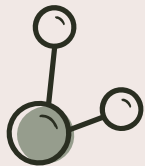


# Increasing Enrollment in STEM Majors

Lauren Phipps

Lauren Phipps

# AGENDA

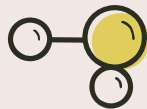


01 Business Problem

02 Data & Methods

03 Results

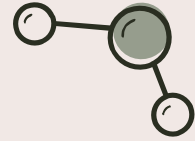
04 Conclusions



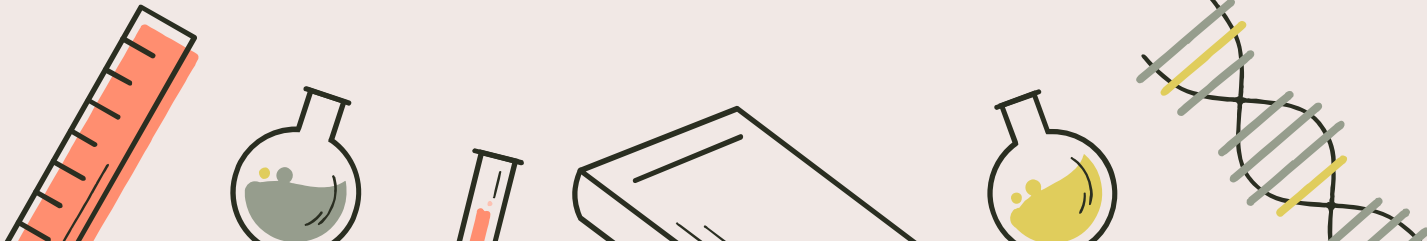
## Business Problem

- STEM jobs growing each year, most require a college degree
- U.S. Dept of Ed investing in STEM education

