

Let Icarus Fly:

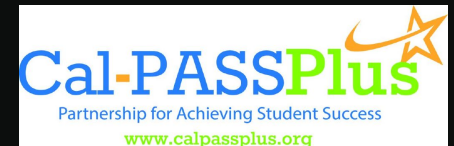
The Four Cornerstones of Gateway Course Completion and the “Re-imagination” of Student Capacity

**Conference on Acceleration in
Developmental Education**

June 25, 2015

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#LetIcarusFly



Let Icarus Fly:

The Four Cornerstones of Gateway Course Completion and the “Re-imagination” of Student Capacity

League of Extraordinary Acceleration in Developmental Education Reformers

June 25, 2015

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What I was expecting:



Perhaps something more like?



Overview

- Standardized assessment has led us to systematically and substantially underestimate student capacity
 - Particularly for students of color, low income students, first generation college students, women
- Four evidence-based cornerstones on which to rebuild the foundations of community college education
 - All demonstrate the fundamental capacity of our students to succeed if given the chance
 - Substantial completion, equity, and real world implications

First, Daedalus and Icarus



- Daedalus crafted the labyrinth of inescapable complexity for King Minos
- To escape from Minos, Daedalus built wings of feather and wax for his son Icarus and himself
- Don't fly too high, lest sun melt the wax and you plummet to your doom
 - Dangers of innovation/ invention, hubris,
 - Importance of knowing your limits, listening to your wiser elders
- But most of us forget the rest of that story...

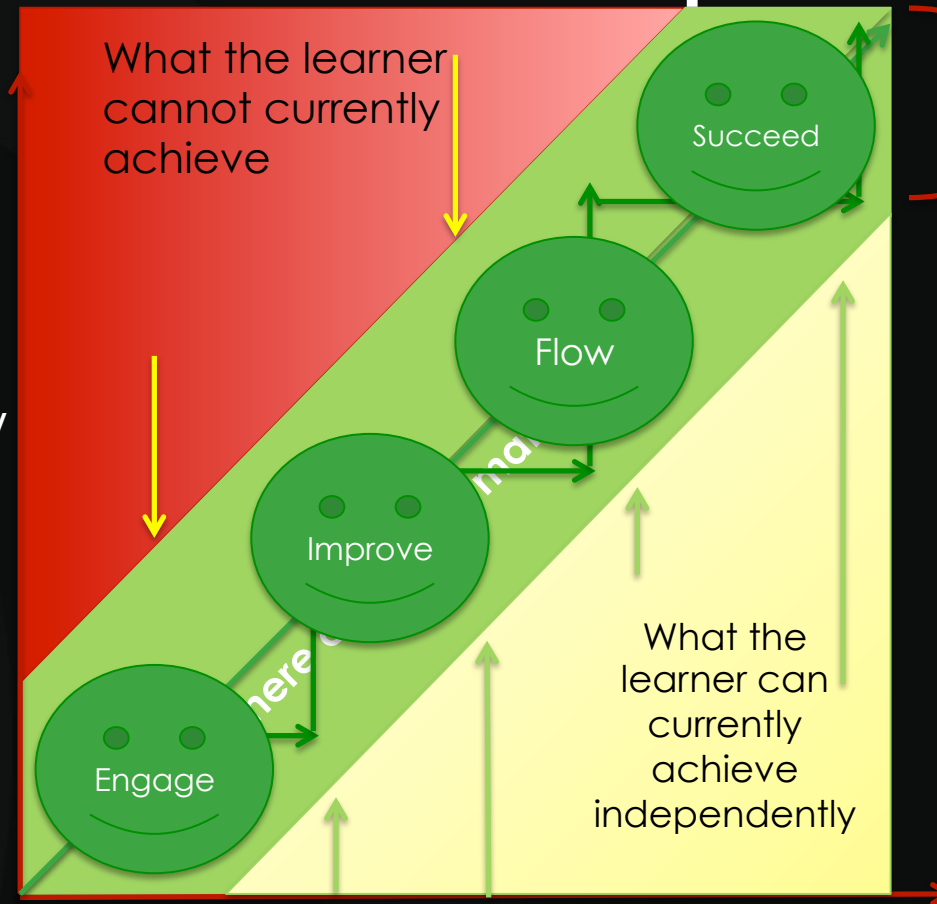
Transition to College: Assessment and Placement

- Community colleges are open enrollment institutions
 - Requires assessing and planning for educational needs of students.
- Goal
 - Effectively place student at most appropriate level for their skill
 - Ensure that all students complete their courses, persist to the next academic term, and achieve their educational objective(s) in a timely manner.

What are we aiming for?

The Zone of Proximal Development

Level of challenge/
difficulty of task



Degree of competence/level of skill

Can you summarize that in one sentence?

- If you think you can catch the bus, you will run for it.”
 - **Lee Peng Yee**, Singapore National Institute of Education Mathematician

What we are actually doing: Community college student transition to college

- Community colleges rely nearly entirely on standardized assessment (WestEd, 2011)
- Most CC students placed below college-level
 - Significant barrier (Bailey, Jeong, and Cho, 2010)
- What does this mean?
 - First interaction is to tell students they don't belong
 - Imply that most students are not ready for college and are likely to fail
 - Convinces many, including our students

Conventional Wisdom

Explaining Assessment Results

- It is a problem with today's students
 - Students are simply, vastly unprepared for college
 - Kids these days
- Or
- It is a problem with public education
 - Public education is failing to prepare students
 - Teachers these days...

