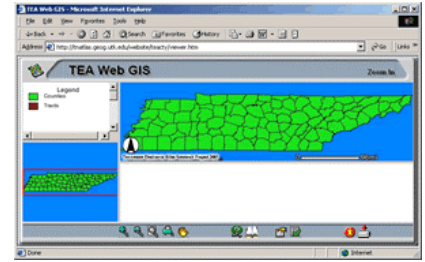


## “Montgomery County Qualities” Web GIS Tutorial Exercise 3

In the last tutorial we looked at various mapping decisions that affect the display of data on a map. The patterns revealed in the different maps affected the conclusions we drew. It appeared that Montgomery County was heavily populated with Hawaiians and Pacific Islanders. Now let us examine the data to see what we can learn about this county to begin to answer this riddle.



**Step 1:** From TEA's **Interactive Mapping** page select **County and Tract Data**.

**Step 2:** Click on the **Classify Layers** icon. Select **Counties** in the Layer dropdown box. In the Field dropdown box select **HAWAIIPACI**. Select **Equal Interval** from the Method dropdown box. Click **Execute**.

**Step 3:** This is the pattern we saw. Now, **Zoom In** to Montgomery County by clicking the **Zoom tool** and then dragging a box around the county.

**Step 4:** Let us examine Montgomery County by tract data. Select **Tracts** in the Layer dropdown box, **HAWAIIPACI** in the Field dropdown, **Quantile** from the Method dropdown box, and click **Execute**.

Notice the entire county is represented as being heavily populated by Hawaiians or Pacific Islanders, except for six noticeable tracts south of Clarksville. But wait, notice the legend, the first three classes cover only between 0 and 2 people. That cannot accurately represent this data, and now that you went through the second exercise you know why it did this.

**Step 5:** Change the Methods dropdown box to **Equal Interval**. How does this affect the map? Does it now appear evident that large portions of this minority are concentrated in one section of this county? Why do you suppose that this minority is clustered in this northwestern corner? Notice that one tract has between 41 and 56 people. If you zoom out to the entire state you will notice that is extraordinary, especially in rural areas.

**Step 6:** Let us investigate this northern part of the county in order to determine what could be the cause of such an unlikely concentration of a minority. We will use TEA's County Information section in order to learn more about. Either go to <http://tnatlas.geog.utk.edu/tea/fixedmaps.htm> directly or navigate there through the Thematic Data section. Select Montgomery County from the interactive map or from the dropdown list.

**Step 7:** Readily apparent is the fact that a large portion of the area we are interested in is occupied by Fort Campbell Military Reservation. That could be the answer and definitely is an influence that could be contributing to the clustering. Let us continue to examine the characteristics of the county by clicking on the link for the PDF document at the top of this page.

**Step 8:** When we examine the various races present in the county, we notice just how small a percentage of the total population Hawaiians or Pacific Islanders are, yet there still remains this apparent clustering at the tract level.

While this exercise has not provided the answer to the riddle of the clustering of this minority group in these tracts, it has provided you with steps to advance your familiarity with interacting with the Tract and County data available in TEA. Through this process you have critically assessed spatial data and learned the importance of the scale of your data. How does examining the same variable at the differing county and tract scales either conceal or reveal the spatial patterns? Also, it has offered intriguing and thought provoking geographic questions, which led you past TEA's Web GIS to TEA's County Information pages and even beyond. This exercise has offered steps to enhance your skills at Internet mapping and geographic analysis.

This is the image that should appear on your screen in a new window.

You *should not* use the BACK or FORWARD buttons to navigate while in this Web GIS window. Close the window and restart another service from the 'Interactive Mapping' page if you want a different set of maps.