

Smoothing the Way: Removing Obstacles to Student Success

College Access and Preparation Forum
May 23, 2018



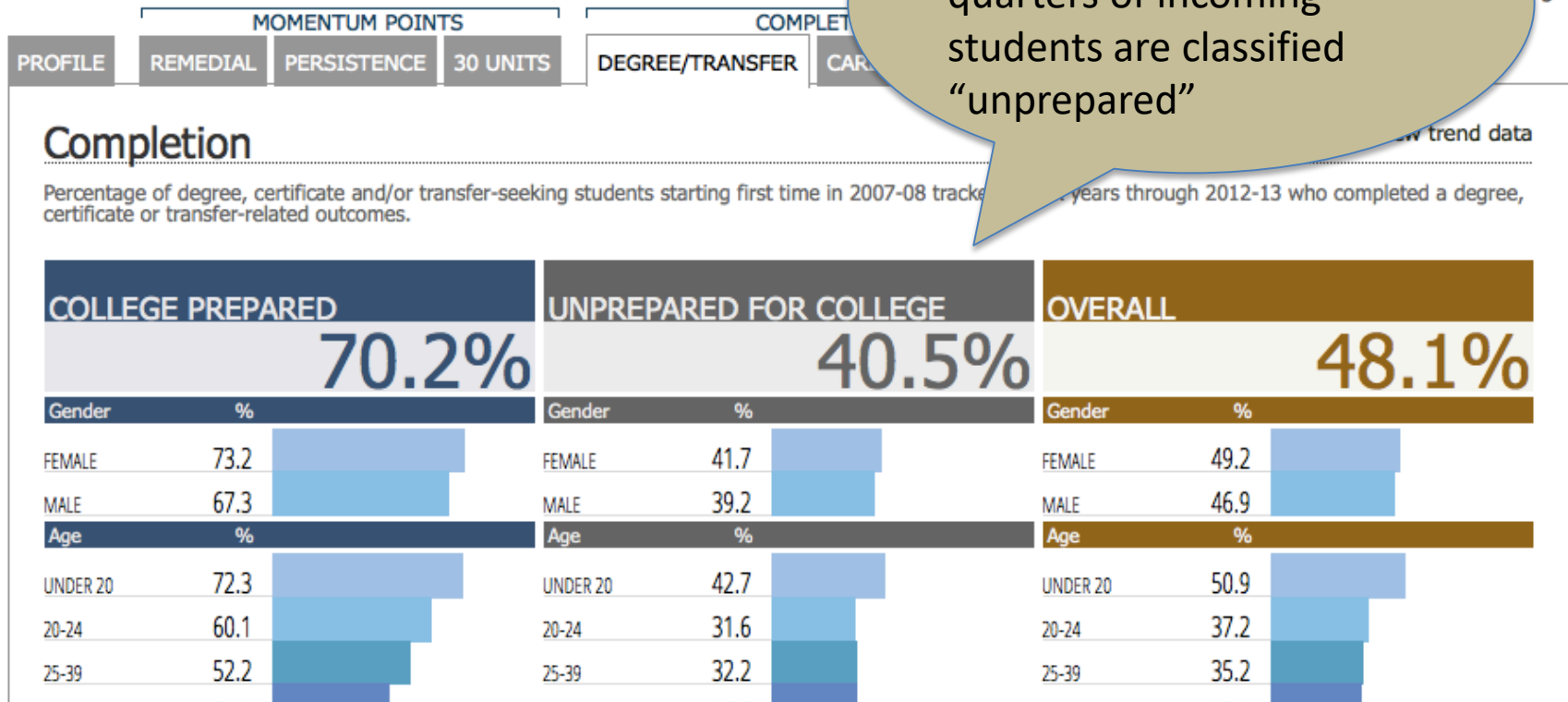
Summer Serpas
Assistant Director
California Acceleration Project

<http://www.AccelerationProject.org>

Student Success Scorecard

Statewide

Statewide, more than three-quarters of incoming students are classified "unprepared"



Placement Is Destiny

Students' Starting Placement English-Writing	% Completing Transfer-Level English in 3 Years
One Level Below Transfer-Level English	48%
Two Levels Below	34%
Three or more Levels Below	19%

Across CA, students of color 2-3 times more likely to begin in lowest levels than white students

Statewide data, Basic Skills Cohort Tracker, Fall 2009-Spring 2012

Placement Is Destiny

Students' Starting Placement	% Completing Transfer-Level Math in 3 Years
One Level Below Transfer-Level Math	35%
Two Levels Below	15%
Three or more Levels Below	6%

Across CA, more than half of Black and Hispanic students in remedial math begin here

Statewide data, Basic Skills Cohort Tracker, Fall '09-Spring '12

Inequitable Placement Drives Inequitable Completion

Mt. San Jacinto College (Fall 2015)

- White students were 2x more likely to be placed into transfer-level English than Hispanics and nearly 4x more likely than African Americans

Chance of passing college English in 2 years: 73%

- African American and Hispanic students were more than 2x more likely than white students to have to take multiple semesters of remediation in English

