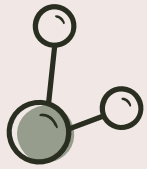


Increasing Enrollment in STEM Majors

Lauren Phipps

Lauren Phipps



AGENDA



01

Business Problem

02

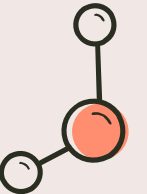
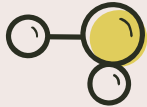
Data & Methods

03

Results

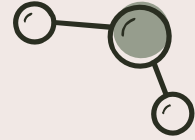
04

Conclusions



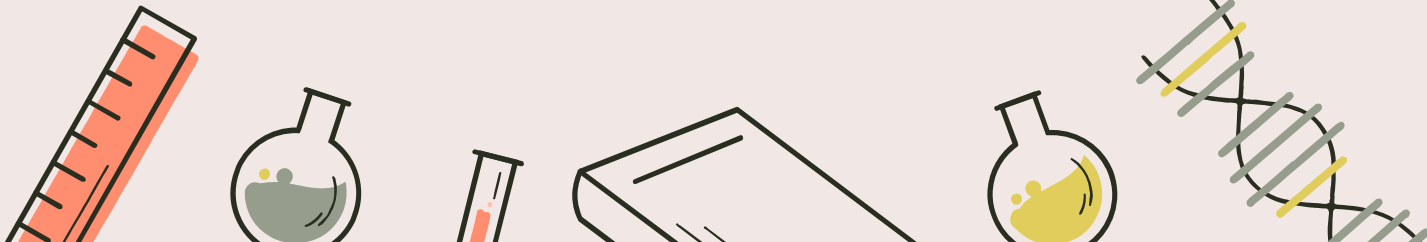
Business Problem

- STEM jobs are growing each year and most require a college degree
- U.S Dept of Ed invested \$578 million in STEM education in 2020 to meet the needs



Goal

- Determine factors that most impact a student's decision to major in STEM



DATA



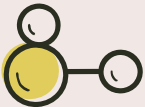
Source

2009 High School
Longitudinal Survey
from National Center
for Education
Statistics

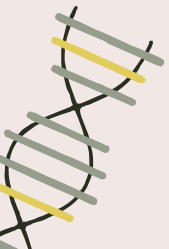
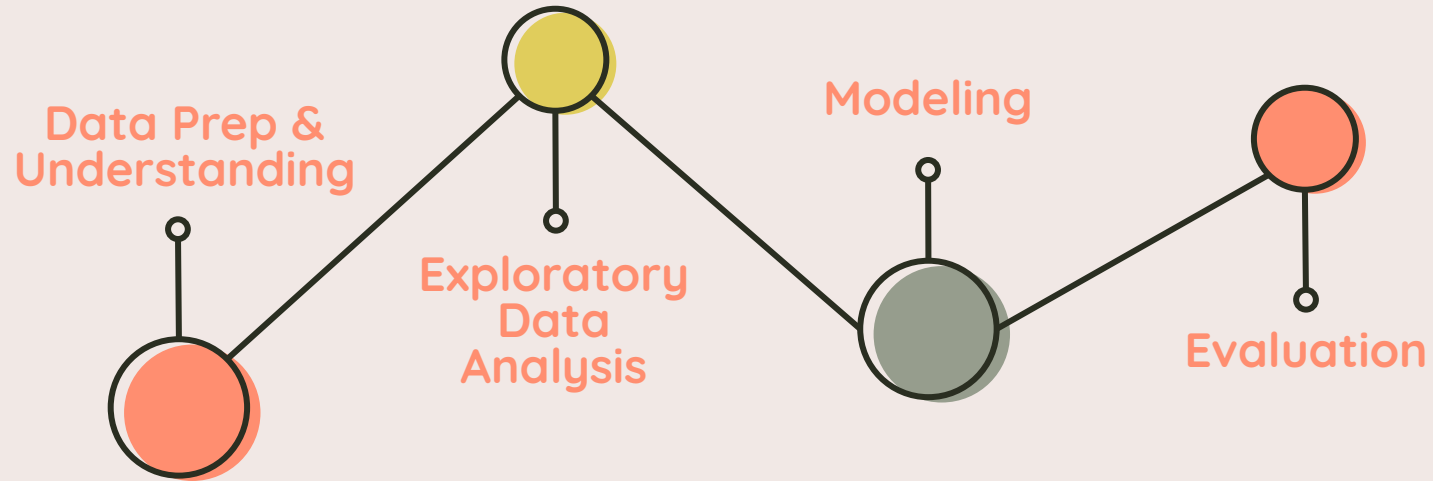


