

*Assessment & Acceleration*  
Recognizing Student  
Capacity in the Data

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# Introductions & Overview

Who we are

Our commitment to advancing student equity through evidence-based decision-making

After today's session, we hope that you will be able to:

- Describe impact of student placement on success and completion
- Discuss the effectiveness of accelerated approaches in increasing student throughput
- Identify ways in which you can leverage your research team in these discussions

# The Problem: Barriers to Student Completion

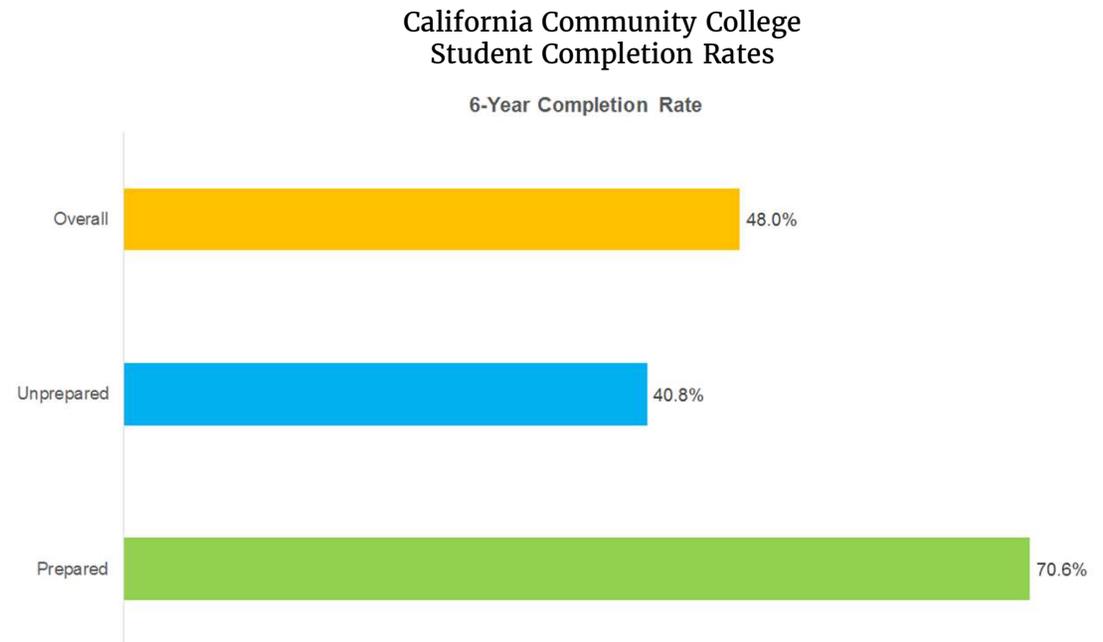


