



CHABOT COLLEGE

Science, Technology, Engineering and Math

October 15, 2013

BOARD PRESENTATION



STEM at Chabot College

Serve many STEM transfer majors

- ❁ General Biology,
- ❁ Cell and Molecular Biology,
- ❁ Chemistry,
- ❁ Computer Science
- ❁ Engineering (chemical, civil, mechanical, biomedical ..)
- ❁ Physics
- ❁ Pre-Professional (Pre-Med, Pre-Vet, Pre-Dental)

Looking at our Data

- ❁ Analyzed Data to see if there was an achievement gap
- ❁ Focused on key benchmark – Calculus 1
- ❁ Overall and by cohort

Overall Calculus Achievement

Math 1 data from Fall 2010 through
Spring 2013

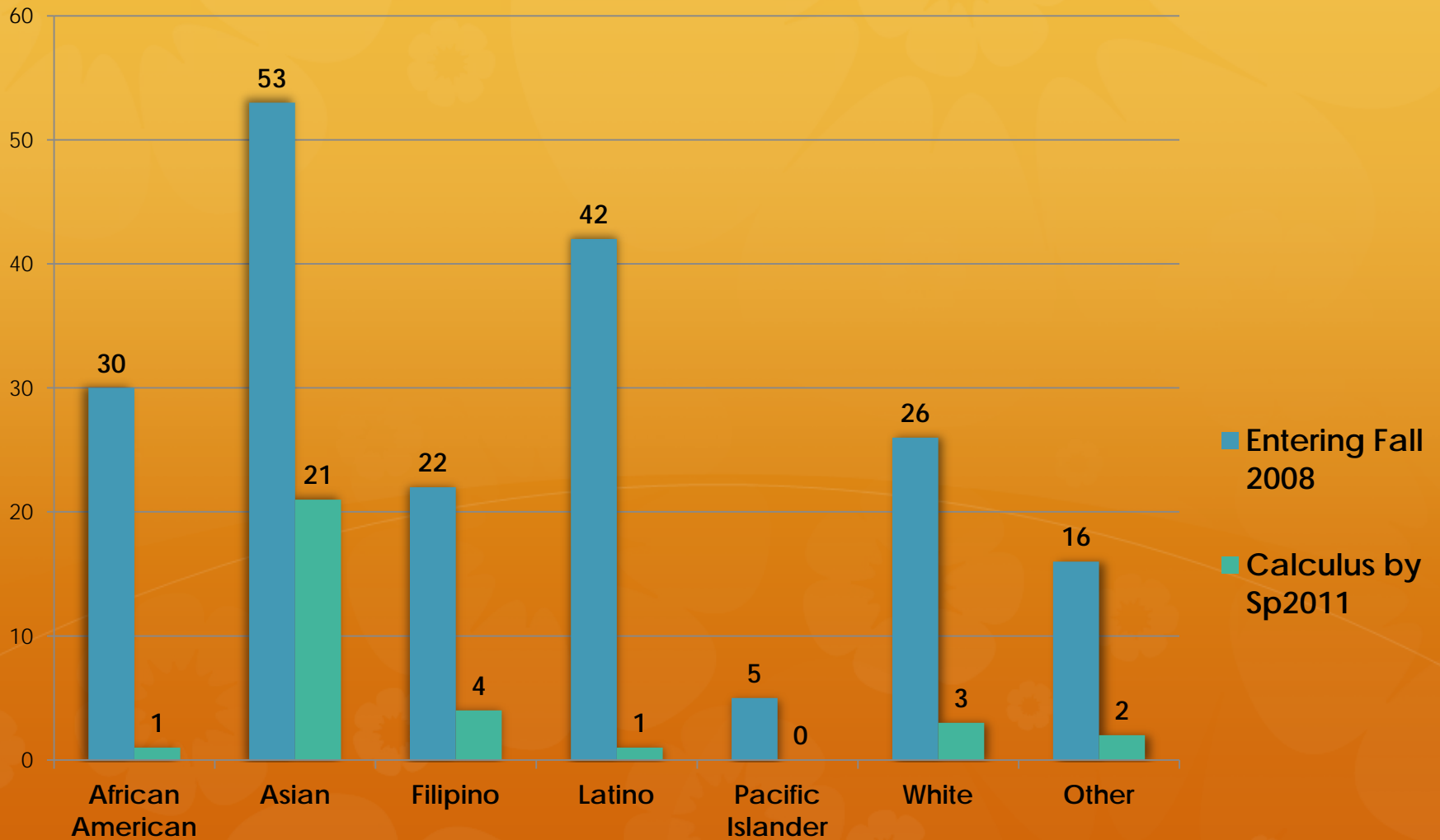
Overall Success Rate - 54%

African American Students – 40%

Latino Students – 45%

Asian Students – 65%

2008 Cohort Calculus Achievement



In addition to Achievement Gap...