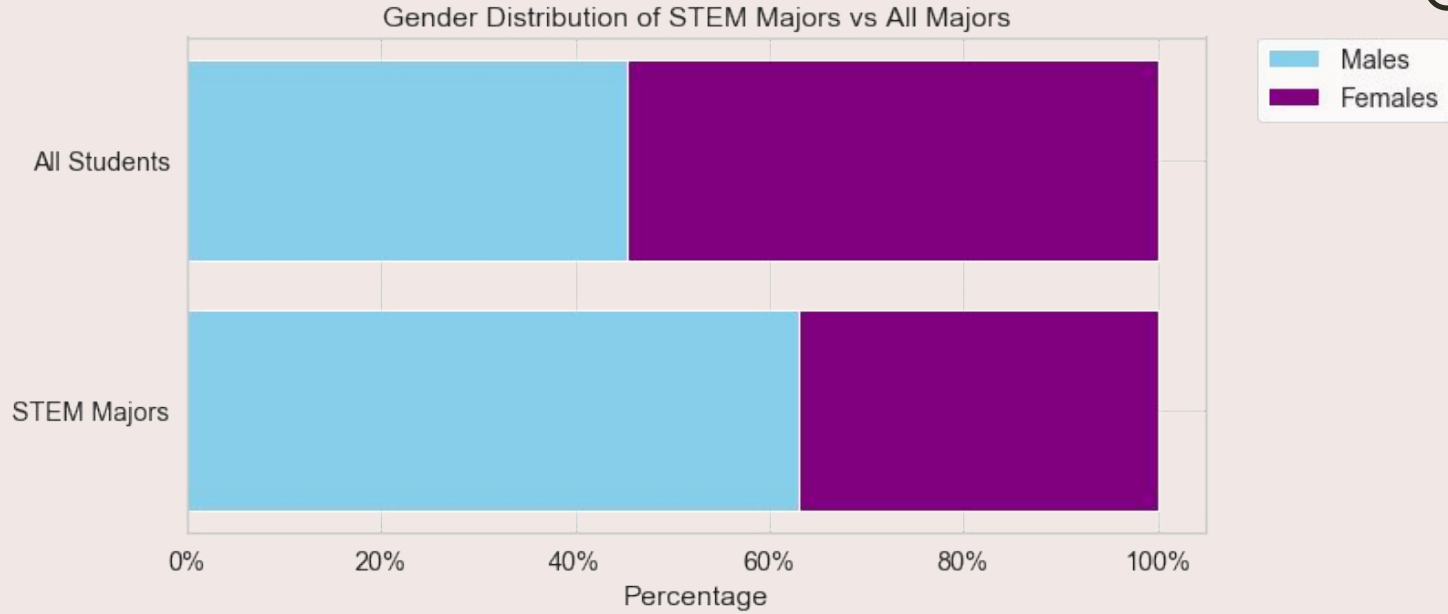
- 23,000 High School Students
- 944 High Schools
- 2012 Follow Up Survey