# The Community College Completion Challenge



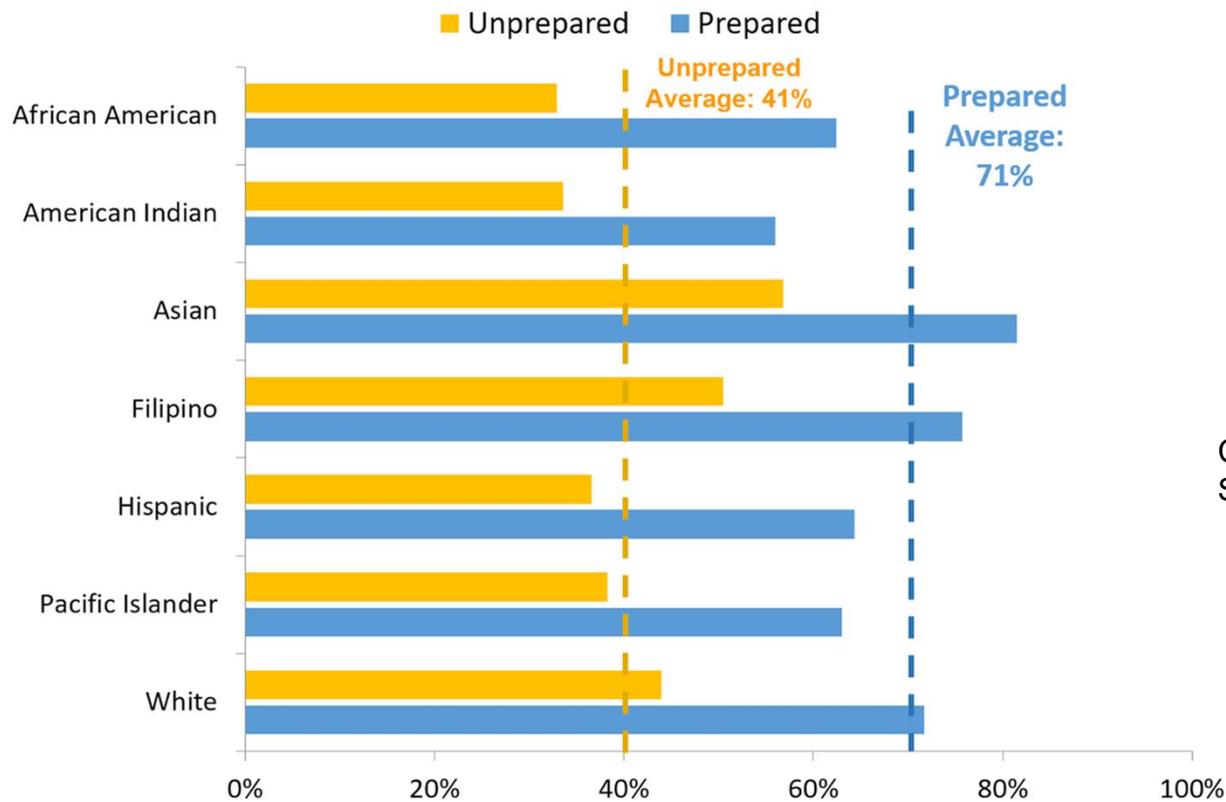
**ONLY 1 IN 4  
ENTERING CA  
COMMUNITY COLLEGE  
STUDENTS LANDS IN THE  
"PREPARED" CATEGORY**

**AND YET, "PREPAREDNESS" IS ONE OF THE MOST  
IMPORTANT PREDICTORS OF STUDENT COMPLETION**



# Completion and Preparedness: Through an Equity Lens

*Preparedness is one of the biggest predictors of student completion*



CCCCO Student Success Scorecard (2017)

## Some National Context

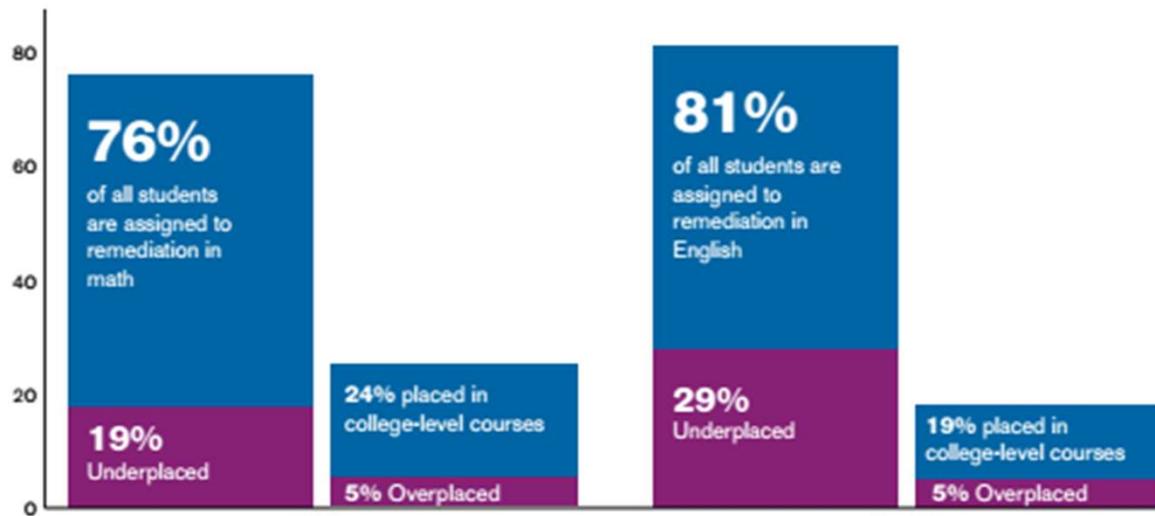
\***33%** of students referred to developmental math go on to complete the developmental sequence (Bailey, Jeong & Cho, 2008)



