GEO STAC

Student Lesson

Lesson Title: Ancestral Regions   Designer Lynn Songer

Lesson Summary: Students will describe the spatial distribution pattern of several ancestry groups and then explore concept of formal cultural regions and culture traits.

Before you begin using this module, you will need to know about using the ArcGIS Server Web-based GIS viewer. You can do this by watching the server tutorial video or working through the tutorial. The tutorial video, student activity, and Web-based GIS Tutorial Viewer can be found at http://gis.lanecc.edu. Go to the "Modules" tab and click the Tutorial link. You will need a high speed Internet connection and a current version of Adobe Flash Player.

Prior Skills: For this activity, you will need to know how to turn on and off layers; query layers use the zoom tool, and use the ID tool.

Computer steps are indicated by a ► symbol. Questions you need to answer are numbered.

Please record your answers on a separate sheet of paper.

► Open up the web browser go to Lane's GIS page. http://gis.lanecc.edu
► Click Modules link.
► Click USAncestry.
► Click the Link to the web-based GIS map.

The page will take a minute or two to load. The base map will load first then the other data layers. If it stalls at 55%, just click the **refresh** button on your browser.

Keep in Mind:

A. County layers cover each other. To see a religion layer listed below another layer, you have to uncheck the upper layers and refresh the map.

B. This map shows counties but not county lines. The lines make it difficult to see the color values especially in the small counties. With a layer Active, you can choose the "I" button and click on any county to get a pop-up window with county information.

C. This is a hug file and will take a few minutes to redraw each time you select a Layer. Slow and patient clicking will make the entire experience more enjoyable
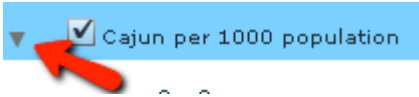

Data Exploration:

The US Ancestry map shows the results of two 2000 US Census categories. People were asked to identify their ancestry and they were asked to identify their race. The categories you see on this map are normalized to show the number of people per 1,000 of population who self-identified in specific race or ancestry categories. For example, a Native American ancestry value of 10 means that 10 out of every 1000 people self-identified as Native American in that county.

► Zoom in the Continental US.

► Turn on Native American per 1000. This layer shows the location of people who identified themselves as Native Americans and Alaskan natives

► Turn on the State border layers.
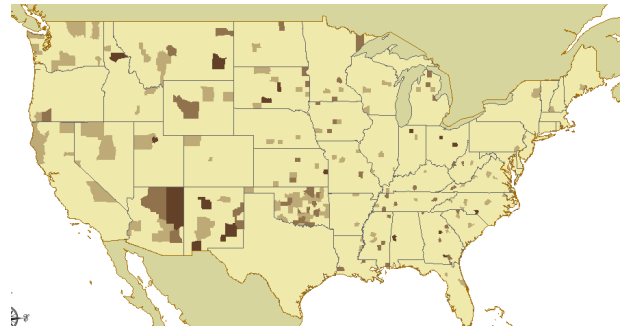
1. What three states in the continuous U.S. account for the highest Native American identity? Describe the general pattern of people with Native American ancestry.

► Use the tool to click a state area → scroll across the table to read the state name.

► Turn on "Cajun" and turn off "Native American."

The data in the layers list are like maps stacked on top of one another. You cannot see the Cajun data if the Native American data is checked.

► Expand the layer to read the legend.

2) Describe the location of high Cajun ancestry. Is it concentrated, spread out, continuous, or discontinuous? Is it in the middle, north, west, east, or south of the country? These aspects of the location pattern describe the spatial distribution. It the occurrence of Cajun ancestry clustered (grouped) in one area or is it spread out?

3) What is the upper data range of the legend for "Cajun?" This is the percent of the population with that ancestry.

► Turn on "English" turn off "Cajun." It looks like English is much more prevalent than Cajun.

4) What is the upper range of the legend for English ancestry? Describe the spatial distribution of English ancestry.

