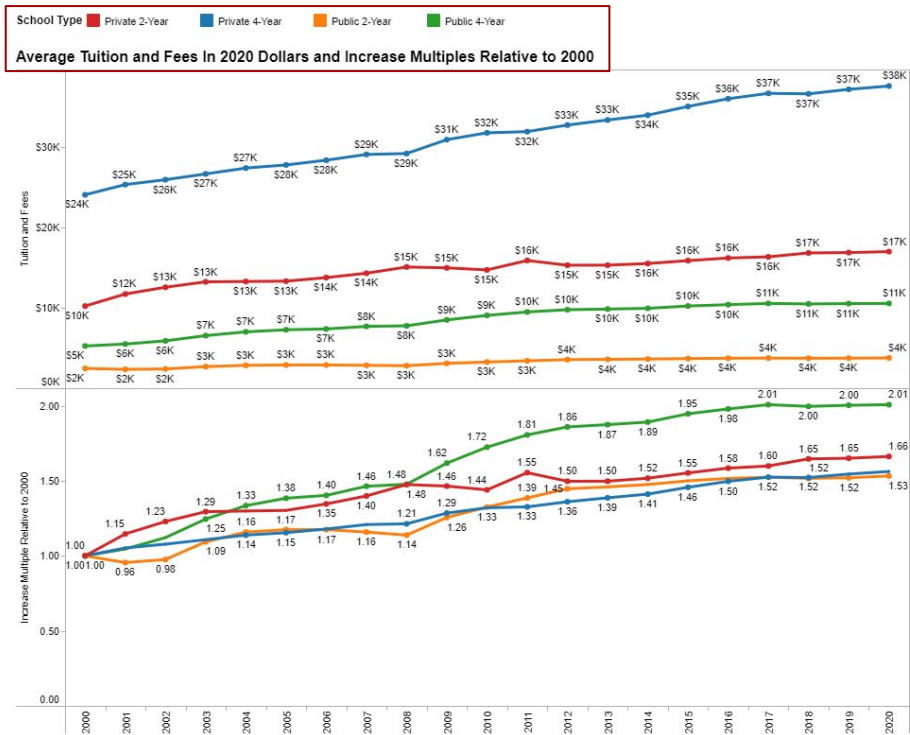

Trends in U.S. College Tuition

Erin Werner, Mike Fan
W209 | Spring 2021

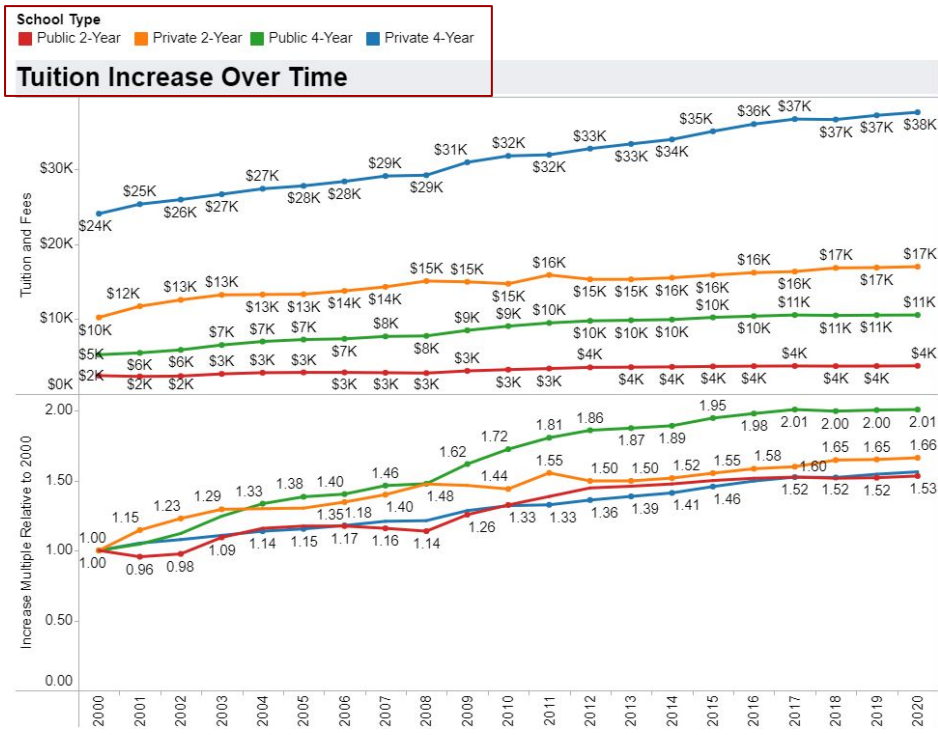
What We Changed (Must and Should Haves)

