

How can I create a Lorenz Curve in Excel, and can you provide an example?

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RECOMMENDED CITATION

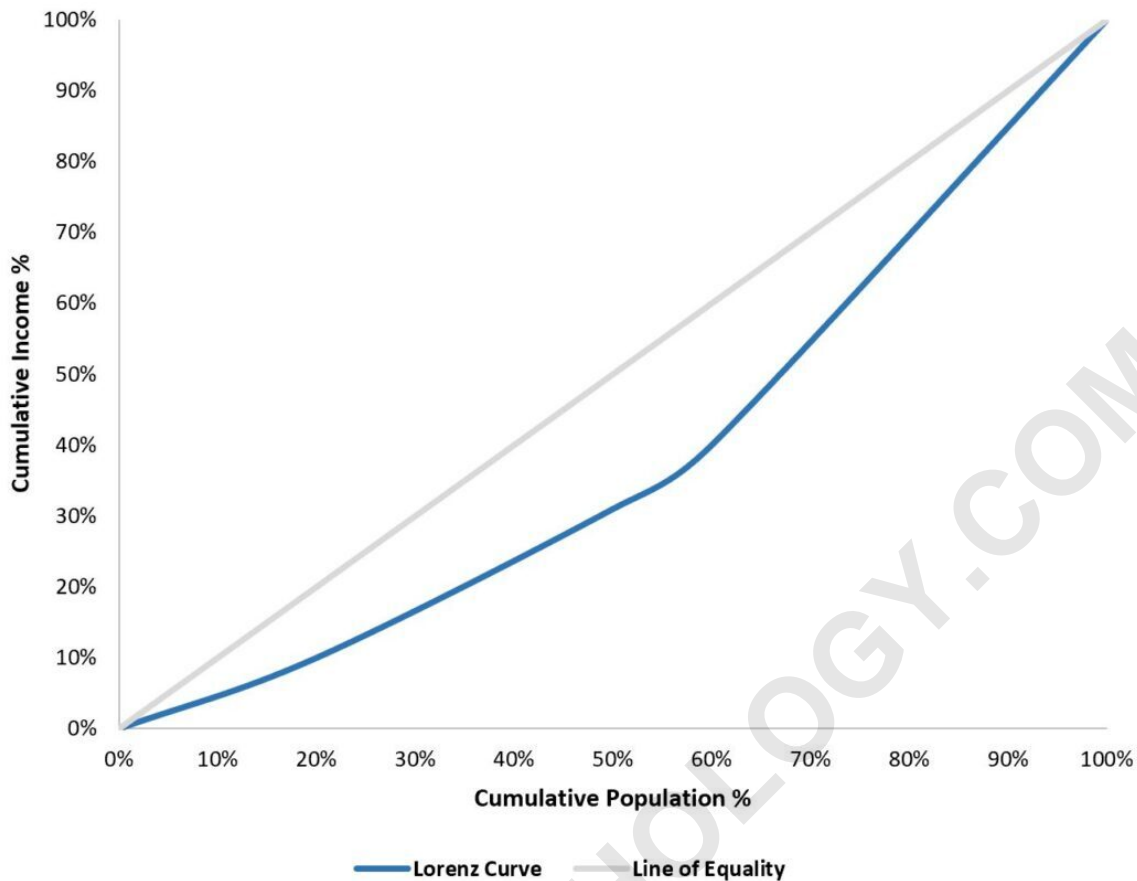
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Creating a Lorenz Curve in Excel is a simple process that can be done by following a few steps. First, you will need to organize your data in two columns, with one column representing the cumulative percentage of the total population and the other column representing the cumulative percentage of the total income. Then, you can use the "Insert Scatter" chart function in Excel to create a scatter plot of the data. Next, you will need to add a trendline to the scatter plot and change the type to "Logarithmic". This will create a curved line that represents the Lorenz Curve. Finally, you can customize the chart to your preferences and label the axes accordingly. An example of a Lorenz Curve created in Excel can be found in the attached file.

