

EDUCATION INEQUALITY

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INTRODUCTION

Address inequality of educational opportunity in U.S. high schools focusing on average student performance on college entrance exams like the ACT or SAT

Explore how socioeconomic factors can impact student's performance

DATA SOURCES

EdGap

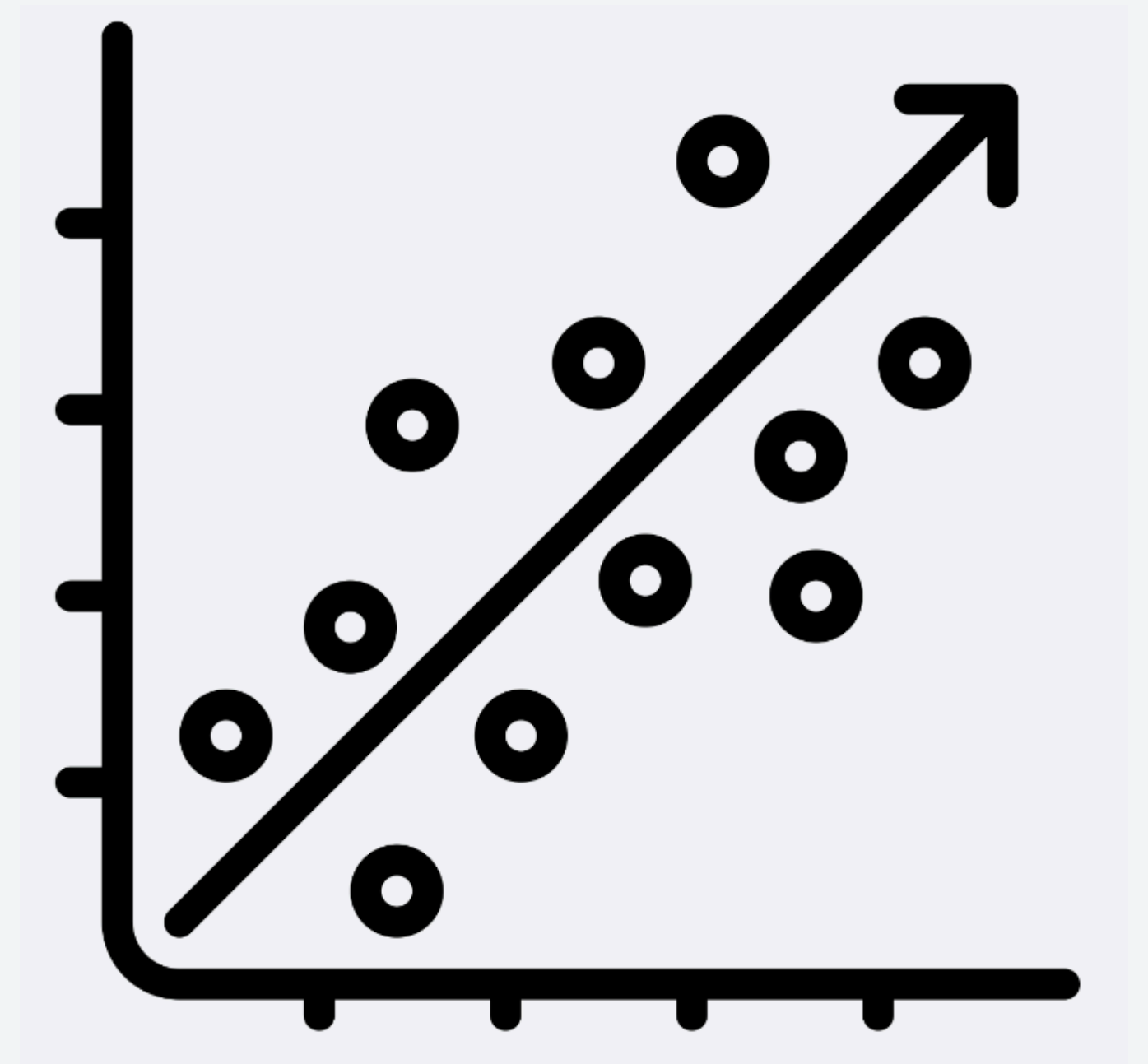
- Primary data set
- Data from 2016
- Contains average ACT or SAT scores for schools
- Contains socioeconomic characteristics for school districts

