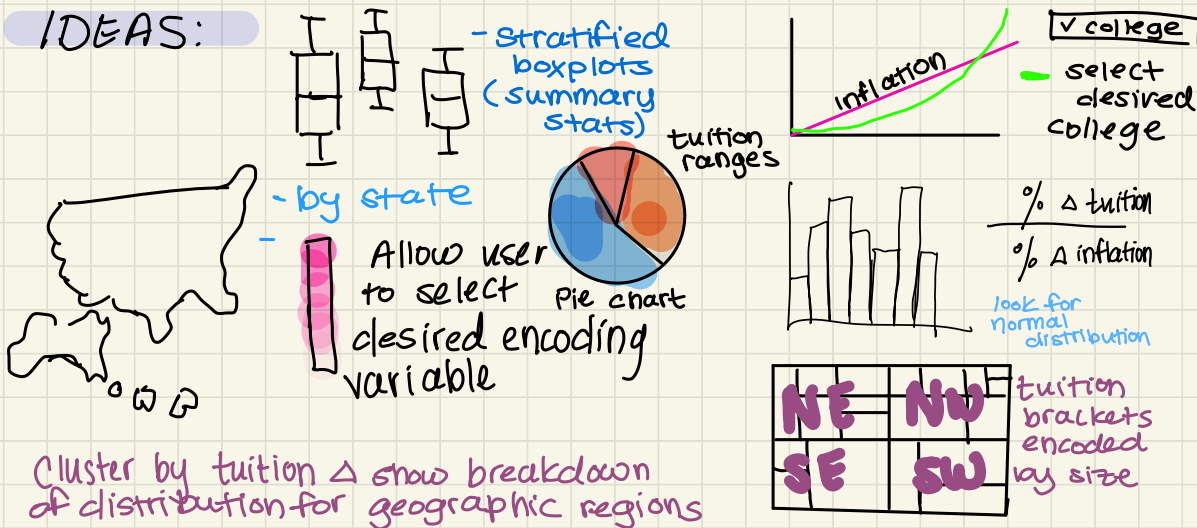
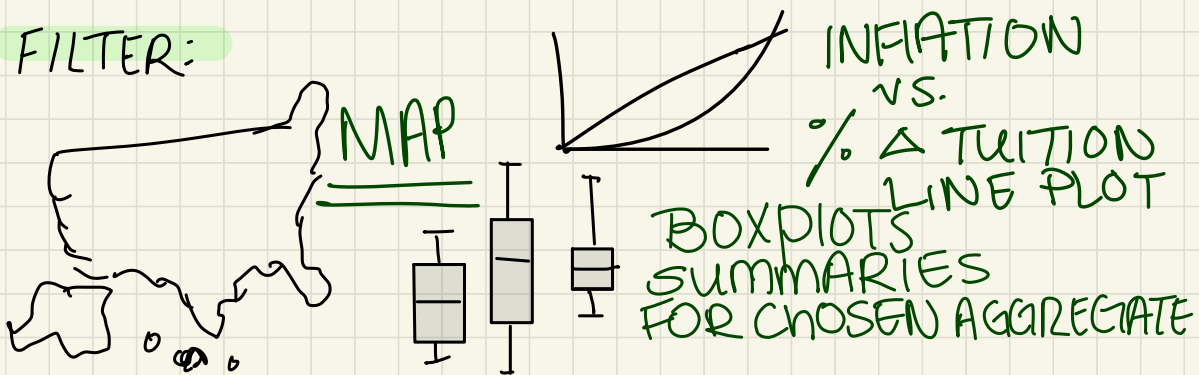


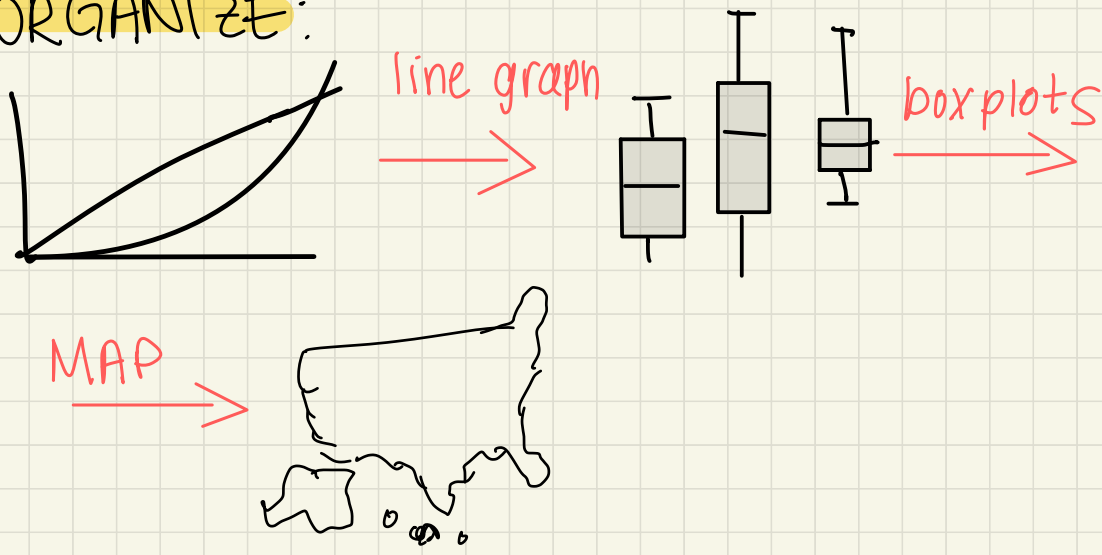
## IDEAS:



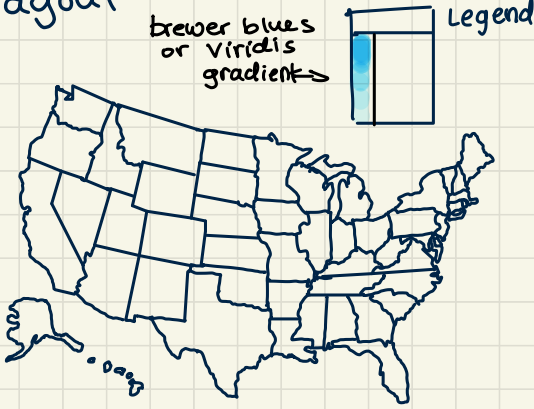
## FILTER:



## ORGANIZE:



## Layout



Map title  
probably multiple maps for comparison

## Operations

▽ select var

- Avg tuition
- Avg tuition  $\Delta$
- Avg cost of living
- Avg %  $\Delta$  in col
- 

select years range

| | |

↑ select another variable for other map to compare

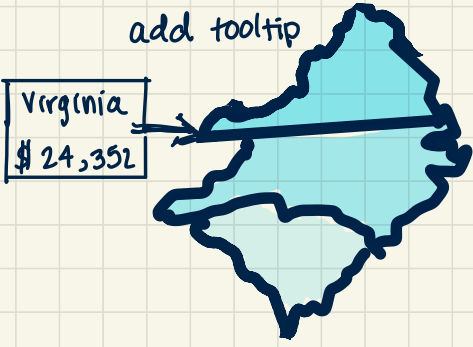
## Title: Map detailing

Authors: Marjorie + Philip

Date: 3/18/2024

Sheet #: 2

ZOOM:  
Color encoding of states to show statistical differences



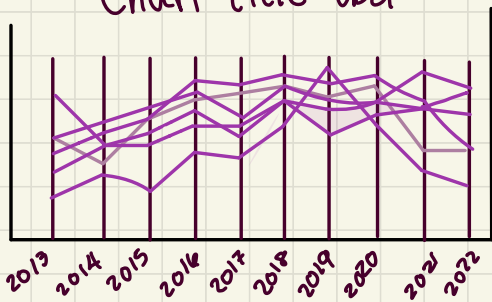
## Advantages:

- people like maps
- a good way to examine spatial trends
- allows for the intuitive exploration of states using different encodings

## Disadvantages:

- can be an overload of info for an average viewer
- people could accidentally associate area w/ magnitude subconsciously.

## Chart title tbd



Inflation? ☐

Tuition range

2 year ☐

4 year ☐

Public ☐

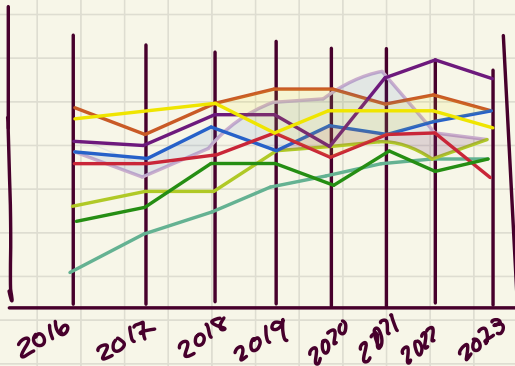
Private ☐



lookup institution



Layout



● Inflation / col

● Harvard

● Columbia

● Yale

● Brown

● Dartmouth

● Cornell

● U Penn

● Princeton

For example  
you could compare  
all of the Ivy schools  
@ one time

Variables:

% Inflation

%  $\Delta$  increase in tuition

ZOOM:

Title: Inflation rate line plot

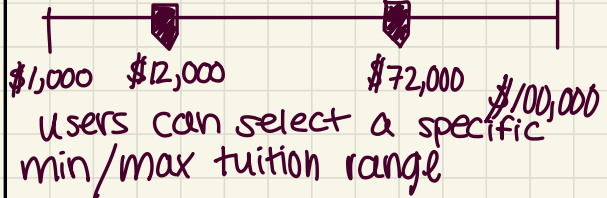
Authors: Marjorie & Philip

date: 3/21/2024

Sheet # 3

Operations:

tuition per year



☒ Public users can also  
check boxes to filter by that  
var

Institution

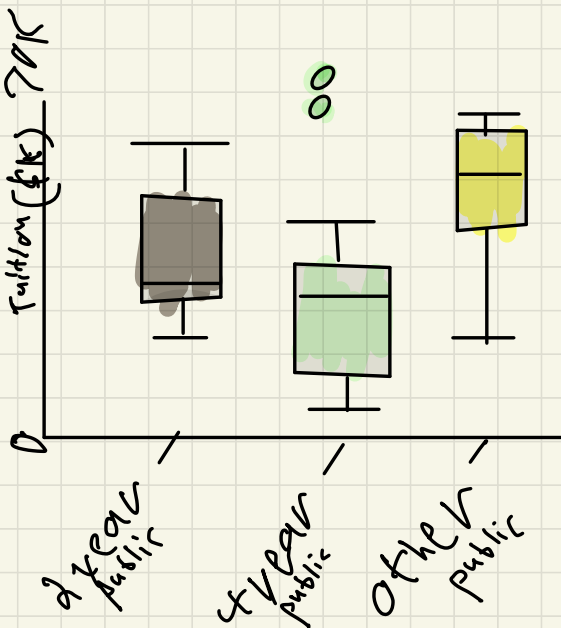
Users can also  
search for specific  
schools

Advantages:

- Compare trends of multiple institutions or selected specific ones creates a lot of flexibility for user to ask different questions
- lots of versatility in the view

Disadvantages:

- can quickly become overcrowded with too many observations
- Need a way to focus on specific areas e.g. an interesting cluster / certain time frame



4-year ☒ Public ☒  
 4-year ☒ Private for-profit ☐  
 Other ☒ Private not-profit ☐

Title: Boxplot Summaries

Author: Marjorie + Philip

Date: 3/21/2024

Sheet:

Data Options:

Users have the option to include or disclude a variety of categories. Each category or combination of categories is represented by a boxplot.

|                                 |   |
|---------------------------------|---|
| 4-year <input type="checkbox"/> | Public <input type="checkbox"/>             |
| 4-year <input type="checkbox"/> | Private for-profit <input type="checkbox"/> |
| Other <input type="checkbox"/>  | Private not-profit <input type="checkbox"/> |

Tool Tips:

Tooltips on boxplots include 5-number summaries, while tooltips on outliers give names and tuition of the outlying institutions.

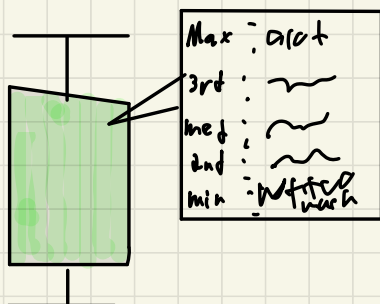
Max: AU  
Tuition: Too much

Tooltip for AU (outlier)

Max:   
3rd:   
Med:   
2nd:   
Min:

Tooltip for Private for-profit 4-year institutions

name: ker  
Tuition: \$1B



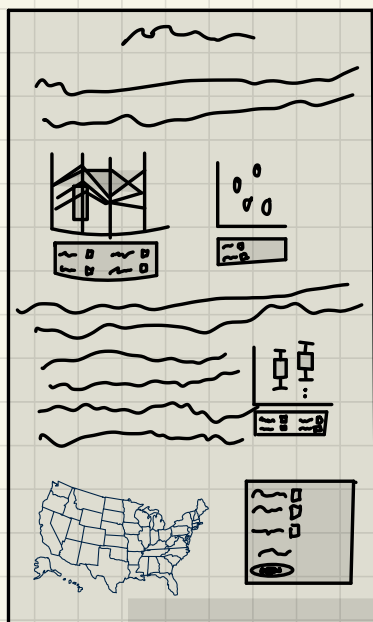
Pros:

- Easily interpretable
- Easily comparable
- Potentially space-saving way to compare across categories

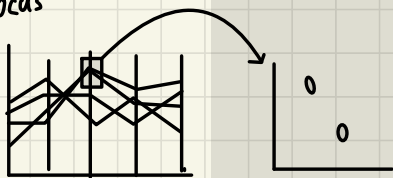
Cons:

- Summary Stats are necessarily aggregated
- Requires pre-requisite understanding of box plots

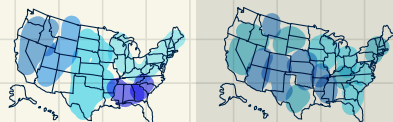
## Layout



## Focus



The parallel lines graph will have an accompanying scatter plot to display info about specific, brush-selected institutions.



Users will have the ability to display multiple maps to compare over time. Unlike in the above proposed layout, the maps(s) will likely be in their own horizontal space allowing for side-by-side comparison.

Title:

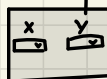
Author:

Date:

Sheet #:

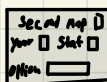
Operations

**Scatterplot Options:**



Users will have the ability to choose the axes of the scatter plot.

**Second Map Options:**



The option to generate a second map gives the user the ability to do side-by-side comparisons. The second map can be generated on the basis of either year or presented statistic.

Detail

This will be relatively labor intensive, but many of the interactive structures will work similarly, just with different mappings.

Preprocessings will be time consuming as solo schools come and go throughout the years. To that end, once an ideal method of preprocessings arises, it should be easily applicable across the data.

Thankfully, this should all be possible without additional external dependencies.