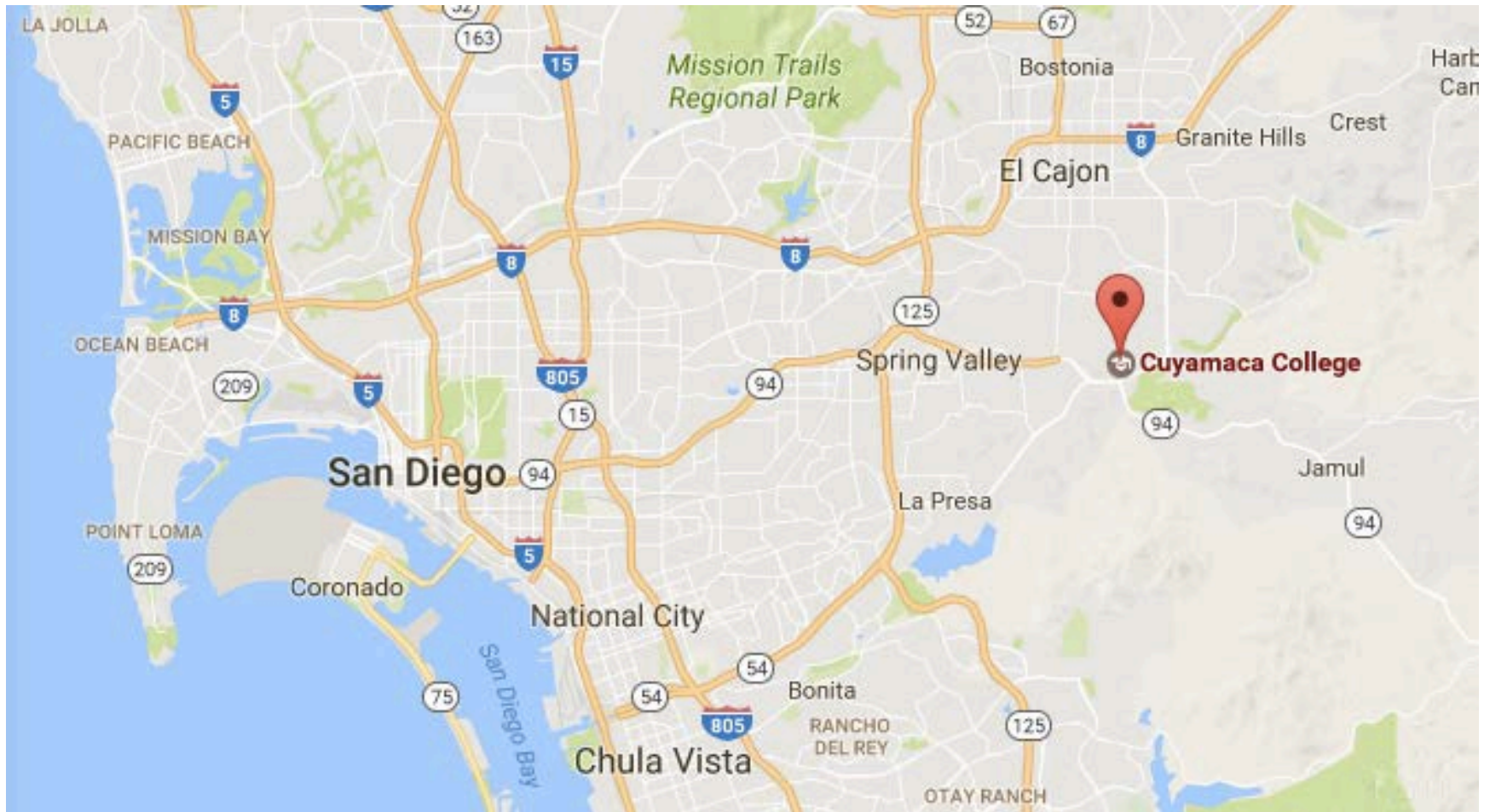
Chance of passing college English in 2 years: 23%-38%

Remediation Reform: Essential to Campus Equity Efforts

Nationally and across California, students of color are disproportionately excluded from transfer-level courses and disproportionately required to take multiple remedial classes in math and English.

A study by Greg Stoup of the three colleges in Contra Costa County estimates that 50-60% of racial inequities in degree completion and transfer-readiness is explained by initial placement.

Cuyamaca College



Before

Completion of Transfer-Level Math from Pre-Algebra

Basic Skills Progress Tracker - Parameter Selection Area

Select College: Cuyamaca

Select Cohort Term: Fall 2010

Select End Term: Spring 2013

Select Basic Skills Subject: Mathematics

Select Starting Cohort Level: Three Levels Below Transfer

Customize cohort (Optional):

View Report

Export To -> Excel CSV Text

Records Per Page: 10

Simple Layout Advanced Layout

Report Data & Format Area

Report Area

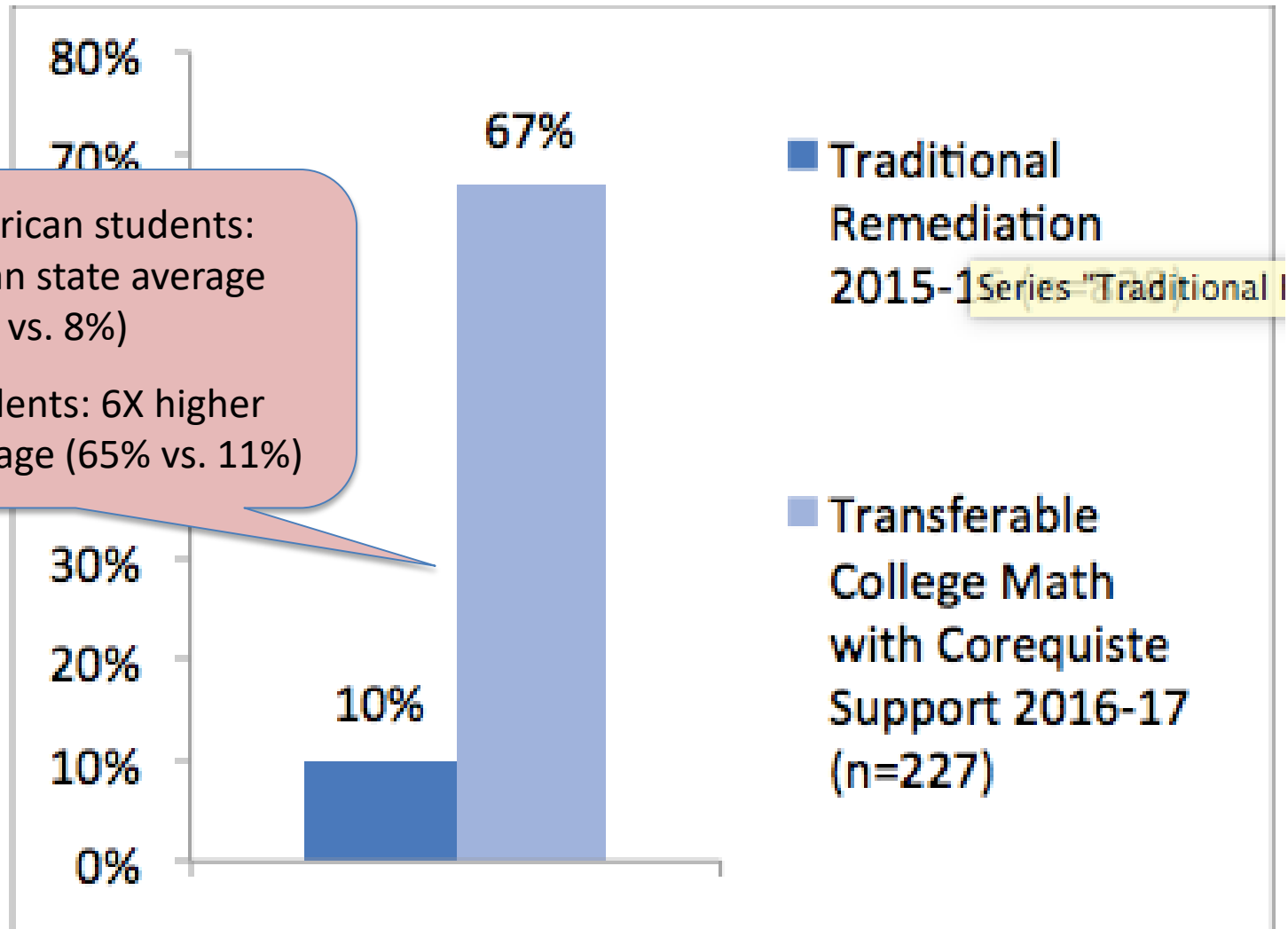
		Fall 2010-Spring 2013											
		+ Three Levels Below Transfer			+ Two Levels Below Transfer			+ One Level Below Transfer			+ Transferable		
		Students	Attempts	Success	Students	Attempts	Success	Students	Attempts	Success	Students	Attempts	Success
<input type="checkbox"/> Cuyamaca Total													
Mathematics		175	190	131	107	126	87	66	79	55	15	19	10

