

The Working with TIGER/Line Shapefiles series is an overview of how to access and use the US Census Bureau's TIGER/Line Shapefiles. Each pamphlet is a quick how-to guide for accessing and using TIGER/Line Shapefiles as well as joining data from the US Census Bureau to the TIGER/Line Shapefiles.

WHAT SHAPEFILES ARE AVAILABLE?

3 and 5-digit ZIP Code Tabulation Areas
Alaska Native Regional Corporations
American Indian/Alaska Native/Native Hawaiian Areas
American Indian Area Tribal Subdivisions
Blocks
Block Groups
Census Tracts
Combined New England City and Town Areas
Combined Statistical Areas
Congressional Districts
Consolidated Cities
Counties and equivalents
County Subdivisions
Landmarks (Point and Area)
Metropolitan/Micropolitan Statistical Areas
Metropolitan Divisions
Military Installations
New England City and Town Areas
New England City and Town Area Divisions
Places
Public Use Microdata Areas
Roads, Rails, etc. (in All Lines file)
School Districts – Elementary, Secondary and Unified
States and equivalents
State Legislative Districts – Upper and Lower Chambers
Urban Areas
Voting Districts
And Many, Many More

ArcGIS™ is a Trademark of Environmental Systems
Research Institute, Inc. (ESRI).

TIGER/Line® is a Registered Trademark of the US Census Bureau.

Working with TIGER/Line Shapefiles Series:

1. Downloading TIGER/Line Shapefiles
2. Opening TIGER/Line Shapefiles into ArcGIS
3. Downloading Data from American FactFinder to use with TIGER/Line Shapefiles
4. Joining Census Data to TIGER/Line Shapefiles
5. Creating a Thematic Map

Questions about TIGER/Line® Shapefiles?

Visit:

<http://www.census.gov/geo/www/tiger>

E-mail:

geo.tiger@census.gov

Call:

(301) 763-1128

Don't have ArcGIS™?

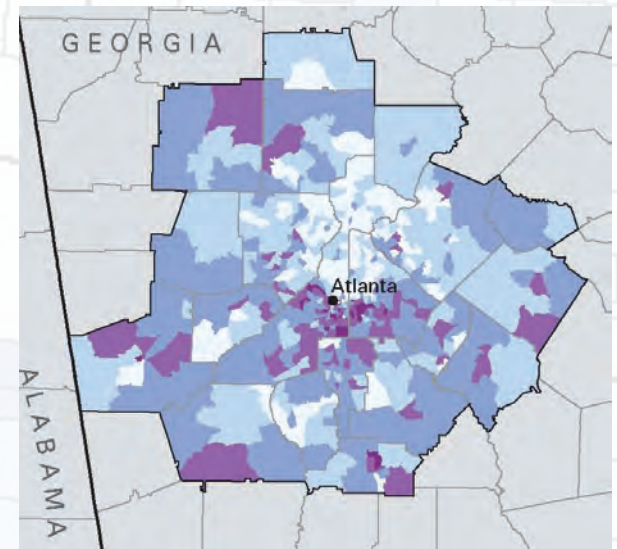
Download ArcGIS Explorer for **free** from ESRI at:
<http://www.esri.com/software/arcgis/explorer>



Geographic Products Branch
Geography Division
US Census Bureau
June 2009

WORKING WITH TIGER/LINE SHAPEFILES

Creating a Thematic Map using TIGER/Line Shapefiles



GETTING STARTED

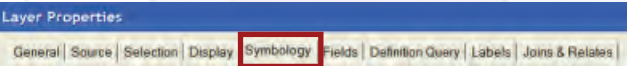
The instructions are for using the 9.x versions of ArcGIS.

Data from American FactFinder should be downloaded in a Microsoft Excel database format. See the brochure “Downloading Data from American FactFinder to use with TIGER/Line Shapefiles” for detailed steps.

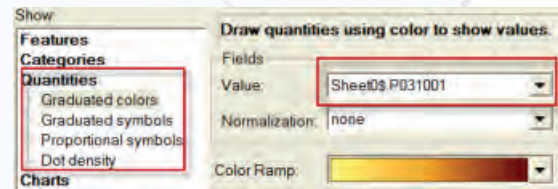
The corresponding TIGER/Line Shapefiles should be unzipped in a location on your computer and the join between the data and TIGER/Line Shapefiles created in ArcMap.