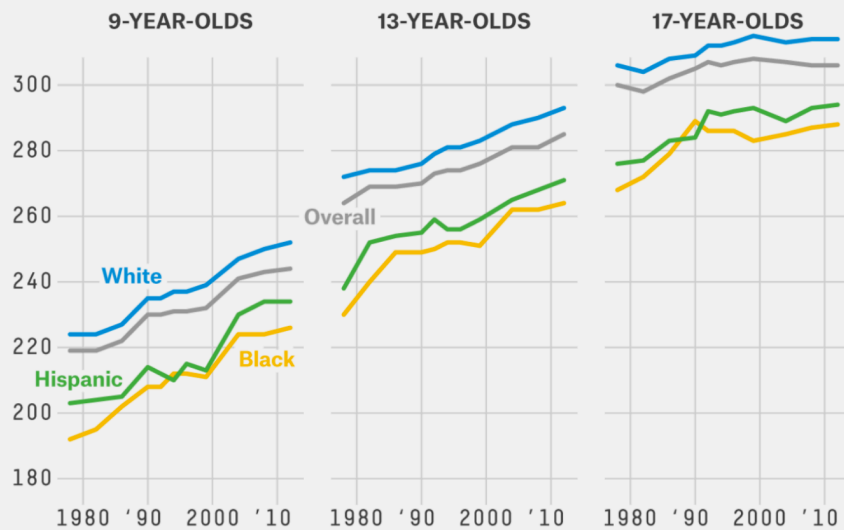
What If the Conventional Wisdom is Wrong?

- Substantial, long-term increase in IQ:
bit.ly/FlynnEffectIQ
- 18-24 with HS degree: 91% - highest ever: bit.ly/2014HS18-24
- National Assessment of Educational Progress: at all-time highs in virtually every demographic category:
bit.ly/NAEPInfo

NAEP Math and Reading Assessments

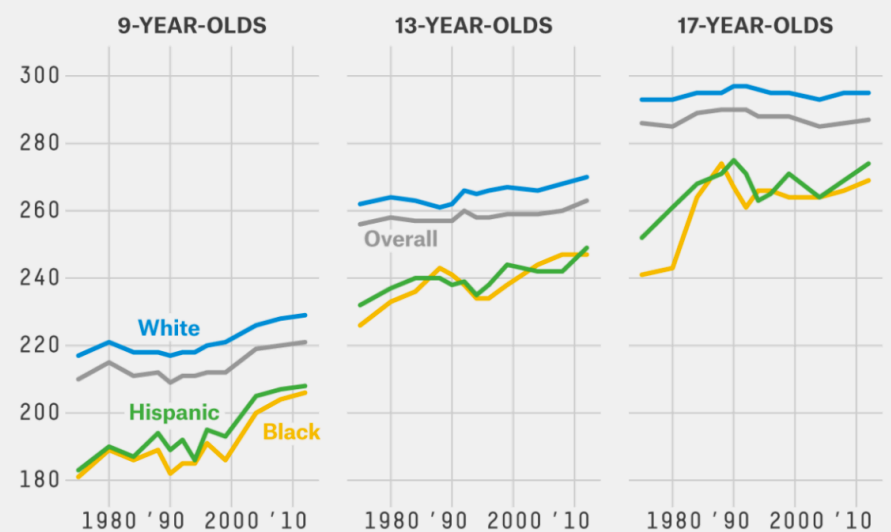
NAEP Math Score Improvement, 1978-2012

By race and age



NAEP Reading Score Improvement, 1975-2012

By race and age



What If the Conventional Wisdom is Wrong?

- Research increasingly questions effectiveness of standardized assessment for understanding student capacity
 - Little relation to college course outcomes
 - (e.g., Belfield & Crosta, 2012; Edgescombe, 2011; Scott-Clayton, 2012; Scott-Clayton & Rodriguez, 2012): bit.ly/CCRCAssess
 - Incredible variability in cutscores; 2-year colleges often use HIGHER cutscores than 4-year
 - bit.ly/NAGB2012
 - Underestimates capability of students of color, women, first generation college students, low SES
 - Hiss & Franks, 2014; bit.ly/DefiningPromise

What if?

- What if the problem is not primarily with our students but with limitations in how we have assessed and understood their capacity to do college-level work?

It gets worse

- What if this flawed method of understanding and “remediating” student capacity has actually had the opposite effect?
- Imagine yourself arriving at college as a community college student...

But there's good news...

- What if one of the key barriers to our students' successful transition to and success in college is one that we fully control?

