



# **California Acceleration Project**

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# Why is this brought to the Senate?

- **Want support and buy-in from the senate and the campus**
- **Don't want to blindside the faculty by these changes**
- **Want input**

# Three High-Leverage Strategies

- **Changing Placement Policies**
- **Implementing Co-requisite Models**
- **Redesigning Remedial Courses**

# Changing Placement Policies

- **Colleges broaden access to transfer-level courses**
- **Make access more equitable, by adjusting cut scores**
- **Using robust multiple measures**
- **Requiring algebra-based testing and remediation only for access to courses that require substantial algebra (College Algebra, Calculus, etc.)**

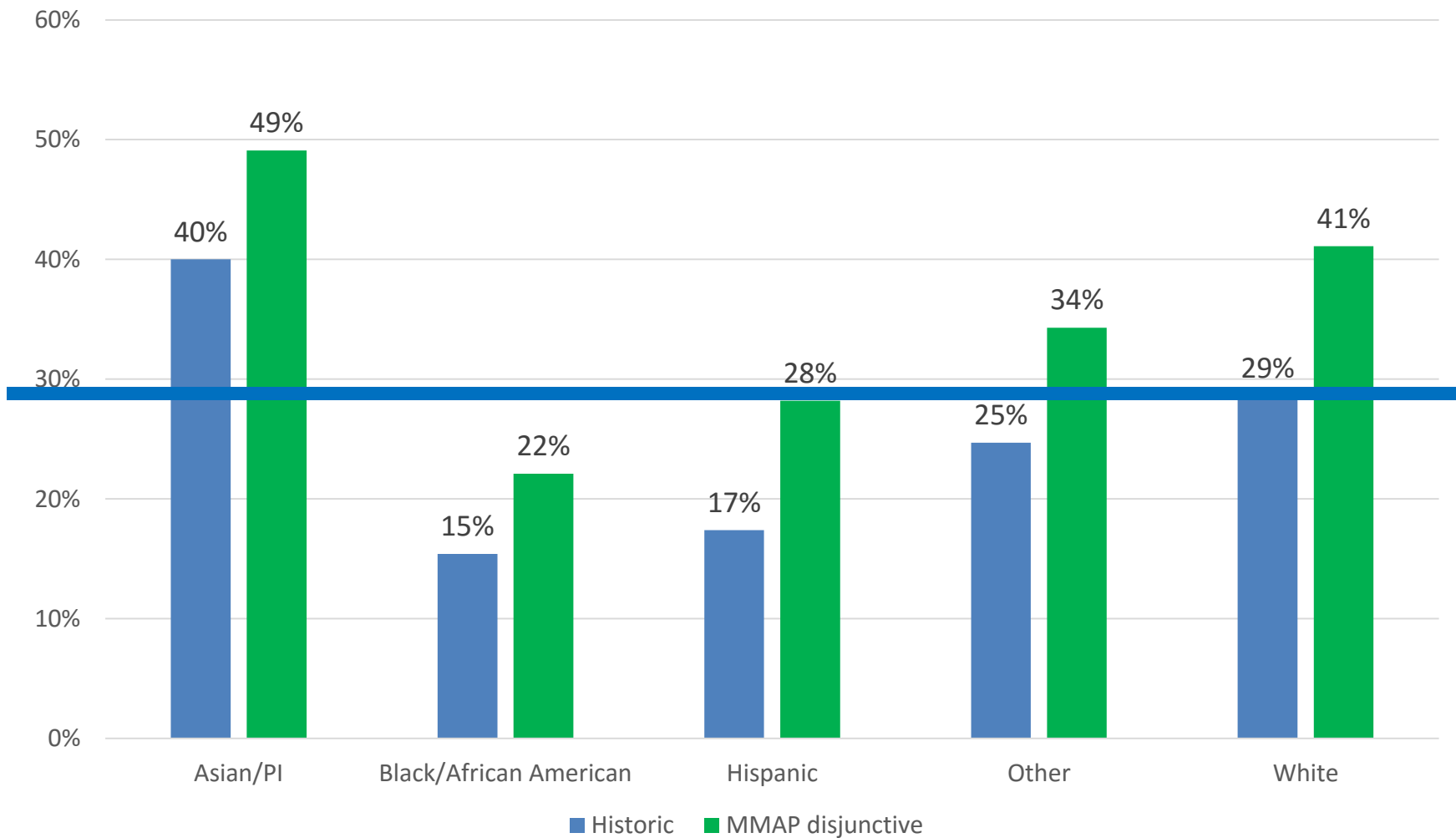
# Robust Multiple Measures Placement

- **High School GPA** – the strongest indicator of how students will perform in college is how they performed in **all** their classes during four years of prior schooling
- **“Disjunctive” placement** – students qualify for college-level courses based on high school measures **OR** test score, whichever is higher
- **Self-reported information** – high school GPA and coursework provided in response to questions during assessment process so that all students have access to multiple measures placement

