

PWE: An Inclusive Summer "Bootcamp" for First year students

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An Exclusive Summer Bootcamp for First Year Students

2024 CoNECD Conference
Serita Acker
PEER & WISE



History of PEER & WISE

A Long-Standing Commitment to Diversity

- 30-year History of Diversity Programs
 - Programs for Educational Enrichment & Retention (PEER), established in 1987 to increase students of color retention in the College
 - Women In Science & Engineering (WISE), established in 1995 to increase female retention in the College





PEER & WISE Mission

PEER and WISE aim to **educate**, **recruit**, and **retain** underrepresented students in Engineering and Computer Science fields through social, professional, and academic development

PEER & WISE

K-12 Outreach

NEXT
Engineers

WISE
Girl Scouts Day

PEER STEM
Day

STEM
Connections

Recruitment

S.E.E. (STEM)
Clemson: Accepted
Students

Sneak Preview
Juniors and Seniors

Retention

FLUOR
Tutoring &
Study Hall

PEER/WISE
Mentoring
Program

PEER/WISE Life
Coaching

WISER LLC

PEER/WISE
Scholarships

PEER/WISE
Experience:
Incoming
Freshmen



PEER/WISE Experience Mission



Give incoming freshman a glimpse of what their freshman year will be like.



Increase retention of students in engineering by easing their transition from high school into college.



Encourage students to pursue their Masters or PhD following undergraduate graduation.



PWE Justification

- The bridge from high school to college demands intentional critical care for students (Raines, 2012; Stole-McAllister, 2011)
 - Career Exploration
 - Comfortability
- Widely used to address inequitable educational opportunities that impact student achievement (Kitchen, Sandler, & Sonnert, 2018; Bradford, Beier, & Oswald, 2021)
 - Access
 - Preparation

PWE Programmatic Highlights

- Exposure to core course material
 - Calculus, Engineering, Excel, Chemistry, Physics, Research, College Skills
 - 3 credit hours in 3 weeks
- Increase in comfort level for high school to college transition
 - Early establishment of Clemson GPA
 - Subsidized on campus summer housing
- Engagement with professors and other resources
 - Industry tours with local companies
 - Core courses taught by Clemson CECAS professors





PWE Seminar Course Goals

Continuing in
PWE cohort

Accountable
scholarship

Introduction
to Clemson
resources

PWE Seminar Highlights

- 1 Credit Course to be taken first Fall semester
- Mentoring & Coaching Hours Requirements
- Weekly Reflection Assignments



PWE Impact: Retention

Are PWE students more likely to remain enrolled at Clemson? Are PWE students more likely to remain in STEM?

PWE 2017

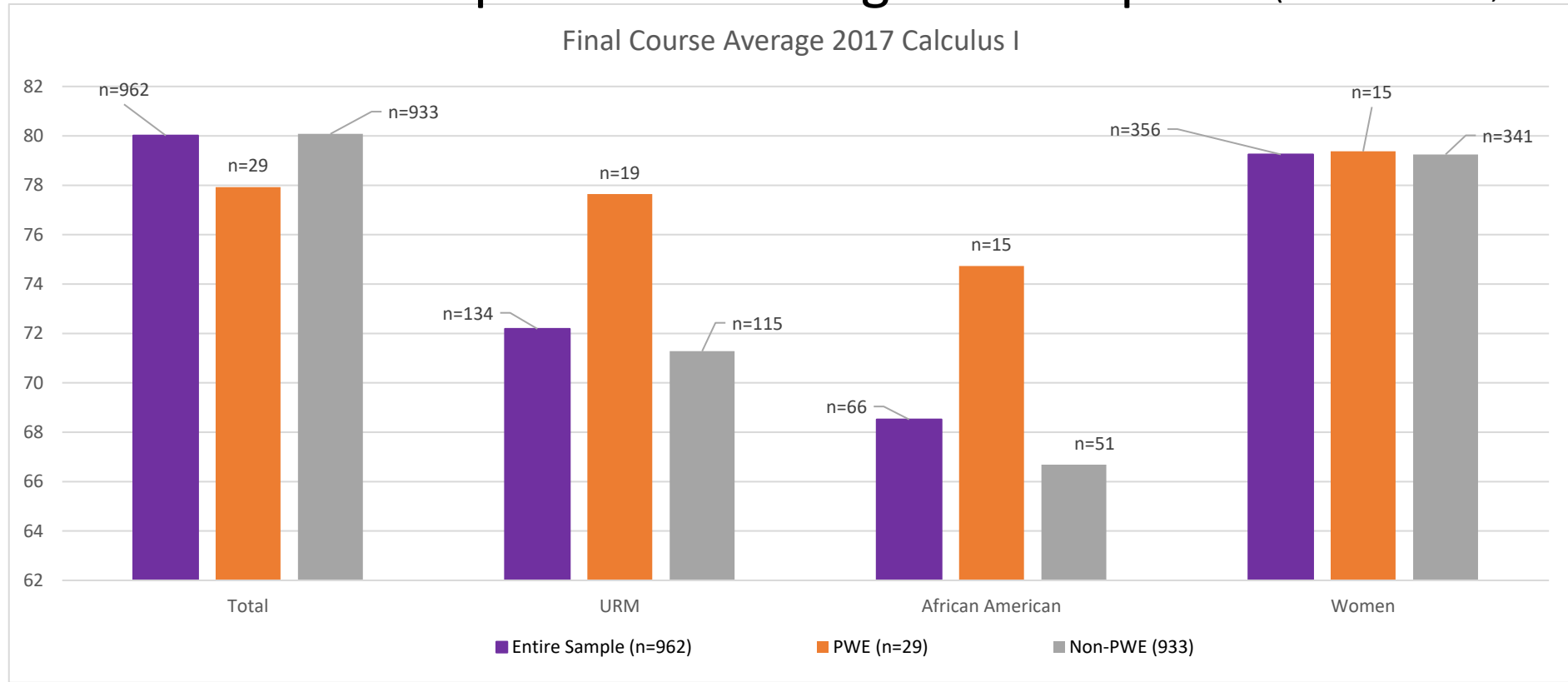
Total at Clemson	49
Total Attended	50
PWE Participants Retained in CECAS	72%
PWE Participants Retained at Clemson	98%

