EXCEL 2013 CHART TYPES

Compliments of Microsoft (https://goo.gl/u74x6w)

Contents

Available chart types

When you create a chart in an Excel worksheet, a Word document, or a PowerPoint presentation, you have a lot of options. Whether you'll use a chart that's recommended for your data or one that you'll pick from the list of all charts, it might help to know a little more about each type of chart.

If you have already have a chart, but you just want to change its type:

1.   Select the chart, click the **Design** tab, and click **Change Chart Type**.
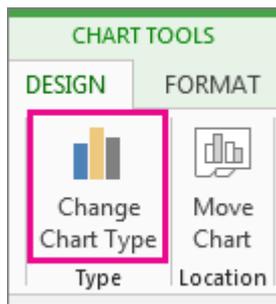
2.   Choose a new chart type in the **Change Chart Type** box.

Click a chart type to learn more about it

- Column charts
- Line charts
- Pie and doughnut charts
- Bar charts
- Area charts
- XY (scatter) and bubble charts
- Stock charts
- Surface charts
- Radar charts
- Combo charts

Column charts

Data that's arranged in columns or rows on a worksheet can be plotted in a column chart. A column chart typically displays categories along the horizontal (category) axis and values along the vertical (value) axis, as shown in this chart:

Types of column charts

- **Clustered column and 3-D clustered column**

A clustered column chart shows values in 2-D columns. A 3-D clustered column chart shows columns in 3-D format, but it doesn't use a third value axis (depth axis). Use this chart when you have categories that represent:

- Ranges of values (for example, item counts).
- Specific scale arrangements (for example, a Likert scale with entries like Strongly agree, Agree, Neutral, Disagree, Strongly disagree).
- Names that are not in any specific order (for example, item names, geographic names, or the names of people).

- **Stacked column and 3-D stacked column** A stacked column chart shows values in 2-D stacked columns. A 3-D stacked column chart shows the stacked columns in 3-D format, but it doesn't use a depth axis. Use this chart when you have multiple data series and you want to emphasize the total.

- **100% stacked column and 3-D 100% stacked column** A 100% stacked column chart shows values in 2-D columns that are stacked to represent 100%. A 3-D 100% stacked column chart shows the columns in 3-D format, but it doesn't use a depth axis. Use this chart when you have two or more data series and you want to emphasize the contributions to the whole, especially if the total is the same for each category.

100% stacked column   3-D 100% stacked column

- **3-D column** 3-D column charts use three axes that you can change (a horizontal axis, a vertical axis, and a depth axis), and they compare data points along the horizontal and the depth axes. Use this chart when you want to compare data across both categories and data series.

3-D column

Line charts

Data that's arranged in columns or rows on a worksheet can be plotted in a line chart. In a line chart, category data is distributed evenly along the horizontal axis, and all value data is distributed evenly along the vertical axis. Line charts can show continuous data over time on an evenly scaled axis, so they're ideal for showing trends in data at equal intervals, like months, quarters, or fiscal years.
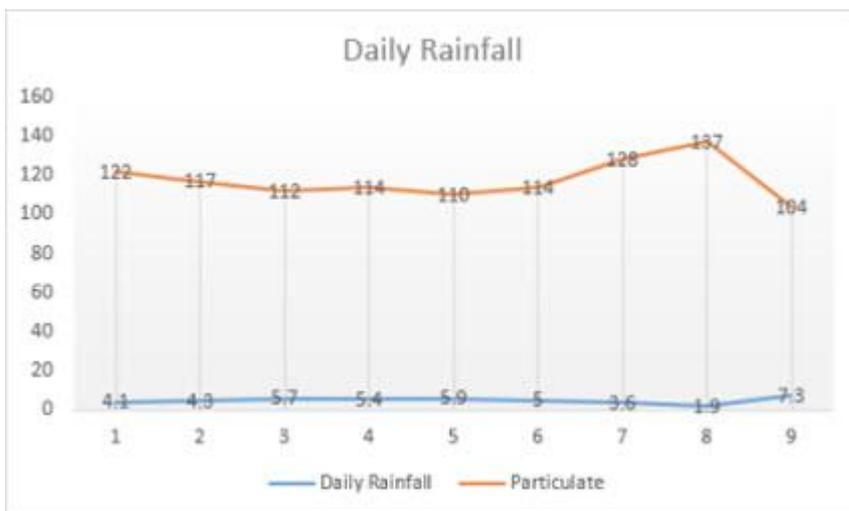
Types of line charts

