

Part 2: HOW TO USE TIGERWEB

CHAPTER 2: TIGERWEB MAP VIEWER FOR THE SDRP

The Census Bureau provides the TIGERweb online map viewer for state and local education officials to review the Census Bureau's 2019 school district information. The TIGERweb viewer shows features such as roads, waterways, and county, place, city, and school district boundaries at street level detail.

The TIGERweb online map viewer is located at: <<https://tigerweb.geo.census.gov/tigerweb/>>. Use it to locate a school district and compare it to a local source for school districts to determine if there is a need to make boundary changes. The mapping coordinator should provide boundary changes to the SDRP if the map does not correctly depict the school district boundary in effect as of January 1, 2020.

To review the boundary of a school district, the mapping coordinator will need either the name of the school district or the seven-digit geographic identification code (**GEOID**) for the school district. The GEOID is located in the School District Inventory and Grade Range File (**SD_Inventory.xls**) located on the 2020 SDRP Data disc. The GEOID is comprised of the two-digit Federal Information Processing Series (FIPS) state code for the state in which the school district is located followed by the five-digit SDLEA ID assigned to the school district. TIGERweb uses the GEOID to zoom directly to the school district.

State mapping coordinators, please provide local education officials with these TIGERWeb instructions, which can be downloaded from the 2020 SDRP website under the **Annotation Phase Program Materials** hyperlink.

If a local education official determines that changes need to be reported for the 2020 SDRP, report the changes to a state SDRP mapping coordinator who will submit the changes to the Census Bureau. The SDRP Mapping Coordinator is the liaison between the state's Department of Education and the Census Bureau. Find contact information for mapping coordinators on the SDRP website: <<https://www.census.gov/programs-surveys/sdrp.html>>.

The Census Bureau will not accept school district boundary changes:

- a) Submitted directly to the Census Bureau by local education officials.
- b) Annotated on maps printed using the TIGERweb map viewer.

2.1 Getting Started with TIGERweb

TIGERweb Applications

TIGERweb
Contains:
• Current (BAS 2019)
• ACS 2018
• ACS 2017
• 2010 Census (adjusted boundaries)
• Current (BAS 2019) Physical Features

Legend

TIGERweb Decennial
Contains:
• 2010 Census
• Census 2000 (adjusted boundaries)
• 2010 Census Physical Features

Legend

TIGERweb Economic Census
Contains:
• 2017 Economic Census
• 2012 Economic Census
• 2017 Census Physical Features

Legend

TIGERweb User Guide

TIGERweb BAS User Guide

Note: These links will open new browser windows.

The applications need:
- JavaScript enabled
- Allow Popups

- Navigate to the TIGERweb website located at: <https://tigerweb.geo.census.gov/>.
- TIGERweb supports Microsoft Internet Explorer, Mozilla Firefox, Opera, and Google Chrome internet browsers.
- Click on the TIGERweb Applications tab.
- Click on the **TIGERweb** link under TIGERweb Applications tab on the left side of the screen. **Do not click on the TIGERweb Decennial link.**
- **TIGERweb** contains the geographic school district boundary updates for state school districts submitted during the 2019 SDRP. Review boundary updates from the 2019 SDRP before submitting changes for the 2020 SDRP.
- The TIGERweb application offers the ability to view:
 - Roads, highways, and railroads.
 - Rivers, lakes, streams and other “single-line” drainage.
 - Boundaries for legal and statistical geographic entities.
 - Selected special land use areas such as military reservations and national parks.
 - Satellite imagery.

Figure 7. TIGERweb Application List from the TIGERweb Tab

After opening TIGERweb, the map display, navigation tools, layers panel, a legend, and map vintage becomes visible (**Figure 8**).