Features



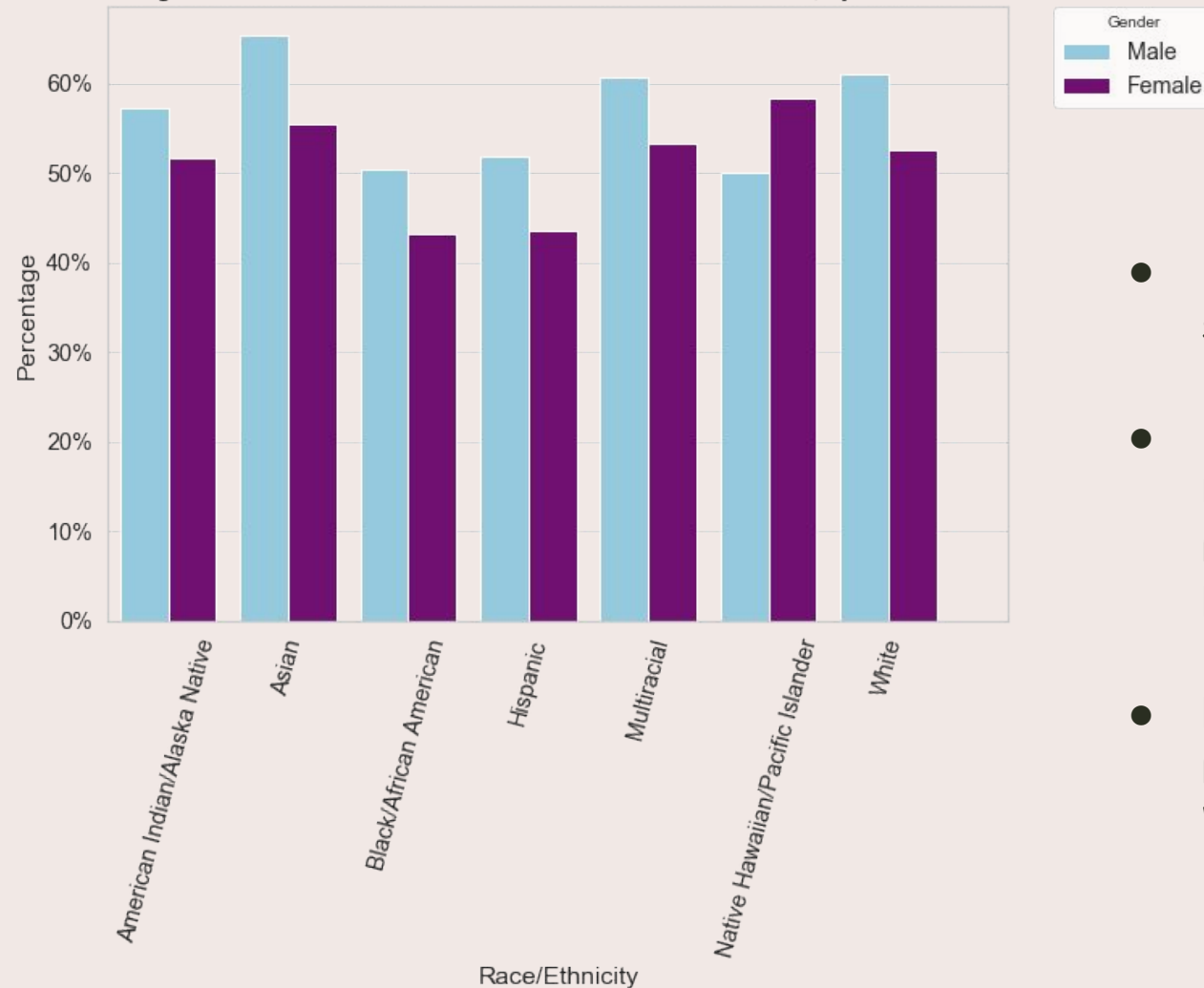
METHODS



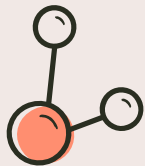


- Female students are underrepresented in STEM majors

Percentage of Students Who See Themselves as a Science Person, by Race and Gender