## Goal



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



# DATA

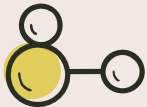


## Source

2009 High School  
Longitudinal Survey from  
National Center for Education  
Statistics



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



# DATA



## Example Features



Attitudes Toward Science



Science Classes



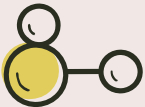
Majoring in STEM



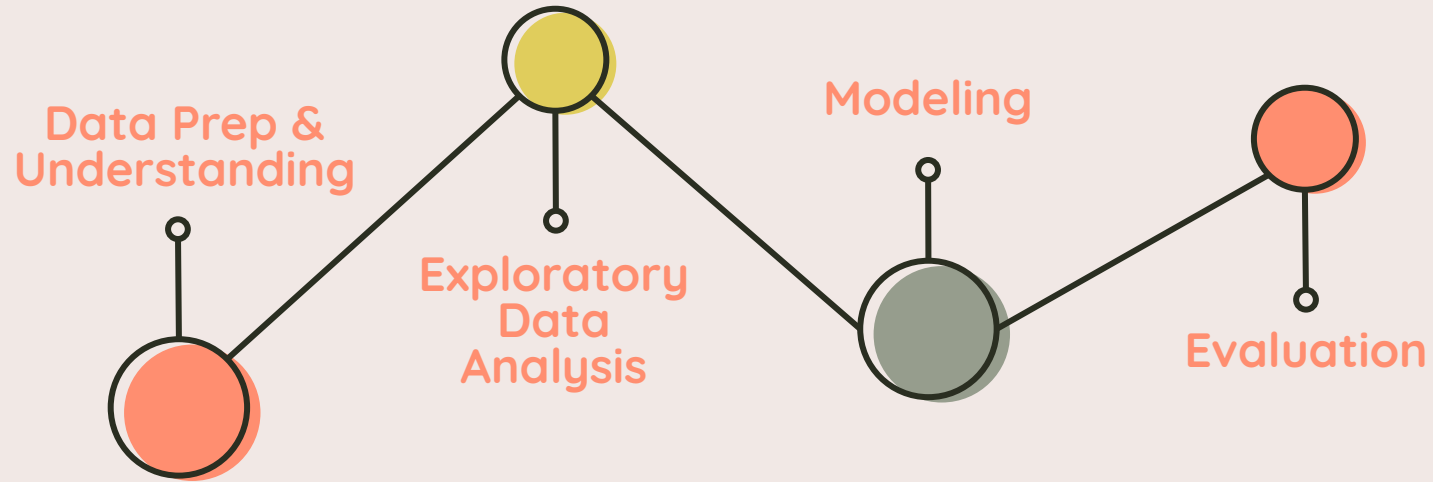
Anticipated Success  
in Science

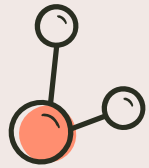


Perception of  
Science Teacher

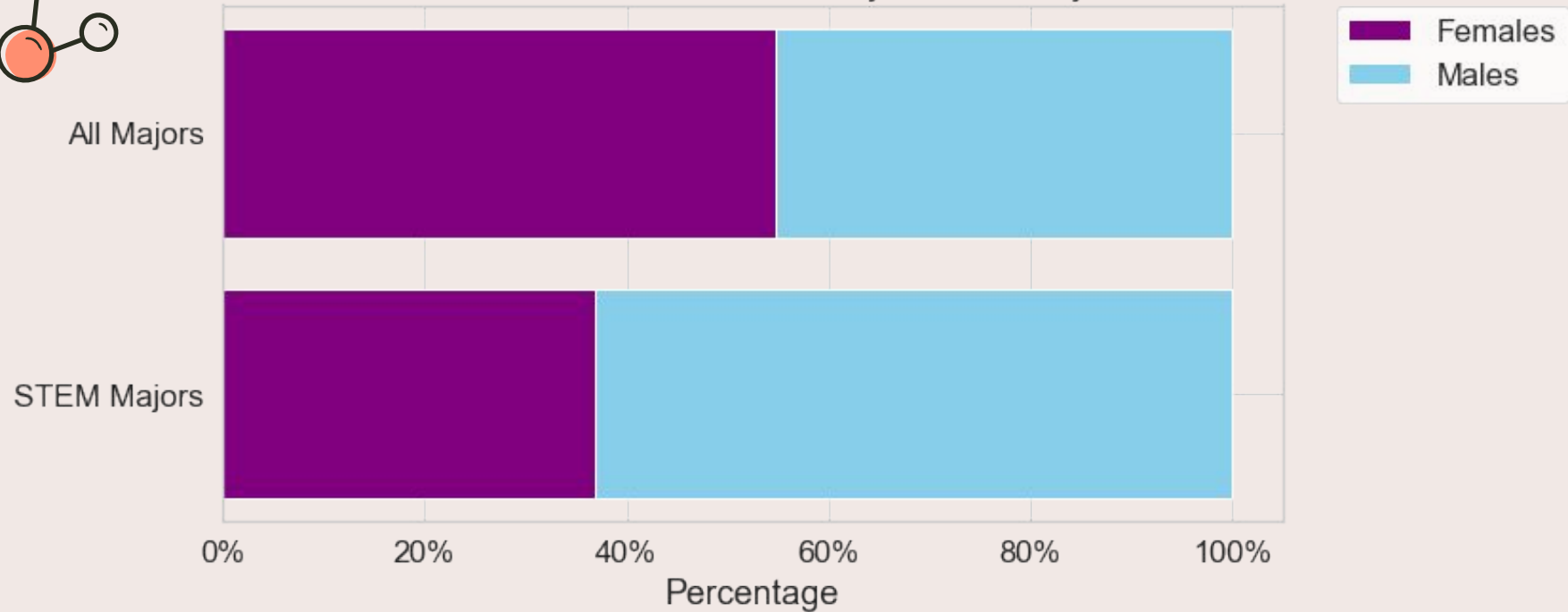


# METHODS



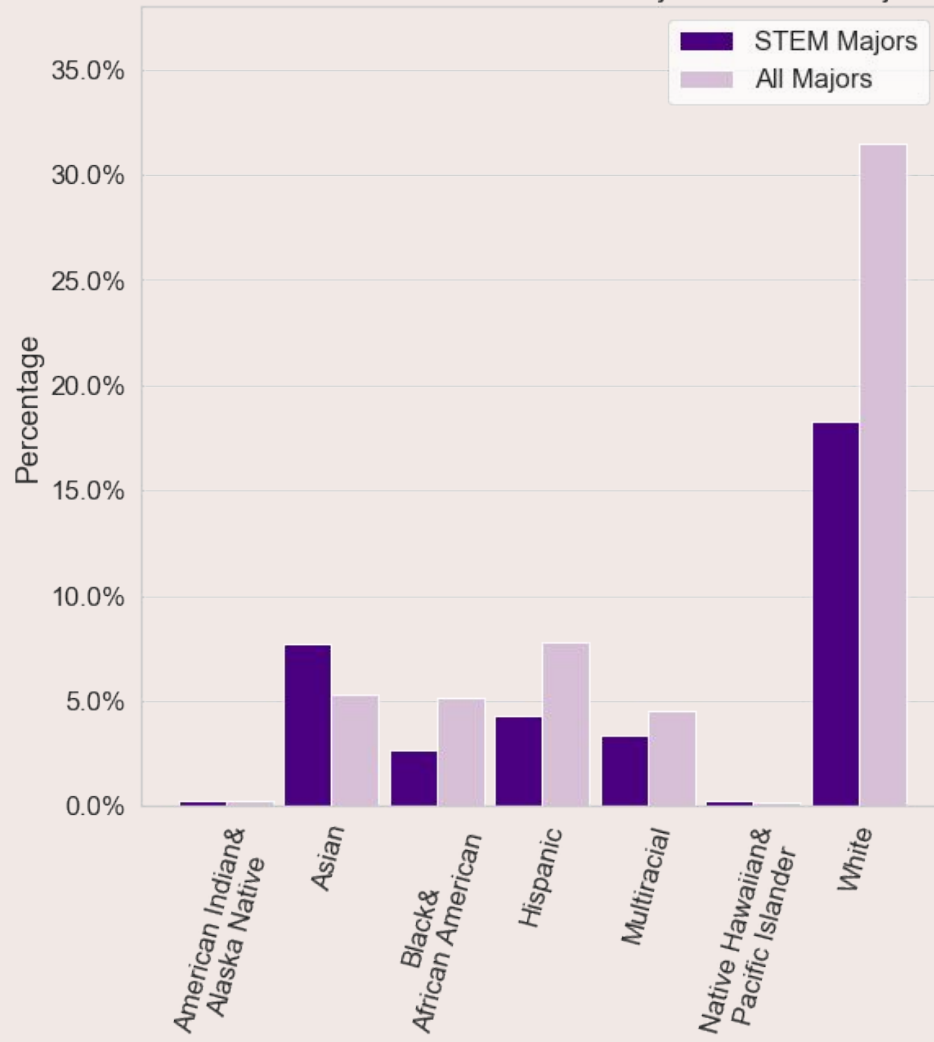