After

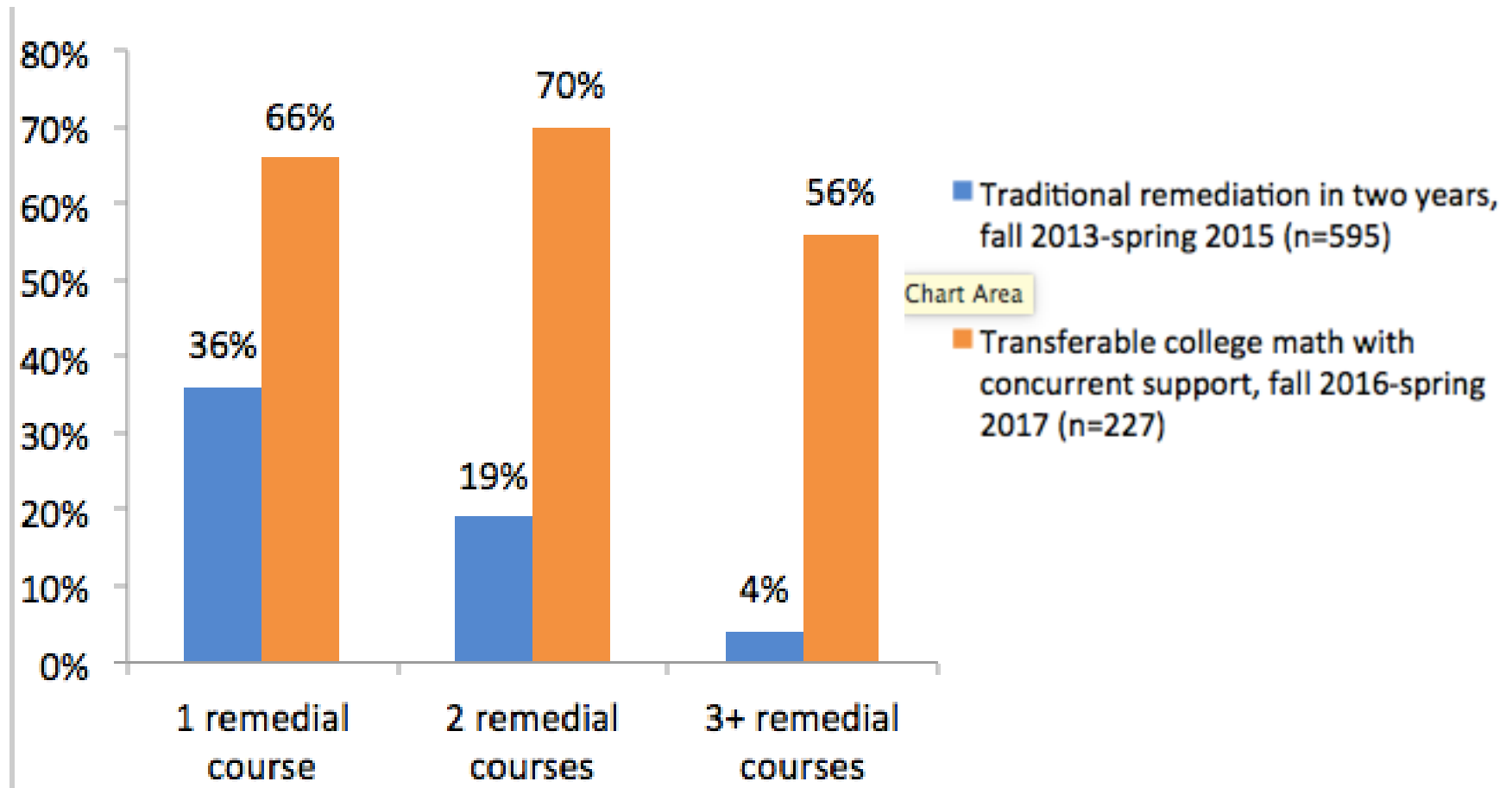
Math Transformation – 2016-17

- All courses 2, 3, and 4 levels below transfer-level eliminated
- Corequisite support offered for first-tier transferable college-level courses (just-in-time remediation through 2-unit linked courses)
- Self-reported high school grades used to place students into 5 pathways (General Ed, STEM, Business, Education, CTE)
- 100% eligible for College Statistics (regular or with support)
- 59% eligible for transfer-level business/STEM math (regular or with support)
- Lowest possible placement: Intermediate algebra with concurrent support (one-level-below transfer-level math, only for students in B-STEM pathways)

Transfer-Level Math Completion for Underprepared Students in 1 Year



Transfer-Level Math Completion by Placement Test Results



Karly Franz



Goal: Teach high school biology

Returning Adult:

Away from math for 5 years

Studied fashion design, worked as a historical costumer

Placement via Standardized Test (Accuplacer):

