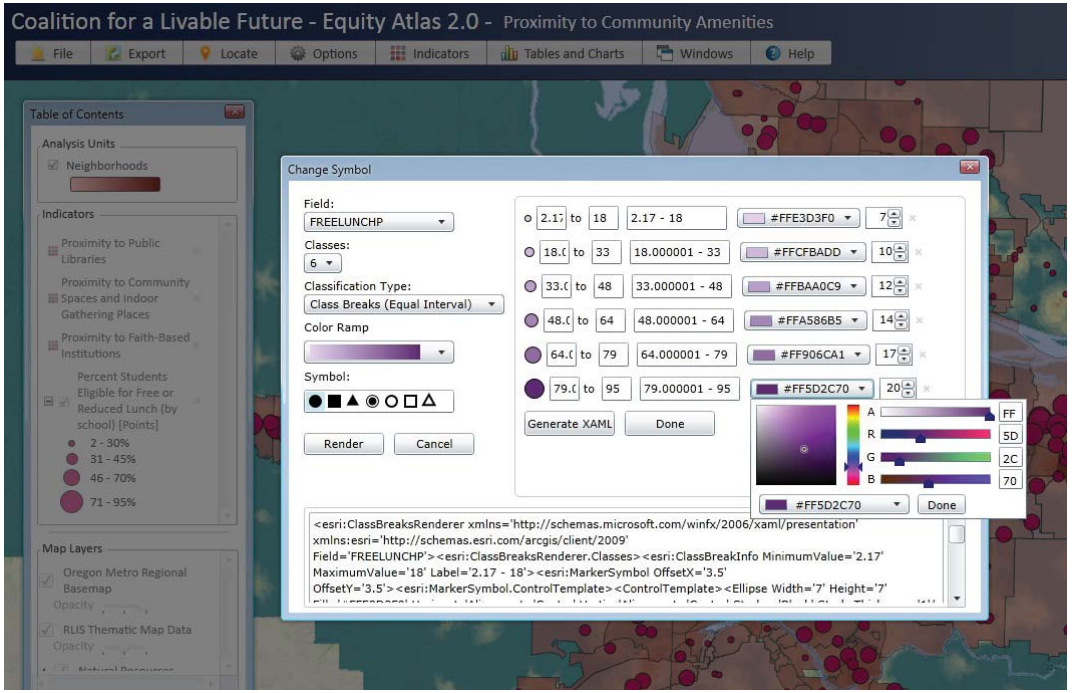
A number of options for changing the symbology are available by **right-clicking** on the Analysis Units and Shapes in the Table of Contents. They are as follows:

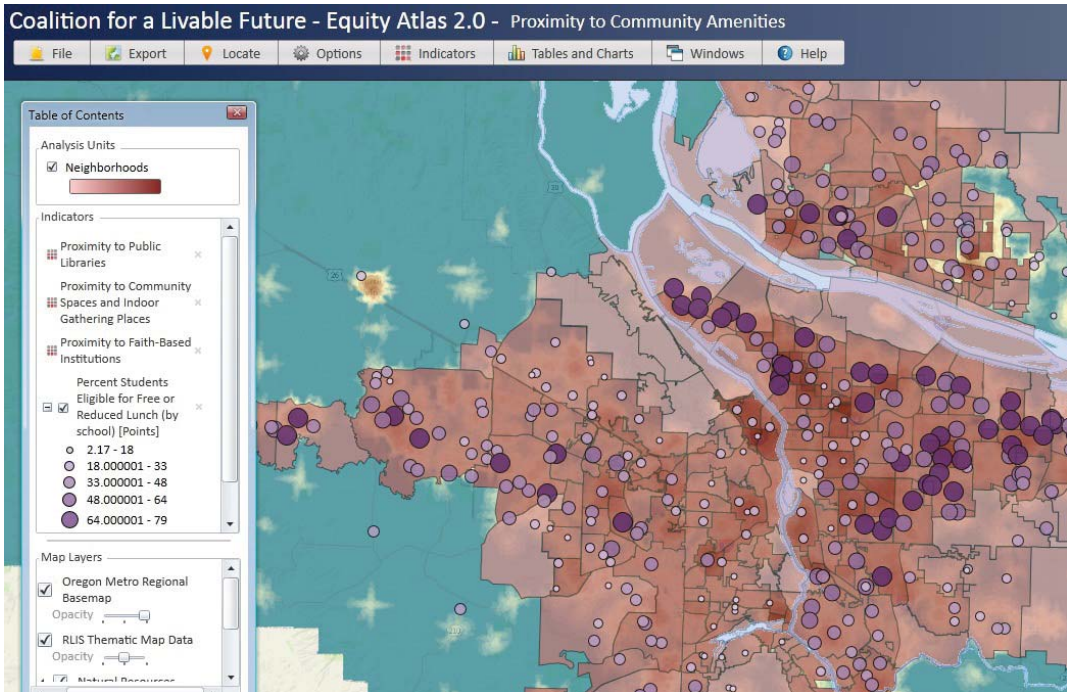
- Analysis Units: Opacity, Order
- Shapes: Opacity, Color, Size, Order

Change Symbol Window (Shapes)

When you right-click on a Shape name, the Change Symbol window will open. Several choices are available here:

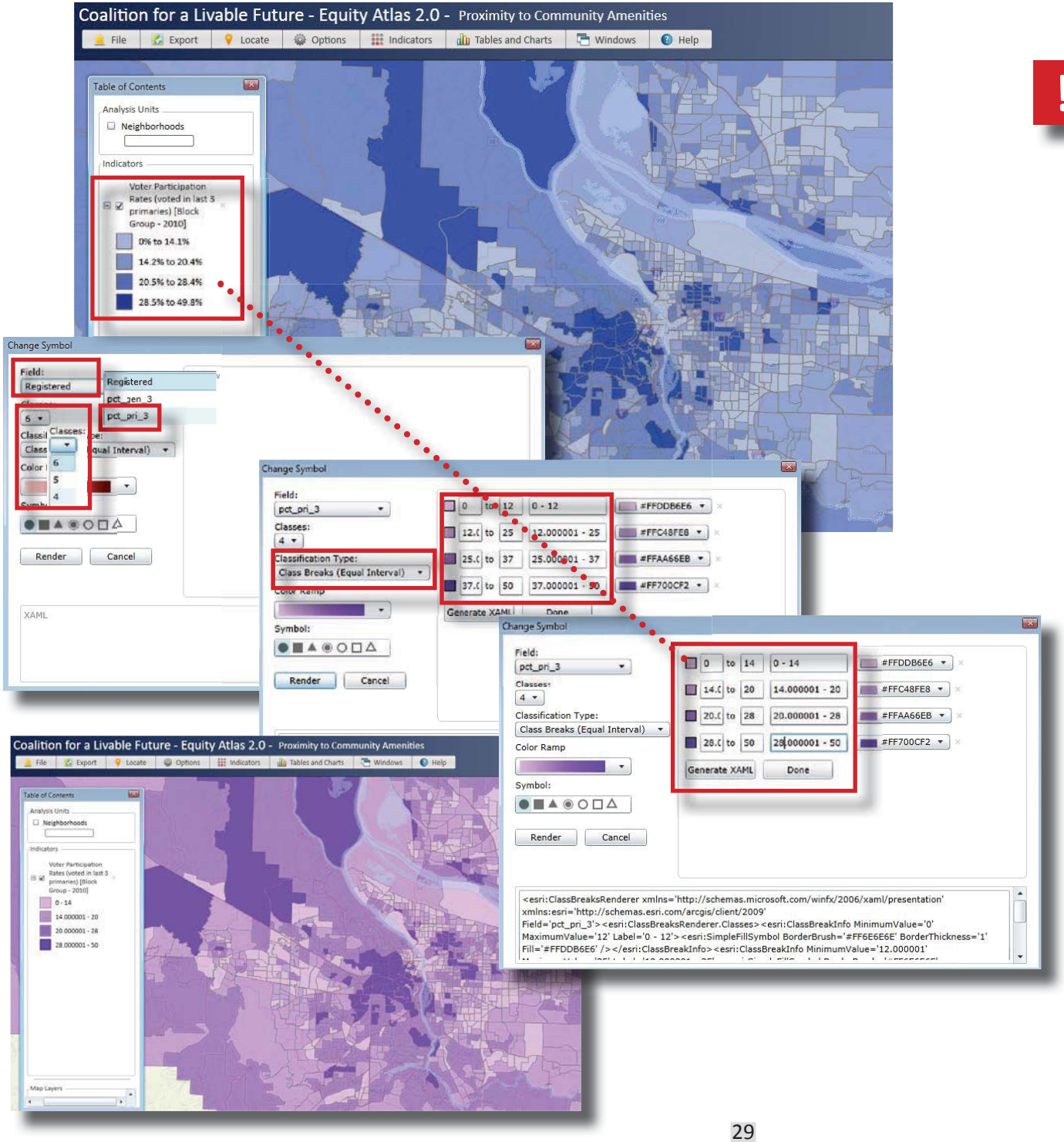
- Field: the dropdown menu allows you to choose a different field in the indicator's database if available.
- Classes: allows you to choose the number of classes to be mapped (2-6)
- Classification Type: three classification systems are available (unique values, equal interval, single symbol)
- Color Ramp
- Symbol: a number of point symbols are available





Change Symbology Window (Shapes)
After you have made your selections, click on Render. The new symbology is now visible in the Preview frame of the Change Symbol window. You can modify the colors further by clicking on the dropdown symbol next to the color name.

When you are done with modifying the Shape's symbol, click on Done to change the Shape's symbology on the map.



Change Symbol Window: Caveats

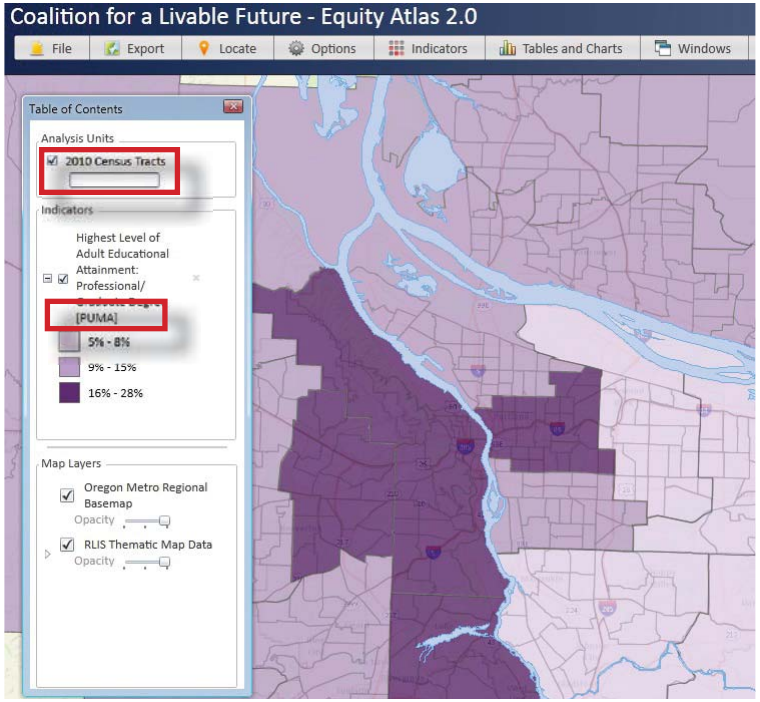
The classifications used for the Shape Indicators have been carefully chosen to best reflect the distribution of the data (a classification system called Natural Breaks). Care must be taken if you decide to use the Change Symbol window because none of the original symbolization is retained in this window. The original class breaks must be entered manually. This can be done as follows:

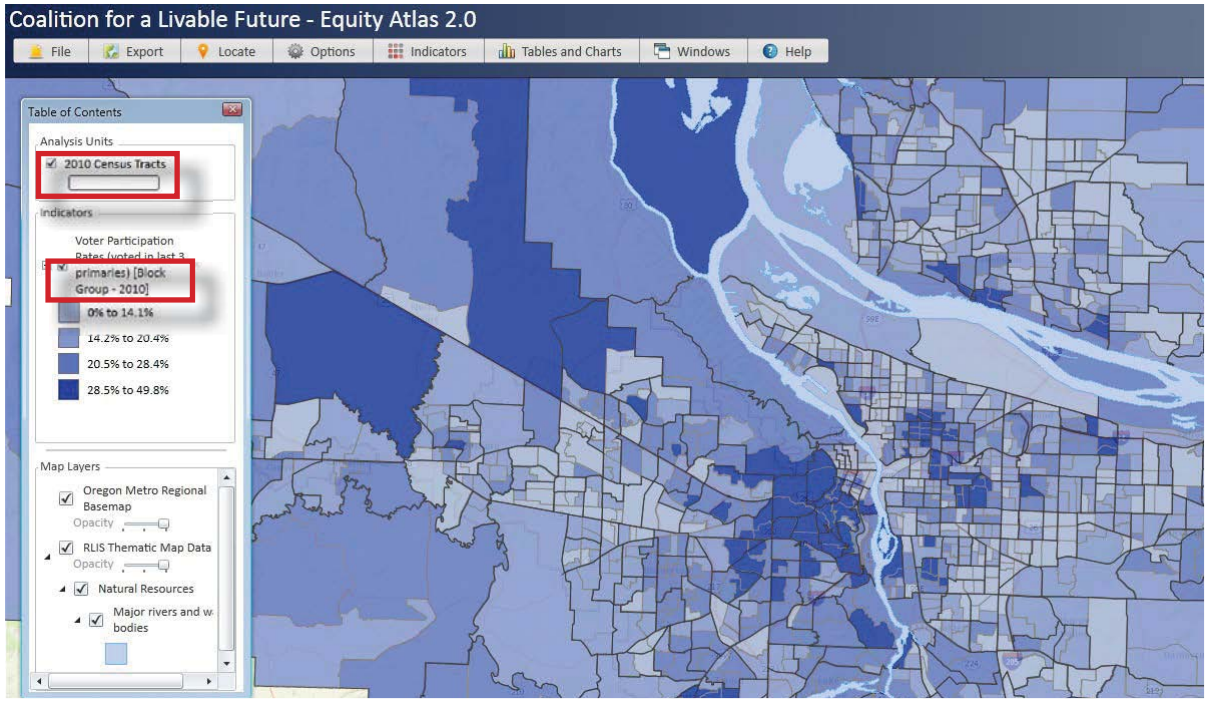
1. Right-click on the Shape you want to change to open the Change Symbol window.
2. Check the Shape's title to be sure that you know the data that are mapped.
3. Under "Field" choose the correct data.
4. Choose the same number of classes as the original.
5. Under "Classification Type" choose Class Breaks (Equal Interval).
6. Choose a color.
7. Click on Render to view the results in the Preview frame.
8. The results reflect Equal Intervals, not Natural Breaks. You will need to edit the numbers to reflect the numbers in the original symbology (you can see these in the Table of Contents, which is grayed out, to the left of the Change Symbol window). Round the decimals up or down so that you are only changing the whole numbers. This will not change the result.
9. Click on Done.

ATLAS GEOGRAPHIES

The Regional Equity Atlas 2.0 Mapping Tool features several geographies for its Shape Indicators. They include:

- Census Block Groups (2010)
- Census Tracts (2010 and 2000): Whenever possible 2010 Tracts are used but in some cases, data were only available in 2000 Tracts.
- Census PUMAs (2010)
- Neighborhoods: The Q Corp and Health Outcome data are aggregated to both 2010 Census Tracts and Neighborhood boundaries.
- Zip Codes: The finest level at which these data were available.
- TAZs: Traffic Analysis Zones are special areas delineated by state and/or local transportation officials for tabulating traffic-related data.





FINDING CENSUS TRACTS

Census Geographies

In order to protect the anonymity of respondents to the U.S. Census, Census data is aggregated to various geographies. Although these geographic boundaries align with streets and natural geographic features, such as rivers, they do not usually align with neighborhood boundaries.

