# How to Win the ASA Poster Contest

## Yearly Average of Popular Graph Types



Legend:
- Line Graphs
- Bar Chart
- Box and Whisker
- Pie Charts
- Heat Map
- Scatter Plot

$$\overline{x} + SE$$
$$\overline{x}$$
$$\overline{x} - SE$$

## Diversity of Graphs by Year



Number of Unique Graphs

y2015, y2016, y2017, y2018, y2019, y2020, y2021, y2022, average

*Data was collected from the top three posters in the 4-6th, 7-9th, and 10-12th ASA competition categories from 2015-2022.

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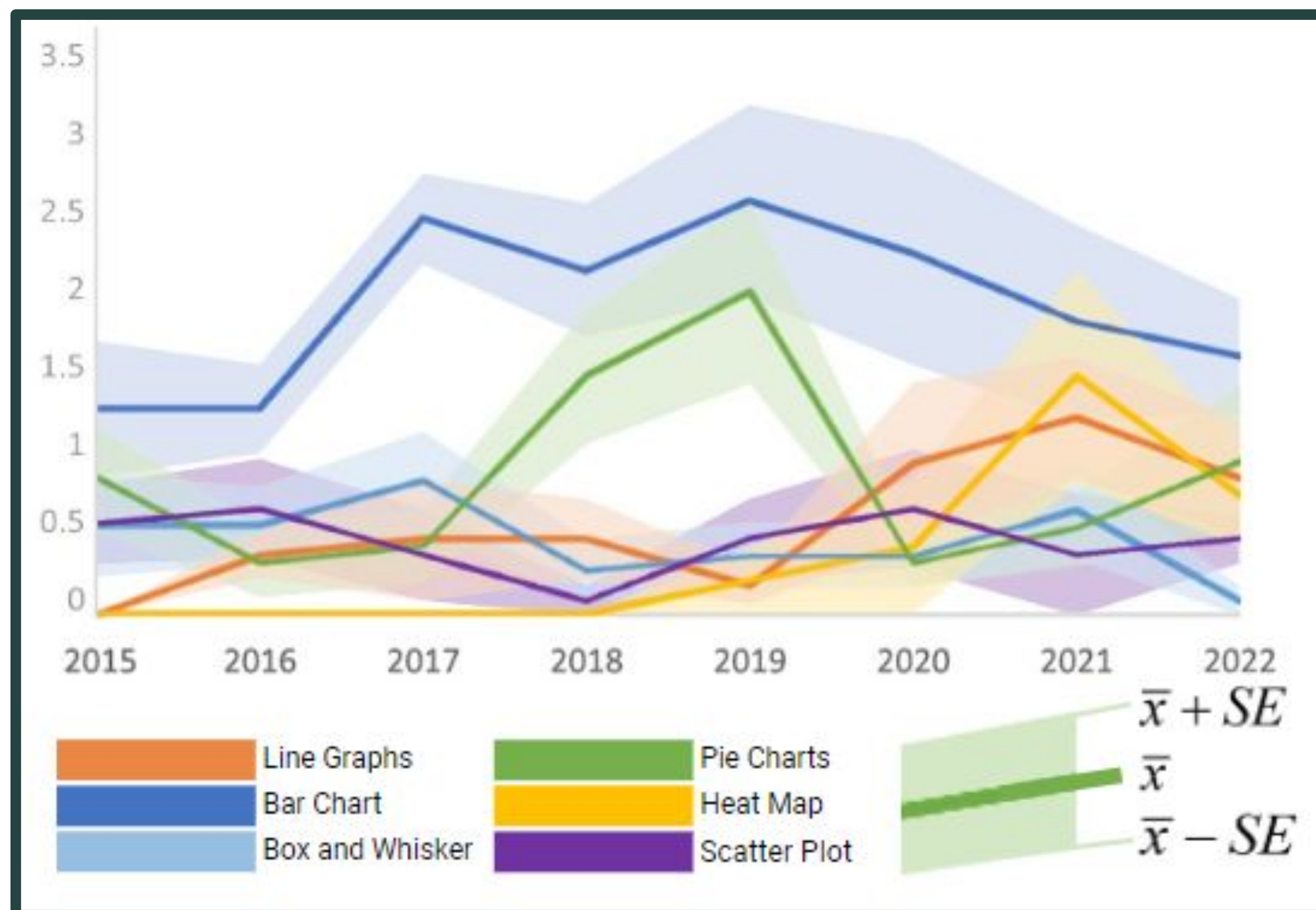
What factors make for a good ASA poster? How has that changed over time?

