

Assignment:

Pay & Make?

DATA ANALYSIS

Concept:

As a student who went both graduate and undergraduate school in USA, since Trump planned to stop providing visa to international students who take online class, and force universities to reopen, I started to think about the severe challenging that higher education is facing.

Data set:

My data set is from Jesse Mostipak <https://www.kaggle.com/jessemostipak/college-tuition-diversity-and-pay>

Data set 1: early career salary, mid career salary, make the world better place, percentage of STEM major.

Data set 2: in state tuition, out of state tuition, school type.

Tool: EXCEL, d3.js, html, css.

Analysis process:

1. Combine 2 data set into 1 based on same school name and state.
2. Sorting data based on salary and tuition.
3. Consultate the increase rate of salary.
4. Consultate the increase rate of tuition between in state and out of state.

Discovery:

1. Private school is more expensive than public school.
2. In the most case, the more you pay for school tuition, the higher your salary will be.

3. There are significant difference between in state tuition and out of state tuition of public school.
4. There are a significant difference between public and private school in average early career salary, mid-career salary, and tuition.

Research Student Loan:

Based on the analysis, I start to look more into student loan.

Student Loan Debt Statistics In 2020: A Record \$1.6 Trillion, by Zack Friedman:
<https://www.forbes.com/sites/zackfriedman/2020/02/03/student-loan-debt-statistics/#48cb4c86281f>

College grads expect to pay off student debt in 6 years—this is how long it will actually take, by Abigail Hess: <https://www.cnbc.com/2019/05/23/cengage-how-long-it-takes-college-grads-to-pay-off-student-debt.html>

Discovery:

1. The average loan is 32731 \$
2. It takes up to 20 years to pay back the loan.

Regarding Trump's order against the international students, I started to research the impact on international students.

What 1.1 million foreign students contribute to the U.S. economy:
<https://www.reuters.com/article/us-usa-immigration-students-economy-expl/explainer-what-1-1-million-foreign-students-contribute-to-the-u-s-economy-idUSKBN2492VS>

Discovery (2019):

1. International students pay full price for tuition.
2. Many universities accept more international students for financial benefit.
3. 5.5% enrollees of high education.
4. \$44.7 billion to US economy.
5. Supported 460,000 jobs in the US.

In Conclusion:

1. Tuition is high, and it might not mean you will make good money after you pay that price. Based on the data, it might always be a good idea to attend university with high price.
2. International students have big contribution for high education economic, but we are facing a hard political and policy time.
3. It shows a deep connection between the capital and education which many people including me should reconsider at.

Does high education as the same as it used to be? This is a question worth to think.