Four transformative cornerstones

Cornerstone 1: Improving assessment through evidence-based multiple measures

Resources/references:

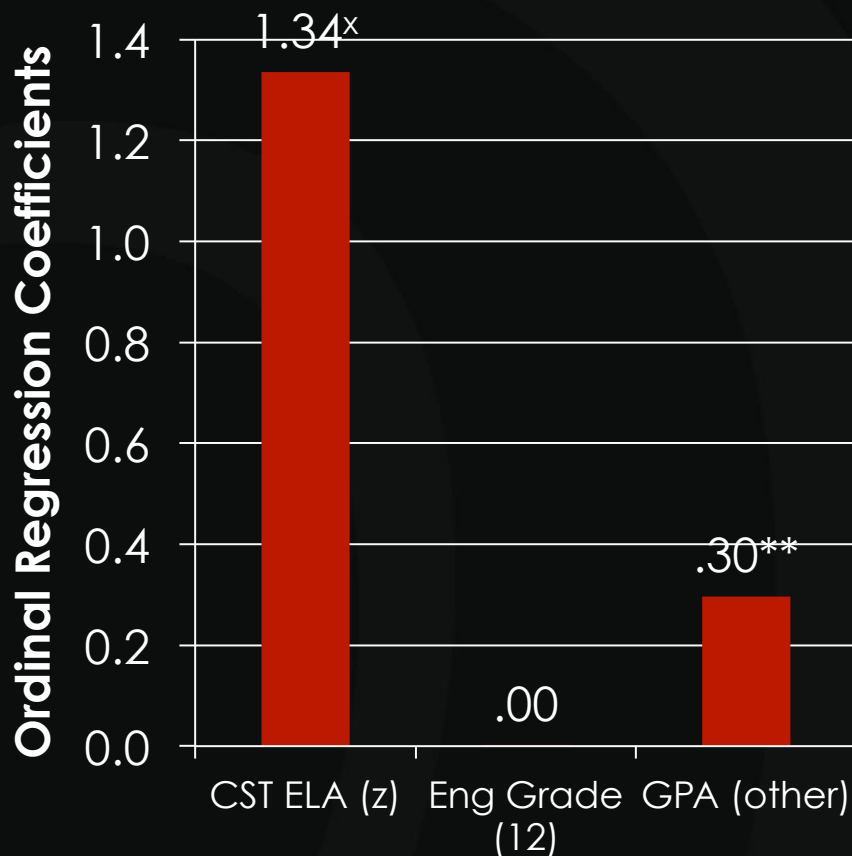
- <http://bit.ly/MMAP2015>
- <http://bit.ly/RPSTEPS>
- <http://bit.ly/RPMultipleMeasures>
- <http://cccassess.org>

LBCC Multiple Measures Research

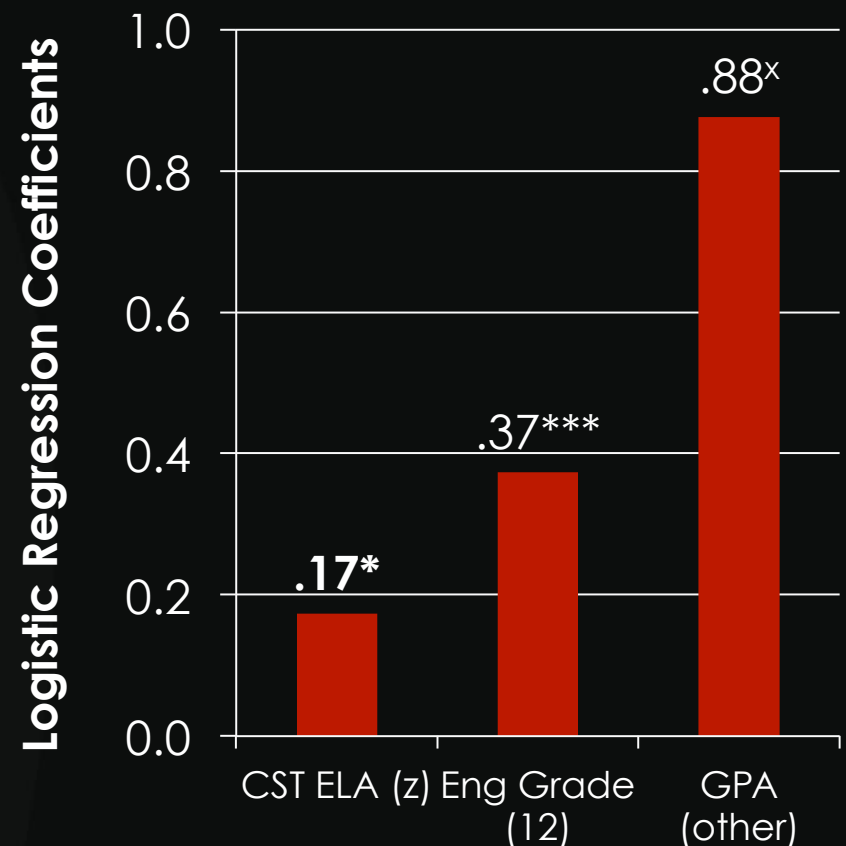
- Five cohorts tracking more than 7,000 HS grads who matriculate to LBCC directly
- Examined predictive utility of wide range of high school achievement data
- For predicting:
 - How students are assessed and placed
 - How students perform in those classes
 - (and alignment between them)

