

College Data Analysis

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What we're trying to achieve?

We explored multiple college datasets pertaining to different colleges and their average tuition based on nationality and the potential salaries, college income etc.

Based on the information retrieved, we tried to develop a system to provide university recommendations as a response to various input parameters from potential students.

- Used related datasets from Kaggle that helps us to formulate our aim and idea.
- Preprocessed the data using Python scripts
- Setup a Kubernetes cluster to host our website to ensure fault-tolerance and reliability.

“

How we did the analysis?

- Setup a visualization framework using Elasticsearch as a NoSQL search database and Kibana for data visualization.
- We created a website with JS and bootstrap framework for styling.
- We made a REST API in Golang to query dynamically from ElasticSearch.



“

Technologies
used



Datasets explored

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        "Name": "Alabama A & M University",  
        "Applicants total": 6142,  
        "Admissions total": 5521,  
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        "Percent of freshmen submitting SAT scores": 15,  
        "Percent of freshmen submitting ACT scores": 88,  
        "SAT Critical Reading 25th percentile score": 378,  
        "SAT Critical Reading 75th percentile score": 450,  
        "SAT Math 25th percentile score": 358,  
        "SAT Math 75th percentile score": 458,  
        "SAT Writing 25th percentile score": 8,  
        "SAT Writing 75th percentile score": 8,  
        "ACT Composite 25th percentile score": 15,  
        "ACT Composite 75th percentile score": 19,  
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        "Estimated freshman undergraduate enrollment, total": 1104,  
        "Estimated freshman enrollment, full time": 1089,  
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        "Estimated graduate enrollment, total": 969,  
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        "Estimated graduate enrollment, part time": 329,  
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        "Percent admitted - total": 90,  
        "Admissions yield - total": 28,  
        "Tuition and fees, 2010-11": 5800,  
        "Tuition and fees, 2011-12": 6828,  
        "Tuition and fees, 2012-13": 7182,  
        "Tuition and fees, 2013-14": 7182,  
        "Total price for in-state students living on campus 2013-14": 21849,  
        "Total price for out-of-state students living on campus 2013-14": 27441,  
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```

```
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        "School Type": "Engineering",  
        "Starting Median Salary": 72200,  
        "Mid-Career Median Salary": 126000,  
        "Mid-Career 10th Percentile Salary": 76800,  
        "Mid-Career 25th Percentile Salary": 99200,  
        "Mid-Career 75th Percentile Salary": 168000,  
        "Mid-Career 90th Percentile Salary": 220000  
    }  
  
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        "Starting Median Salary": 46000,  
        "Mid-Career Median Salary": 77100,  
        "Percent change from Starting to Mid-Career Salary": 67.6,  
        "Mid-Career 10th Percentile Salary": 42200,  
        "Mid-Career 25th Percentile Salary": 56100,  
        "Mid-Career 75th Percentile Salary": 108000,  
        "Mid-Career 90th Percentile Salary": 152000  
    }  
}
```

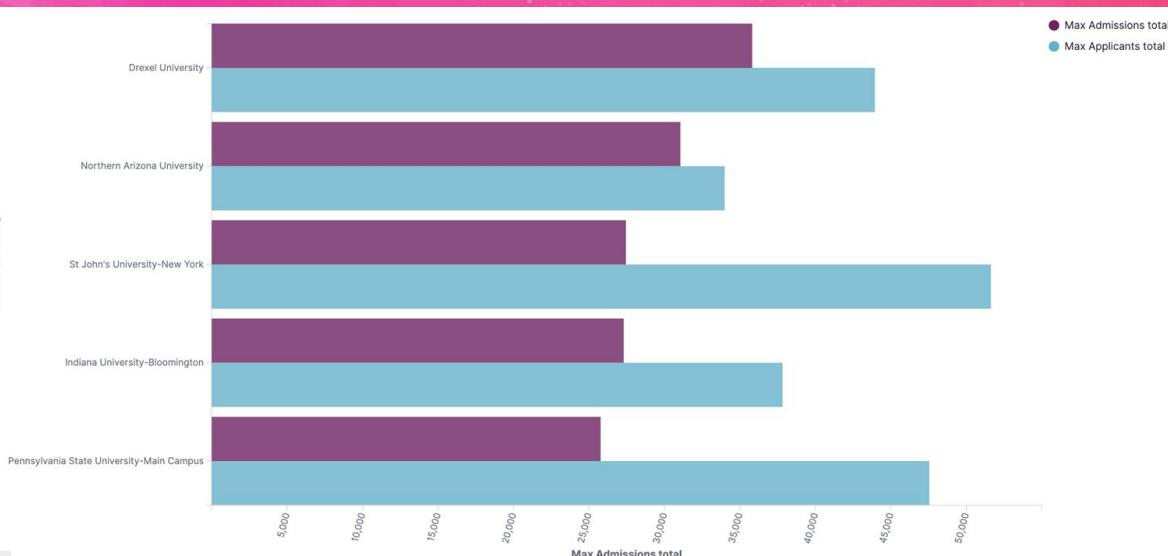
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}
```



Now let's start exploring!

