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1.

Link: <https://63616e.github.io/CS4460-Final-Project/>

Video: <https://www.youtube.com/watch?v=4AGVxBFKRW8>

2.

Transportation Fatalities by Year

3.

We've decided to construct a line chart. A line chart is perhaps one of the most effective yet simple ways to provide data about trends. In this particular situation, we would like to highlight the trend of transportation fatalities for several ways of transport. We chose this particular graphing style, not because of the ease of construction but rather the ease of interpretability for a wide audience which this chart aims to present.

Several ways a piece of information could be visualized to show trends over time. Some examples include a histogram, bubble charts, and heatmaps, to name a few. However, all of those types of visualizations require areas that we know, according to the rules of perceptual scaling, that areas are less favorable compared to length and lines. Given all of the other ways in which trends can be visualized require a differentiation using color or dimension, and they have a less data-to-ink ratio, we've decided to use a line graph.

4.

We've used most of the dataset that was given to us, excluding the per 100k cases since we would like to show the real numbers of the events occurring instead of the ratio in which they happen at.

We've made some special considerations for more inclusive designs. We're using the Okabe-Ito colormap to make it more color-inclusive, in addition to using the least amount of color to portray the most amount of information, such as making the background light gray for the year range to have a subtle visibility that's not eye-catching and making the range box red as we want the users to realize that it is an interactable object. There's no particular reason why a particular group is colored a certain way; however, there was special attention given to ensuring different color groups (i.e., no shades of the same color group and no pastel colors for maximum visibility).

5.

The size of our visualization is not a set value that forces the end-user to resize their screens but rather a *relative* percentage that covers 60% of their screen. This way, there's no necessity to pick a specific size since the screen sizes differ depending on several factors, including whether the user is using a mobile device. Our website is still manageable through mobile landscape browsing. Although screen sizes are getting bigger for desktop users (1), there's no guarantee that this change will continue due to a dramatic change in internet usage through mobile devices.

[1] <https://www.nngroup.com/articles/computer-screens-getting-bigger/>