



LEVEL

2

# Federal Banks: Cash Reserves

from the Esri GeoInquiries™ collection for Government

Target audience – Government learners

Time required – 15 minutes

<b>Activity</b>	Explain how cash economies (like agriculture) may affect the nation's federal district banking system and cash reserves.
<b>Social Studies Standards</b>	<b>C3:D2.Civ.6.9-12.</b> Critique relationships among governments, civil societies, and economic markets. <b>C3:D2.Civ.13.9-12.</b> Evaluate public policies in terms of intended and unintended outcomes and related consequences.
<b>Learning Outcomes</b>	<ul style="list-style-type: none"><li>• Students will identify how different types of economies affect their federal reserve district.</li></ul>
<b>Level 2 GeoInquiry Requirements</b>	<ul style="list-style-type: none"><li>• A free school ArcGIS Online organization account. Instructors or students must be signed in to the account to complete this activity.</li><li>• Approximately .05 credits will be used per person in the completion of this activity as scripted.</li></ul>

**Map URL:** <http://esriurl.com/govGeoInquiry3>

## ? Ask

### How many farms are in each federal reserve district?

- 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.
- Click the button, Basemap. Select Light Gray Canvas.
- Turn on the two layers, Farms By State and Federal Reserve System.
- Click the layer name, Farms by State to reveal the legend.
- ? Which district has the most farms? *[District #9; Dakotas and Montana]*

## ! Acquire

### How can you use tools to help analyze a large area?

- Click the button, Analysis. Expand Summarize Data and select Summarize Within. (See ToolTip, page 2.)
- In the Summarize Within tool, set the following values:
  - 1 Set to: Federal District 9.
  - 2 Set to: Farms By State.
  - 3 From the first drop-down, set to: Number Of Farms, 2012. Set the second pull-down to: Sum.
  - 5 Update the Result Layer name to **<your initials\_date>\_Summary of Farms District 9**.  
Uncheck Use Current Map Extent, and always click Show Credits to ensure acceptable credit usage.  
Click Run Analysis.

## 🔍 Explore

### What can the map data tell you?

- Click the new polygon in your new layer.
- ? How many farms are in District 9? *[165,500 farms]*
- Click the button, Measure. Set to: Area and Sq Miles.
- Roughly outline District 9. (See the Measure ToolTip on page 2.)
- ? How many square miles is the district? *[Answers should be around 428,000 square miles.]*
- Turn off the newly created analysis layer.

## Analyze

### How do other districts compare?

- Find District 2. (Hint: New York)
- Click the marker in New York state in layer, Farms By State.
- ? How many farms are in this area?  $[(19,570,261/100,000)*182 = 35,537 \text{ farms}]$
- ? How many square miles is the district? (Hint: Repeat the previous measurement steps to find the area)  
*[Answers will vary slightly but should be close to 52,700 square miles.]*

## Act

### How can analyzing different types of economies help you infer information about different reserve districts?

- Remember that farming is more of a cash industry and that cash can be provided by the Federal Reserve Bank in a district.
- ? How might the cash reserves be different based on the information that you discovered? *[Answers should include that the district bank in District 9 might have higher cash reserves because there are more farms.]*

### SUMMARIZE WITHIN

- This tool finds features (and portions of features) that are within the boundaries of areas in the first input layer.
- This tool is typically used to create summary statistics on points that lie within a selected area (polygon).
- Be sure to name the new layer with a unique file name otherwise the analysis will not proceed. A date and initials appended to the recommended name typically suffice.

### USE THE MEASURE TOOL

- Click the button, Measure. Select the Area button and from the drop-down list, choose a unit of measurement.
- On the map, click once to start the measurement. Click again to change direction and double-click to stop measuring.
- Hint: Position the area of interest on the map so that it is not obscured by the Measure window.

## Next Steps

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

### THEN TRY THIS...

- Analyze other districts and compare how many farms are in each area.
- Add another type of economy and compare findings.
- Schools have access to additional economic and banking data in the Community Analyst - included with US software bundles.

## TEXT REFERENCES

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

- *Magruder's American Government* by Pearson — Chapter 12
- *Government Alive! Power, Politics, and You* by Teachers' Curriculum Institute — Chapter 13
- *United States Government: Democracy in Action* by Glencoe — Chapter 20