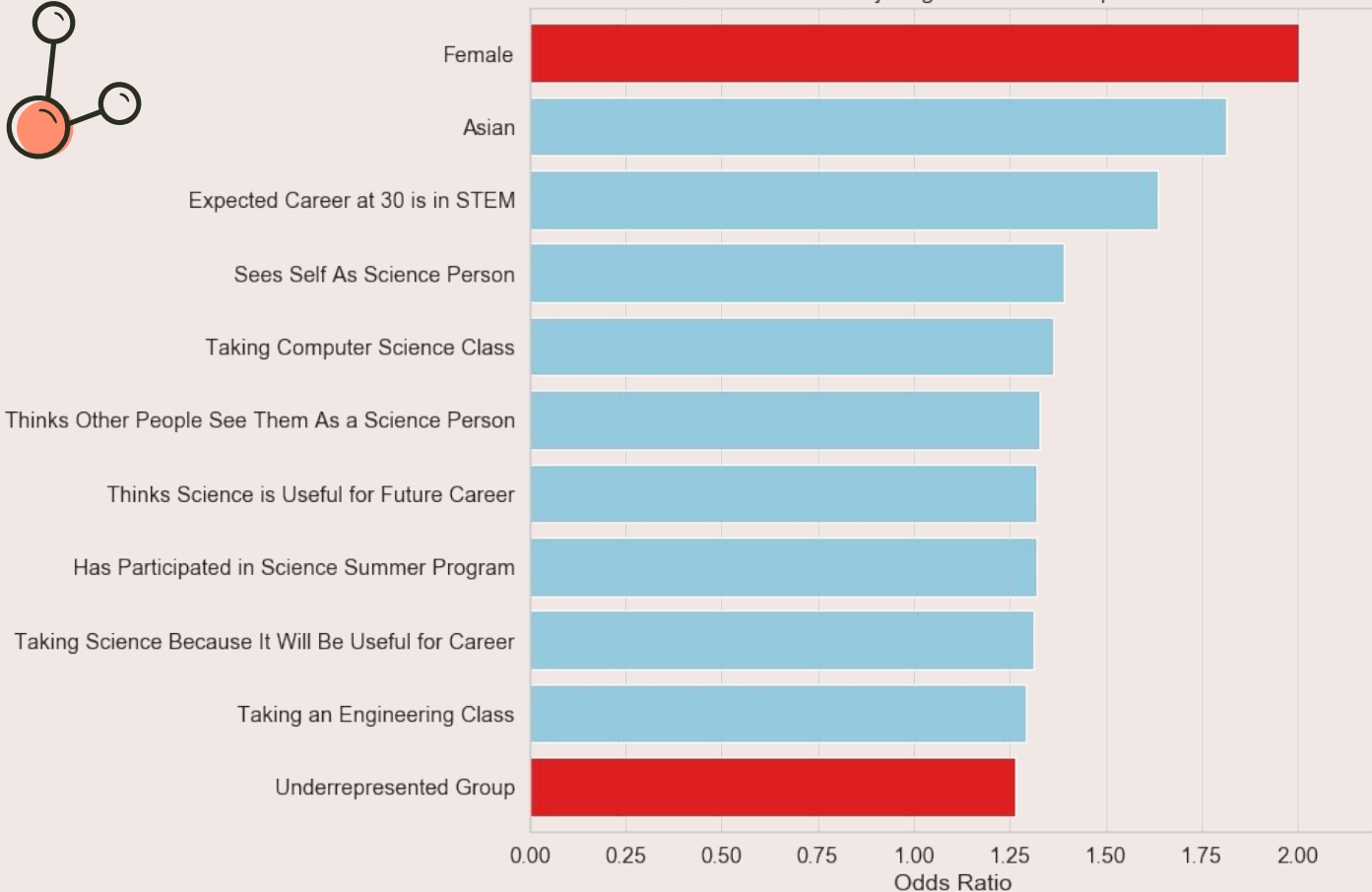


- Lower for female students, overall
- Lowest for Black/African American and Hispanic students
- Highest for Asian, Multiracial, and White males



Feature

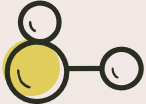
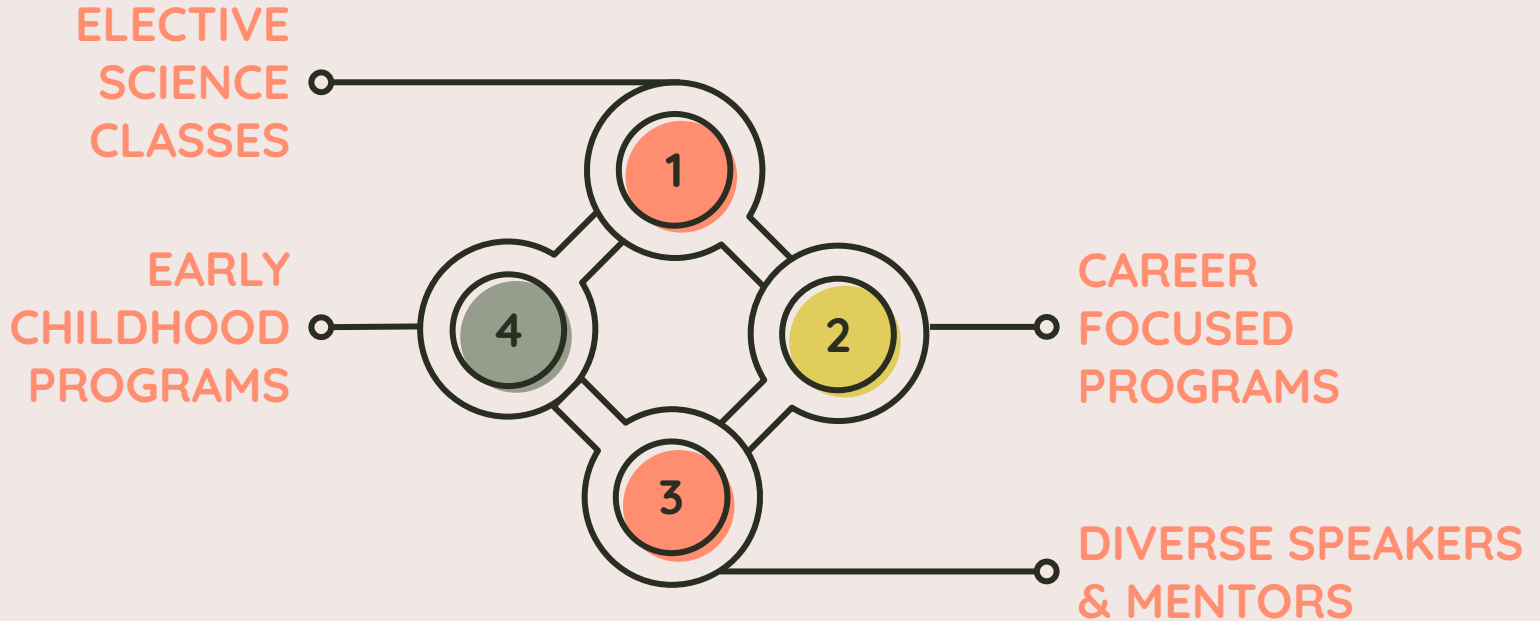
Odds Ratio of Majoring in STEM for Top Features



