

NYC School Success

By Edith Johnston



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Project Details

Scope

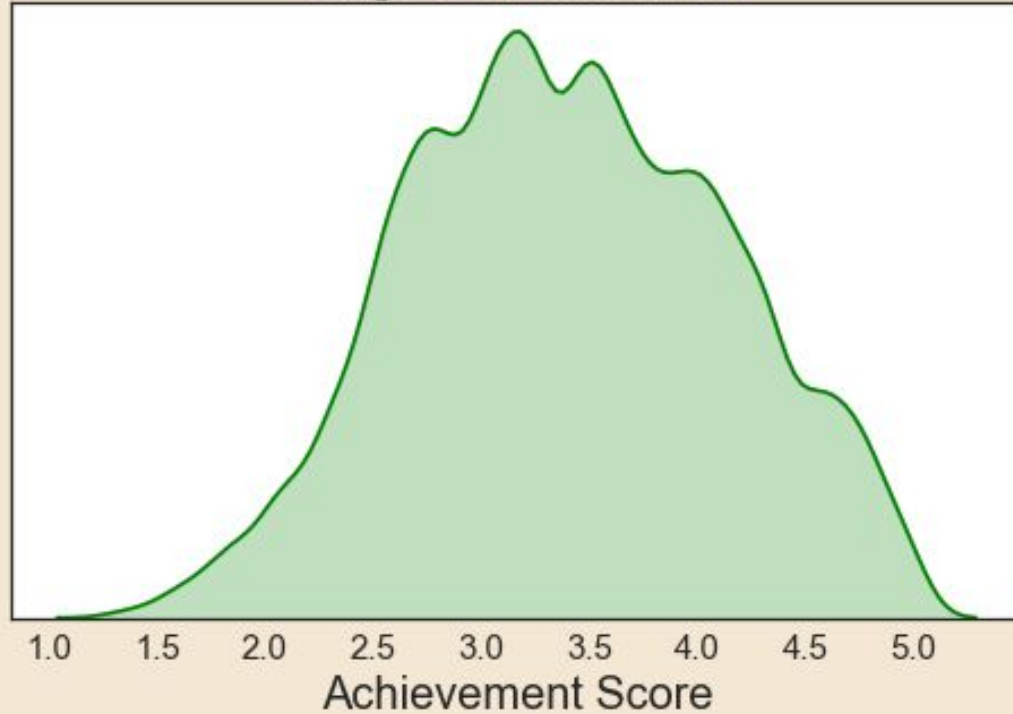
Area of
Focus

Features



Features

Target Distribution

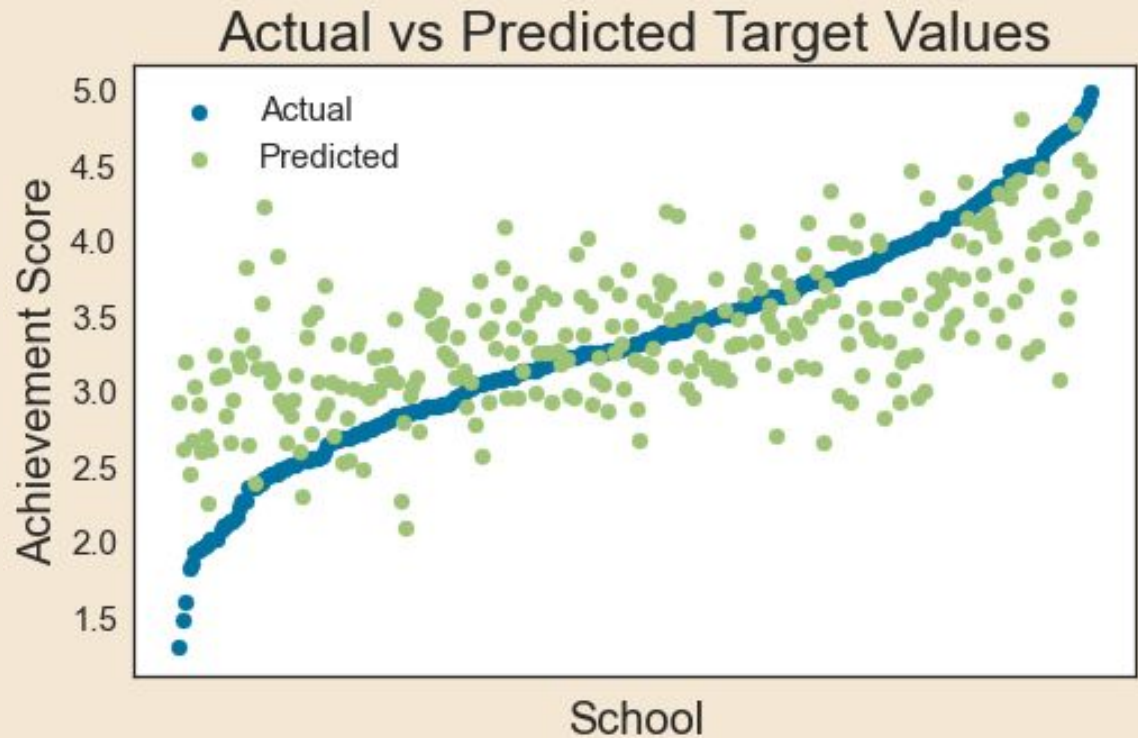


Model

Test Data Model
Performance

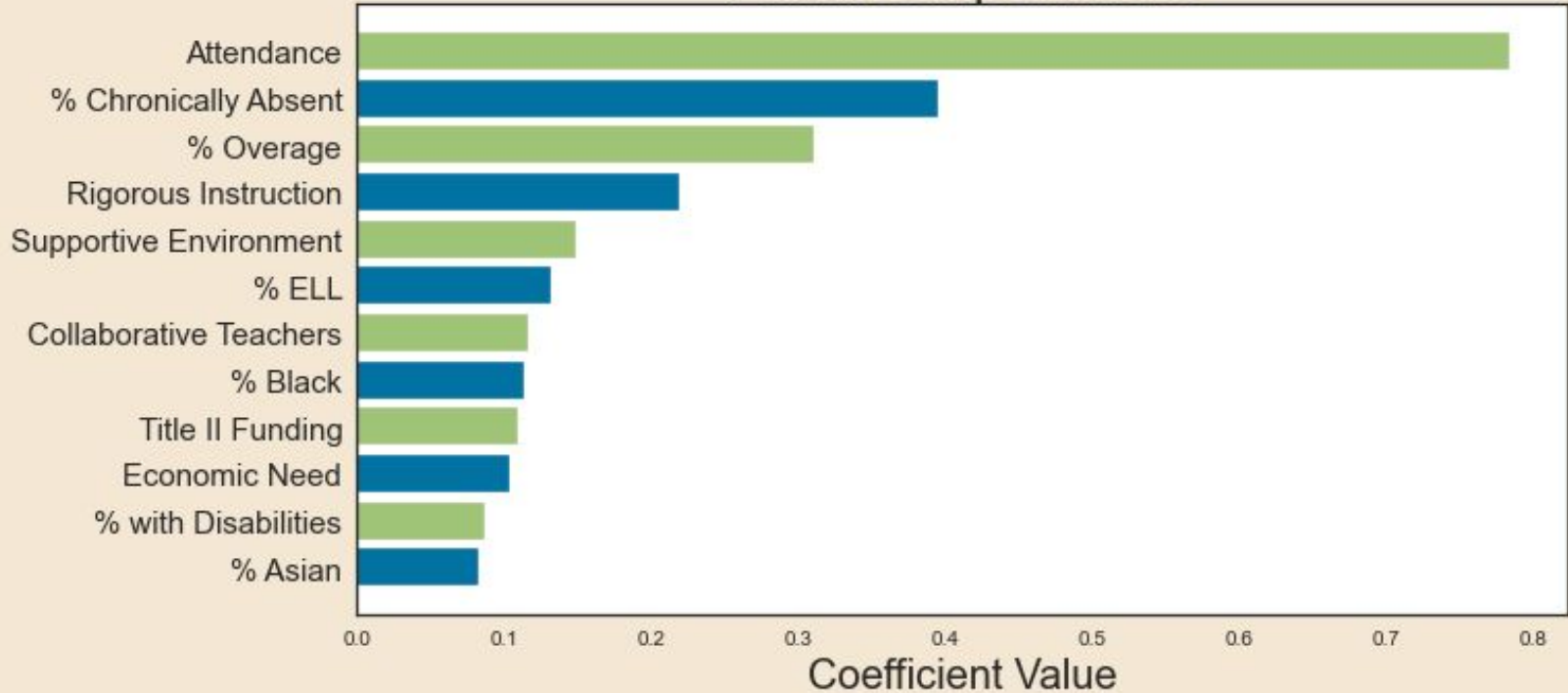
R^2 : 0.398

MAE: 0.45



Model Features

Feature Importances



Most Impactful Features

0.78

Attendance Rate

0.31

% Overage Students

0.15

Supportive School
Environment