Trends in past winning posters help us create the ideal poster for the competition.

ASA winners have always valued bar charts for their simplicity. In fact, Every single winner from 2017 featured at least one bar graph. Recently, more complex graphs have started to rise in popularity, and there has been a corresponding decrease in bar graphs since 2019.

Over the years, The ASA Data Visualization Competition has seen a significant increase in the amount of area taken up by graphs and in the diversity of graphs in the winning posters.

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**Sample images are taken from past ASA winners\* (2015-2022)**
All graphs and text are converted into solid colors



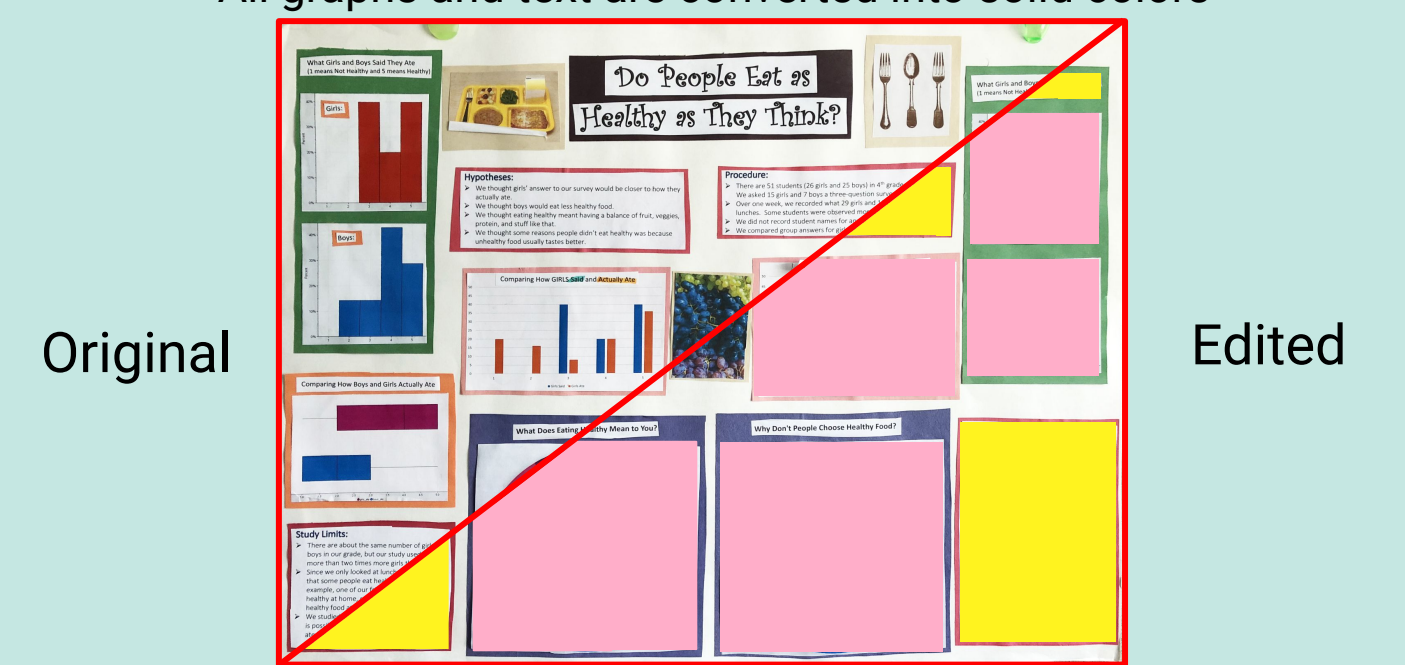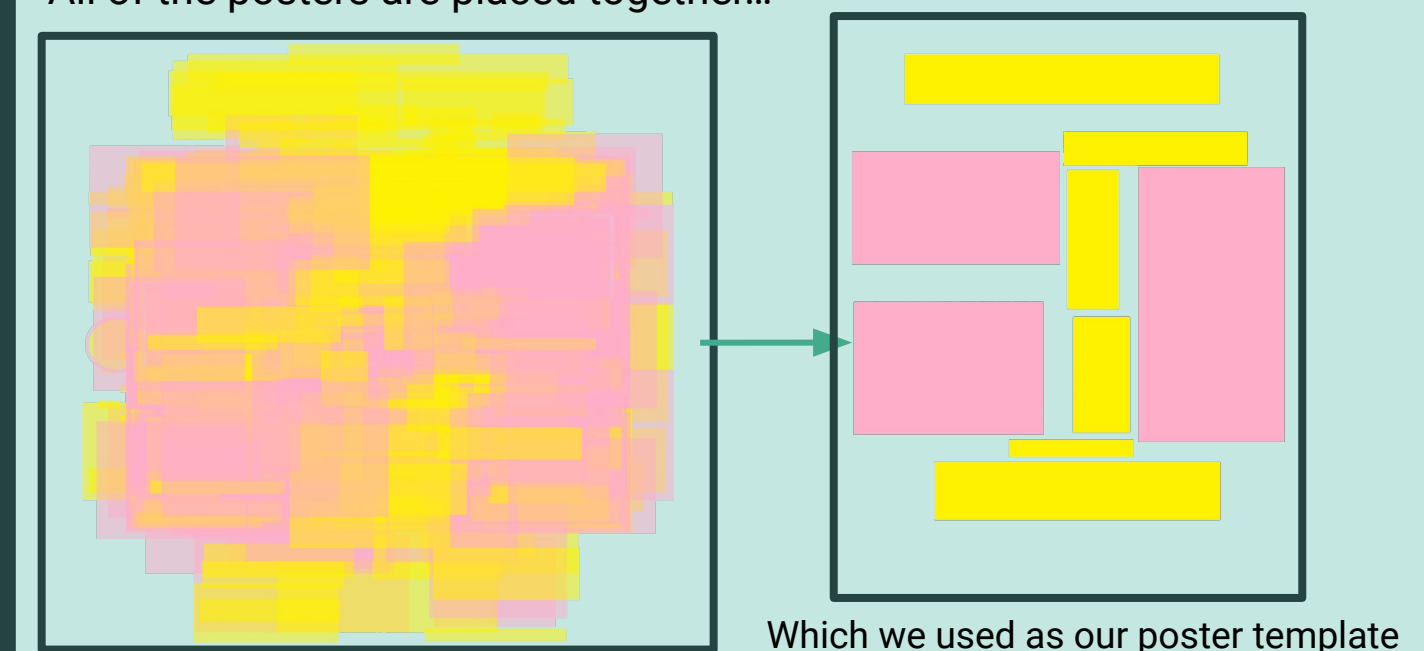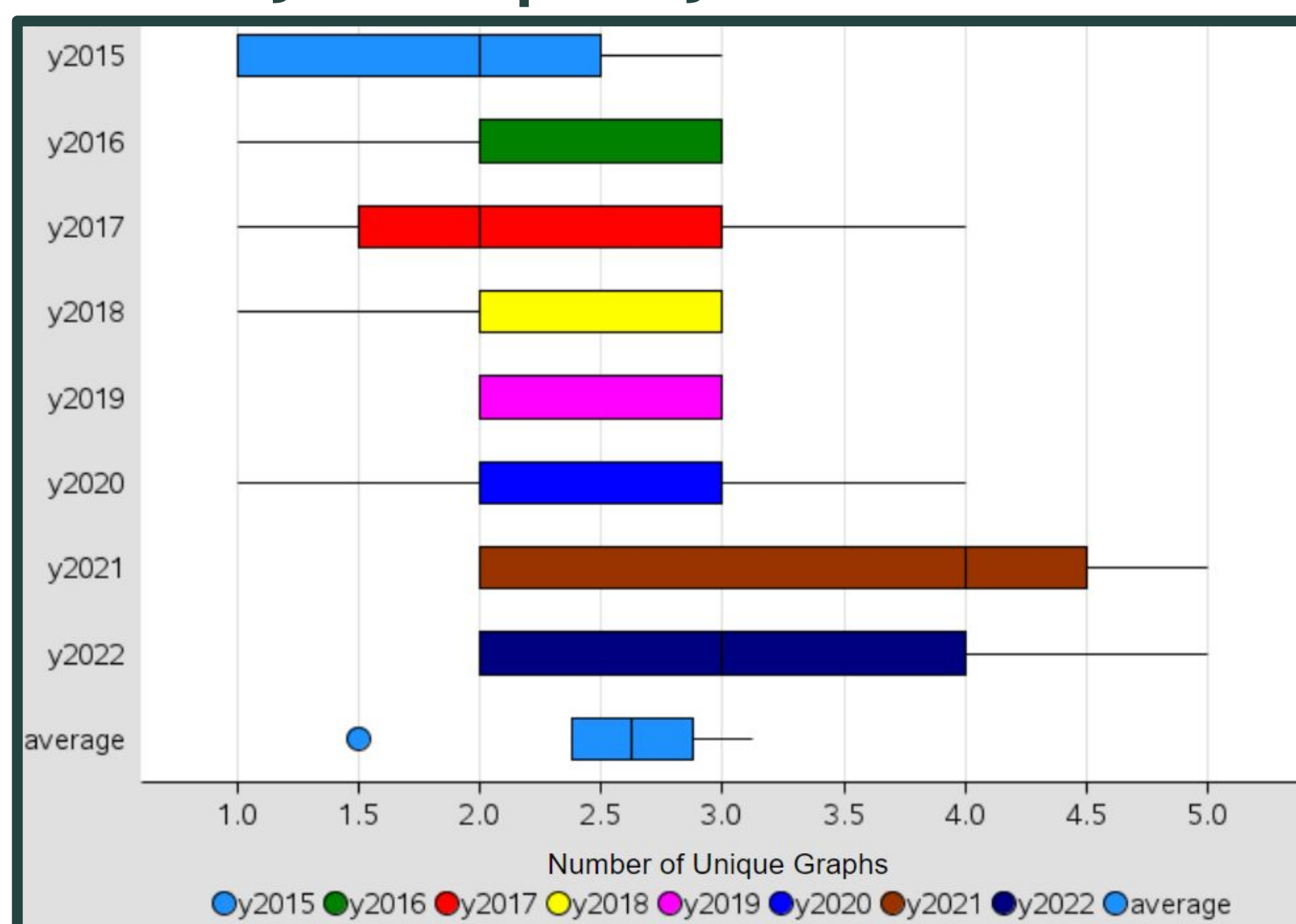Original                    Edited

