Why do Women Engineering and Computer Science Undergraduates Persist in their Major?

Kaitlyn J. Bunker, PhD Student, Electrical Engineering, SWE Section President
Raven R. Rebb, Undergraduate Student, Computer Science, WiCS President
Laura E. Brown, Computer Science
Gretchen L. Hein, Engineering Fundamentals
Nilufer Onder, Computer Science

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Outline

- Motivation
- University demographics
- Survey distribution and demographics
- Survey structure
- Results and analysis
- Conclusions and future work

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Motivation

- Better understand why students:
  - Choose their major
  - Decide to switch majors
  - Persist within their major
- Compare the responses of men and women students
- Pinpoint improvements in support systems for students so that they can persist in engineering and computer science majors

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University Demographics

- Public; Science, Technology, Engineering, and Mathematics (STEM)-intensive; Midwestern University
- Undergraduate Enrollment: 5,500 (28.7% women)
  - College of Engineering and Department of Computer Science comprise 60% (18.2 % women)

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Survey Distribution

- February 2011
- Anonymous, on-line
- Student Notification:
  - Academic Advisers
  - Student Organizations:
    - Society of Women Engineers (SWE)
    - Women in Computing Sciences (WiCS)
- 436 completed surveys

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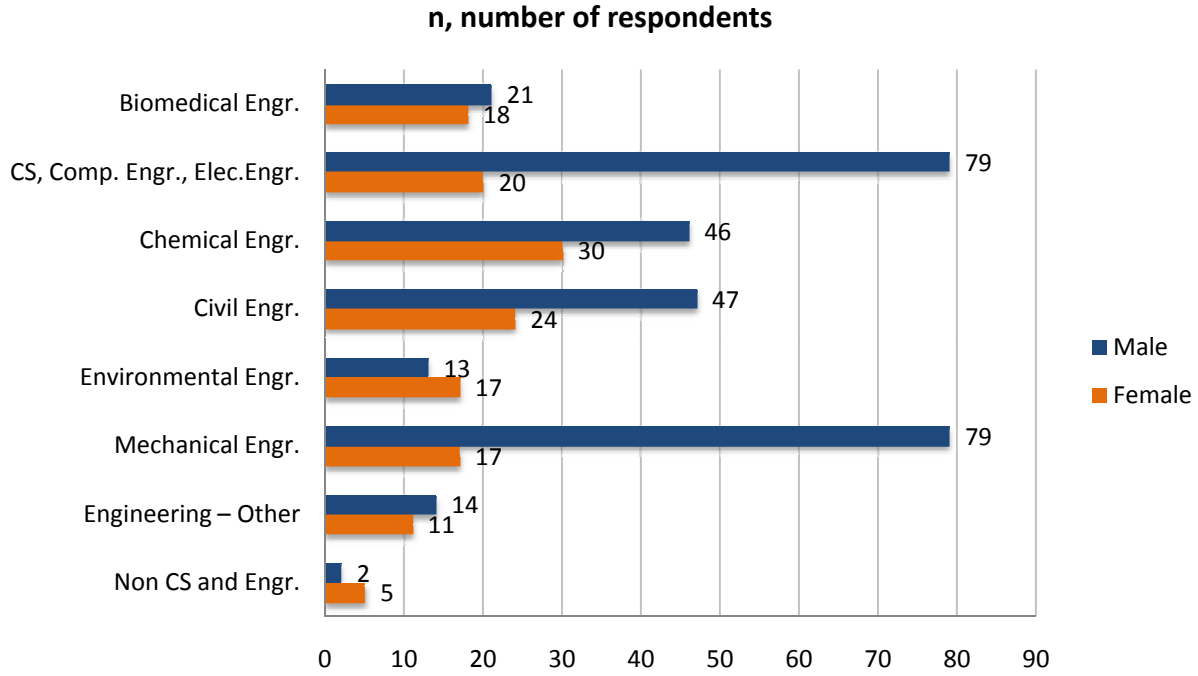
Survey Demographics