There was a “diversity loss” from entry to
Calculus:

We were losing our
underrepresented students
BEFORE they ever made it to
Math 1 or into the STEM courses

Chabot's MESA Program



- ❁ \$50,500 grant administered through the California Community College Chancellor's Office
- ❁ Renewable for a minimum of five years depending on progress - requires matching funds

Who We Serve

Students who are:

- ❁ financially and academically disadvantaged

and

- ❁ plan to transfer to a four year institution in a STEM major that requires at least one sequence of courses in a STEM discipline in addition to Calculus 1.

Chabot's MESA Program

Total Students Served : 102

Gender Data:

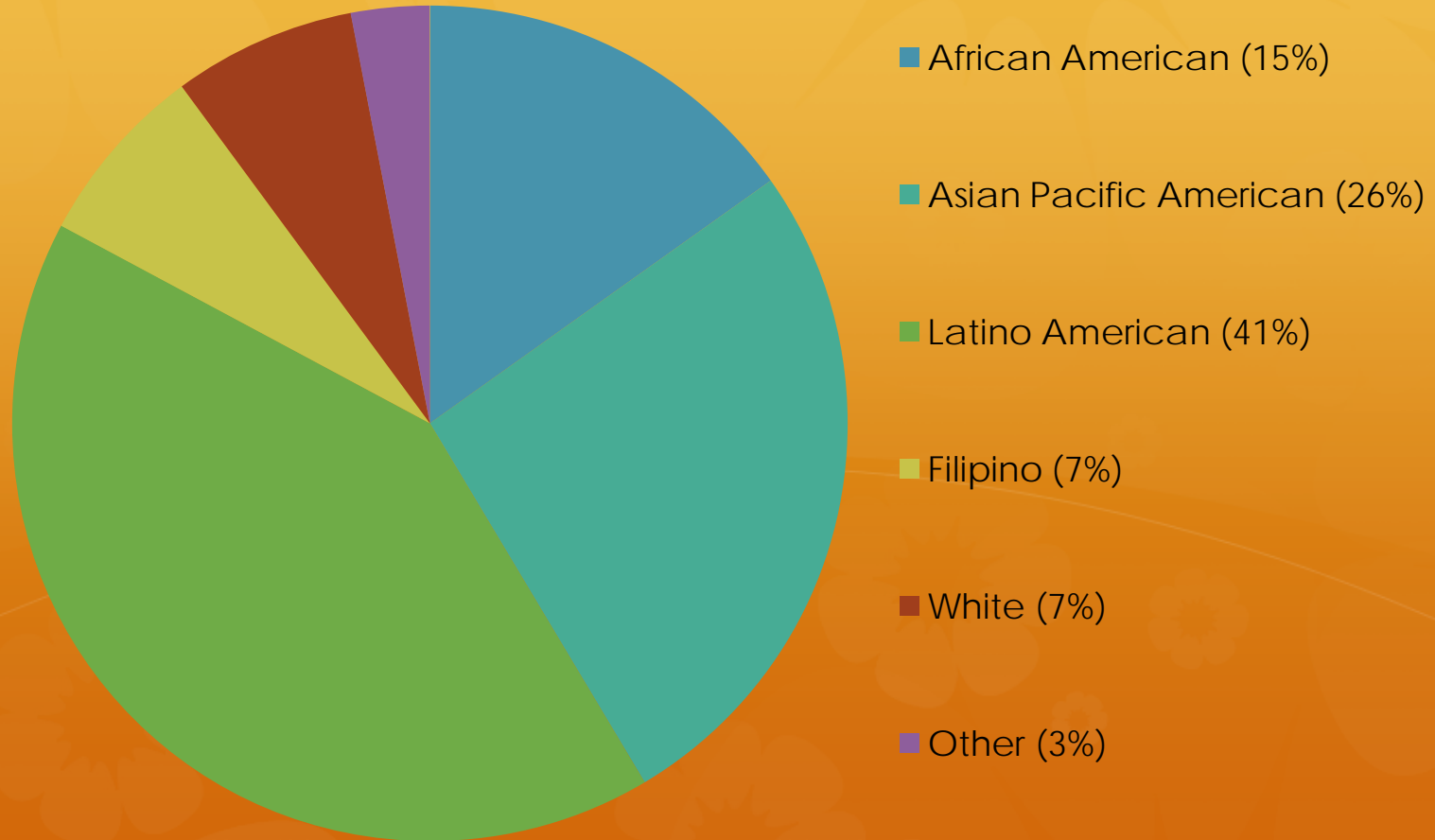
❁ Number of Women: 35/102 (34%)

