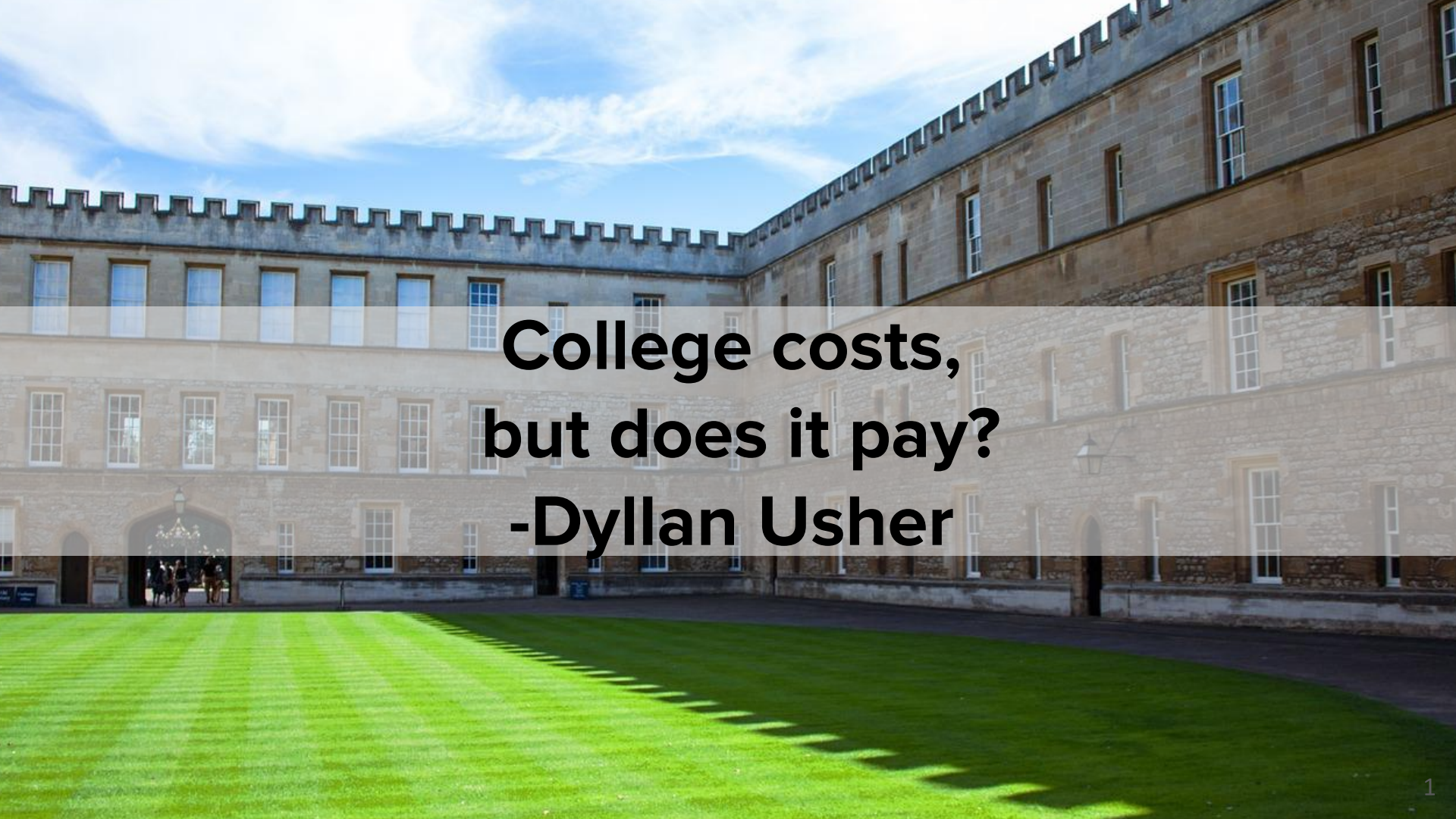

College costs,
but does it pay?
-Dyllan Usher

Agenda

- Introduction
- Methodology
- Results
- Conclusions
- Future Work

Introduction

GOAL: Analyze the median income of college graduates ten years after obtaining their bachelor's degree.

- **Predict** median income per college.
- Find the **most influential** factors that lead to student financial success.
- **Inform** policy makers to help combat income inequality.