# Why Implement This?

- **Two to five times** the transfer-level course completion
- Comparable or higher success rates
- Works across demographic groups & placement levels
- Tremendous equity implications

# Potential Impact on Equity (Math Transfer Level)



# Purpose of Multiple Measures

- provide a more complete picture of student ability
- provide a way to increase the accuracy of placement, particularly reducing under-placement  
<http://bit.ly/CCRCPlacementAccuracy>
- 55520 from Title 5 requires Multiple Measures, not just a test score, for placement



# Variables Explored in MMAP Models

- **High School Cumulative GPA**
- Grades in high school courses
- CST scores
- Advanced Placement course taking
- Taking higher level courses (math)
- Delay between HS and CCC (math)

# Summary: HS Variables that Predict College Success in Mathematics

## ➤ HS Cumulative GPA

- Enrollment and grades in Geometry, Algebra II, Trigonometry, Pre-calculus, Statistics, Calculus
- Taking a more challenging CST
- Score on math CST
- More variables were examined but not found to be predictive once more powerful variables included.

## Proposed Plan:

- Math Department meetings scheduled for September 23, and an all-day meeting September 30 to discuss details.
- Implement MMAP as soon as possible using the suggested placement rules, as defined by the RP group (vetted by Math Department).
- Ideal: start a pilot group for Spring 2017
- Ideal: full implementation for Fall 2017

# Reasons for Change

- **Potential for dramatic increases in rates and times to completion of:**
  - Transfer-level Courses in Discipline
  - Subsequent Courses in Discipline
  - Other early education milestones
- **For all students**

# Redesigning Remedial Courses

- Multi-level sequences in math are replaced with accelerated courses that are well-aligned with the transfer-level requirements in students' chosen pathway.

# Proposed Plan

## New Course: PreStatistics

- No Prerequisite
- 6 Units
- 1 semester gets the student ready for Math 110 (a transfer-level course)
- 2 semesters to complete transfer-level math course

# Implementing Co-requisite Models

- Students classified as “below transfer level” are allowed to enroll in a transfer-level course with extra concurrent support saving them at least a semester of stand-alone remediation and reducing their chances of dropping out.

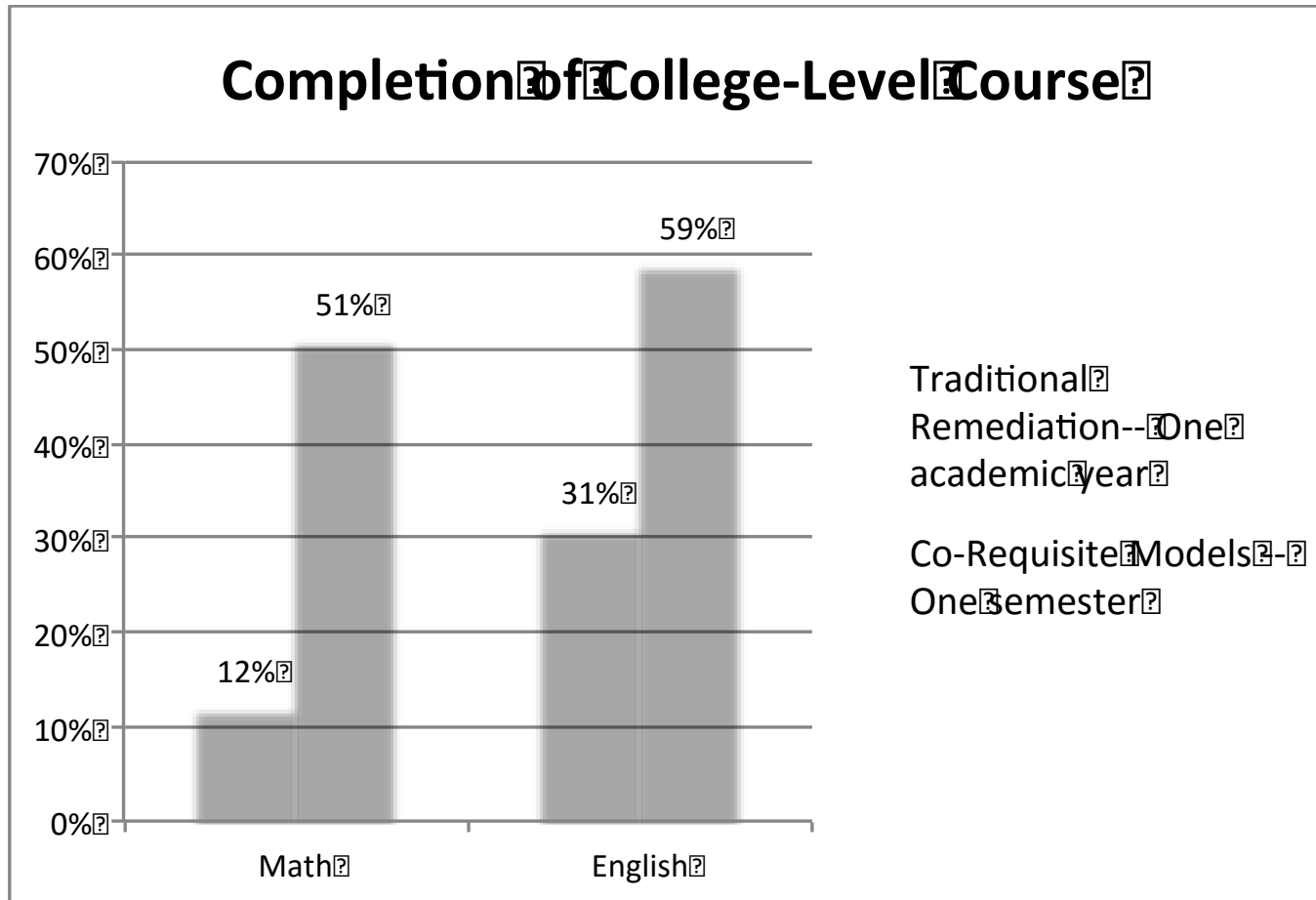
# **Proposed Plan: Develop New Co-requisite Courses**