Gender Distribution of STEM Majors vs All Majors



- Female students are underrepresented in STEM majors

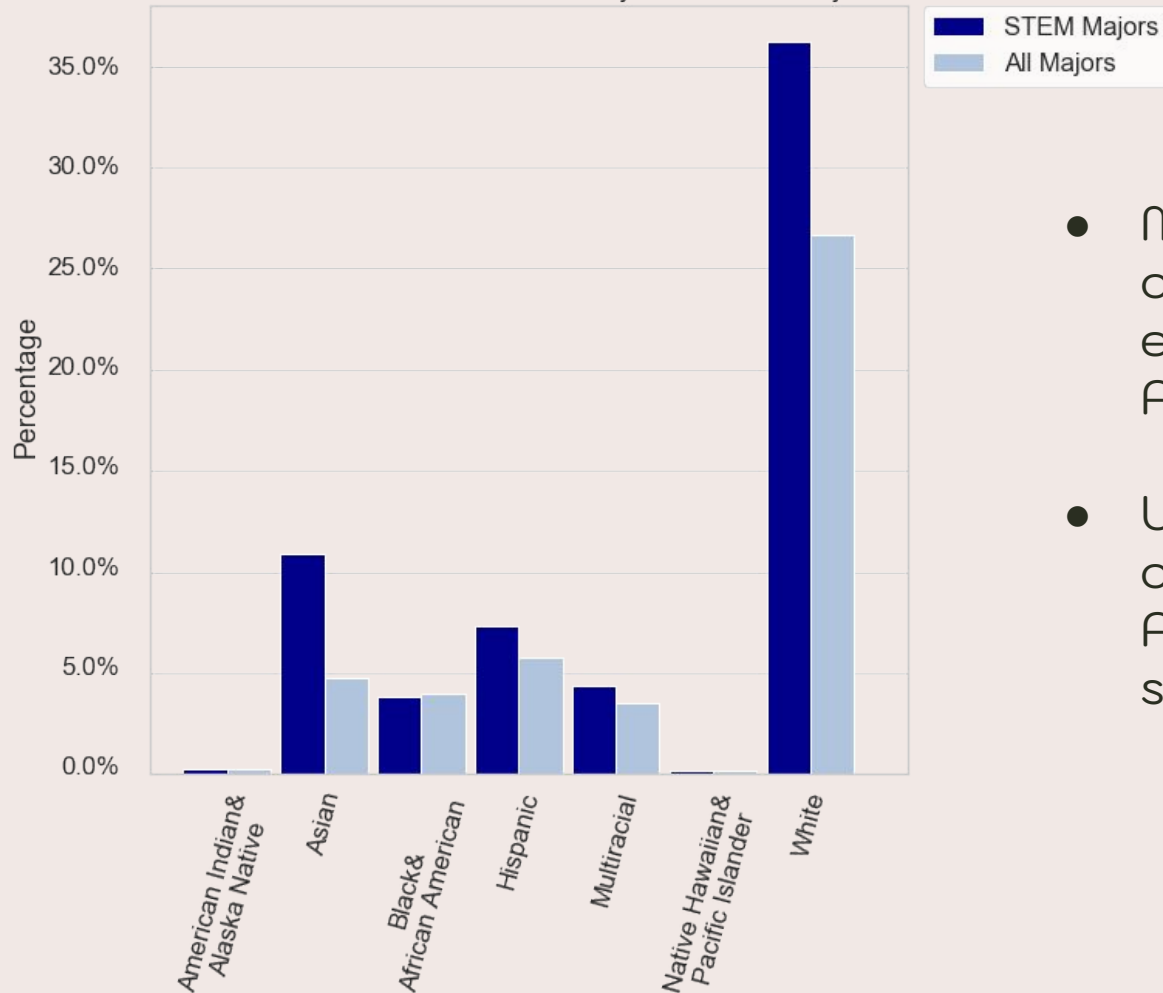
FEMALE - Racial Distribution of All Majors vs STEM Majors



- Female students underrepresented across most races
- Black/African American, Hispanic, and White female students most underrepresented