Three types of Census geographies are featured in the Regional Equity Atlas Mapping Tool. These are:

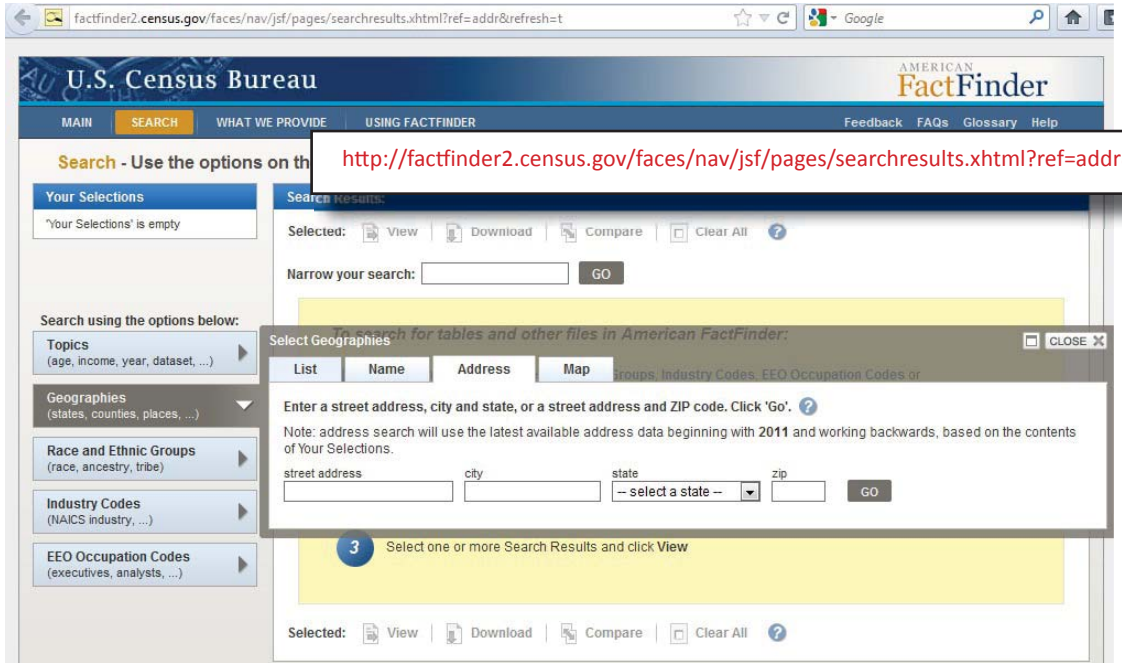
- PUMAs
- Census Tracts
- Census Block Groups

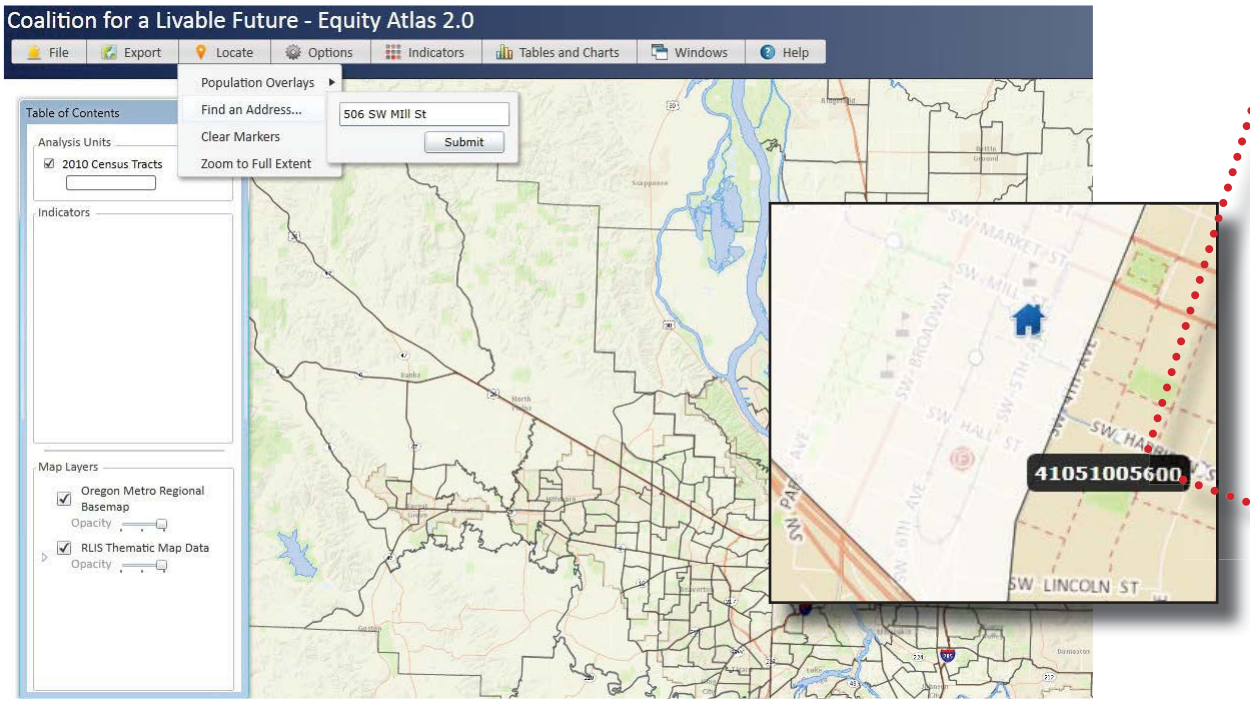
PUMAs (Public Use Microdata Areas) are smaller than counties but larger than Tracts. Only American Community Survey data that are unreliable at the Tract level are displayed in PUMA geographies.

Census Tracts are small, relatively permanent statistical subdivisions of a county delineated by local participants as a part of the U.S. Census Bureau's Statistical Areas Program.

Census Tracts typically contain between 1,500 and 8,000 people, with an optimum number of 4,000. When first delineated, they are designed to be homogeneous with respect to population characteristics, economic status, and living conditions. However, as conditions change, such as changes to land use, Census Tracts may become less homogeneous in character. Moreover, as populations grow or substantially decline, Census Tracts may be split or combined.

Census Block Groups nest within Census Tracts and therefore produce a finer spatial resolution in maps. For the Regional Equity Atlas 2.0 the decision as to which Census geography is used is based on the reliability of the data for each geography.





How to Find a Census Tract:
Find by Address

The Census Tract is the most widely used Census geography for neighborhood level geographies. Census Tract names, however, are not particularly user-friendly. These FIPS (Federal Information Processing Standard) codes are constructed as follows:

1. 2-digit State code
2. 3-digit County code
3. 6-digit Tract code

In the Atlas, these are combined into one 11-digit number.

One way to find a Census Tract for a particular address is to go to the Census Bureau's American Factfinder 2 website (shown in red). Here, you can enter an address and all of the Census geographies appear with their numbers.

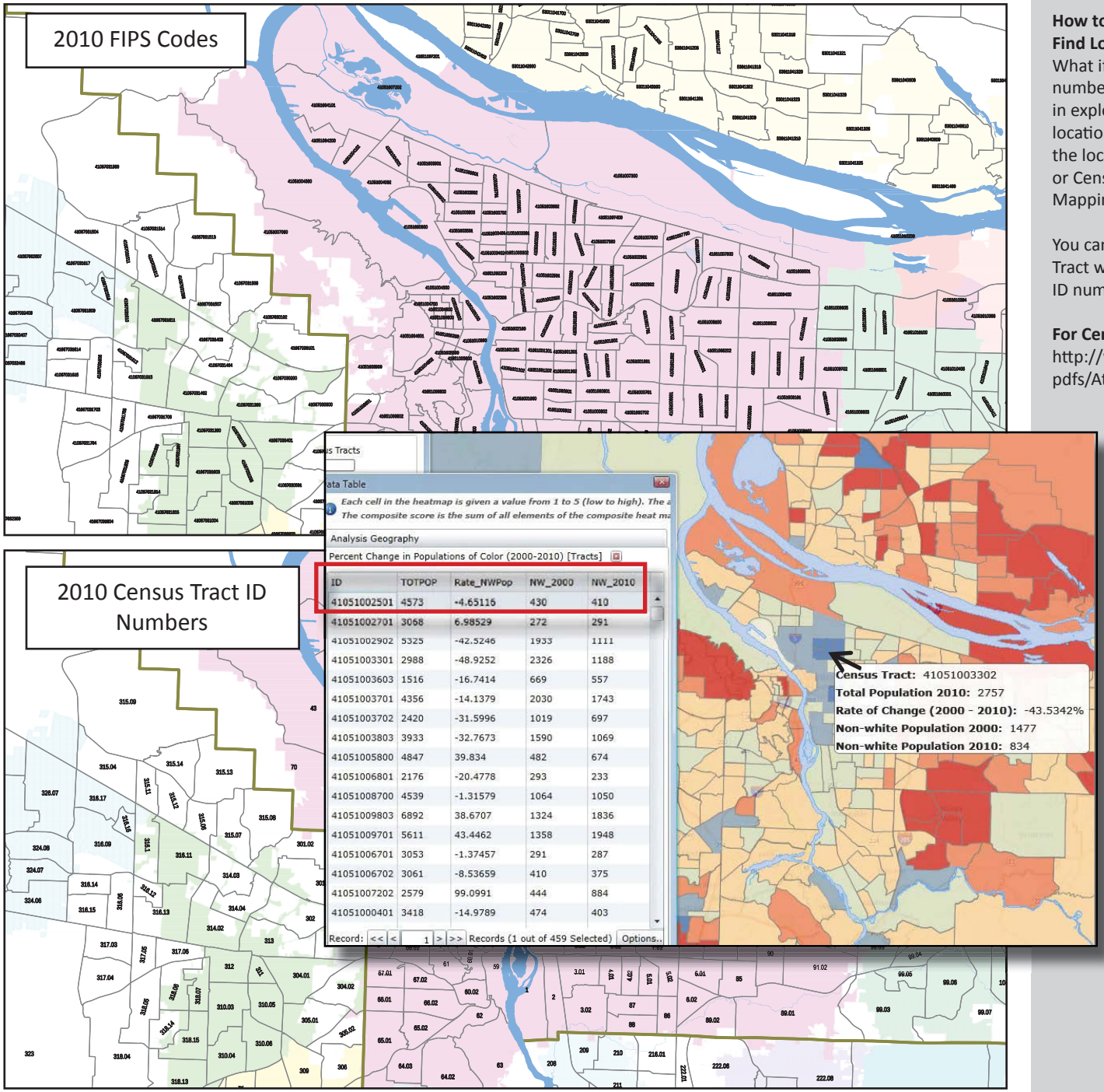
You can also find the Census Tract number for an address using the Regional Equity Atlas Mapping Tool. To do this, you will need to do the following:

- Set your Analysis Units to 2010 Census Tracts.
- Click on "Locate"
- Click on "Find an Address"
- Type in the address you want to search
- Click on Submit

When you have done this, the map will place a marker at the address and zoom into it.

Next move your mouse over the marker and the Census Tract will be highlighted in white and its 11-digit Census Tract FIPS code will appear.

Note: *This procedure will give you the FIPS code for the location of interest but also familiarize you with what the Census Tract looks like and where it is.*



ID	TOTPOP	Rate_NWPop	NW_2000	NW_2010
41051002501	4573	-4.65116	430	410
41051002701	3068	6.98529	272	291
41051002902	5325	-42.5246	1933	1111
41051003301	2988	-48.9252	2326	1188
41051003603	1516	-16.7414	669	557
41051003701	4356	-14.1379	2030	1743
41051003702	2420	-31.5996	1019	697
41051003803	3933	-32.7673	1590	1069
41051005800	4847	39.834	482	674
41051006801	2176	-20.4778	293	233
41051008700	4539	-1.31579	1064	1050
41051009803	6892	38.6707	1324	1836
41051009701	5611	43.4462	1358	1948
41051006701	3053	-1.37457	291	287
41051006702	3061	-8.53659	410	375
41051007202	2579	99.0991	444	884
41051000401	3418	-14.9789	474	403

How to Find a Census Tract:
Find Location by FIPS Code

What if you have a FIPS code or Census Tract ID number for a Census Tract that you are interested in exploring but don't know its geographic location? Unfortunately, it isn't possible to find the location of a Census Tract using its FIPS code or Census Tract ID number in the Equity Atlas Mapping Tool.

You can, however, find the location of a Census Tract when you know its FIPS code or Census Tract ID number by using the links below:

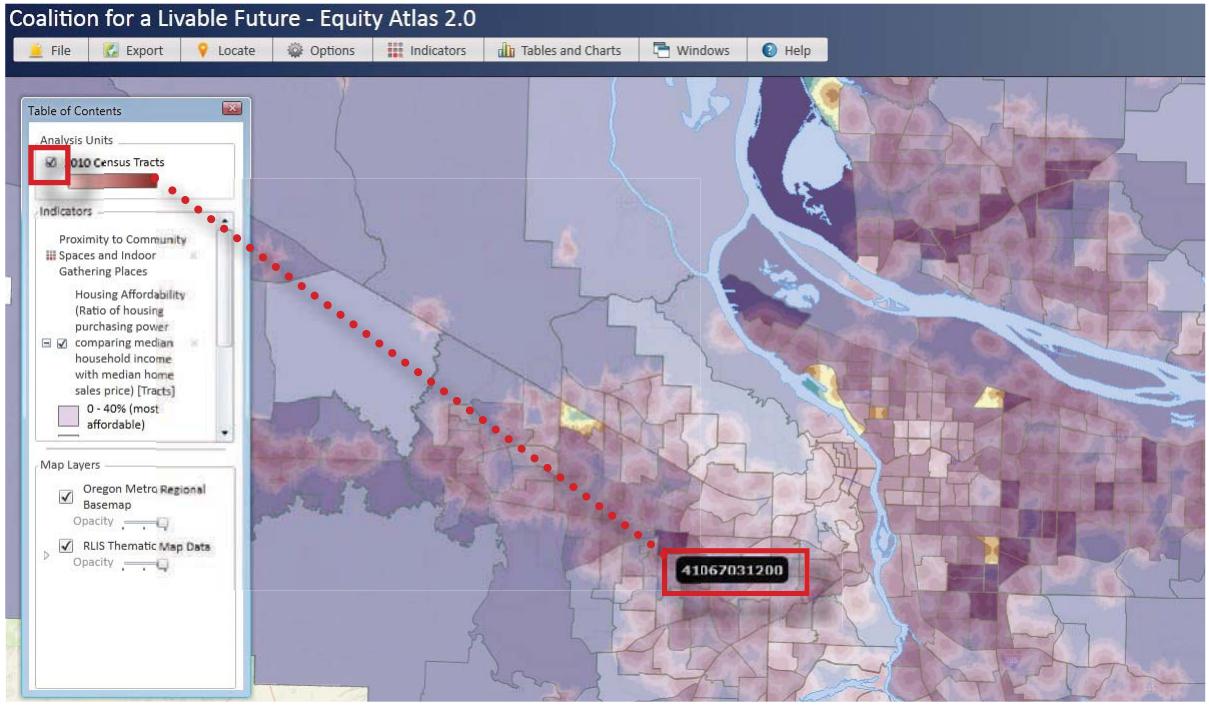
For Census Tract FIPS Code locations:
http://www.clfuture.org/sites/clfuture.org/files/pdfs/Atlas_2_0/census_tract_fips_locator.pdf

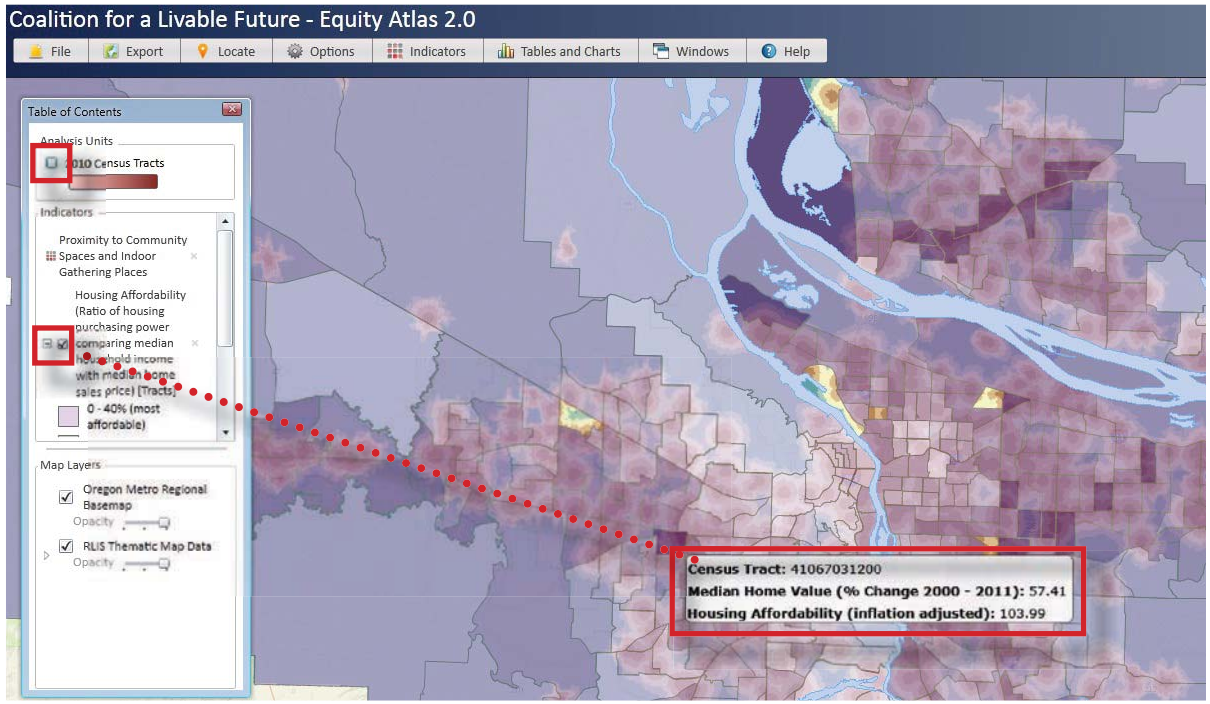
For Census Tract ID Numbers:
http://www.clfuture.org/sites/clfuture.org/files/pdfs/Atlas_2_0/census_tract_id_locator.pdf

Each link takes you to a pdf Census Tract Locator map (note: these are poster-sized pdfs). One has Census Tracts labeled with FIPS codes and the other has Tracts labeled with Census Tract ID numbers for the four counties in the Atlas Mapping Tool.