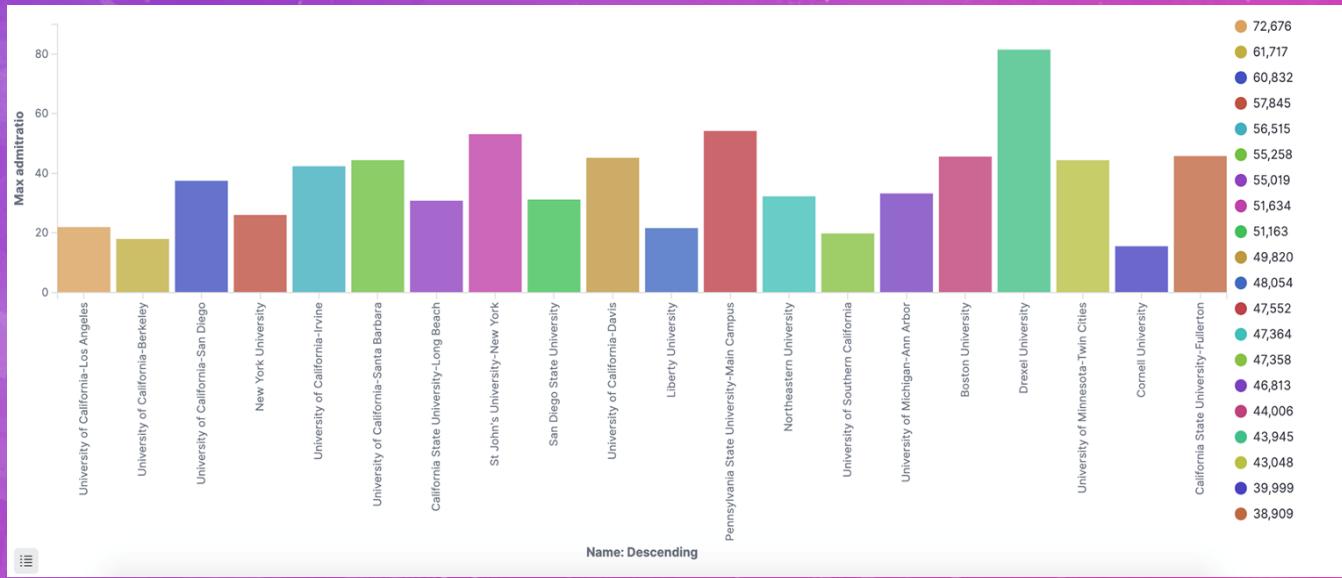
We will look at various college metrics and help you make the right decision 

Maximizing your odds of success



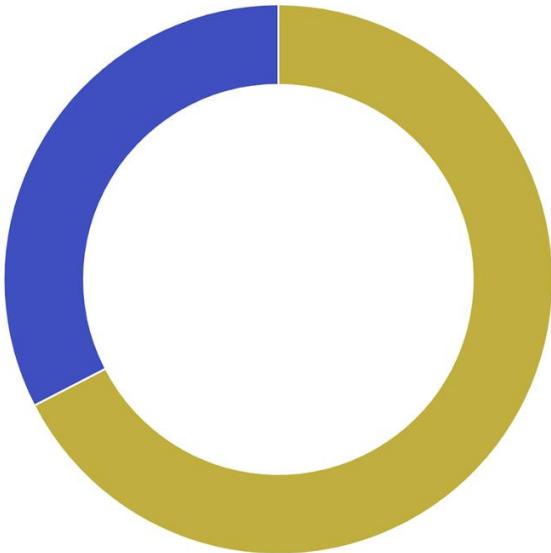
- We are looking into the number of applicants for a university and the number of admissions the university grants.
- This would give the students an idea about their odds of success of getting an admit. We calculated the admit ratio in the next slide.

Admit ratio of universities



- Based on this graph, we can conclude that Drexel University and Pennsylvania state university have the top admit ratios.

Public or Private ?