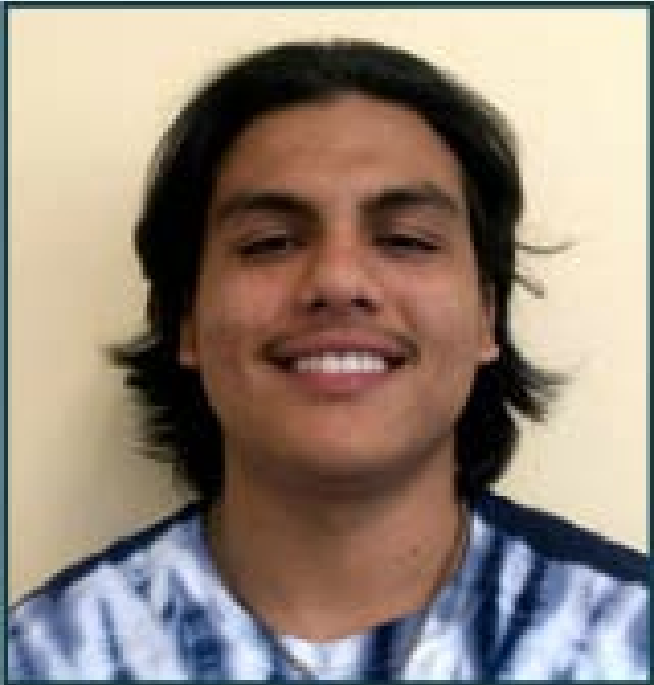
Intermediate Algebra

Corequisite Remediation:

Enrolled directly in Pre-Calculus with 2 units of concurrent support

Grade in Pre-Calculus: 89

Caleb Rendon-Guerrero



Background: High school dropout who'd been in and out of criminal justice system

Goal: To “be the solution not the problem” in his family, create a non-profit to help kids like him

Placement via Standardized Test (Accuplacer):
Elementary Algebra

Corequisite Remediation:
Enrolled directly in College Statistics with 2 units of concurrent support

Grade in Statistics: B

Current Status: Second-year student, GPA of 3.6

College of the Canyons



Andrés Salazar, College of the Canyons



Math Placement via Accuplacer:

Arithmetic

4 levels Below a Gateway Course

Likelihood of completing gateway math in 3 years: 12%

Basic Skills Cohort Tracker

Fall 2013

353 students started in Arithmetic



Spring 2016

43 of them had completed gateway math

Andrés Salazar, College of the Canyons



Goal: Bachelor's Degree in Music Conducting

High School Math: A in Algebra II

High School GPA: 4.0

Enrolled directly in College Statistics through Multiple Measures Placement

Grade: A

Completed math requirement in one semester instead of five

Current Status: Transferred to California Institute of the Arts in Fall 2017

College of the Canyons

Multiple Measures in Math – Fall 2016

- Students qualify for Statistics through test OR high school measures (GPA, grades in Algebra I or II – self-report, no transcript required)
- Eligibility for College Statistics more than quadrupled, increasing from 15% to 71% of incoming students
- No changes to curriculum, no corequisite support provided -- students were simply allowed to enroll in the existing course
- Success rate in course remained steady
- For students who started in Statistics but previously would have been placed below transfer-level, 66% succeeded in their first attempt
- This completion rate was five times higher than among students who started below transfer-level a year earlier (66% in one semester vs. 13% in one year)

Las Positas College



Las Positas College

Multiple Measures in English – Fall 2016

- Students qualify for college English by test OR high school GPA of 2.5 or higher (self report – no transcript required)
- Eligibility for college English doubled - from 36% to 75% of incoming students
- No changes to curriculum, no corequisite support provided -- students were simply allowed to enroll in the existing course
- Success rates in college English held steady
- Among students who previously would have been placed into remediation (N=348), 77% passed college English and 58% earned As or Bs. And if they went on to second-semester composition in spring, 80% passed.
- Completion of college English was 1.75 times higher than among students who started in remediation one year earlier (77% in one semester vs. 44% in one year)

Luis Sanchez, Las Positas College

Classified “remedial” by Accuplacer but qualified for College English through high school GPA

First-generation college student

Generation 1.5: US born and educated, parents do not speak English

Bilingual: feels most comfortable and most himself in English

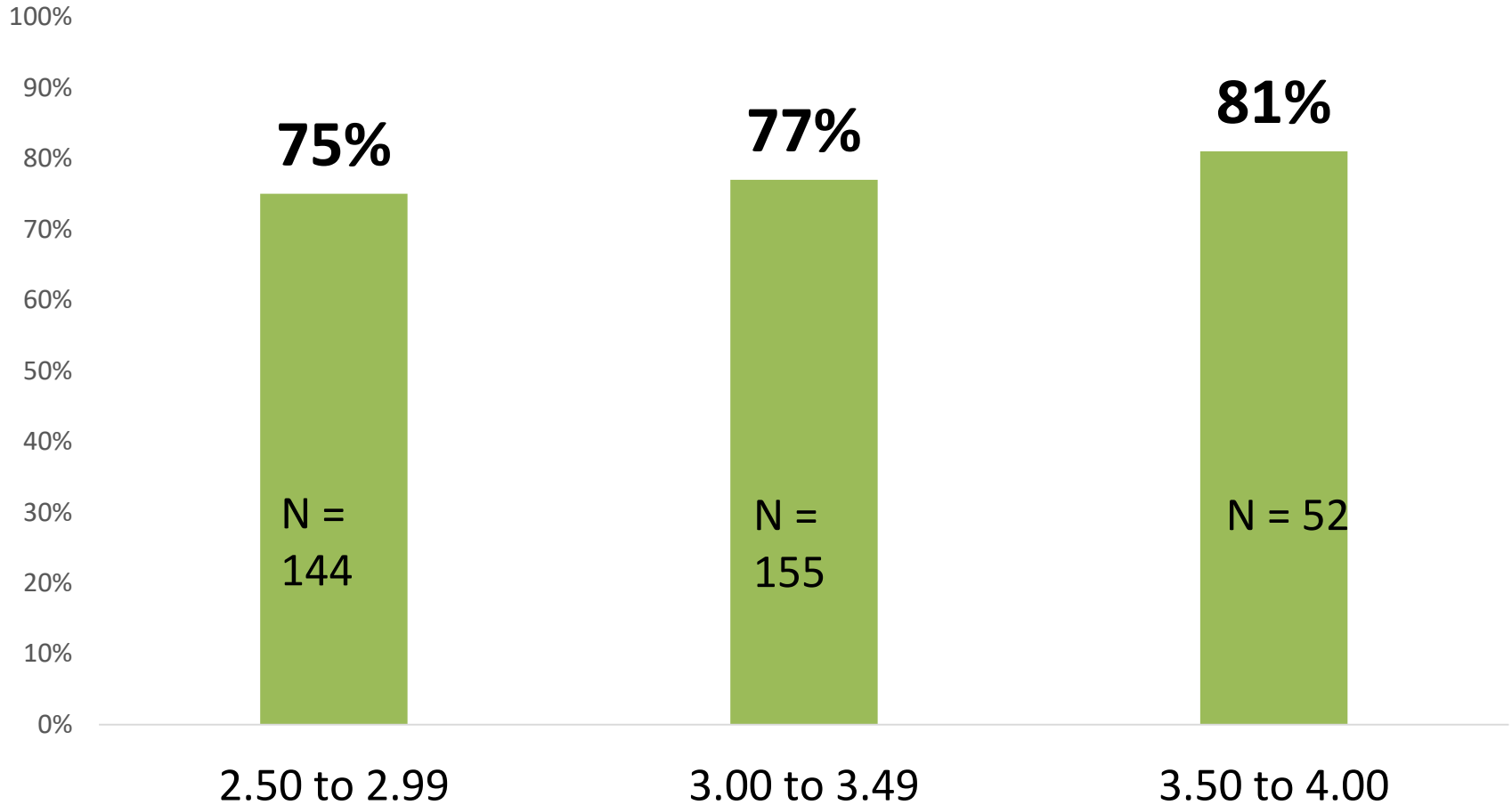
Earned Bs on all four essays, turned in all other assignments