Methodology

Possible Sources of Income Inequality post Graduation

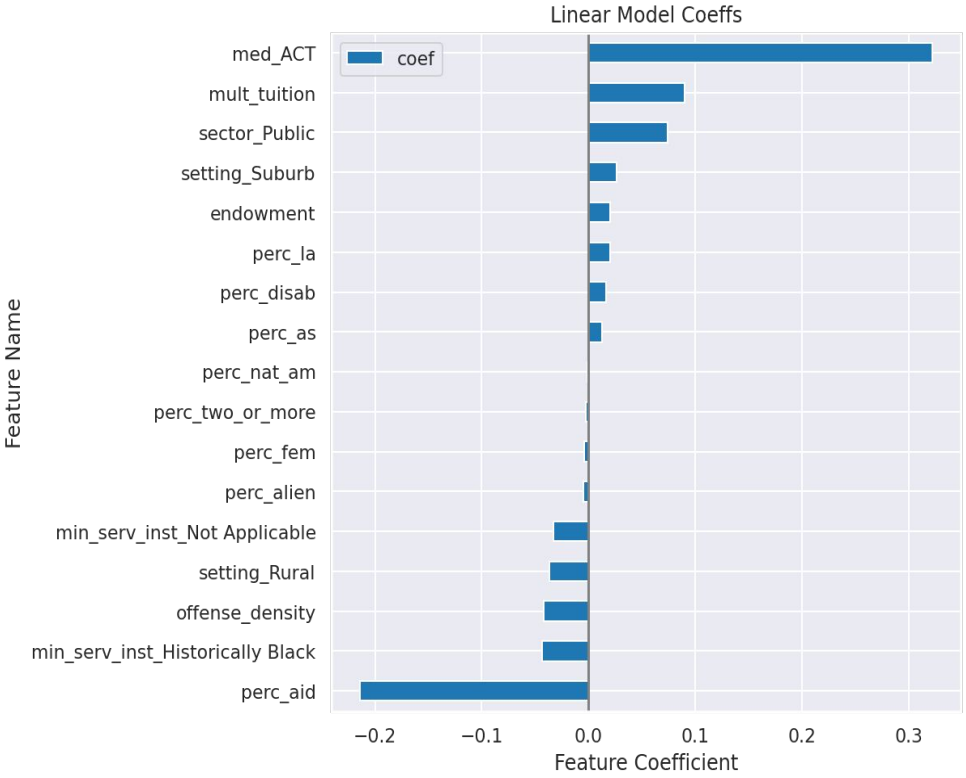
Methodology

Data: Data was scraped from the following sources to analyze college data.

- College Results (1)
- NCES College Navigator (2)

Results

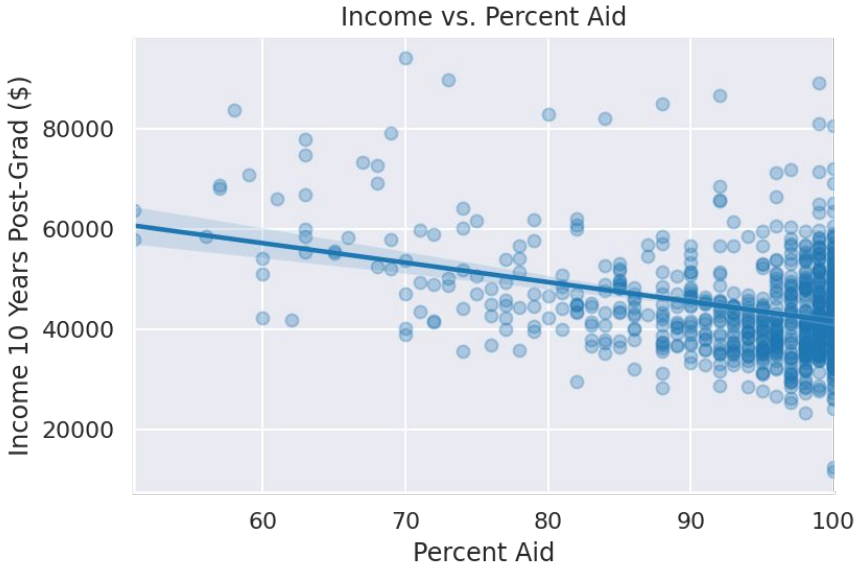
Predict Income: An analysis of over 1000 colleges



- Lasso Regularization for feature importance
- Regular Linear Model on extracted features
  - R^2 = .62
  - RMSE = $5400

