



The San Diego
Foundation

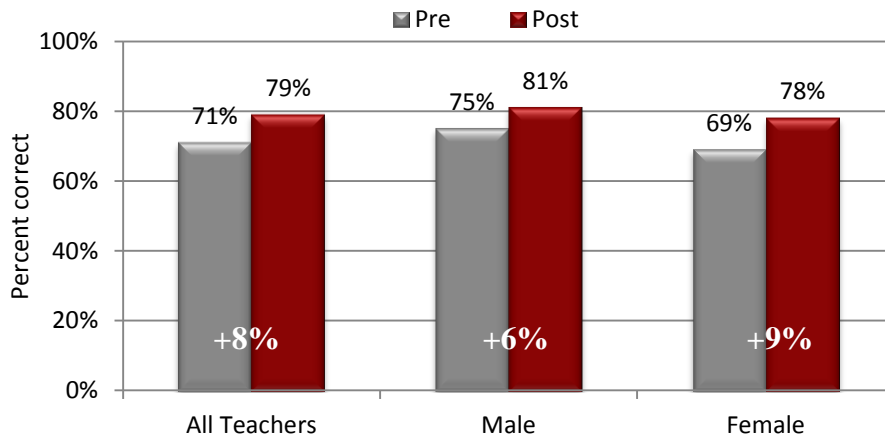
A foundation for your passion

Evaluation of the San Diego Workforce Partnership Life Sciences Summer Institute



LIFE SCIENCES SUMMER INSTITUTE

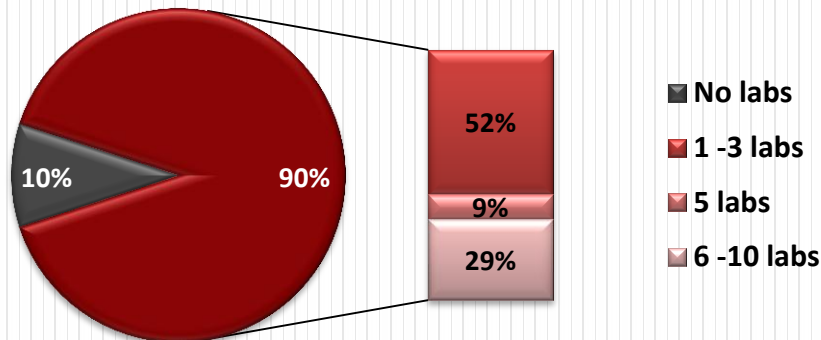
Goal 1: Increase teachers' content knowledge in a core set of biotechnology principles



Teachers made statistically significant gains in content knowledge:

- Males (n=8) scored slightly higher than females (n=16) on post-survey.
- However, females experienced a greater gain in percent correct.

Teachers' (n=21) plans to use the Amgen Biotechnology labs this year:



"I have a better understanding of techniques and their application and so I can better explain them to my students"

Students' overall ratings of project goal achievement

The majority of students believe the biotechnology labs project *achieved well* or *excelled in achieving* each of the student goals

■ Not achieved at all ■ Achieved somewhat ■ Achieved well ■ Excelled in achieving this

Goal 3 – Student knowledge

Increase your knowledge of the connections between science and real-life



Increase your content knowledge in a core set of biotechnology principles



Goal 4 – Student attitudes

Improve your attitude towards science



Increase your interest in and enthusiasm towards learning science



Increase your confidence in understanding of science

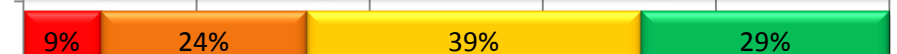


Goal 5 – Student career goals

Increase your desire to select a scientific major in college or university



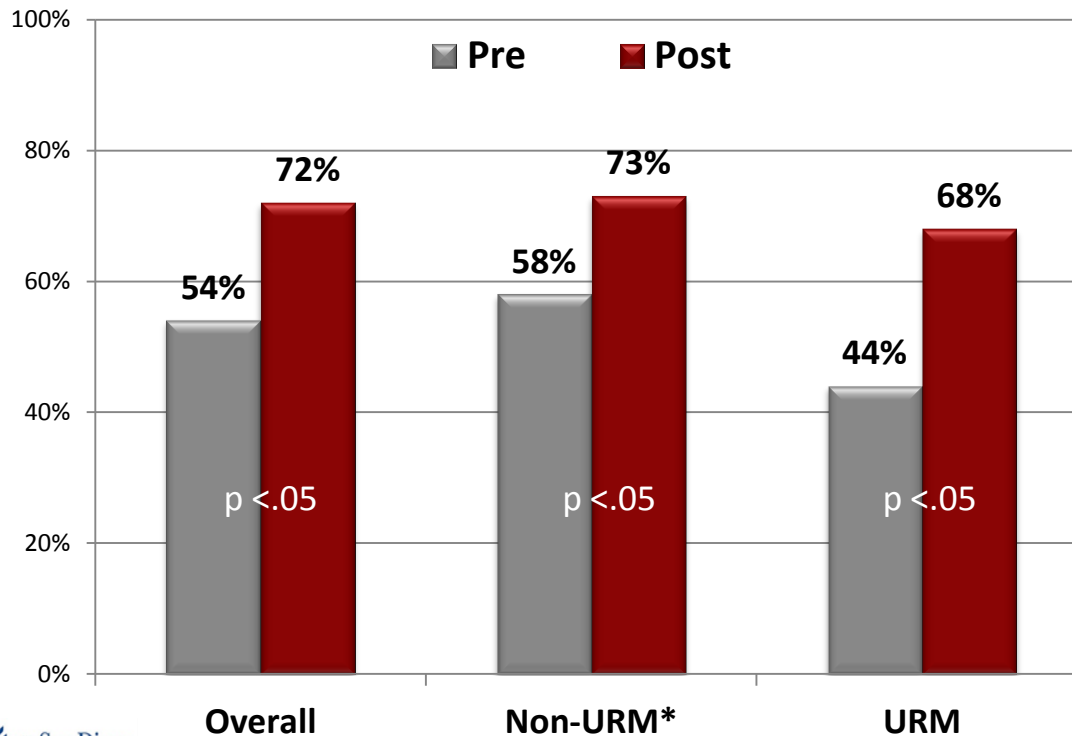
Increase your interest in pursuing a career in a scientific field



