



LEVEL

2

Out of Many, One

from the Esri GeoInquiries™ collection for Government

Target audience – Government learners

Time required – 30 minutes

Activity Examine the lands that have special designations, or that the U.S. Government has set aside for use by its citizens.

Social Studies Standards **C3:D2.Civ.1.9-12.** Distinguish the powers and responsibilities of local, state, tribal, national, and international civic and political institutions.
C3:D2.Civ.3.9-12. Analyze the affect of constitutions, laws, treaties, and international agreements on the maintenance of national and international order.

Learning Outcomes

- Students will explain how some special land designations around the country are connected to the separation of power between state, federal, and tribal governments.

Level 2 GeoInquiry Requirements

- A free school ArcGIS Online organization account. Instructors or students must be signed in to the account to complete this activity.
- Approximately 0.503 credits will be used per person in the completion of this activity as scripted.

Map URL: <http://esriurl.com/govGeoInquiry5>

? Ask

Where are most Native American reservations located?

- Click the link above to launch the map
- In the upper-right corner, click Sign In and use your ArcGIS Online organization credentials to sign in.
- With the Details button underlined, click the button Show Contents of Map (Content).
- Turn off all layers except the layer, Native American Reservations 2015.
- ? Which regions of the United States have the highest distribution of Native American reservations?
[Upper Great Lakes, Great Plains, Pacific Northwest, and Southwest]

! Acquire

How can you view data differently?

- Zoom out to view the entire United States.
- Click the Analysis button. Expand Find Locations and choose Find Centroids.
- For the Find Centroids tool, set the following parameters.
 - 1 Set to: Native American Reservations 2015.
 - 3 For the result name, add **<your initials>** to the end of the default name.
- Uncheck the Use Current Map Extent option, and then check to make sure that 0.226 credits are being used. Click Run Analysis.
- ? How are the Native American reservations represented on the map now? *[As dots located at the center of the reservations]*

🔍 Explore

Why are different data displays used?

- ? How does the new centroid data display differ from the polygons shown before? *[All Native American reservations are now represented the same, which reveals many more reservations that were difficult to see before.]*
- ? What are the positives and negatives of this type of representation over the previous form? *[Answers will vary.]*
- ? How does the new data display change your previous answer about the regions that have the highest distribution of Native American reservations? *[Answers will vary.]*

Analyze

How can calculating density be helpful?

- Click Analysis button, again. Expand Analyze Patterns and choose Calculate Density.
- For the Calculate Density tool, set the following parameters.
 - 1 Set to: your new centroid layer
 - 2 Expand Options, and change the Clip Output To: US States.
 - 3 Add your initials and date to the resulting layer name.
Uncheck the Use Current Map Extent check box, and check the credits to make sure it is using 0.277 credits.
Click the button Run Analysis.
- ? How has the data displayed changed? [*Darker to lighter circles representing density (number of reservations/area)*]

Act

What are the benefits of different displays?

- ? Based on the information from your new map, which areas seem to have the highest concentration of Native American reservations? [*Southwest, Northwest, Great Lakes, Northeast, and Florida*]
 - The Bureau of Indian Affairs (BIA) is the division of the U.S. Government responsible for maintaining relationships with tribal governments.
- ? Where would an appropriate location for a BIA office be? [*Answers will vary.*]
- ? Which of the three representations do you believe is the best display of the data? [*Answers will vary.*]

CENTROIDS

- This tool works with a layer of multipoint, line, or area features to determine the representative center of each feature.
- If Use current map extent is checked, only the features in the input multipoint, line, or area layer visible within the current map extent will be analyzed.

CALCULATE DENSITY

- Density analysis takes known quantities of some phenomenon and spreads these quantities across the map.
- You can use this tool, for example, to show concentrations of lightning strikes or access to health care.

Next Steps

Continue using an ArcGIS Online organizational account (www.esri.com/schools) to dig deeper into data using the analysis tools, and save your maps to your account.

THEN TRY THIS...

- Explore the GeoInquiry, Native American lands 1819-2015 in the US History collection at <http://esriurl.com/historygeoinquiries>
- Explore the GeoInquiry, The land is your land in the Government collection at <http://esriurl.com/govGeoInquiries>

TEXT REFERENCES

This GIS map has been cross-referenced to material in sections of chapters from these high school texts.

- *American Government and Politics Today* by Schmidt, Shelley, Bardes & Ford — Chapter 3