

How can I create a Forest Plot in Excel?

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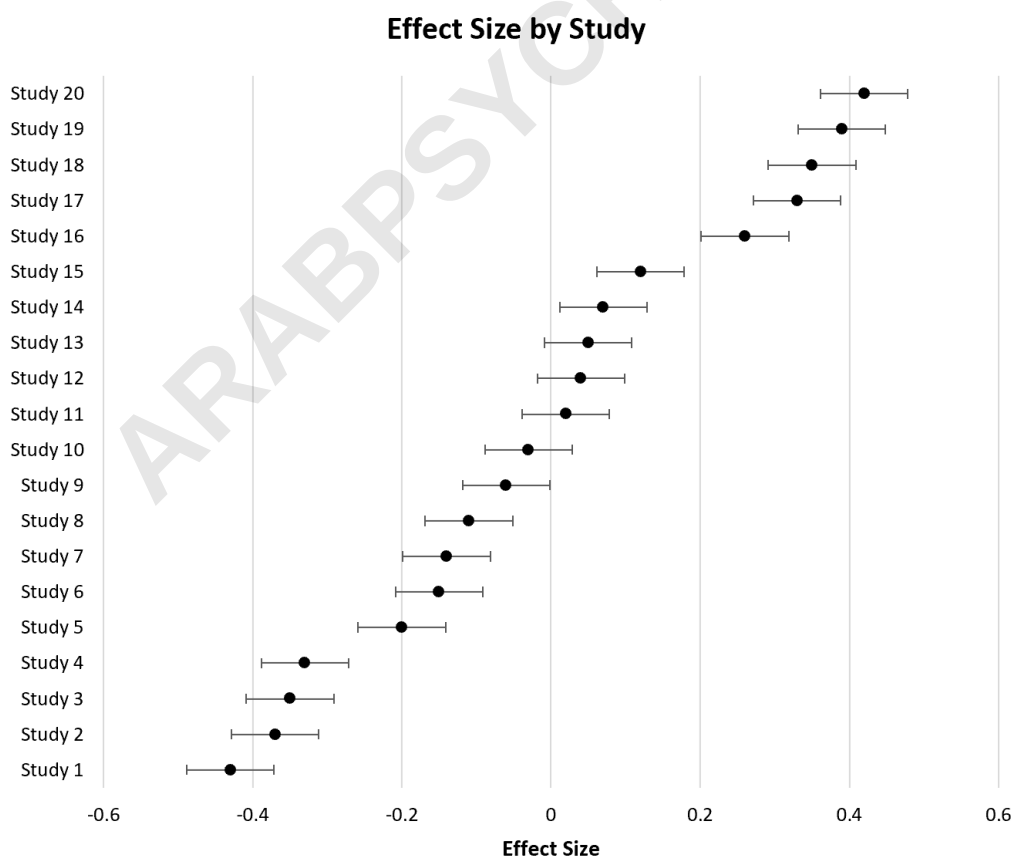
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A Forest Plot is a graphical representation commonly used in meta-analysis studies to display the results of multiple studies on a single topic. It allows for a quick and easy comparison of the effect sizes and confidence intervals of different studies. To create a Forest Plot in Excel, first, gather the necessary data, including the study names, effect sizes, and confidence intervals. Then, use Excel's charting tools to create a horizontal bar chart with the study names on the y-axis and the effect sizes on the x-axis. Add error bars for the confidence intervals and adjust the formatting to create a visually appealing plot. Finally, include a legend and title to clearly label the plot. With these steps, you can effectively create a Forest Plot in Excel to present your meta-analysis findings.

Create a Forest Plot in Excel

A forest plot (sometimes called a "blobbogram") is used in a meta-analysis to visualize the results of several studies in one plot.



The x-axis displays the value of interest in the studies (often an odds ratio, effect size, or mean difference) and the y-axis displays the results from each individual study.

This type of plot offers a convenient way to visualize the results of several studies all at once.

The following step-by-step example shows how to create a forest plot in Excel.