To find a Census Tract of interest, enter its FIPS code (in the 2010 FIPS Code pdf map) or the Census Tract ID number (in the 2010 Census Tract ID pdf map) into the "Find" window in your pdf reader and push "enter" on your keyboard. The pdf Find tool will zoom to the location of this Census Tract.

Knowing the location of a Census Tract, you can now, more easily, use the mouse-over procedure to view the corresponding indicator data in the map and attribute table.





Viewing the Data under the Maps: Mouse-over

For Shapes indicators, you can move your mouse over the map to view the underlying attribute data for each Shape. The data will appear in a pop-up window (or "map tip") that includes the Census Tract FIPS Code (when applicable) and the data for the indicator.

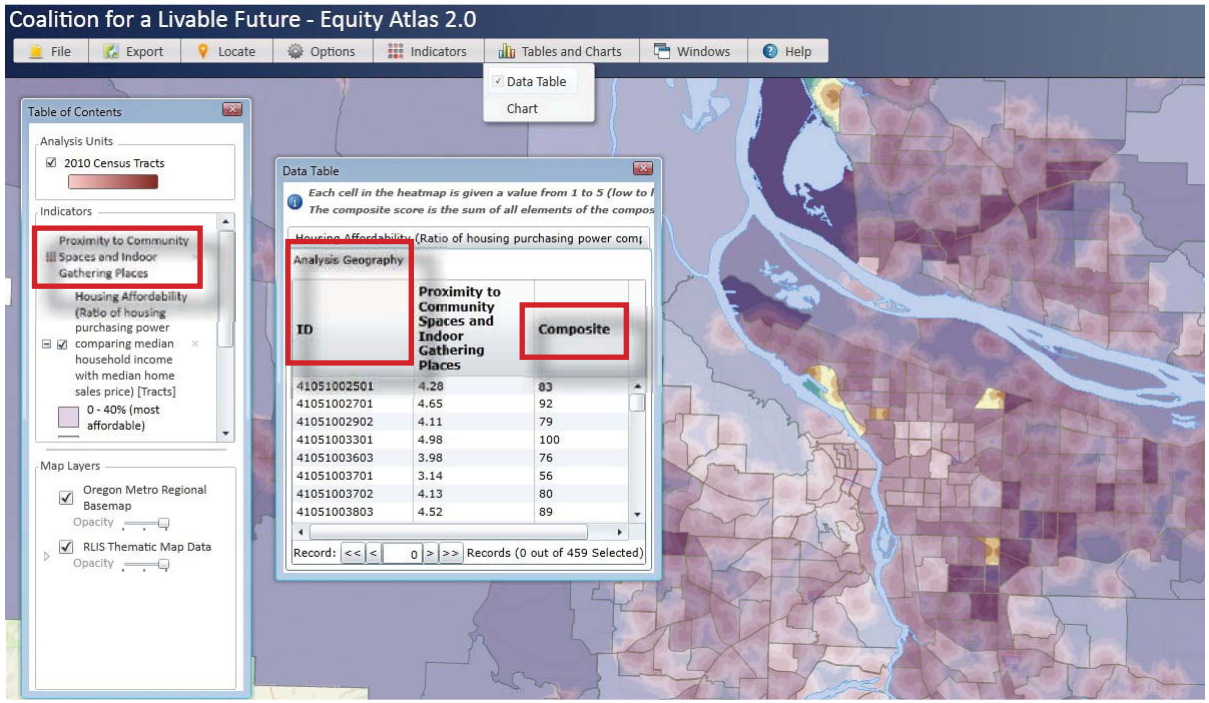
For Heatmaps indicators, moving your mouse over the map will display the Census Tract FIPS code (when you have chosen 2010 Census Tracts as your Analysis Units) or the neighborhood name (when you have chosen Neighborhoods as your Analysis Units). The underlying data associated with the Heatmaps are not available using the mouse-over method, but you can view the data by clicking on the Tables and Charts option from the Toolbar.

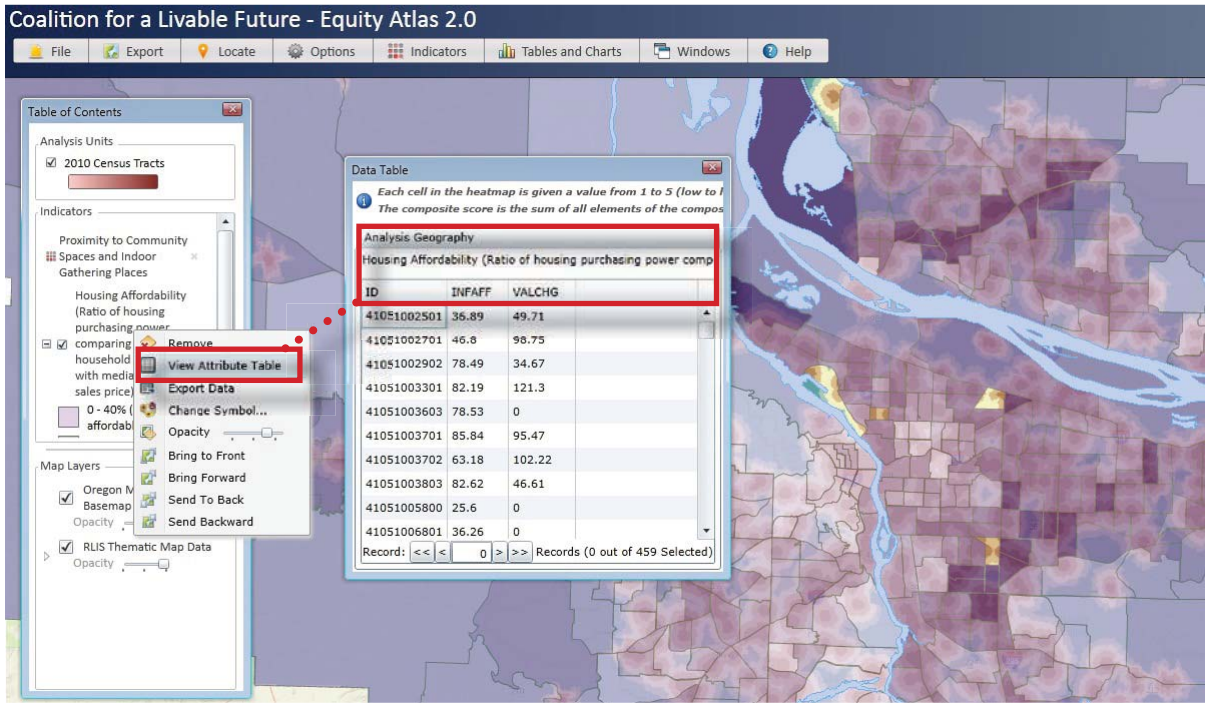
Note: *The Analysis Units for the Heatmap layers always draw on top of the Shape Indicators. As a result, the information that's shown in the pop-up window when you scroll over the map will correspond with whatever geographic unit is listed at the top of the Table of Contents window.*

In order to see the attribute information for the Shape indicators when you're using the mouse-over method, you will need to turn off the Analysis Units by unchecking the box at the top of the Table of Contents window.

In order to see the attribute information for the Shape Indicators using the mouse-over method, you will need to turn *off* the Analysis Units by clicking on the checked box.

Now, when you mouse-over each Census Tract, the attribute data associated with the Shape Indicator will appear.





Viewing the Data under the Maps: Regional Equity Atlas Mapping Tool Tables

You may view the attribute data (data table) for Heatmaps by clicking on the Tables and Charts on the Toolbar, and then the Data Table option. This opens the Data Table window.

The Heatmap data are aggregated by the Analysis Units that you selected for your map. If you have chosen 2010 Census Tracts as your Analysis Units, the FIPS code will be shown in the ID field of the Table.

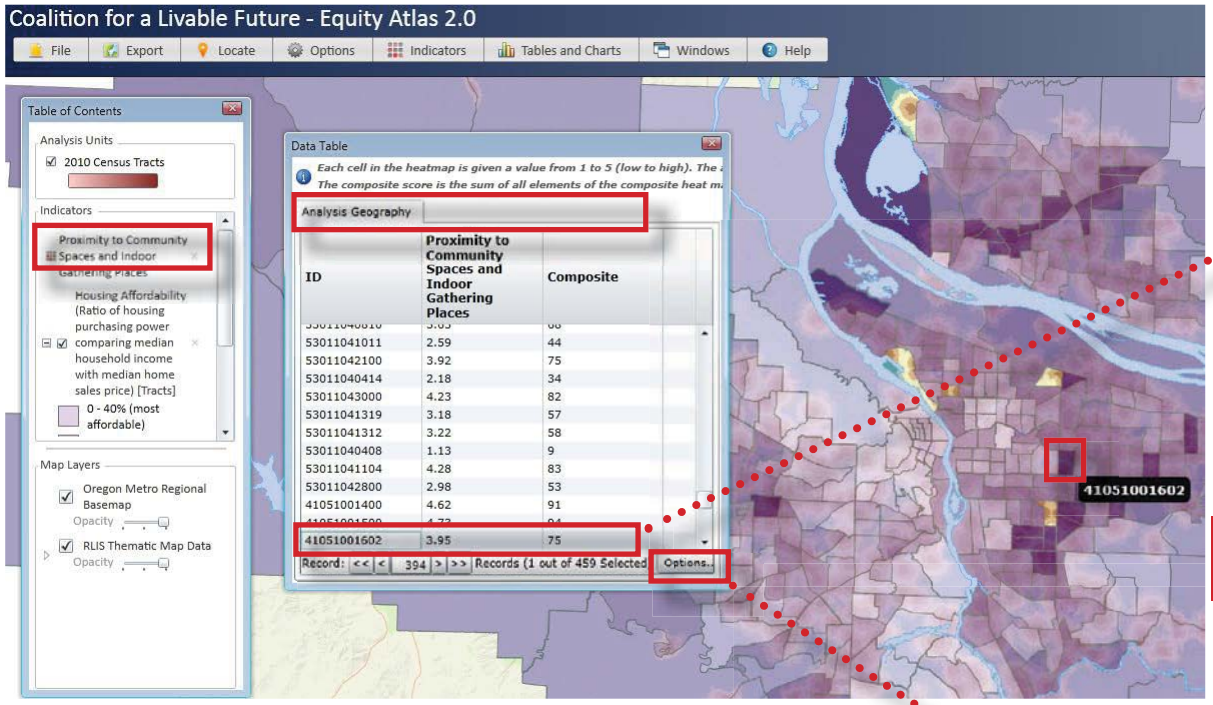
The Heatmap data are displayed in the Data Table using a 1-5 ranking scale. The Composite score combines the scores of all of the Heatmap Indicators you have included in your map and translates the total into a 1-100 scale. If you have included only one Heatmap Indicator, the 1-5 scale will still be translated into a 1-100 Composite score.

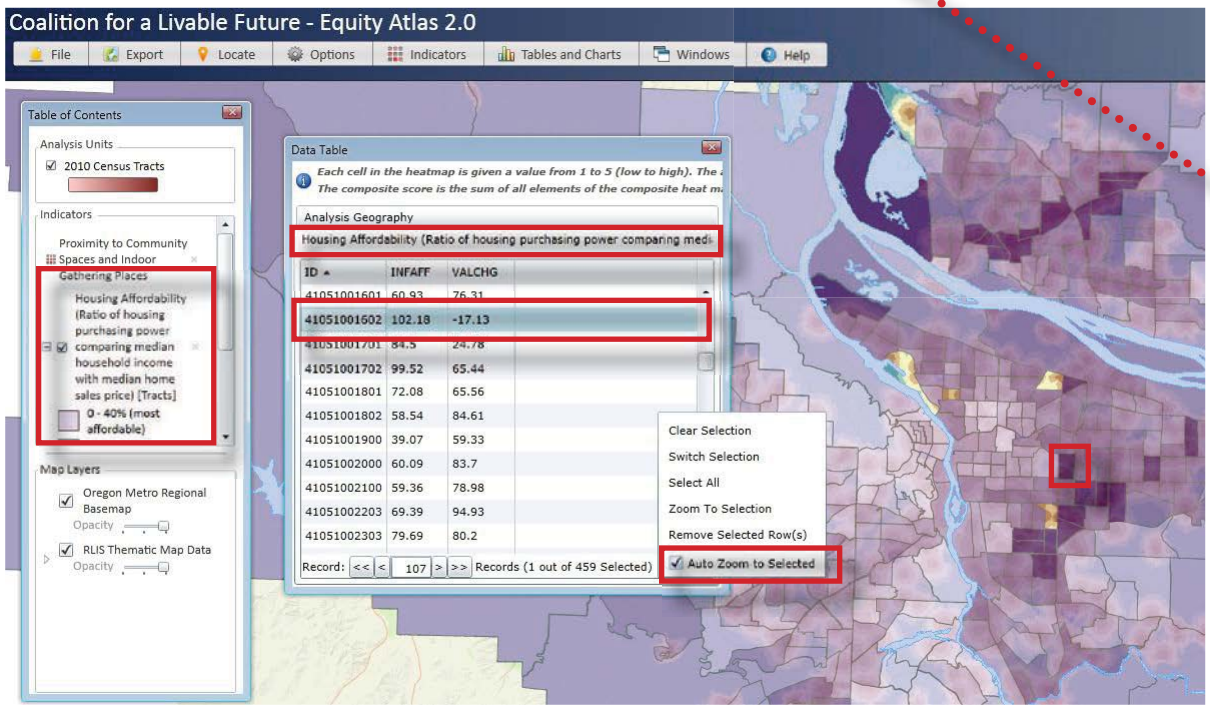
Adding Shape Indicators to the Data Table window

You can also add Shape attribute data to the Data Table. You can do this by right-clicking on the Shape layer in the Table of Contents and choosing View Attribute Table.

When you do this the attribute data for the Shape Indicator will be shown as the front Tab of the Data Table.

