Lesson 3-2: Create a swipe story map
Are graduation and unemployment rates related?

In the effort to answer questions and solve real-world problems, it is frequently necessary to explore the relationship between different variables. For example, to answer a question about whether there is a relationship between diabetes and obesity, the investigator needs to compare the rates of these two conditions. Spatial data – data tied to a specific location – is essential in this. Mapping rates of diabetes and obesity reveals patterns of distribution that suggest a definite connection between the two. Beyond visual observations of patterns, exploring this data in a GIS means it is also possible to query the data and employ a range of analysis tools to further explore the relationship.

Story maps provide a number of ways to compare maps and data. The Story Map Swipe and Spyglass app enables users to interact with two web maps or layers simultaneously in a single scalable view. In this lesson you will create a swipe map to compare high school graduation rates with unemployment rates.
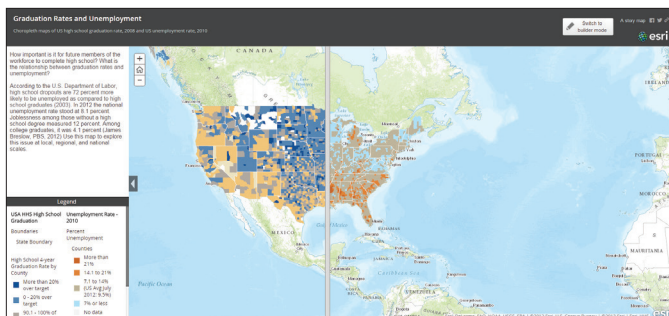
Scenario
How important is it for future members of the workforce to complete high school? What is the relationship between graduation rates and unemployment? A national education advocacy group focused on reducing high school dropout rates has hired your Data Visualization Company to produce a web map that can be imbedded on their website comparing high school graduation rates with unemployment rates.

Build skills in these areas
▸ Opening a map
▸ Creating a Swipe story map

What you need
▸ An ArcGIS Online account (free public or organizational)
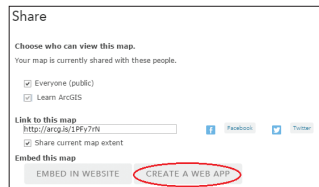▸ Estimated time: 45 minutes

Open a map with employment and graduation rate layers

1. Sign in to your ArcGIS Online account.
2. Click search.
3. Search for LearnResource.
4. Click the thumbnail of the Graduation Rates and Unemployment map to open it.
5. Use Save as to save to your own account as **Graduation Rates and Unemployment-[your initials]**.
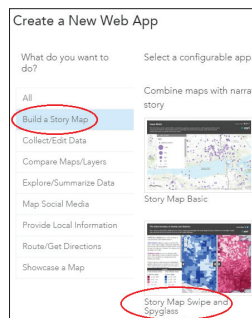
   The two layers in this map are the ones you will use in your swipe story map. Be sure both are turned on.

Create a swipe story map

1. Click Share (above the map).
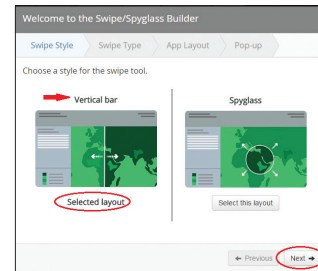2. Click Create a Web App under Embed this map.

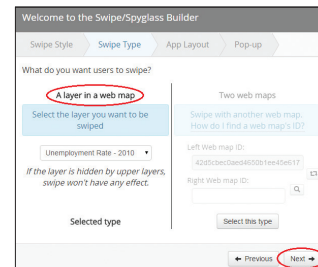3. Under Build a Story Map, select Story Map Swipe and Spyglass.

4. Click Create App.
5. Type the following in the summary box: **Choropleth maps of US high school graduation rate, and US unemployment rate**.

6. Click Done.

   In the Swipe/Spyglass Builder, notice that the Vertical bar is the default selected layout. This is the one you want.
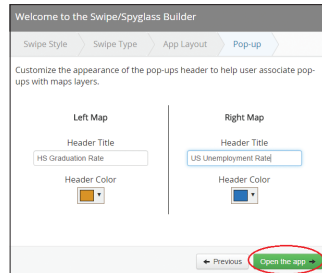7. Click Next.

In the next window, notice that A layer in a web map is the default selected layout. Again, this is the one you want.

8. Click Next.

   Note: the Builder has identified Unemployment rate 2010 as the layer to be swiped. This just determines which of the two layers will be on the bottom and which on the top.
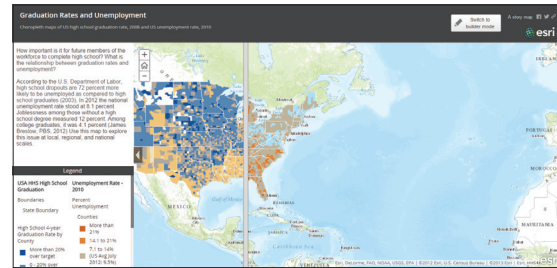

9. Accept the default layout settings and click Next.

10. Select colors for your map headers and give each header a title.
    Note: the Right Map will be the same as the one Builder identified as the map to be swiped.

11. Click Open the app.
12. Add a description of the swipe map in the box that says Edit me.
13. Modify the title or the subtitle (this is the map summary) if you wish to do so.
14. When you have finished, click Save.

Your completed swipe map opens like this:

If you zoom in and move the swipe bar you can observe relationships at both the regional and local scales.

Extended activity

Create another swipe map using census and/or health data to explore possible relationships among variables, For example, race and income, infant mortality rate, and poverty.