

# UNDERSTANDING UNDERGRADUATE STUDENTS' PARTICIPATION IN COMPUTING CLUBS

Brooke Nelson, Amanpreet Kapoor, & Christina Gardner-McCune

Department of Computer & Information Science & Engineering, University of Florida, brookenelson@ufl.edu



#### Research Questions

RQ1. Demographics: Who are the computing undergraduate students that participate in clubs?

RQ2. Club Types: What are the types of clubs where computing students get involved?

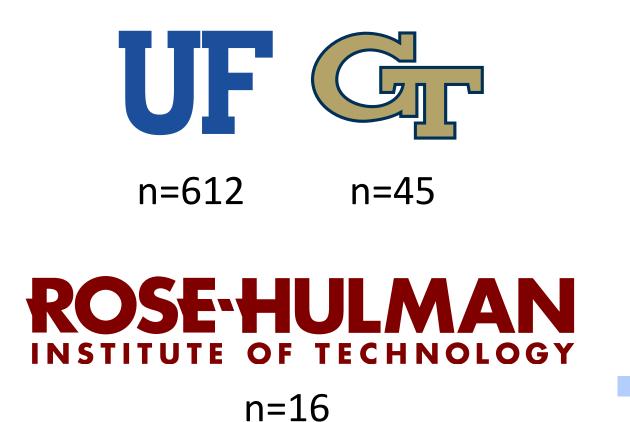
RQ3. Benefits: What benefits do clubs offer computing students who participate in these student clubs?

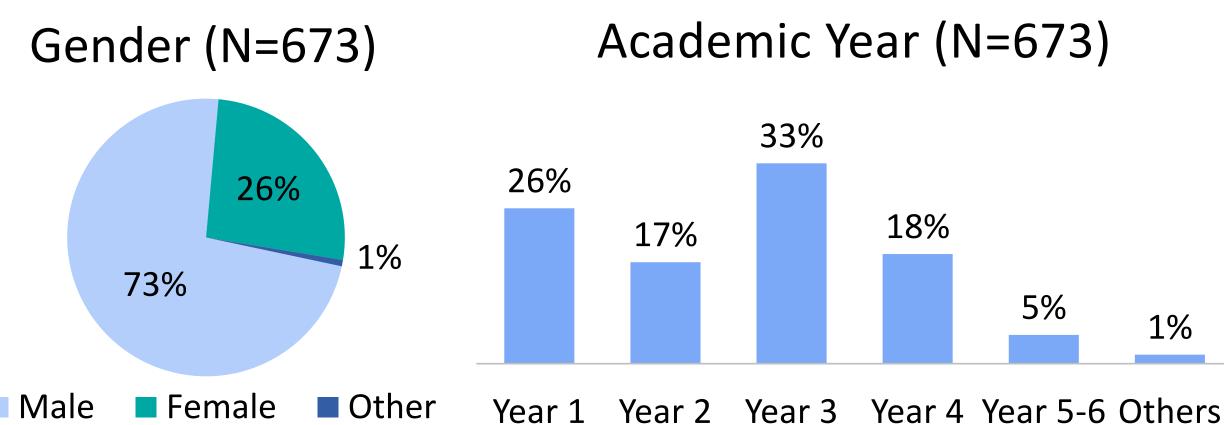
#### Methods

- Multi-institutional survey-based study
- Research Sites in the US (2019):
  - Two large CS programs at research institutions
  - CS program at a smaller teaching institution
- Data Analysis
  - O Quantitative (RQ1): frequency analysis & computing associations (Mann-Whitney U &  $\chi^2$ )
  - Qualitative (RQ2-3): inductive content analysis