- Respondents evenly distributed across years of study
- Survey had a higher percentage of women respondents than the university population

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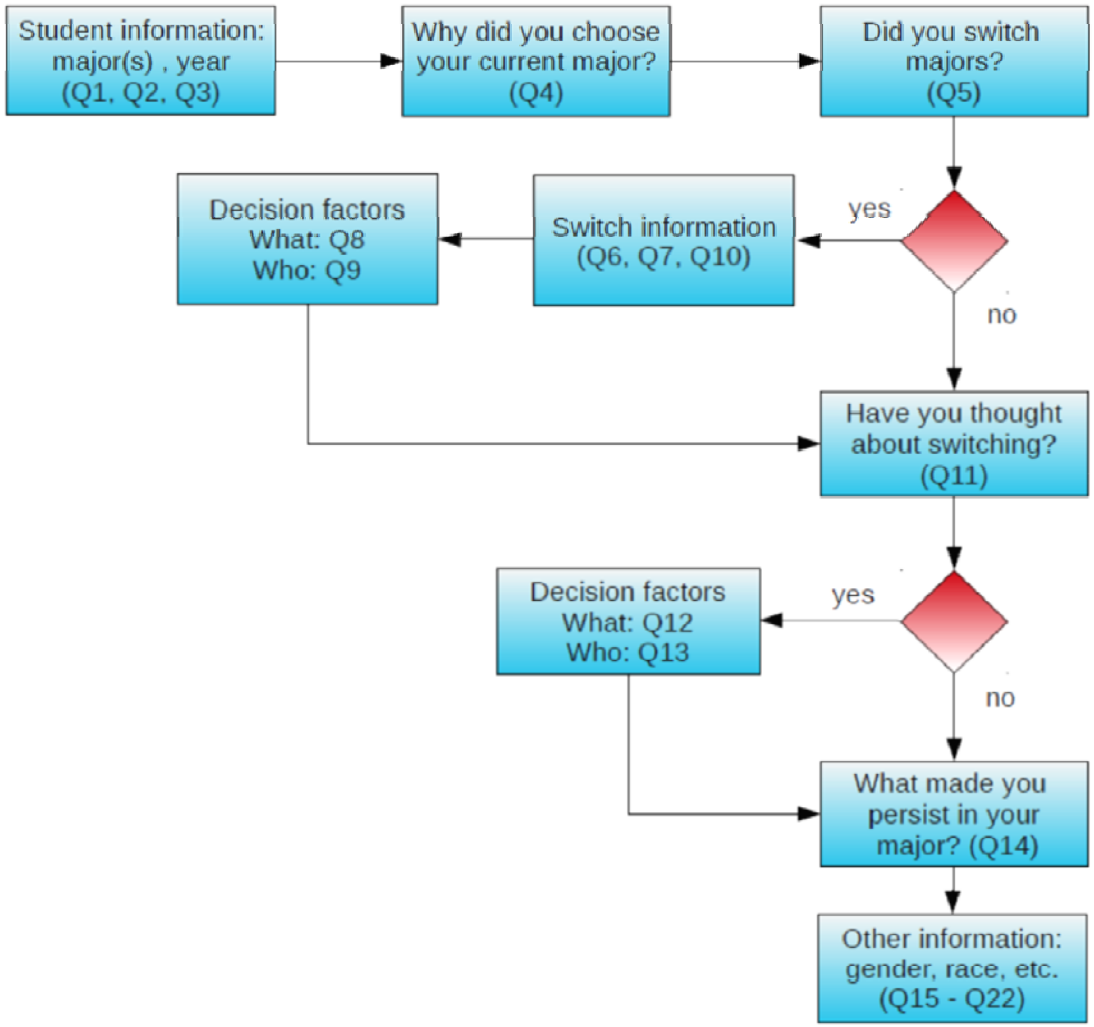
Survey Structure