NCES

- Secondary data set
- Contains basic info on schools

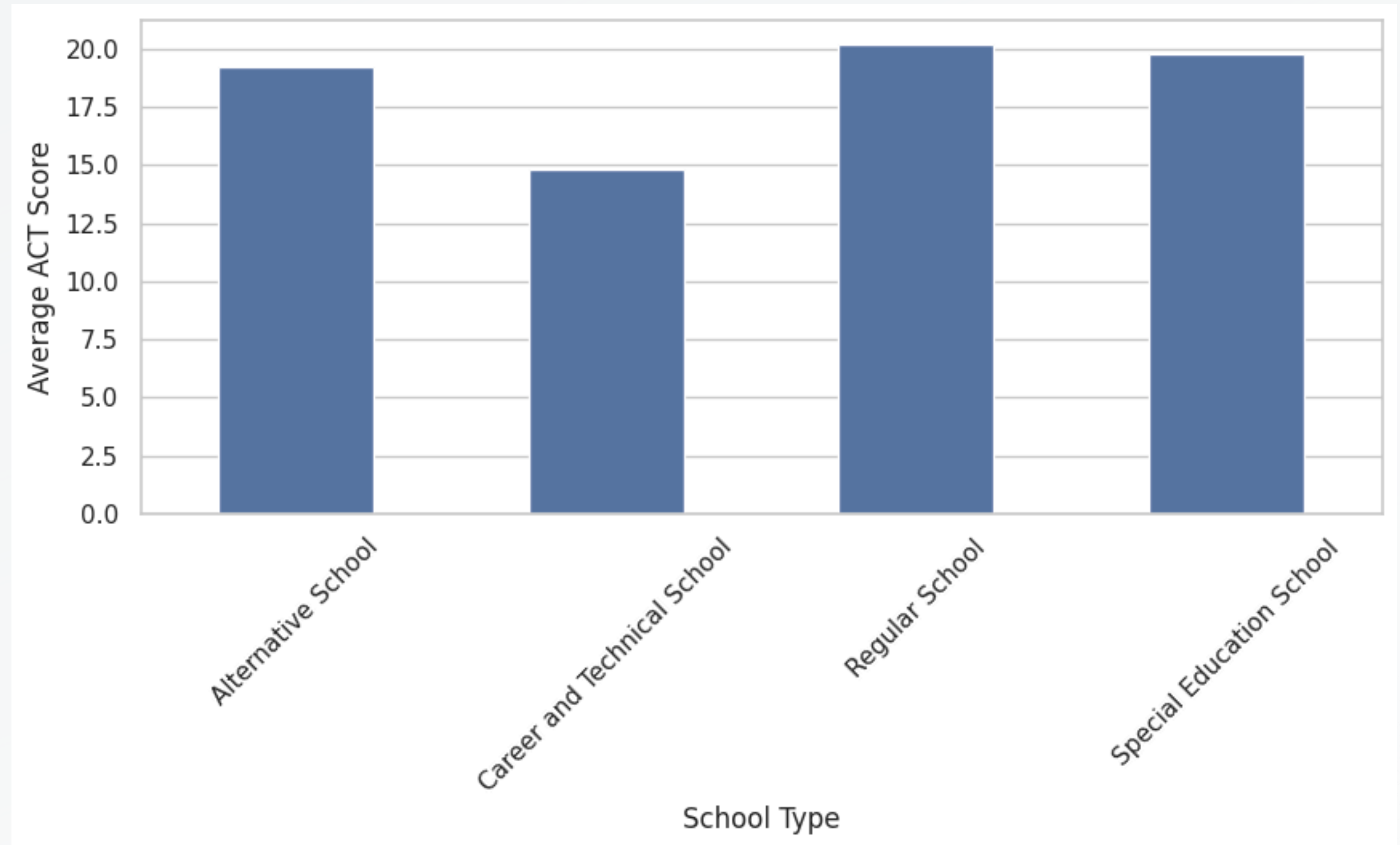
METHODOLOGY

- Linear regression analysis
- Selection of the best subset of predictors