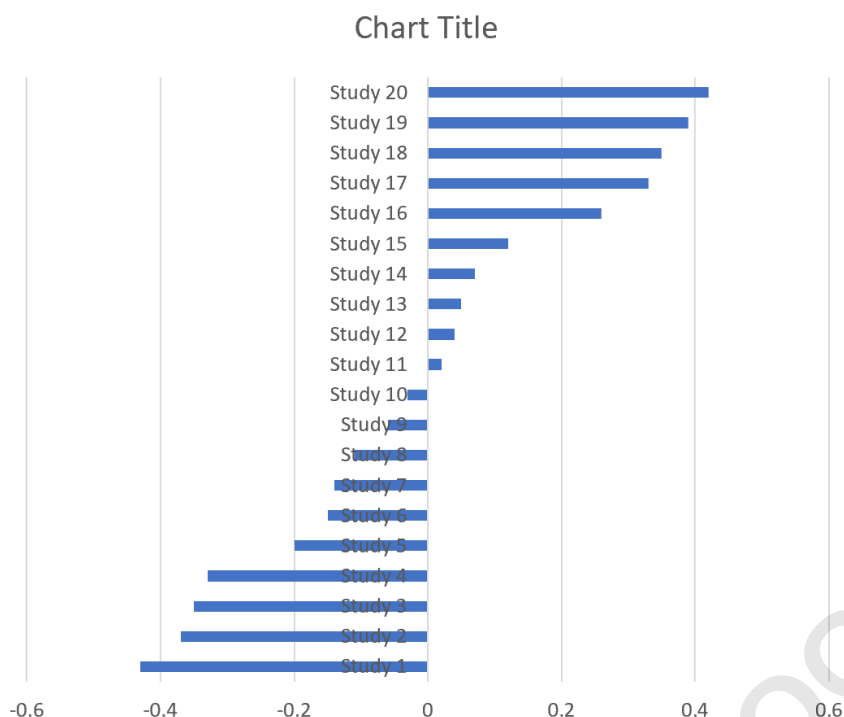
Step 1: Enter the Data

First, we'll enter the data for each study in the following format:

	A	B	C	D	E	F	G	H
1	Study	Effect Size	Lower CI	Upper CI				
2	Study 1	-0.43	-0.54	-0.32				
3	Study 2	-0.37	-0.48	-0.26				
4	Study 3	-0.35	-0.46	-0.24				
5	Study 4	-0.33	-0.44	-0.22				
6	Study 5	-0.2	-0.31	-0.09				
7	Study 6	-0.15	-0.26	-0.04				
8	Study 7	-0.14	-0.25	-0.03				
9	Study 8	-0.11	-0.22	0				
10	Study 9	-0.06	-0.17	0.05				
11	Study 10	-0.03	-0.14	0.08				
12	Study 11	0.02	-0.09	0.13				
13	Study 12	0.04	-0.07	0.15				
14	Study 13	0.05	-0.06	0.16				
15	Study 14	0.07	-0.04	0.18				
16	Study 15	0.12	0.01	0.23				
17	Study 16	0.26	0.15	0.37				
18	Study 17	0.33	0.22	0.44				
19	Study 18	0.35	0.24	0.46				
20	Study 19	0.39	0.28	0.5				
21	Study 20	0.42	0.31	0.53				
22								
23								
24								
25								
26								

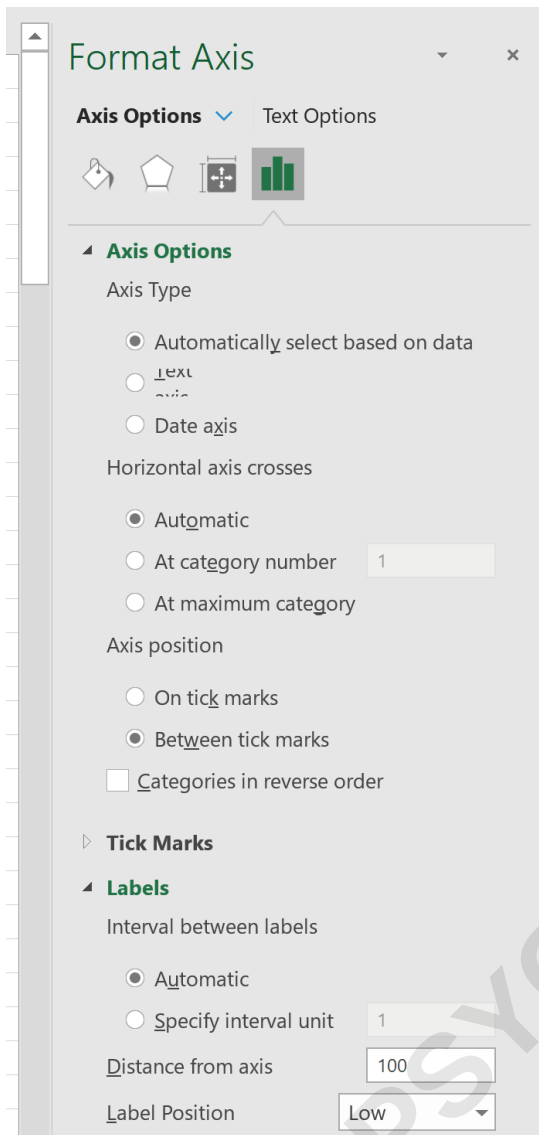
Step 2: Create a Horizontal Bar Chart

Next, highlight the cells in the range A2:B21. Along the top ribbon, click the Insert tab and then click the 2-D clustered bar option in the Charts section. The following horizontal bar chart will appear:

