



LEVEL

2

Underground Railroad: Enslaved

from the Esri GeoInquiries™ collection for U.S. History

Target audience – U.S. history learners

Time required – 15 minutes

Activity	A deeper exploration of the Confederate, Union and border states and the enslaved populations in those states.
Social Studies Standards	C3: D2.His.1.9-12. Evaluate how historical events and developments were shaped by unique circumstances of time and place, as well as broader historical contexts. C3: D2.His.2.9-12. Analyze change and continuity in historical eras.
Learning Outcomes	<ul style="list-style-type: none">• Students will analyze the percentage of enslaved persons in the Confederate states, Union states, and border states.
Level 2 GeoInquiry Requirements	<ul style="list-style-type: none">• A free school ArcGIS Online organization account. Instructors or students must be signed in to the account to complete this activity.• Approximately 1.6 credits will be used per person in the completion of this activity as scripted.

Map URL: <http://esriurl.com/historyGeoInquiry5>

? Ask

Where were enslaved persons located in 1850?

- Click the link above to launch the map.
- In the upper-right corner, click Sign In and use your ArcGIS Online organization account to sign in.
- Click Bookmarks and choose United States, 1860.
- From the Contents pane, turn on only the layers: 1850 Number of Enslaved and 1850 State Outlines.
- ? Where was a high prevalence of enslaved? [*Mostly from the midsection of the U.S. to the East.*]

! Acquire

How can you view patterns in large amounts of data more easily?

- In the Contents pane, hover on the layer name, 1850 Number of Enslaved. Click the button, Select Style.
- From the drop-down list, select SLV_POP_1850. (Counts And Amounts [Size] is automatically chosen.)
- Click Done.
- Hover on the layer name, 1850 Number of Enslaved. Click the button, Show Legend
- Zoom to see the dots on the map more clearly.
 - The largest dots indicate the highest number of enslaved, and smaller dots indicate lower numbers.
- ? Now where was a high prevalence of enslaved? [*In the southern or Confederate states*]
- Hover on the layer name, Greater than 60% Enslaved Counties. Click the button, Filter. Click Remove Filter.

🔍 Explore

Where were the border states in terms of slavery?

- See the Find Hot Spots ToolTip on page 2.
 - At the top of the map, click Bookmarks and choose United States, 1860. Click Analysis and expand Analyze Patterns. Choose Find Hot Spots.
 - In the Find Hot Spot tool, set the following parameters:
 - 1 From the drop-down list, choose Greater than 60% Enslaved Counties.
 - 2 From the drop-down list, choose SLV_POP_1850.
 - 4 Update the result layer name using the rules specified in the ToolTip. Leave selected, Use Current Map Extent.
- more ►
- Always click Show Credits to ensure acceptable credit usage. Click Run Analysis.

Analyze

How did majority slave ownership affect which side of the Civil War the states chose to affiliate with?

- Turn off the layer, 1850 Number of Enslaved.
- Hover on the layer name, HotSpot_PercentEnslaved. Click the button, Change Style.
- In the Counts And Amounts (Color) option, click Options.
- Click the Symbols link, and then click Outline.
- Under the color options, click the No Color box (with the red line through the box). Click OK.
- In the Change Style pane, click OK, and then click Done.
- The hot spot analysis that you just did mathematically looks at an area (in this case, counties) that clusters much higher or lower values than would be possible by chance alone (red, blue, white). This indicates that, in the case of number of enslaved per county, patterns that you are seeing on the map are not random.
- Hover on the layer name, HotSpot_PercentEnslaved_REED_ABC1. Click the button, Show Legend.
- ? Which color on the new hot spot map indicates states with no or a very low percentage of enslaved? *[The blue areas (90% to 99% cold spot)]* Higher or high percentage enslaved? *[The red areas (90% to 99% hot spot)]*

Act

What motivated the border states to have stronger ties with the Union states?

- ? What connection is there between the border states on the layer, 1850 Number of Enslaved and the colors on the hot spot map? *[The white areas correspond generally with the band of states between the North (blue) and the South (red). The trend for border states' counties was to have a lower percentage or no enslaved.]*
- ? Looking at the colors in Arkansas, do you think it was a simple decision to align with the Union or Confederacy? *[Answers will vary but should include the fact that Arkansas had both red AND blue areas with a band of white bisecting the state. There was probably a diverse view on slavery in Arkansas counties.]*
- ? What can you say about the border states' colors? *[The border states are not all white; they have blue and red areas.]*
- ? What information does the hot spot/cold spot map enable you to explore and visualize? *[It enables you to mathematically confirm the regions of the Union, Confederate, and border states more clearly in lieu of presence of slavery.]*

CHANGE LAYER TRANSPARENCY

- From the Details pane, click Contents.
- Point to a layer, click the three blue dots below the layer name, and choose Transparency.
- Modify the layer transparency to see an active layer below the top layer.

FIND HOT SPOTS

- Shows statistically significant spatial clustering present in the data.
- The result layer name must be unique, so consider adding three initials, school code, and a number before or after the layer name (example: FileName_REED_ABC1).

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...

- Create a story map of the Confederate, Union, and border states and how slavery was perceived to be a factor.

TEXT REFERENCES

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

- *World History by Glencoe — Chapters 2 & 3*
- *World History: Human Journey by Holt — Chapters 1–4*
- *World History by Prentice Hall — Chapter 1*