0% 20% 40% 60% 80% 100%

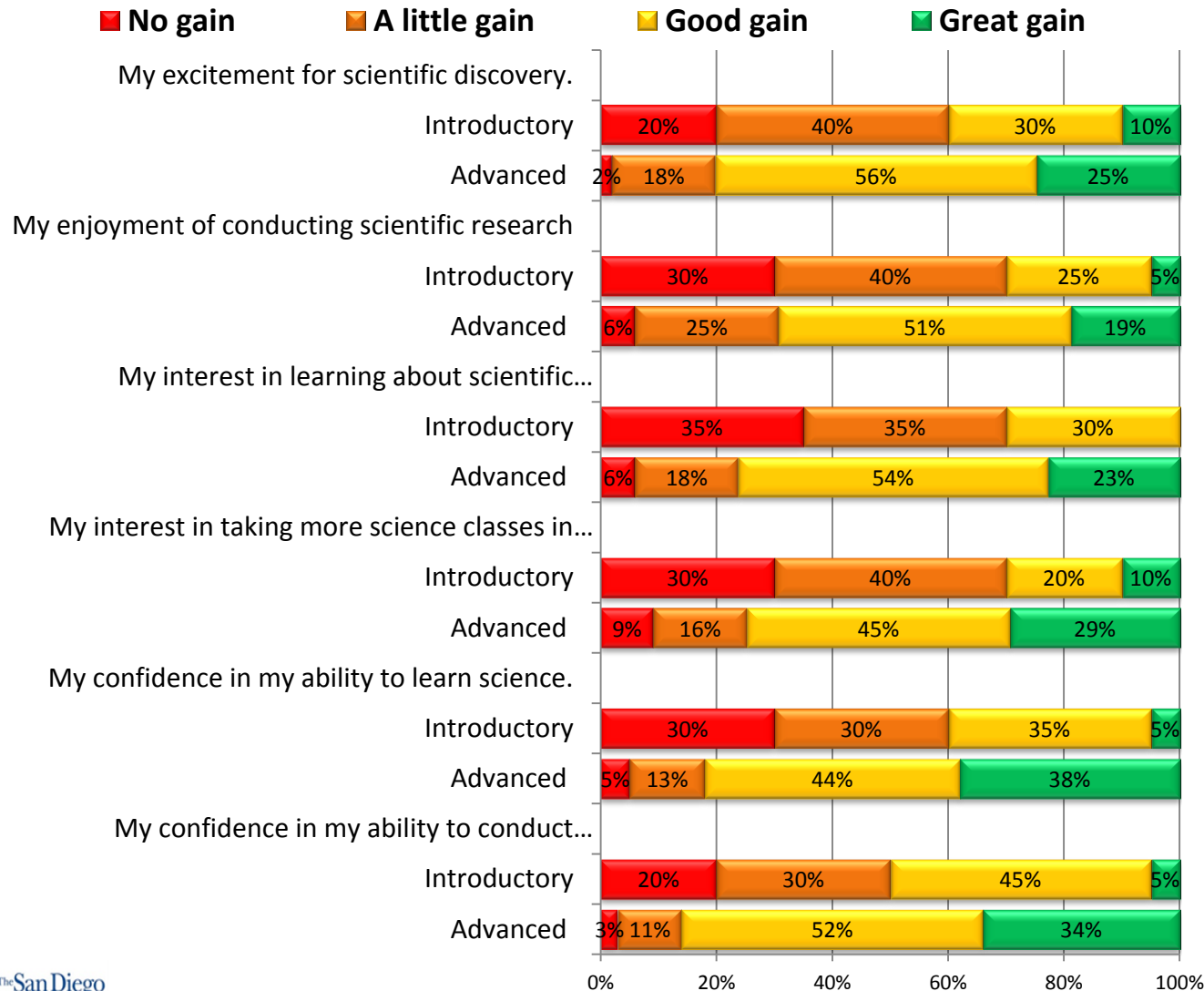
Goal 3: Improve student learning in a core set of biotechnology principles

Students' correct responses to 16 content questions **increased 18%** from pre- to post-survey



- Under-represented minority (URM) students scored significantly lower than non-URM students on the pre-survey
- However, URM and non-URM students no longer demonstrated significantly different content scores at post-survey; URM students especially benefited from participation in the labs.

Goal 4: Improve students' attitudes towards science and their confidence in their understanding of science



- Greater than 60% of advanced students (n=106) reported *good* to *great* gains in their attitude and confidence.

- A lower percentage of introductory students (n=20) reported *good* to *great* gains than did advanced students.

Goal 5: Increase students' interest in pursuing an academic or career path in science

- 5% more students reported plans to major in science at post-survey than did on the pre-survey therefore participation in the biotech labs inspired some students to want to pursue a career in a scientific field.
- Almost 2/3 of advanced students reported *good to great gains* in wanting to pursue academic or career paths in science on the post-survey.

