

# College Critics

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# Questions

- Do institutions with graduating debt tend to have higher graduating income?
- Do institutions with higher faculty salary tend to have higher levels of completion?
- Do institutions with higher acceptance rates tend to have higher levels of debt on graduation?

kaggle



# Data Preparation Work

- Cleaning the data
  - Many NULL values
  - Some schools do not provide certain data
  - No metadata on year
  - Variables were unclear and poorly named - had thoroughly read through data to find variables

# Tools



pandas

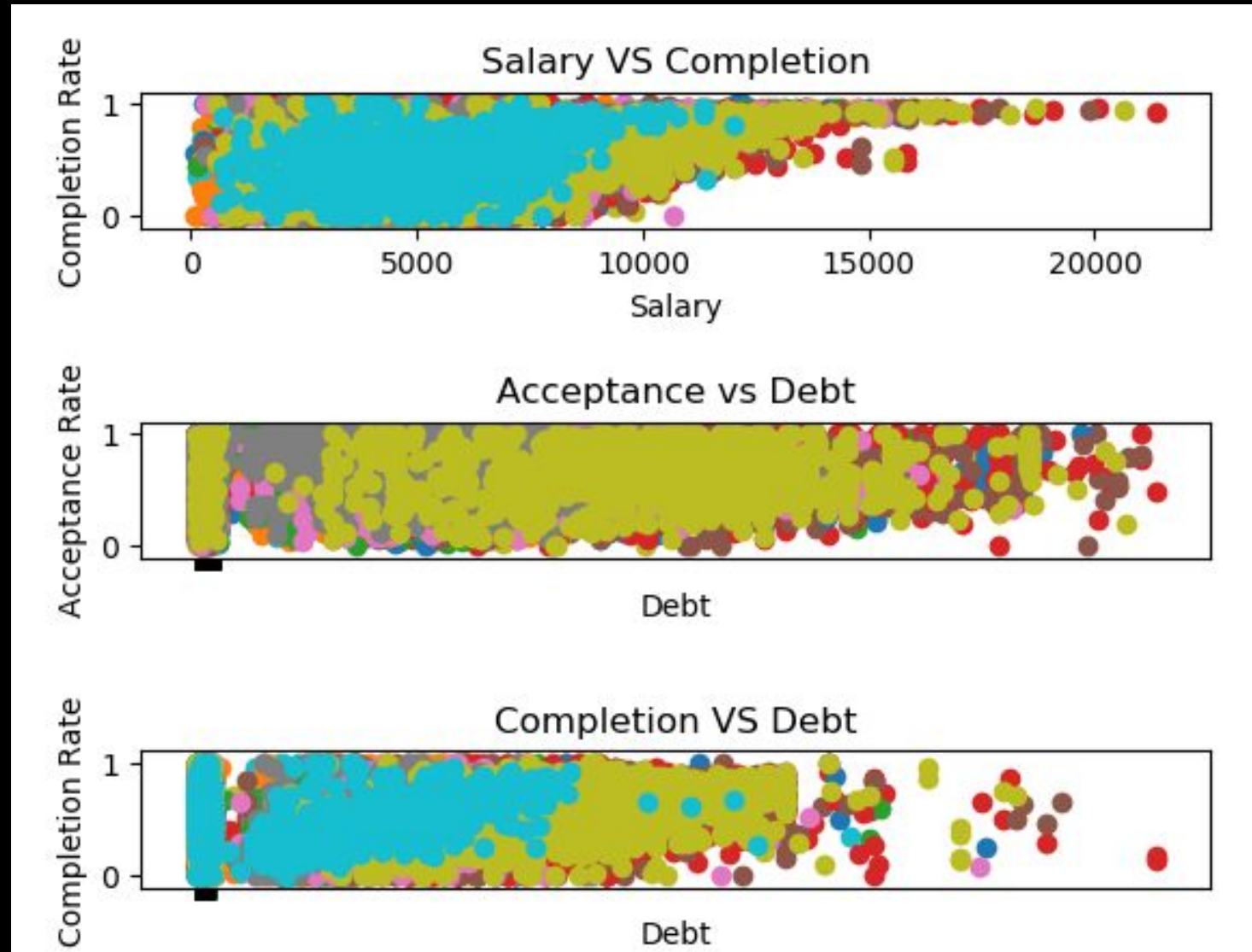
$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$
The pandas logo, with the word "pandas" in a white, lowercase, sans-serif font. Below it is the mathematical formula  $y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$  in a smaller, italicized, blue font.