- **Line and line with markers** Shown with or without markers to indicate individual data values, line charts can show trends over time or evenly spaced categories, especially when you have many data points and the order in which they are presented is important. If there are many categories or the values are approximate, use a line chart without markers.

Line   Line with markers

- **Stacked line and stacked line with markers**   Shown with or without markers to indicate individual data values, stacked line charts can show the trend of the contribution of each value over time or evenly spaced categories.

- **100% stacked line and 100% stacked line with markers**   Shown with or without markers to indicate individual data values, 100% stacked line charts can show the trend of the percentage each value contributes over time or evenly spaced categories. If there are many categories or the values are approximate, use a 100% stacked line chart without markers.

- **3-D line**   3-D line charts show each row or column of data as a 3-D ribbon. A 3-D line chart has horizontal, vertical, and depth axes that you can change.

NOTES

- Line charts work best when you have multiple data series in your chart—if you have only one data series, consider using a scatter chart instead.
- Stacked line charts sum the data, which might not be the result you want. It might not be easy to see that the lines are stacked, so consider using a different line chart type or a stacked area chart instead.

Pie and doughnut charts

Data that's arranged in one column or row on a worksheet can be plotted in a pie chart. Pie charts show the size of items in one data series, proportional to the sum of the items. The data points in a pie chart are shown as a percentage of the whole pie.

Order Amount

Consider using a pie chart when:

- You have only one data series.
- None of the values in your data are negative.
- Almost none of the values in your data are zero values.
- You have no more than seven categories, all of which represent parts of the whole pie.

Types of pie charts

- **Pie and 3-D pie**   Pie charts show the contribution of each value to a total in a 2-D or 3-D format. You can pull out slices of a pie chart manually to emphasize the slices.

Pie   3-D pie
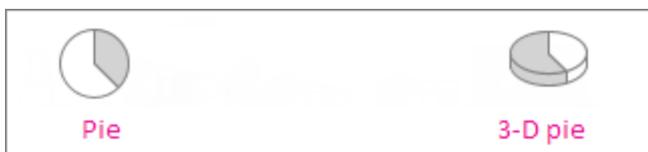
- **Pie of pie and bar of pie**   Pie of pie or bar of pie charts show pie charts with smaller values pulled out into a secondary pie or stacked bar chart, which makes them easier to distinguish.

Pie of pie   Bar of pie
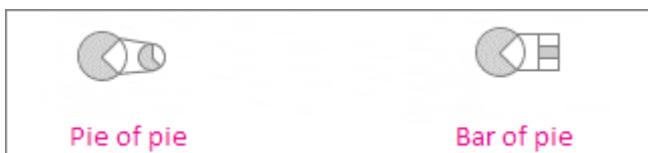
Doughnut charts

Data that's arranged in columns or rows only on a worksheet can be plotted in a doughnut chart. Like a pie chart, a doughnut chart shows the relationship of parts to a whole, but it can contain more than one data series.

Types of doughnut charts

- **Doughnut**   Doughnut charts show data in rings, where each ring represents a data series. If percentages are shown in data labels, each ring will total 100%.

NOTE   Doughnut charts aren't easy to read. You may want to use a stacked column or stacked bar chart instead.

Bar charts

Data that's arranged in columns or rows on a worksheet can be plotted in a bar chart. Bar charts illustrate comparisons among individual items. In a bar chart, the categories are typically organized along the vertical axis, and the values along the horizontal axis.