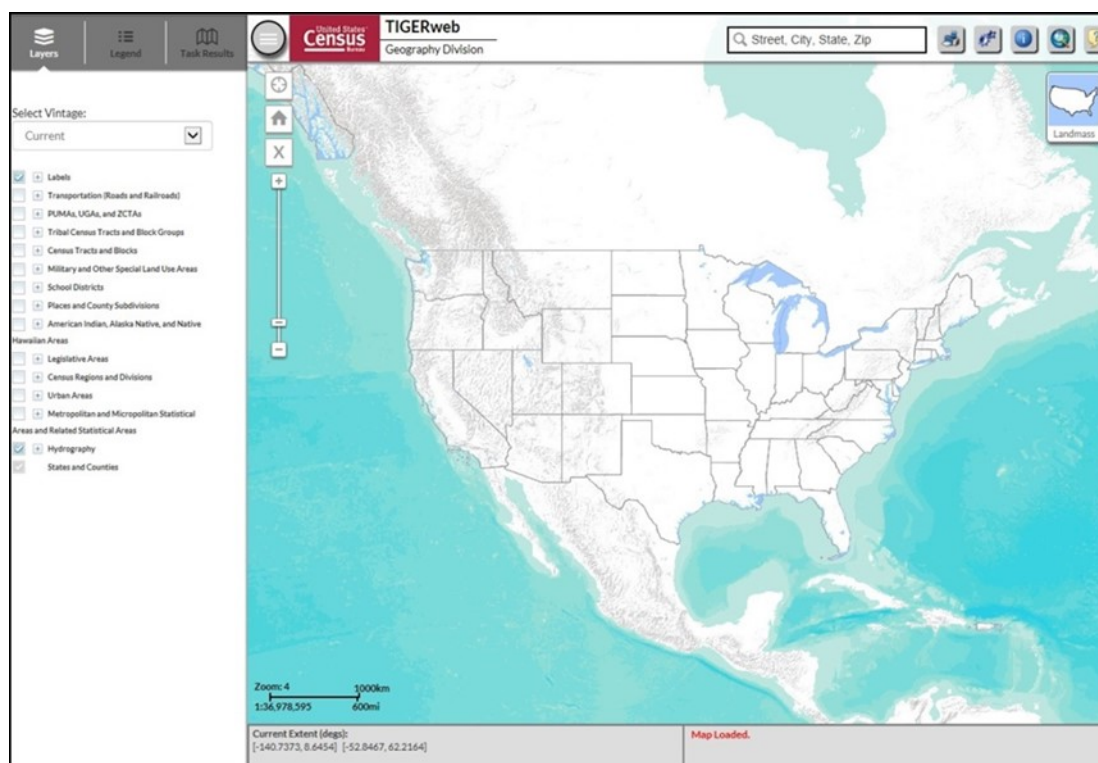


Figure 8. TIGERweb Layout

2.2 Available Map Layers

The Layers panel shows the list of available features and geographic areas. Labels, Hydrography, States, and Counties display by default at startup. The layers organize into separate groups, called map services, based on geographic type. Expand each map service by clicking on the '+' symbol to see all of the available layers that include physical features such as roads and water features, as well as legal and statistical boundaries such as census blocks and incorporated places. Limit the amount of data on the map by selecting only the applicable types of linear features and geographic entities. Click on the '+' sign to expand a map layer and view the **Slider** tool to make the layer more or less transparent.

2.3 Selecting a Map Layer

The **Select Vintage** dropdown in the **Layers** panel shows the vintages of TIGERweb geography that are available for display in the application (**Figure 9**). Select **Current**, if not already selected, to view the geographic updates for entities submitted during the 2019 SDRP. Click on the '+' sign next to each map service in the **Layers** panel to expand the map service and view the layers within it. Click on the small boxes (check/uncheck) to select the Transportation, Places and County Subdivisions, and School Districts map layers.

