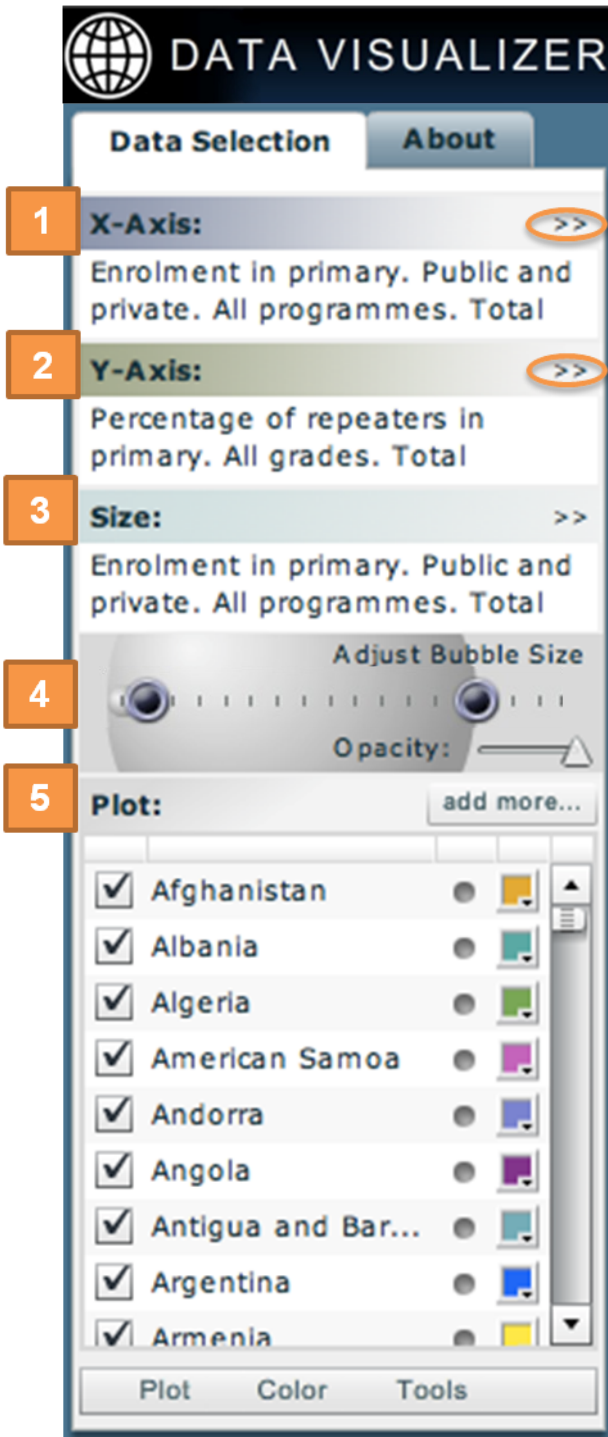


Visualizing Education Data: A Guide to EdStats' New Bubble Chart Data Visualization Tool



EdStats' new Data Visualization module includes a new tool to create dynamic bubble charts based on 58 key education indicators. The tool allows users to see trends and relationships by watching data points and bubble sizes transition over time in a dynamic chart.

Creating a Bubble Chart in 6 Steps

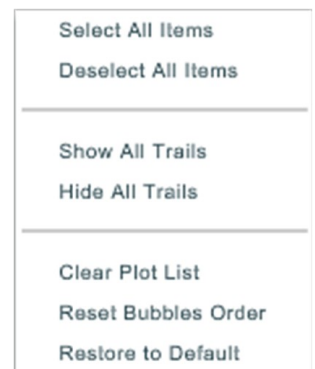
Step 1 and 2: Select indicators for the X- and Y- Axis by clicking on the small double arrow icons circled in orange. A new window will open to the right that reveals the indicators. Hover over the indicator name to view the definition and source. Click to select the indicator.

Step 3: Select the indicator that will determine the size of each bubble in the chart.

Step 4: Drag the sliders right or left to increase or decrease the proportional size of each bubble on the chart.

Step 5: Select countries to be plotted on the chart. By default, all countries are selected. To deselect all countries, click on the **Plot** button at the bottom left corner and then select **Deselect All Items** from the Plot menu options (Figure 1). It is also possible to clear all countries from the plot list (**Clear Plot List**) and build a new list of countries by clicking **Add More** in the top right corner of the plot area.

Figure 1. Plot Menu



Step 6: Edit or remove the chart title by clicking on **Tools** (Figure 2) and selecting **Edit Chart Title**.

Viewing your Bubble Chart

After following steps 1 to 6, a chart will appear that displays data for the default year, which is displayed at the bottom right of the screen. There are two options to view the data over time:

- 1) Click the **Play** button on the bottom left of the chart to watch the data change automatically over the time period. You can transition faster or slower through the years by dragging the slider at the bottom right of the screen to the right or left. To view a longer or shorter time period in the timeline, click on the **Time** button and select the new start and end years.
- 2) Click on a dash in the timeline to display a static chart for a specific year.