Consider using a bar chart when:

- The axis labels are long.
- The values that are shown are durations.

Types of bar charts

- **Clustered bar and 3-D clustered bar**   A clustered bar chart shows bars in 2-D format. A 3-D clustered bar chart shows bars in 3-D format; it doesn't use a depth axis.

Clustered bar   3-D clustered bar

- **Stacked bar and 3-D stacked bar**   Stacked bar charts show the relationship of individual items to the whole in 2-D bars. A 3-D stacked bar chart shows bars in 3-D format; it doesn't use a depth axis.

Stacked bar   3-D stacked bar

- **100% stacked bar and 3-D 100% stacked bar**   A 100% stacked bar shows 2-D bars that compare the percentage that each value contributes to a total across categories. A 3-D 100% stacked bar chart shows bars in 3-D format; it doesn't use a depth axis.

100% stacked bar   3-D 100% stacked bar
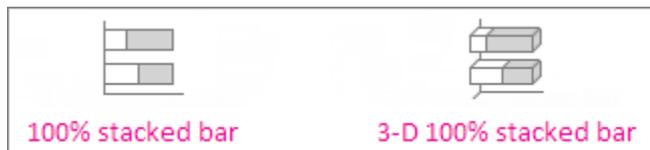
Area charts

Data that's arranged in columns or rows on a worksheet can be plotted in an area chart. Area charts can be used to plot change over time and draw attention to the total value across a trend. By showing the sum of the plotted values, an area chart also shows the relationship of parts to a whole.

Sales by Region

Types of area charts

- **Area and 3-D area**   Shown in 2-D or in 3-D format, area charts show the trend of values over time or other category data. 3-D area charts use three axes (horizontal, vertical, and depth) that you can change. As a rule, consider using a line chart instead of a non-stacked area chart, because data from one series can be hidden behind data from another series.

- **Stacked area and 3-D stacked area**   Stacked area charts show the trend of the contribution of each value over time or other category data in 2-D format. A 3-D stacked area chart does the same, but it shows areas in 3-D format without using a depth axis.


- **100% stacked area and 3-D 100% stacked area**   100% stacked area charts show the trend of the percentage that each value contributes over time or other category data. A 3-D 100% stacked area chart does the same, but it shows areas in 3-D format without using a depth axis.

XY (scatter) and bubble charts

Data that's arranged in columns and rows on a worksheet can be plotted in an xy (scatter) chart. Place the x values in one row or column, and then enter the corresponding y values in the adjacent rows or columns.

A scatter chart has two value axes: a horizontal (x) and a vertical (y) value axis. It combines x and y values into single data points and shows them in irregular intervals, or clusters. Scatter charts are typically used for showing and comparing numeric values, like scientific, statistical, and engineering data.
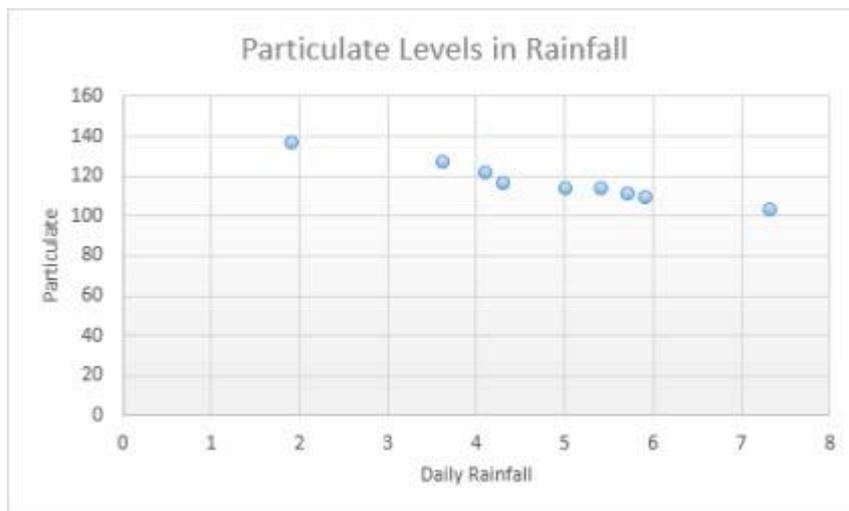