Alignment in English

Predicting Placement



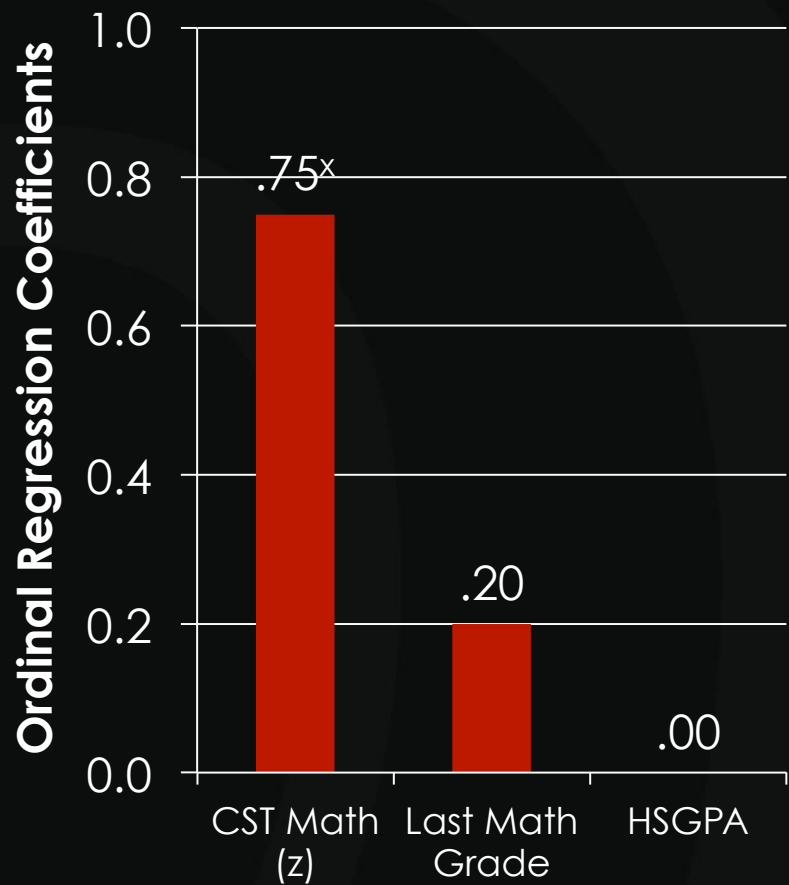
Predicting Performance



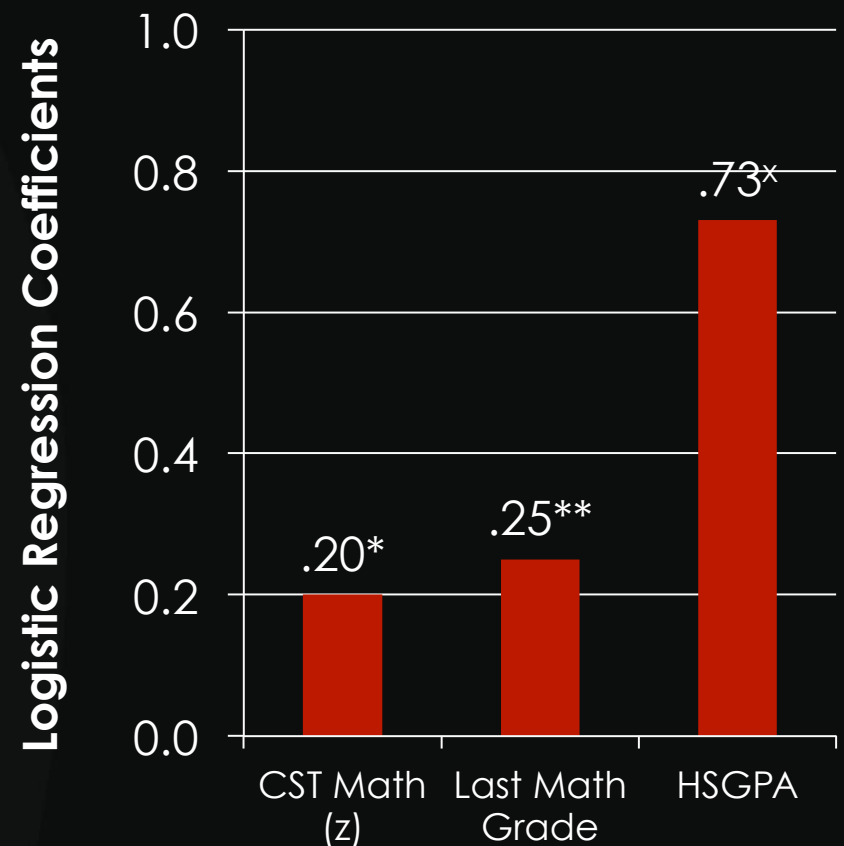
* $p < .05$ ** $p < .01$ *** $p < .001$ x = $p < 1 \times 10^{-10}$

Alignment in Math

Predicting Placement



Predicting Performance



* $p < .05$ ** $p < .01$ *** $p < .001$, x = $p < 1 \times 10^{-10}$

Key Takeaways (Warning: they may shock you)