Note: *If multiple tables are open, they are shown in separate tabs above the Data Table. The table that is visible is labeled immediately above the table heading row. The tabs for any additional opened tables are above the visible table.*





Viewing the Data under the Maps Tables

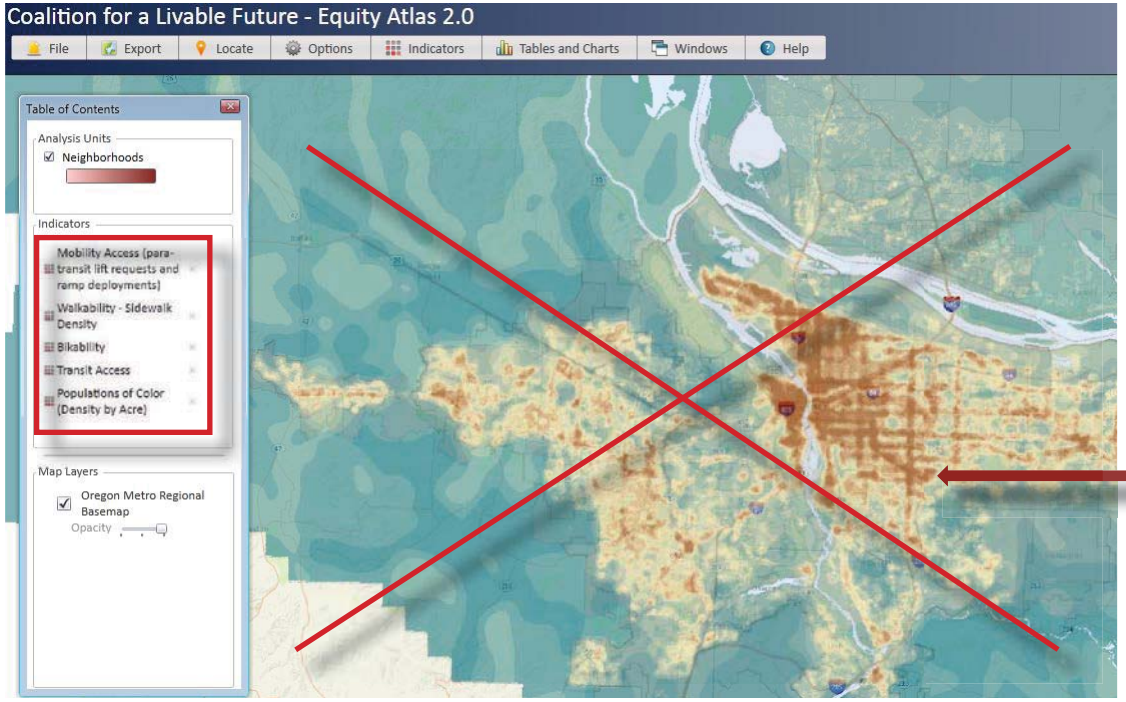
To see the Heatmap data for a particular Analysis Unit (2010 Census Tracts, for example) click on the map. The record for the particular Analysis Unit is highlighted in blue in the Data Table.

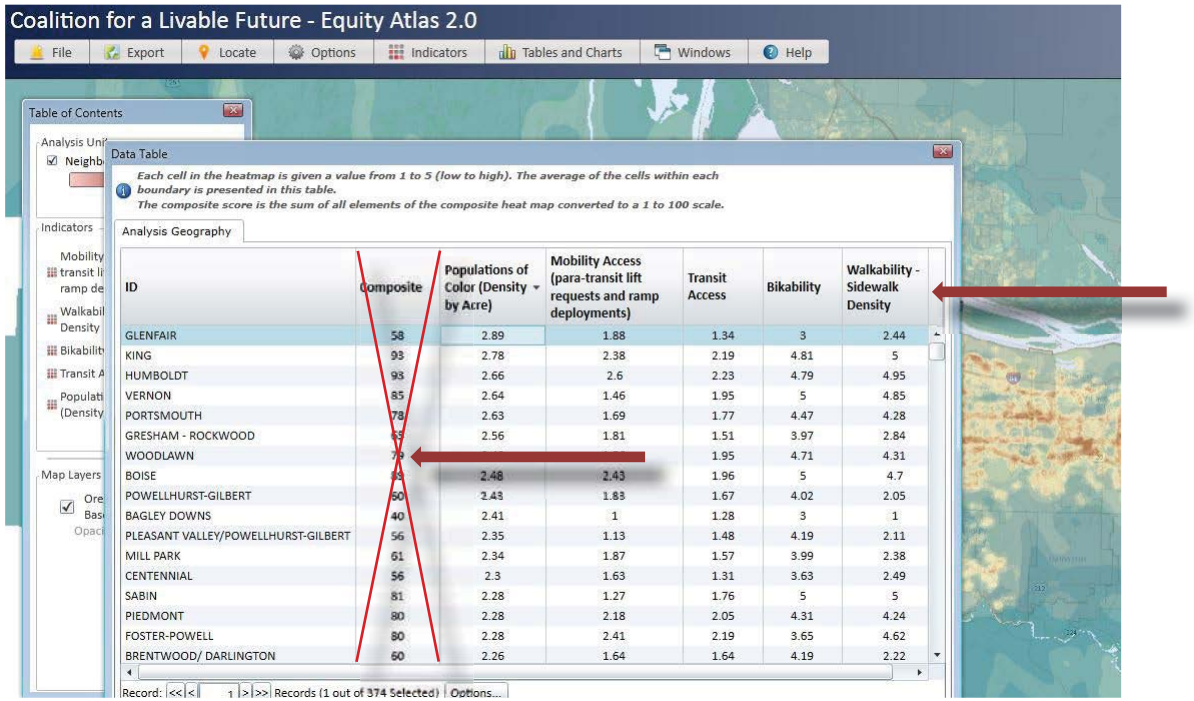
If you have chosen 2010 Census Tracts as your Analysis Units, the FIPS code will be displayed in the ID column.

Unfortunately, the same procedure will not work for the Shape Indicators. However, once you know the ID number for the Census Tract of interest, you can search for it in the Shape attribute table (if you have opened its attribute table) as follows:

- Click on the Shape Indicator tab in the Data Table window.
- Sort the ID numbers by clicking on the ID column heading.
- Scroll down to the desired ID (for Tracts, the FIPS code).

If you click on Auto Zoom to Selected in the Options menu (at the bottom right of the Data Table window), when you select (or click on) a row in a table, the map will zoom in to the Analysis Unit for the record that you have selected; it will be in the center of the map. Mouse over the map to see the Analysis Unit's ID number or name.





ID	Composite	Populations of Color (Density by Acre)	Mobility Access (para-transit lift requests and ramp deployments)	Transit Access	Bikability	Walkability - Sidewalk Density
GLENFAIR	58	2.89	1.88	1.34	3	2.44
KING	93	2.78	2.38	2.19	4.81	5
HUMBOLDT	93	2.66	2.6	2.23	4.79	4.95
VERNON	85	2.64	1.46	1.95	5	4.85
PORTSMOUTH	78	2.63	1.69	1.77	4.47	4.28
GRESHAM - ROCKWOOD	83	2.56	1.81	1.51	3.97	2.84
WOODLAWN	79			1.95	4.71	4.31
BOISE	83	2.48	2.43	1.96	5	4.7
POWELLHURST-GILBERT	60	2.43	1.83	1.67	4.02	2.05
BAGLEY DOWNS	40	2.41	1	1.28	3	1
PLEASANT VALLEY/POWELLHURST-GILBERT	56	2.35	1.13	1.48	4.19	2.11
MILL PARK	61	2.34	1.87	1.57	3.99	2.38
CENTENNIAL	56	2.3	1.63	1.31	3.63	2.49
SABIN	81	2.28	1.27	1.76	5	5
PIEDMONT	80	2.28	2.18	2.05	4.31	4.24
FOSTER-POWELL	80	2.28	2.41	2.19	3.65	4.62
BRENTWOOD/ DARLINGTON	60	2.26	1.64	1.64	4.19	2.22

Viewing the Data under the Maps: Population Densities and Proximity Heatmaps - Tables

Although multiple heatmaps may be added to create one composite map image, combining the demographic or population density heatmaps with the other heatmaps to determine the access of a population of interest to resources is meaningless. This is because you cannot distinguish, in the map, between the density of a population of people and the density or proximity of a particular resource.

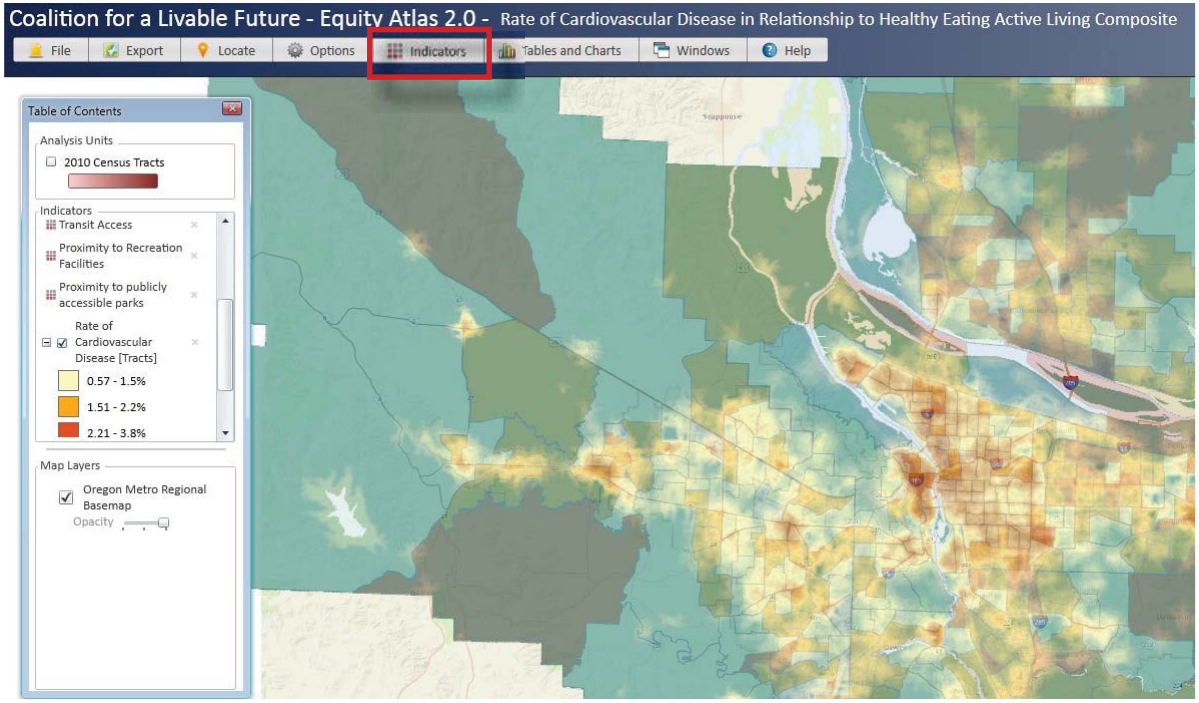
In the example at left, the dark brown areas could indicate either good tranportation access or relatively high densities of people of color. For this reason, this map is meaningless. Maps that combine population density heatmaps with the other heatmaps must ***not*** be used.

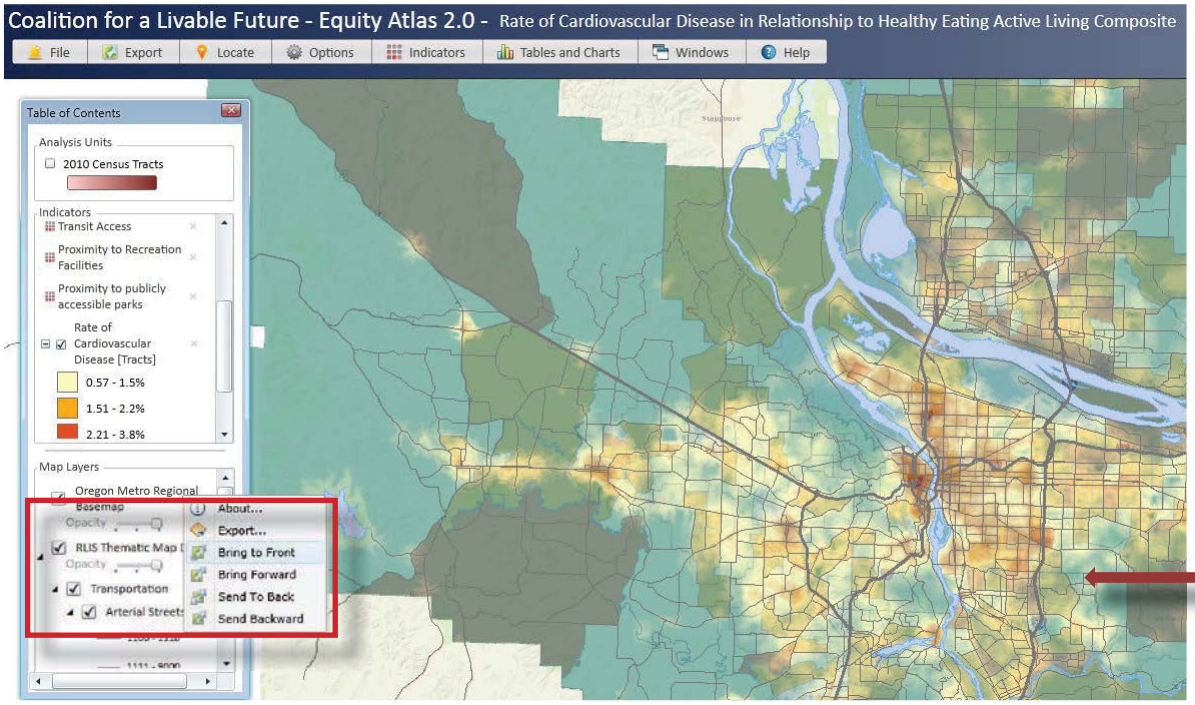
However, these types of maps generate useful tables. This is because the 1 to 5 rankings for each heatmap are displayed in separate columns.

In the example at left, the data in the table were generated from a map (upper left) that includes Populations of Color (Density by Acre), Mobility Access, Transit Access, Bikability, and Walkability-Sidewalk Density. In this case, the Analysis Units that were chosen are Neighborhoods.

This table reveals the relative access to transportation alternatives for communities of color in neighborhoods across the region.

Note: *Just as in the map, the Composite scores in this table that combine the Populations of Color scores with the transportation access scores are meaningless and should not*





WORKING WITH SCENARIOS:
Adding Reference Layers

The pre-packaged Indicator collections, or Scenarios, provide an easy way to explore some of the Indicators in the Atlas.

Here are some things that you should keep in mind as you work with the Scenarios.