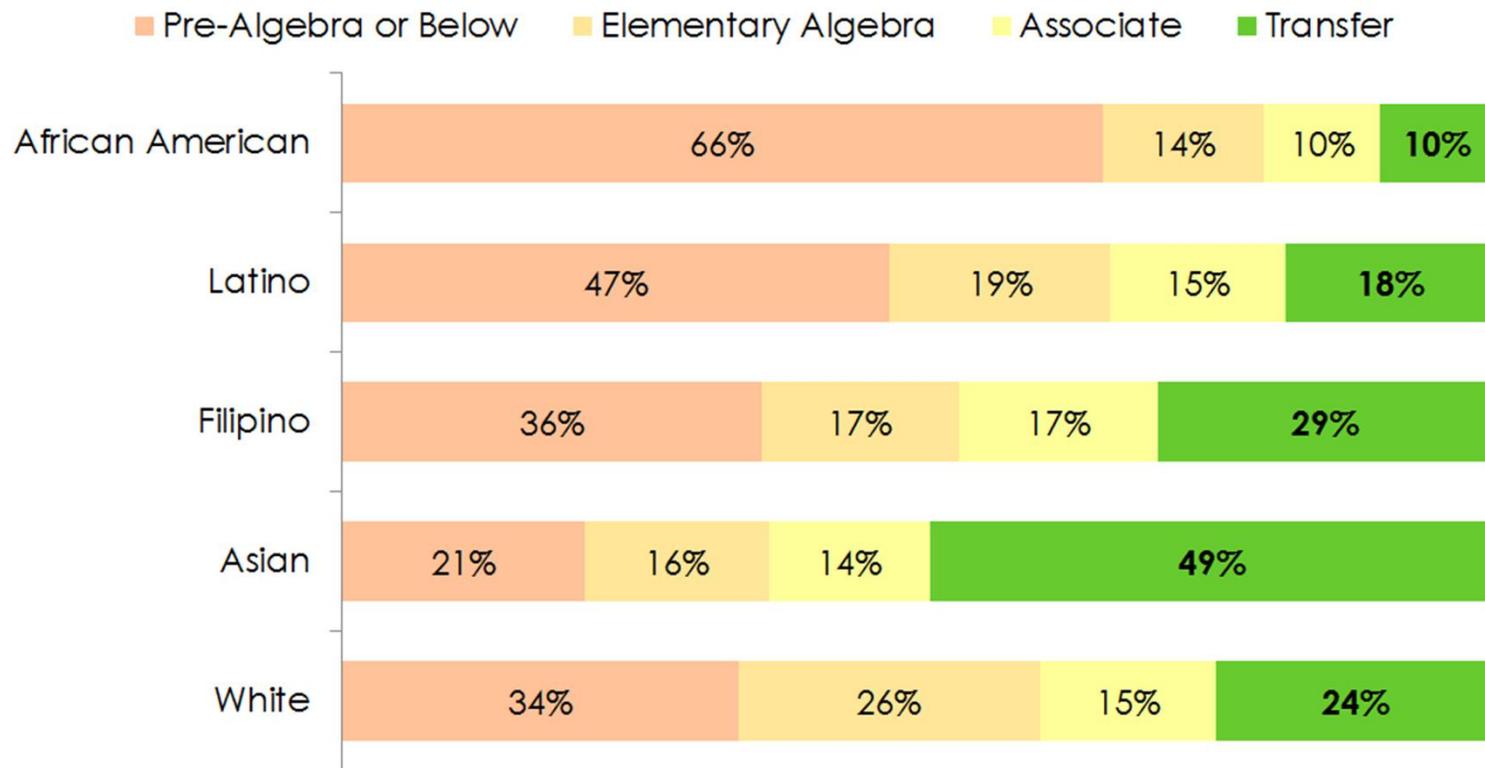
\*Just **28%** of developmental students earned a degree or certificate within 8 years (Attewell et al., 2006)

