How to make graphs on Excel
October 8, 2020

Download Excel files from the Life Sciences Outreach Program website at:
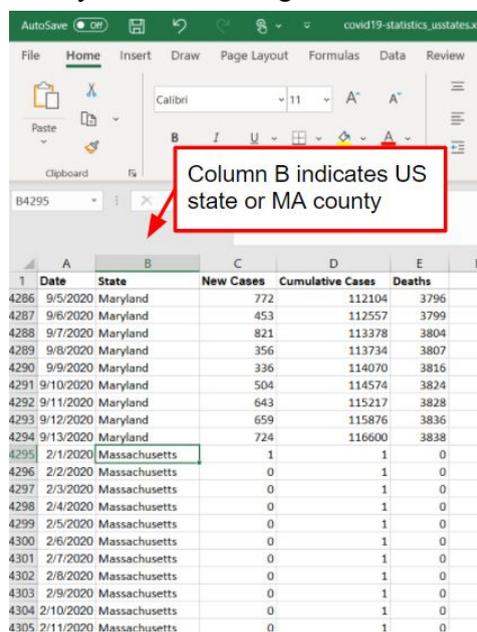https://lifesciencesoutreach.fas.harvard.edu/lecture-1-100820

There are six files:

covid19-statistics_MAcounties.xlsx	Massachusetts counties[1]
covid19-statistics_USstates.xlsx	US states and territories[1]
covid19-statistics_USA.xlsx	US as a whole[1]
covid19-statistics_China.xlsx	China[2]
covid19-statistics_Italy.xlsx	Italy[2]
covid19-statistics_Southkorea.xlsx	South Korea[2]

These contain the daily cases, cumulative cases, and cumulative deaths for the geographic region(s) indicated in the file title.

1. After downloading the file from the LSO website, open it in Excel.
2. In the case of the MAcounties and USstates files, there are multiple geographic regions within one file. You will be able to tell the region of the data you are looking at from the label in column B.

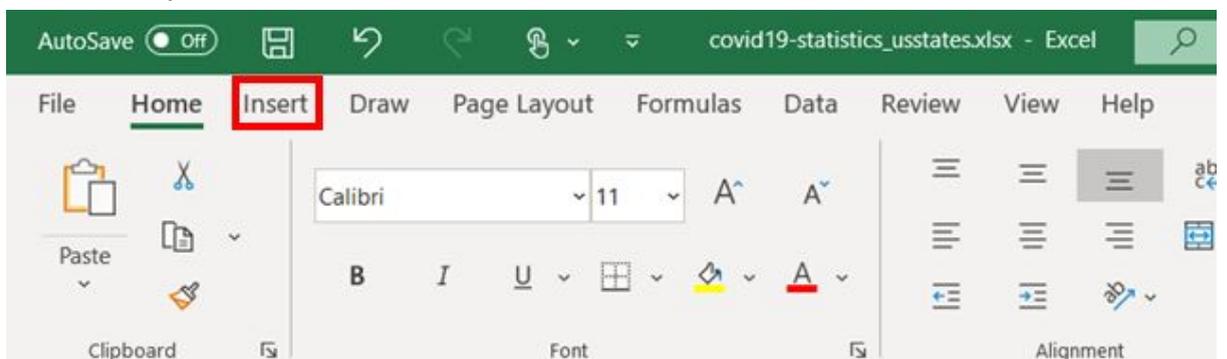[1] downloaded from https://github.com/nytimes/covid-19-data

