

Introduction

As chief cartographer for the preeminent cartographics firm *Aggieland Cartographics, Inc* you have been hired by the state of Tennessee to make a map showing the number of housing units in East Tennessee counties based on data collected during the 2000 census. Being somewhat of a traditionalist and wishing to challenge yourself you decide to make a DOT MAP showing population and decide to do it right and screen out areas where most people don't want to build a house when placing the dots.

1. Create Base Map

Using Adobe Illustrator, open a copy of the **Tennessee**. This file contains both the basemap and filters that will help you to determine where you place the dots. I have placed all information in a series of **Layers** so you can display them as well as turn them off when printing your final map. You can use the help function to see how to handle layers.

YOU SHOULD PLACE YOUR DOTS IN THE TOPMOST LAYER NAMED DOTS!

Construct the map within a map border measuring 5 high by 8 inches wide. You may slightly enlarge or reduce the map to make it conform to your overall map design. Include a title, legend, and anything else that you deem necessary based upon good cartographic design principles.

You need to include the following data source on your map:

Census Table GCT-PH1
Population, Housing Units, Area, and Density: 2000

And the following credits:

Produced by Aggieland Cartographics, Inc.
Cartographer: Your Name

2. Process Data

The file called **Tennessee_data_2000** contains all the information you need. It has county names, buildable areas, and population and housing units from the 2000 census. This will enable you to compute area-to-value ratios (density). Note that the area values **have already taken into account** the water and mountain filters so the plotting of the dots should be easier.

Once you have determined which county has the highest density of housing units, you can compute the dot value based upon the dot size you select and how many dots will fit into the county. The instructions presented here are minimal. You will need to consult the class notes and textbook to determine the best way to construct a dot map.

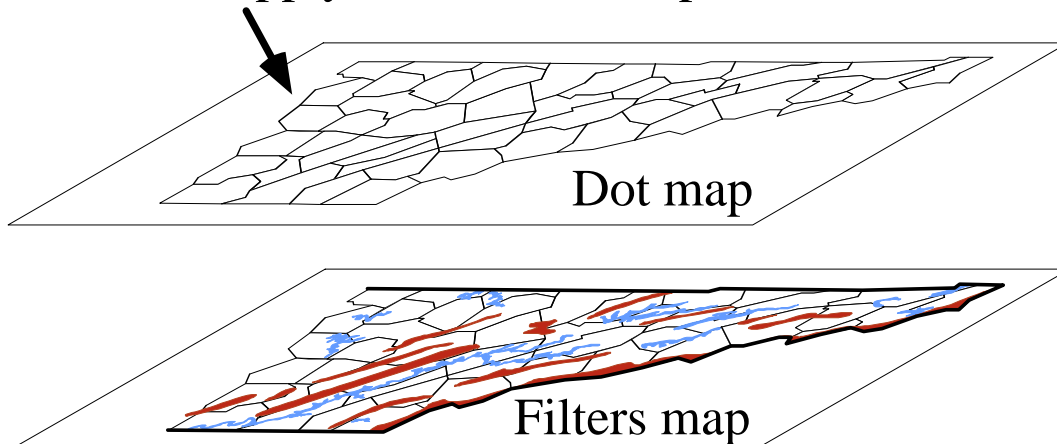
Tips

1. To make a perfectly round circle, hold down the shift key when using the ellipse tool
2. Make a copy of the dot and then just use paste to make additional dots the exact same size
3. The file Tennessee_counties.ai contains maps showing the counties of Tennessee to help you.

3. Calculate Dot Value and Apply to Map

To compute the dot value, you need to fill the enumeration unit possessing the highest density value with as many dots as can fit (only to the point where they just begin to coalesce). Only place dots in non-filter areas and then adjust this value so you have a minimum of 2 dots in the county with the smallest number of housing units.

Overlay this map on filters map.
Apply dots on this map.



4. Legend Design

On the map, you have been provided with 3 legend boxes. At the original scale of the provided map each of the boxes has an area of 200 square miles. You can use this information and legend boxes to create a correctly designed legend.

5. Turn in

One completed Dot Map showing only the necessary information

If you have any problems do not hesitate to see the TA or myself.