Increased Filter and Chart Title Font to Improve Visibility

Before

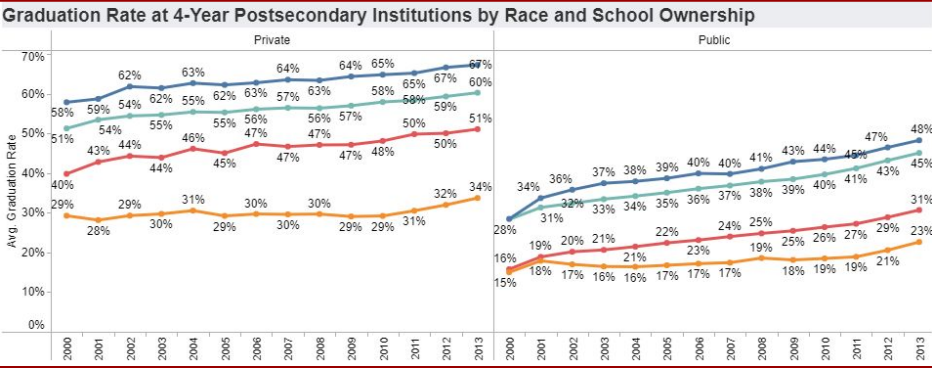
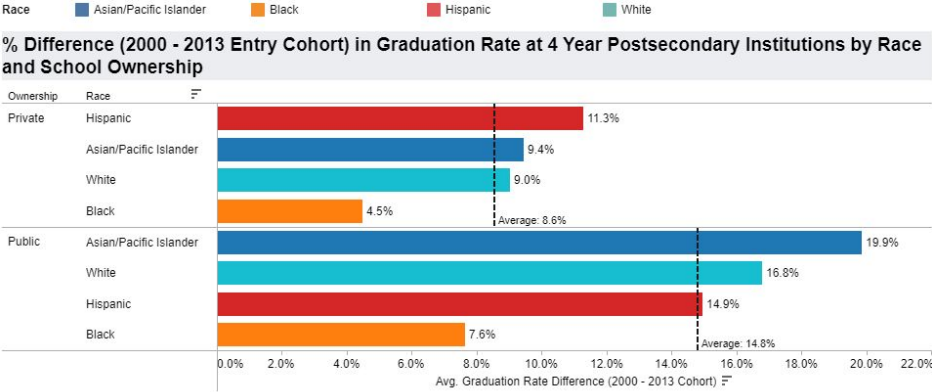