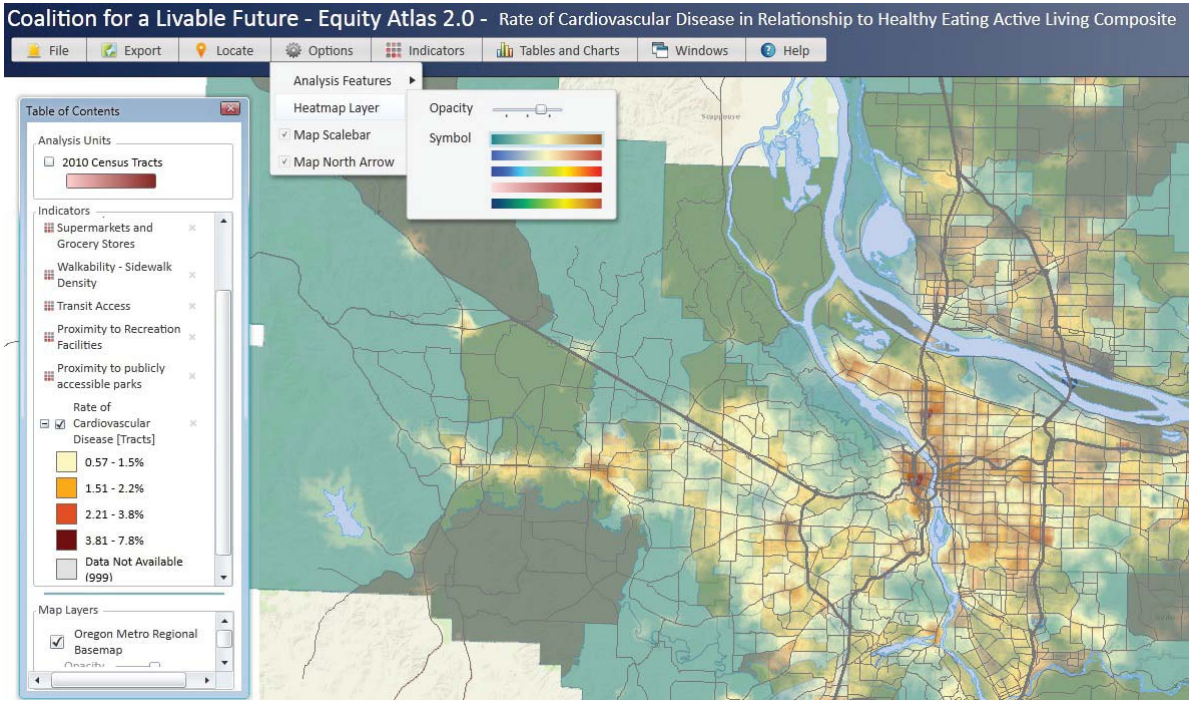
Because multiple Indicators are included in the Scenarios, you may find that you have some difficulty seeing the rivers and the major arterials (that will help you to visually find key locations). You can make them more visible by adding these Reference Layers and bringing them to the front of the map. You can do this by following these steps:

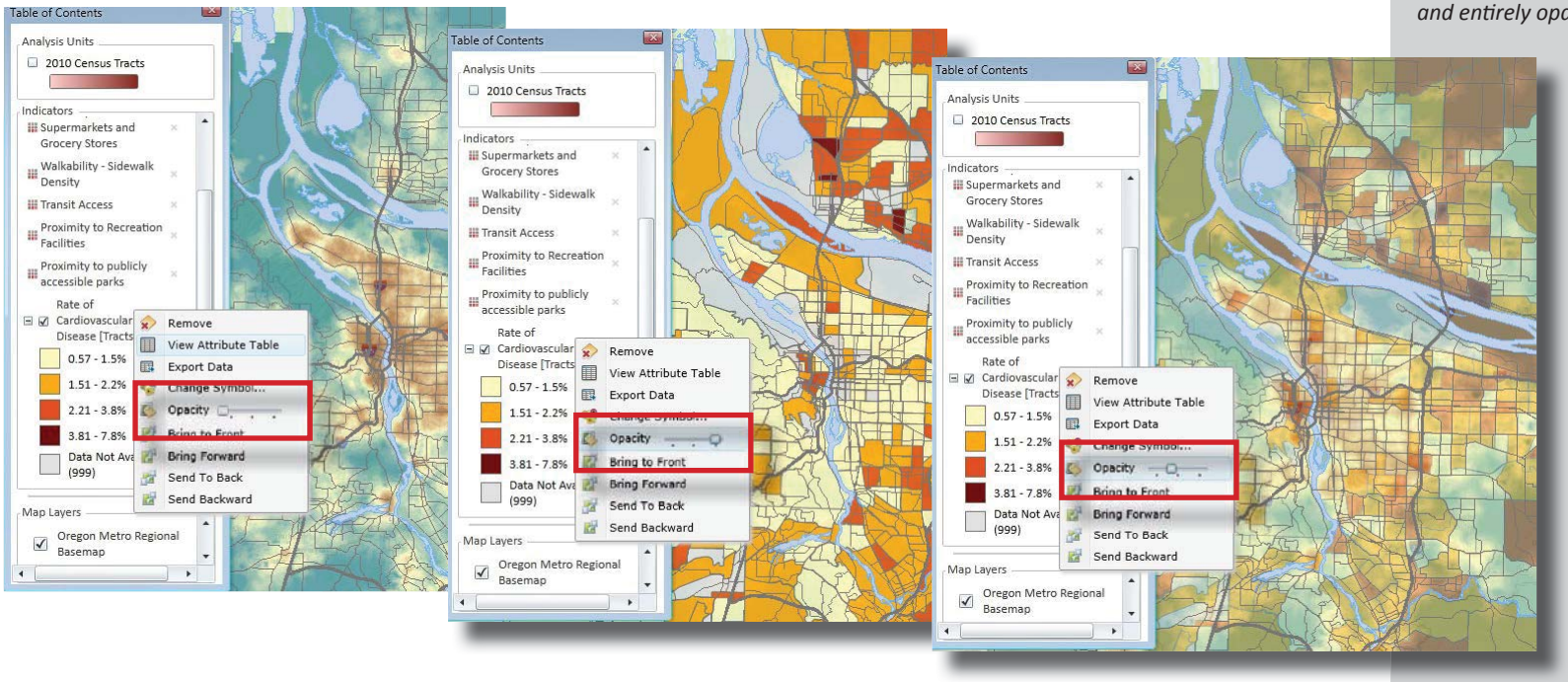
1. Click on Indicators on the Toolbar
2. Click on Add/Remove Data
3. Click on the Reference Layers tab
4. Click on RLIS Thematic Map Data
5. Notice that the Transportation layer for Arterial Streets is already clicked “on.”
6. Scroll down to Natural Resources and make sure that both Natural Resources and Major Rivers are clicked “on.”

Once you have done this, you will need to move this Reference Layer to the front of the map layers. To do this, do the following:

1. Right-click on RLIS Thematic Map Data in the Table of Contents
2. Click on Bring to Front

Now, you will be able to see these Reference Layers more clearly.



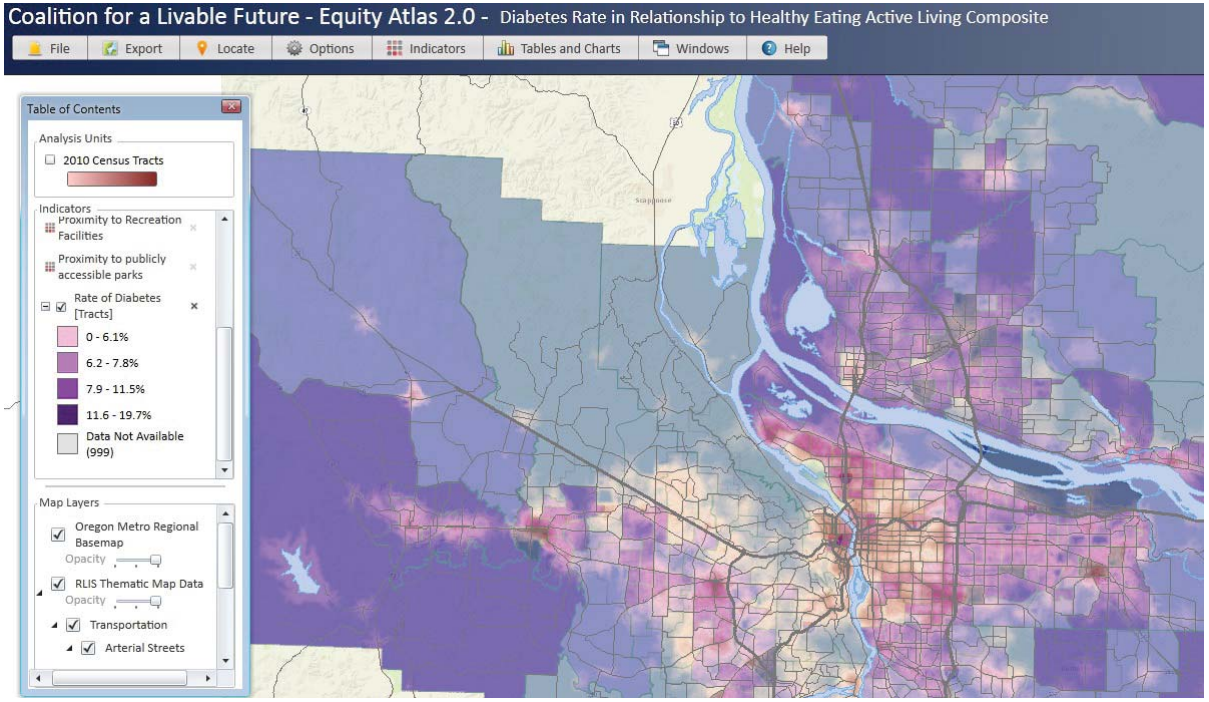


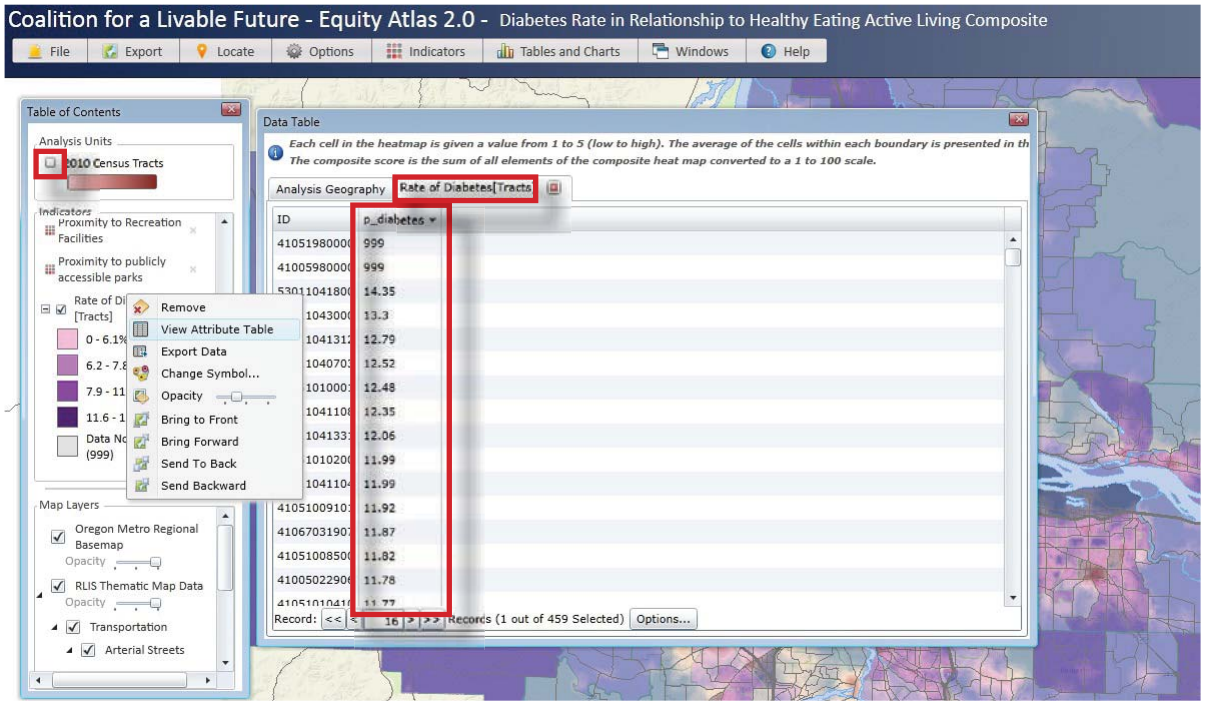
Adjusting the Indicator Visibility
When viewing multiple layers of Indicators, it is important to keep in mind that their opacity can be adjusted.

The opacities for the Analysis Units and the Heatmaps are adjusted by clicking on the Options button on the Toolbar and then clicking on either Analysis Units or Heatmap Layer to adjust its opacity.

To adjust the opacity of a Shape Indicator, right-click on its name in the Table of Contents window to reveal the Opacity slider.

Note: *You will notice that as you move the Opacity slider back and forth, the Indicator will be entirely invisible (when pushed to the left end of the slider) and entirely opaque (when pushed to the right edge of the Opacity slidebar). To see both the Heatmap Composites and the Shape Indicators together requires an adjustment to the Opacity slider somewhere in-between.*





WORKING WITH SCENARIOS:
Exploring the Data

The Scenarios contain Indicators that have some relationship to each other. The map allows us to see the geographic relationships among the data such as the locations of phenomena (where things are and aren't), patterns, clusters or hotspots, and distance or proximity.

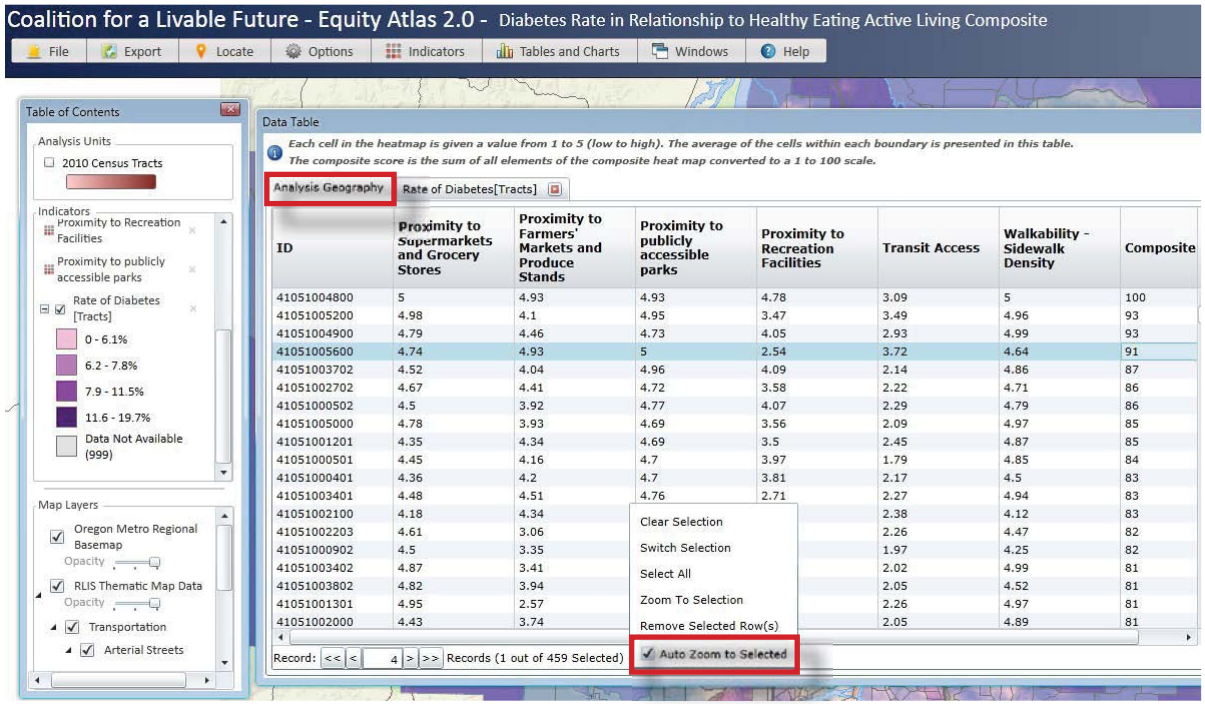
The actual data are available to the user in the following ways:

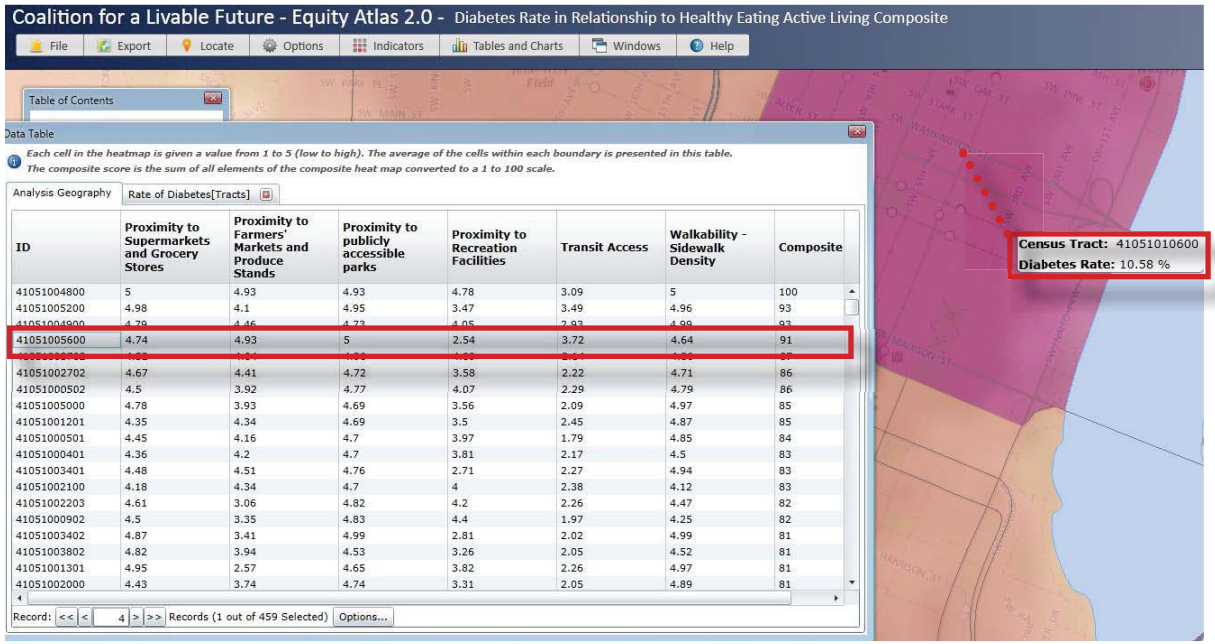
- Mouse-overs (Shape Indicators)
- Tables (Heatmaps and Shape Indicators) (these can also be exported as .csv files for use in spreadsheet and statistical programs, GIS, and other applications)
- Charts (Heatmap Indicators)

The Equity Atlas Scenarios and Mapping Tool, generally, can be used in a number of ways to explore the data. Here is an example of one way to do this.