### **Participants**

673 undergraduate computing students from three institutions

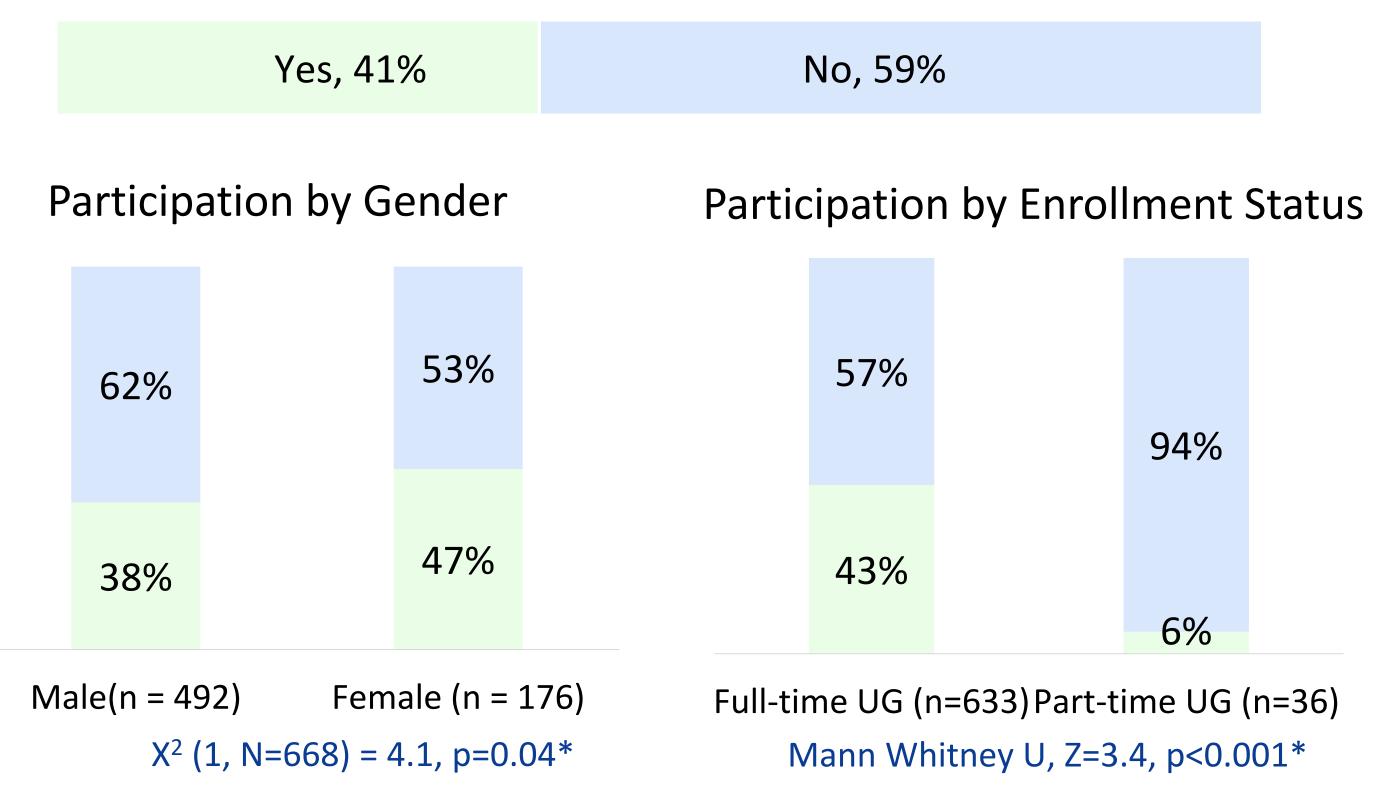