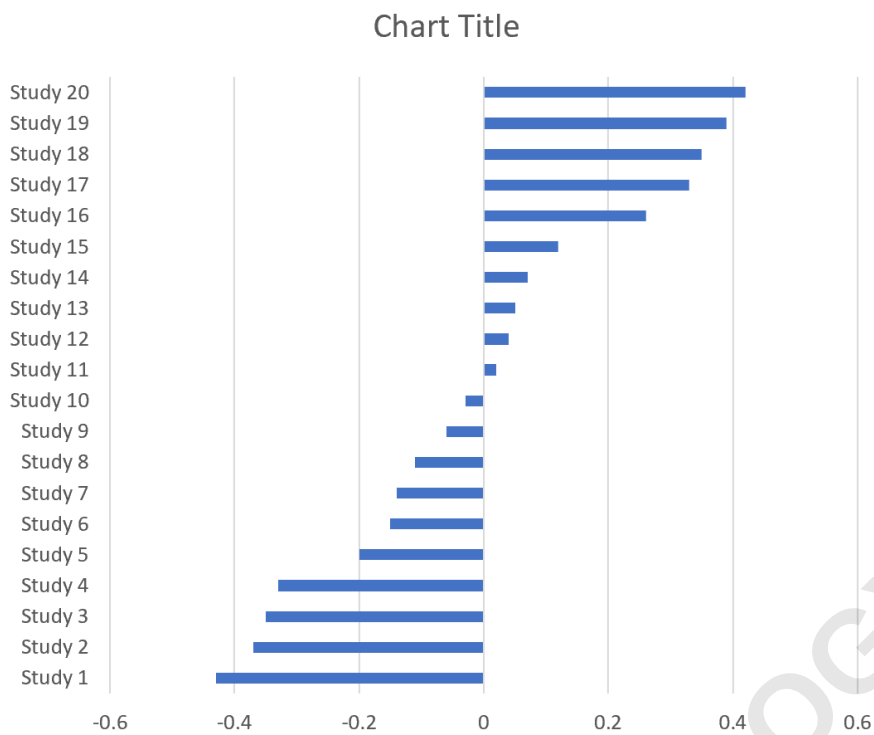


Step 3: Move Axis Labels to Left Side

Next, double click the vertical axis labels. In the Format Axis pane that appears on the right side of the screen, set Label Position to Low:



This will move the vertical axis labels to the left side of the graph:



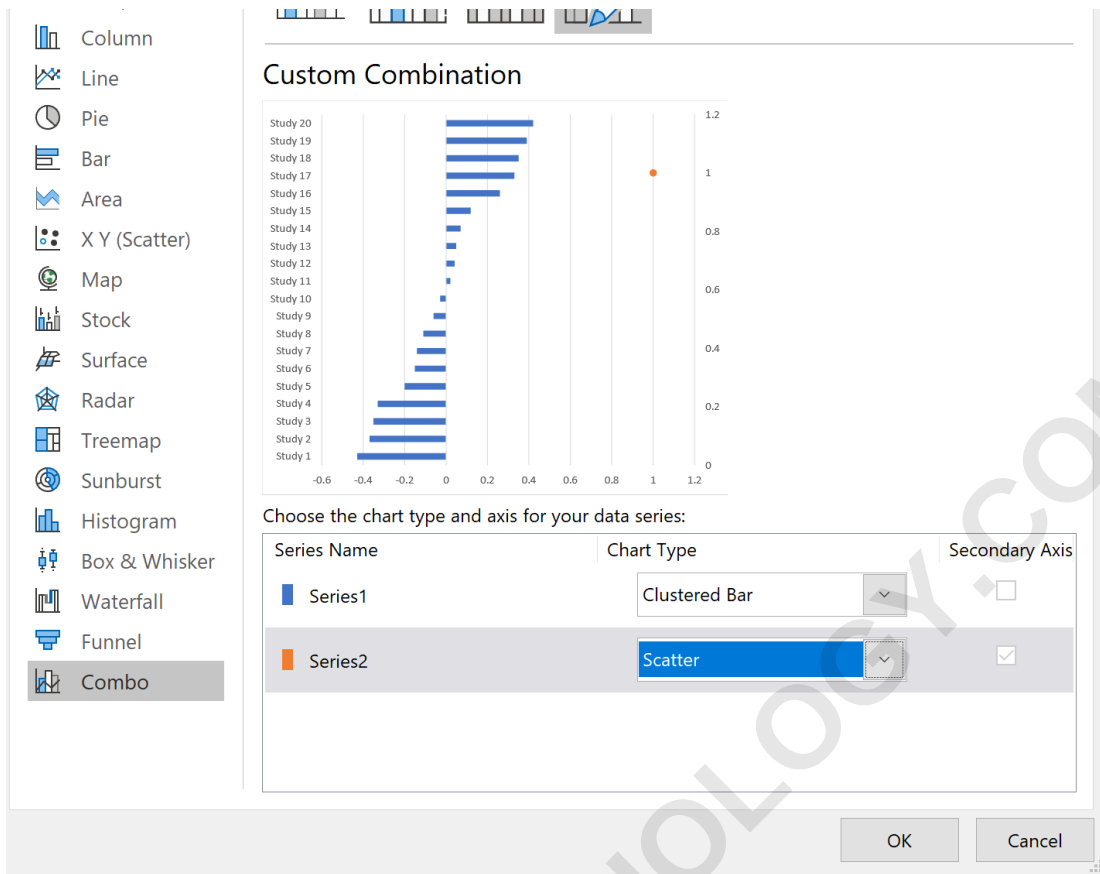
Step 4: Add Scatterplot Points

	A	B	C	D	E	F	G	H
1	Study	Effect Size	Lower CI	Upper CI	Points			
2	Study 1	-0.43	-0.54	-0.32	0.5			
3	Study 2	-0.37	-0.48	-0.26	1.5			Study 20
4	Study 3	-0.35	-0.46	-0.24	2.5			Study 19
5	Study 4	-0.33	-0.44	-0.22	3.5			Study 18
6	Study 5	-0.2	-0.31	-0.09	4.5			Study 17
7	Study 6	-0.15	-0.26	-0.04	5.5			Study 16
8	Study 7	-0.14	-0.25	-0.03	6.5			Study 15
9	Study 8	-0.11	-0.22	0	7.5			Study 14
10	Study 9	-0.06	-0.17	0.05	8.5			Study 13
11	Study 10	-0.03	-0.14	0.08	9.5			Study 12
12	Study 11	0.02	-0.09	0.13	10.5			Study 11
13	Study 12	0.04	-0.07	0.15	11.5			Study 10
14	Study 13	0.05	-0.06	0.16	12.5			Study 9
15	Study 14	0.07	-0.04	0.18	13.5			Study 8
16	Study 15	0.12	0.01	0.23	14.5			Study 7
17	Study 16	0.26	0.15	0.37	15.5			Study 6
18	Study 17	0.33	0.22	0.44	16.5			Study 5
19	Study 18	0.35	0.24	0.46	17.5			Study 4
20	Study 19	0.39	0.28	0.5	18.5			Study 3
21	Study 20	0.42	0.31	0.53	19.5			Study 2
22								Study 1
23								-0.6
24								
25								
26								
27								

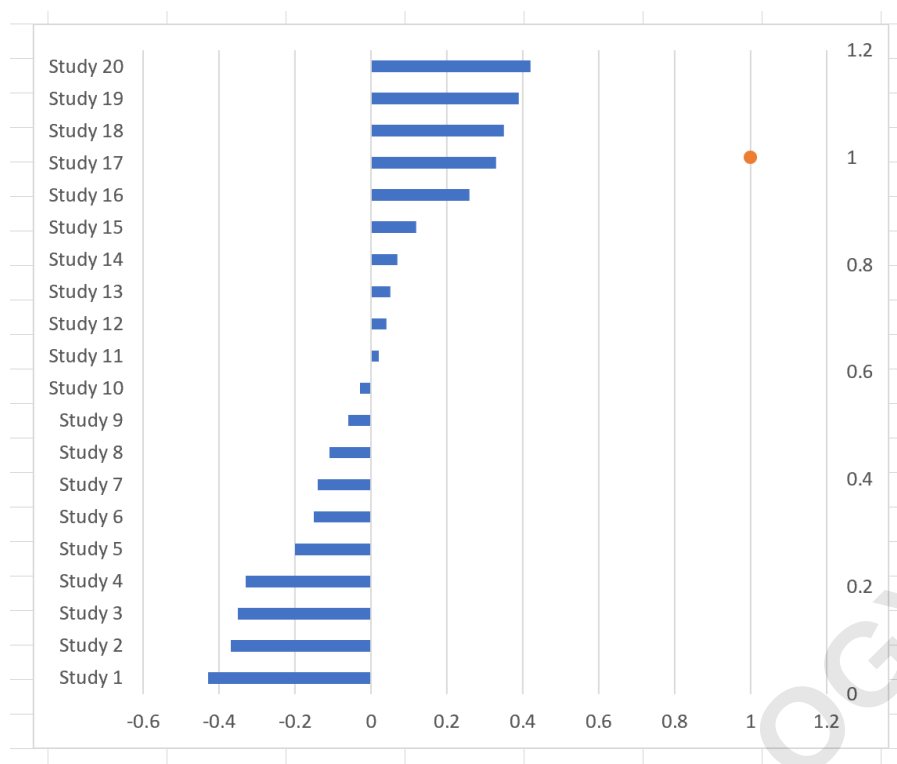
Next, right click anywhere on the plot and click Select Data. In the new window that appears, click Add to add a new series. Then leave the Series Name blank and click OK. This will add a single bar to the plot:



Next, right click the single orange bar and click Change Series Chart Type. In the new window that appears, change Series2 to a scatterplot:



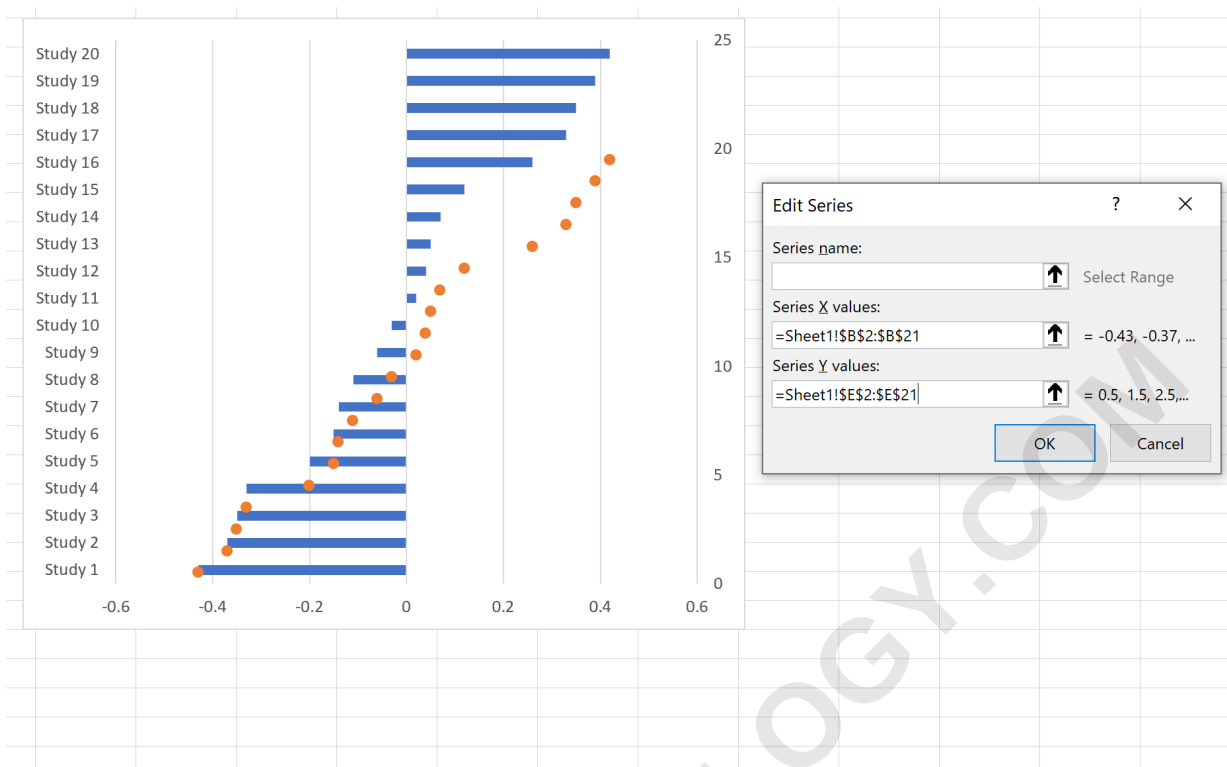
Once you click OK, a single scatterplot point will appear on the chart:



Next, right click the single orange point and click **Select Data**. In the window that appears, click **Series2** and then click **Edit**.