❁ Number of Men: 67/102 (64%)

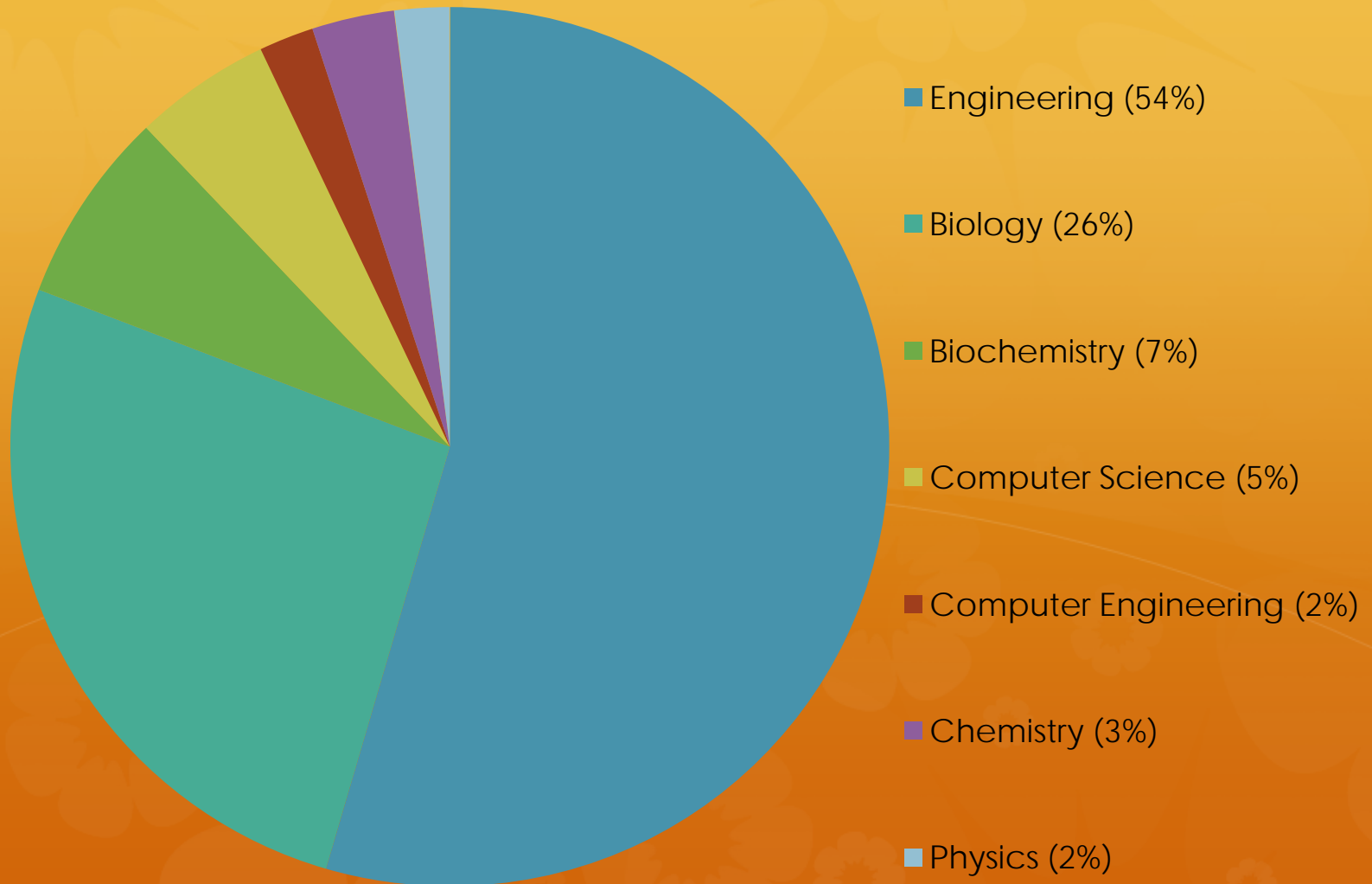
All Data Represented from 2012-2013

Diversity of MESA

Diversity in MESA



MESA Majors



Transfer Data

Students Planned to Transfer Fall 2013: 14

Students Successfully Transferred: 16

Students Who Met Transfer Date: 114%

Transfer Institutions

UC: 11 students

CSU: 3 students

Private: 2 students

UCB, UCLA, UCSD, UCI, UCD, SJSU, CSUEB,
Stanford University and Mills College

Other Statistics

First Generation: 82% (83 students)

Receiving Financial Aid: 76% (77 students)

Transferred: 17% (16 students)

Retained from Fall 2012 Semester to Spring Semester 2013: 79%

Partnership with California Connects

Number of laptops dispersed: 58

Total Value: \$116,000

Internships

- ❁ Bay Area Rapid Transit (2)
- ❁ Flood Control Department of Alameda County Public Works (1)
- ❁ San Francisco International Airport (1)
- ❁ PCC Structural Inc. (1)
- ❁ National Institute of Health Bridges to Baccalaureate Program at UCB (6)
- ❁ US Department of Energy (1)
- ❁ UCB's Transfer to Excellence Program (1)
- ❁ Teacher Pathway STEM Institute (2)
- ❁ Jack Kent Cooke Bridge Program at UCSB (1)

Scholarships

- ❁ Chabot Board of Trustees Scholarship (\$750)
- ❁ (2) PG&E MESA Scholarships (\$1,000 each)
- ❁ Chabot Bookstore Scholarship (\$500)
- ❁ Chabot Dare to Dream Scholarship (\$500)
- ❁ Morehouse College Scholarship (\$500)
- ❁ Chabot Osher Scholarship (\$1,000)
- ❁ Palmer Scholarship in Science (\$100)
- ❁ Palmer Scholarship in Mathematics (\$100)

Scholarships Cont'd

- ❁ Chabot College Foundation Fresh and Natural Scholarship (\$500)
