

## Making Graphs Online with “Create a Graph”

From: National Center for Education Statistics (NCES) < <http://nces.ed.gov/>>

To access “Create a Graph” go to: <http://nces.ed.gov/nceskids/createagraph/>



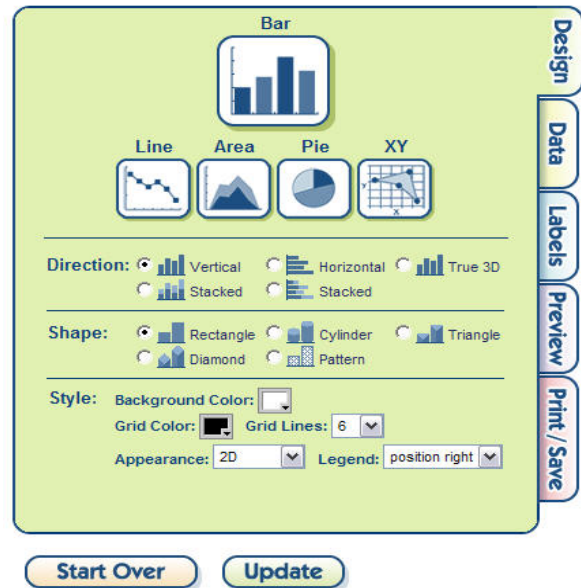
Choose the type graph you want to use and click the appropriate button.

For the sample below, a bar graph was selected.

### Design Tab:

Using the choices provided in this area, you can select the direction of the bars, their shape, and the style you wish to use.

- For line graphs and area graphs, you can choose a background color, the color for the grid lines, the number of grid lines (how many segments do you want the y-axis separated into), 2-dimensional or 3-dimensional, and where you want the legend placed
- For bar graphs, you can choose the same things as above, but you will also select the kind of bars you want.
- For pie charts, you have choices about the filler for the slices in addition to the general information. You will not have anything to choose about grid lines, because a pie chart has no x or y-axis.
- For X-Y plots, you will choose the type of X-Y graph in addition to the general information



Once you have added this information, click the **Data** tab on the left to enter the information you want to graph.

### Data Tab:

Here you will enter the title of the graph, and the labels for the x and y axes. Identify the number of items that you want to graph, and even break them into groups. Select the appearance for the groups. Item labels will appear along the x-axis or in the legend for a pie chart. The Min-value and Max-value identify the smallest and largest values to be included in the grid.

Once you have entered all of the information, you will select the **Labels** tab on the right of your screen.

Graph Title: \_\_\_\_\_  
↔ X Axis Label: \_\_\_\_\_  
↓ Y Axis Label: \_\_\_\_\_  
Source: \_\_\_\_\_

Data Set: Items  Groups

Group 1  
Group Label: \_\_\_\_\_  
Color:

Item Label	Value
Item 1:	_____
Item 2:	_____
Item 3:	_____
Item 4:	_____
Item 5:	_____

Min-Value: \_\_\_\_\_  
Max-Value: \_\_\_\_\_

[Start Over](#) [Update](#)

### Labels Tab:

The choices here allow you to customize the appearance of your graph.

The first choice is whether to show the labels or not. You can select the position and appearance for these labels.

For all other text (title, axis labels, legend), choose the font, color and size.

Choose the **Preview** tab to view your choices, and make any changes you wish in any tab.

When everything looks the way you want, select the **Print / Save** tab.

Data Labels: Show Label:  yes  no  
Type:  Prefix: \_\_\_\_\_ Suffix: \_\_\_\_\_

Position:  Font Size:

Label Color:  Background Color:

Fonts:

<input checked="" type="radio"/> ABC abc 123	<input type="radio"/> abc abc 123
<input type="radio"/> ABC abc 123	<input type="radio"/> ABC ABC 123
<input type="radio"/> ABC abc 123	<input type="radio"/> ABC abc 123
<input type="radio"/> ABC abc 123	<input type="radio"/> ABC abc 123
<input type="radio"/> ABC abc 123	<input type="radio"/> ABC abc 123

Font Color:  Font Size:

### Print / Save Tab:

The Print/Save tab allows you to print the graph directly from the website, to download it as an image (the JPG format is the one most often used), or to email the graph to yourself or someone else.

If you select Print, you can print it from pdf format, or as an image with or without the data in table form.

If you download your graph, you can save it and/or embed it into a Word document.

Project Tools

- [Start a new graph](#)
- [Erase this graph](#)
- [Copy to new graph](#)

[Print](#) [Download](#)

Email this graph  HTML  Text  
to: \_\_\_\_\_ [Send](#)

You will be emailed a link to your saved graph project where you can make changes and print.

Graphs not viewed or changed after 30 days are deleted.

## How to Choose Which Type of Graph to Use

### When to Use...

#### ...a Line graph

Line graphs are used to track changes over periods of time. When changes are small, line graphs are better to use than bar graphs. Line graphs can also be used to compare changes over the same period of time for more than one group or category.

#### ...a Pie Chart

Pie charts are best to use when you are trying to compare parts of a whole. They do not show changes over time.

#### ...a Bar Graph

Bar graphs are used to compare things between different groups or to track changes over time. However, when trying to measure change over time, bar graphs are best when the changes are large.

#### ...an Area Graph

Area graphs are very similar to line graphs. They can be used to track changes over time for one or more groups. Area graphs are good to use when you are tracking the changes in two or more related groups that make up one whole category (for example public and private groups).

#### ...an X-Y Plot

X-Y plots are used to determine relationships between two different things. These differ from line graphs because you are using two variables, not examining the changes in one variable over time. The x-axis is used to measure one event (or variable) and the y-axis is used to measure the other. If both variables increase at the same time, they have a positive relationship. If one variable decreases while the other increases, they have a negative relationship. Sometimes the variables don't follow any pattern and have no relationship.