Perfect attendance

Course Grade: A-



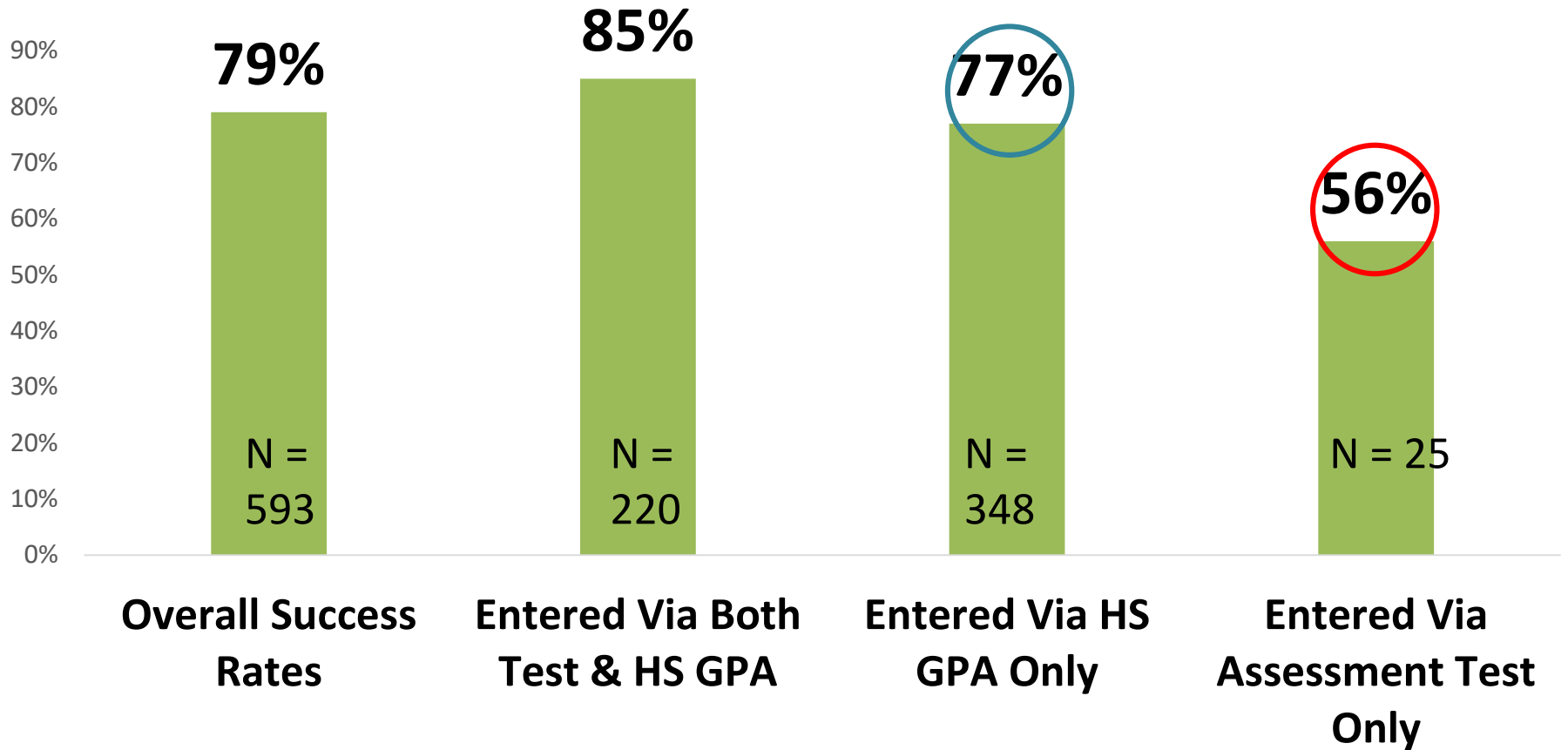
Las Positas College
English 1A Success Rates By GPA Range
Entered Via High School GPA Only
Fall 2016



