Tutorial

DATAWRAPPER

Time required:
15 - 30 min (with clean data)

When to use this?
You want to build a simple but interactive chart. It supports bar charts, column chart, stacked column chart, line chart, pie chart, table, and heat map.

What do you need?
Clean dataset saved in a spreadsheet.

Skill level: Easy

Created by @kuangkeng of Data-N.com
1. Start with clean data

- Creating a visualization with Datawrapper is essentially the last step. The first step is getting your data in working form on a spreadsheet (Google Sheets, Excel or csv files).
- Once in Datawrapper, you can’t pick and choose from a spreadsheet, so something like the dataset below won’t work, there are too many columns, words and empty cells. It needs to be boiled down to the simplest and most complete possible.

You need clean dataset that only contains data points that you want to visualize, something like the two tables below:

- Values should not have any commas, percentage and currency symbols like USD or $. All empty cells should be eliminated.
- Avoid long words for variables as they clutter your chart. If possible, use words with similar length. E.g., use Jan, Feb, Mar, Apr instead of January, February, March, April.
- Copy (Command+C or File→Copy) the whole table, including the first row.
2. Ready with your data? Go to www.datawrapper.de

- If you don’t have an account yet, you need to create one.
- To embed your chart as an interactive component, you need to purchase a service package. The **most basic package** is 12€/30 days, probably the cheapest in the market.
- After creating your account, log into the account.
- After logging in, click “+ New Chart”
- Paste in the spreadsheet you’ve copied using Command+V.

![Datawrapper interface](image)

- Click the blue “Upload and continue”.
- Datawrapper will automatically assign the first row and columns as labels, which will be correct for most data.

![Datawrapper interface](image)

- At this stage, you should **copy-check your data**. You can double-click on a cell to edit the data in it.
- Type in the data source and its URL (if it is available online). **DO NOT** publish any visualization without stating the source, it damages your credibility.
● You can format your numbers by clicking the little square box in each column in the first row. You should see the options on the left panel:

- This is where you can round your numbers to certain decimal places. If your data has more than 1 decimal point, round it up to 1 decimal point as it is easier to read unless it is important to show the details. We choose 1 decimal here for the Internet speed.
- You can also add a currency sign or percentage to the numbers using the “Prepend/Append” option.
- When you are happy with your data, click the blue “Proceed” button.

3. Let’s visualize…

- At this stage, you’ll see all the options for visualization. You can click on different “Chart type” to see how your data looks like in different charts.
- If your data looks wrong initially, you can click on transpose the data beneath the chart options.
We will use a bar chart as it is the best visualization for our dataset.

Now that you’ve selected a chart type, click on “Refine” at the top or “Proceed” at the bottom to go to the next step.

Check “Automatically sort bars” to sort the data from highest to lowest values. Check “Reverse order” for lowest to highest.

You can customize the color for all bars or each single bar.

Now, click on “Annotate” or “Proceed” to go to the next step.

Fill in the chart’s title. Try to keep it in one line.

In description you should enter what the values represent and their unit (Mbps).

You can highlight the value that your story wants to tell. Datawrapper will change the color of the bars to highlight your value. You can highlight more than one bar. Here we choose to highlight China.

Done? Click on “Design” or “Proceed” to go to the next step.
If you purchase a more premium service package, Datawrapper team could design a customized layout for your chart. The layout will appear in the dropdown menu. When you select it, the size and color of the chart will change.

You can also change the size of the chart here. Please find out the optimum size of the page you want to embed the chart so it looks the best in your page.

As the rule of thumb, the maximum height should be 520px because anything bigger than that won’t fit into a laptop screen.

If your chart is so big that users need to scroll up and down to view it, you should probably modify it either by selecting a different chart type or trimming your data.

How about the chart size in a mobile or tablet screen? Don’t worry, all Datawrapper charts are responsive, but you should always view it in your mobile after embedding to double check.
4. Let’s put the chart in a story!

- When we hit the blue “Publish”, we will go to the final screen:

- This point should be your final copy check. Have a second pair of eyes double-check your data integrity and spelling, and whether your chart title and description are sufficient for users to understand the chart.

- Click on “Export for embedding” and a box will pop up telling that your chart is being prepared, and soon you will get to this box:

- You can copy the code in the box. It should look like this:

```html
<iframe src="http://cf.datawrapper.de/Ffc1u/1/" frameborder="0" allowtransparency="true" allowfullscreen="allowfullscreen" webkitallowfullscreen="webkitallowfullscreen" mozallowfullscreen="mozallowfullscreen" oallowfullscreen="oallowfullscreen" msallowfullscreen="msallowfullscreen" width="748" height="420"></iframe>
```

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• Ignore the width and height shown in the box because we have already set it in the previous step.
• Now you can embed the copied code into your CMS!

5. What if I want to make changes to the chart?

• No problem. Just close the box and click on any of the tabs above the chart to go back the part where you need to make change.

• If you go back to “Check & Describe” and change the values or formatting of the data, the other settings that you’ve set previously including colors, chart size, title and description will remain intact. You don’t have to start all over again.
• However, you need to **re-publish the chart** and re-copy the embed code. After making the changes, click on the tab “Publish & Embed” and click on “Export for embedding”. Datawrapper will detect the changes and requires you to “Re-publish the chart!”. Click on that and re-copy the code and use that in your story.

• Note: If you update your chart after it has been published. You can choose NOT to replace the code in your story after re-publishing the chart. The old chart will be automatically updated to the new chart within the next 24 hours.

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