Data Cheat Sheet: Pivot Tables

**Data File Formats:** Upload Excel or text formats to GSheets by going to file -> import and then selecting upload. Then, convert into a Google Sheet.

* Excel Workbook: .xls (older versions) or .xlsx. Saves sheets, pivot tables, formatting, etc.
* Text formats: Can include more data than Excel formats. Named after what separates each value.
  + .csv. Comma-separated values. Most common. Best if given the choice.
  + .tsv. Tab separated values.
  + .txt. Can have various formatting.
* Code-friendly formats. Most common are .xml, .json, .html.

**Pivot Tables:** Probably the most powerful feature of GSheets for journalists. Allows you to create a table that summarizes your data using calculations like mean, median, count, sum and percentages.

* Use a pivot table when each row of data is a distinct entry. For example, in the survey data, each row is a person’s response. Contrast that to the small business data we looked at where each row is a summary of all businesses that fit a description.
* Data (in the dropdown) -> Pivot table.
* Simple way to start: Add one “row.” Then, add that same category under “values.” Google Sheets will try to guess which is the most useful summary calculation (like mean, sum or count). Change this to count to display the distribution of different values in your dataset.
* Useful features in pivot tables:
  + You can **sort** inside the table (under Rows or Columns)
  + You can **filter** by a value (by adding a category to the Filter box -- under Values)
  + You can do **calculations** on values, such as finding percentage of the whole (dropdown under Values)
  + You can **manipulate dates** by adding a date field to Rows, then right clicking the pivot table and selecting “Create pivot date group”

**Creating Charts in GSheets:** Great for exploring your dataset, even if they won’t be used in publication.

* Highlight the values you want to chart (and the titles/labels). This will help GSheets guess which chart type and settings you want.
* Start by selecting Insert from the toolbar, then chart.

**Paste Special:** A more targeted form of copy-paste that allows you to choose which attributes of the data you want to bring over. For example, you may only want to copy and paste a cell format or only the values (therefore removing the underlying formula).

* Copy like normal. Then, go to the location you want to paste into. Right click and select paste special to bring up more options.

The **explore** tab is your friend!