Note: *The Analysis Units should be clicked "off." This is to allow the mouse-over procedure to reference the Shape Indicator in the Table of Contents window.*

1. Make sure that the Analysis Units are clicked "off."
2. Right-click on the Shape Indicator to View Attribute Table
3. You will notice that in addition to the Attribute Table for the Shape Indicator that you have opened, the Data Table associated with the Analysis Unit is also available (click on the tab labeled, "Analysis Geography."
4. **Note:** You can sort the data in the tables in ascending or descending order by clicking on the attribute column heading.





5. Click on the Options button at the lower right of the Data Table. If you click on "Auto Zoom to Selected," when you click on (or highlight) a row (or record) in the table, the map will zoom and center on the location of that particular record.
6. If you work from the Analysis Geography (or Heatmap Composite) Table, you can use the mouse-over function to see the corresponding Attribute data for the Shape Indicator.
7. In the example, at left, we sorted the Composite column in descending order to identify Census Tracts with the highest Healthy Eating Active Living Composite scores.
8. We then clicked on the 4th record down to highlight that row and the map automatically zoomed to its Map Unit (in this case, Census Tract).
9. By mousing-over the map, we were able to verify the location of the Tract and see the data (in this case, Diabetes Rate) for this Census Tract.

Note: *While the overall map suggests a possible association between a lack of access to Healthy Eating Active Living amenities and the diabetes rate, for this particular Census Tract, located in downtown Portland, that is not the case (the HEAL score is relatively high but so is the Diabetes Rate). When unexpected results occur, we will want to explore additional data that could help to explain them. Other data we might consider, in this case, are the population size (it could be relatively small so that even a small number of Diabetes cases would result in a relatively high rate), and the Household Poverty Rate (which research suggests has an influence on health outcomes). This Indicator could be added to the Scenario by clicking on the Indicators button on the Toolbar.*

EXPORTED HEATMAP DATA: Spreadsheets/Statistical Programs

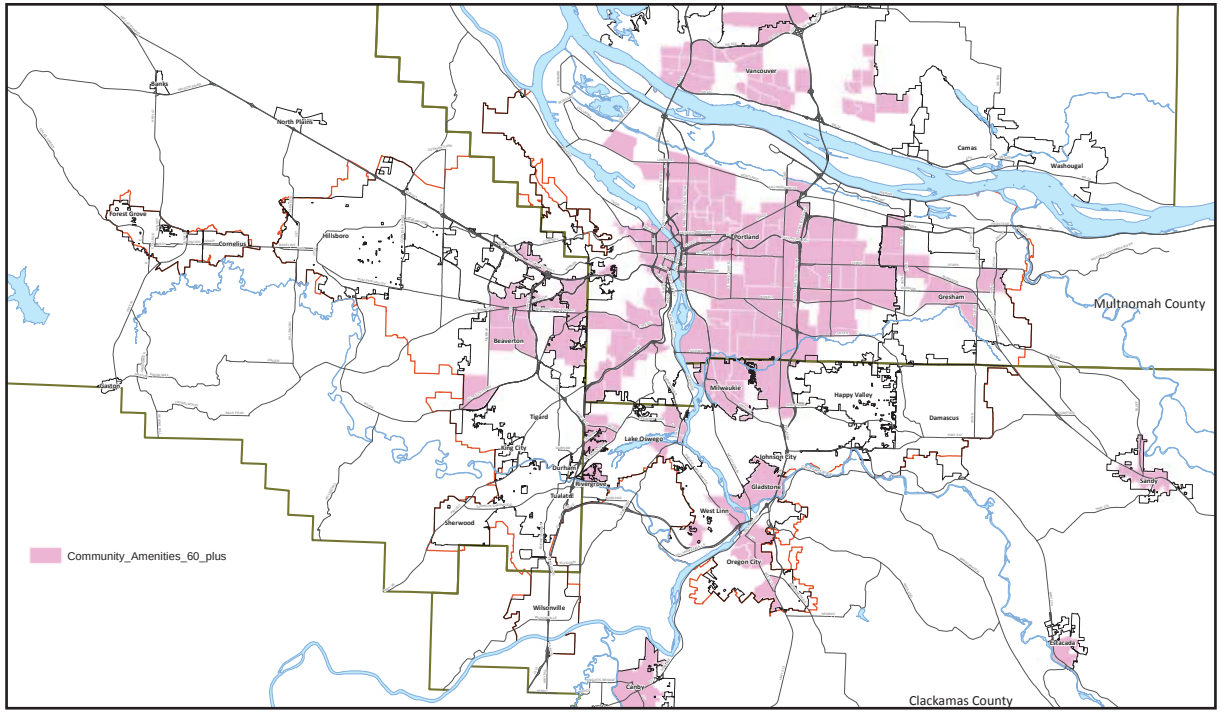
The Heatmap data is aggregated and ranked by whatever Analysis Unit you choose (Census Tracts, Neighborhoods, Cities, or Counties).

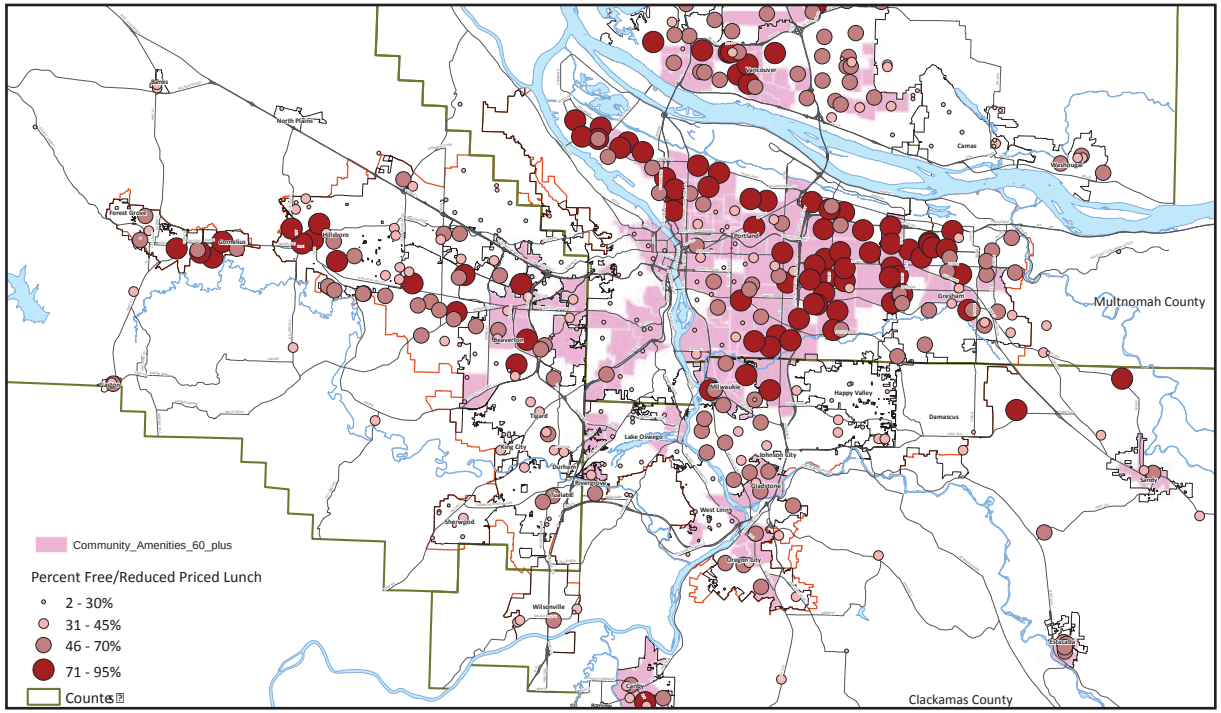
The data for each Analysis Unit can then be compared to the regional mean and to other, say, neighborhoods, in the region using the Graph function in the Regional Equity Atlas Mapping Tool.

However, you can also export these data and analyze them in other ways. For example, to better understand how the region's neighborhoods are doing with regard to access to community spaces and outdoor gathering places,publicly accessible parks, publicly accessible natural areas, and recreational facilities, we did the following:

1. Exported the data table (as a .csv file)
2. Opened it in Excel and saved it as a .xls file (so that we could open in it in SPSS, a statistical program)
3. Created histograms or charts that show how many times a neighborhood was ranked a particular proximity score for each Indicator including the Composite scores.

This allows us to more easily see how the region's neighborhoods appear to be doing in terms of these access measures. While we appear to be doing relatively well with regard to access to parks and proximity to community spaces and outdoor gathering places, we are doing less well in terms of access to recreational facilities and access to natural areas. We can go to the table and the map in the Tool to identify which neighborhoods are deficient and where they are located.





EXPORTED HEATMAP DATA: GIS

The exported Heatmap data and composite data may be joined to GIS shapefiles (2010 Census Tracts, Neighborhoods, Cities, and Counties) to allow for further analysis within a GIS program.

In the example (at left) the user created a "community amenities" Neighborhood Composite using several of the Heatmap Indicators included in the Regional Equity Atlas Mapping Tool.

The resulting data table was exported as a .csv file and "joined" to Metro's nbo_hood (neighborhood organizations) RLIS (Regional Land Information System) shapefile using the neighborhood name field as the join field.

In this case, the user decided to include only those neighborhoods with Composite scores of 60 or greater (100 is the maximum score).

Other data may then be mapped, using GIS (see the map at left), with this new neighborhood amenity layer (that was created using the Mapping Tool).

HEATMAPS

Community

- Proximity to Faith-Based Institutions
- Proximity to Community Spaces and Indoor Gathering Places
- Community Stability - Density of housing vacancies
- Proximity to Arts and Culture Institutions
- Proximity to Civic and Community Organizations
- Density of Civic and Community Organizations
- Proximity to Public Libraries

Demographics

Note: *Actual values for the 1 to 5 density scores are included. See* ***metadata*** *for more information.*

- Residential Density (Residents per Acre) (1=low; 2=medium-low; 3=medium; 4=medium-high; 5=high density)
- Employee Density (Employees per Acre) (1=low; 2=medium-low; 3=medium; 4=medium-high; 5=high density)
- Total Population Density (Residents + Employees per Acre)
- Age under 5 (Density per Acre) (1=0/acre; 2=up to .61/acre; 3=.62 to 1.6/acre; 4=1.7 to 3.6/acre; 5=3.7 to 22/acre
- Age 5-17 (Density per Acre) (1=0/acre; 2=up to 1.1 acre; 3=1.2 to 2.8/acre; 4=2.9 to 5.9/acre; 5=6 to 54/acre
- Age 18-44 (Density per Acre) (1=0/acre; 2=up to 4/acre; 3=4.1 to 11/acre; 4=12 to 30/acre; 5=31 to 170/acre
- Age 45-64 (Density per Acre) (1=0/acre; 2=up to 1.4/acre; 3=1.5 to 3.4/acre; 4=3.5 to 14/acre; 5=15 to 72/acre
- Age 65 and over (Density per Acre) (1=0/acre; 2=up to 1.6/acre; 3=1.7 to 7.4/acre; 5=34 to 100/acre
- Age 0-17 (Density per Acre) (1=0/acre; 2=up to 1.4/acre; 3=1.5 to 3.7/acre; 4=3.8 to 8.5/acre; 5=8.6 to 59/acre
- Populations of color (Density per Acre) (1=0/acre; 2=up to 2.8/acre; 3= 2.9 to 7.9/acre; 4=8 to 20/acre; 5=21 to 120/acre
- Hispanic (Density per Acre) (1=0/acre; 2=up to 2.1/acre; 3=2.2 to 7.5/acre; 4=7.6 to 20/acre; 5=21 to 77/acre)
- African American (Density per Acre) (1=0/acre; 2=up to 1.5/acre; 3=1.6 to 5.4/acre; 4=5.5 to 16/acre; 5=17 to 42/acre)
- Asian (Density per Acre) (1=0/acre; 2=up to 1.1/acre; 3=.1.2 to 3.3/acre; 4=3.4 to 8.9/acre; 5=9 to 47/acre
- Native American or Alaskan Native (Density per Acre) (1=0/acre; 2=up to .36/acre; 3=.37 to .91/acre; 4=.92 to 2.1/acre; 5=2.2 to 12/acre
- Hawaiian or Pacific Islander (Density per Acre) (1=0/acre; 2=up to .38/acre; 3=.39 to 1.1/acre; 4=1.2 to 3.3/acre; 5=3.4 to 16/acre
- Households No Children (Density per Acre) (1=0/acre; 2=up to 3.3/acre; 3=3.4 to 12/acre; 4=13 to 37/acre; 5=38 to 120/acre
- Families with Children (Density per Acre) (1=0/acre; 2=up to 1/acre; 3=2 to 3/acre; 4=4 to 6/acre; 5=7 to 30/acre
- Single-parent Families (Density per Acre) (1=0/acre; 2=up to .44/acre; 3=.45 to 1.2/acre; 4=1.3 to 2.7/acre; 5=2.8 to 14/acre

Economic Opportunity

- Transit Access for Family Wage Jobs (up to 60 minutes travel time)
- Transit Access to Family Wage Jobs (up to 90 minutes travel time)

Education

- Proximity to Nearest Elementary School
- Proximity to Headstart and Licensed Child Care Centers

Food

- Proximity to Typical Sources of "Unhealthy Food" (liquor stores, convenience stores, fast food restaurants)
- Proximity to Supermarkets and Grocery Stores
- Proximity to Supplemental Food Programs (food pantries and summer food sites)
- Proximity to Farmers' Markets and produce stands
- Proximity to Food Stores and Farmers' Markets Accepting WIC
- Proximity to Food Stores and Farmers' Markets Accepting SNAP

Health Care

- Proximity to Primary Care Facilities (including family medicine, pediatrics, and obstetrics)

Housing

- Home Owners (Density per Acre)
- Renters (Density per Acre)
- Vacant Units (Density per Acre)
- Density of Single-Story Housing and Elevator Buildings as Proxy for Housing Accessibility

Parks and Natural Areas

- Proximity to Publicly Accessible Parks
- Proximity to Publicly Accessible Natural Areas
- Proximity to Greenspaces with Limited Public Access
- Proximity to Water Access Points
- Proximity to Recreation Facilities

Services and Amenities

- Proximity to Financial Services
- Proximity to Key Retail Services
- Proximity to Public Services
- Proximity to Human and Social Services

HEATMAPS

Transportation

- Mobility access (para-transit lift requests and ramp deployments)
- Transit Access
- Bikability
- Walkability - Sidewalk density

