

Ydata: Introduction to Data Science



Lecture 07: Charts

Overview

Modifying original data Table vs. only returning a modified copy

Census data analysis

If there is time: COVID-19 data analysis

Announcement

Practice 3 has been posted!

As always, practice exercises are not for credit, but I highly recommend you do them

Modifying original data vs. only
returning a modified copy

Modifying original data vs. returning a copy...

Last class we saw:

- `tb.relabel("col_name", "new_col_name")` # modifies the original Table

There is another method that renames a column but does not modify the original data:

- `tb.relabeled("col_name", "new_col_name")` # does not modify the original Table

Let's briefly explore this in Jupyter!

Census data continued...

Census Data

Every ten years, the Census Bureau counts how many people there are in the U.S.

- [Census data](#) can be used to explore demographic trends

Information about the data [from the codebook](#):

- The SEX column:
 - 1 is Male
 - 2 is Female
 - 0 is Total (Male + Female)
- The AGE column
 - 999 is total of all ages
 - 100 is total of people 100 years or older
- The POPESTIMATE2014 column: 7/1/2014 estimate



Let's explore this in Jupyter!

COVID-19 data exploration

Let's examine COVID-19 data from Connecticut

Data is from the [New York Times](#) GitHub repository

The New York Times

Coronavirus Tracker

Feb. 8, 2022, 8:39 a.m. Eastern time

Note: Each place now shows the percentage of residents age five and older who are fully vaccinated. [Edit your places.](#)



United States

Case Details

The average number of new cases in the United States fell to **253,782** yesterday, a **14 percent decrease** from the day before. Since January 2020, at least **1 in 4** people who live in the United States have been infected, and at least **1 in 367** people have died.

[U.S.A. maps & charts](#)

	ON FEB. 7	7-DAY DAILY AVG.	PER 100,000	14-DAY CHANGE	TOTAL REPORTED
Cases	348,108	253,782	76	-62%	76,767,122
Deaths	2,739	2,598	0.78	+25%	904,144
Hospitalized	104,739	115,164	35	-27%	