Results

The Most Impactful Correlations



Data based on "Turnstile Data" from MTA: Weekly Turnstile Data

LASSO Path

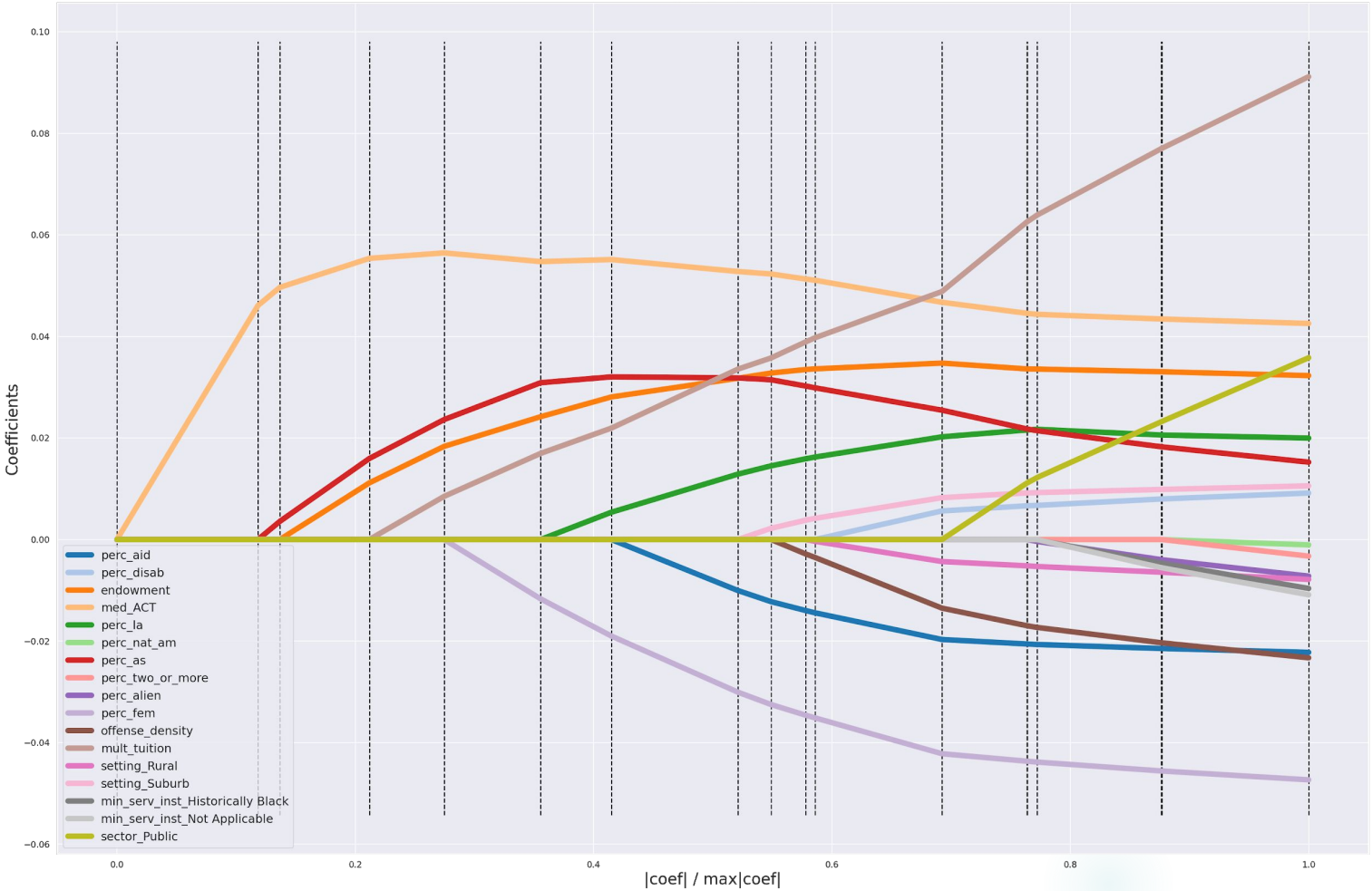
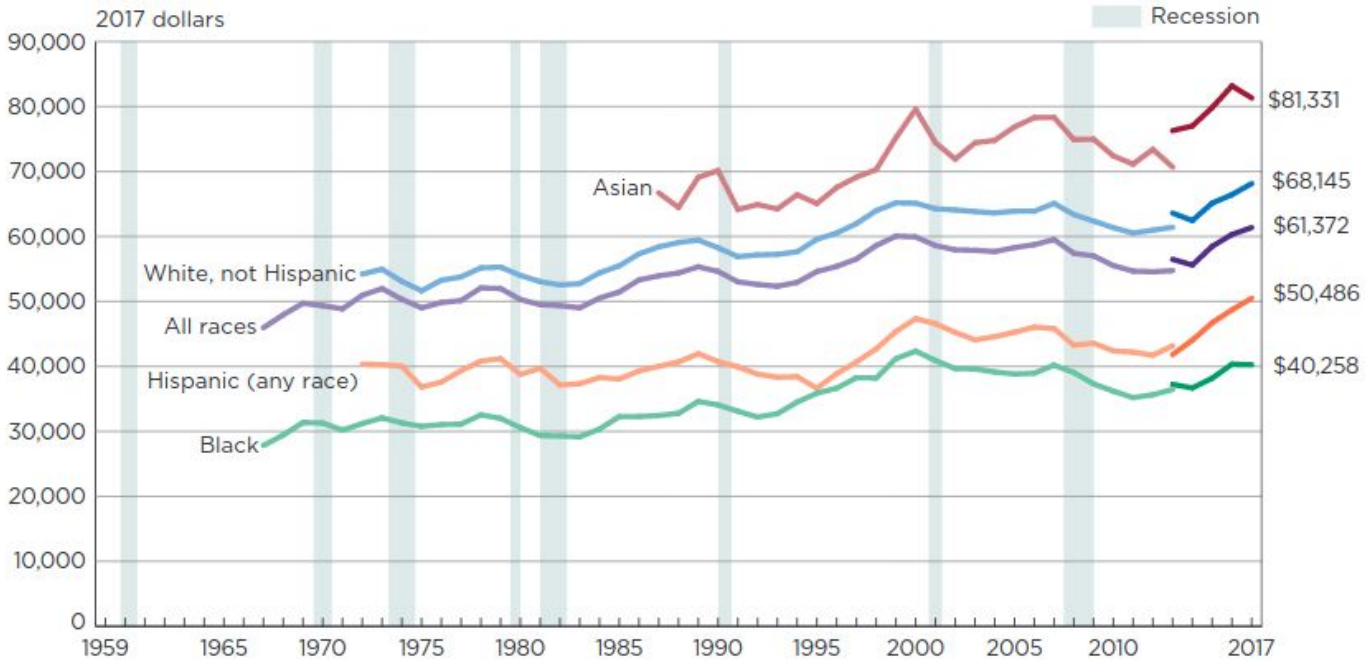