Las Positas College

English 1A Success Rates By Assessment Test Entry Method

Fall 2016



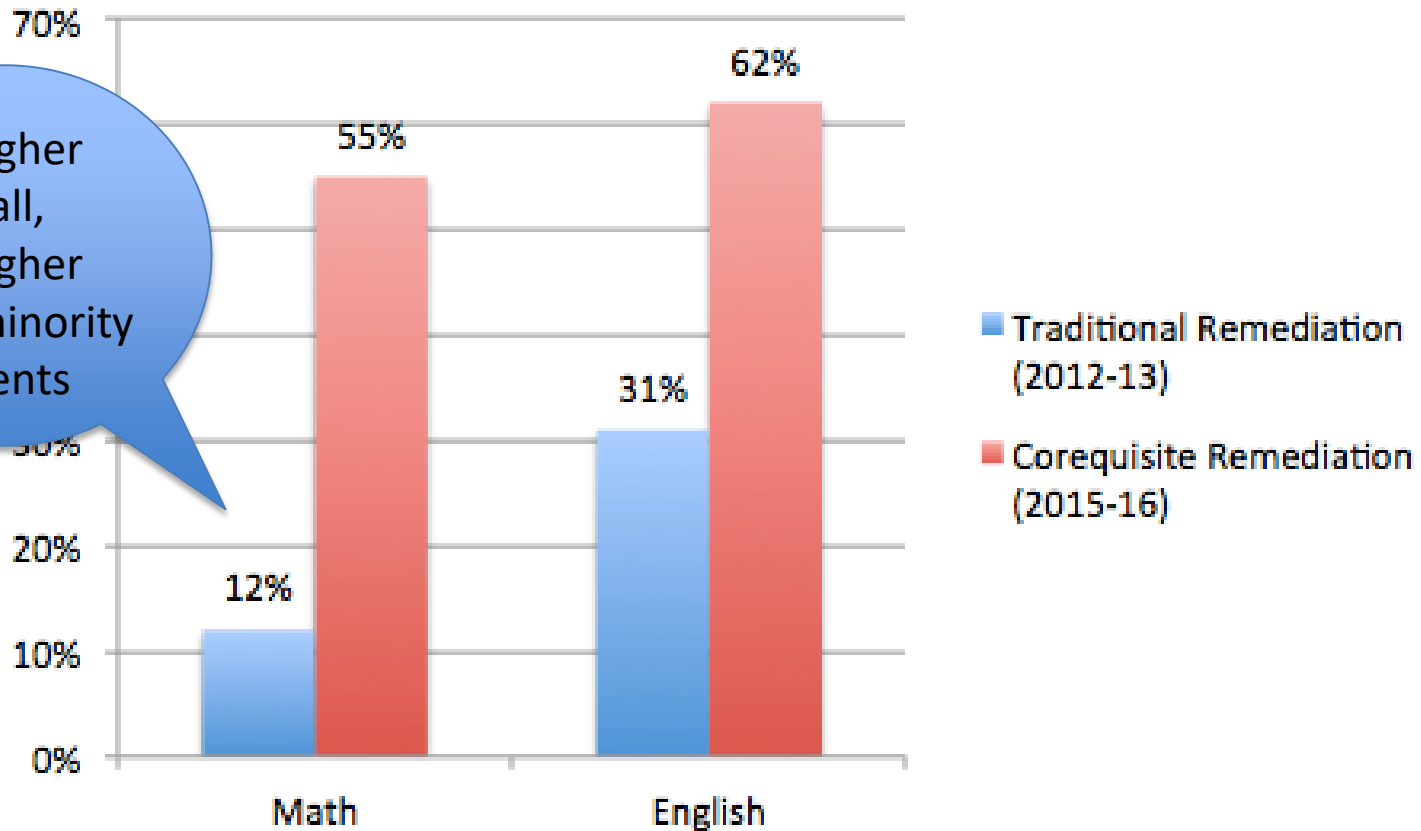


Tennessee

Corequisite Remediation for All Underprepared Students



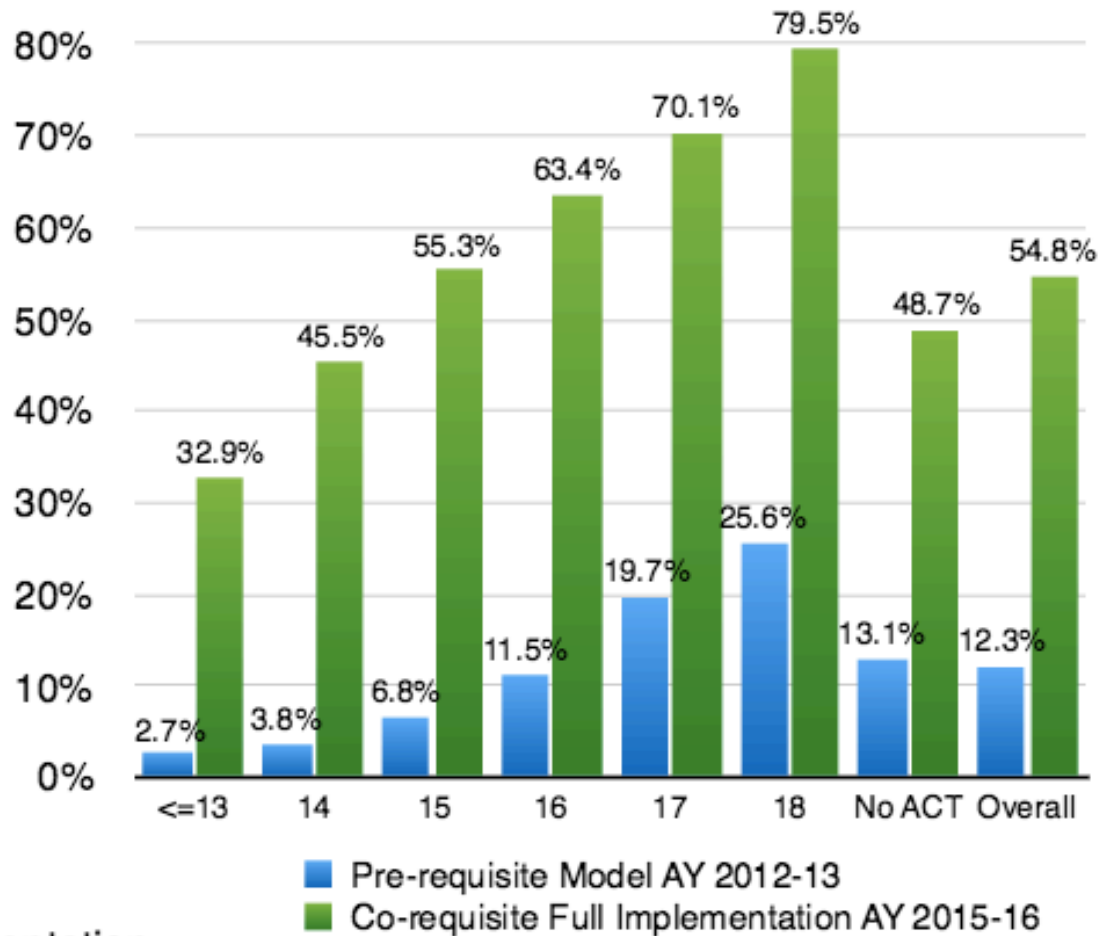
Completion of Transfer-Level Courses Tennessee Community Colleges