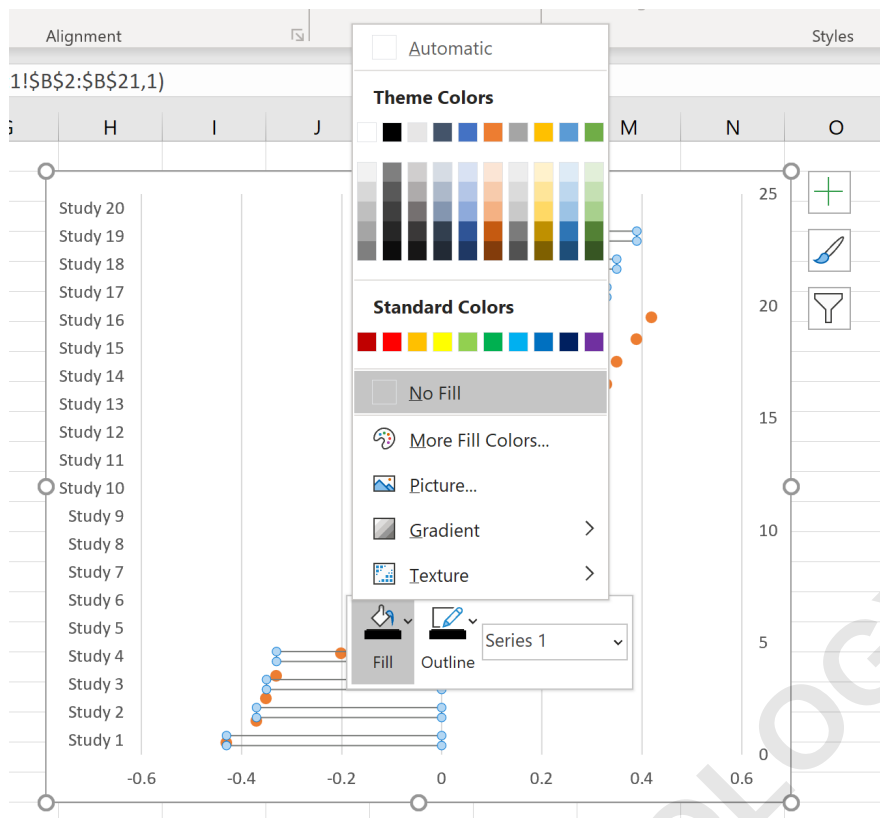
Use the cell range that contains **Effect Size** for the x-values and the cell range that contains **Points** for the y-values. Then click **OK**.

The following scatterplot points will be added to the plot:

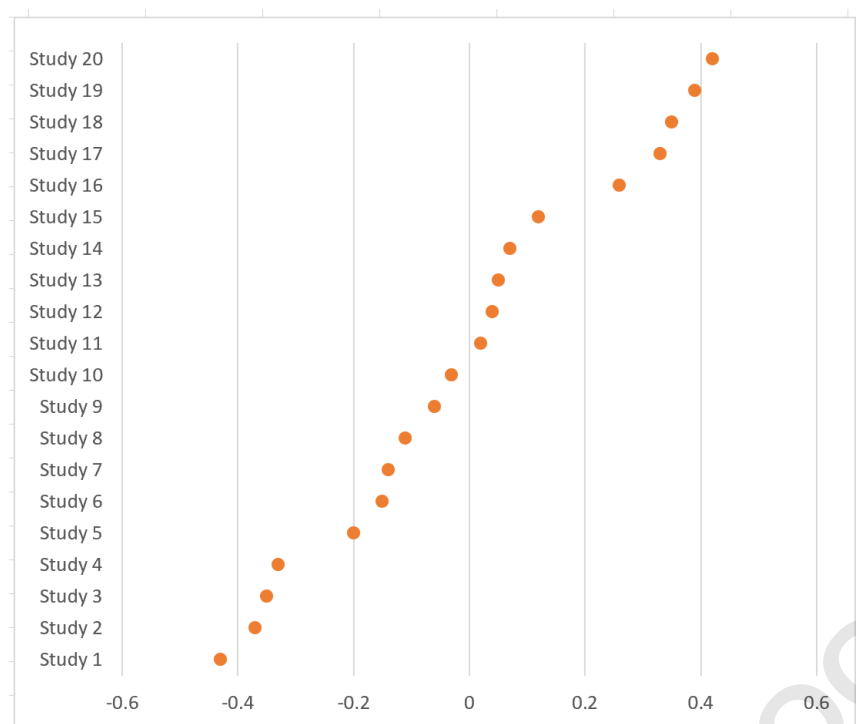


Step 5: Remove the Bars

Next, right click on any of the bars in the plot and change the fill color to No Fill:



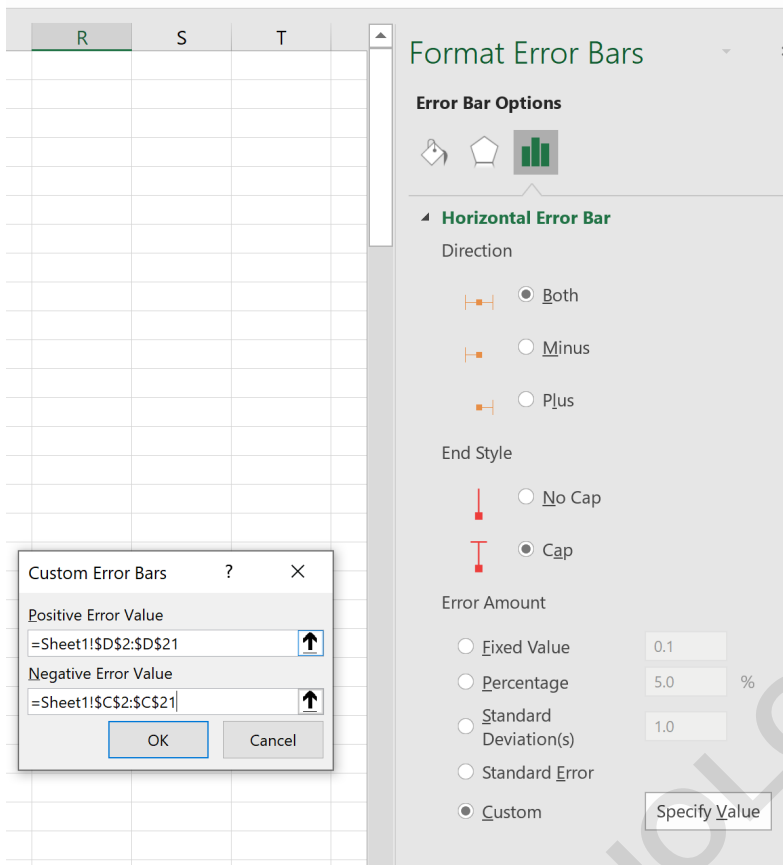
Next, double click the y-axis on the right and change the axis bounds to a minimum of 0 and a maximum of 20. Then click the y-axis on the right and delete it. You'll be left with the following plot:



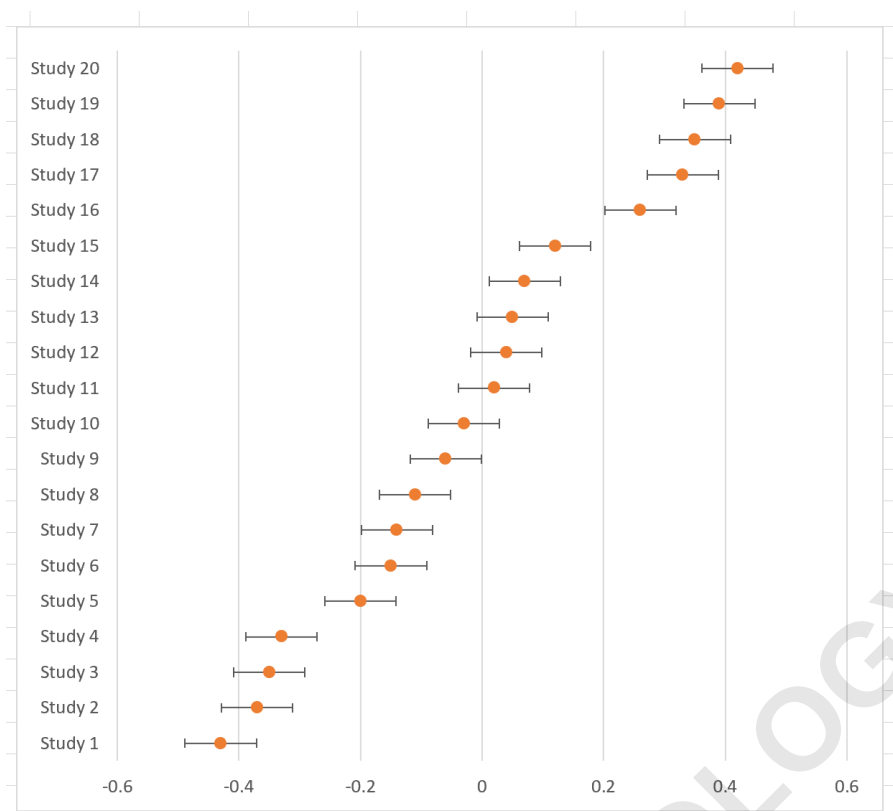
Step 6: Add Error Bars

Next, click the tiny green plus sign in the top right corner of the plot. In the dropdown menu, check the box next to Error Bars. Then click on one of the vertical error bars on any of the points and click delete to remove the vertical error bars from each point.

