Plan:

- 1. Discuss the benefits/limitations to "big data"
- 2. Review where to find datasets
- 3. What to do if the data aren't readily available?

Finding Data

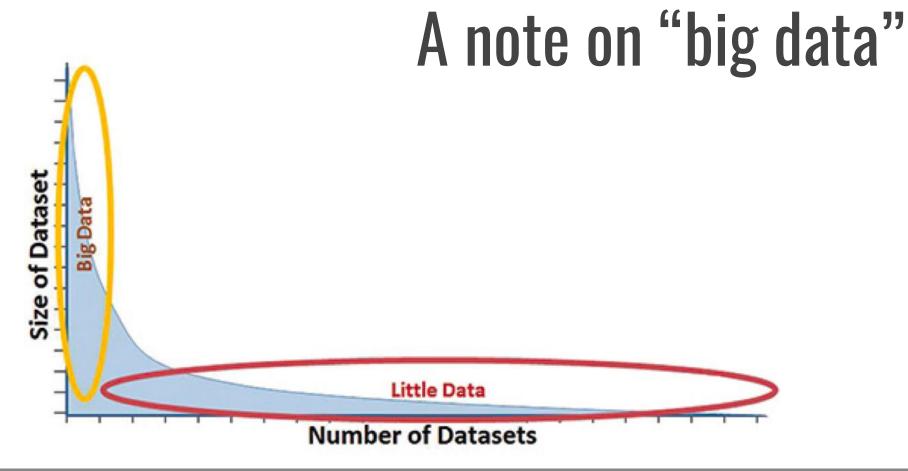
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Finding Data

Once you formulate a question, you'll need data. Data are *everywhere*. It's up to you to find the data that can best answer your question of interest. Often, this will involve multiple datasets. Typically, no one dataset will be perfect. And, often, even the combination datasets will not be perfect, but they will be good enough.



Types of data: Big vs. Little

- There are difficulties in working with large data sets.
 - The analysis cycle time slows as data size grows (slow to iterate)
 - Large data sets are complex to visualize
- Simple models do not require massive data to fit or evaluate

Big Data Approach? Small Data Approach?

What are current voter preferences about the democratic presidential campaign pool?

Which approach is more accurate?

<u>Take away</u>: The right data set is the one most directly relevant to the tasks at hand, not necessarily the biggest one.

The best projects start with a question NOT the dataset.

The most boring projects are dataset-first.

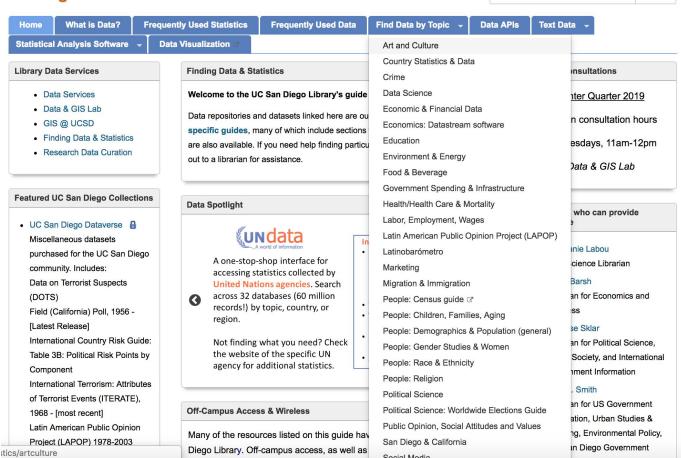
Once you figure out the question, the links on GitHub may be helpful:

https://github.com/COGS108/Projects/blob/master/Option1_Group/FinalProject

<u>Guidelines.md#dataset-resource-list</u>

Where to look for and get data for your projects?

Finding Data & Statistics: Home



Search this Guide

Search

When the data aren't ready and waiting for you

- APIs
- Web Scraping
- Collecting your own data

You can see previous COGS 108 Projects

https://github.com/COGS108/FinalProjects-Sp17

https://github.com/COGS108/FinalProjects-Wi18

https://github.com/COGS108/FinalProjects-Sp19

https://github.com/COGS108/FinalProjects-Fa19

https://github.com/COGS108/FinalProjects-Wi20