After

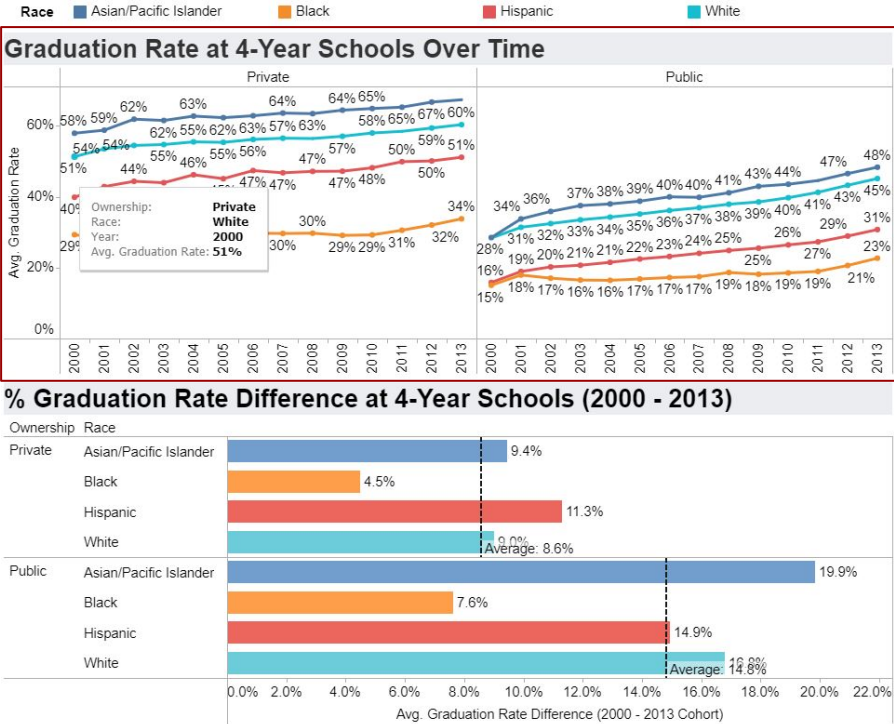


Change the Order of the Graduation Rate Visual

Before



After

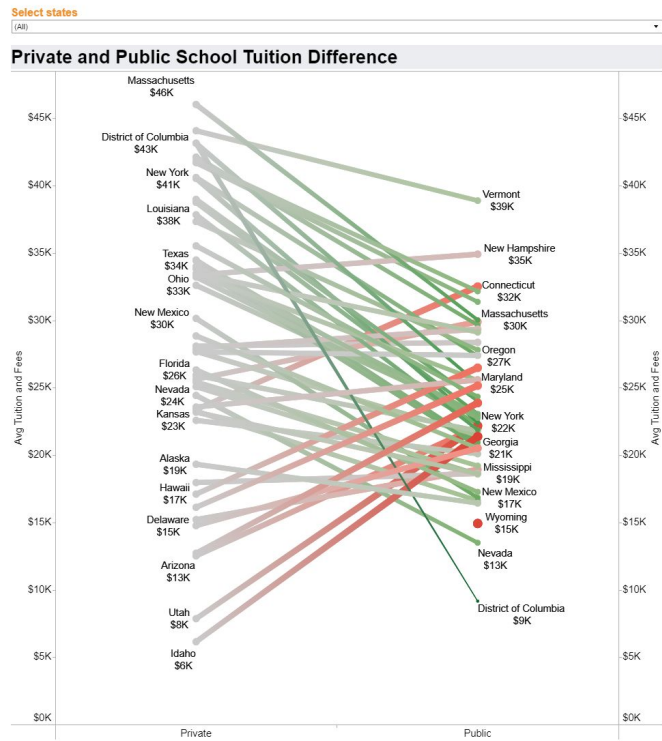


Provide Context, Purpose and Instructions of Use

Before

State Breakdown

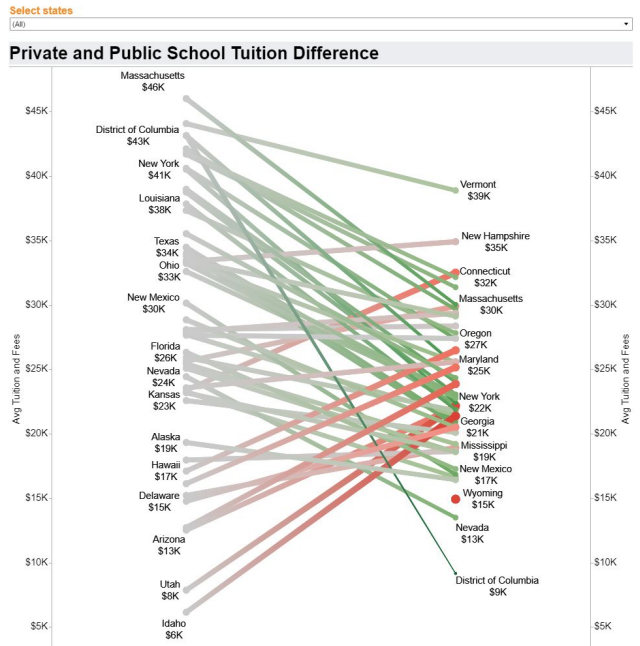
The first visualization below displays the 2019 average tuition cost between private and public schools (2 and 4 year) across states.



After

2. State View

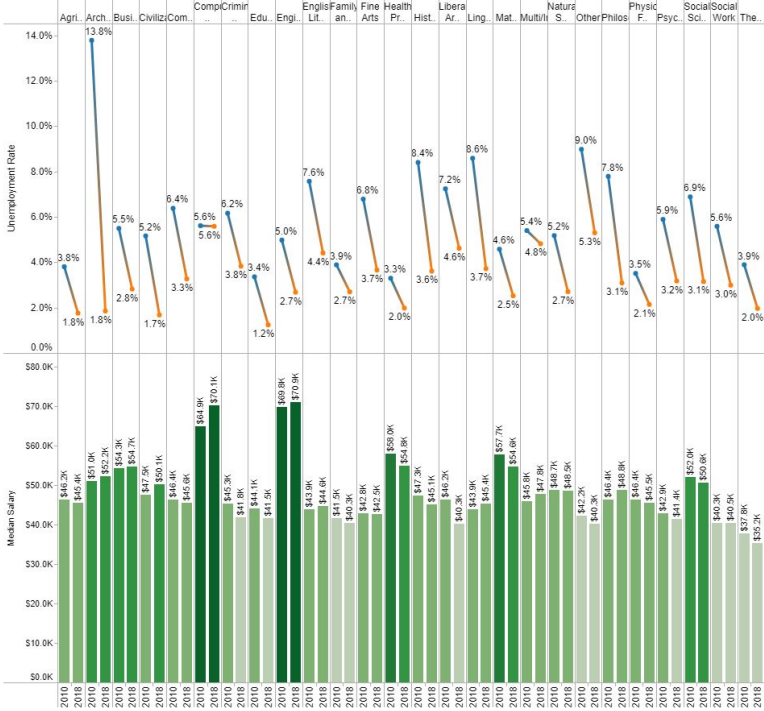
- How to Use
- Select multiple states to compare the average tuition cost between private and public schools
 - Line color denotes the change in tuition between private and public schools (green denotes decrease while red signifies increase)
 - Line width denotes the magnitude of change from private to public school tuition; positive changes (private is more expensive than public) will result in thinner lines as the difference increases from private to public while negative changes (public is more expensive than private) will yield thicker lines as the difference increases from public to private