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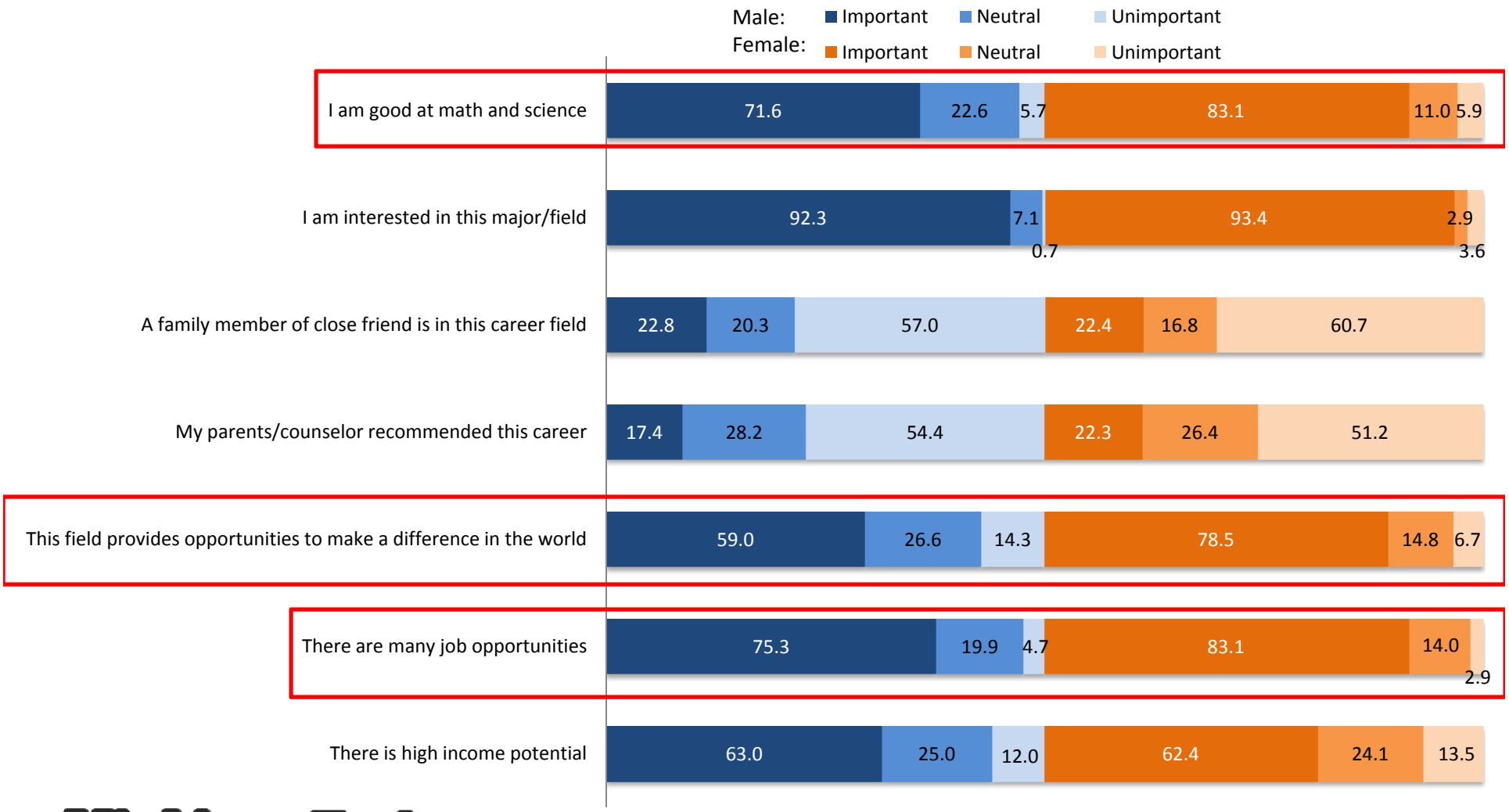
Why did you choose your current major? (%)