Consider using a scatter chart when:

- You want to change the scale of the horizontal axis.
- You want to make that axis a logarithmic scale.
- Values for horizontal axis are not evenly spaced.
- There are many data points on the horizontal axis.
- You want to adjust the independent axis scales of a scatter chart to reveal more information about data that includes pairs or grouped sets of values.
- You want to show similarities between large sets of data instead of differences between data points.
- You want to compare many data points without regard to time—the more data that you include in a scatter chart, the better the comparisons you can make.
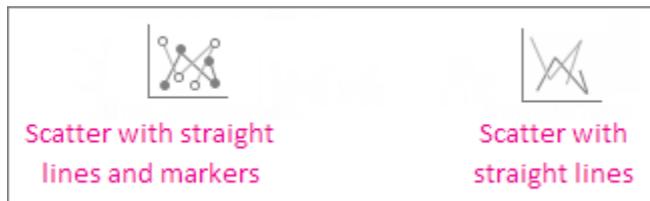
Types of scatter charts

- **Scatter** This chart shows data points without connecting lines to compare pairs of values.
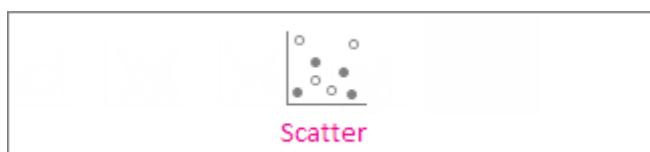
Scatter

- **Scatter with smooth lines and markers and scatter with smooth lines** This chart shows a smooth curve that connects the data points. Smooth lines can be shown with or without markers. Use a smooth line without markers if there are many data points.

Scatter with smooth lines and markers   Scatter with smooth lines
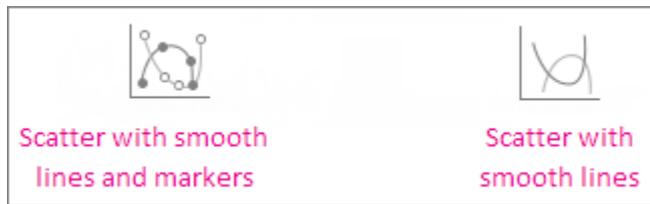
- **Scatter with straight lines and markers and scatter with straight lines** This chart shows straight connecting lines between data points. Straight lines can be shown with or without markers.

Scatter with straight lines and markers   Scatter with straight lines

Bubble charts

Much like a scatter chart, a bubble chart adds a third column to specify the size of the bubbles it shows to represent the data points in the data series.
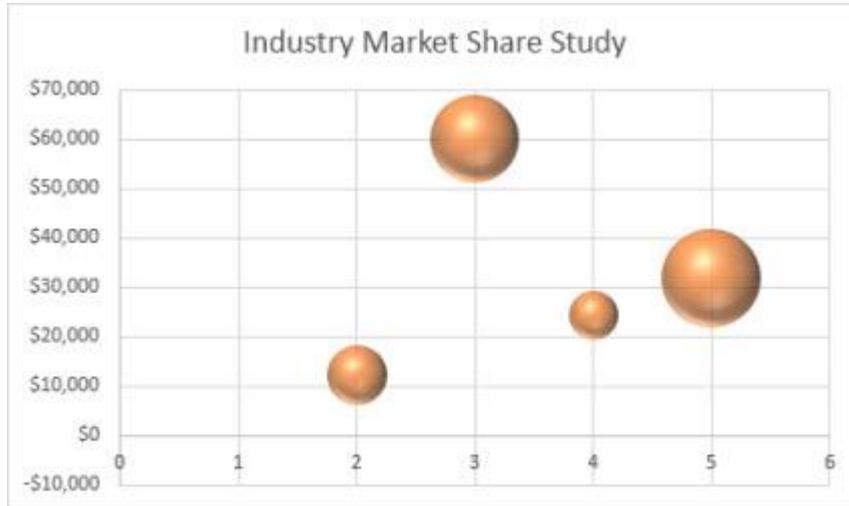
Type of bubble charts

