Project #2: First Data Visualizations

Visualize the data you secured in project #1:

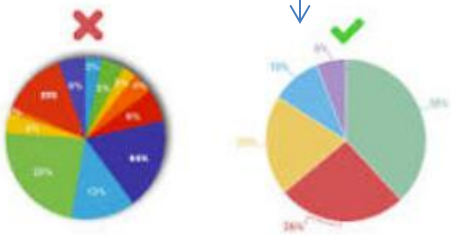
- use D3 as shown in class with either one plot at a time or sequentially on a scroll-down webpage

Your visual interface should be able to (each 20 pts):

1. create a drop-down menu that allows users to select a variable
2. produce a bar chart (categorical variable) or histogram (numerical variable) of the selected variable (make sure you make that distinction)
3. produce a pie chart of the selected variable (make sure you have no more than 5-6 slices, sum the smaller ones into a single 'others' slice)
4. produce a scatterplot of two selected variables (use a radio button to determine which of the two variable axes is to be loaded)

Deductions for:

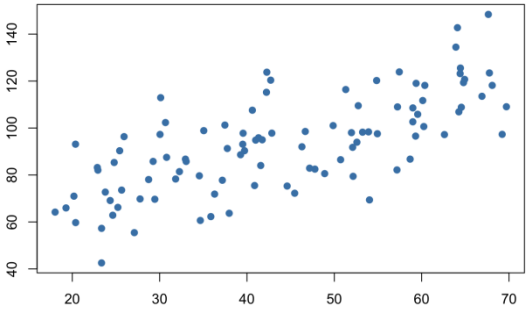
- missing labels (axes, ranges, sectors, legends)

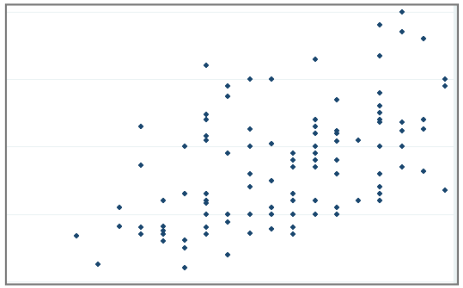


Notes on Scatterplots

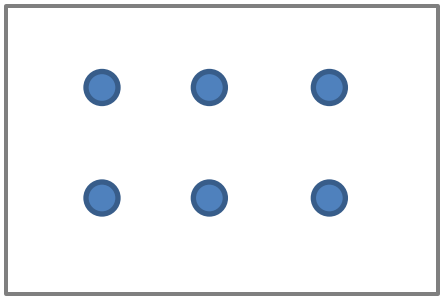
You can plot both numerical and categorical variables

- when one or both variables are numerical this is straightforward

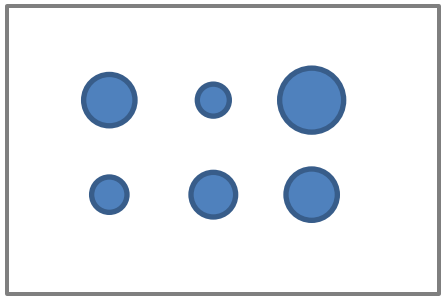




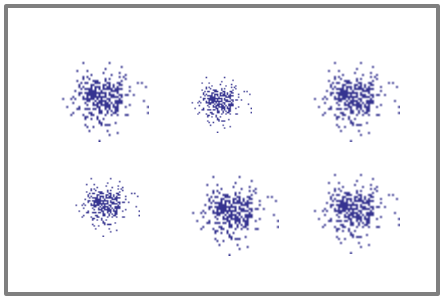
- when both variables are categorical you have three options



just overplot the points so they look like one point



scale disks in proportion to the number of points (more informative)



jitter each plotted point so a cluster with more points appears denser (more real)

Deliverables

You need to upload the following by the due date

- please use Brightspace for your submission
- voice narrated video file that shows your software in action
- all source code via zip file or other archive format

Grading

- TAs will pick students at random for thorough code review sessions
- you better know your code !!!
- so, please do not just copy code
- or even worse, videotape someone else's program

Submission via Brightspace
Due Tuesday, October 8, 2024

Video Recording

Video recording

- you can use Zoom and enable Recording
- captures screen and voice at the same time
- a good program is Apowersoft Screen Recorder
- it's free for a version with sufficient capabilities

Taking up Help With Coding

D3 templates

- OK it take code snippets and templates to get you going
- not OK to take entire implementations and label them as yours
- must credit the source of snippets and templates

ChatGPT

- OK to ideate approaches as a learning tool
- OK to write code snippets
- not OK to have it do all of your project
- must credit ChatCPT on the role it played in code development
- see next slide how

Violations of these rules will result in zero credit

How To Cite Code Writing Support

Please annotate the code with the sources you used to generate it when not written by yourself, like ChatGPT, Copilot, templates obtained from the web, etc.

It's good software development practice. You can select the proper granularity at which you want to do this.

Furthermore, please also summarize the sources and where they were used in the report that is usually submitted alongside the assignment.