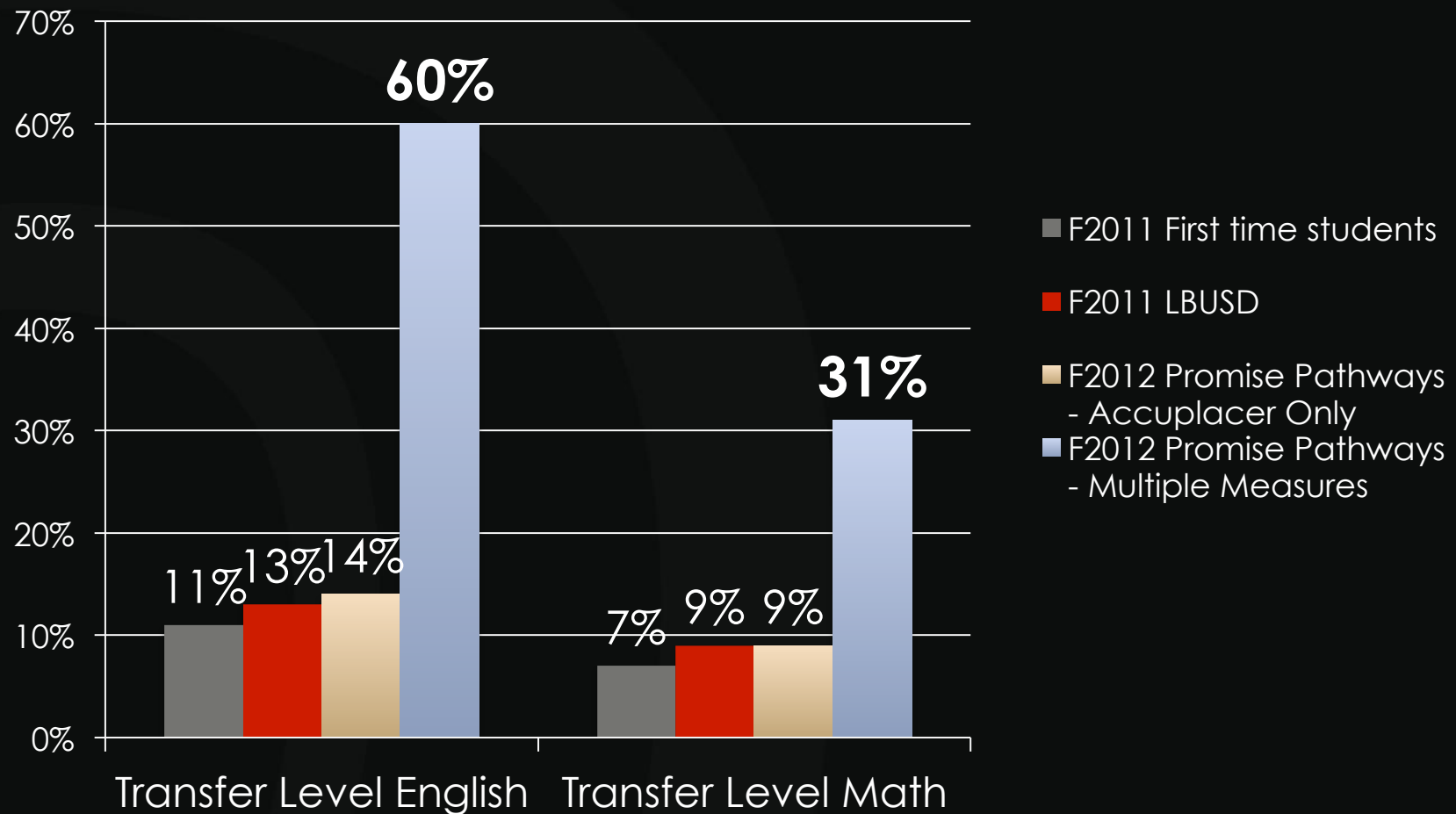
Sample focus group responses:



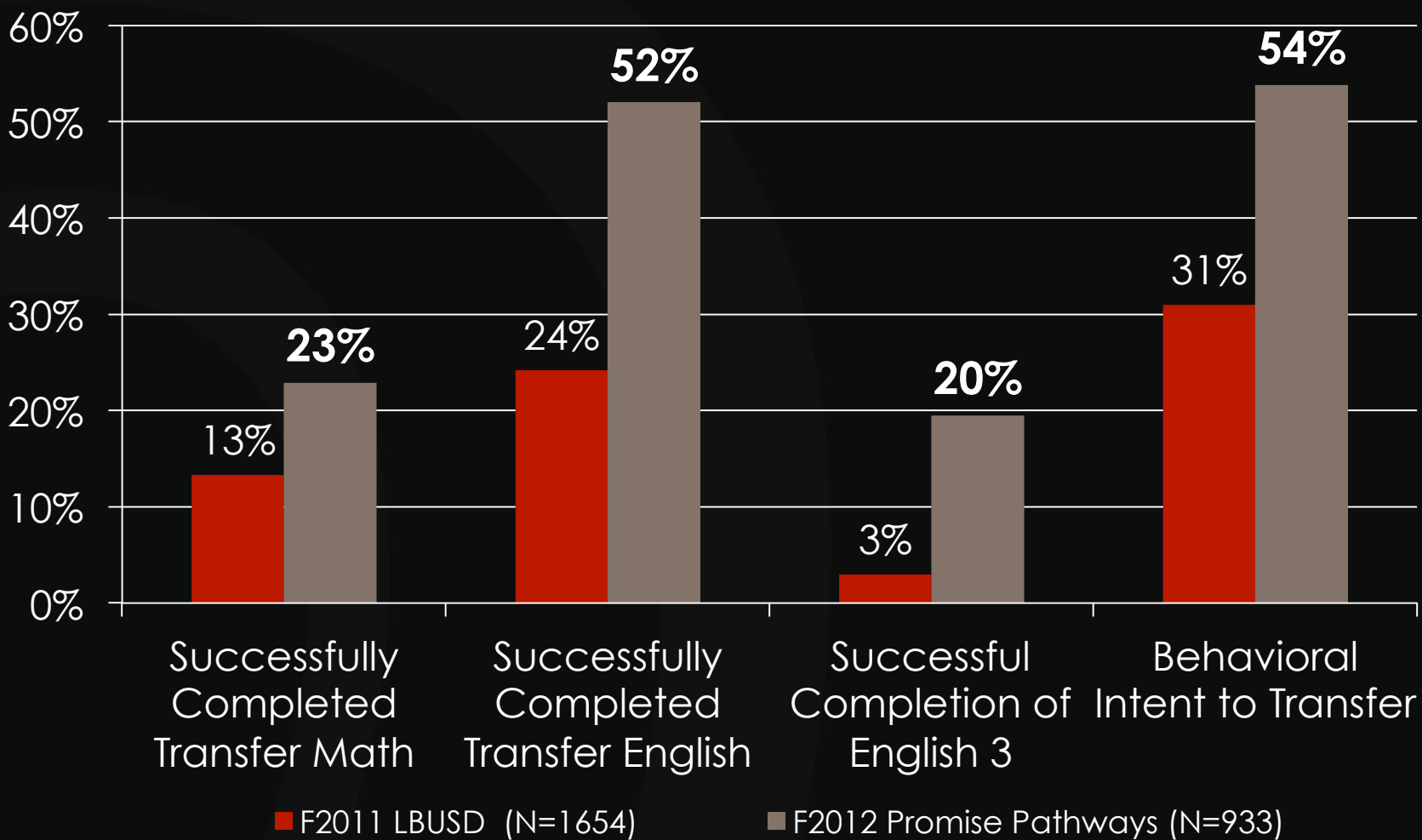
Key Takeaways

- Assessment should predict **how students will perform at our colleges**
- **Instead:**
 - Current standardized tests predict standardized tests
 - Classroom performance predicts classroom performance
 - More info tells us more about student capacity than less info