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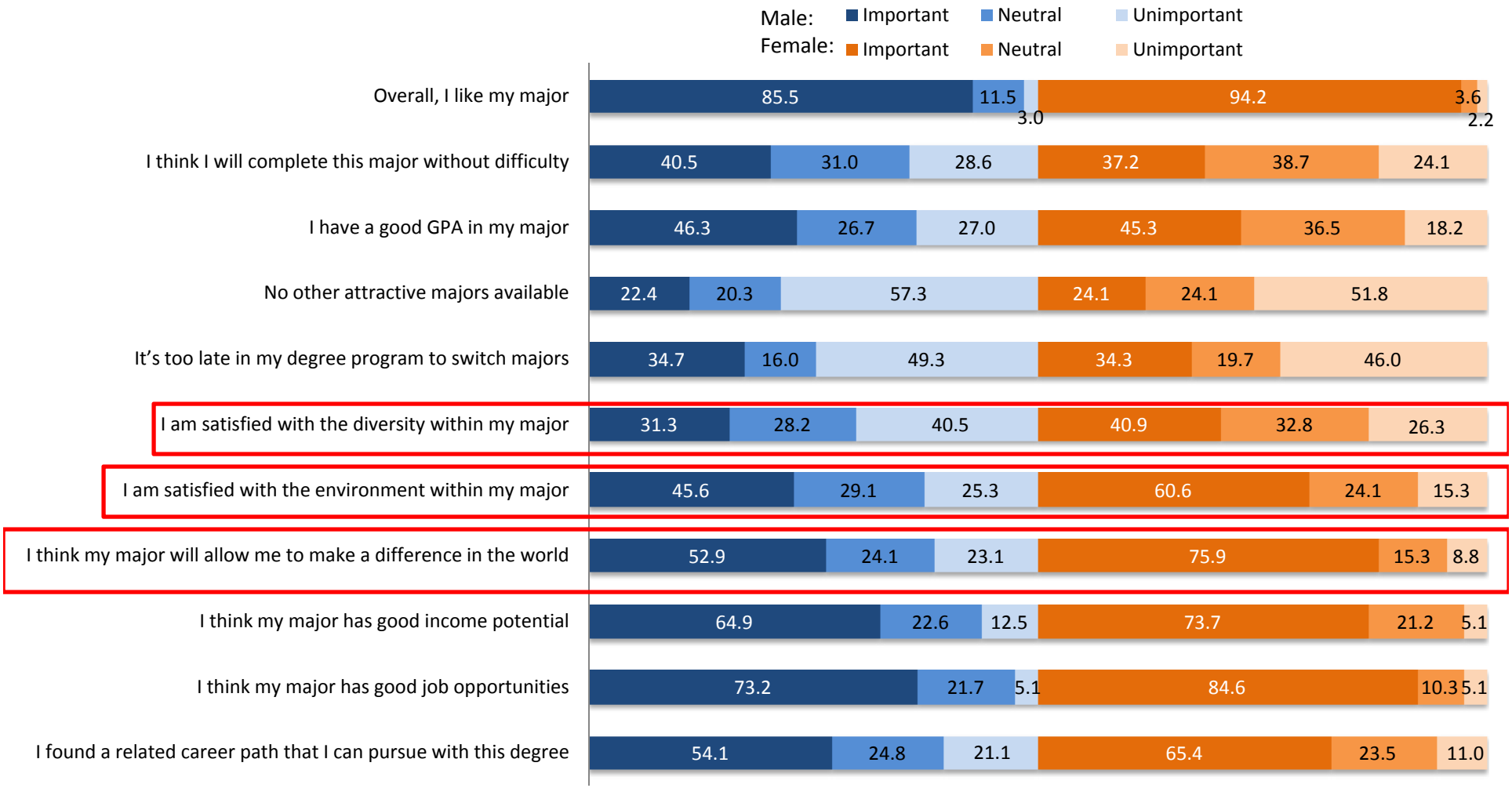
What made you persist with your major? (%)



