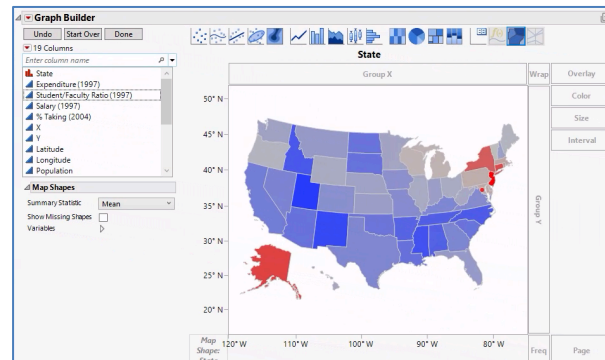# Geographic Maps in Graph Builder

Use to create interactive maps of U.S. states, U.S. counties, or worldwide countries and provinces. JMP ships with these shape files. Other shape files (e.g., ESRI) can be used or you can create your own custom maps.
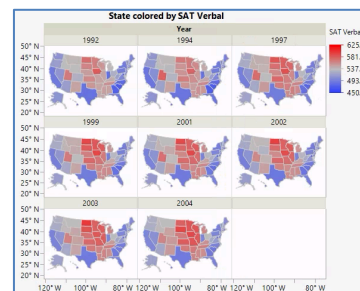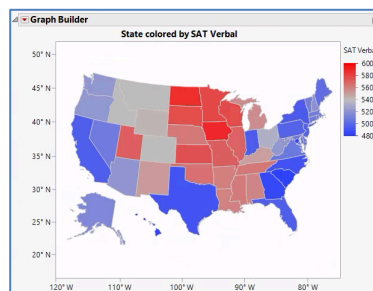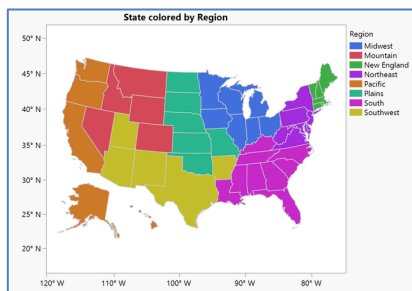
Basic Mapping

SATbyYear.jmp (Help > Sample Data Folder)

1. From an open JMP data table, select **Graph > Graph Builder.**
2. Drag a shape variable from the **Variables** list (for example, State) to **main drop zone**.
3. Drag variables into other drop zones until the desired map is produced.
4. Use the **Undo** and **Start Over** buttons to try several options. Click **Done** when finished.

The resulting display depends on the modeling type of the variables and the drop zone(s) used. Examples:

- Left: Region (Nominal) was dropped in the **Color zone**.
- Middle: SAT Verbal (Continuous) was dropped in the **Color zone**.
- Right: Total Rate was dropped in the **Color zone**, and Year (Continuous) was dropped in the **Wrap zone**.
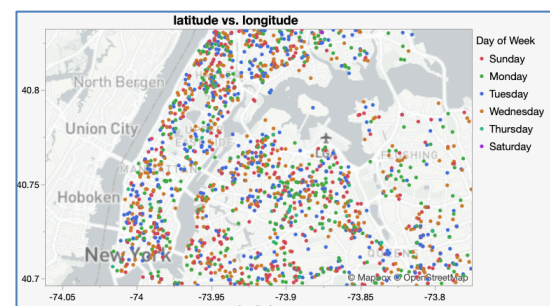

Tips:

- Right-click on the legend to change the color gradient or transparency.
- Use the **Local Data Filter** accessed under the **Red Triangle** in a report to dynamically select, show and include values of selected variables. The Local Data Filter applies to only the active report. See **Discovery JMP > Work with Data Tables > Example of Filtering Data in a Report** and in **Using JMP > JMP Reports > The Data Filter** in **JMP Help** to learn more.

Latitudinal and Longitudinal data

NYC 311 Records.jmp (Help > Sample Data Folder)

If your data set contains latitudinal and longitudinal data, you can add a background map or image. Drag these latitude and longitude variables to the Y and X axis. Right-click on the graph, select **Graph > Background Map** and choose the desired image (e.g., street map of New York in the example on the right). For this graph, 'Day of Week' was placed in the **Color Role**.

Visit **Essential Graphing > Maps** in **JMP Help** to learn more.