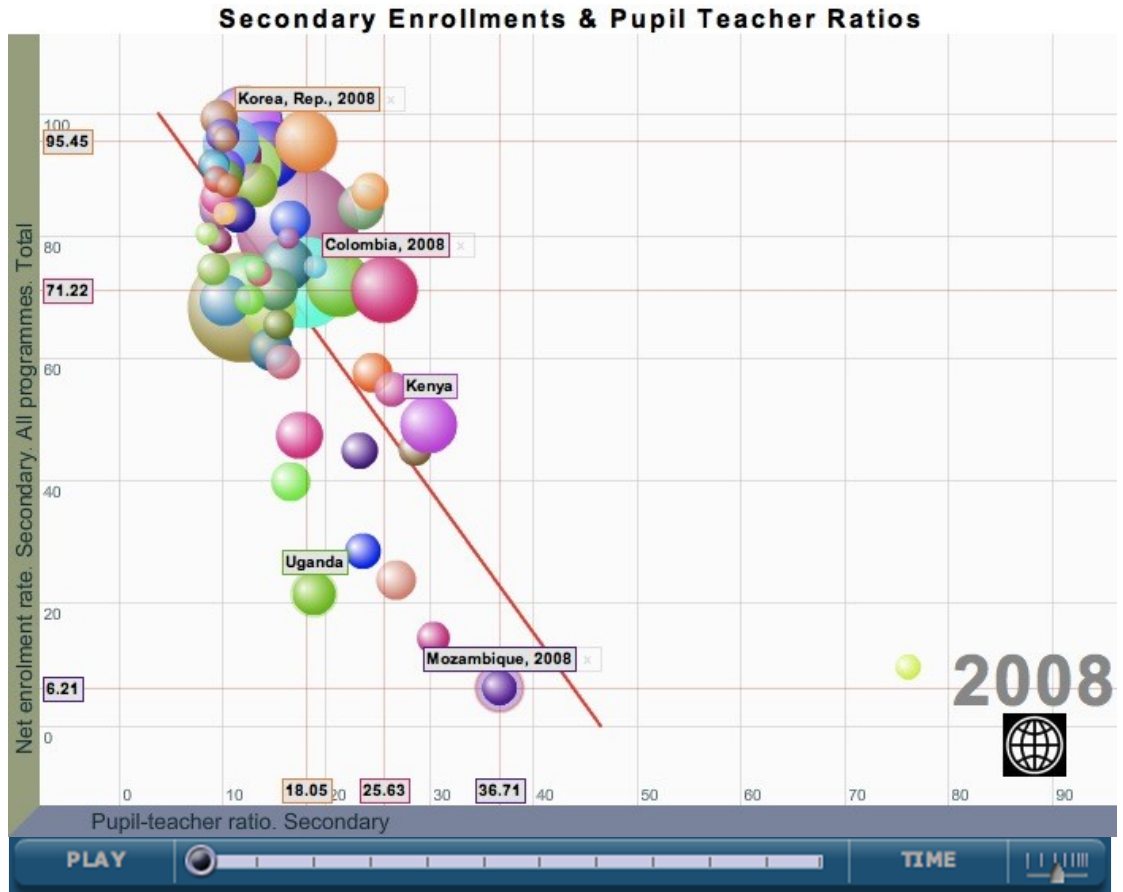
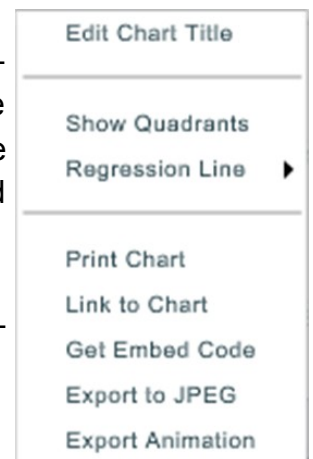


Figure 2. Tools Menu

Hover over each bubble to view the country name and its values for the indicators plotted in the chart. Click once on the bubble to make the country name appear in the chart (see Uganda and Kenya, above) or click on **Pin** to make the country, year, and data point visible over time (see Mozambique, Colombia and Korea, above).

Click on Tools (Figure 2) and **Regression Line** or **Show Quadrants** to automatically display the quadrants or regression line in the chart.

Adjust the bubble colors or create color groups by clicking on the **Color** button.



Saving, Sharing and Printing Bubble Charts

The Data Visualization bubble chart **Tool Menu** (Figure 2) gives users five options to save or share bubble charts:

- **Print Chart** allows users to print a hard copy of the chart.
- **Link to the Chart** allows users to access the chart later using the URL that is displayed. Some features such as custom group colors and filters might not be stored.
- **Get Embedded Code** displays the code behind the chart so that users can easily copy and paste the code onto another website.
- **Export to JPEG** converts and saves the chart image in a JPEG format.
- **Export Animation** converts the chart to an animation file that can be saved.

Further Questions or Suggestions?

If you have further questions about this tool, please feel free to contact EdStats. The Bubble Chart tool is still in the testing phase. We appreciate your feedback.

Analyzing Bubble Charts

Bubble charts present information on three indicators through the X-axis, Y-axis, and bubble size. They also convey information about trends in indicators over time by analyzing the way the data points transition in the charts across years.

Using the bubble chart on page 2 as an example, we can see an inverse relationship between the X- and Y- axis indicators: Countries with high net enrollment rates (NERs) in secondary education typically had lower pupil-teacher ratios in 2008. Bubble size in the chart is determined by the total number of secondary enrollments, and some of the largest bubbles are for countries with the highest NERs.

When viewing this chart over the 1999 to 2008 time period, the migration of the bubbles upward and leftward reveals that secondary NERs have been increasing over time in many countries and pupil-teacher ratios have been decreasing. By adjusting and analyzing the color coding of the chart, it would also be possible analyze trends by region or by individual country.

For further information and suggestions, contact:

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