

REvolutionizing Diversity Of Engineering (REDO-E)

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Recap

- Increase diversity in aerospace engineering (Fall 2017 undergraduates)
Women 11%
Minority 26%
- Increase emphasis on non-traditional applications of fundamental aerospace engineering
- Implemented first year survey to discover barriers faced by engineering majors

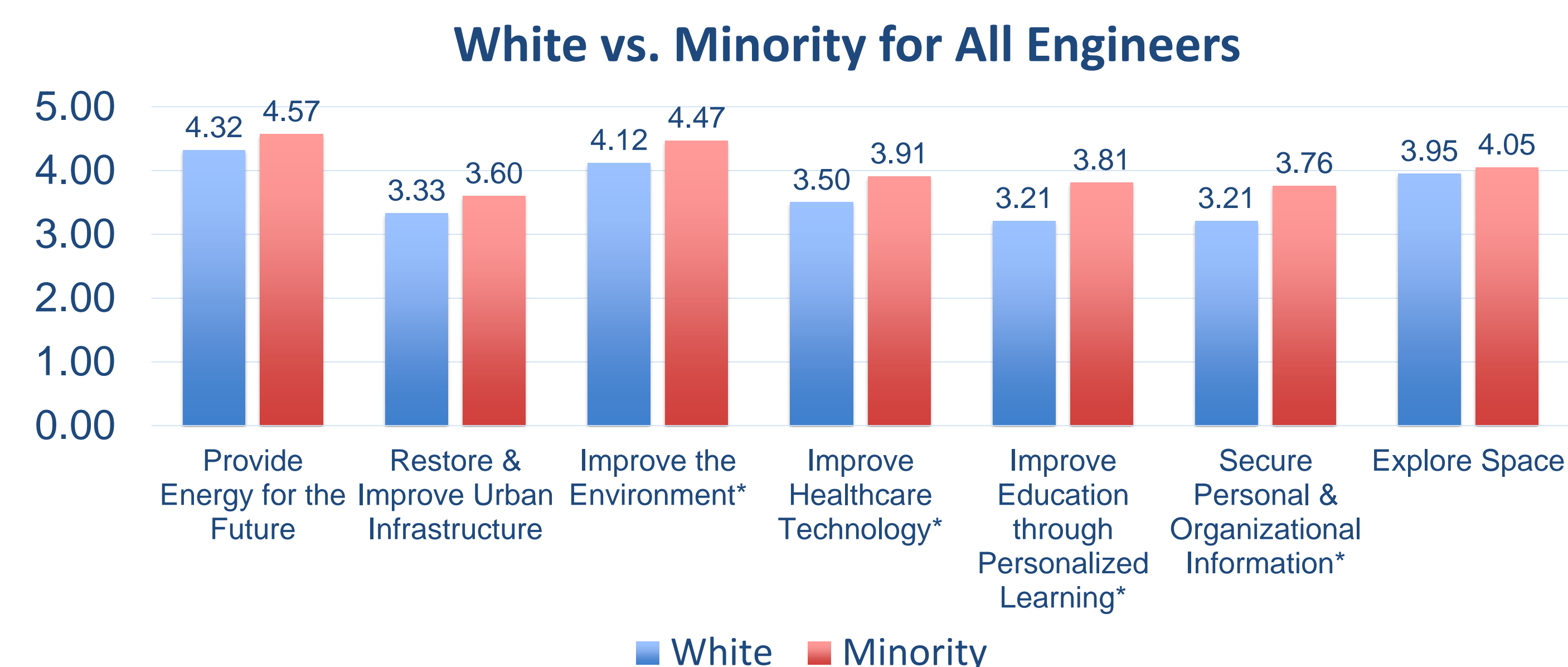
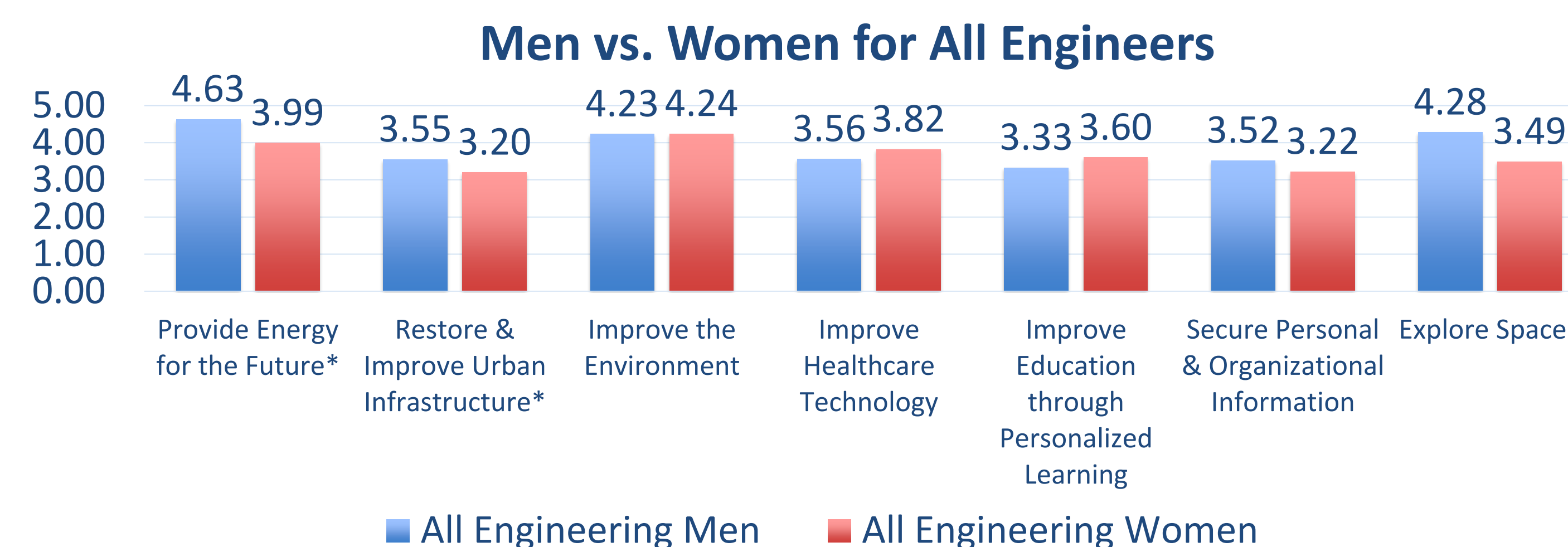
Methods