# The Problem with Under-placement (CCRC, 2015)

**Tested Students Severely Underplaced and Overplaced (Urban Study)<sup>4</sup>**



# The Call to Action: Math Student Placement



*Example from a California Community College*

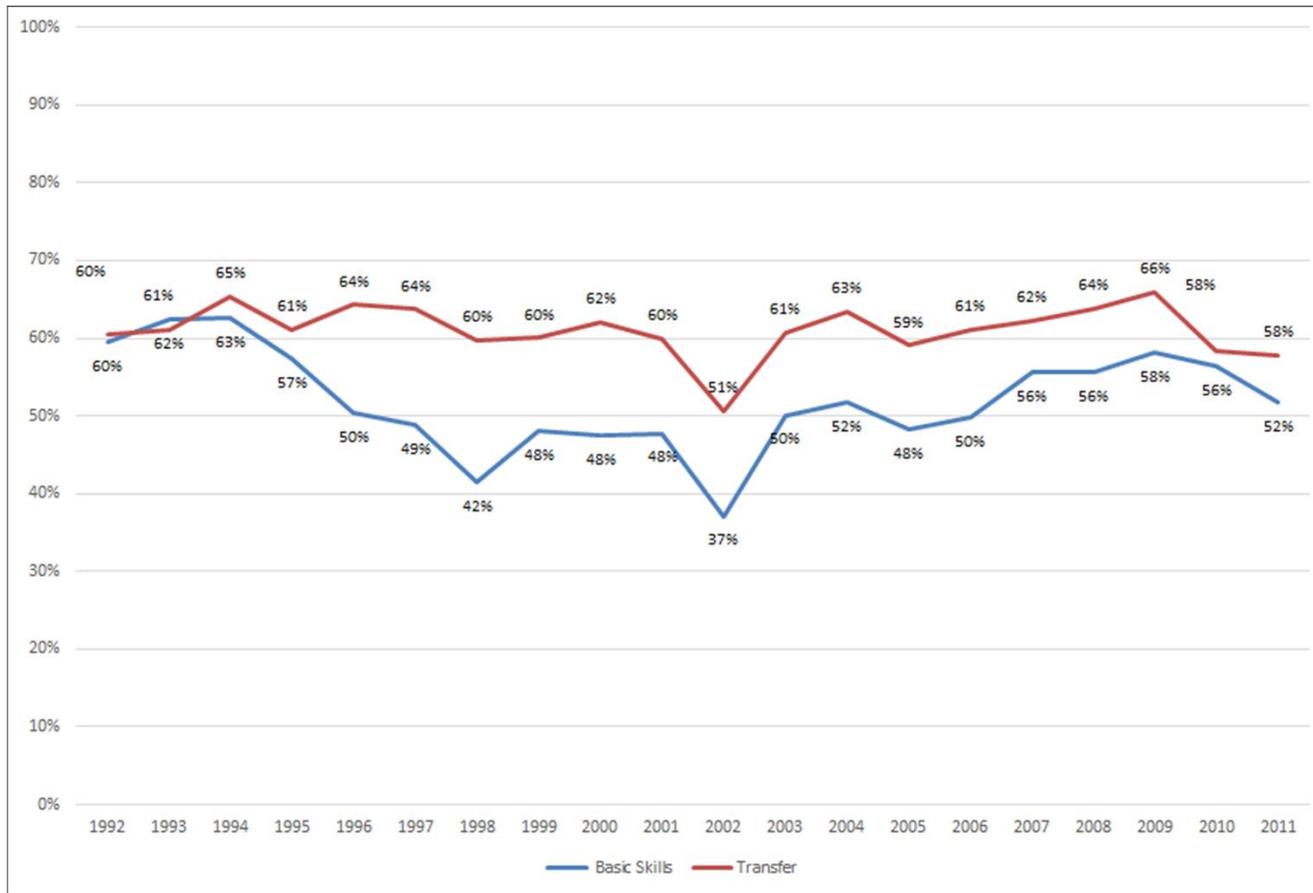
# Test-Based Placement as a Barrier to Success