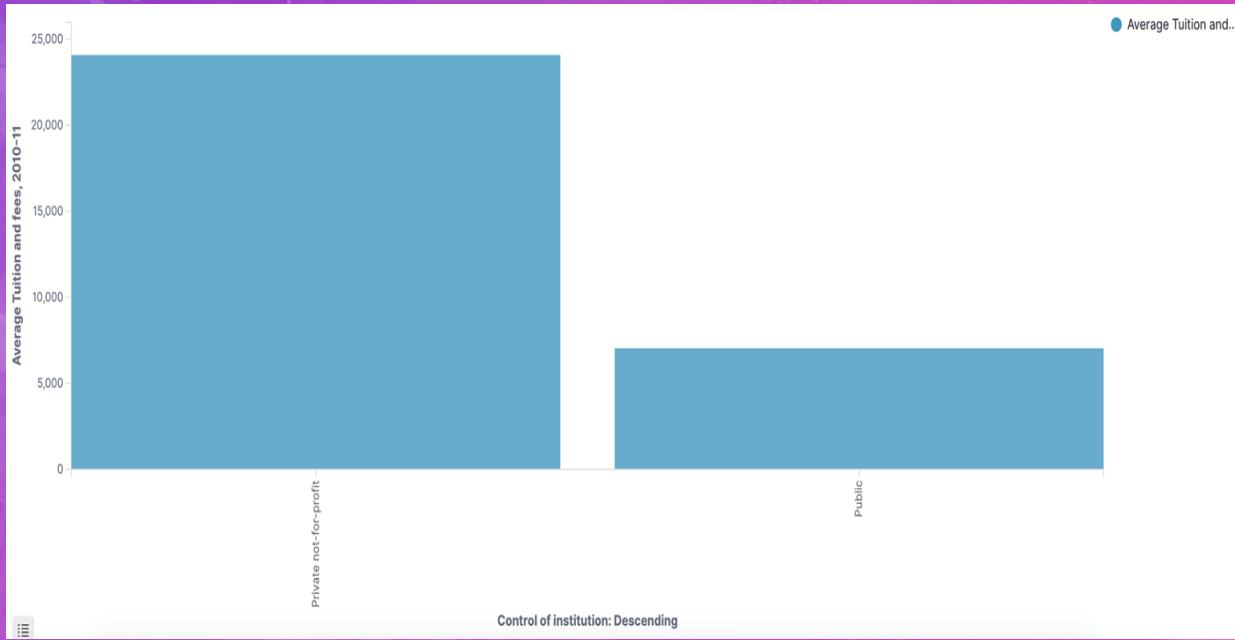


● Public
● Private not-for-profit

A comparative analysis between the number of students who choose private colleges vs public colleges.

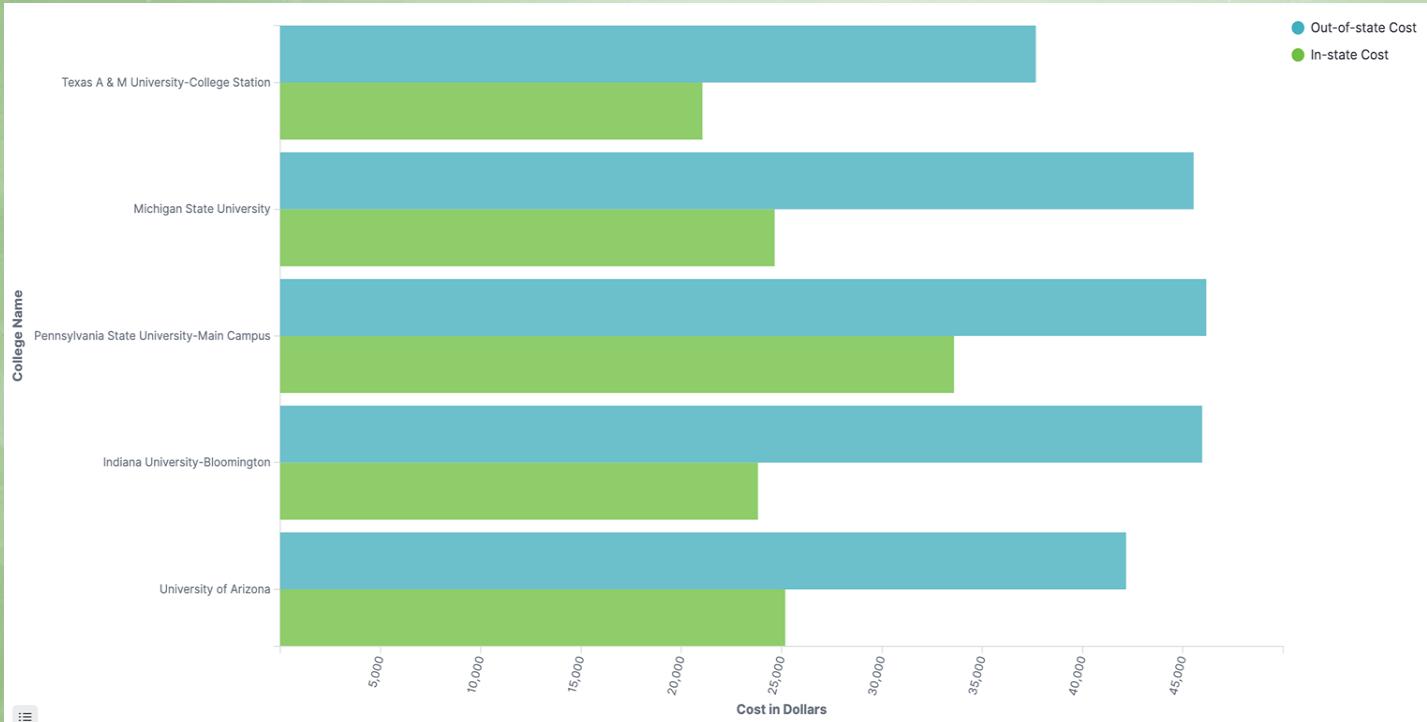
It is evident that more students prefer public colleges! But why?

