Overview of WEAVE Tools

Tool #1:
**Scatter Plots**

**Best Use:** Visualizing a large number of data points; determining the relationship between sets of data; looking for outliers

**Other tips:** Other features within this tool include the ability to visualize multiple variables by changing the color, opacity, and/or size of the points by another indicator

Quick Definitions:

**Axis** - a line, running horizontally (x-axis) or vertically (y-axis), on which data is measured.

**Correlation** - the extent of the relationship between two variables; it is said to be positive or direct when two variables move in the same direction and negative or inverse when they move in opposite directions.

**Outliers** - extreme values as compared to the rest of the data.

NOTE: A correlation between two variables does not prove that one *causes* the other— a correlation is a hint: a pattern that identifies areas for further investigation.
**Tool #2: Bar Chart**

**Best Use:** Comparing groups of data quickly and easily; displaying multiple data sets simultaneously

**Other tips:** Selecting multiple height attributes in the Settings window changes the bar chart into a stacked bar chart.

Click on the Reverse button to change the order of the attributes in the histogram; click and drag the indicator name to customize the order.

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**Tool #3: Colormap Histogram**

**Best Use:** Summarizing large data sets; grouping data

**Highlights:** Displays distribution of data: where the majority of values fall and how much variation there is

**Other tips:** Holding the mouse over a specific bar in the chart will display both the number of records and the values that the bar represents.

To change the number of bars, or "bins," in the histogram, type in a new number in the Settings window.

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NOTE: Changing bin size is an easy and effective way to further look for trends in the data.

NOTE: When using the bar chart tool, it’s very important to define a Sort parameter that organizes the information along the X-axis.
Tool #4

Data Table

**Best Use:** Displaying multiple fields/values simultaneously

**Highlights:** This tool allows the user to organize various fields and compare values across multiple variables

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![Data Table Diagram](image)

To download a copy of the data table on your hard drive, click on the Export Data button—the data will be exported as an Excel file.

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**NOTE:** Supplementing any tool with a Data Table can further organize the visualization.

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Tool #5

Line Chart

**Best Use:** Showing changes in indicators over time

**Highlights:** By displaying multiple data sets simultaneously, allows for comparison of trends: in this case, individual school performance as measured through NECAP scores

**Other tips:** Change the thickness of the line by selecting the “Appearance” tab in the Settings window.

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![Line Chart Diagram](image)

**NOTE:** Subsets of data can be selected to make clearer and more specific charts. To modify data, select the relevant lines by clicking and highlighting. Then, right click to bring up a list of options, including deleting the probed records from the visualization.
Tool #6
**Pie Chart**

**Best Use:** A straightforward and familiar way to compare various parts that sum up to a meaningful whole (100%)

**Highlights:** Adding a color pie chart histogram can better visualize trends and summarize data

**Other tips:** As with the line chart, removing some records will improve the overall quality of the graph—also consider changing the angle of the label in the Settings window

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**NOTE:** Data MUST be mutually exclusive in order to be compared in a pie chart. If values overlap, the area of each wedge is NOT an accurate representation of each category.

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Tool #7
**Map**

**Best Use:** Displaying and looking for geographical patterns in data

**Highlights:** This tool allows the user to map data to specific geographies while still allowing for the selection of individual points

**Other tips:** To upload a map image, select a Geometry Collection from the online database

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**NOTE:** Each Geometry is added to the map as a dynamic, interactive layer. To change a Geometry to a static layer, click the “selectable” option in the Settings window.
Additional Features

**Time Slider**

**Best Use:** Showing changes in indicators over time  
**Highlights:** Can be used with other tools, not only scatterplots.  
**Other tips:** By clicking “Play” the graph will automatically begin cycling through the years. Alternatively, the triangle of the time slider can be manually dragged to the next year to change the data that is displayed.  

**Probe ToolTip Editor**

**Best Use:** Labeling individual data points with additional information  
**Highlights:** The Editor window allows users to add as many probe labels to their graphs as necessary  
**Other tips:** Use the Probe to add information that would be useful to include in the final visualization but would otherwise clutter the page if added as a label  

To access the Probe ToolTip Editor window, click on **Tools » Probe ToolTip Editor** in the toolbar  

In the Editor window, choose which data to include in the Probe display by clicking on **Open selector...** — selected information will be displayed when users hover over a particular data point  

**NOTE:** Probe labels may not match perfectly with database names.
Subset Selector

**Best Use:** “Bookmarking” groups of records from a larger set of data.

**Highlights:** Can be used with any Weave tool.

**Other tips:** A Data Table can help you find specific records to create your subset.

1) Click on **Subsets -> Subset Selector Tool** to add the tool to your visualization.

2) Click and drag to select the records you’d like to view as a subset or select them from your data table. You can select multiple records by holding down ctrl. Then, click on **Subsets -> Create and save subset from selected records** — you will be prompted to name your subset.

3) Click on the Wrench icon to add a display all records option.
Attribute Selector

Best Use: Easily switch between multiple indicators in the same graph.

Highlights: Can be used with any Weave tool.

Other tips: Consider using the Attribute Selector with the Scatterplot Tool to look for correlations between one attribute and a set of other attributes.

1) Go to Tools -> Add Attribute Menu Tool — you will be prompted to design the type of attribute selector you’d like to use.

2) Select the graph you would like the selector to control.

3) Select which attribute you would like to vary.

4) Select the layout for your attribute menu — the “Combo Box” and “Horizontal (Time) Slider” options are used most often.

5) Click Open selector... to add indicators — all added indicators will appear in the final selector.