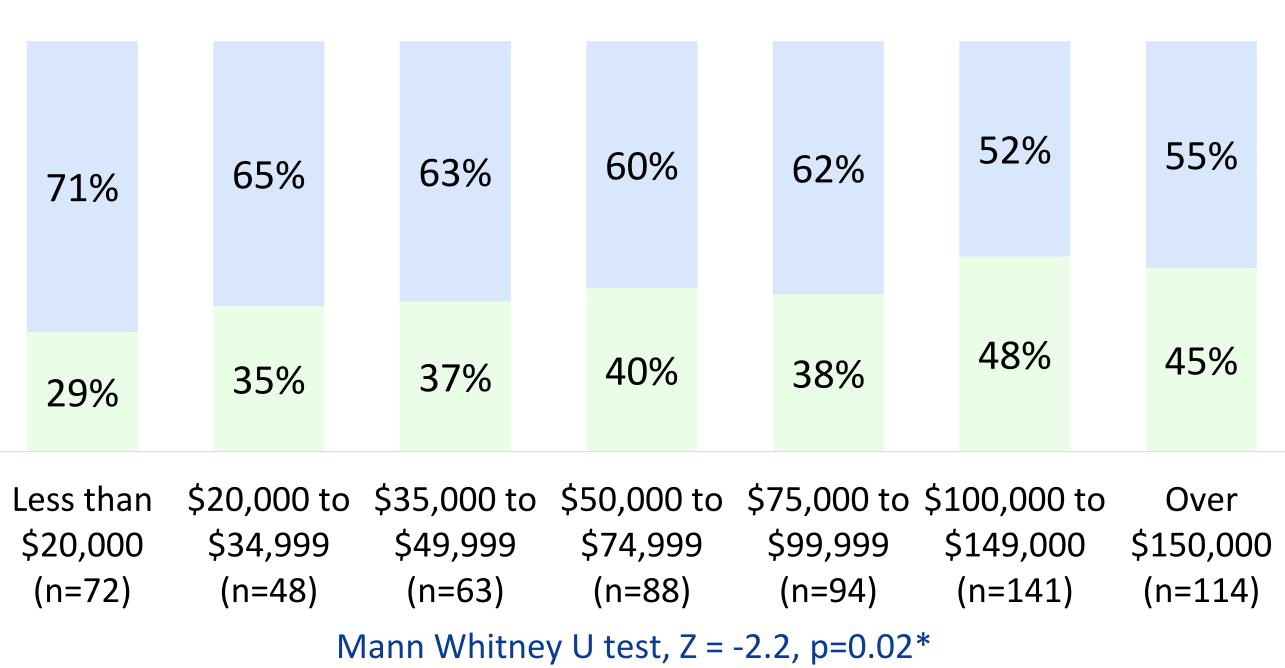
## Findings

# Demographics (RQ1)

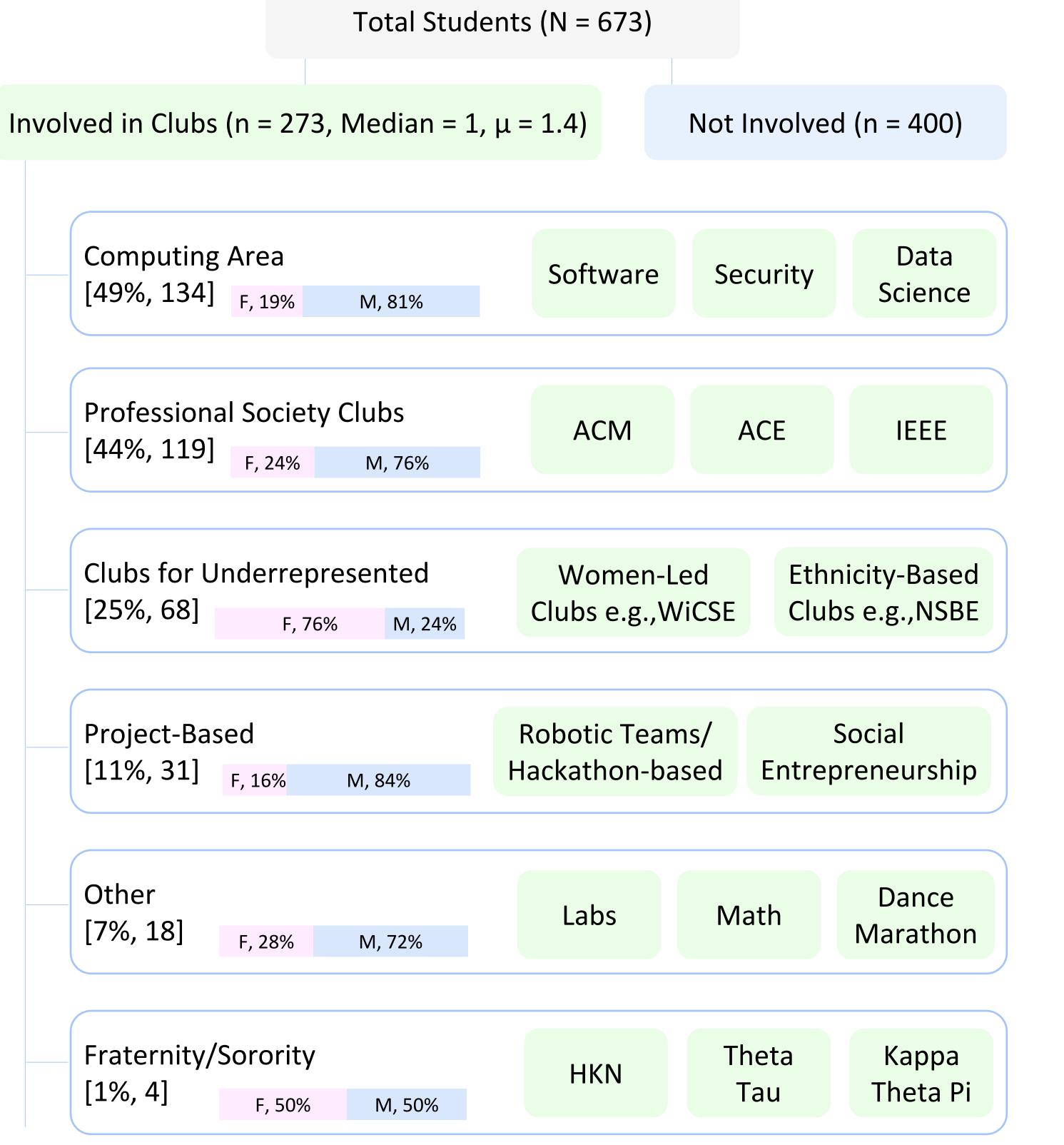
Club Involvement (N = 673)