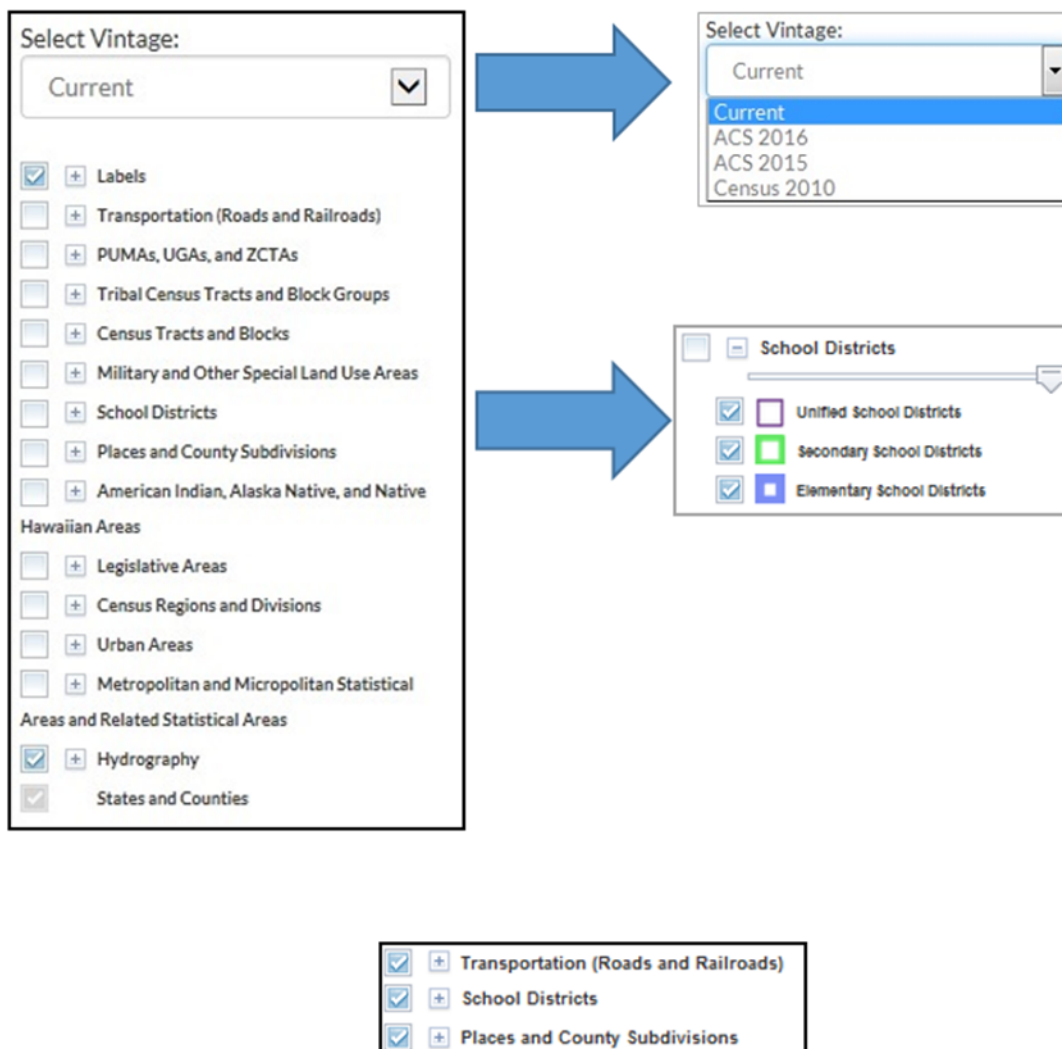


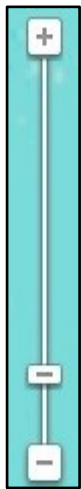
Figure 9. TIGERweb Vintage Dropdown Menus Used for Reviewing School District Boundaries

2.4 TIGERweb Tools and Functions

2.4.1 Move Around/Zoom In/Zoom Out of Map Display

The features and geographic areas contained in the map services do not immediately appear. This is because each layer has a range of zoom levels at which it will display. In other words, visibility is scale dependent. More details appear when zooming in on the map.

At Zoom level 6, counties appear; at Zoom level 7, school districts begin to appear; at Zoom level 9, places appear; and at Zoom level 10, roads and railroads appear. The current Zoom level displays on the scale bar in the lower left of the Map display (**Figure 10**).



Use the **Zoom In** scrollbar tool located on the vertical Scale Bar, shown on the left, to zoom in to see more detail on the map or zoom out to see less detail (**Figure 11**). Click on the '+' to zoom in for more detail or click on the '-' to zoom out for less detail. Also, zoom in or out by rolling the wheel on a computer mouse.