PWE 2018

Total at Clemson	34
Total Attended	34
PWE Participants Retained in CECAS	73.5%
PWE Participants Retained at Clemson	100%

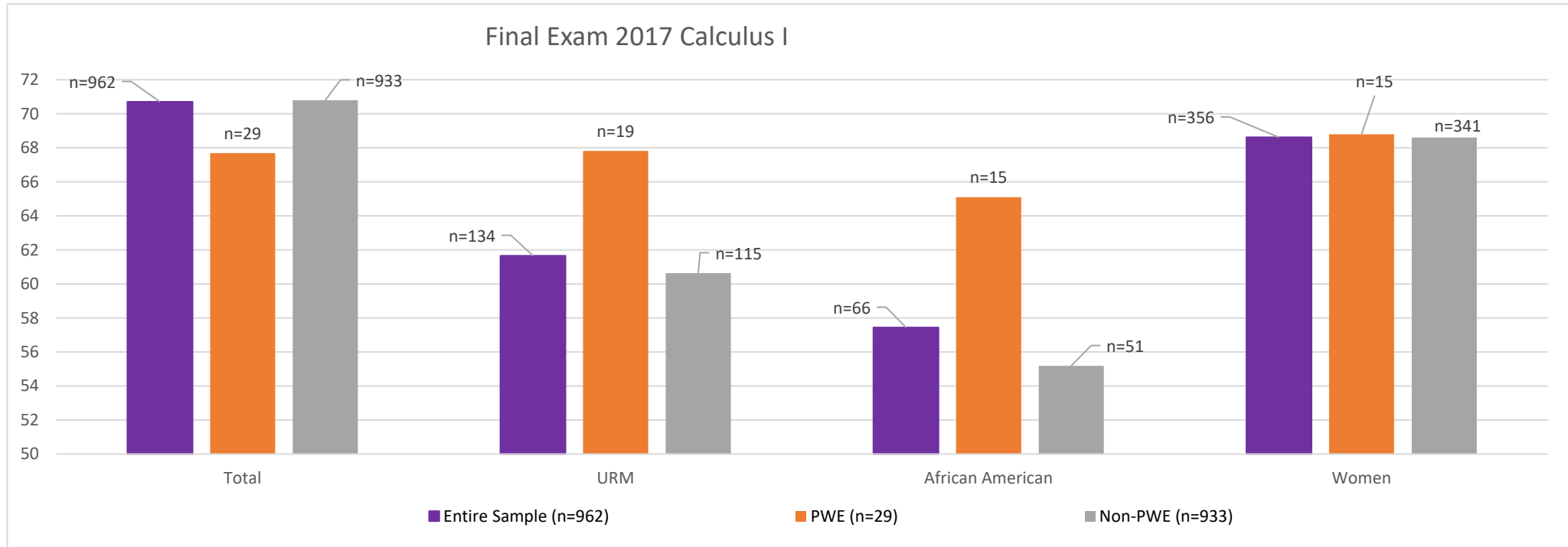
PWE Impact: Core Course

URM PWE Calculus I performance higher than peers (Brown & Allen, 2022)