# Classification

- Debt relating to income
  - Low, Medium, and High earning groups

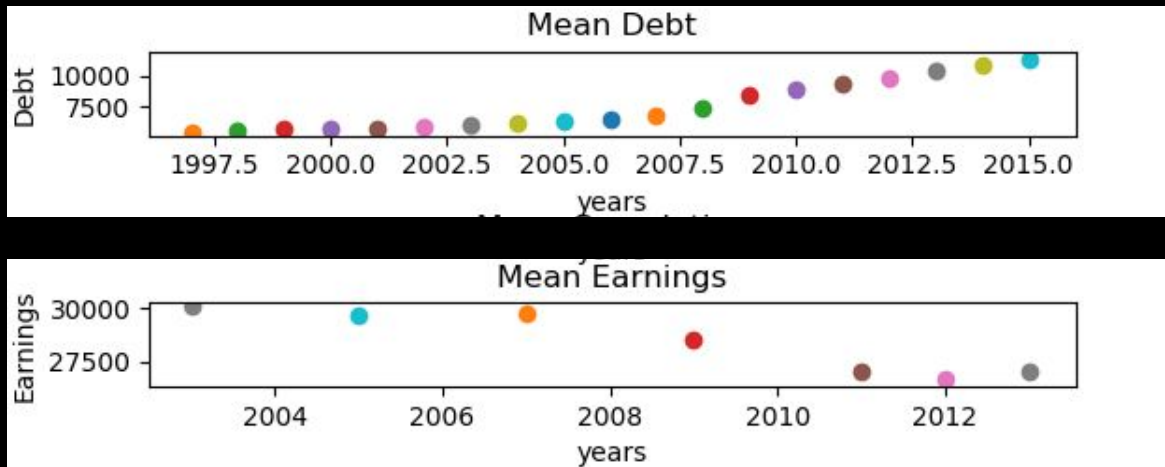


# Knowledge Gained – Acceptance, Completion, Debt

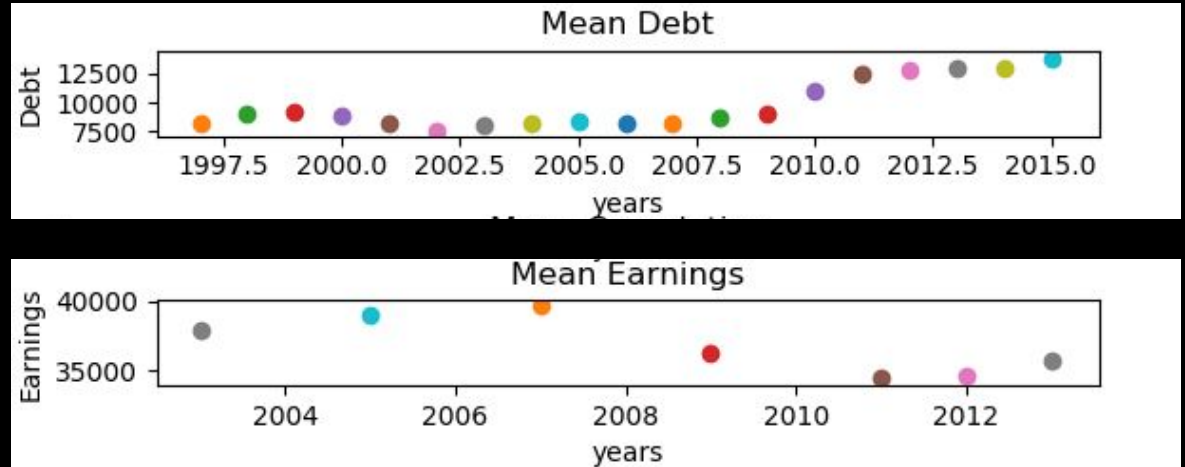


# Knowledge Gained – Graduate Debt and Earnings

## National Data

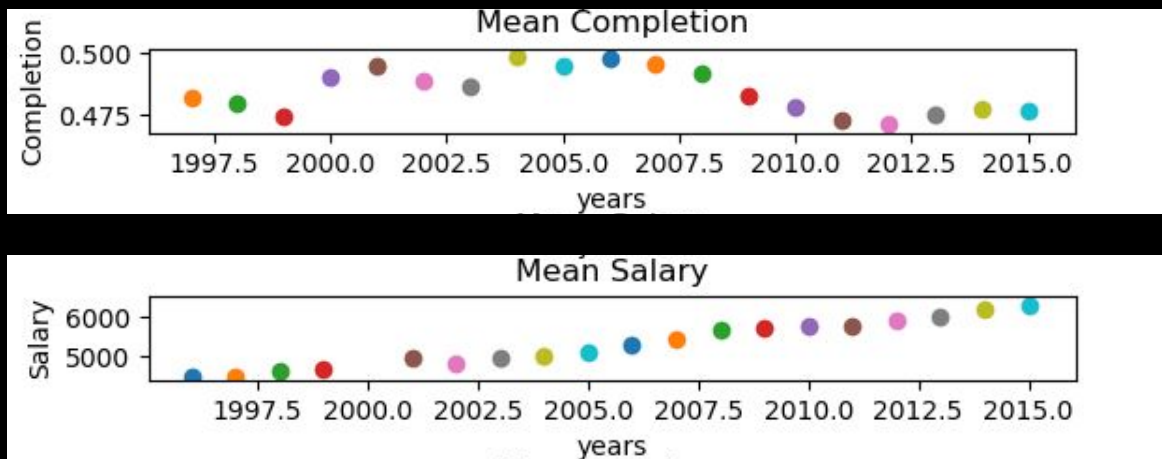


## CU Boulder Data

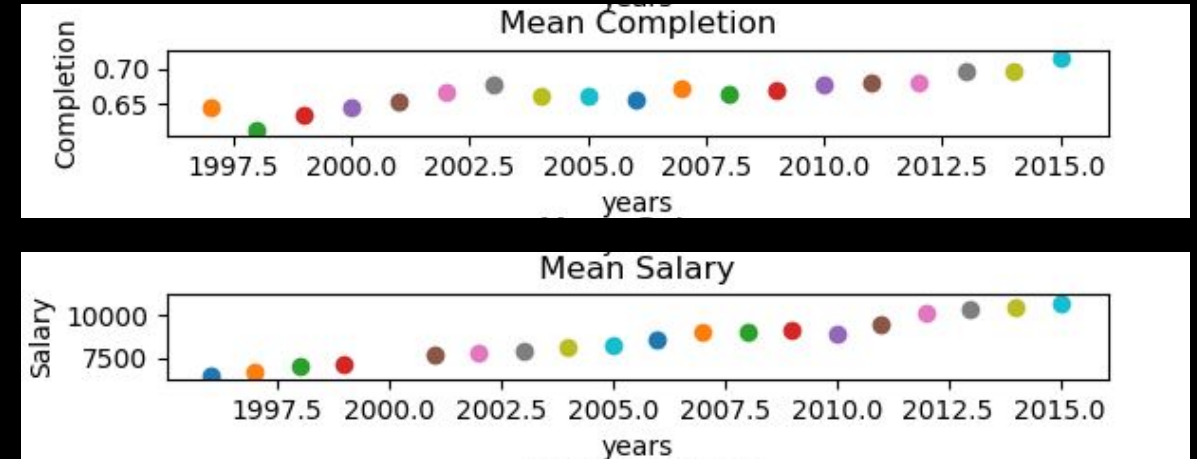


# Knowledge Gained – Teacher Salary & Completion

## National Data



## CU Boulder Data





# How that knowledge can be applied

- Choosing schools to attend
- Deciding on how much debt is a reasonable amount to acquire

## Support and Confidence:

- 68.77% of schools released data about debt (support: 0.6877)
  - 67.25% of schools have students with average debt < \$15,000 (support: 0.6725)
    - 8% of schools have students with debt < \$15,000 and with earnings greater than \$30,000 (confidence:  $(\text{Debt} < 15,000) \Rightarrow (\text{earnings} > 30,000) = 0.08$ )
- Only 28% of schools released data about completion rate (support: 0.2846)
  - 54% of schools have a completion rate of > 50% (Support: 0.54)
    - 19% of schools with a completion rate > 50% have earning > \$30,000 (Confidence:  $\text{Comp} > .50 \text{ to earnings} > 30,000 = 0.19$ )