[2] downloaded form ECDC
https://www.ecdc.europa.eu/en/publications-data/download-todays-data-geographic-distribution-covid-19-cases-worldwide
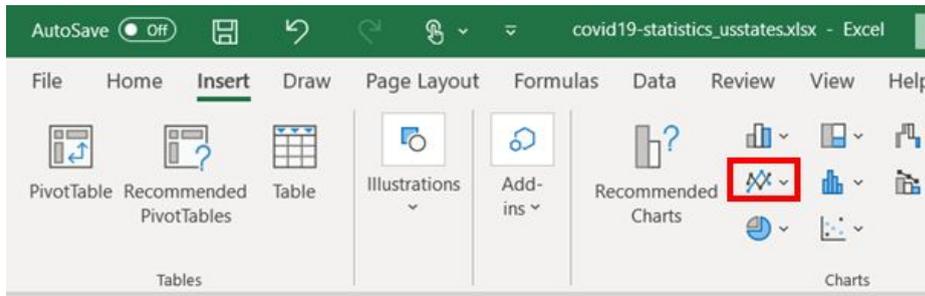
3. Find the geographic region you are looking for. For this tutorial, we will use the "covid19-statistics_USstates.xlsx" file and graph Massachusetts cumulative cases.
4. Highlight the "Cumulative cases" in column D for all of the rows labeled "Massachusetts" in column B.
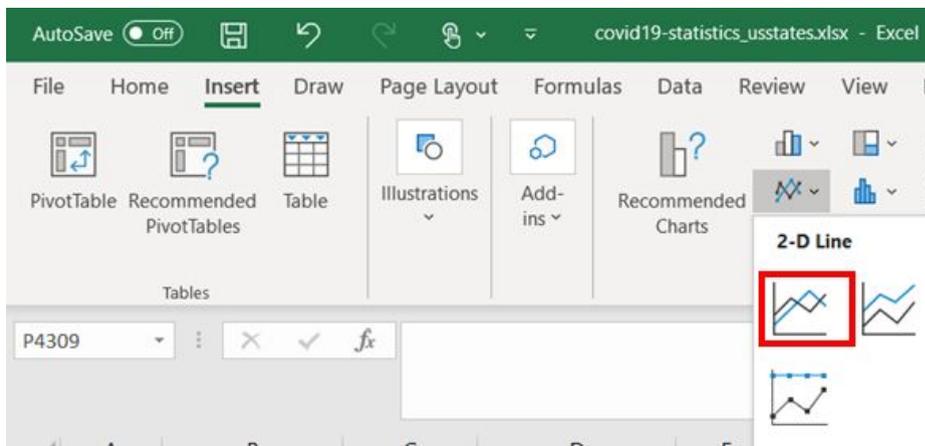

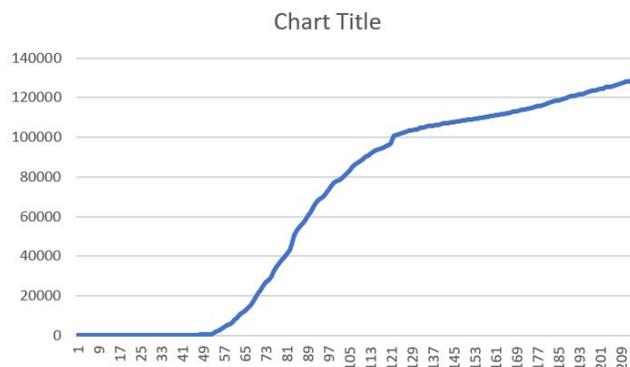5. From the top menu bar, select "Insert"

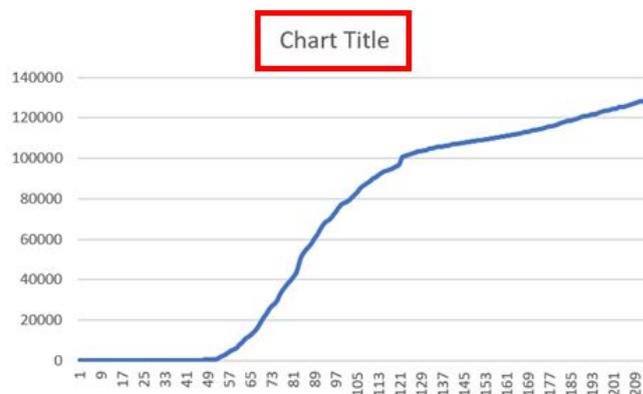6. And select the line graph option

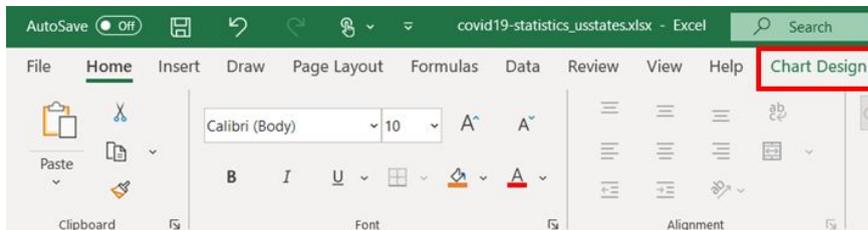7. Select the first option listed under "2-D Line"

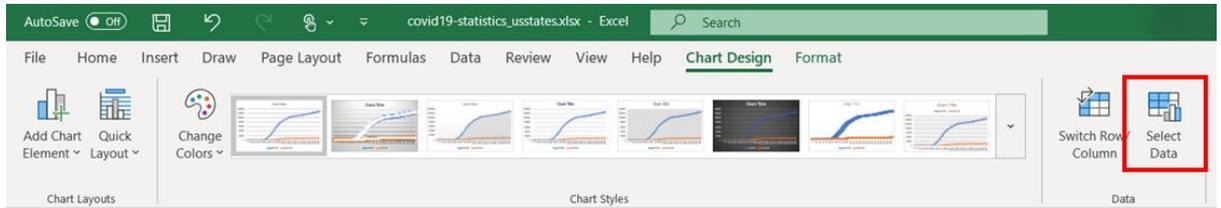8. This will auto-generate a graph without proper labels