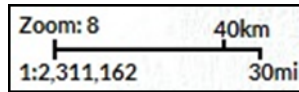
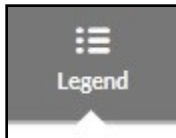


Figure 10. TIGERweb Map Scale Zoom

Figure 11. TIGERweb Map Scales Shown in the Application for Reviewing School District Boundaries

2.4.2 TIGERweb Symbology

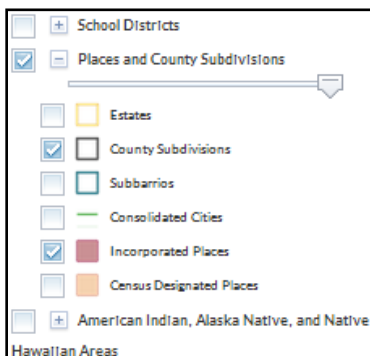


Click on the **Legend** tool (**Figure 12**) at the top of the screen to view the symbology used for each layer.

Figure 12. TIGERweb Legend

If the layer selected does not appear in the legend, zoom in on the map for the feature to appear on the map and on the legend. Click on **Detailed Legend** to see at what zoom level the layers and labels appear.

To see boundaries for only some types of place and county subdivision features, click on the appropriate item in the Layers panel to turn them off or on (**Figure 13**). The figure below shows the different Places and County Subdivisions to select to display.



More detail appears when zooming in on the map viewer. Select the **'Transportation'** layer to display road and rail features to help recognize local areas.

Figure 13. Check-Boxed Map Layers Are Selected for Display

2.4.3 Locating a School District

TIGERweb allows SDRP participants to quickly locate an entity visually using the **Zoom In** tool or by using the **Query** tool to search for a school district by its name or unique GEOID. The GEOID code is on the School District Inventory and Grade Range Listing (**SD_Inventory.xls**) located on the 2020 SDRP Data disc. Type the GEOID in the **Enter GEOID of Feature** box. In addition, a school district is searchable by typing its name in the **Enter Name of Feature** box. **Enter a GEOID or a Name, but not both.**



Select the **Query** Tool from the toolbar. Select the **Attribute** Tab.

From the **Select Map** dropdown, select one of the following map services:

- States and Counties to locate a county.
- Places and County Subdivisions to locate a city or town.
- School Districts to locate a Unified, Secondary, or Elementary school district.

Figure 14 shows the Query window in TIGERweb and how to select the items listed above to review.

Use the Query examples (**Figure 15** and **Figure 16**) to locate an entity. Searching by unique GEOID will take users directly to an entity. Searching by Name could produce a list of school districts with the same or similar name.

Figure 14. TIGERweb Query Window

Example: Locating a unified school district, using West Prairie Community Unit School District 103, Illinois - GEOID 1700314.

1. Select the **Query** tool.
2. From the **Select Map** dropdown, select School Districts.
3. From the **Select Layer(s)** dropdown, select Unified School Districts.
4. Enter the GEOID for the school district (1700314) in the **GEOID** field.
5. Click **SUBMIT** to search for the unified school district.

Attribute Spatial

School Districts

Select Map...

- Transportation (Roads and Railroads)
- PUMAs, UGAs, and ZCTAs
- Tribal Census Tracts and Block Groups
- Census Tracts and Blocks
- Military and Other Special Land Use Areas
- School Districts**
- Places and County Subdivisions
- American Indian, Alaska Native, and Native Hawaiian Areas
- Legislative Areas
- Census Regions and Divisions
- Urban Areas
- Metropolitan and Micropolitan Statistical Areas and Related Statistical Areas
- States and Counties

SUBMIT

Figure 15. Using Query Tool to Locate a School District by its Unique GEOID

Attribute Spatial

School Districts

Within Map Extent

Select Layer(s):

- Unified School Districts**
- Secondary School Districts
- Elementary School Districts

