Graphic 1: Does Education Pay off?

The graphic URL: https://supertrashpanda.shinyapps.io/Dashboard_Jianing/

Executive Summary:

The R Shiny dashboard utilizes the national median annual earnings data by the highest level of educational attainment from 1990 to 2019 published by the National Center for Education Statistics, and it aims to visualize annual wage gaps between workers (male or female) with any two levels of degree. The median annual salary over the years for each cohort is represented by a continuous line on the chart, and the gaps between any pair of lines are readily apparent. Moreover, the dashboard attempts to answer the long-discussed question: will the cost of pursuing a higher degree actually pay off? With the income gap data and the inputted number of years and US dollars it costs to reach another education level, the Shiny app will compute and display the exact expected time length it takes to recover the opportunity cost of the additional education, that is, the theoretical payback period of the education. The visualization of such wage gaps sheds important light on this phenomenon and is instructive for us to understand income inequality and the benefits of education from a new angle.

Several minor accessibility issues:

1. The font size is small and slightly inconspicuous, due to the substantial information we are obliged to present on the dashboard.
2. The concept of payback period of additional education might not be easy to grasp instantly to the audience, yet it makes a lot of sense in benefit-cost analysis of education and is worth displaying.
3. The English in the dashboard might not be perfect in explaining its functionality, as we are non-native English speakers and have trouble phrasing the sentences succinctly.

Graphic 2: Shifting Income by Gender and Education

The graphic URL: https://ashizhou.shinyapps.io/d3_rshiny_dashboard/

Executive Summary:

This R Shiny app uses data from NCES Table 502.20 - median annual earnings data by the highest level of educational attainment from 1990 to 2019. It includes a bar chart race and aims to report the typical annual salary of workers in the USA aged 25 and over by gender and the highest education level. This visualization details the median salary of each education level from 1990 to 2019, reports the salary in current dollars and constant 2019 dollars and compares different gender cohorts.

Several minor accessibility issues:

1. The median salary labels on the right of the bars and education level labels inside the bars are somewhat small, which may cause some accessibility issues when perceiving the graphic.
2. The median salary labels and education level labels would collapse when showing the females' median salary in current dollars in the year 2020 since the labels are auto-created through JavaScript with fixed spacing from the bars.
3. The R shiny page is not formatted well on mobile devices since the chart would be squeezed.