- Details TBD
- Ideal: courses will be ready by Fall 2017
- Lots of Math Department meetings!
- Lots of work to be done



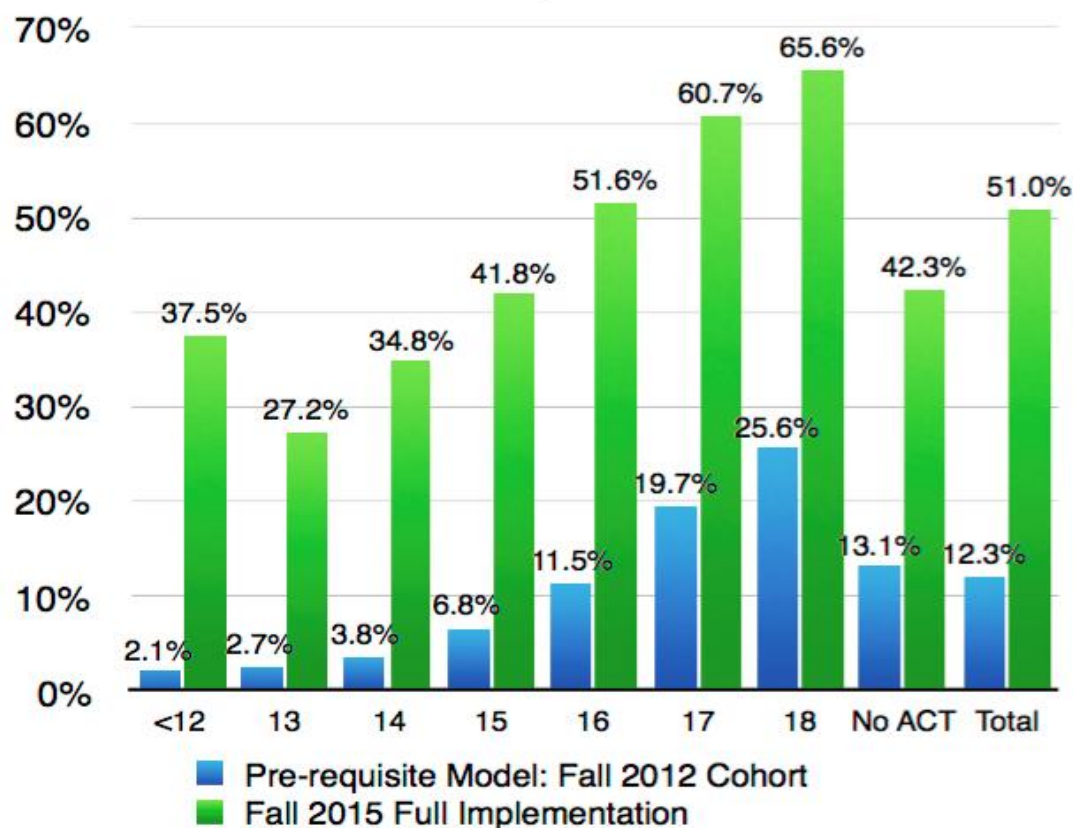
# Only co-requisite models of remediation are offered at Tennessee public colleges and universities

Fall 2015 Statewide Data: Tennessee Board of Regents (TBR)