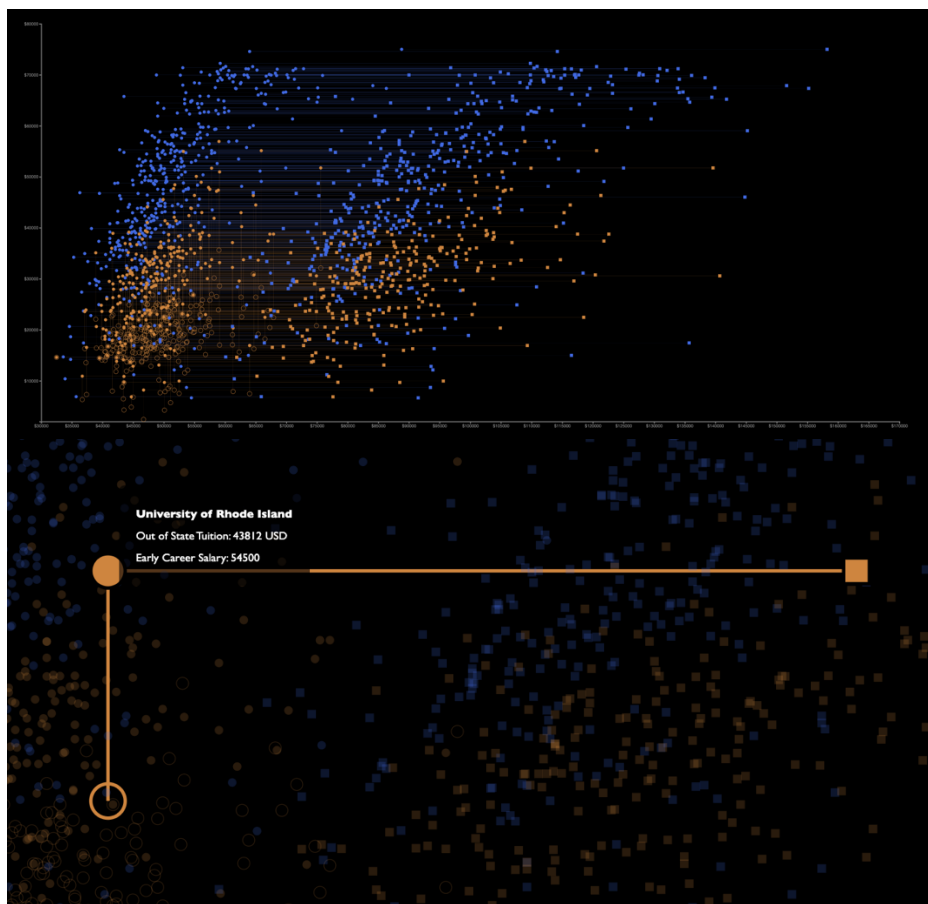
DESIGN PROCESS

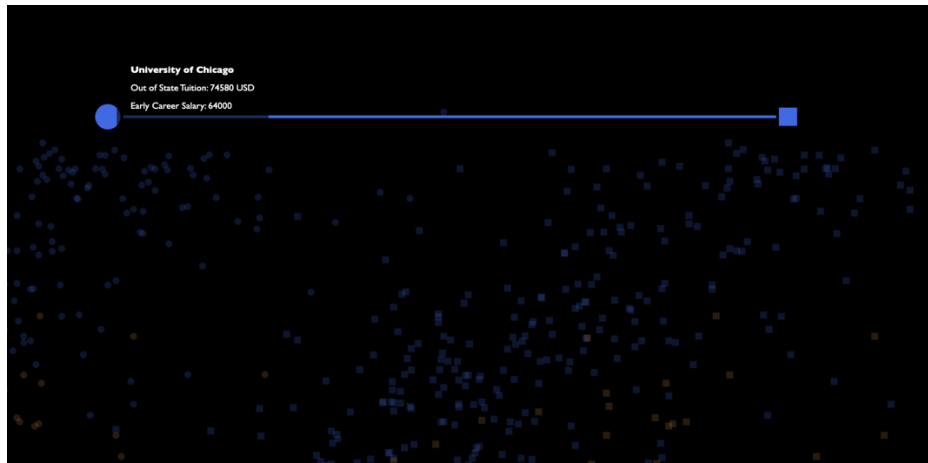
What I try to show:

1. The difference of salary between school price and school type.
2. Compare the tuition, salary to student loan.
3. The difference of tuition between in state and out of state.
4. The contribution of international students to the US economy.

First Step: visual difference between tuition and salary

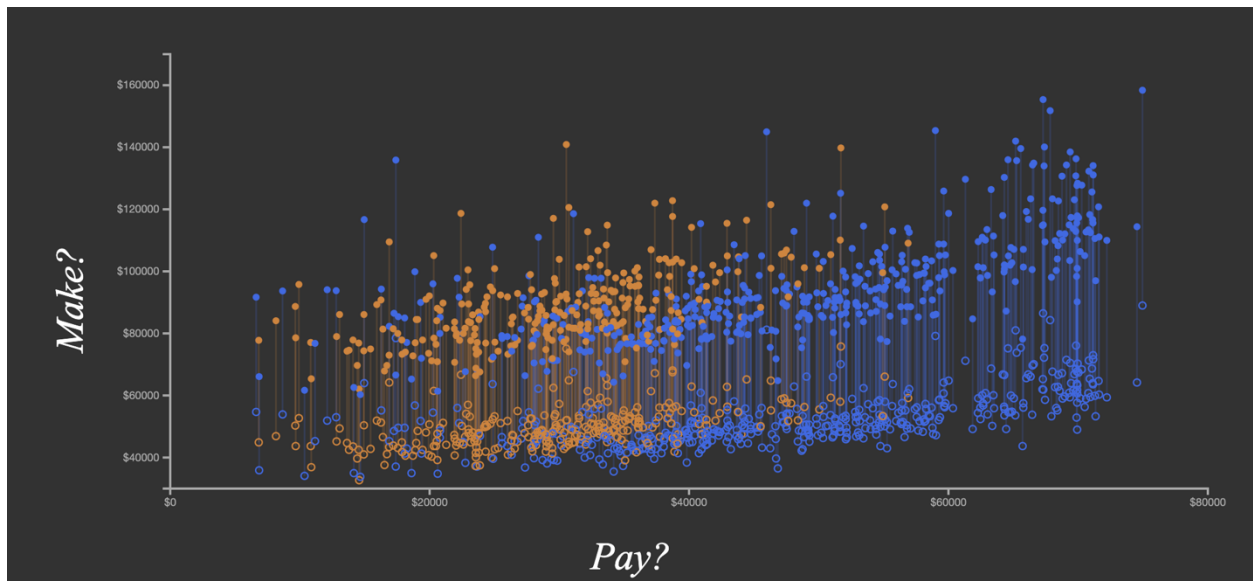
First Try:





I try to capture the difference between in state, out of state, private, public, early career salary, mid-career salary at the same time. It is a little bit hard to understood. Therefore, I remove the instate tuition, only keep the out of state tuition for public school.