1700314

AND/OR

Enter Name of Feature

SUBMIT

Figure 16. Using Query Tool to Locate a School District by its Unique GEOID

United States Census Bureau		TIGERweb
		Geography Division
Geographic Identifier	1700314	
Name	West Prairie Community Unit School District 103	
State FIPS Code	17	
Unified School District Code	00314	
Base Name	West Prairie Community Unit School District 103	
Legal/Statistical Area Description Code	00	
MTFCC	G5420	
School District Type	N/A	
Highest Grade in School District	12	
Lowest Grade in School District	PK	

TIGERweb displays the result(s) of the query under the **Query Results** tab to the left of the map (**Figure 17**). TIGERweb also displays the **Info** panel (**Figure 18**) containing attribute data for the entity. Minimize or close the **Info** panel by clicking on the '-' or 'x' symbols in the top right of the **Info** panel.

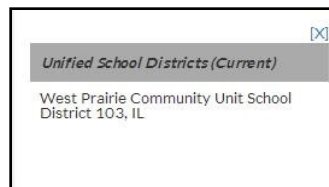


Figure 17. Query Found West Prairie Community Unit School District

Figure 18. TIGERweb Info Panel

Click on the name of the result listed under the **Unified School Districts** heading of Query Result(s) and TIGERweb will display the school district highlighted in the center of the map display (**Figure 19**).



To start a new Query, click **Clear Map** on the navigation toolbar above the **Zoom-In** scrollbar. The Query window reappears and the located entity is no longer highlighted.

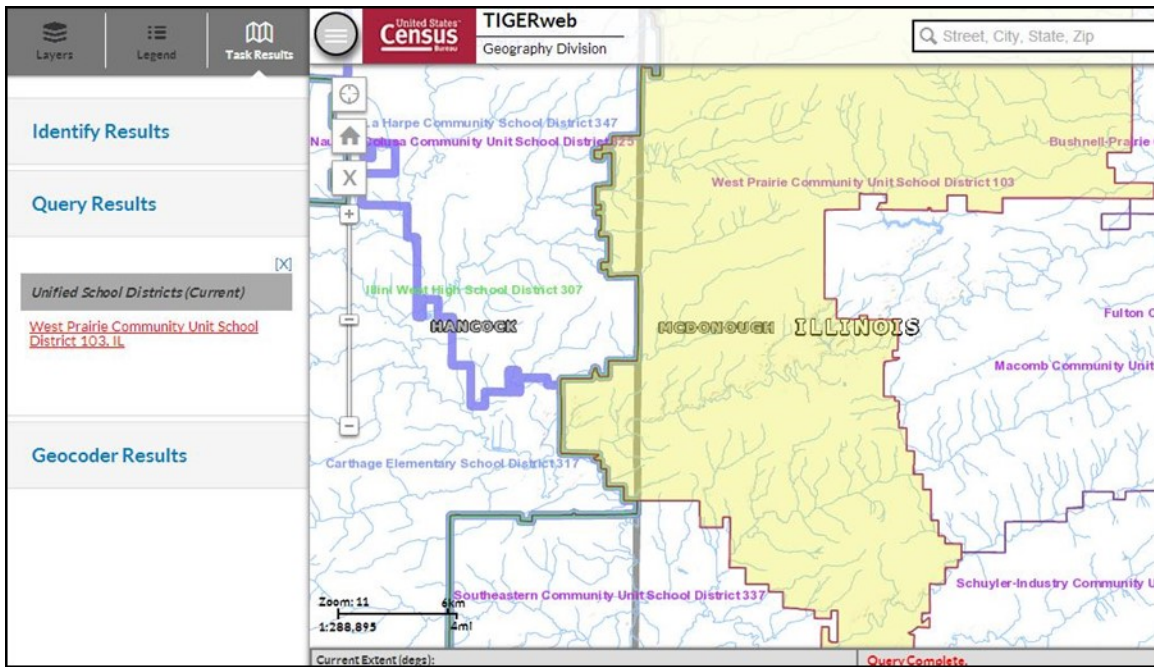


Figure 19. Query Result West Prairie Community Unit School District

Example: Locating a school district named Bridgeport in Connecticut without knowing its school district level.