# What about low-scoring students?

Results of TBR Co-requisite Mathematics  
Full Implementation



# **RP Group Evaluation of CAP: Benefit to All Students**

Significant completion gains among all student subgroups studied, including:

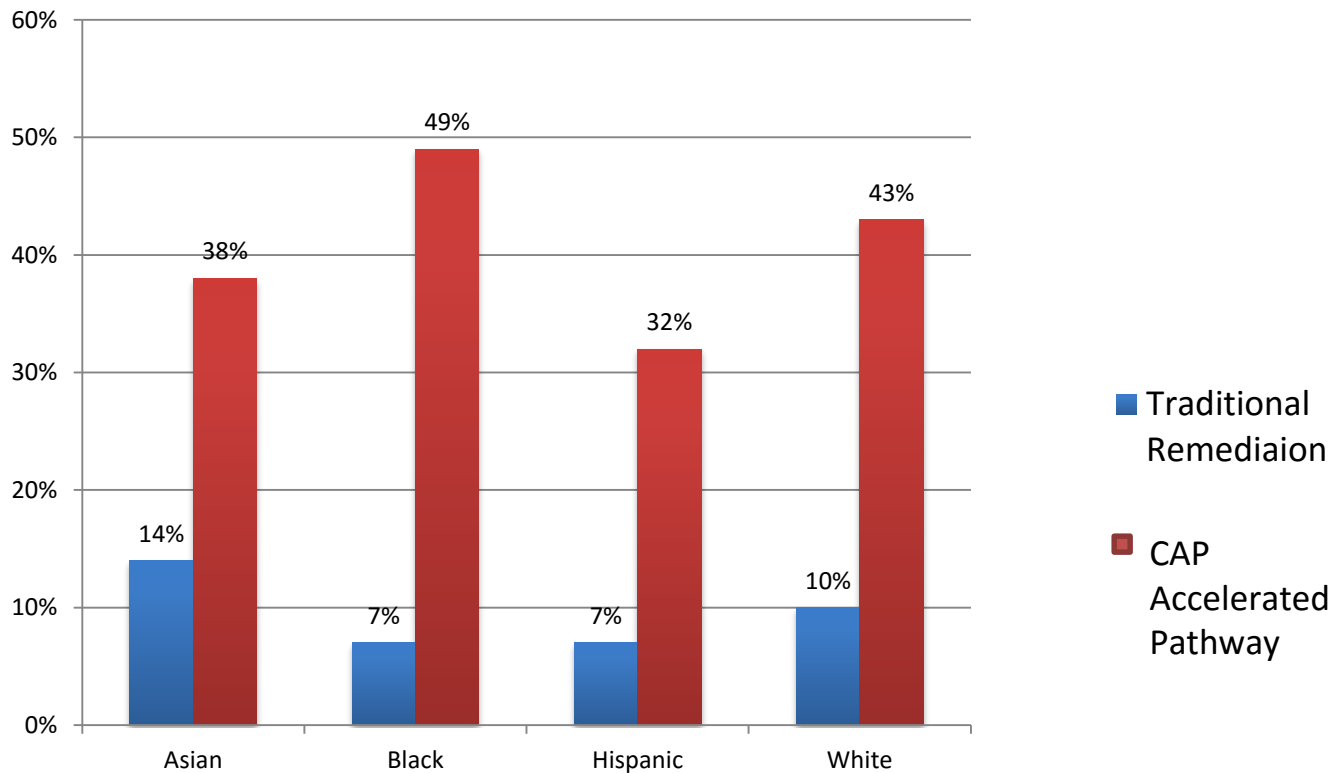
- all ethnic groups
- low-income students
- students who had taken ESL courses
- students who had not graduated from high school
- students with low GPAs
- students with disabilities

# CAP Math Pathways: What about the lowest students?

## Completion of Transfer-Level Math (within 1.5-2 years)

### Students at 3-4 Levels Below Transfer in Math

(Descriptive data, no statistical controls)



The background of the slide is a map with a grid of thin lines. A prominent yellow line runs vertically down the right side. A blue line runs diagonally from the bottom left towards the center. A green line runs horizontally across the middle. The map is otherwise mostly white with some light green and yellow shading.

**[bit.ly/MMAPTech](http://bit.ly/MMAPTech)**

**[bit.ly/CCRCPlacementAcuracy](http://bit.ly/CCRCPlacementAcuracy)**

**[bit.ly/MMAPPilots](http://bit.ly/MMAPPilots)**

**[bit.ly/MMAPCCCAA](http://bit.ly/MMAPCCCAA)**

**[bit.ly/CAPEval](http://bit.ly/CAPEval)**

A topographic map background with contour lines and a river. The map is oriented vertically, with a river flowing from the top left towards the bottom right. The contour lines are brown and yellow, indicating elevation. The text "Questions?" is centered on the map in a bold, red font.

**Questions?**