9. To change the graph title, double click on "Chart Title" and it will become editable
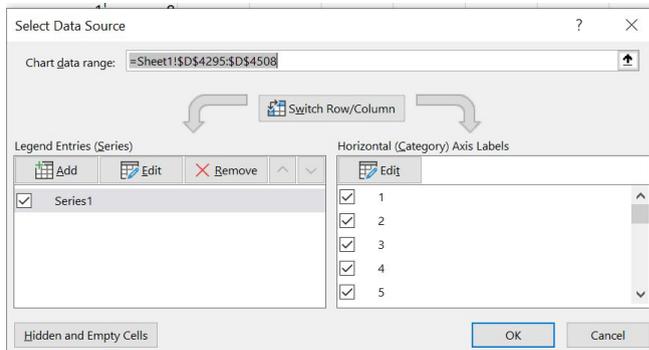
10. To change the legend so that the curves are properly labeled, click on the graph and then go to the top menu and click on "Chart Design"
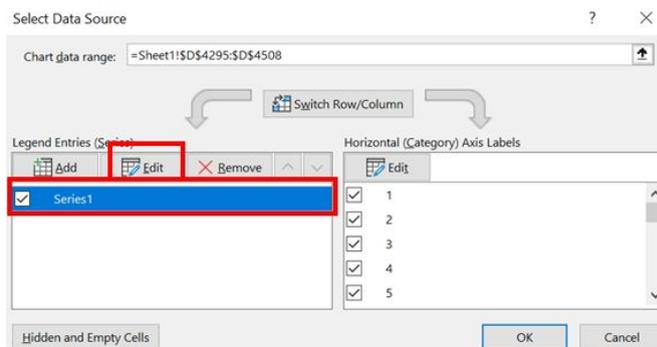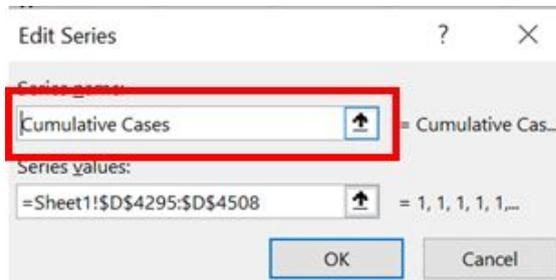

11. Click "Select Data"

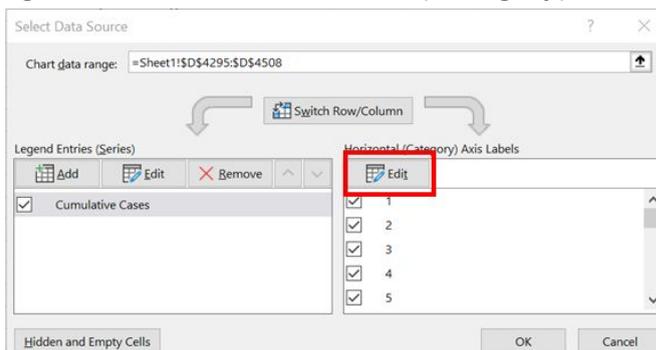12. This will bring up a new window titled "Select Data Source."

13. Select "Series 1" on the left side under "Legend Entries (Series)" and click "Edit" above it.

14. If there is something in the "Series name" box already, delete that and type in your own label. In this example, we will rename "Series 1" to "Cumulative Cases." Click "OK."
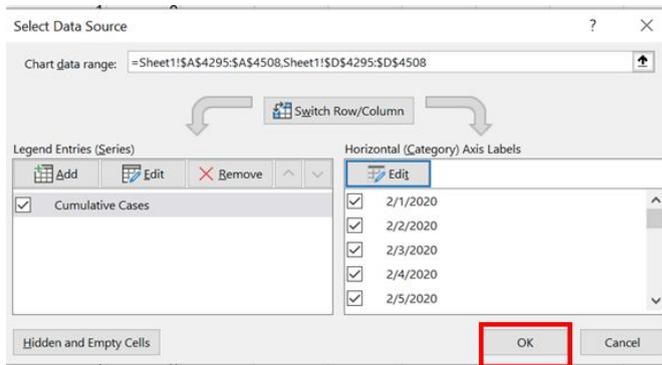

15. To change the X axis label to properly reflect the dates, select "Edit" under the right side labeled "Horizontal (Category) Axis Labels."

16. If there is something in the "Axis label range" box, delete it. Click and drag to select all of the dates associated with the cumulative cases numbers you previously selected.

17. Click "ok"

18. The final graph will look like so:

Massachusetts COVID-19 Cumulative Cases