1. Select the **Query** tool.
2. From the **Select Map** dropdown, select School Districts.
3. From the **Select Layer(s)** dropdown, hold down the Control or Shift Key and click on **Unified, Secondary, and Elementary**. All three will display as highlighted.
4. Enter the name Bridgeport in the Name of Feature field.
5. Click **SUBMIT** to search.

Searching by name could produce a list of school districts with the same or similar names. The Query result (Figure 20 and Figure 21) and will include the state in which the entity is located.

The screenshot shows the TIGERweb query tool interface. The 'Spatial' tab is selected. The 'School Districts' dropdown is open. The 'Within Map Extent' checkbox is checked. The 'Select Layer(s):' dropdown is open, showing 'Unified School Districts', 'Secondary School Districts', and 'Elementary School Districts' selected. The 'Name of Feature' field contains 'bridgeport'. The 'SUBMIT' button is visible at the bottom.

Figure 21. Query by Name

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- The screenshot shows the query results panel. The 'Unified School Districts (Current)' section is active, showing a list of school districts with the name 'Bridgeport':
- Bridgeport Exempted Village School District, OH
 - Bridgeport Independent School District, TX
 - Bridgeport Public Schools, NE
 - Bridgeport School District, CT
 - Bridgeport School District, WA
 - Bridgeport-Spaulding Community School District, MI

Figure 20. Query by Name Results

TIGERweb displays the selected entity highlighted in the center of the map display (**Figure 22**), along with the **Info** panel containing attribute data for the entity. Minimize or close the **Info** panel to view the entire map and Query Result(s) box.

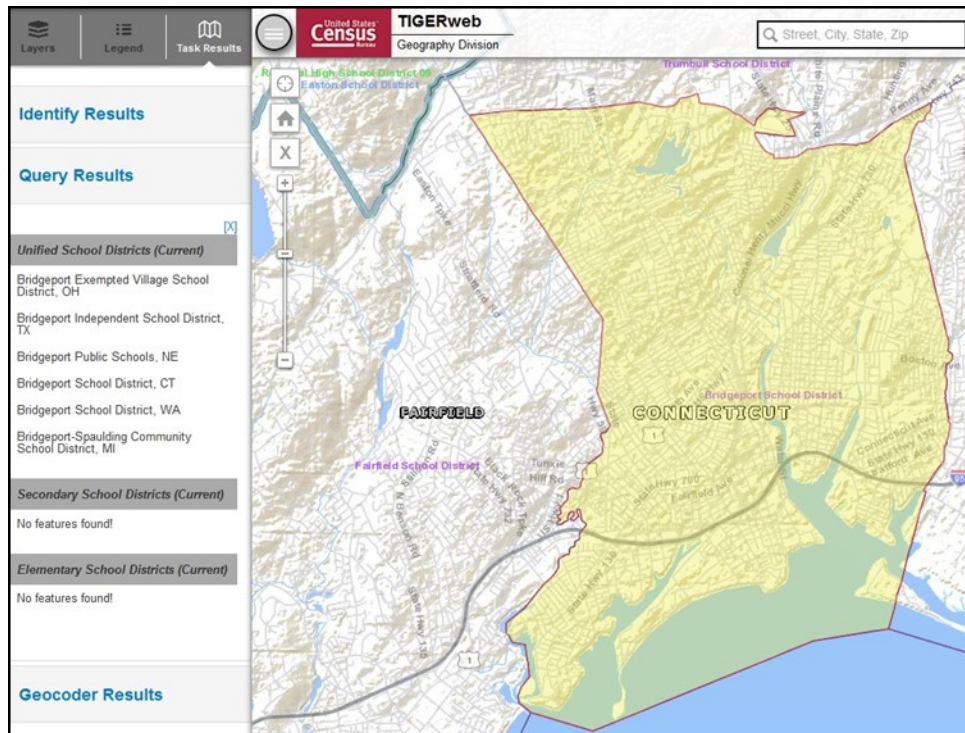


Figure 22. Bridgeport School District in Connecticut

View additional layers such as Transportation and Places by clicking the small boxes next to the map services in the Layers panel. Use the same action to deselect layers no longer wanted in the map view. Other types of entities can also be searched for using the same process.