Create a Lorenz Curve in Excel (With Example)

Named after American economist , the Lorenz curve is a way to visualize the income distribution of a population.

This tutorial provides a step-by-step example of how to create the following Lorenz curve in Excel:



Let's jump in!

Step 1: Enter the Data

First, we must enter values for two columns: the cumulative population and cumulative income of individuals in a certain country:

	A	B	C	D
1	Cumulative Population %	Cumulative Income %		
2	0%	0%		
3	20%	10%		
4	50%	31%		
5	60%	40%		
6	100%	100%		
7				
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Here's how to interpret the values:

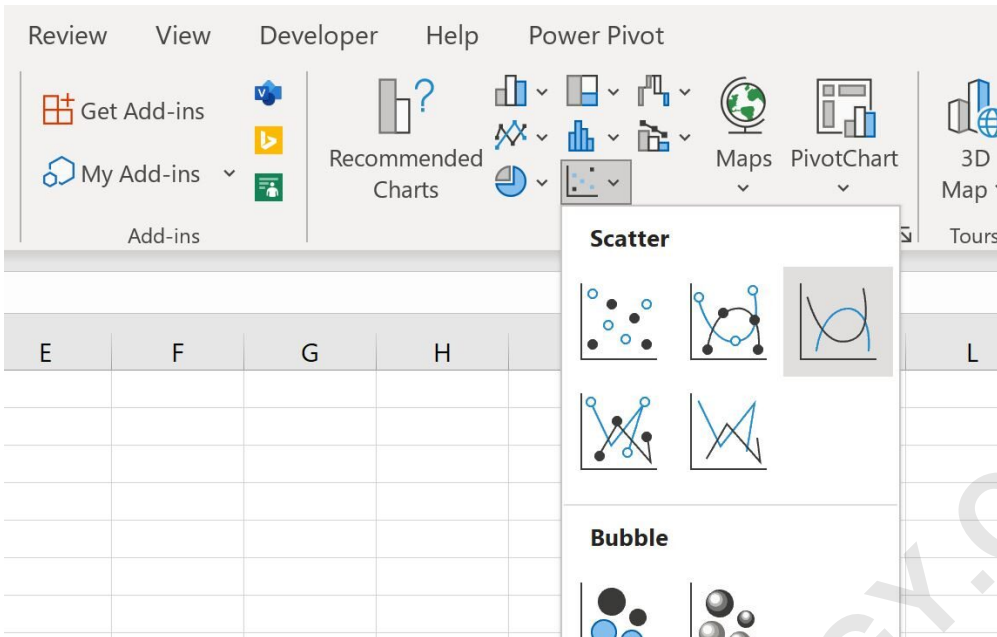
The bottom 20% of individuals in this country account for 10% of the total income. The bottom 50% of individuals in this country account for 31% of the total income. The bottom 60% of individuals in this country account for 40% of the total income. 100% of individuals in this country account for 100% of the total income.

Next, we'll enter the (x, y) values for the line of equality that we will eventually add to the graph:

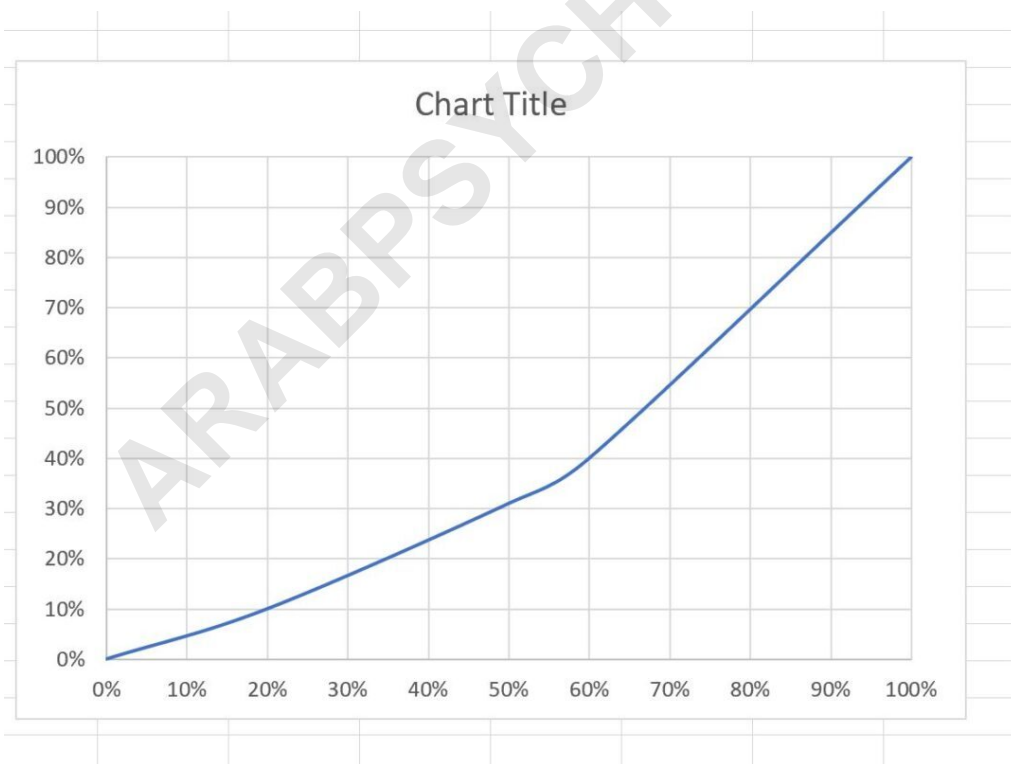
	A	B	C	D	E
1	Cumulative Population %	Cumulative Income %	x	y	
2	0%	0%	0%	0%	
3	20%	10%	10%	10%	
4	50%	31%	20%	20%	
5	60%	40%	30%	30%	
6	100%	100%	40%	40%	
7			50%	50%	
8			60%	60%	
9			70%	70%	
10			80%	80%	
11			90%	90%	
12			100%	100%	
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Step 2: Create Basic Lorenz Curve

Next, highlight the values in cells A2:B6 and then click the **Insert** tab along the top ribbon, then click the **Scatter with Smooth Lines** option in the **Charts** group:

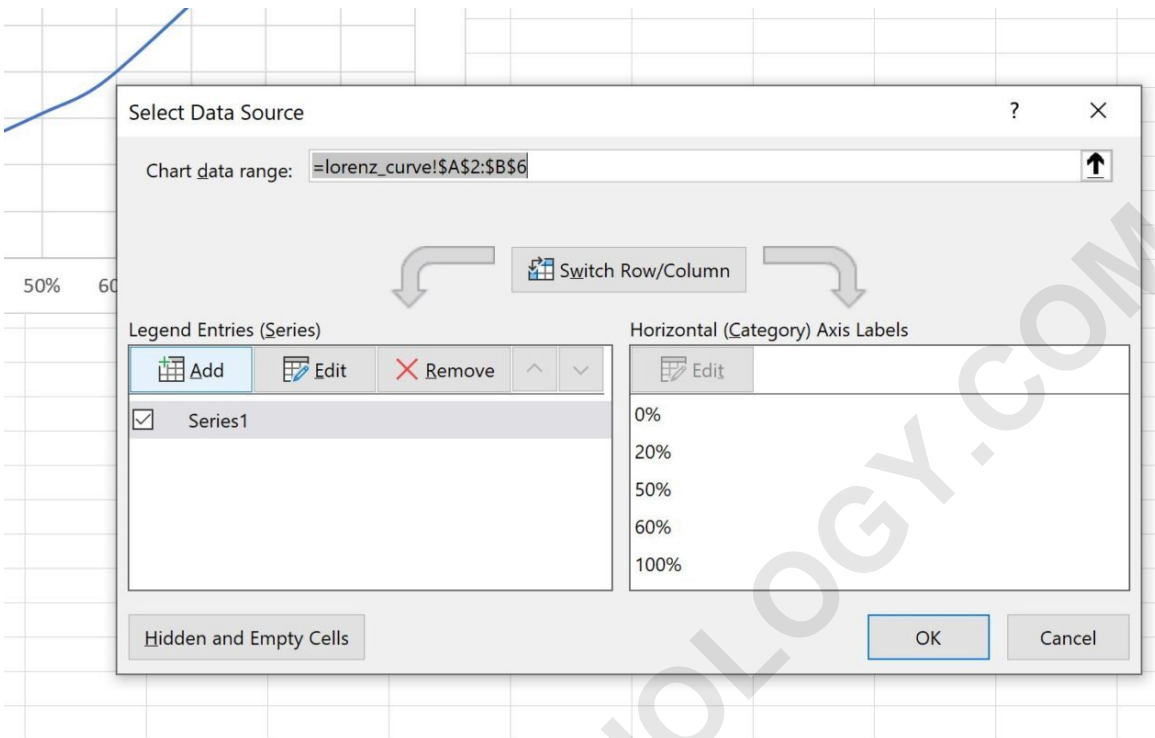


The following chart will automatically be created:

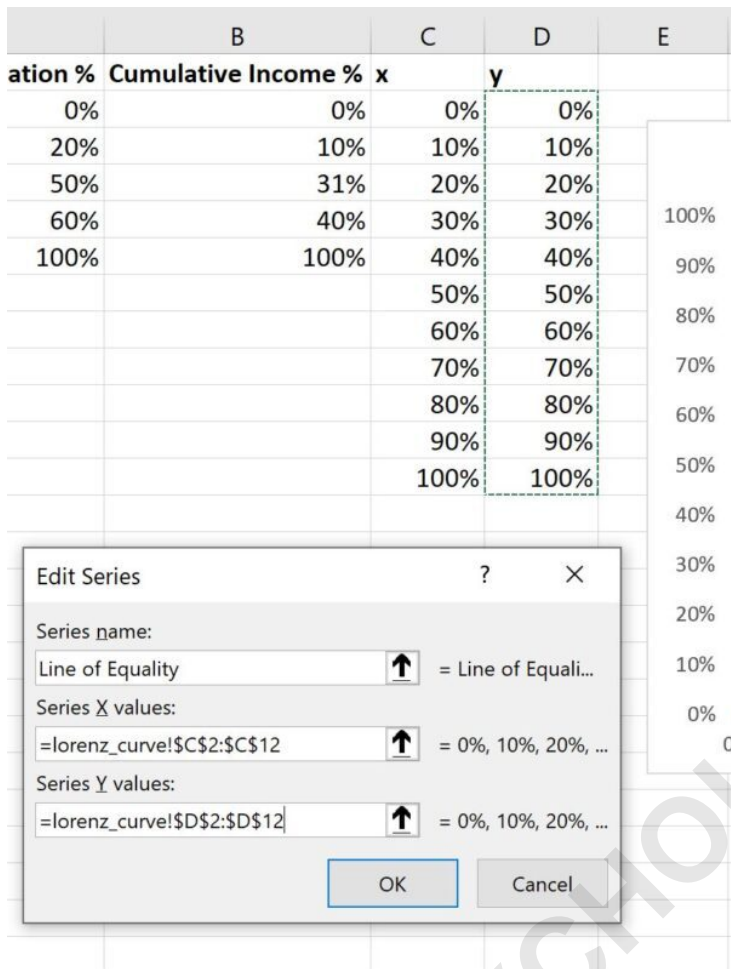


Next, right click anywhere on the chart and click the

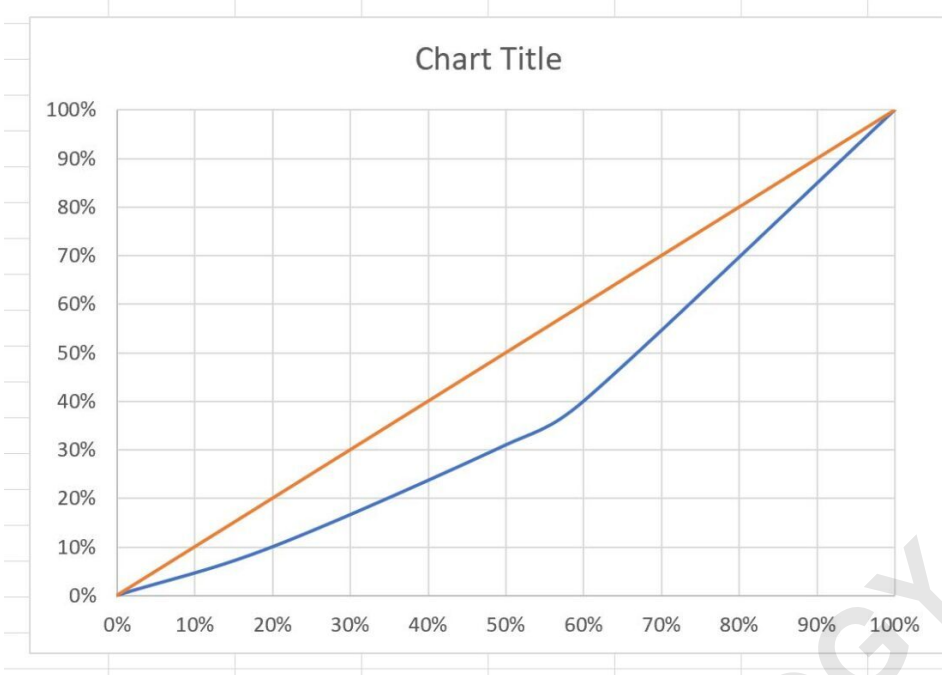
option that says Select Data.



Click the Add button, then enter the following information:



Once you click OK, the diagonal line of equality will automatically be added to the plot:

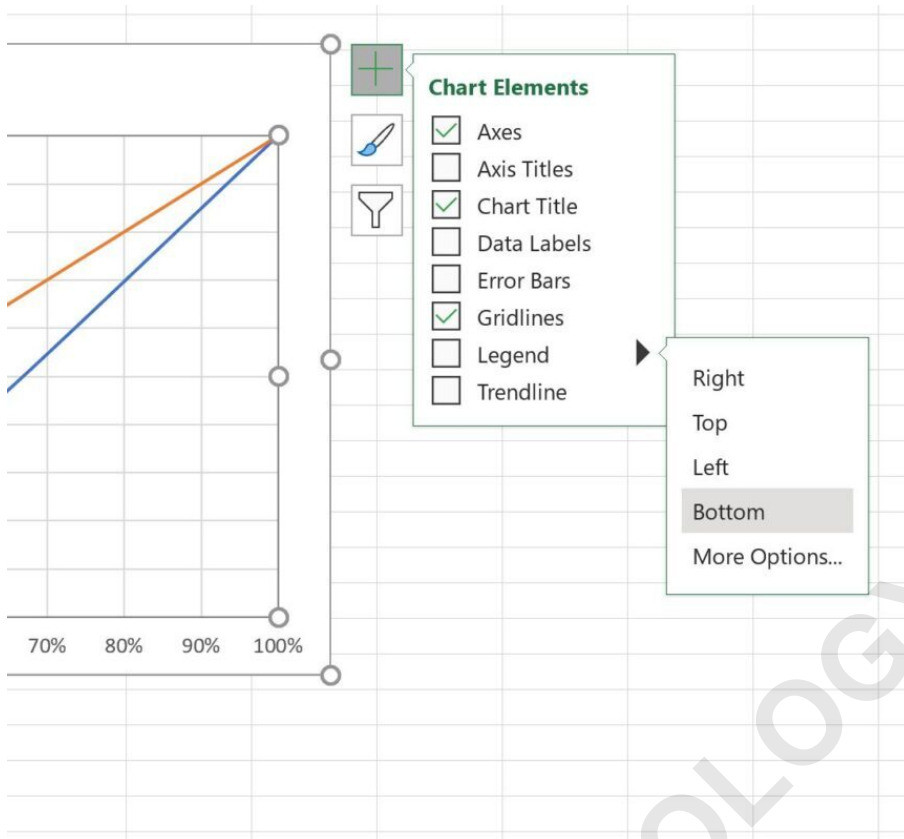


The basic Lorenz curve is complete. The blue line represents the Lorenz curve and the orange line represents the line of equality.