### Participation by Household Income

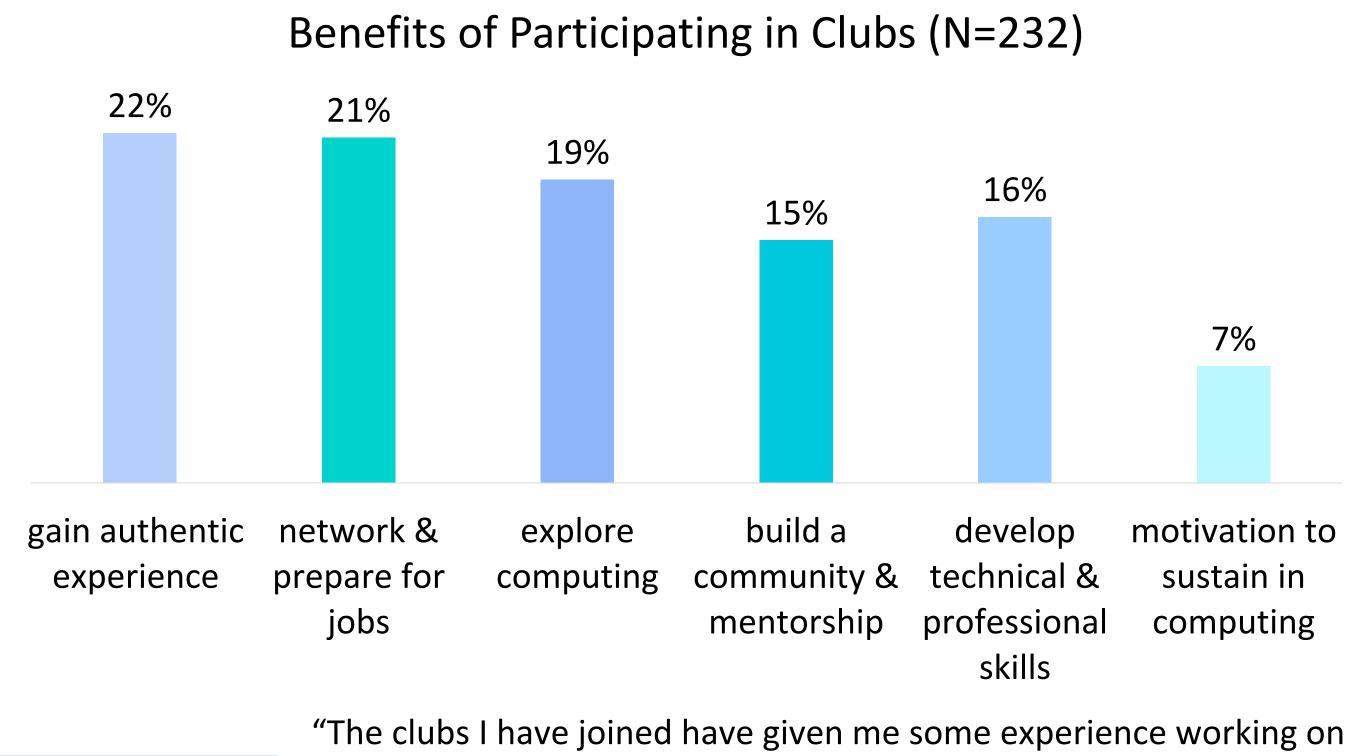


### Club Types (RQ2)



### Benefits (RQ3)

How has participation in student organizations/clubs allowed you to explore your career interests and/or prepared you for your career?



larger scale projects with the goal of a deliverable in mind and have Experience given me the experience to go forth and work on bigger projects". "They provide an easy way to meet face to face with recruiters and Networking build a contact". "They give me a wide range of different fields in Computer Science Exploration that are not explored through course work alone...". "Overall, clubs and organizations give me a place to hang out with Community like-minded people. That is valuable and help relieve stress". "It has primarily taught me about the importance of open-source Skills projects. It has also given me git experience.". "SEC (Software Engineering Club) has helped a lot in giving me a Motivation

reality check on getting a good career in the field".

### Discussion

Clubs provide students' rich computing communities of practice for exploration, skill and professional development, and socialization.

### Conclusion

- Clubs prepare students for their future careers and help them in building social relationships.
- Program administrators should encourage students to join and provide resources for clubs.