That's why \$\$\$\$



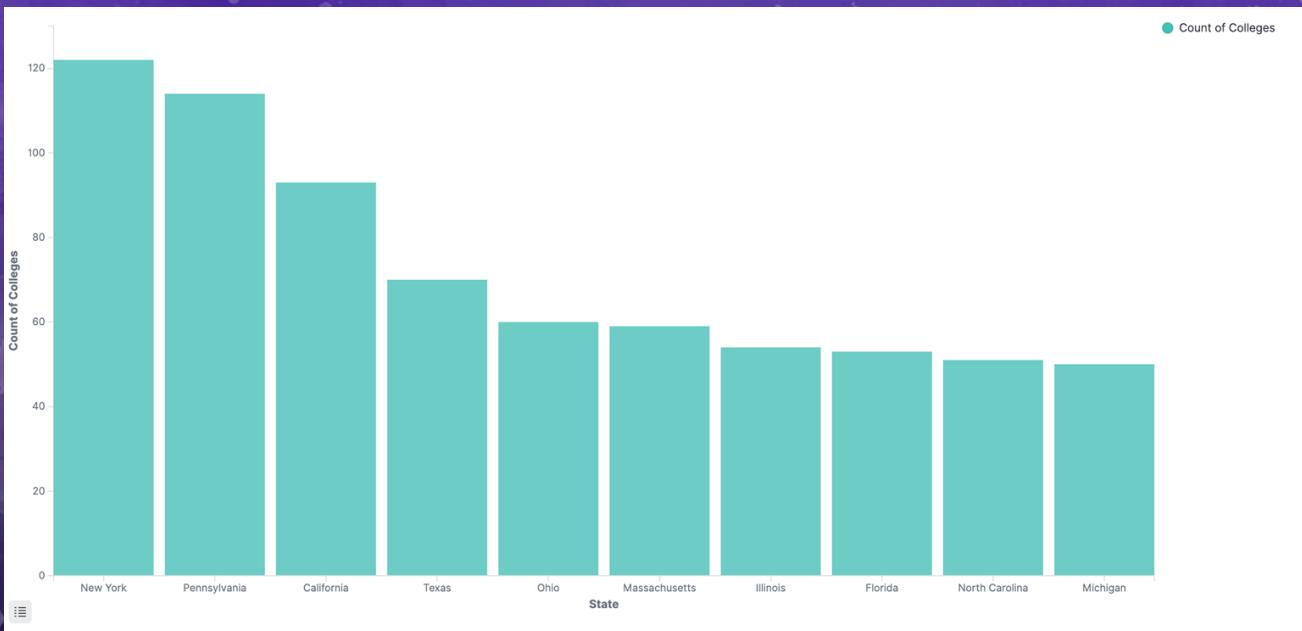
The average cost of attending private school is much greater than a public school!

Going away from home? Can you afford it?



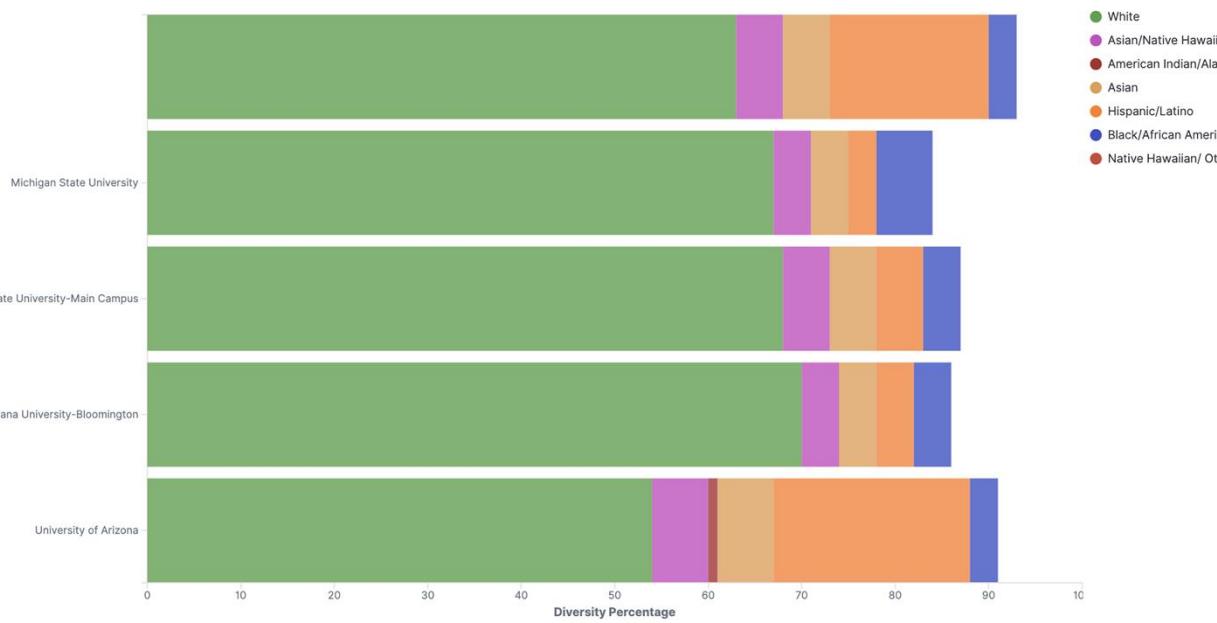
- A simple analysis between out-of-state vs in-state tuition.
- We can clearly see that going away from home gets heavier on your pocket.

But can you stay close to home? Let's find out!



