Hi! This is module 2 part 1. We're going to talk about the best practices for showing two pieces of data on one map at the same time. So in this video, we'll talk about how to effectively put multiple pieces of information on one map.

Our general goal as journalist is to communicate information to our readers. Sometimes it's simple and sometimes it's a little more complex.

This is one of the first news maps with data. In 1992 hurricane Andrew struck Miami and reporters at the Miami Herald notice something kind of strange, newer homes were destroyed while older homes were fine. Even in areas that had some of the storm strongest winds.

They realize that the county had weakened building codes leaving newer homes more vulnerable. This map illustrates the story, it shows damaged buildings in different areas and hurricane wind speeds. Two pieces of data, plus roads in the coastline, all in one map.

Journalists are still doing this today. This is a more modern example that shows the area of the car fire in California along with building footprints in a nearby city. This is a breaking news mount from The Washington Post, but a follow-up might explore which buildings had implemented by your safety standards, such as clearing the brush around their homes to see if they fared better.

Another double data map that we see a lot of the times is a graduated circle map. This map also from the post shows pockets of World Cup fandom based on foreign-born population living within the US. The circles here are doing triple duty. They show the location of countries, they have a color that represents the country and their size represents a number of people. It's a lot of work for a bunch of little dots.

Still circle maps can sometimes be more affected than the alternative which is filling an entire state or geographic area with a color to represent who lives there. I'll talk much more about maps with color or chloroplasts maps in the next video.

This map shows shark attack locations across the U.S. The states in blue are places where shark attacks happened. As you can see most shark attacks happen in states on the coasts, but you probably already knew that. One thing you might notice is that there are numbers on each state showing how many shark attacks occurred.

So there's a second piece of quantitative data available here. If you make use of that, you get something more like this. This map is another way to show the same information from National Geographic. Now instead of just seeing a binary “Yes” - “No” on whether states have a shark attack. You can see how many attacks have occurred at specific locations and which states had the most.

The circles here only have two jobs, to show you the location and the number of shark attacks in each county.

Circles aren't the only shape that can tell a story on a map. These arrows in a New York Times election map tell a story with their color, length and direction.

For all of this, it's worth thinking about how our brains process visual information. Position is a really strong visual channel in our brains, so when you put data on a map, the geography seals that position channel. Thus the data that you're showing needs to be represented by color, circle size, angle, or something else like that.

So think about whether a map is really necessary enough that you want to use up that really effective position in coding with the geographic data.

Thanks to Anna Flag from The Marshall Project who presented some of these ideas with me in a talk that we gave at the national computer-assisted reporting conference this Spring. Next we're going to talk about visual hierarchy and colors in maps. Thanks!