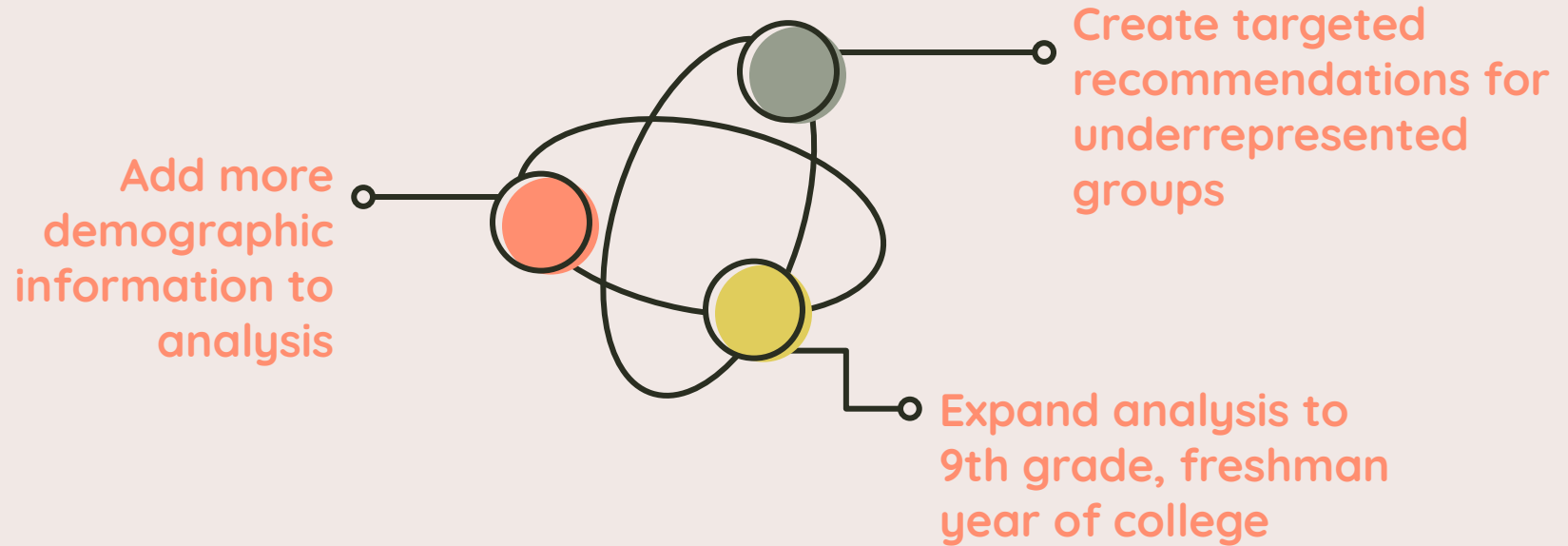
Decrease Likelihood
Increase Likelihood

- Tuned Logistic Regression model
- Importance of science identity
- Importance of future career

CONCLUSIONS / RECOMMENDATIONS



NEXT STEPS





Questions?

Lauren Phipps
lhphipps@gmail.com
github.com/laurenhipps
[linkedin.com/in/laurenhipps89](https://www.linkedin.com/in/laurenhipps89)

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