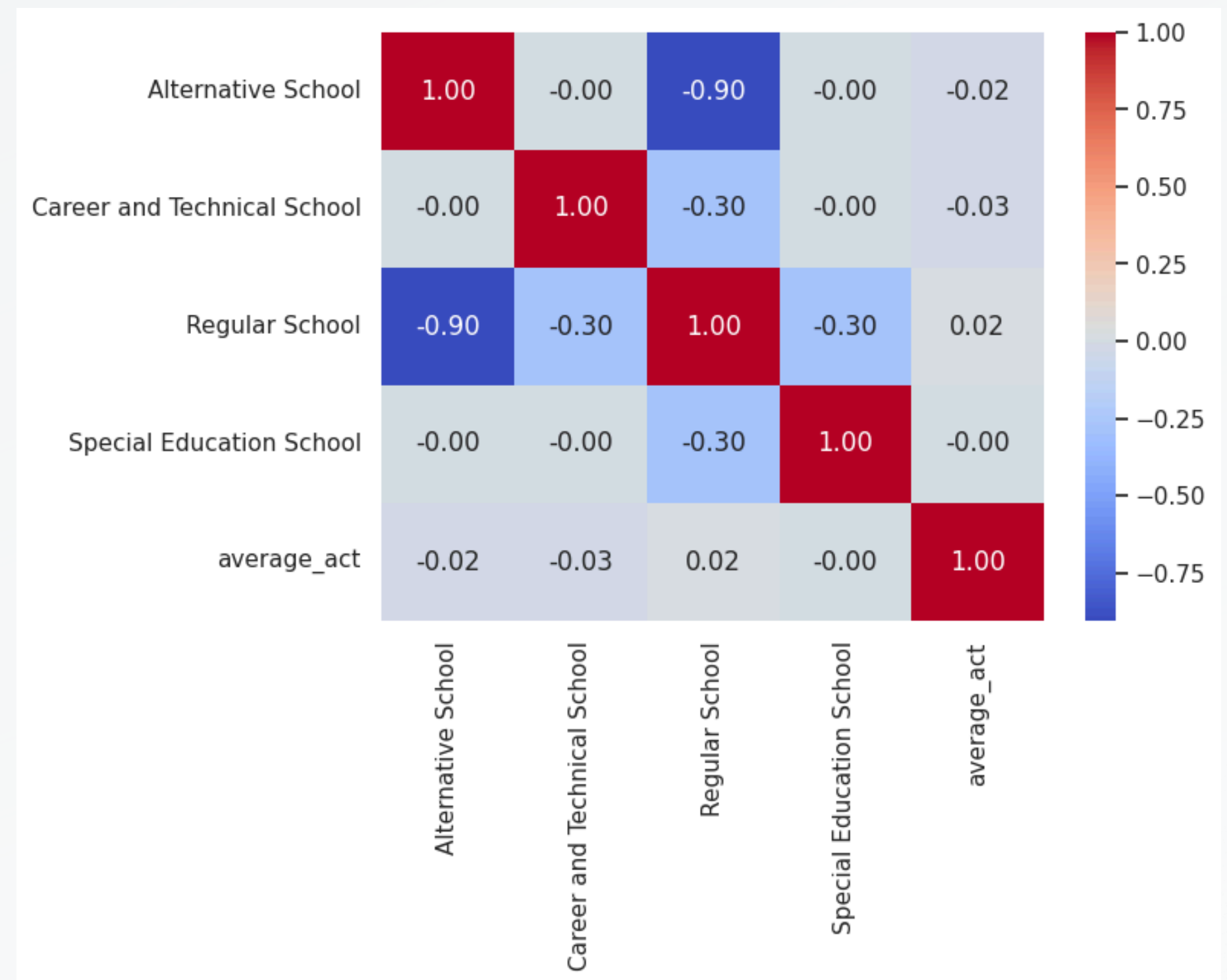
SCHOOL TYPE AND ACT

- Explore average act score for different school types
- Career and technical school has the lowest average and regular school has the highest average