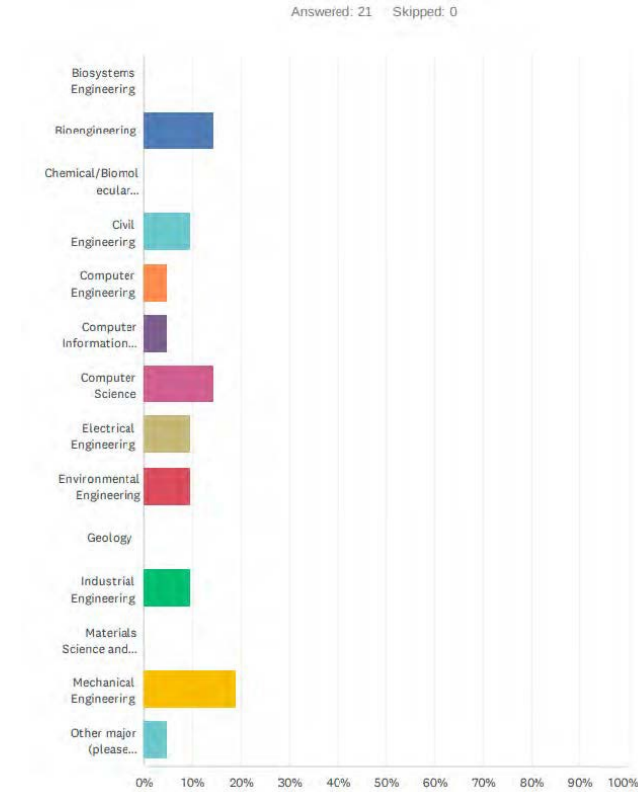
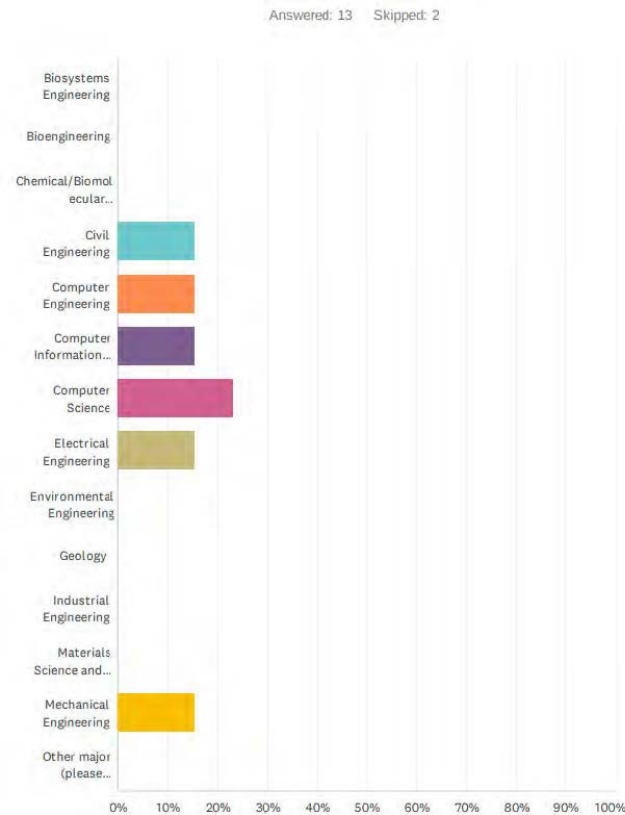
PWE Impact: Core Course

URM PWE Calculus I Final Exam performance higher than non-PWE URM students
(Brown & Allen, 2022)



PWE Impact: Major Exploration

If you were to choose a major for your undergraduate degree today, which would you most likely choose? (2022)





PWE Impact: Sense of Belonging

“Thanks to PWE I feel at home here at Clemson. I have a sense of community and a social network.”

“Being around other minority stem majors let me see that I'm not that only person that looks like me in my courses. Even if I'm the only poc or women in some of my classes I at least have others to talk about that struggle with”

“I made good friends that I enjoy being around. I feel like I have a group of people I can hangout with outside of classes.”



PWE Impact: Career Development

“It has solidified that I want to do stem. It also introduced me to different career paths in computer science.”

“The networking resources were very beneficial. Because of the exposure I had during the program, I was able to join a research project as a paid intern and I am very grateful. Because of this internship, I am now able to have experience in the field I have passion for and able to work with others that can teach me more about what I'm eager to learn about.”



PWE Impact: Math Preparedness

“I felt like the PWE Bridge reminded me of many concepts I had forgotten. It also got me comfortable with taking tests.”

“It definitely improved my calculus skills and math preparedness. I was more confident taking the Clemson Math Placement Test and walking into my current math class. I am able to refer to the work we did during the summer to understand some of the topics I am learning now.”

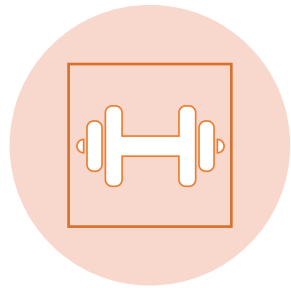


PWE Impact: First Year Experience

“I didn’t feel alone my first week of classes. I also felt prepared for my calculus class.”

“Coming from a rural town, the PWE Bridge prepared me for Clemson. I felt much less overwhelmed because I knew people and knew where to find my classes before I even moved in for the fall semester.”

PWE SWOT Analysis



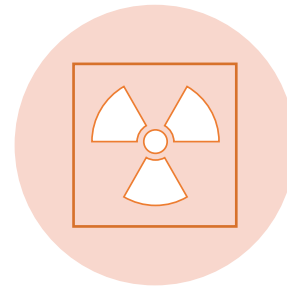
Strengths



Weaknesses



Opportunities



Threats



PWE SMARTER Goals



Specific



Measurable



Achievable



Realistic



Time bound



Embrace



Recognize



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