DATA 1500 - Final Narrative Exploration Michelle Liu 4/2/25

#### **Prompt**

Propose a dataset or dataset(s) for your final narrative, and in a doc write ~300 words about where the data comes from, why you think it's interesting, and what analysis avenues you think might be interesting to explore.

Use the dataset(s) to create three interesting visualizations in ggplot, and include them in the doc as well. You can adjust your "chart trio" charts if you're working with the same dataset.

### The graphics:

- 1. Each one should have a focused, interesting finding with a headline/subhead
- 2. They do not have to be polished in Illustrator, although if you want to reuse your "one great chart" that's okay (but you'll need to incorporate any feedback you received on that assignment.)

Put doc in your Rstudio project folder, and submit the entire zipped folder.

**Dataset:** North Burial Grounds

- 1. Tombstone conditions
- 2. Tombstone with locations

This dataset comes from North Burial Grounds, a 110-acre historical cemetery located in Providence. The project is done in collaboration with the North Burial Grounds as part of the Swearer Center's Community-Engaged Data & Evaluation Collaborative (CEDEC) initiative. As such, a lot of the avenues of exploration are suggested by the community partner's needs.

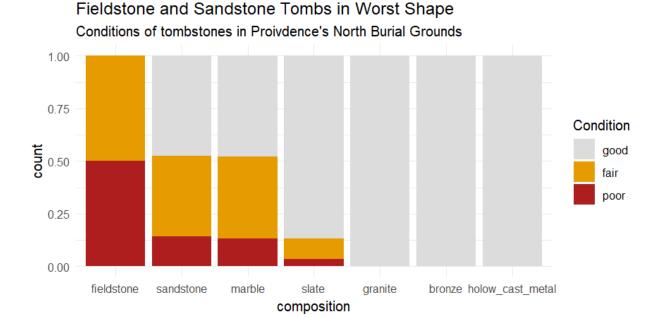
The data are split into two datasets: one based on a survey conducted roughly 30 years ago on the condition, legibility, stone type, and approximate year of installation of tombstones, marked by the section within the cemetery. The second dataset contains information on individuals' birth and death locations and years based on tombstone information.

Some areas of exploration Annalisa, who works at the North Burial Grounds, have proposed include the following:

- 1. What do the states of the stones look like by section? If able to access it, shape file visualizations.
- 2. Can we see an overall migration map of where people are born and die? Note that many individuals who die outside of Providence may still be buried here, or at least a tombstone is here, at NBG.
- 3. Can we help the public understand how different stone types change over type, in particular how marble stones deteriorate faster?
- 4. If able to access newer survey data, can we see how legibility and conditions have changed since the last survey (the current provided dataset) to inform preservation decisions?
- 5. How does the popular stone type change over decades?

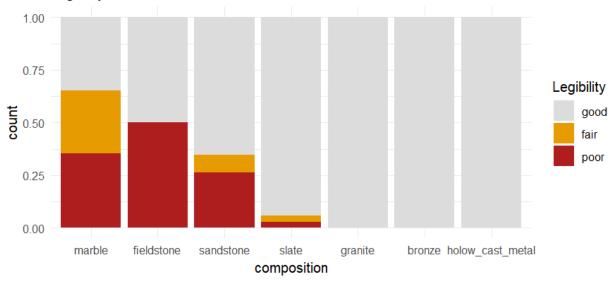
Some avenues of exploration I might also explore include choropleths of where people are born or die, not necessarily just migrations. I'd also like to visualize outlier death or birth locations, notably ones outside the US to see if there are trends – it would also make for a fun visual!

### **Condition & Legibility vs. Stone Type**



Dataset from 1990s North Burial Grounds Survey

# North Burial Ground's Marble and Fieldstone Tombs Suffer Legibility Issues Legibility of tombstones in Proivdence's North Burial Grounds



Dataset from 1990s North Burial Grounds Survey

## **Migration Maps (US-Only and World)**

North Burial Grounds Final Resting Place of Individuals All Over Map of Birth to Death for NBG Tombstones from 17th-20th centuries



Dataset from 1990s North Burial Grounds Survey; only known birth and death locations shown

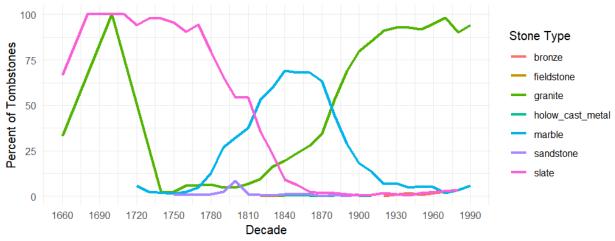
North Burial Grounds Final Resting Place of Individuals All Over Map of Birth to Death for NBG Tombstones from 17th-20th centuries (US Only)



Dataset from 1990s North Burial Grounds Survey; only known birth and death locations shown

### **Stone by Decade**

Marble Tombstones Peaked in Popularity in the 1840's and Have Declined Since Percentage of Tombstones Stone Types Installed at North Burial Grounds by Decade



Dataset from 1990s North Burial Grounds Survey

### **Condition by Section**

\*\*\*Don't count this one (haven't updated since One Great Chart assignment, it's just here to keep everything together)\*\*\*

# Sections FG and AK Need the Most Attention

Conditions of tombstones in Providence's North Burial Grounds

The A-sections are the oldest, with AC dating back to a median year of 1782

Condition

FG AK AQ AA AI AR AC BA AB AX AD AE AG AJ BC AO AF BB AP BF BE BD AS AH AY VA

Section

Fair and Poor conditions shown—remainder in Good condition.