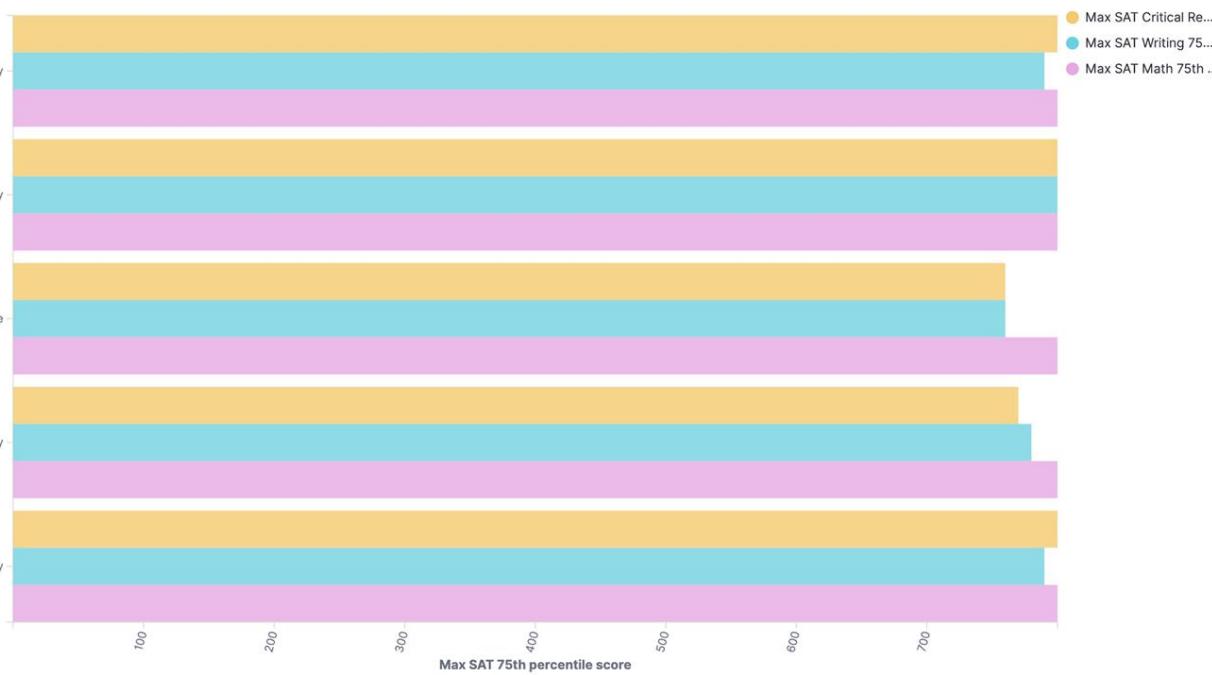
Looks like you have a
better chance if you live
near the coasts.

Diversity brings Unity!

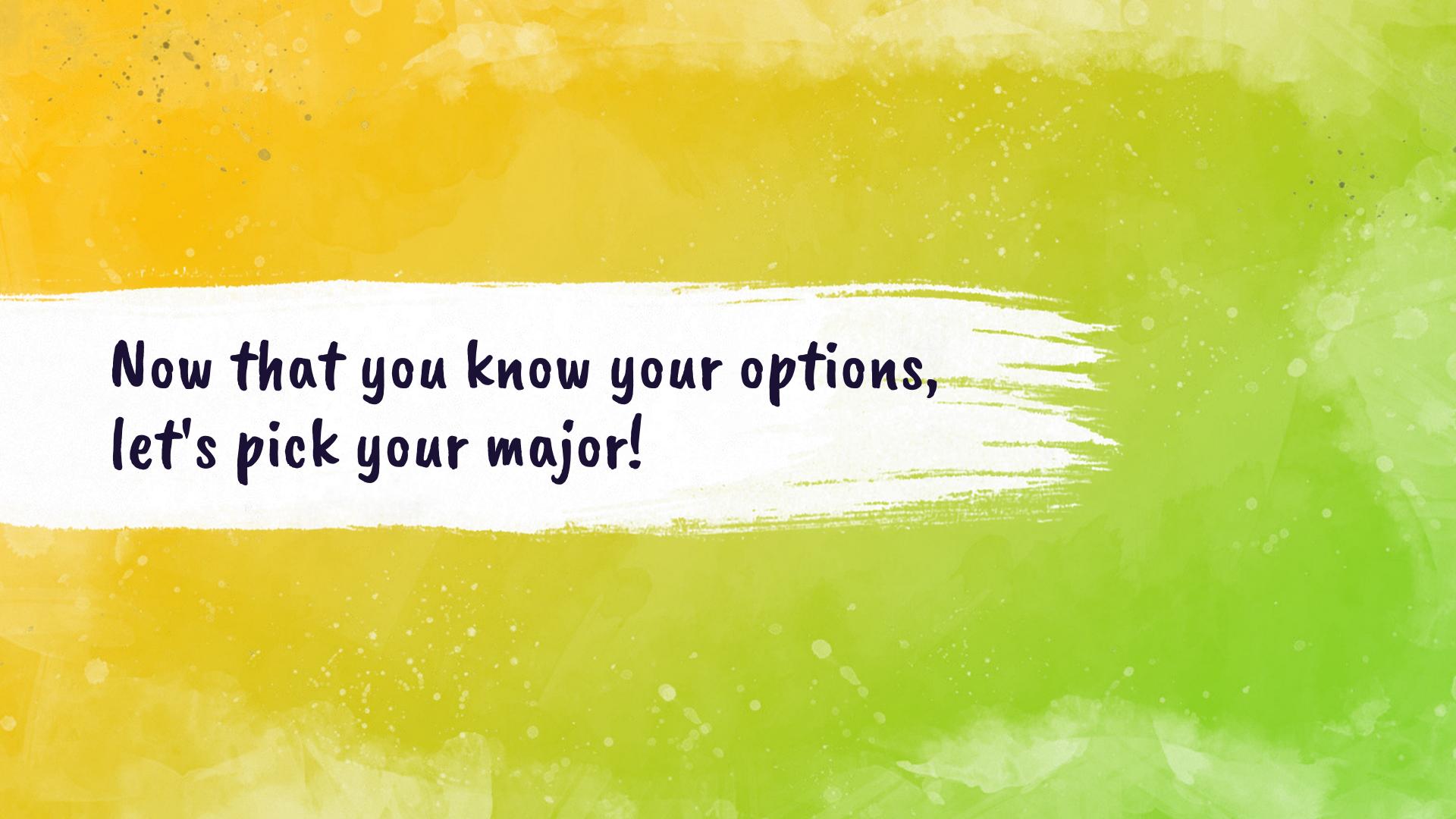


- Want a cool gang of friends from all around the world ?
- This graph shows the diversity of students across universities in the US which brings a great amalgamation of culture from all around the world.

We can't avoid the SATs, can we? 😞

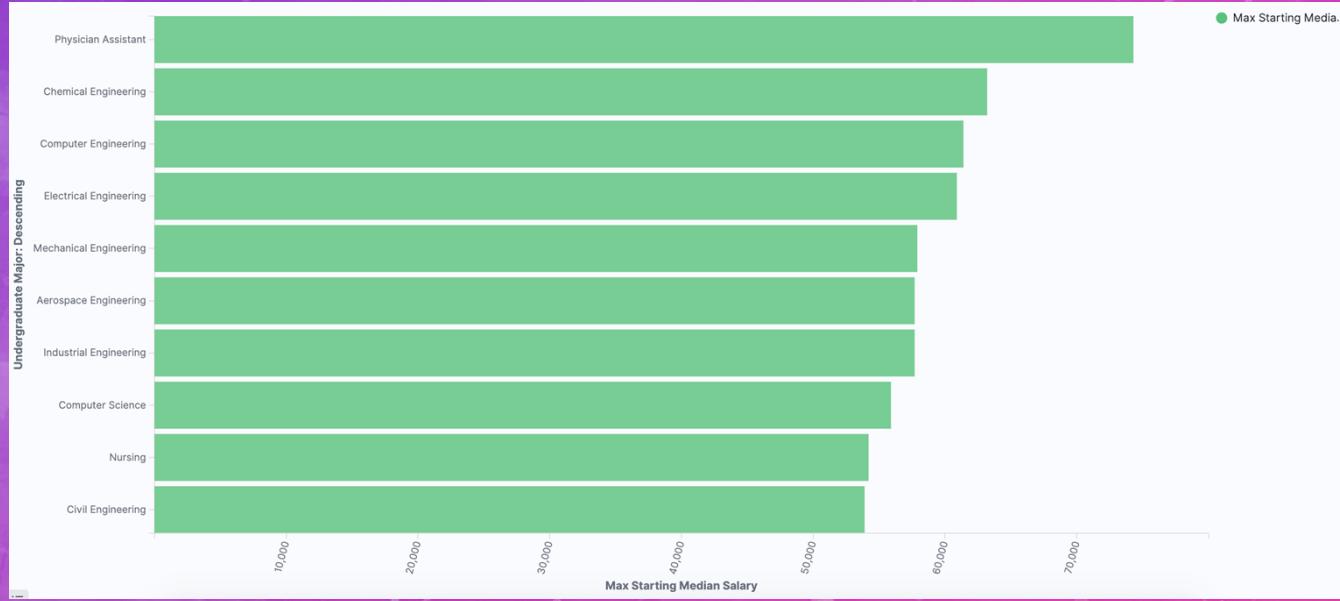


Looks like you need to work really hard in your SATs if you want to get in one of these top universities.



Now that you know your options,
let's pick your major!

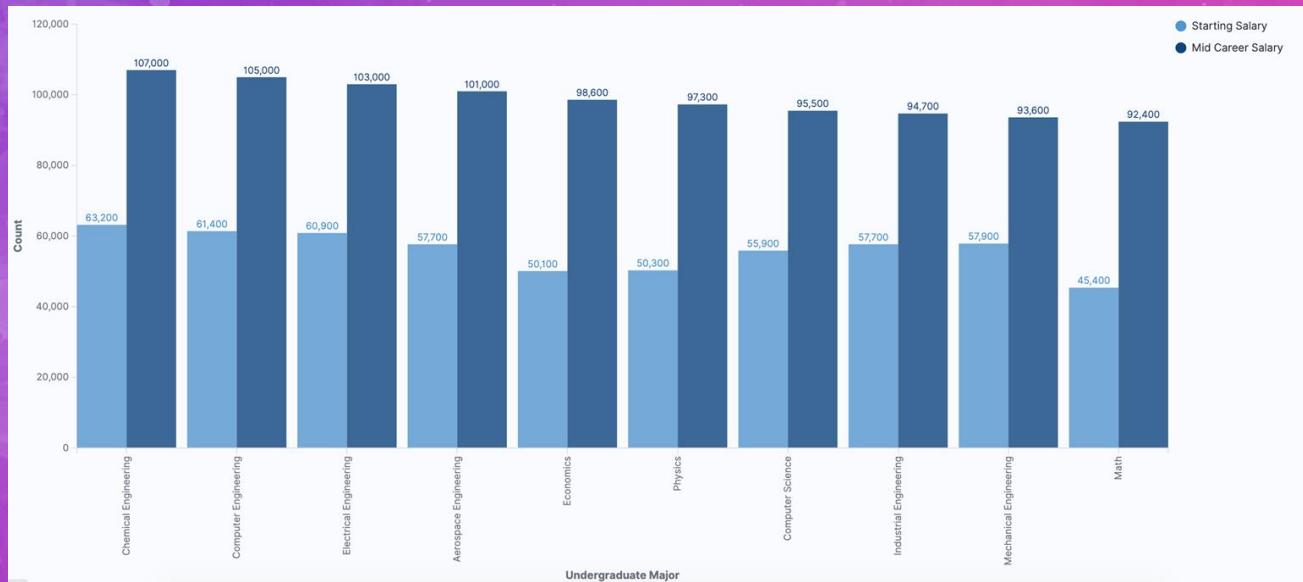
Your major has a major impact on your future salary!



We can see that your Major can affect your starting salary a lot.

A Physician starts off great! But let's see what helps in the long run?

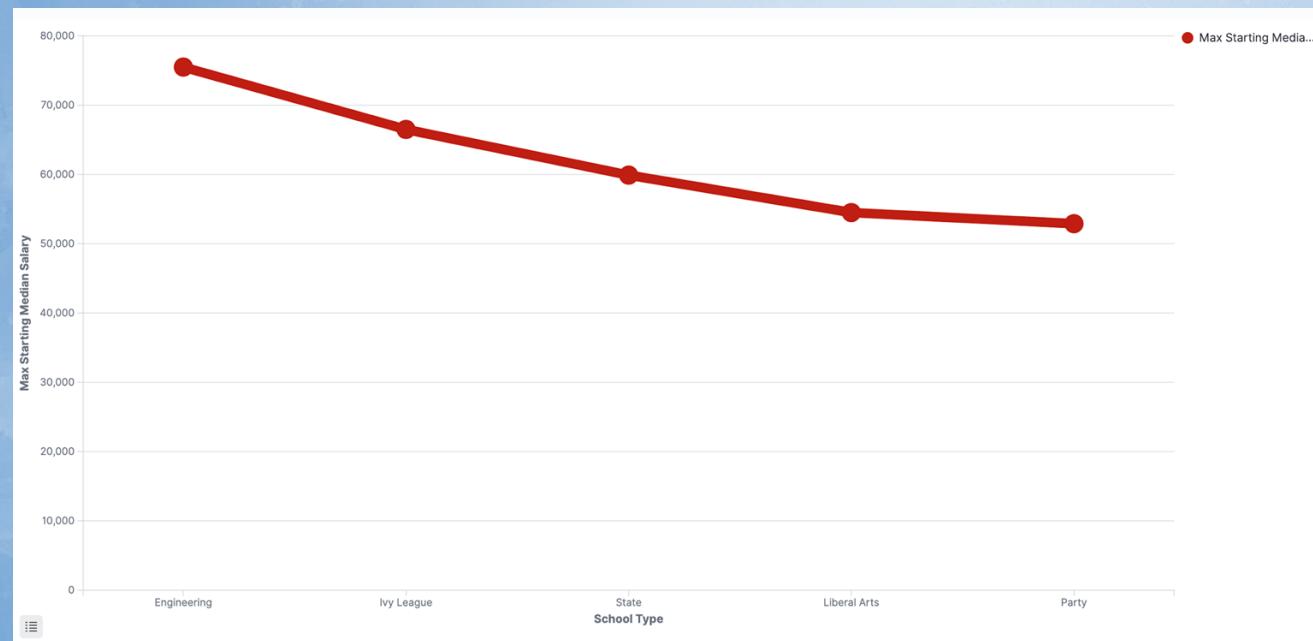
Majors that will pay you back in the long run



Oh wait ! Where did the Physicians go ? 😊

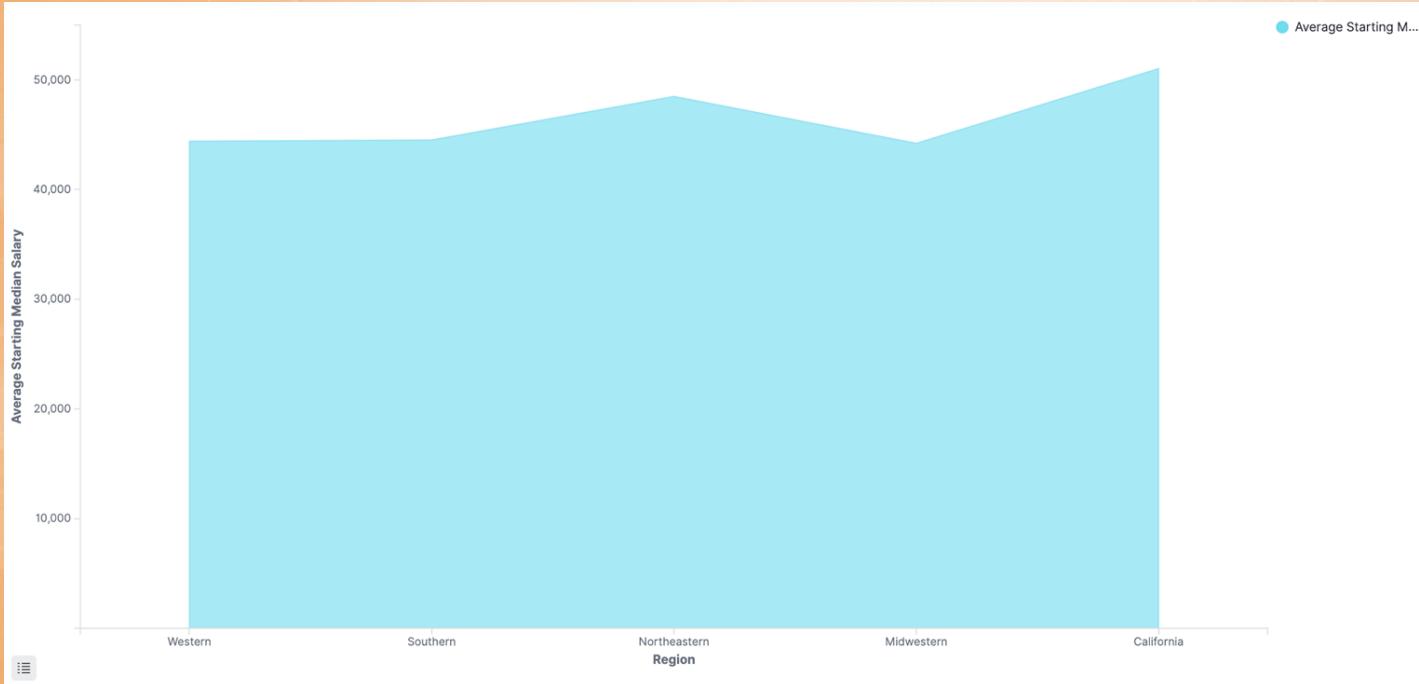
Looks like Engineering degrees start low but pays you more in the long run.

But engineers barter a lot of money for tears 😭



Guess we have to sacrifice a little fun (and sleep?) for having a good paying career!

Where should you work? Its Bae area for a reason 😊



Depending upon
the location you
look for a job,
your average
starting salary
can vary!

Maybe now we
can party!

Whoa! That's a big number, aren't you proud?

13,915,574

These are the number of students who went to college in a year!



Public college tend to be cheap!

If money is a deciding factor.



Engineering pays more!

It pays more in the long run :)

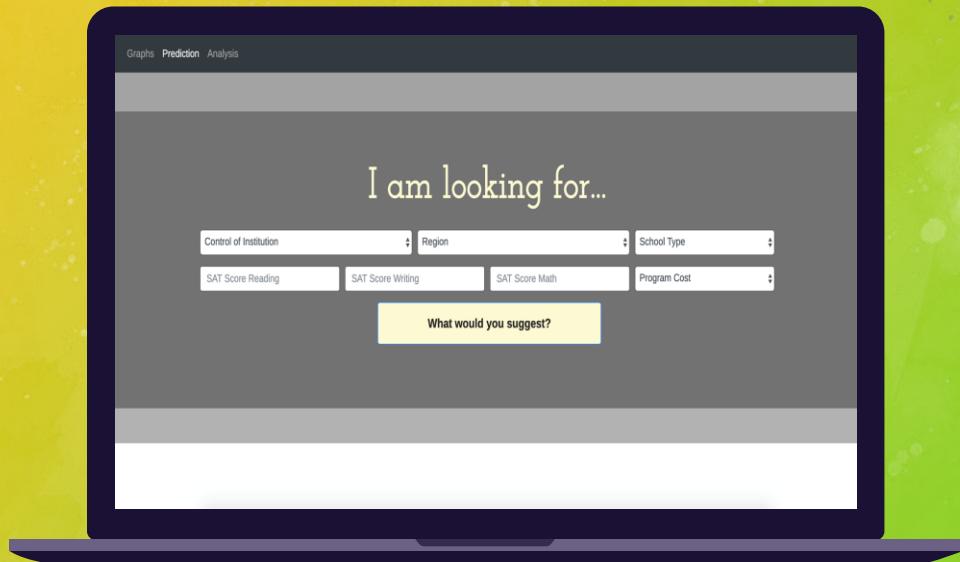


Good luck with your SATs

Work hard and grind it out!

Desktop project

We built a Web application to help you choose your College and Major! [Let's go!](#)



Thanks!



Any questions?