0.39

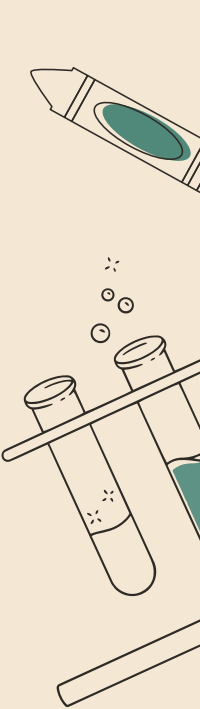
% of Student
Chronically Absent

0.22

Rigorous Instruction

-0.13

% ELL students
(English Language
Learners)





Feature Impact

Two kinds of features

Intrinsic

Location, racial profile,
economic need, etc

Changeable

Spending, attendance rates,
teacher training, etc

Some Max/Min Correlations

-.46

Achievement

.....
%
**Chronically
Absent**

.65

**% Chronically
Absent**

.....
**POC
(% Black +
% Hispanic)**

.75

POC

.....
**Economic
Need**

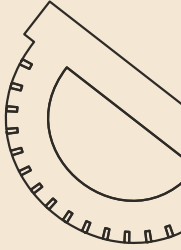
.76

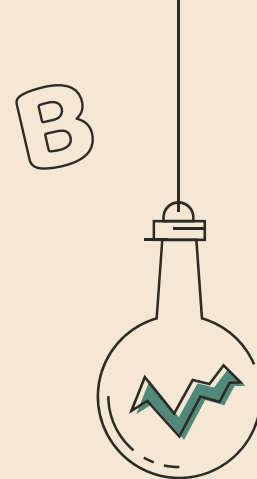
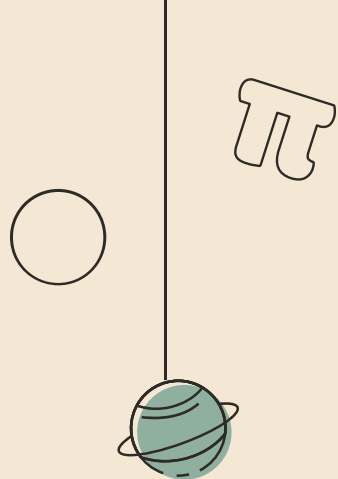
POC

.....
**% in
Temporary
Housing**

3

+





Conclusions

There's a lot to unpack here

Future Work

◆ Improve Model

- More variables!
- More interaction features

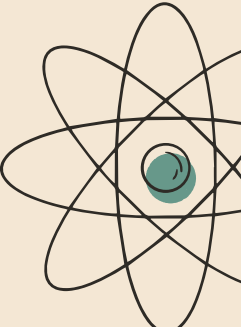
◆ Focus

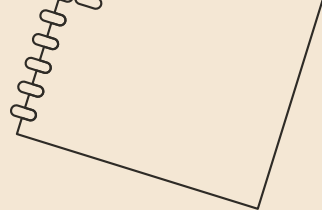
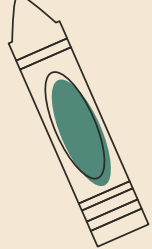
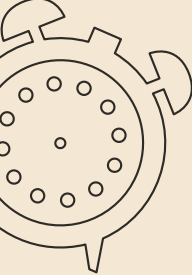
- Attempt to focus on features that can be changed