Shortened Chart Titles to Improve Clarity

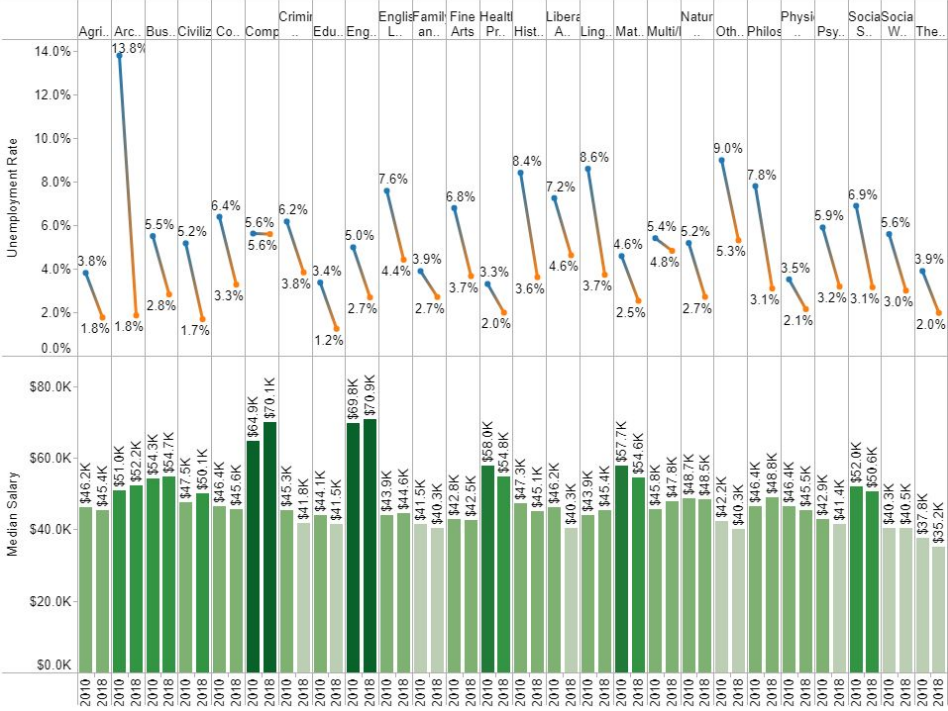
Before

Average Unemployment Rates and Median Salary for 25 to 29 Year Old Bachelor's Degree Holders 2010 and 2018



After

Unemployment Rates and Median Salary By Field of Study
25 to 29-Year-Old Bachelor's Degree Holders in 2010 and 2018



Consistent Label Colors Across Charts

Before

Race Asian/Pacific Islander Black Hispanic White

Immediate College (2- and 4-Years) Enrollment Rate of High School Graduates

Race Asian/Pacific Islander Black Hispanic White

% Difference (2000 - 2013 Entry Cohort) in Graduation Rate at 4 Year Postsecondary Institutions by Race and School Ownership



After

Race Asian/Pacific Islander Black Hispanic White

Immediate College Enrollment Rate of High School Graduates

Race Asian/Pacific Islander Black Hispanic White

Graduation Rate at 4-Year Schools Over Time

Tool Selection

Tableau and Observable



+a|b|eau

- Enables rapid exploration of each individual dataset
- Enables rapid experimentation of different information and visualization style
- Ability to fuse multiple visualizations into a single dashboard for coherency
- Ability to join multiple data sets together through foreign keys
- Freedom and ease of manipulating the placement and colors of labels and filters
- Can be easily embedded in Observable

🕒 Observable

- Supports markdown and HTML for flexible formats
- Combines both data visualization and text into a single notebook
- Collaborates between multiple users (comments and replies similar to Google Suite)
- Provides web-server iFrame embed code out-of-the-box
- Ability to select one cell or multiple cells for embedding
- Quickly test changes by republishing notebook

Future Considerations

Top 5 Potential Enhancements

1. Expand analysis into other countries to highlight differences in education system
2. Conduct correlation in addition to comparative analysis
3. Dig deeper into the relationship between school expenditure and student outcome (short and long term)
4. Granular examination between sexes and races
5. School recommender system based on user input/prompts

Demo

- [Dashboard](#)