DATA FOR THE THEME

With ArcMap open, double-click on the name of the shapefile layer to open the layer properties menu. Select the “Symbology” tab to start creating the thematic map.



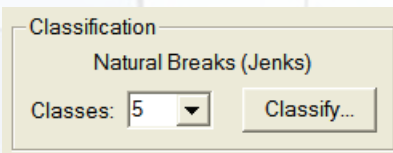
From the “Show” box select “Quantities” and then “Graduated Colors.” Other options include graduated symbols, proportional symbols, and dot density.



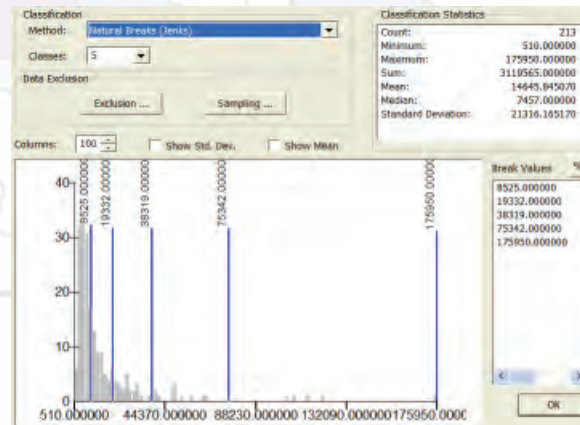
In the value section, select the field that contains the data to be used in the thematic map. This field must be in numeric format in order for it to show up in the list.

CLASSIFYING THE DATA

The default method for classifying the data is using the Natural Breaks (Jenks) method with 5 classes. Select the “Classify” option to change the classification method.



There are 7 types of classification methods - Manual, Equal Interval, Defined Interval, Quantile, Natural Breaks (Jenks), Geometrical Interval, and Standard Deviation.



The number of classes can be between 1 and 32. The chart at the bottom of the screen shows the data against the breaks and is updated as the classification choices are made. Statistics show the count, minimum value, maximum value, sum, mean, median, and standard deviation.

Records can be excluded from the map by using the “Exclusion” option to create a query for the records to remove from the map.

CREATING LABELS

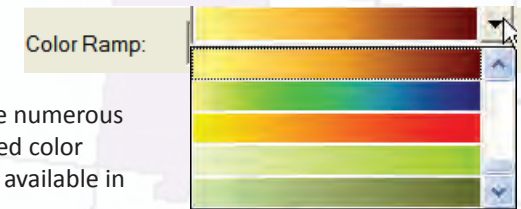
ArcMap creates labels based on the data in the file. To edit the label, double-click on the field in the symbology menu. The label can now be edited.

Sym...	Range	Label
	510.000000 - 8525.000000	510.000000 - 8525.000000
	8525.000001 - 19332.000000	8525.000001 - 19332.000000
	19332.000001 - 38319.000000	19332.000001 - 38319.000000
	38319.000001 - 75342.000000	38319.000001 - 75342.000000
	75342.000001 - 175950.000000	75342.000001 - 175950.000000

SELECTING COLOR

The colors displayed on the map can also be modified. ArcMap has many built in color schemes that can be used to create the thematic map or each range’s symbol can be changed individually.

To use a built in color scheme, use the “color ramp” option to select from the list of options.



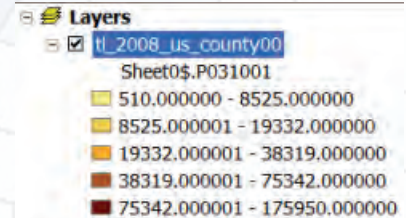
There are numerous predefined color schemes available in ArcMap.

To define a custom color scheme for each class, double-click on the symbol to be changed. A box will open where a different fill color and/or outline color can be selected. Repeat as needed until the color is set for all data elements.

Sym...	Range
	510.000000 - 8525.000000
	8525.000001 - 19332.000000
	19332.000001 - 38319.000000
	38319.000001 - 75342.000000
	75342.000001 - 175950.000000

FINAL PRODUCT

After applying the changes, the map is updated.



The map display now has the classification scheme, colors, and labels that were selected.

Don't forget to save!!