▶ Turn on "Italian" turn off "English." \

5) What is the upper range of the legend for Italian ancestry? Describe the spatial distribution of Italian ancestry.

▶ Select another ancestry.

6) Describe the upper data range and then describe its spatial distribution.

▶ Look at the map for English ancestry and then for Scottish ancestry.
7) Which is more represented in the Oregon?

8) Now look at the data ranges for each. Do you still support your answer in question 7? Why or Why not? How do the different data ranges bias the visual impact of the map?

Formal Cultural Regions - Ancestry Regions

You are going to explore the concept of regions using of one ancestry groups listed in the table.

▶ Start by highlighting the core of the formal cultural region of that ancestry population. Then you will locate one of the cities that is closest to that core area. (Use Jing to capture the map and highlight the area.

For example the Scottish Core seems to be in New England.
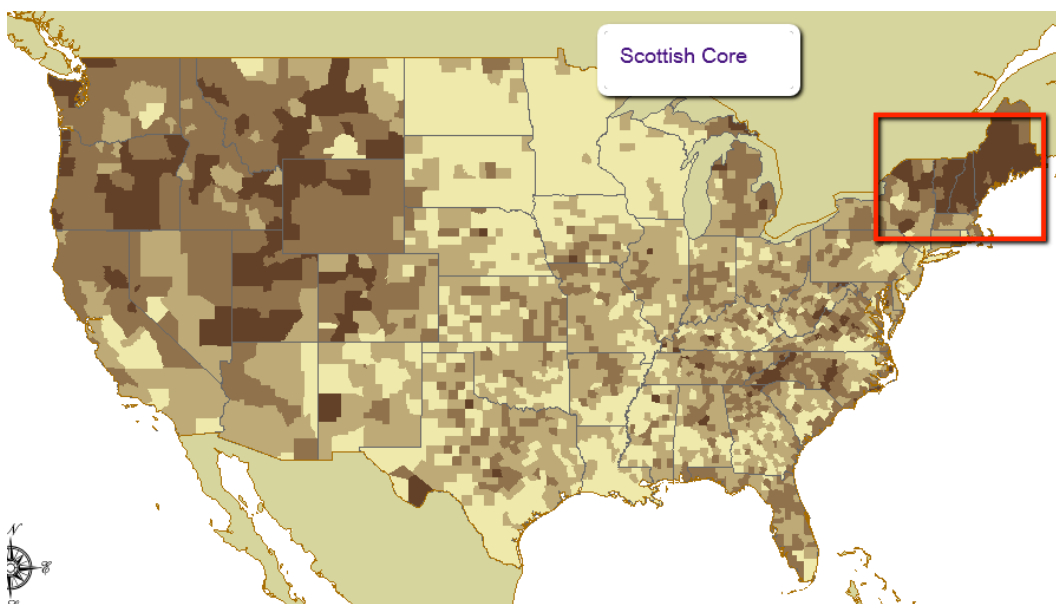
▶ Use the Identify tool to click in the center of the core to get the name of the state and the name of a couple counties in the core.

If this is a core of a Scottish cultural region, I would expect to find some cultural traits such as Scottish sir names, Festivals, churches, restraints, food stores etc.

Your task is to use the internet to research this ancestral group and this area to see what you can find to support you core cultural region.

In my example I used Google to search for terms Scottish Festivals, Scotts in Belknap New Hampshire, Scottish Sir Names, and Scottish American in Wikipedia. Some ancestral groups are included by state, city and county in the current US Census Quick Facts.

9) Discuss your search. What cultural traits or other support did you find to support your core area? If your area is not supported, what did you find to disprove your identification of a core area?   Include the map of your ancestral core area and your discussion

▶ Go to the website: www.esri/industries.html

This page has links to careers that use GIS.

▶ Click on the link to a career that you think someone would need to use demographic data (population, median income, schooling, ethnicity).

10) What type of careers are in your list. Expore the links and list some of the ways GIS is used in these careers.