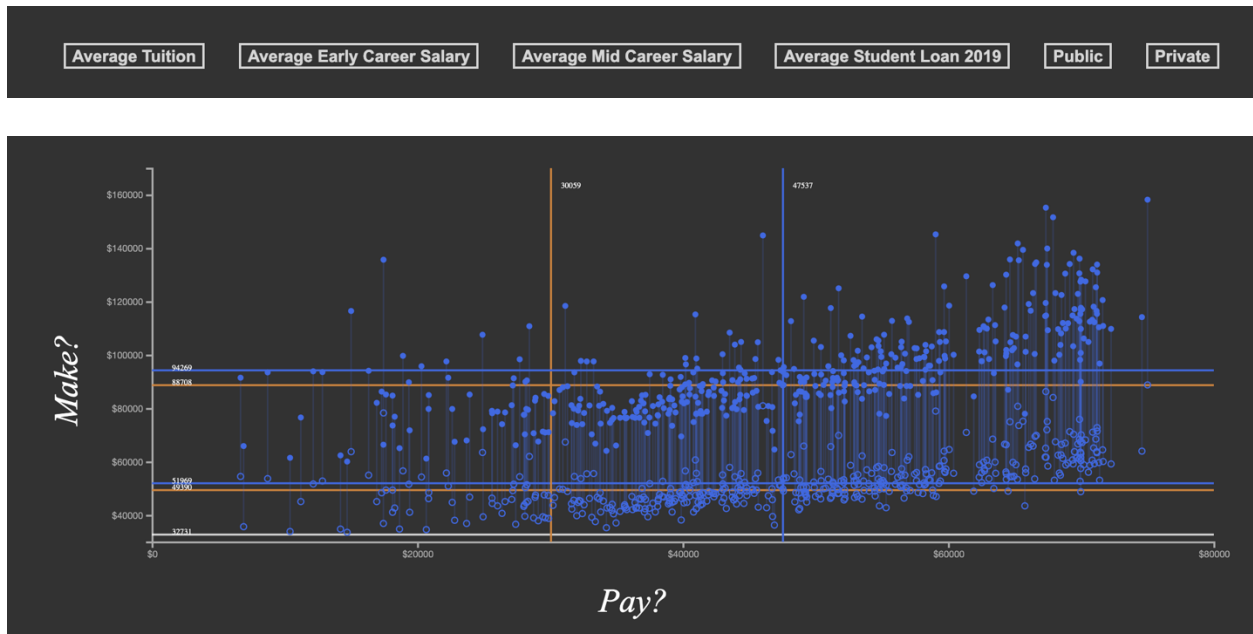
Second Try:



It is more clear to show the difference between public school and private school in tuition and salary.

Second Step: add filter to comparison

To show the information for student loan, and the average of tuition, early career salary, mid career salary, I create some buttons.



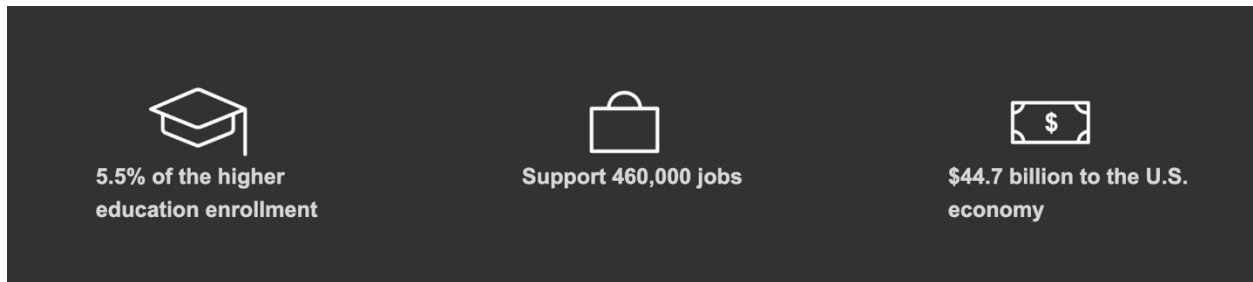
Tired Step:

I create extra visual to show the difference between in state and out state. It also related to the contribution of international students, since we pay almost 100 % more than in state citizen.



Forth Step:

I'd like to know more about the high education economy, however, the data is very limited. Therefore, I chose to layout icons along with number to show the information.



What I like to improve in the future:

1. My header: I'd like to research some example to improve the design, I am not fully like it.
2. My data: I'd like to expend the data set in the future, and see if there are more creative visualization way to show information.
3. Research for thesis: what can I do next to develop it into something can be a thesis.