- **Bubble or bubble with 3-D effect** Both of these bubble charts compare sets of three values instead of two, showing bubbles in 2-D or 3-D format (without using a depth axis). The third value specifies the size of the bubble marker.

Bubble

Bubble with 3-D effect

Stock charts

Data that's arranged in columns or rows in a specific order on a worksheet can be plotted in a stock chart. As the name implies, stock charts can show fluctuations in stock prices. However, this chart can also show fluctuations in other data, like daily rainfall or annual temperatures. Make sure you organize your data in the right order to create a stock chart.

For example, to create a simple high-low-close stock chart, arrange your data with High, Low, and Close entered as column headings, in that order.
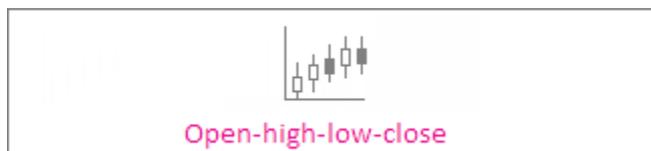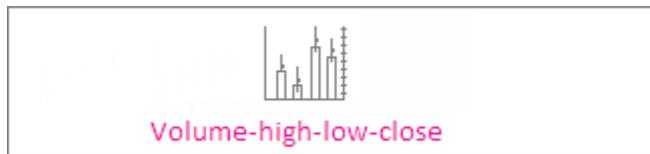

Types of stock charts

- **High-low-close**   This stock chart uses three series of values in the following order: high, low, and then close.
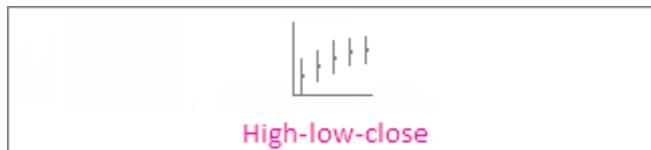

High-low-close

- **Open-high-low-close**   This stock chart uses four series of values in the following order: open, high, low, and then close.

Open-high-low-close

- **Volume-high-low-close**   This stock chart uses four series of values in the following order: volume, high, low, and then close. It measures volume by using two value axes: one for the columns that measure volume, and the other for the stock prices.


Volume-high-low-close

- **Volume-open-high-low-close**   This stock chart uses five series of values in the following order: volume, open, high, low, and then close.

Volume-open-high-low-close
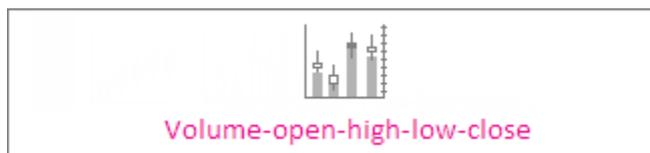
Surface charts