HS GPA continues to overshadow standardized tests in predictive utility

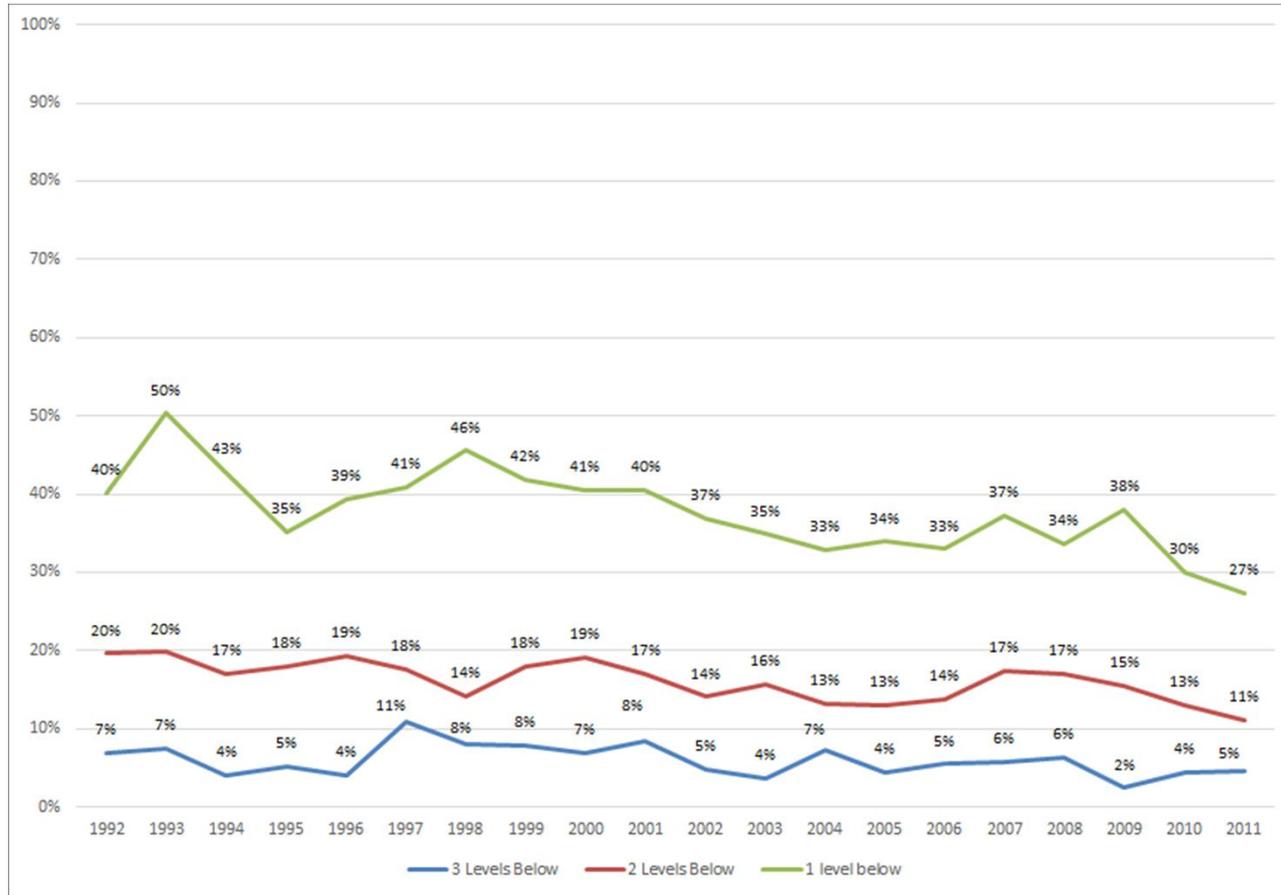
Communicates that High School coursework “doesn’t count”

Negative feedback that students aren’t “college material”