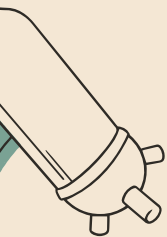
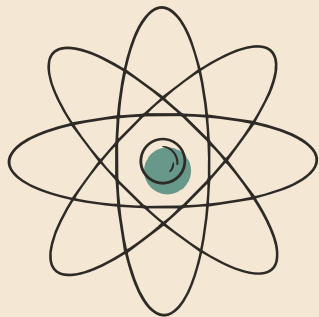
T

B



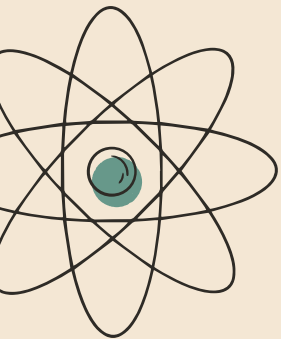


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Appendix

Thank you for your time



Data Sources

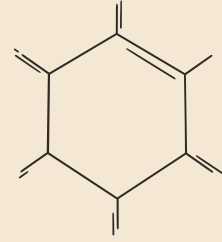
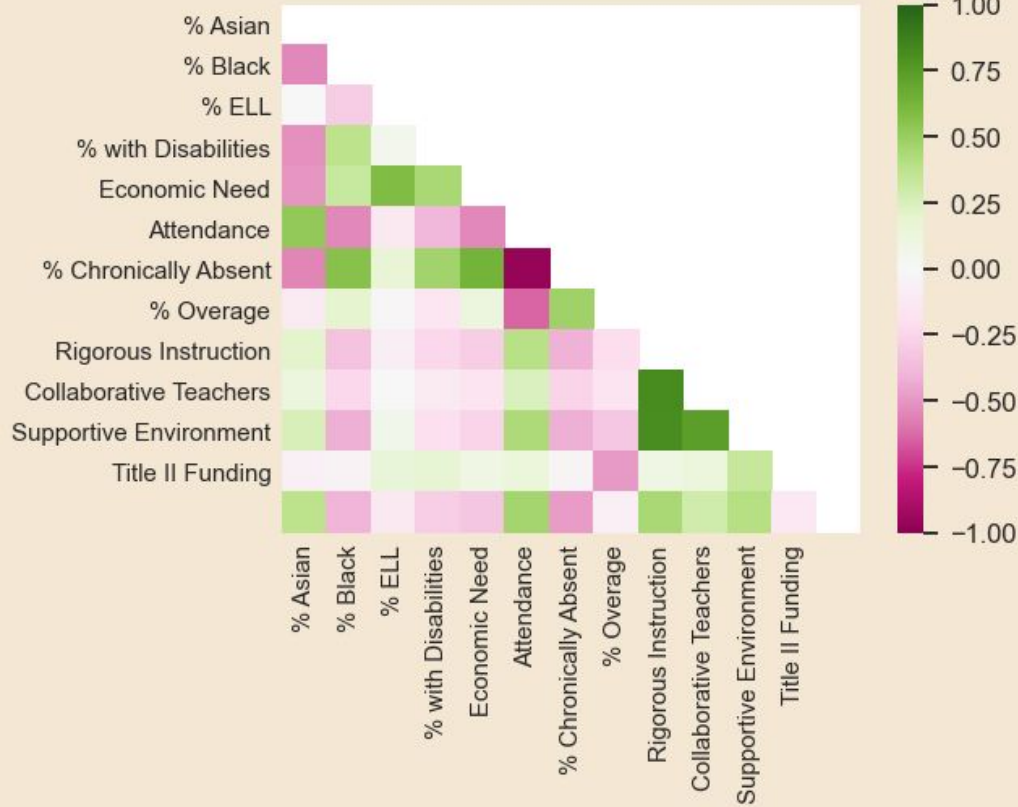
NYCED

Quality Review

NYSED

Financial Transparency Reports

Feature Correlations



3

%

Other 6 Model Features

-0.17

Collaborative
Teachers

-0.11

Title II Funding:
Teacher Quality

0.09

% of Students with
Disabilities

-0.13

% Black Students

0.10

Economic Need
Index

0.08

% Asian Students