Example: Locating the City of Sweetwater, Tennessee (Incorporated Place), GEOID 4772540.

1. Select the **Query** tool.
2. From the **Select Map** dropdown, select Places and County Subdivisions.
3. From the **Select Layer(s)** dropdown, select Incorporated Places.
4. Enter the GEOID (4772540) for an Incorporated Place in the **GEOID** field.
5. Click **SUBMIT** to search for an Incorporated Place.

TIGERweb displays the located entity highlighted in the center of the map display (**Figure 23**), along with the **Info** panel containing attribute data for the entity. Minimize or close the **Info** panel to view the entire map and Query Result(s) box.

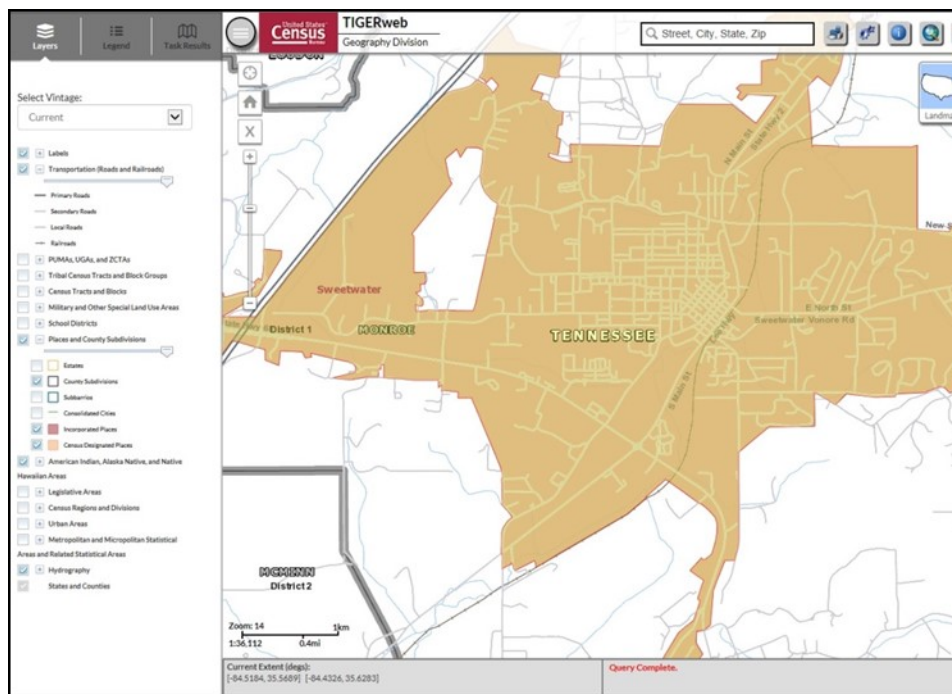



Figure 23. Sweetwater Incorporated Place Located Using its GEOID

2.4.4 Identify Tool

Identify features on the map by using the 'Identify' tool .

- Click on the **Identify** tool at the top of the screen and click on the area of the map or feature to identify.
- In the **Identify Results** panel (**Figure 24**) click on any of the features to get attribute information about the area or feature.
- When clicking on a feature, its area on the map is highlighted. The **Identify** tool shows attribute information only for visible layers (checked in the Layer dropdown).

Example: Use the **Identify** tool to get attribute data for the Fairfield School District adjacent to the Bridgeport School District is below.

- Click on the **Identify** tool on the toolbar (cursor changes from a pointer to crosshairs '+').
- Click inside the boundary of Fairfield School District.
- Click on Fairfield School District displays the Info panel and attributes about the school district including grade range, land area, and water areas (right side of **Figure 24**).