## The False Promise of Assessment: Success Rates in in Basic Skills and Transfer-Level Math Courses by Year

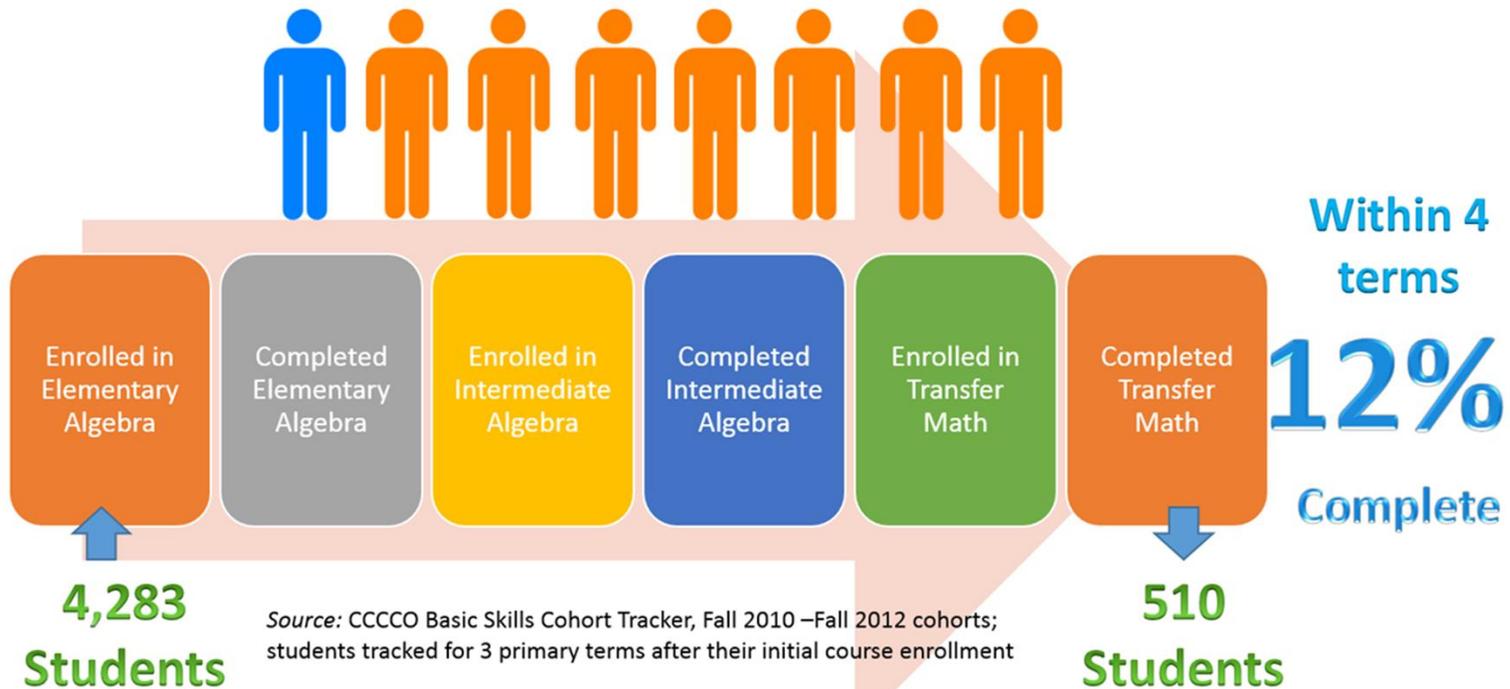


# Success Rates in Transfer-Level Math by Starting Point



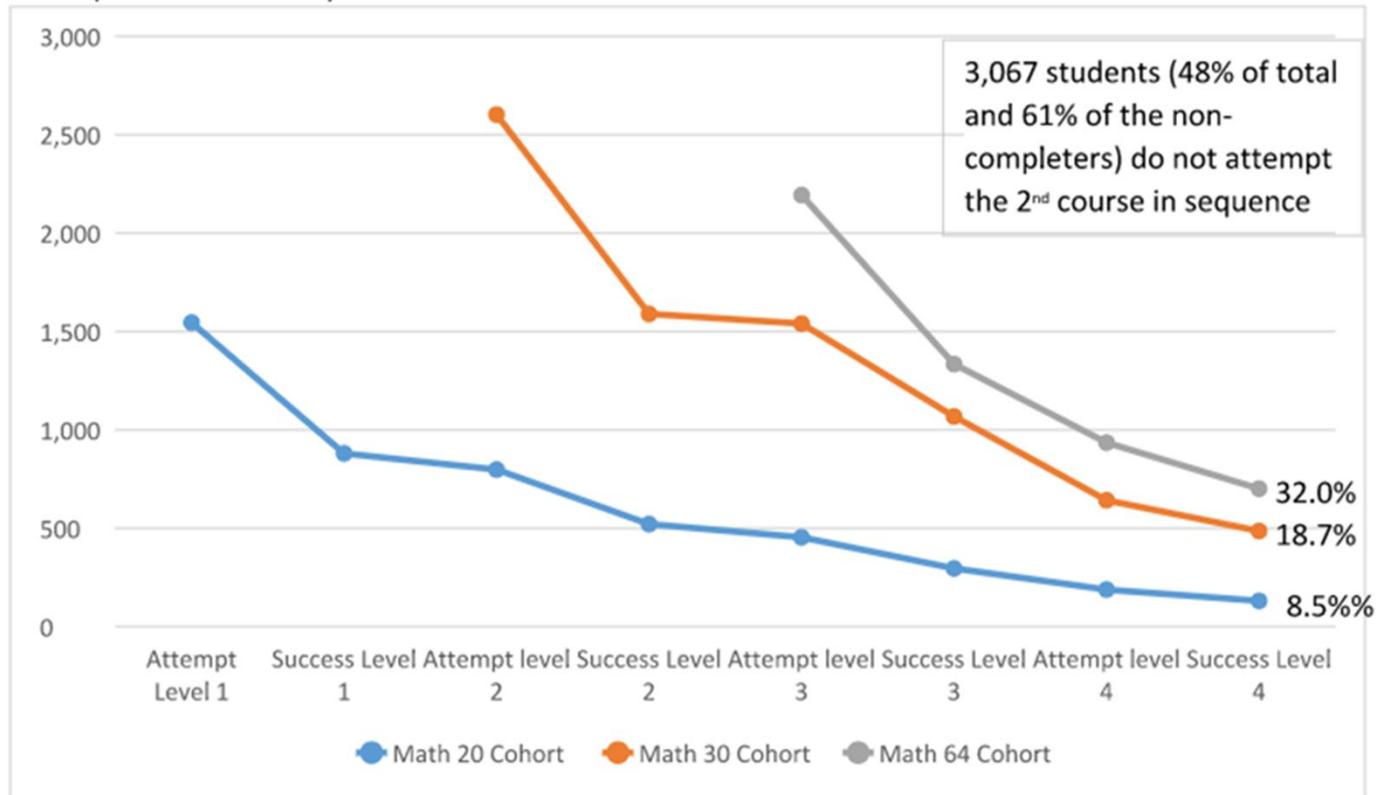
# The Case for Re-Examining the Traditional Math Pipeline

$$63\% \times 77\% \times 66\% \times 55\% \times 69\% =$$



# The Problem of Exponential Attrition

Attempts and Success by Cohort Level



# Transfer Math as a Momentum Point

23% of students who do not complete the sequence stopped after a successful course completion.

There is significant loss early in the course sequences. 3,067 students (48% of total and 61% of the non-completers) did not attempt the 2nd course in the sequence.

Stats courses (BIO, PSYC/SOC, BTEC, BUS, MATH) accounted for nearly 70% of Gateway Math enrollments and 75% of Gateway math successes

Nearly 70% of students who indicated they had a goal of Transferring did not attempt a gateway level math course

# Evidence-Based Solutions



# The Promise in Multiple Measures Placement: A Case Study

## **Pre-Multiple Measures Placement: Fall 2015**

Just 1 in 4 entering Cuyamaca College students was eligible for transfer-level math