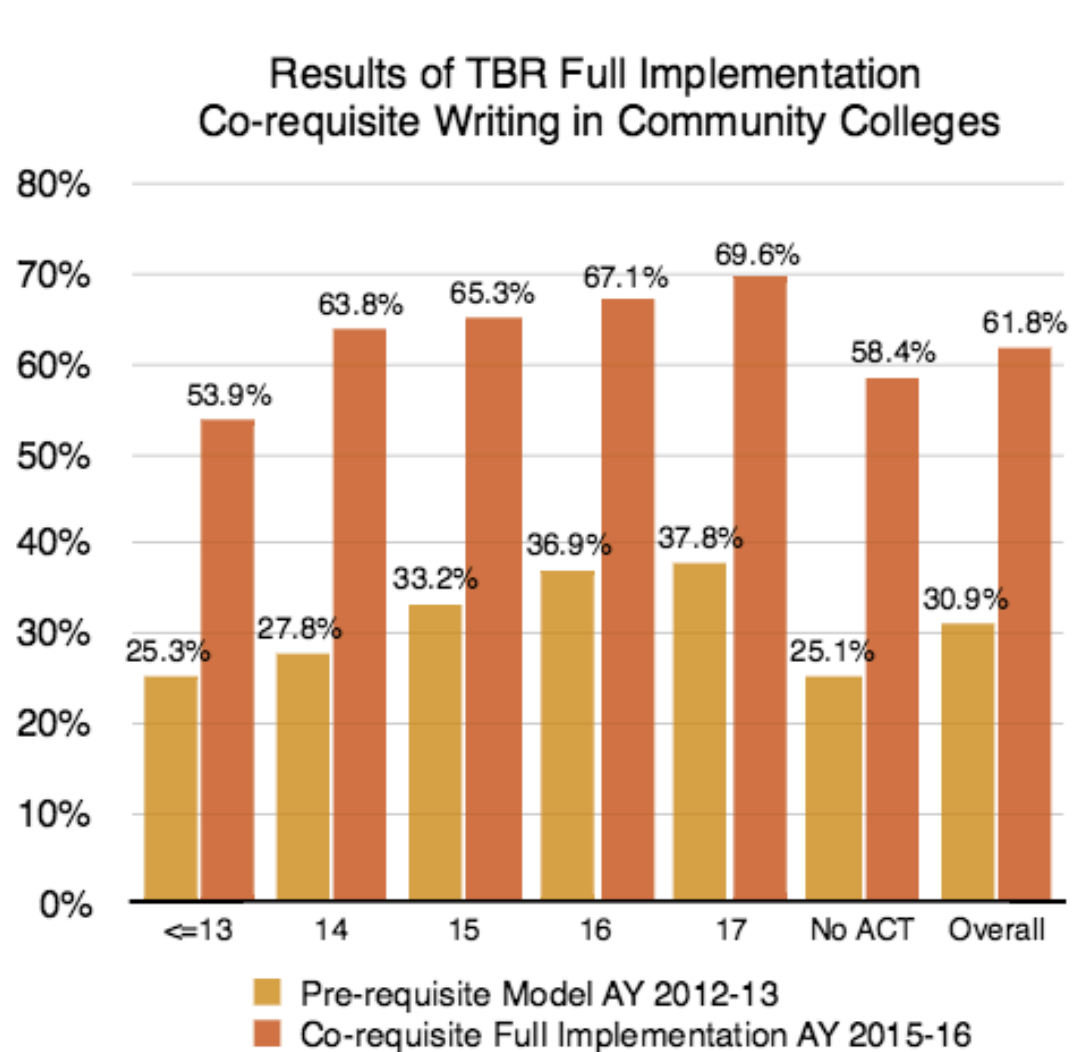
4x higher overall,
7x higher for minority students

Corequisites for everyone? What about low-scoring students?

Results of TBR Full Implementation
Co-requisite Mathematics in Community Colleges



Corequisites for everyone? What about low-scoring students?



Why do these strategies work?



Reason #1:

The limitations of standardized placement tests

Sample Item: Accuplacer “Sentence Skills” Test

Writing a best seller had earned the author a sum of money and had freed him from the necessity of selling his pen for the political purposes of others.

Rewrite, beginning with The author was not obliged

The new sentence will include

- A) consequently he earned
- B) because he had earned
- C) by earning
- D) as a means of earning

Are you college ready?

VIII. Exponents & polynomials

Simplify and write answers with positive exponents.

.. $(3x^2 - 5x - 6) + (5x^2 + 4x + 4)$

.. $\frac{(2a^{-5}b^4c^3)^{-2}}{(3a^3b^{-7}c^3)^2}$

l. $(3x^0y^5z^6)(-2xy^3z^{-2})$

l. $(-a^5b^7c^9)^4$

i. $(4x^2y^6z)^2(-x^{-2}y^3z^4)^6$

6. $\frac{24x^4 - 32x^3 + 16x^2}{8x^2}$

7. $(x^2 - 5x)(2x^3 - 7)$

8. $\frac{26a^2b^{-5}c^9}{-4a^{-6}bc^9}$

9. $(5a + 6)^2$

Placement tests do a poor job identifying who will – and will not – do well in college.

- Accuplacer scores in English explain about 1% of the variation in course grades; in math less than 4% (Cal-Pass data).
- Severe under-placement error is three times more prevalent than over-placement error (those placed into remediation who could have earned a B or better in a college course vs. those placed into college course who fail) (Scott-Clayton, 2012).
- Fewer than 10% of the topics in Elementary and Intermediate Algebra are needed for the study of Statistics, yet tests of these skills block students' access to college-level Statistics courses.