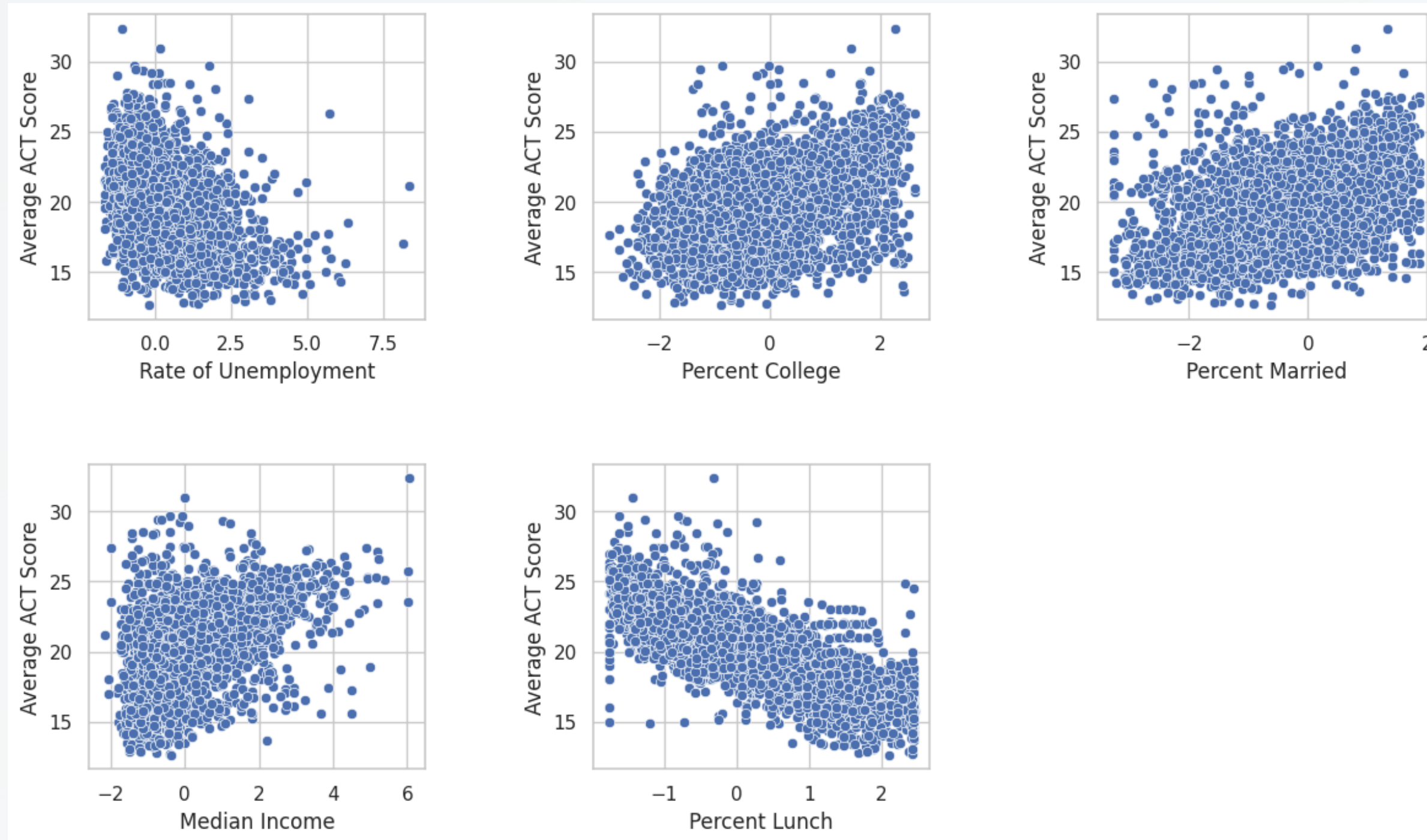


SCHOOL TYPE AND ACT

- Correlation between the different school types and act score
- All of the correlation coefficient is nearly zero