Next, click the More Options in the dropdown next to Error Bars. In the pane that appears on the right, specify the custom error bars to use for the upper and lower bounds of the confidence intervals:

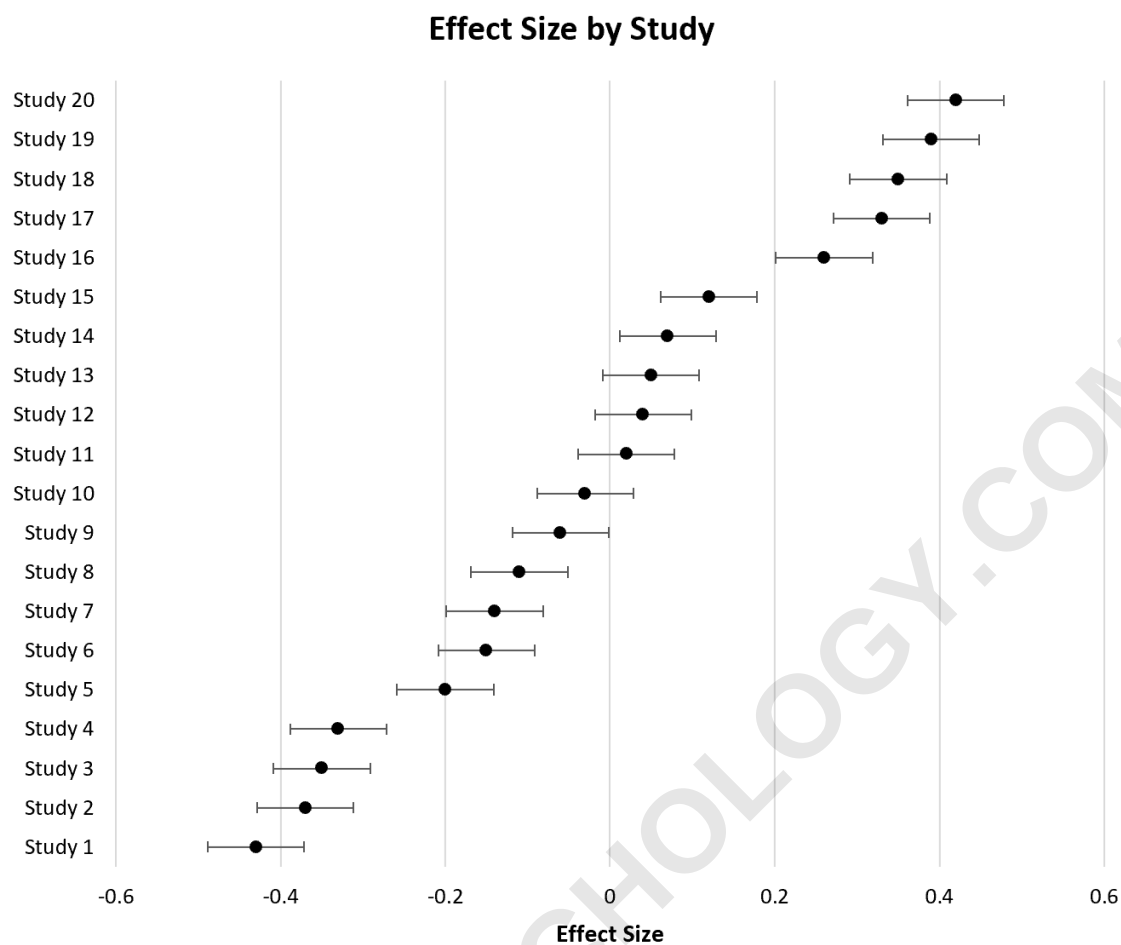


This will result in the following error bars on the plot:



Step 7: Add Title & Axis Labels

Lastly, feel free to add a title and axis labels and modify the colors of the chart to look more aesthetically pleasing:



You can find more Excel visualization tutorials on .