SHAPES

Democratic Participation

- Voter Registration Numbers [2010 Block Groups]
- Voter Participation Rates (voted in last 3 primaries) [2010 Block Groups]
- Voter Participation Rates (voted in last 3 general elections) [2010 Block Groups]

Demographics

- Percent Change in Populations of color (2000-2010) [Tracts]
- Percent Change in Median Income [2000 to 2006-2010 estimates) [Tracts]
- Median Household Income [Tracts]
- Percent Households Below Poverty Level [Tracts]
- Percent Veterans [PUMA}
- Percent Foreign Born [PUMA}
- Percent Recent Immigrants (2000 and later) [PUMA]
- Percent Households with Low English Proficiency [PUMA}
- Percent Students Eligible for Free and Reduced Lunch (by school) [points]

Economic Opportunity

- Adult Educational Attainment: Percent with graduate degree [PUMA]
- Adult Educational Attainment: Percent with BA/BS degree [PUMA]
- Adult Educational Attainment: Percent with some college [PUMA]

SHAPES

- Adult Educational Attainment: Percent with high school diploma [PUMA]
- Adult Educational Attainment: Percent with 9-12th grade, no diploma [PUMA]
- Transportation to Jobs [2013 TAZs]
- Locations of Workforce Training and Employment-related Services [points]

Education

- Percent Minority Students (K-12) [points]
- Number of Languages Spoken (K-12 student body) [points]
- Schools Meeting/Not Meeting Adequate Yearly Progress (AYP) [points]
- Percent of Students Meeting State Benchmarks for 3rd Grade reading [points]
- Average Class Size (elementary) [points]
- Percent Graduation Rate (High School) [points]
- Average Teacher Experience (years) [points]
- Availability of Advanced Placement/ International Baccalaureate Courses (Oregon only) [points]
- Availability of Arts/Media Classes (Oregon only) [points]

Food

- Locations of Community Gardens [points]

Health Care

- Health Care Providers that Accept Medicaid [Zip Codes]
- Health Care Providers that Accept Medicare [zip codes]
- Locations of Community, Public, and School-based Health Clinics for Uninsured and Low-Income Patients [points]
- Rate of 1st Trimester Pre-natal Care [2000 Tracts]
- Rate of Well-Child Visits, 3-6 yrs .[Tracts]
- Rate of Well-Child Visits, 3-6 yrs. [Neighborhoods]
- Lack of Preventative Care (Rate of Potentially Avoidable Emergency Department Visits, Adults) [Tracts]
- Lack of Preventative Care (Rate of Pentntially Avoidable Emergency Department Visits, Adults) [Neighborhoods]

Health Outcomes

- Obesity (Body Mass Index) [2010 Block Groups]
- Rate of Pre-Term Births, 2006-2010 data [2000 Tracts]
- Rate of Low Weight Births, 2006-2010 data [2000 Tracts]
- Rate of Diabetes [Tracts]
- Rate of Diabetes [Neighborhoods]
- [Neighborhoods]
- Rate of Cardiovascular Disease [Tracts]
- Rate of Cardiovascular Disease [Neighborhoods]
- Rate of Asthma [Tracts]
- Rate of Asthma [Neighborhoods]

Healthy Environment

- Air Quality: Number of Times Levels Were Above Benchmark (all sources) [polygons]
- Air Quality: Number of Times Levels Were Above Benchmark (road sources) [polygons]
- Air Quality: Number of Times Levels Were Above Benchmark (non-road sources) [polygons]
- Air Quality: Number of Times Levels Were Above Benchmark (residential wood burning) [polygons]
- Air Quality: Number of Times Levels Were Above Benchmark (point sources) [polygons]
- Air Quality: Number of Times Levels Were Above Benchmark (area sources) [polygons]
- Green Infrastructure (data available for Portland only]

SHAPES

Housing

- Location of Publicly-Subsidized Affordable Housing [points]
- Percent Change in Median Home Value (2000-2010) [Tracts]
- Housing Affordability (inflation adjusted) [Tracts]
- Median Rental Cost (2-bedroom units) [zip code]
- Median Home Value (sales price) [Tract]
- Foreclosures (percent Notice of Transfer Sale - Realty Trac) [zip code]
- Percent Renters Spending Over 35% of Their Income on Housing [PUMA}
- Percent Owners (with mortgages) Spending 35% on Housing (PUMA)
- Minority Homeownership Gap [Block Group]
- Housing and Transportation Cost Burden [MetroScope housing needs analysis subareas]
- Access to Home Loans: Number of Applications for Conventional Loans [2000 Tracts]
- Access to Home Loans: Number of Applications for FHA Loans [2000 Tracts]
- Access to Home Loans: Home Loan Denials (White) [2000 Tracts]
- Access to Home Loans: Home Loan Denials (non-White) [2000 Tracts]
- Access to Home Loans: Home Loan Denials (All) [2000 Tracts]

Population Overlays

- Above Regional Average Percent Populations of Color [Tracts]
- Above Regional Average Percent Populations in Poverty [Tracts]
- Below Regional Average Median Income [Tracts]
- Above Regional Average Percent Youth (ages 0-17) [Tracts]
- Above Regional Average Percent Seniors (ages 65 and over) [Tracts]

Transportation

- Percent of Households with No Motorized Vehicle [PUMA}
- Percent of Workers Who Commute by Other Means (including biking) [PUMA]
- Percent of Workers Who Commute by Walking [PUMA}
- Percent of Workers Who Commute by Car [PUMA}
- Average Commute Time to Work (minutes) [PUMA]
- Public Transit Stop Safety Amenities (curbcuts) [points]
- Public Transit Stop Safety Amenities (sidewalks) [points]
- Transportation Safety: ODOT Crash Data (fatalities) [points]
- Transportation Safety: ODOT Crash data (car/car incidents) [points]
- Transportation safety: ODOT crash Data (car/pedestrian incidents) [points]
- Transportation Safety: ODOT Crash Data (car/bicycle incidents) [points]

ANALYSIS UNITS

- 2010 Census Tracts
- Neighborhoods
- Cities
- Counties

COMMUNITY

Proximity to Community Amenities
Analysis Units: 2010 Census Tracts
Indicators:
- Proximity to Public Libraries (Heatmap)
- Proximity to Community Spaces and Gathering Places (Heatmap)
- Proximity to Faith-based Institutions [Heatmap]

Proximity to Social and Cultural Institutions
Analysis Units: Neighborhoods
Indicators:
- Proximity to civic and community organizations [Heatmap]
- Proximity to public libraries [Heatmap]
- Proximity to arts and culture institutions [Heatmap]

DEMOCRATIC PARTICIPATION

Voter Registration Numbers
Indicators:
- Voter Registration Numbers [Shape: 2010 Blockgroups]

Voter Participation Rates-General Elections
Indicators:
- Voter Registration Rates (voted in last 3 general elections) [Shape: 2010 Blockgroups]

Voter Participation Rates-Primary Elections
Indicators:
- Voter Registration Rates (voted in last 3 primary elections) [Shape: 2010 Blockgroups]

DEMOGRAPHICS

Residential Density (Residents per Acre)
Analysis Units: 2010 Census Tracts
Indicators:
- Residential Density (Density per Acre) [Heatmap]

Populations of Color (Density per Acre)
Analysis Units: 2010 Census Tracts
Indicators:
- Populations of Color (Density per Acre)

Percent Change in Populations of Color
Analysis Units: 2010 Census Tracts
Indicators:
- Percent Change in Populations of Color (2000 to 2010 Census) [Shape: Tracts]

Above Regional Average Percent of Populations of Color
Indicators:
- Above Regional Average Percent Populations of Color [Tracts]

Populations of Color (Density per Acre) in Relationship to Areas with Above Regional Share of Poverty
Indicators:
- Populations of Color (Density per Acre) [Heatmap]
- Above Regional Average Percent Populations in Poverty [Tracts]

African American Population (Density per Acre)
Analysis Units: 2010 Census Tracts
Indicators:
- African American (Density per Acre) [Heatmap]

Asian Population (Density per Acre)
Analysis Units: 2010 Census Tracts
Indicators:
- Asian (Density per Acre) [Heatmap]

Hawaiian or Pacific Islander Population (Density per Acre)
Analysis Units: 2010 Census Tracts
Indicators:
- Hawaiian or Pacific Islander (Density per Acre) [Heatmap]

Hispanic Population (Density per Acre)
Analysis Units: 2010 Census Tracts
Indicators:
- Hispanic (Density per Acre) [Heatmap]

Native American or Alaskan Native Population (Density per Acre)
Analysis Units: 2010 Census Tracts
Indicators:
- Native American or Alaskan Native (Density per Acre) [Heatmap]

Population Under the Age of 5
Analysis Units: 2010 Census Tracts
Indicators:
- Age Under 5 (Density per Acre) [Heatmap]

Population Aged 65 and Over (Density per Acre)
Analysis Units: 2010 Census Tracts
Indicators:
- Age 65 and Over (Density per Acre) [Heatmap]

Households with Children (Density per Acre)
Analysis Units: 2010 Census Tracts
Indicators:
- Households with Children (Density per Acre) [Heatmap]

Households with No Children (Density per Acre)
Analysis Units: 2010 Census Tracts
Indicators:
- Households with No Children (Density per Acre) [Heatmap]

Single Parent Families (Density per Acre)
Analysis Units: 2010 Census Tracts
Indicators:
- Single Parent Families (Density per Acre) [Heatmap]

Median Income by Census Tract
Indicators:
- Median Household Income (2006-2010 est.) [Shape: Tracts]

Percent Change in Median Income
Indicators:
- Percent Change in Median Household Income (2000 to 2006-2010 est.) [Shape: Tracts]

Percent Recent Immigrants (2000 and Later)
Indicators:
- Percent Recent Immigrants (2000 and later) [Shape: PUMA]

Percent Households with Low English Proficiency
Indicators:
- Percent Households with Low English Proficiency [Shape: PUMA]

ECONOMIC OPPORTUNITY

Transit Access to Family Wage Jobs (60 Minutes Travel Time)
Analysis Units: Neighborhoods
Indicators:
- Transit Access to Family Wage Jobs (up to 60 minutes travel time) [Heatmap]

Transit Access to Jobs in Relationship to Above Regional Average Populations of Color
Analysis Units: Neighborhoods
Indicators:
- Transit Access to Family Wage Jobs (up to 60 minutes travel time) [Heatmap]
- Above Regional Average Percent Populations of Color [Tracts]

Transit Access to Family Wage Jobs in Relationship to Above Average Populations in Poverty
Analysis Units: Neighborhoods
Indicators:
- Transit Access to Family Wage Jobs (up to 60 minutes travel time) [Heatmap]
- Above Regional Average Percent Populations in Poverty [Tracts]

Transportation to Jobs
Indicators:
- Transportation to Jobs [Shape: 2013 TAZs]

Transportation Access to Jobs (TAZ) in Relationship to % Students Eligible for Free or Reduced Priced Lunch
Indicators:
- Transportation to Jobs [Shape: 2013 TAZs]
- Percent Students Eligible for Free or Reduced Priced Lunch (by school) [Shape: Points]

EDUCATION

Proximity to Nearest Elementary School
Analysis Units: Neighborhoods
Indicators:
- Proximity to Nearest Elementary School [Heatmap]

Percent Minority Students (K-12, by school)
Indicators:
- Percent Minority Students (K-12) by school [Shape: Points]

Percent Students Eligible for Free or Reduced Priced Lunch (by school)
Indicators:
- Percent Students Eligible for Free or Reduced Priced Lunch (by school) [Shape: Points]

Schools Meeting/Not Meeting Adequate Yearly Progress
Indicators:
- Schools Meeting/Not Meeting Adequate Yearly Progress (AYP) [Shape: Points]

Percent Students Meeting State Benchmarks for 3rd Grade Reading
Indicators:
- Percent Students Meeting State Benchmarks for 3rd Grade Reading [Shape: Points]

Schools with 75% or More Students Eligible for Free or Reduced Priced Lunch and AYP
Indicators:
- Schools Meeting/Not Meeting Adequate Yearly Progress (AYP) [Shape: Points]
- Schools with 75% or More Students Eligible for Free or Reduced Lunch (by school) [Shape: Points]

Third Grade Reading Levels in Relationship to Areas with Above Regional Average Percent Populations of Color
Indicators:
- Above Regional Average Percent Populations of Color [Tracts]
- Percent Students Meeting State Benchmarks for 3rd Grade Reading [Shape: Points]

Third Grade Reading Levels in Relationship to Areas with Above Regional Average Percent Populations in Poverty
Indicators:
- Above Regional Average Percent Populations in Poverty [Tracts]
- Percent Students Meeting State Benchmarks for 3rd Grade Reading [Shape: Points]

Graduation Rate in Relationship to Areas with Above Regional Average Populations of Color
Indicators:
- Above Regional Average Percent Populations of Color [Tracts]
- Percent Graduation Rate (High School) [Shape: Points]

Graduation Rate in Relationship to Areas with Above Regional Average Populations in Poverty
Indicators:
- Above Regional Average Percent Populations in Poverty [Tracts]
- Percent Graduation Rate (High School) [Shape: Points]

FOOD

Proximity to Supermarkets, Grocery Stores, and Fresh Food
Analysis Units: Neighborhoods
Indicators:
- Proximity to Farmers' Markets and Produce Stands [Heatmap]
- Supermarkets and Grocery Stores [Heatmap]

Proximity to Grocery Stories and Fresh Food in Relationship to Areas with Above Regional Average Percent Populations in Poverty
Analysis Units: Neighborhoods
Indicators:
- Proximity to Farmers' Markets and Produce Stands [Heatmap]
- Supermarkets and Grocery Stores [Heatmap]
- Above Regional Average Percent Populations in Poverty [Tracts]

Proximity to Grocery Stores and Fresh Food in Relationship to Areas with Above Regional Average Percent Populations of Color
Analysis Units: Neighborhoods
Indicators:
- Proximity to Farmers' Markets and Produce Stands [Heatmap]
- Supermarkets and Grocery Stores [Heatmap]
- Above Regional Average Percent Populations of Color [Tracts]

Proximity to Supplemental Food Locations (SNAP and Food Pantries) in Relationship to Areas with Above Regional Share of Poverty
Analysis Units: Neighborhoods
Indicators:
- Proximity to Food Stores and Farmers' Markets Accepting SNAP [Heatmap]
- Proximity to Supplemental Food Programs (food pantries and summer food sites) [Heatmap]
- Above Regional Average Percent Populations in Poverty [Tracts]

Proximity to Sources of Unhealthy Food
Analysis Units: Neighborhoods
Indicators:
- Proximity to Typical Sources of "Unhealthy Food" (liquor stores, convenience stores, fast food restaurants) [Heatmap]

Proximity to Sources of Unhealthy Food in Relationship to Areas with Above Regional Share of Poverty
Analysis Units: Neighborhoods
Indicators:
- Proximity to Typical Sources of "Unhealthy Food" (liquor stores, convenience stores, fast food restaurants) [Heatmap]
- Above Regional Average Percent Populations in Poverty [Tracts]

Proximity to Sources of Unhealthy Food in Relationship to Areas with Above Regional Share of Populations of Color
Analysis Units: Neighborhoods
Indicators:
- Proximity to Typical Sources of "Unhealthy Food" (liquor stores, convenience stores, fast food restaurants) [Heatmap]
- Above Regional Average Percent Populations of Color [Tracts]

Locations of Community Gardens in Relationship to Above Regional Average Percent Populations in Poverty
Indicators:
- Above Regional Average Percent Populations in Poverty [Tracts]
- Locations of Community Gardens, Garden Sites [Shape: Points]

HEALTH CARE

Rate of First Trimester Prenatal Care
Indicators:
- Rate of First Trimester Pre-Natal Care, 2006-2010 [Shape: 2000 Census Tracts]

Rate of Well-Child Visits (3-6 Years)
Indicators:
- Rate of Well-Child Visits, 3-6 yrs. [Shape: Tracts]

Rate of Potentially Avoidable Emergency Department Visits by Adults
Indicators:
- Rate of Potentially Avoidable Emergency Department Visits (Adults) [Shape: Tracts]