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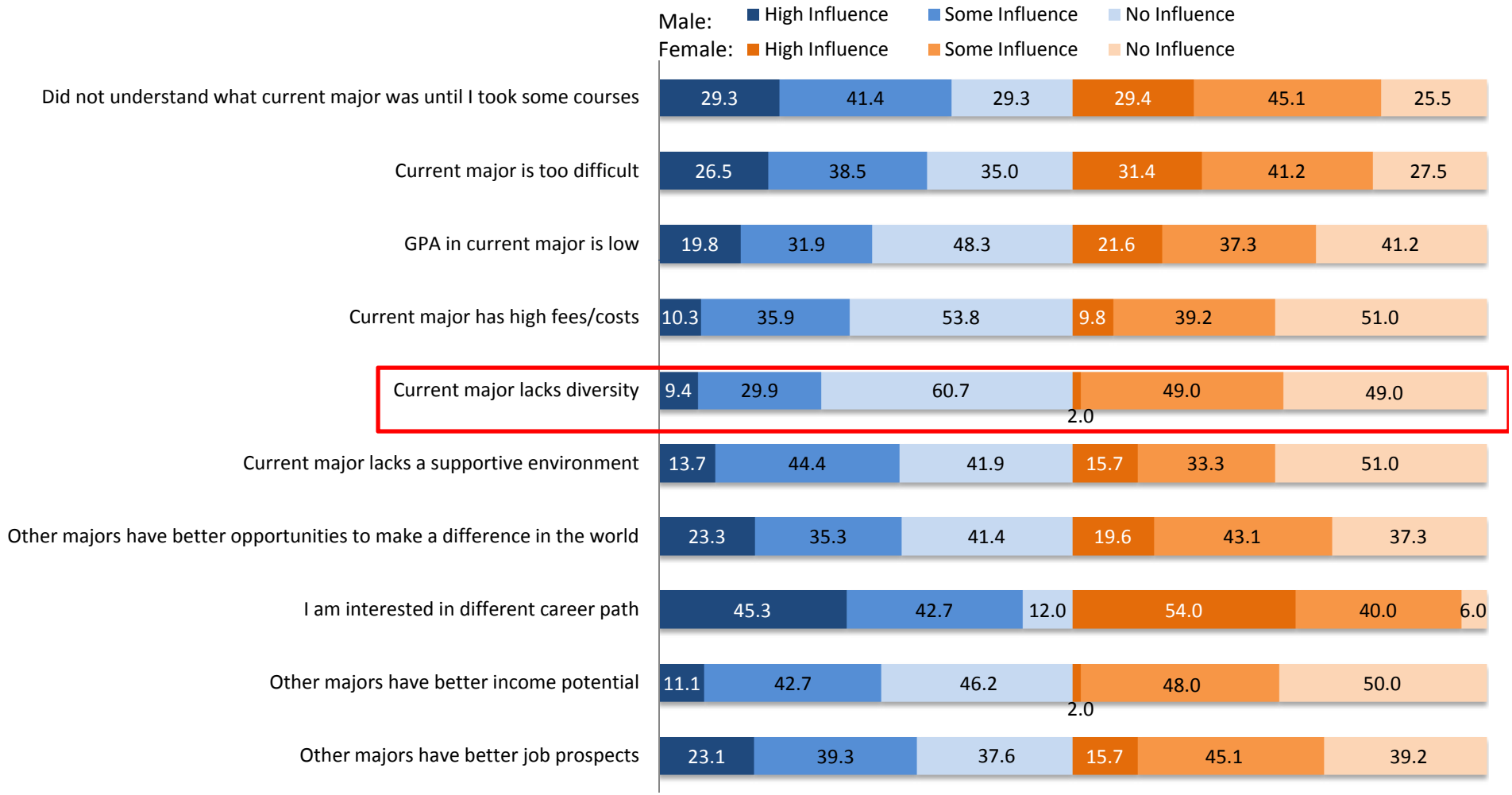
What factors may influence your decision to switch majors? (%)