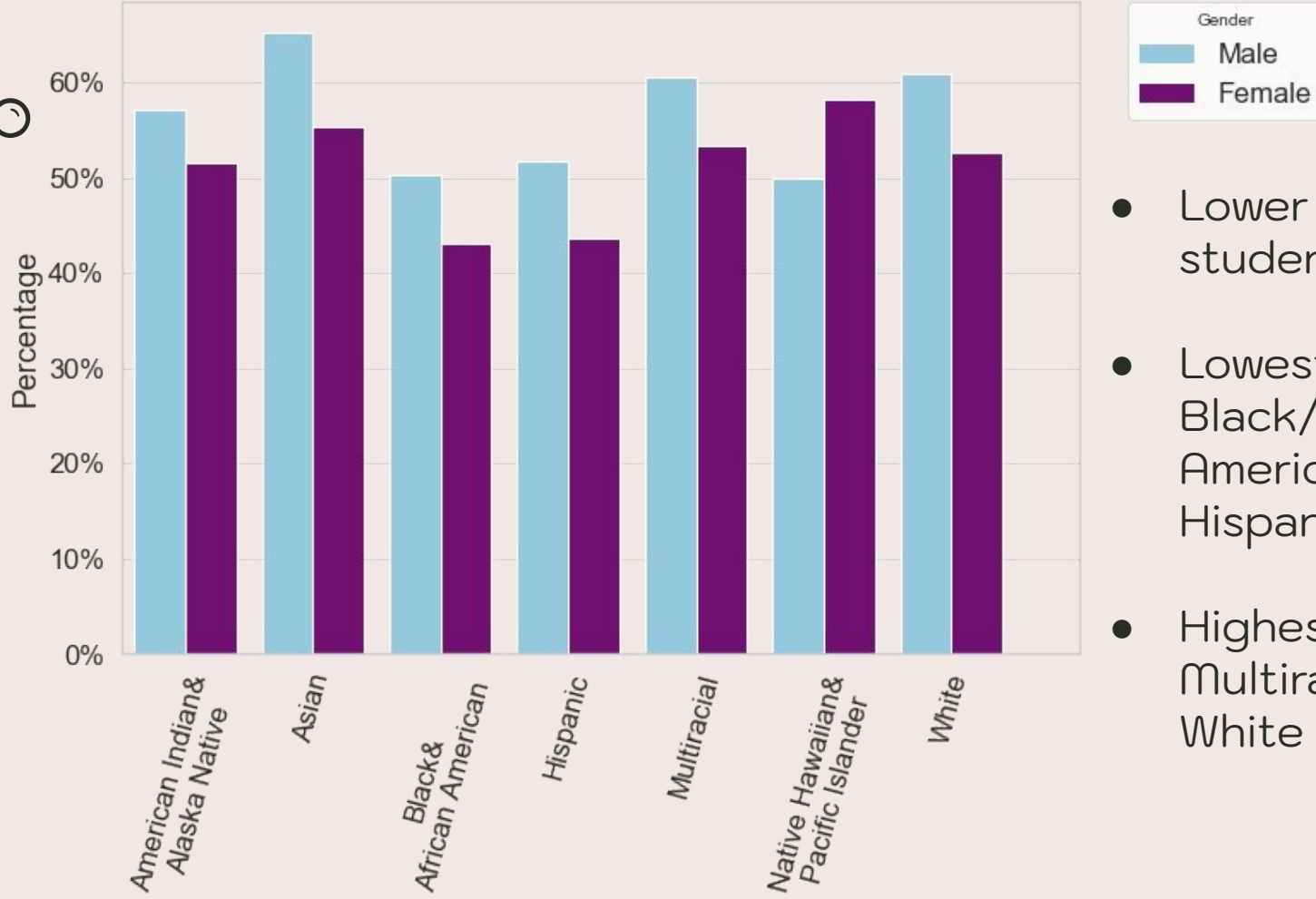
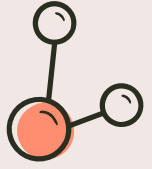


