Group no. 6

Our research question: "which specific aspects of the school climate are most strongly connected to students' math grades? And do these connections change between different socioeconomic groups?"

INTRODUCTION TO DATA SCIENCE | 382.1.2601 | JUNE 2025

Amit Lalush, Dor Benita, Moran Shavit, Yoav Evron

Previous researches

predictors of academic success

✓

- Safety
- Student-teacher relationships
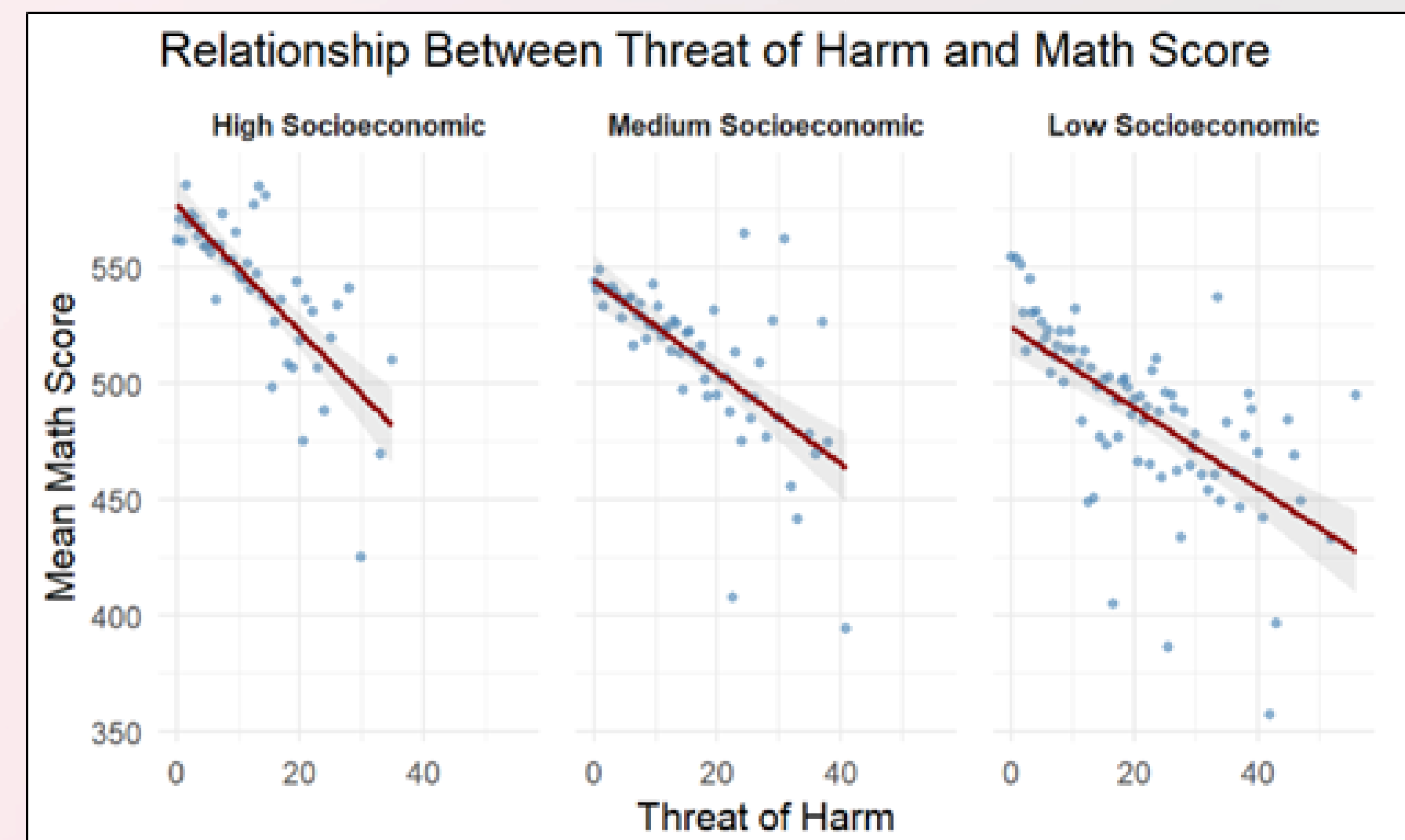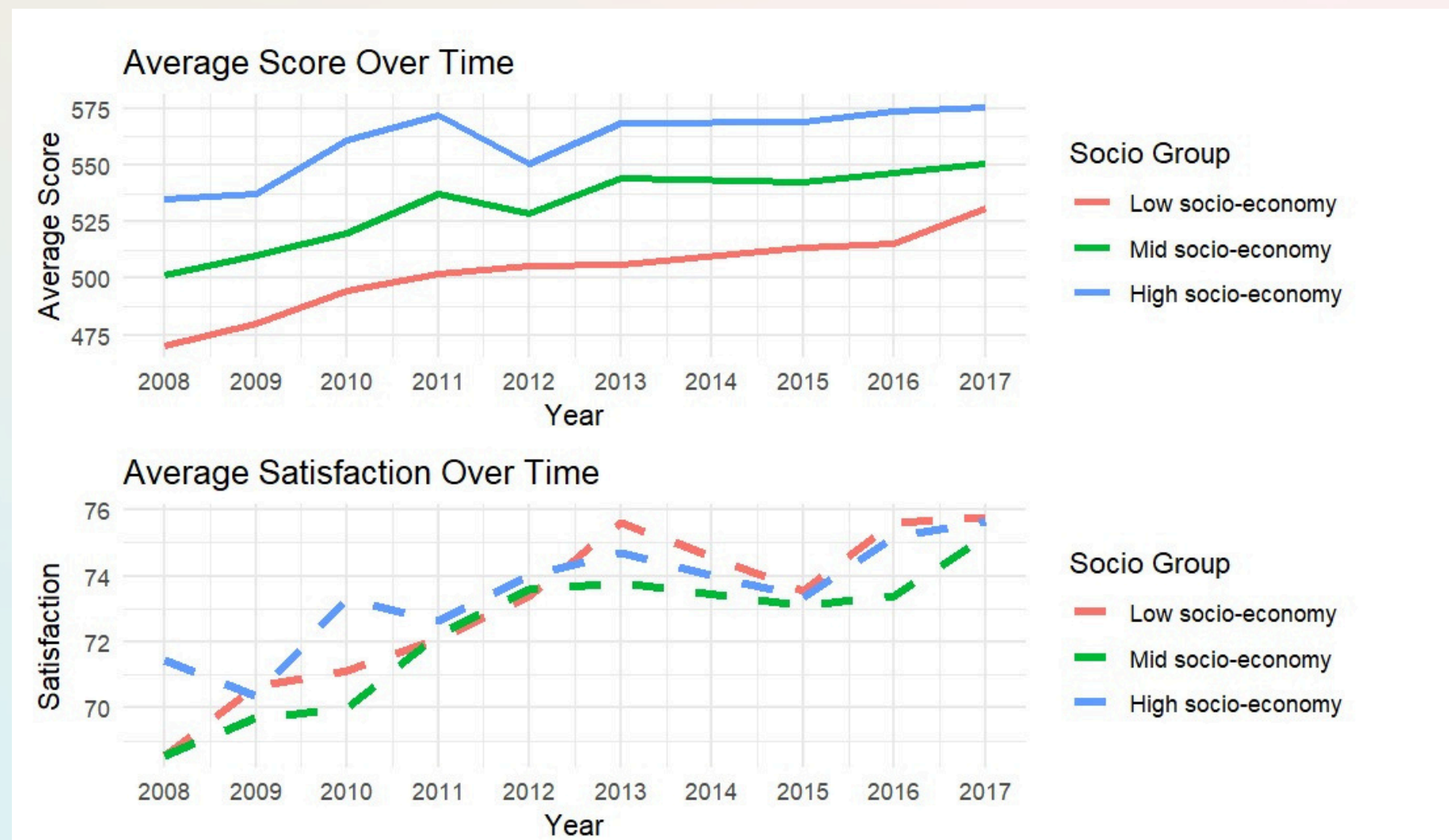- Sense of belonging

✗

- Exposure to violence
- Bullying
- Fear

Challenge and Contribution

- intercorrelation and correlation between school climates and socioeconomic level

- Find the specific variables in Israel, and also to deal with the correlation to socioeconomic level

Data Overview and EDA

(1) Meitzav" test scores table (2) Socioeconomic background table (3)

Schools' climate survey results table

Model and Feature Importance

- Feature grouping

- Linear regression

- Bootstrapping

- Cross validation

Results and Evaluation

Linear Regression Coeffients