## **Post-Multiple Measures Placement: Fall 2016**

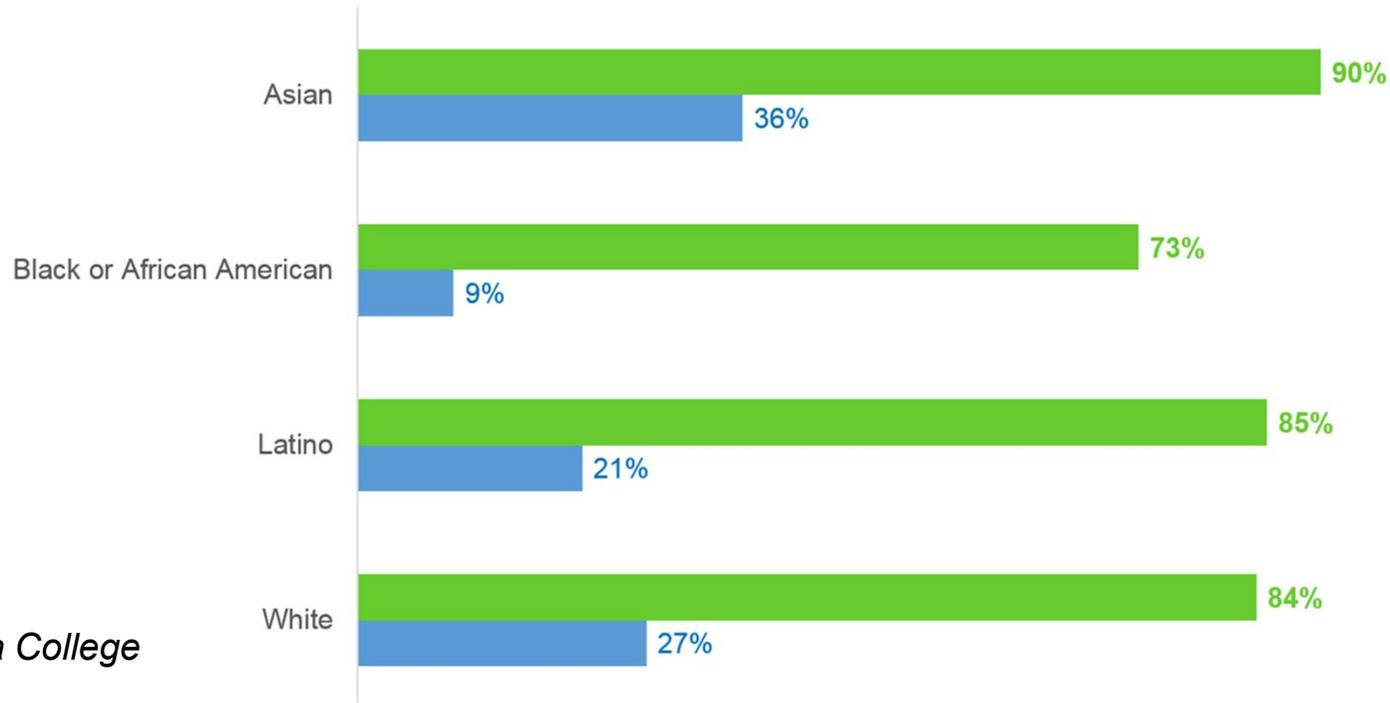
Over 4 in 5 entering students were eligible for transfer-level math

***Equity gaps were significantly diminished after multiple measures implementation***

# The Promise in Multiple Measures Placement

**% of Students Placing into Transfer-Level Math **Before** and **After** Multiple Measures Placement**

■ Fall 2016 ■ Fall 2015



*Data from  
Cuyamaca College*

# The Promise in Accelerated Developmental Programs

An evaluation of the California Acceleration Project (Hayward & Willet, 2015) showed:

- On average, **38%** of students who enrolled in an accelerated math pathway successfully completed transfer-level math in 2 years
- By comparison, just **12%** of students who start in the traditional developmental math sequence successfully completed transfer-level math in 2 years

Co-requisite models are showing promise in further advancing student completion

- Number of students successfully completing transfer-level math in their first semester **tripled** at Cuyamaca College

# How the Research Team Can Support This Work

Engage your research team to look at student placement and **disaggregate, disaggregate, disaggregate!**

Leverage data to **challenge assumptions** about the traditional math pathway

Capture the **student experience** - describe how entering students experience placement processes and traditional developmental sequences

Gather formative evaluation data on new approaches - mixed methods evaluations help **explain the what *and* the why**

# Discussion Questions

What is one thing you learned from today's session that you could take back to your campus and apply?

How will you leverage data and engage your research team with your innovative work in math?

What other questions do you have about assessment and acceleration?

# Food for Thought...



## Presenter Contact Information

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