Implementing Multiple Measures Placement: Transfer-level Placement Rates F2012

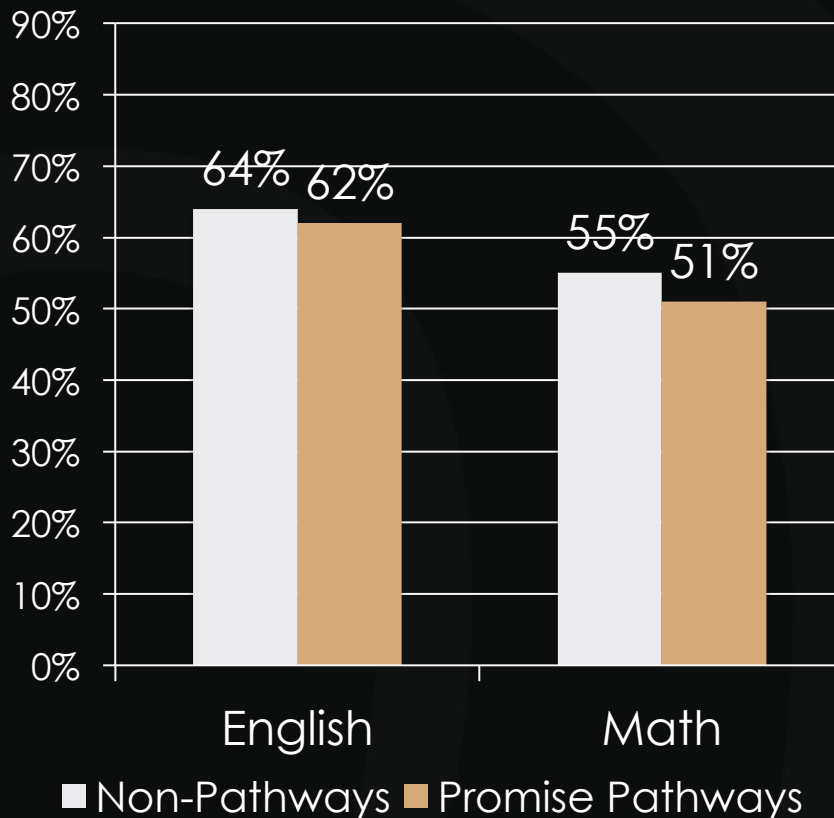


F2012 Promise Pathways vs. Fall 2011 2-year rates of achievement



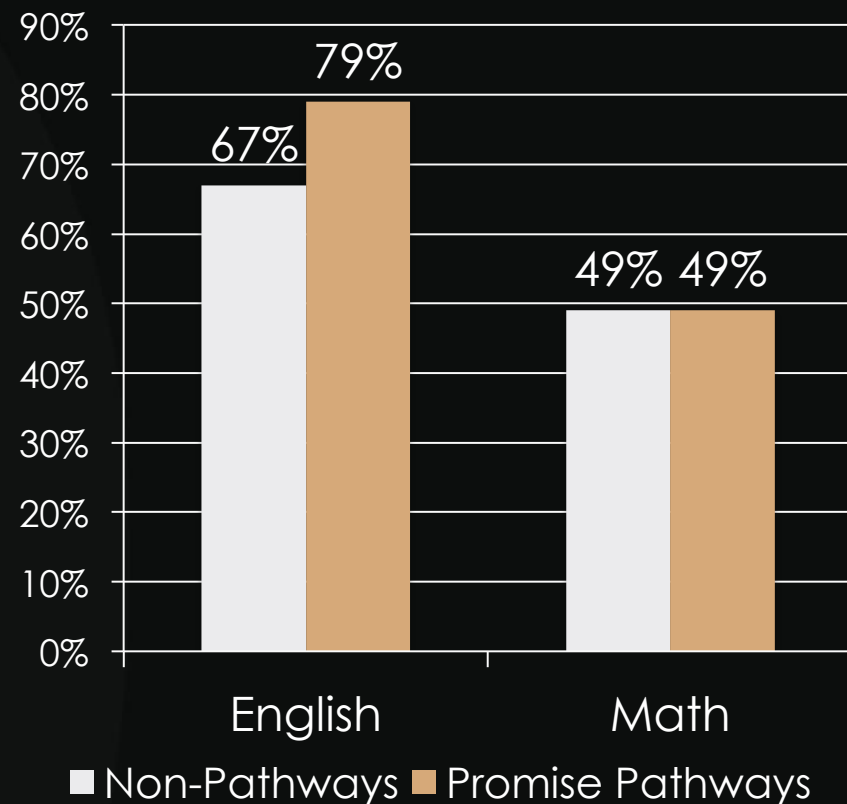
Success rates in transfer-level courses

First Cohort, F2012



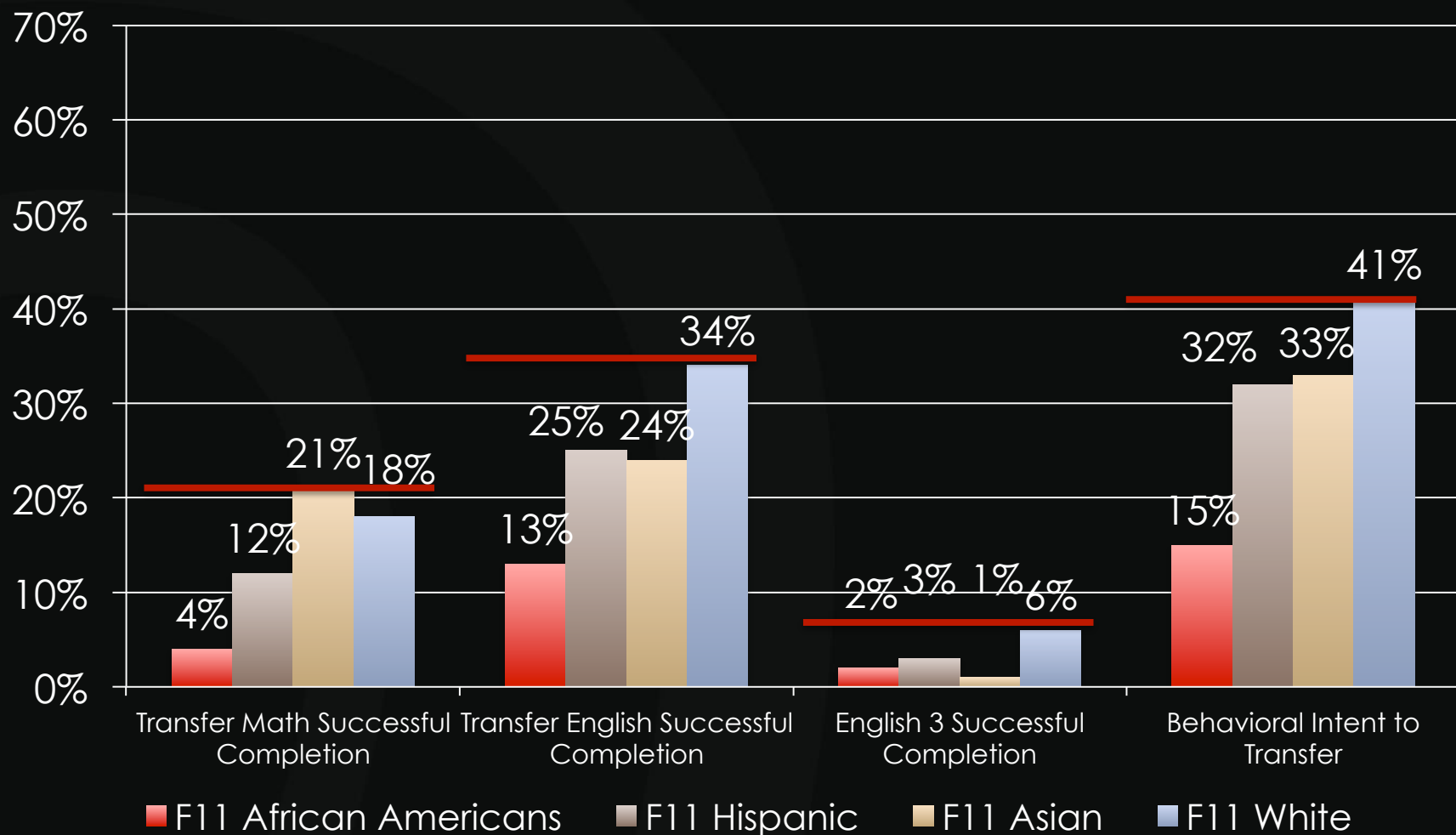
Neither of these differences approach significance, $p > .30$