Step 3: Customize Lorenz Curve

Lastly, we can customize the appearance of the chart.

Click on the green plus (+) sign in the top right corner of the chart, then click Legend, then click Bottom:



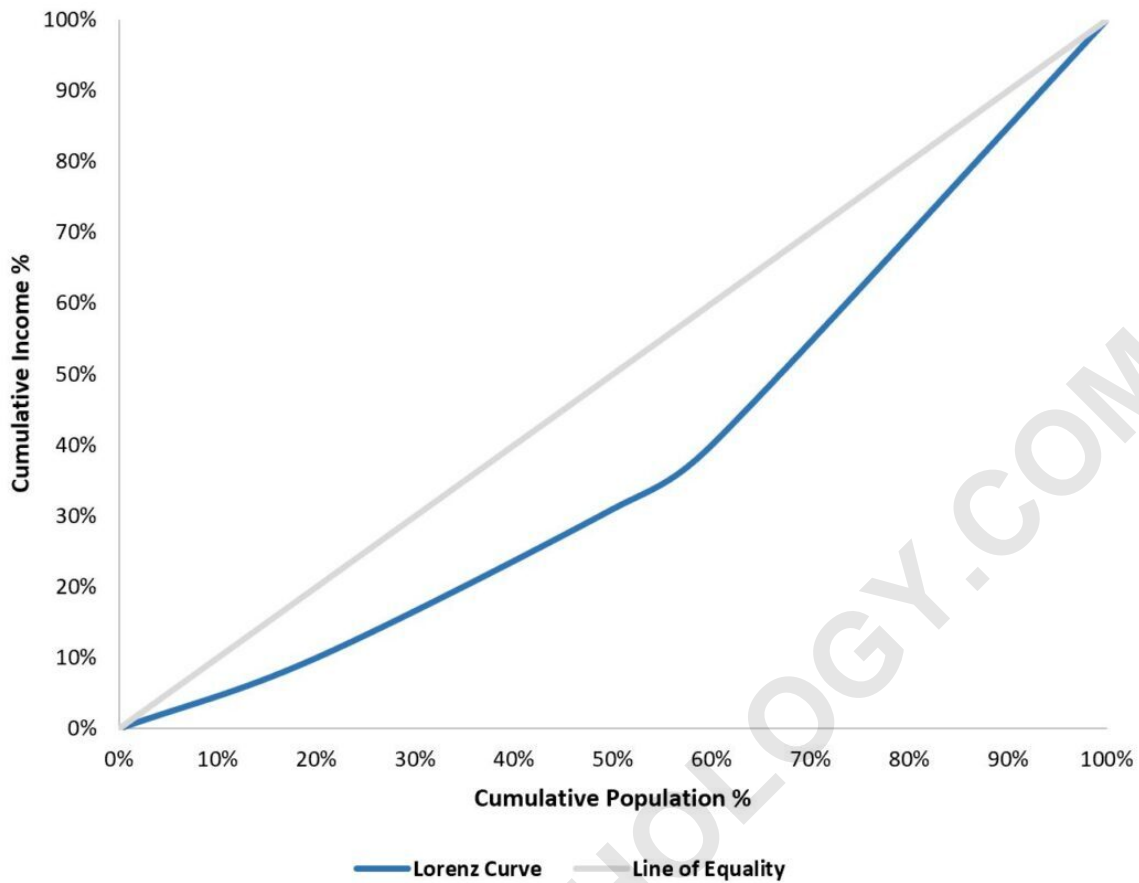
A legend will be added to the bottom of the chart.

Next, click on the gridlines in the chart and delete them.

Then, click on each individual line and change the color to whatever you'd like.

Then, add an axis title to both the x-axis and y-axis.

The end result will look something like this:



Related: