

College Graduation Correlation

Josh Sutton

2024-02-11

The goal of this project is to see differences between private and public colleges and what these differences are through quantitative data. Expected users of this app include students, parents, and school counselors looking at colleges with certain characteristics and performances. The dataset being used comes from kaggle being a data set from 2019 on 777 colleges in the US. The variables found in the data set include:

- X - College/University Name
- Private - Yes or no on whether the school is private
- Apps - Number of applications
- Accept - Number of acceptances
- Enroll - Number of new enrollments
- Top10perc - Number of new students in top 10% in HS
- Top25perc - Number of new students in top 25% in HS
- F.Undergrad - Number of fulltime students
- P.Undergrad - Number of parttime students
- OutState - Out of state tuition
- Room.Board - Room and board cost
- Books - Estimated book costs
- Personal - Estimated personal spending
- PHD - Percentage of faculty with PHDs
- Terminal - Percentage of faculty with Terminal degrees
- S.F.Ratio - Student to faculty ratio
- perc.alumni - Percentage of alumni who donate
- Expend - Instructional expenditure per student
- Grad.Rate - Graduation rate

With the addition of:

- Accept.Rate - the acceptance rate of a college
- Enroll.Rate - the enrollment rate of a college

College Modified Info Table with Tibble

Below is the college data set with selected variables to reduce the size of the table. This table includes the two additions calculated through Accept/Apps and Enroll/Accept to create Accept.Rate and Enroll.Rate respectively.

```
unisMod <- read.csv("College_Data.csv") %>%
  mutate(Enroll.Rate = (Enroll / Accept)*100) %>%
  mutate(Accept.Rate = (Accept / Apps)*100) %>%
  select(X, Private, Apps, Accept.Rate, Enroll, Enroll.Rate, Grad.Rate)
as_tibble(unisMod)
```

```
## # A tibble: 777 x 7
##   X                Private Apps Accept.Rate Enroll Enroll.Rate Grad.Rate
##   <chr>             <chr>   <int>     <dbl>   <int>     <dbl>     <int>
## 1 Abilene Christian Uni~ Yes     1660      74.2    721       58.5      60
## 2 Adelphi University    Yes     2186      88.0    512       26.6      56
## 3 Adrian College       Yes     1428      76.8    336       30.6      54
## 4 Agnes Scott College   Yes      417      83.7    137       39.3      59
## 5 Alaska Pacific Univer~ Yes      193      75.6     55       37.7      15
## 6 Albertson College     Yes      587      81.6    158       33.0      55
## 7 Albertus Magnus Colle~ Yes      353      96.3    103       30.3      63
## 8 Albion College        Yes     1899      90.6    489       28.4      73
## 9 Albright College      Yes     1038      80.8    227       27.1      80
## 10 Alderson-Broadbudds Col~ Yes      582      85.6    172       34.5      52
## # i 767 more rows
```