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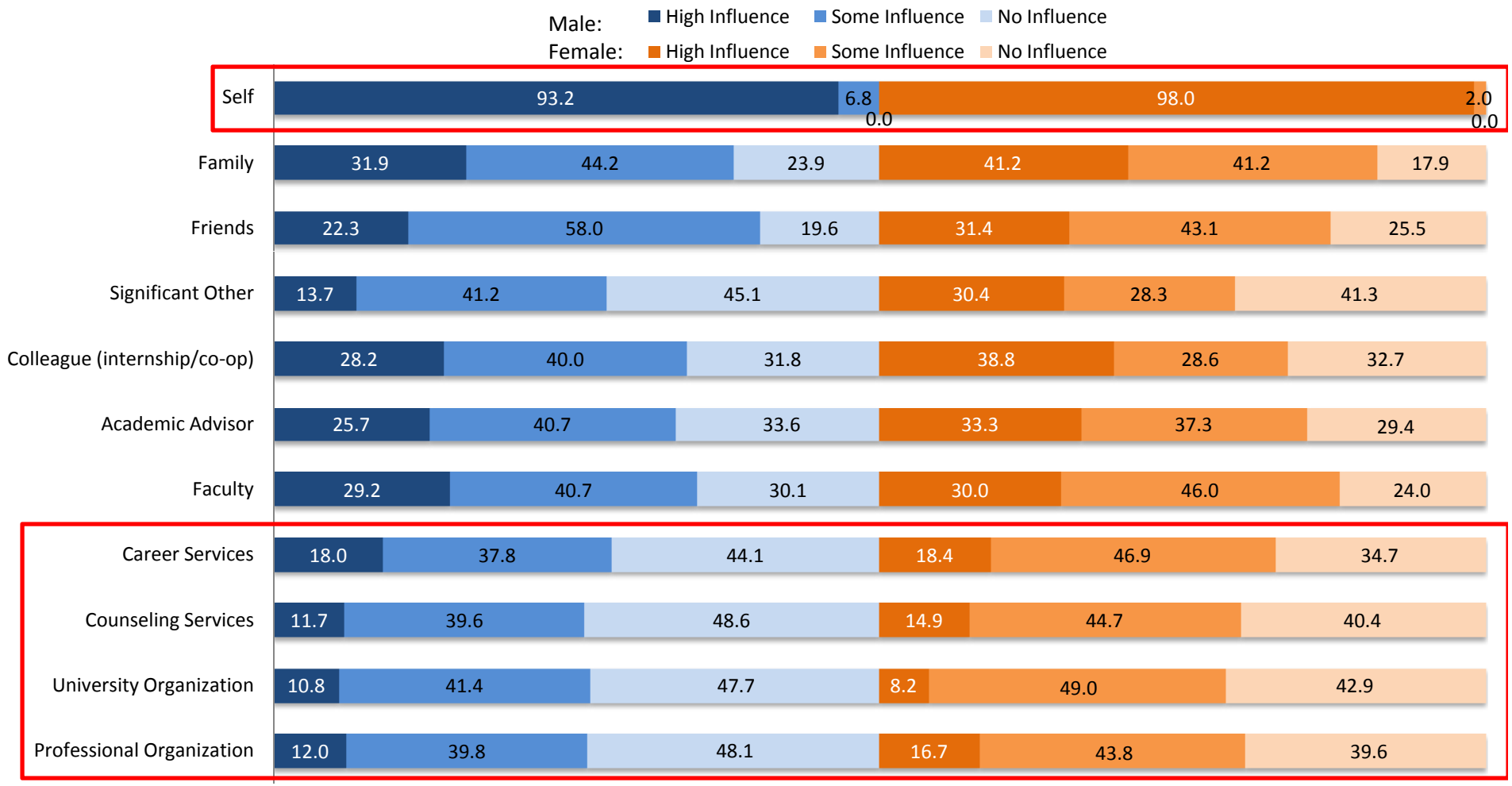
Who may influence your decision to switch majors? (%)