MALE - Racial Distribution of All Majors vs STEM Majors

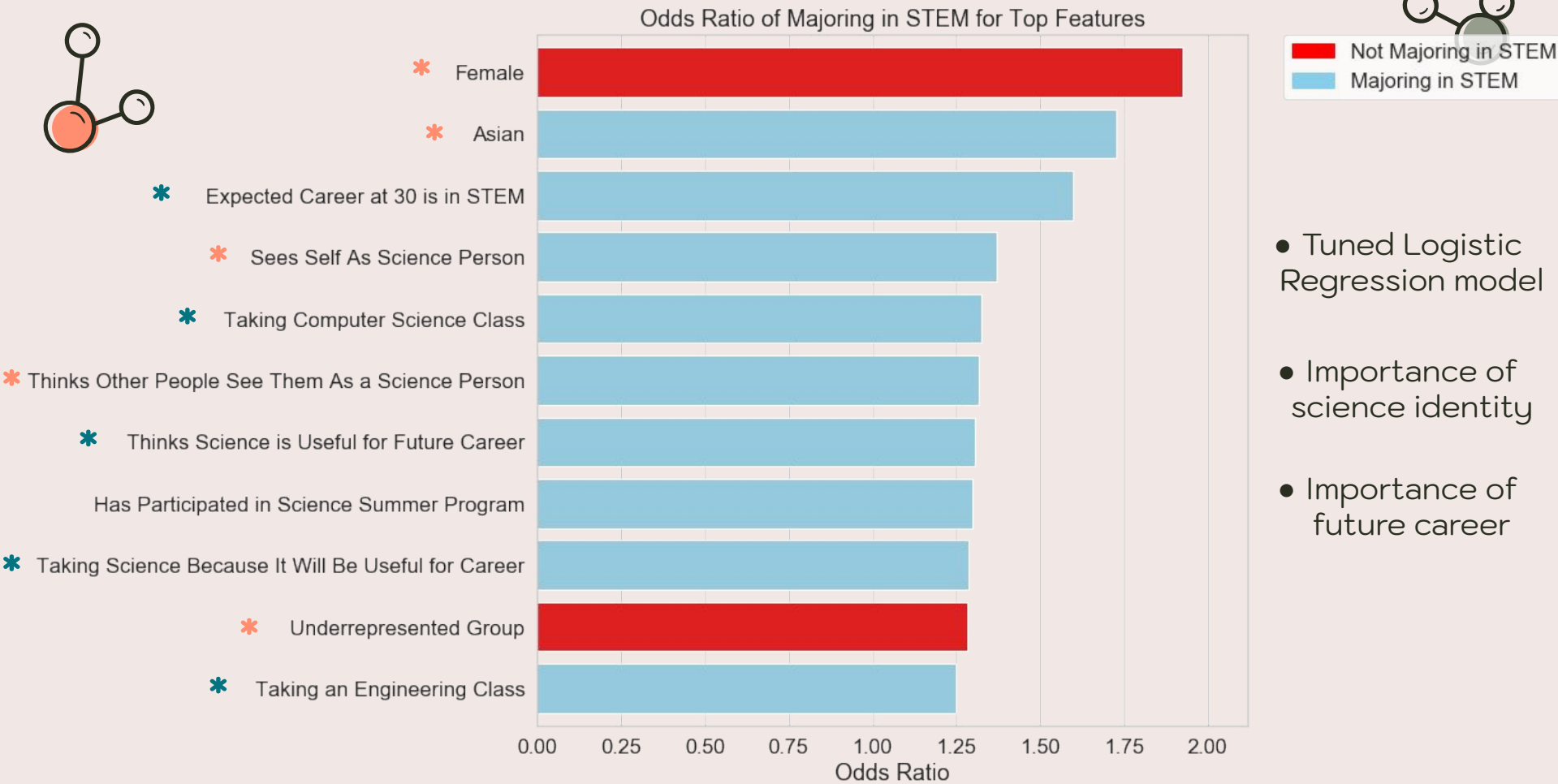
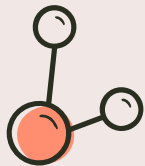


- Male students overrepresented, especially White and Asian male students
- Underrepresentation of Black/African American male students

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



# CONCLUSIONS / RECOMMENDATIONS



01

Elective Science Classes

02

Career-Focused Programs &  
Curricula

03

Diverse Speakers & Mentorship  
Programs

04

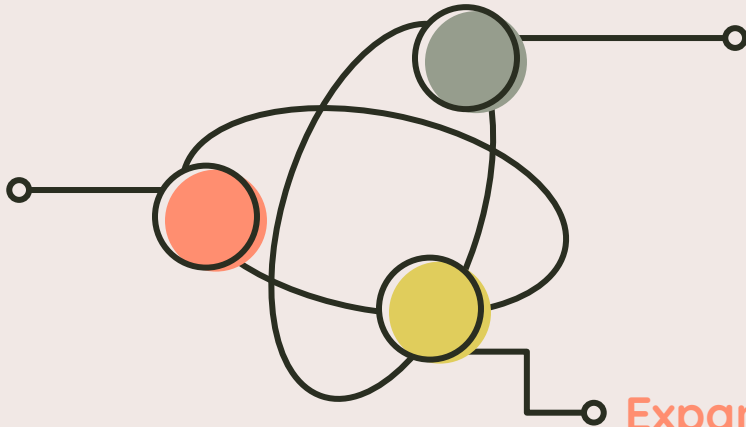
Early Childhood Programs



# NEXT STEPS



Add more  
**demographic  
information** to  
analysis



Create **targeted  
recommendations** for  
underrepresented  
groups

**Expand analysis** to  
9th grade, freshman  
year of college





# Questions?

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