Coefficients
|coef| / max|coef|
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
0.0
0.2
0.4
0.6
0.8
1.0
perc_aid
perc_disab
endowment
med_ACT
perc_la
perc_nat_am
perc_as
perc_two_or_more
perc_alien
perc_fem
offense_density
mult_tuition
setting_Rural
setting_Suburb
min_serv_inst_Historically Black
min_serv_inst_Not Applicable
sector_Public

Figure 1.

Real Median Household Income by Race and Hispanic Origin: 1967 to 2017



Note: The data for 2013 and beyond reflect the implementation of the redesigned income questions. The data points are placed at the midpoints of the respective years. Median household income data are not available prior to 1967. For information on recessions, see Appendix A. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see <www2.census.gov/programs-surveys/cps/techdocs/cpsmar18.pdf>.

Source: U.S. Census Bureau, Current Population Survey, 1968 to 2018 Annual Social and Economic Supplements.

Conclusions

1. **Most Influential Factors:**
    a. **ACT, Endowment, Tuition**
    b. **Percent Female, Aid, On Campus Crime**

Conclusions

1. **Most Influential Factors:**
    a. **ACT, Endowment, Tuition**
    b. **Percent Female, Aid, On Campus Crime**
2. **Policy Recommendations:**
    a. **Increase ACT prep course funding**
    b. **Increase funding into universities**
    c. **Give more funding to Equality Now, etc.**
    d. **Provide rehabilitation for campus offenders**

Future Work

1. Add more parameters to broaden scope of analysis
    a. Demographics around colleges, major specific data
2. Try more complex regression model to enhance predictive power
    a. Random forest regression, Convolution neural networks, etc

Appendix

1. (2019). [College Results Data]. http://www.collegeresults.org/
2. (2019). [NCES College Navigator]. https://nces.ed.gov/collegenavigator/

ANY QUESTIONS?