Reason #2:

Attrition Is Guaranteed in Traditional Remediation

Students placed 2 levels below college English/Math face 6 “exit points” where they fall away:

- Do they enroll in the first course?
- If they enroll, do they pass the first course?
- If they pass, do they enroll in the next course?
- If they enroll, do they pass the second course?
- If they pass, do they enroll in the college-level course?
- If they enroll, do they pass the college-level course?

Students placed 3 levels down face 8 exit points.

Illustration: Chabot College

Students beginning two levels below College English:

- Do they enroll in the first course? ??%
- If they enroll, do they pass the first course? 66%
- If they pass, do they enroll in the next course? 93%
- If they enroll, do they pass the second course? 75%
- If they pass, do they enroll in the college-level course? 91%
- If they enroll, do they pass the college-level course? 78%

$$(0.66)(0.93)(0.75)(0.91)(0.78) = 33\%$$

Fall 2006 Cohort. Students tracked from their first developmental English enrollment and followed for all subsequent English enrollments for 3 years. Pass rates includes students passing on first or repeated attempts within timeframe. Basic Skills Cohort Tracker, DataMart.



Thought experiment:

What if more students passed the first course?

How many would complete the college level course?

$$(0.66)(0.93)(0.75)(0.91)(0.78) = 33\%$$

If 75% passed the first course...

37%

If 80% passed the first course...

40%

If 90% passed the first course...

45%

What if 90% passed and persisted at each point?

$$(0.90)(0.90)(0.90)(0.90)(0.90) = 59\%$$

BOTTOM LINE

Improving our results *within* existing multi-level course sequences will never be enough – we must eliminate the exit points in students' path to completing transfer-level English and math.

The most powerful way to do that? Letting students begin directly in transfer-level courses, with extra support if needed.


The Need for System-Level Solutions

- Across 114 community colleges, remediation policies are determined locally. Despite amazing results at a few colleges, most students are stuck in traditional remediation with little hope of completing college.
- Across CA, capable students are being placed into remediation who don't need it, making them less likely to complete college & producing racial achievement gaps.
- Existing student protections are not being followed:
 - Title 5 prohibits students from being required to take a pre-requisite unless they are “highly unlikely” to succeed without it (55003)
 - State guidelines are supposed to safeguard against disproportionate impact in assessment policies, yet vast racial disparities persist
- Few CA colleges are offering corequisite models of remediation, despite strong results nationally



AB 705 (Irwin) – A Game Changer for Community College Placement and Remediation

- Students may not be placed into remedial courses that delay/deter educational progress unless evidence suggests they are “highly unlikely” to succeed in transfer-level course
- Colleges must “maximize probability that a student enter and complete transfer-level coursework in English and math within a one-year timeframe”
- Colleges must use of one of the following in assessing students: high school coursework, high school grades, HS GPA. If unavailable, colleges may use self-report or guided placement
- Colleges can require “additional concurrent support...during the same semester that they take a transfer-level English or mathematics course.”
- Effective January 1, 2018.
Deadline for full implementation: Fall 2019.



ENGLISH: Who is “highly unlikely” to succeed in transfer-level course?

Statewide Research from Multiple Measures Assessment Project

High School Criteria	Average Success Rate in College English
GPA 2.6 and above (62% of students in statewide sample)	73% and higher
GPA 1.9-2.6 (28% of students in statewide sample)	49%
GPA below 1.9 (10% of students in statewide sample)	43%



ENGLISH: How can we “maximize” students’ chances of completing transfer level in one year?

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GPA 2.6 and above (62% of students in statewide sample)	73% and higher
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GPA below 1.9 (10% of students in statewide sample)	43%



Would the lowest group do better if they start below transfer?

1 level below: 13% complete transfer level in a year

2 levels below: 2% complete transfer level in a year

STATISTICS: Who is “highly unlikely” to succeed in the transfer level?

Statewide Research from Multiple Measures Assessment Project

High School Criteria	Average Success Rate in College Statistics
GPA 3.0 and above OR GPA 2.3-3.0 & earned C or higher in Pre-Calculus (58% of students in statewide sample)	70% and higher
GPA 2.3-3.0 & passed Algebra II with C or higher (19% of students in statewide sample)	58%
GPA 2.3-3.0 & did <u>not</u> pass Algebra II with C or higher (10% of students in statewide sample)	49%
GPA below 2.3 (12% of students in statewide sample)	40%

STATISTICS: How can we “maximize” students’ chances of completing transfer level in one year?

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GPA below 2.3 (12% of students in statewide sample)	40%



Would the lowest group do better if they start below transfer?

1 level below: 10% complete transfer level in a year

2 levels below: 2% complete transfer level in a year

Changing the Structure of the Support We Provide

From Prerequisites

To Corequisite Support at the Transfer-Level

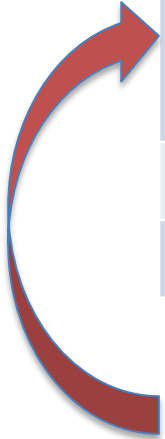
AB 705 restricts colleges from excluding students from transfer-level courses but allows requiring “additional concurrent support... during the same semester that they take a transfer-level English or mathematics course.”



San Diego Mesa College:

Corequisite-Support English for Students with GPA below 2.6

Starting Placement	One-Year Completion of College English Fall 16-Spr 17
Transfer-Level English with Corequisite (N=300) 3-unit course linked to 2-unit corequisite for students with who traditionally have begun 1-2 levels below HS GPA below 2.6 (one semester success rate)	74%
One level below transfer (N= 1180)	39%
Two levels below transfer (N=67)	13%



Statewide, students with a GPA below 2.6 have an average success rate of 43-49% if they enroll in College English without corequisite support (MMAP)

Cuyamaca College:

Corequisite-Support College Statistics Open to 100% of Students

Research from Cuyamaca College

Starting Placement	One-Year Completion of College Statistics
Transfer-Level Statistics with Corequisite (N=140) 4-unit course linked to 2-unit corequisite, open to any student (one semester success rate – spring 2017)	74%
One level below transfer (N= 318)	17%
Two levels below transfer (N=329)	9%
Three levels below transfer (N=191) Fall 2015-Spring 2016	3%



Statewide, students with high school GPA below 2.3 have a 40% average success rate in transfer-level Statistics *without* corequisite support.

Q&A, Discussion

- How might you use the information from this presentation in your own work going forward?