Data that's arranged in columns or rows on a worksheet can be plotted in a surface chart. This chart is useful when you want to find optimum combinations between two sets of data. As in a topographic map, colors and patterns indicate areas that are in the same range of values. You can create a surface chart when both categories and data series are numeric values.
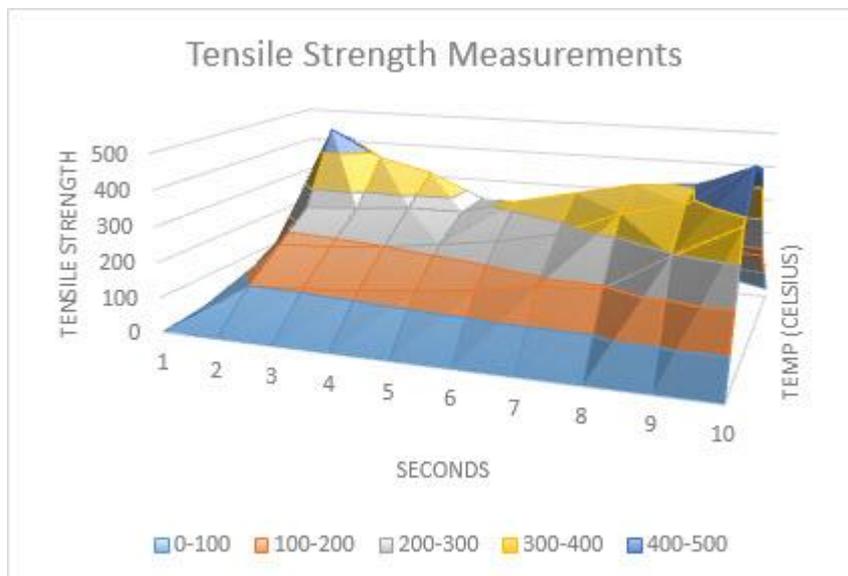

Types of surface charts

- **3-D surface**   This chart shows a 3-D view of the data, which can be imagined as a rubber sheet stretched over a 3-D column chart. It is typically used to show relationships between large amounts of data that may otherwise be difficult to see. Color bands in a surface chart do not represent the data series; they indicate the difference between the values.

3-D surface

- **Wireframe 3-D surface**   Shown without color on the surface, a 3-D surface chart is called a wireframe 3-D surface chart. This chart shows only the lines. A wireframe 3-D surface chart isn't easy to read, but it can plot large data sets much faster than a 3-D surface chart.

Wireframe 3-D surface

- **Contour**   Contour charts are surface charts viewed from above, similar to 2-D topographic maps. In a contour chart, color bands represent specific ranges of values. The lines in a contour chart connect interpolated points of equal value.
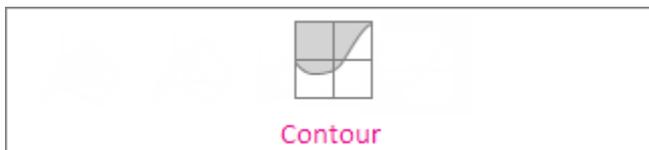
Contour

- **Wireframe contour**   Wireframe contour charts are also surface charts viewed from above. Without color bands on the surface, a wireframe chart shows only the lines. Wireframe contour charts aren't easy to read. You may want to use a 3-D surface chart instead.

Wireframe contour

Radar charts

Data that's arranged in columns or rows on a worksheet can be plotted in a radar chart. Radar charts compare the aggregate values of several data series.

Type of radar charts

- **Radar and radar with markers**   With or without markers for individual data points, radar charts show changes in values relative to a center point.

- **Filled radar**   In a filled radar chart, the area covered by a data series is filled with a color.

Combo charts

Data that's arranged in columns and rows can be plotted in a combo chart. Combo charts combine two or more chart types to make the data easy to understand, especially when the data is widely varied. Shown with a secondary axis, this chart is even easier to read. In this example, we used a column chart to show the number of homes sold between January and June and then used a line chart to make it easier for readers to quickly identify the average sales price by month.

Type of combo charts

- **Clustered column – line and clustered column – line on secondary axis**   With or without a secondary axis, this chart combines a clustered column and line chart, showing some data series as columns and others as lines in the same chart.

- **Stacked area – clustered column**   This chart combines a stacked area and clustered column chart, showing some data series as stacked areas and others as columns in the same chart.

- **Custom combination**   This chart lets you combine the charts you want to show in the same chart.