Online Engineering Survey

- 1,128 Undergraduate Participants
78 Aerospace Engineering Majors
58 Prior Aerospace Engineering Majors
- Demographics
698 Men (62%)
419 Women (38%)
715 White (66%)
208 Hispanic (19%)
121 Asian (11%)
25 Black (2%)
7 Native American (1%)
11 Other (1%)
- Quantitative and Qualitative Analyses

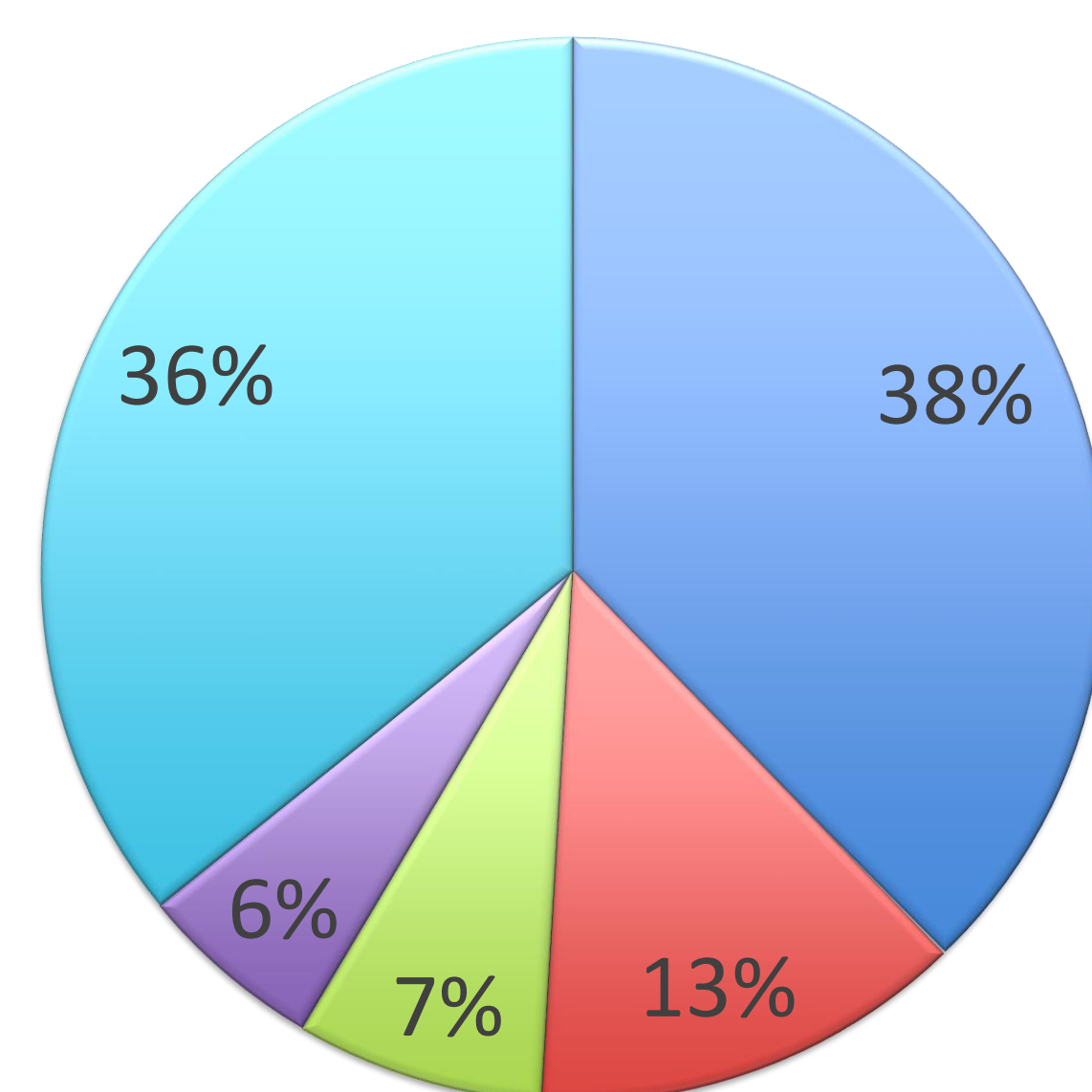
Findings

Quantitative Analyses



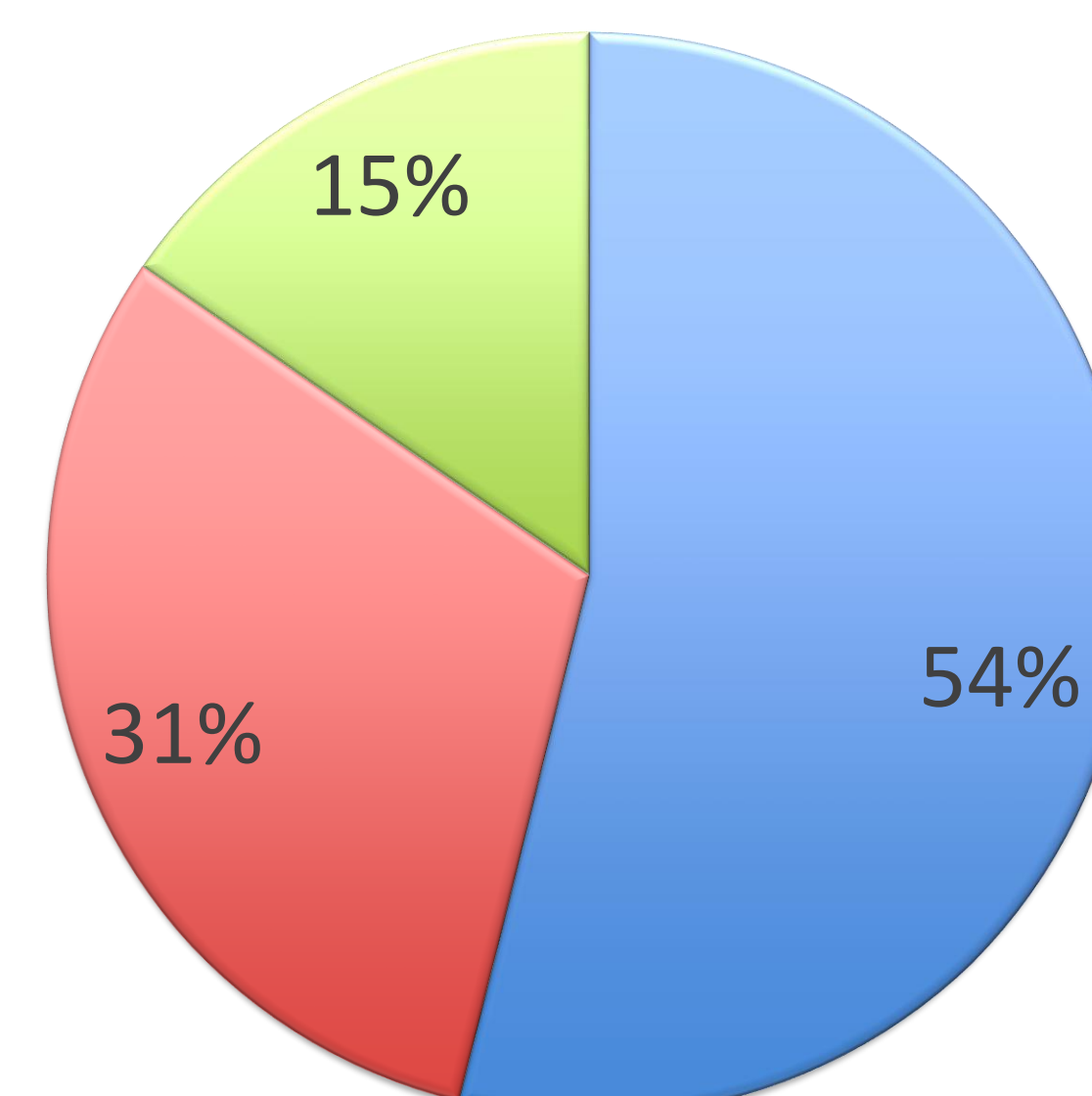
Qualitative Analyses

Turnover Reasons



- Other majors have more diverse career options
- Difficulty of classes in AERO
- Issues with climate (Lack of Inclusion)
- Other majors had greater emphasis on helping people
- Another major was more interesting/better fit

Motivators of Turnover



- Difficulty of classes
- Issues with professors/department
- Lost interest

Discussion

- Broadening non-traditional applications may help recruit students from diverse backgrounds
- More emphasis on non-traditional applications may also increase retention rates and industry opportunities
- Emphasis on non-traditional applications can be implemented through recruiting, new courses, and coverage in existing courses

Next Steps

- Faculty Survey
- Student Recruitment
- Faculty Development Programs
- Senior Design Course
- Online Competency Modules