HEALTH OUTCOMES

Healthy Eating Active Living Composite
Analysis Units: Neighborhoods
Indicators:
- Proximity to Farmers' Markets and Produce Stands [Heatmap]
- Walkability - Sidewalk Density [Heatmap}
- Transit Access [Heatmap]
- Proximity to Recreation [Heatmap]
- Proximity to publicly accessible parks [Heatmap]

Healthy Eating Active Living Composite Neighborhood Map
Analysis Units: Neighborhoods
Indicators (aggregated to neighborhood boundaries):
- Proximity to Farmers' Markets and Produce Stands [Heatmap]
- Walkability - Sidewalk Density [Heatmap}
- Transit Access [Heatmap]
- Proximity to Recreation [Heatmap]
- Proximity to publicly accessible parks [Heatmap]

Body Mass Index
Indicators:
- Obesity (Body Mass Index) [Shape: Block Group, 2010]

Body Mass Index in Relationship to Healthy Eating Active Living Composite
Analysis Units: Neighborhoods
Indicators:
- Proximity to Farmers' Markets and Produce Stands [Heatmap]
- Proximity to Supermarkets and Grocery Stores [Heatmap]
- Transit Access [Heatmap]
- Walkability - Sidewalk Density [Heatmap]
- Proximity to Recreation Facilities [Heatmap]
- Proximity to Publicly Accessible Parks [Heatmap]
- Obesity (Body Mass Index) [Shape: Block Group, 2010]

Body Mass Index in Relationship to Sidewalk Density
Analysis Units: Neighborhoods
Indicators:
- Walkability - Sidewalk Density [Heatmap]
- Obesity (Body Mass Index) [Shape: Block Group, 2010]

Body Mass Index in Relationship to Populations of Color
Indicators:
- Above Regional Average Percent Populations of Color [Tracts]
- Obesity (Body Mass Index) [Shape: Block Group, 2010]

Body Mass Index in Relationship to % Students Eligible for Free or Reduced Priced Lunch
Indicators:
- Obesity (Body Mass Index) [Shape: Block Group, 2010]
- Percent of Students Eligible for Free or Reduced Priced Lunch (by school) [Shape: points]

Asthma Rates
Indicators:
- Rate of Asthma [Shape: Tracts]

Asthma Rates in Relationship to % Students Eligible for Free or Reduced Priced Lunch, Freeways, and Arterial Streets
Indicators:
- Rate of Asthma [Shape: Tracts]
- Percent Students Eligible for Free or Reduced Priced Lunch (by school)[Shape: Points]

Asthma Rates in Relationship to Above Regional Average % Populations of Color, Freeways and Arterial Streets
Indicators:
- Rate of Asthma [Shape: Tracts]
- Above Regional Average Percent Populations of Color [Tracts]

Cardiovascular Disease Rates
Indicators:
- Rate of Cardiovascular Disease [Shape: Tracts]

Cardiovascular Disease Rates in Relationship to Populations of Color
Indicators:
- Above Regional Average Percent Populations of Color [Tracts]
- Rate of Cardiovascular Disease [Shape: Tracts]

Cardiovascular Disease Rates in Relationship to Healthy Eating Active Living Composite
Indicators:
- Proximity to Farmers' Markets and Produce Stands [Heatmap]
- Walkability - Sidewalk Density [Heatmap]
- Transit Access [Heatmap]
- Proximity to Recreation Facilities [Heatmap]
- Proximity to publicly accessible parks [Heatmap]
- Rate of Cardiovascular Disease [Shape: Tracts]

Diabetes Rates
Indicators:
- Rate of Diabetes [Shape: Tracts]

Diabetes Rates in Relationship to % Students Eligible for Free or Reduced Priced Lunch
Indicators:
- Rate of Diabetes [Shape: Tracts]
- Percent Students Eligible for Free or Reduced Priced Lunch (by school) [Shape: Points]

Diabetes Rates in Relationship to Healthy Eating Active Living Composite
Indicators:
- Proximity to Farmers' Markets and Produce Stands [Heatmap]
- Proximity to Supermarkets and Grocery Stores [Heatmap]
- Transit Access [Heatmap]
- Walkability - Sidewalk Density [Heatmap]
- Proximity to Recreation Facilities [Heatmap]

- Proximity to Publicly Accessible Parks [Heatmap]
- Rate of Diabetes [Shape: Tracts]

Diabetes Rate in Relationship to Populations of Color
Indicators:
- Rate of Diabetes [Shape: Tracts]
- Above Regional Average Percent Populations of Color [Shape: Tracts]

HEALTHY ENVIRONMENT

Air Quality - All Sources
Indicators:
- Air Quality: Number of Times Levels Above Benchmarks - All Sources [Shape: Polygon]

Air Quality - Road Sources
Indicators:
- Air Quality: Number of Times Levels Above Benchmarks - Road Sources [Shape: Polygon]

Air Quality in Relationship to % Students Eligible for Free or Reduced Priced Lunch, Freeways, and Arterial Streets
Indicators:
- Air Quality: Number of Times Levels Above Benchmark - All Sources [Shape: Polygon]
- Above regional average % populations in poverty [Shape: Tracts]
- Percent Students Eligible for Free or Reduced Priced Lunch (by school) [Shape: Points]

HOUSING

Housing Purchasing Power
Indicators:
- Housing Purchasing Power (Ratio of housing purchasing power comparing median household income with median home sales price) [Shape: Tracts]

Median Rental Cost
Indicators:
- Median Rental Cost (2006-2010) [Shape: Tracts]

Median Home Value
Indicators:
- Median Home Value (2006-2010) [Shape: Tracts]

Percent Change in Median Home Value (2000-2010)
Indicators:
- Percent Change in Median Home Value (2000-2010) [Shape: Tracts]

Housing and Transportation Cost Burden
Indicators:
- Housing and Transportation Cost Burden [Shape: MetroScope Housing Needs Analysis Subareas]

Location of Publicly Subsidized Affordable Housing in Relationship to Areas with Above Regional Share of Poverty
Indicators:
- Above Regional Average Percent Populations in Poverty [Shape: Tracts]
- Location of Publicly Subsidized Affordable Housing [Shape: Points]

Minority Home Ownership Gap
Indicators:
- Minority Home Ownership Gap [Shape: Block Groups]

Minority Home Ownership Gap in Relationship to Schools with 75% or More of Students Eligible for Free or Reduced Price Lunch
Indicators:
- Minority Home Ownership Gap [Shape: Block Groups]
- Percent Students Eligible for Free or Reduced Priced Lunch, 75% and greater (by school) [Shape: Points]

Minority Home Ownership Gap
Indicators:
- Minority Home Ownership Gap [Shape: Block Groups]

Minority Home Ownership Gap in Relationship to Percent Minority Students
Indicators:
- Minority Home Ownership Gap [Shape: Block Groups]
- Percent Minority Students (K-12) by school [Shape: Points]

Percent Change in Median Home Value in Relationship to Schools with 75% or More of Students Eligible for Free or Reduced Price Lunch
Indicators:
- Percent Change in Median Home Value (2000-2010) [Shape: Tracts]
- Percent Students Eligible for Free or Reduced Priced Lunch, 75% and greater (by school) [Shape: Points]

Density of Single Story Housing and Elevator Buildings vs. Tracts with Above Regional Share of Seniors (aged 65+)
Indicators:
- Density of Single Story Housing and Elevator Buildings as Proxy for Housing Accessibility [Heatmap]
- Above Regional Average Percent Seniors (ages 65 and over) [Shape: Tracts]

Number of Applications for FHA Loans
Indicators:
- Access to Home Loans: Number of Applications for FHA Loans, 2011 data [Shape: Tracts]

Number of Applications for Conventional Loans
Indicators:
- Access to Home Loans: Number of Applications for Conventional Loans, 2011 data [Shape: Tracts]

Home Loan Denials (Non-White)
Indicators:
- Access to Home Loans: Home Loan Denials (Non-White) 2011 data [Shape: Tracts]

Home Loan Denials (White)
Indicators:
- Access to Home Loans: Home Loan Denials (White) 2011 data [Shape: Tracts]

Foreclosures (Percent Notice of Transfer Sale)
Indicators:
- Foreclosures (Percent Notice of Transfer Sale) [Shape: Zip Codes]

Density of Renters per Acre
Analysis Units: 2010 Census Tracts
Indicators:
- Density of Renters per Acre [Heatmap]

Density of Owners per Acre
Analysis Units: 2010 Census Tracts
Indicators:
- Density of Owners per Acre [Heatmap]

Density of Vacant Units per Acre
Analysis Units: 2010 Census Tracts
Indicators:
- Density of Vacant Units per Acre [Heatmap]

PARKS AND NATURAL AREAS

Proximity to Publicly Accessible Parks and Natural Areas
Analysis Units: 2010 Census Tracts
Indicators:
- Proximity to publicly accessible natural areas [Heatmap]
- Proximity to publicly accessible parks [Heatmap]

Proximity to Publicly Accessible Parks in Relationship to Areas with Above Regional Share of Youth (ages 0-17)
Analysis Units: 2010 Census Tracts
Indicators:
- Proximity to Publicly Accessible Parks [Heatmap]
- Above Regional Average Percent Youth (ages 0-17) [Shape: Tracts]

Proximity to Greenspace & Outdoor Recreation
Analysis Units: Neighborhoods
Indicators:
- Proximity to Recreation Facilities
- Proximity to Water Access Points
- Proximity to Greenspaces with Limited Public Access
- Proximity to Publicly Accessible Natural Areas
- Proximity to Publicly Accessible Parks

Proximity to Greenspace & Outdoor Recreation in Relationship to Areas with Above Regional Average Percent Youth (Ages 0-17)
Analysis Units: Neighborhoods
Indicators:
- Proximity to Recreation Facilities
- Proximity to Water Access Points
- Proximity to Greenspaces with Limited Public Access
- Proximity to Publicly Accessible Natural Areas
- Proximity to Publicly Accessible Parks
- Above Regional Average Percent Youth (ages 0-17) [Shape: Tracts]

Proximity to Greenspace & Outdoor Recreation in Relationship to Above Regional Average Percent Populations in Poverty
Analysis Units: Neighborhoods
Indicators:
- Proximity to Recreation Facilities
- Proximity to Water Access Points
- Proximity to Greenspaces with Limited Public Access
- Proximity to Publicly Accessible Natural Areas
- Proximity to Publicly Accessible Parks
- Above Regional Average Percent Populations in Poverty [Shape: Tracts]

Proximity to Greenspace & Outdoor Recreation in Relationship to Above Regional Average Percent Populations of Color
Analysis Units: Neighborhoods
Indicators:
- Proximity to Recreation Facilities
- Proximity to Water Access Points
- Proximity to Greenspaces with Limited Public Access
- Proximity to Publicly Accessible Natural Areas
- Proximity to Publicly Accessible Parks
- Above Regional Average Percent Populations of Color [Shape: Tracts]

Proximity to Greenspace & Outdoor Recreation in Relationship to Percent Minority Students
Analysis Units: Neighborhoods
Indicators:
- Proximity to Recreation Facilities
- Proximity to Water Access Points
- Proximity to Greenspaces with Limited Public Access
- Proximity to Publicly Accessible Natural Areas
- Proximity to Publicly Accessible Parks
- Percent Minority Students, by school (K-12) [Shape: Points]

Proximity to Greenspace & Outdoor Recreation in Relationship to Schools with 75% or More Students Eligible for Free or Reduced Price Lunch
Analysis Units: Neighborhoods
Indicators:
- Proximity to Recreation Facilities
- Proximity to Water Access Points
- Proximity to Greenspaces with Limited Public Access
- Proximity to Publicly Accessible Natural Areas
- Proximity to Publicly Accessible Parks
- Percent Students Eligible for Free or Reduced Priced Lunch (by school) [Shape: Points]

SERVICES AND AMENITIES

Proximity to Financial and Key Retail Services
Analysis Units: Neighborhoods
Indicators:
- Proximity to Key Retail Services [Heatmap]
- Proximity to Financial Services [Heatmap]

Proximity to Financial and Key Retail Services Composite Neighborhood Map
Analysis Units: Neighborhoods
Indicators:
- Proximity to Key Retail Services [Heatmap]
- Proximity to Financial Services [Heatmap]

Proximity to Public and Human Services
Analysis Units: Neighborhoods
Indicators:
- Proximity to Key Human and Social Services [Heatmap]
- Proximity to Public Services [Heatmap]

Proximity to Public and Human Services Composite Neighborhood Map
Analysis Units: Neighborhoods
Indicators:
- Proximity to Key Human and Social Services [Heatmap]
- Proximity to Public Services [Heatmap]

TRANSPORTATION

Transit Access in Relationship to Areas with Above Regional Share of Seniors (ages 65+)
Analysis Units: Neighborhoods
Indicators:
- Transit Access [Heatmap]
- Above regional share of seniors (ages 65+) [Shape: Tracts]

Transit Access in Relationship to Schools with 75% or More Students Eligible for Free and Reduced Price Lunch
Analysis Units: Neighborhoods
Indicators:
- Transit Access [Heatmap]
- Percent Students Eligible for Free or Reduced Priced Lunch, 75% and greater (by school) [Shape: Points]

Walkability - Sidewalk Density
Analysis Units: Neighborhoods
Indicators:
- Walkability - Sidewalk Density [Heatmap]

Walkability in Relationship to Percent Minority Students by School
Analysis Units: Neighborhoods
Indicators:
- Walkability - Sidewalk Density [Heatmap]

Walkability in Relationship to Schools with 75% or More of Students Eligible for Free or Reduced Price Lunch
Analysis Units: Neighborhoods
Indicators:
- Walkability - Sidewalk Density [Heatmap]
- Percent Students Eligible for Free or Reduced Priced Lunch, 75% and greater (by school) [Shape: Points]

Bikabililty
Analysis Units: Neighborhoods
Indicators:
- Bikability [Heatmap]

Pedestrian Composite
Analysis Units: Neighborhoods
Indicators:
- Walkability - Sidewalk Density [Heatmap]
- Transit Access [Heatmap]

Pedestrian Composite in Relationship to Areas with Above Regional Average Percent Populations in Poverty
Analysis Units: Neighborhoods
Indicators:
- Walkability - Sidewalk Density [Heatmap]
- Transit Access [Heatmap]
- Above Regional Average Percent Populations in Poverty [Shape: Tracts]

SCENARIO CONTENTS

Pedestrian Composite in Relationship to Areas with Above Regional Average Percent Populations of Color
Analysis Units: Neighborhoods
Indicators:

- Walkability - Sidewalk Density [Heatmap]
- Transit Access [Heatmap]
- Above Regional Average Percent Populations of Color [Shape: Tracts]

Pedestrian Composite in Relationship to Areas with Above Regional Average Percent Seniors (Ages 65+)
Analysis Units: Neighborhoods
Indicators:

- Walkability - Sidewalk Density [Heatmap]
- Transit Access [Heatmap]
- Above Regional Average Percent Seniors (ages 65 and over) [Shape: Tracts]

TROUBLESHOOTING

The Regional Equity Atlas 2.0 Mapping Tool is a powerful but complex analytical mapping engine. If you encounter difficulties, try these steps:

1. Save your work by saving a ".ctml" file to your computer, flash drive, or cloud space.

2. Close the Tool, re-launch it, and start a new map or load a map file (".ctml" file) that you have saved.

3. Clear your browser's cache (or history) and re-launch the Mapping Tool.

4. Scenarios: When you are finished with a Scenario, if you intend to continue to use the Tool, unless you restart the Tool, the original Scenario title will remain in the header of the mapping window and the indicators that you have viewed in the Data Table window, will still be there.

METADATA

A metadata document that describes the data that are packaged with the Regional Equity Atlas 2.0 Mapping Tool (including their sources, dates, and how they were processed) is available by clicking the "About the Indicators" button in the mapping tool or by going directly to the metadata webpage at:

http://clfuture.org/programs/regional-equity-atlas/about-indicators/indicator-metadata-data-links-documentation

COALITION FOR A LIVABLE FUTURE

Regional Equity Atlas 2.0

https://gis.oregonmetro.gov/equityAtlas/

Metro | *People places. Open spaces.*

Institute of Portland Metropolitan Studies

Portland State UNIVERSITY