Image credit: Michelle Harrow, Rebecca Harrow, Bryn Gordon, and Hayden Makuch (2019)

All of the posters are placed together...        and processed into a useable format



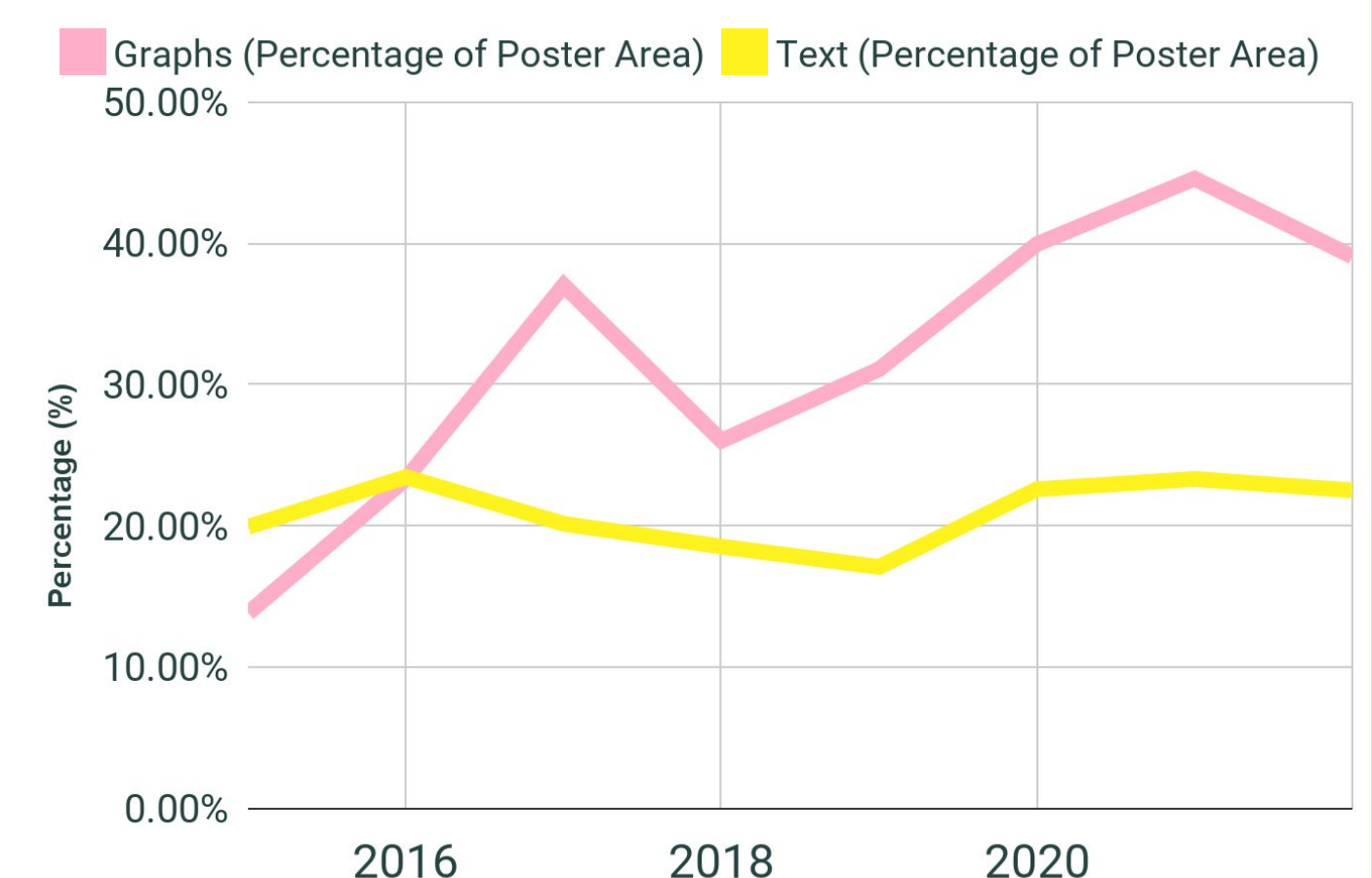Which we used as our poster template

## Poster Area Distribution Over Time



- Graphs (Percentage of Poster Area)
- Text (Percentage of Poster Area)

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In the winning poster there generally were three main graphs, along with supporting text, a brief introductory text plot, a large conclusion (this one), and a title. There is a correlation between the amount of space graphs take up and the diversity of types of graphs used. They both saw a rise in popularity until 2021 when the number of unique graphs stabilized between 4 and 5 (ours has 4), and the area of posters taken up by graphs stabilized between 35% and 40%. Our poster ended up covered by 37% graphs and 22% text. The types of graphs used varies wildly from year to year although bar graphs are consistently the most popular despite declining since 2019.

[https://docs.google.com/spreadsheets/d/1k5z7zRfZ0Bq6vFPbHnqhuR0DKwPU3_fzMaYE2LWh3jc/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1k5z7zRfZ0Bq6vFPbHnqhuR0DKwPU3_fzMaYE2LWh3jc/edit?usp=sharing)

We worked in the spreadsheet linked above. It has all of our data analysis and data.