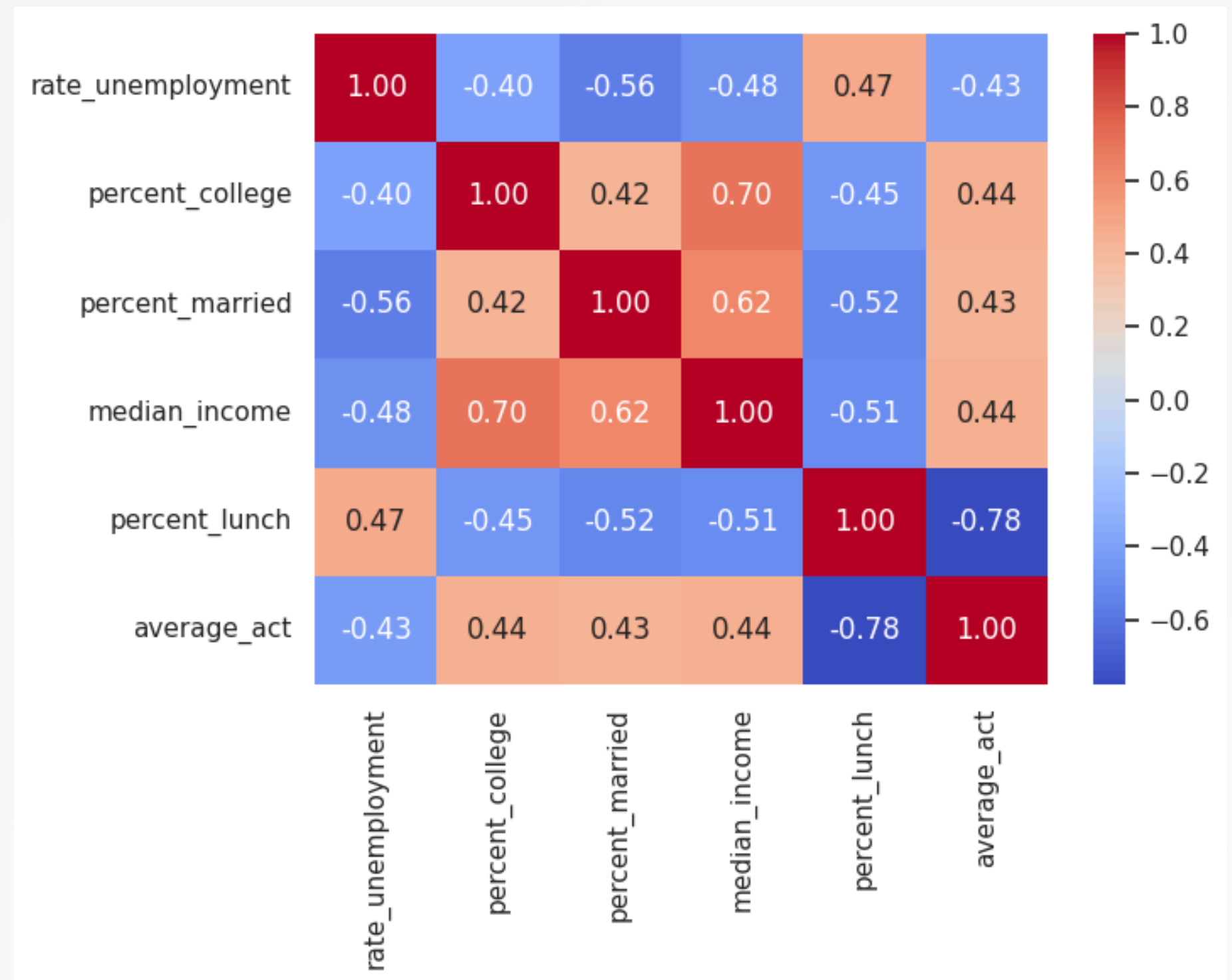
SOCIOECONOMIC FACTORS AND ACT



Reveal relationships between socioeconomic factors and act score, this will help us select the features included in our regression