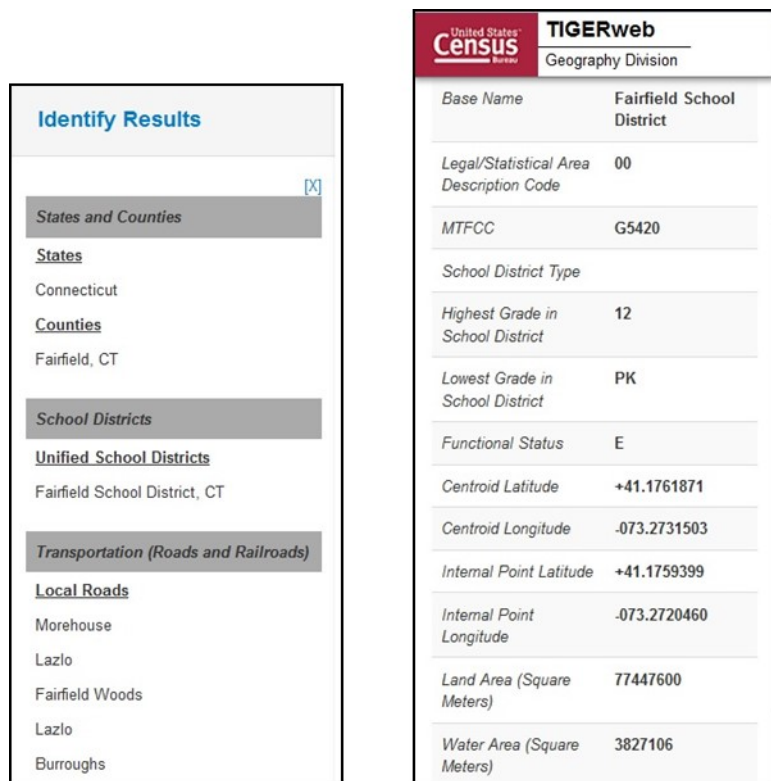


Figure 24. Identify Results and Attribute Information is Displayed

2.4.5 Changing Transparency

When multiple layers are displayed, one layer may obscure another layer. Change the transparency (**Figure 25**) of each layer by moving the sliding bar below the layer name to the left or right.



Figure 25. Transparency Slider for TIGERweb

2.4.6 Map Background

TIGERweb has landmass, satellite imagery, or terrain options as the background for the map display. Landmass is the default when opening TIGERweb. After locating and zooming into an entity, click on the Topography button (**Figure 26**) until the **Satellite** Icon appears and imagery overlays the entity. This dual view allows users to see the relationship between the location of a boundary in the Census Bureau’s file to the location of real-world features such as roads.

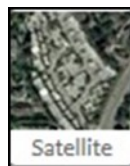


Figure 26. Satellite Icon

2.4.7 Reviewing and Reporting School District Boundaries

After using the TIGERweb Query Tool to locate a school district, compare the TIGERweb map of the school district to a local source for the school district boundary.

Provide boundary update information to the state mapping coordinator if the TIGERweb map does not correctly depict the school district boundary shown in a local source.

2.4.8 Printing and Saving a Map

The TIGERweb application has the functionality to save maps, print paper maps, or capture screen images of the areas where the boundary requires an update or annotate changes. TIGERWeb also has the functionality to forward these updates or changes to the state mapping coordinator. **Figure 27** shows the Print window located in TIGERweb.

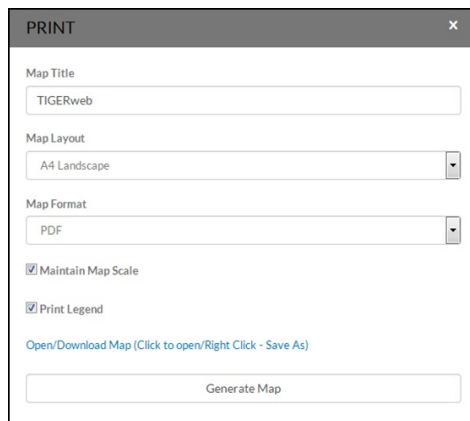


Figure 27. Print screen in TIGERweb

Note: The Census Bureau will not accept boundary changes for the SDRP submitted directly to the Census Bureau annotated on maps printed using the TIGERweb map viewer.