- ❁ (2) Sage Electrochromics, Inc. (\$500 each)
- ❁ Stanford Scholarship Fund (\$42,000)
- ❁ PG&E Bright Minds Scholarship (\$2,500)
- ❁ American Chemical Society Scholars Program (\$5,000 - renewable)
- ❁ PG&E Bright Minds Scholarship (\$30,000 - renewable)
- ❁ UCB Regents' Scholarship (covers 100% of costs of attendance- up to \$33,320 – renewable)

Our Goal Moving Forward

Offer more services and opportunities to

ALL STEM majors at Chabot

Logic Model for: Chabot College MESA program

Inputs	Activities	Outputs	Near term outcomes	Distal outcomes
CCC Funding \$50K College Match \$50K+ Humans Resources: STEM Clubs STEM Dean STEM Faculty STEM Staff Tutorials Counselors Peer mentors/Tutors Partners Resources Industry Universities Professional Associations Relevant conditions: Belief and belonging Relevant target characteristics: Students of color, low-income, coming from low performing schools	Orientation STEM Classes Tutoring -group -individual Counseling appointment Leadership Development Workshops -MESA Student Retreat -MESA Leg. Day Professional Development workshops - career exploration - resume building - personal statement/cover - presentation skills Student Life -trips -competition	Student portfolio Professional portfolio Student Education Plan Group Project	Belief and Belonging in MESA Timely completion of gateway course in Math and major Internship/Leadership placements Scholarship awards 3.0 GPA or above	Belief and Belonging in STEM Field Timely transfer in STEM to a four-year university Jobs

Use research regarding Habits of Mind, Hope to build confidence through community. Create belief and belonging.