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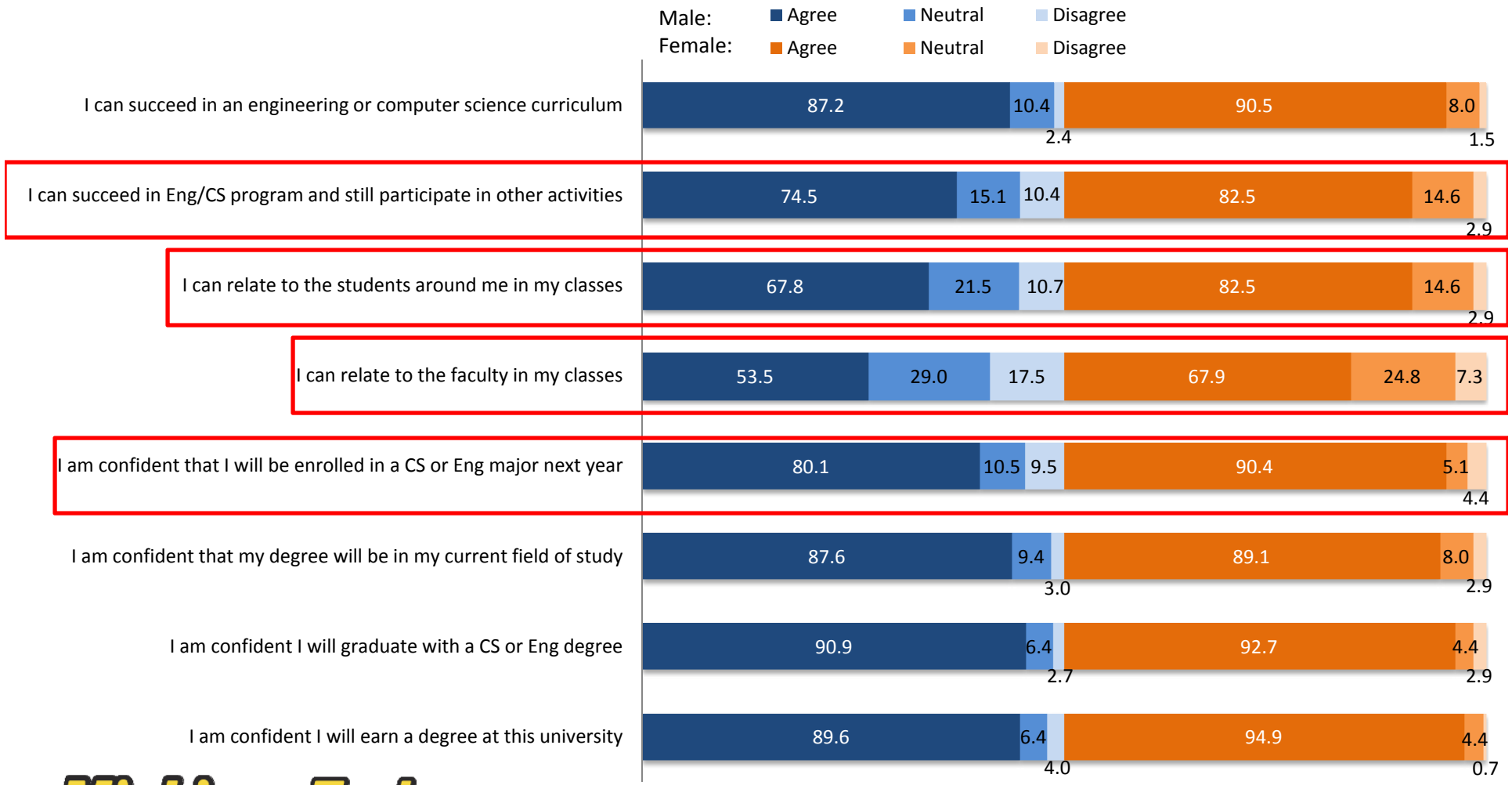
Assess the following statements in how they apply to you: (%)



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Conclusions and Future Work

- Conclusions:
  - Best solutions are not always gender specific
  - Faculty, academic advisors, and university services must be prepared to support students
- Future Work:
  - Complete an additional survey to analyze how the results have changed over one year
  - Compare these results to other studies

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