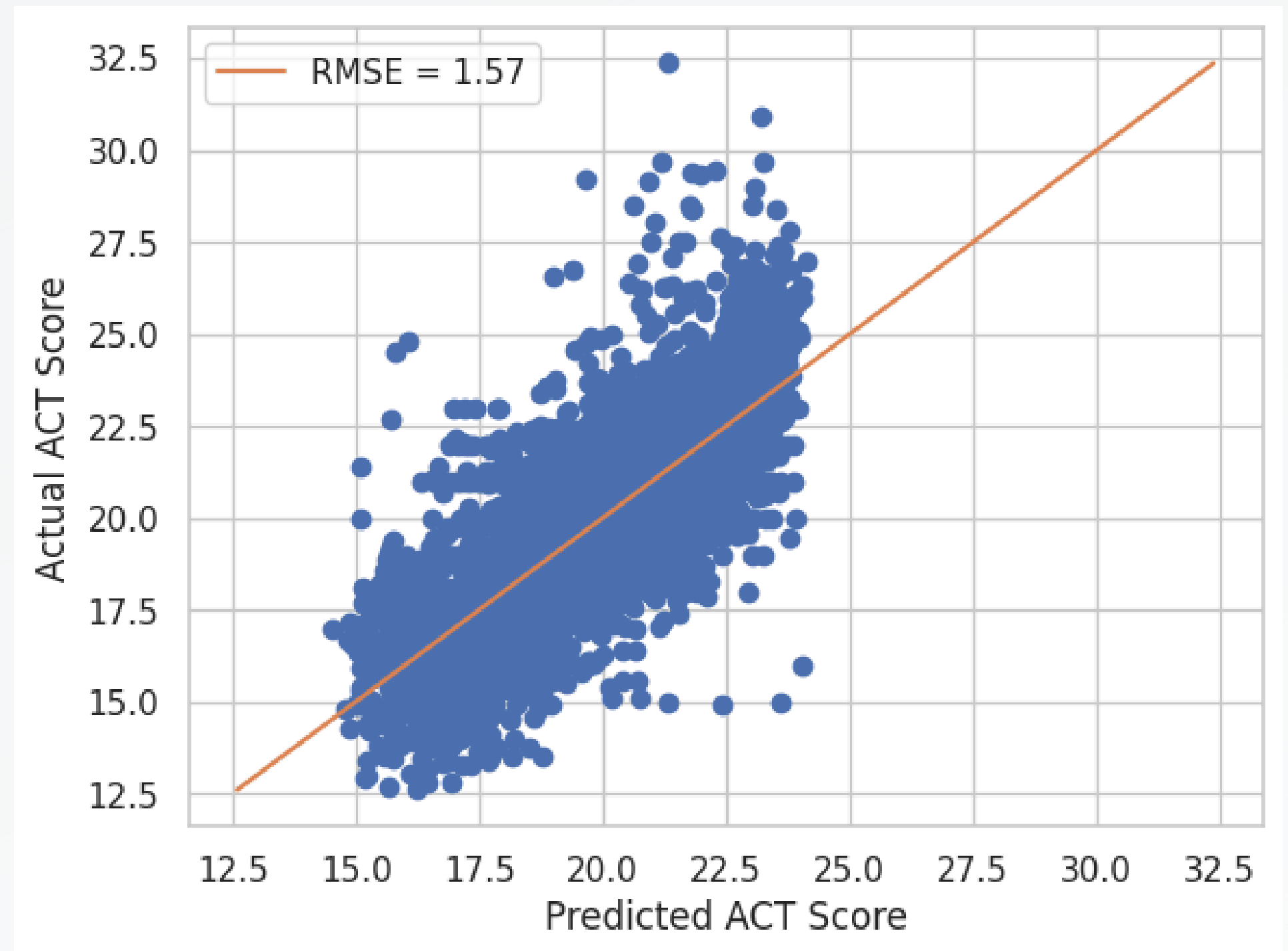
SOCIOECONOMIC FACTORS AND ACT

- Correlation map can also help with feature selection
- All of these numerical socioeconomic factors seem to have a moderate correlation with act scores



SOCIOECONOMIC FACTORS AND ACT

- Use of linear regression
- Included all numerical columns in regression model
- Some under prediction is noticeable



CONCLUSION

- Explored how school type can potentially impact act scores but learned there is not much of a correlation there
- Using linear regression model to predict act scores
- Although the model can be improved with additional variables, it was decent in predicting act scores based on socioeconomic factors