Most recent cohort, F2014

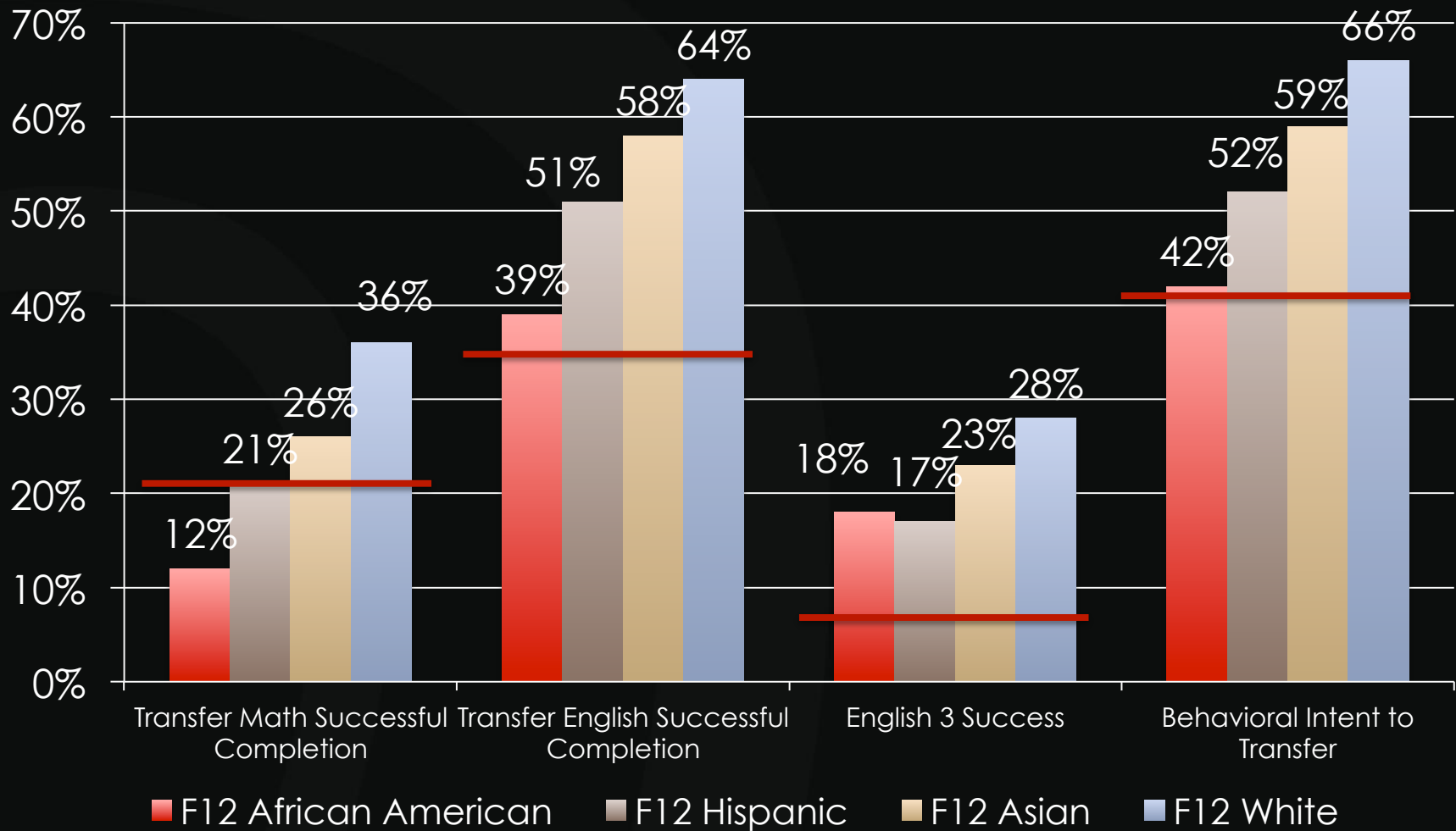


English difference, $p < .001$

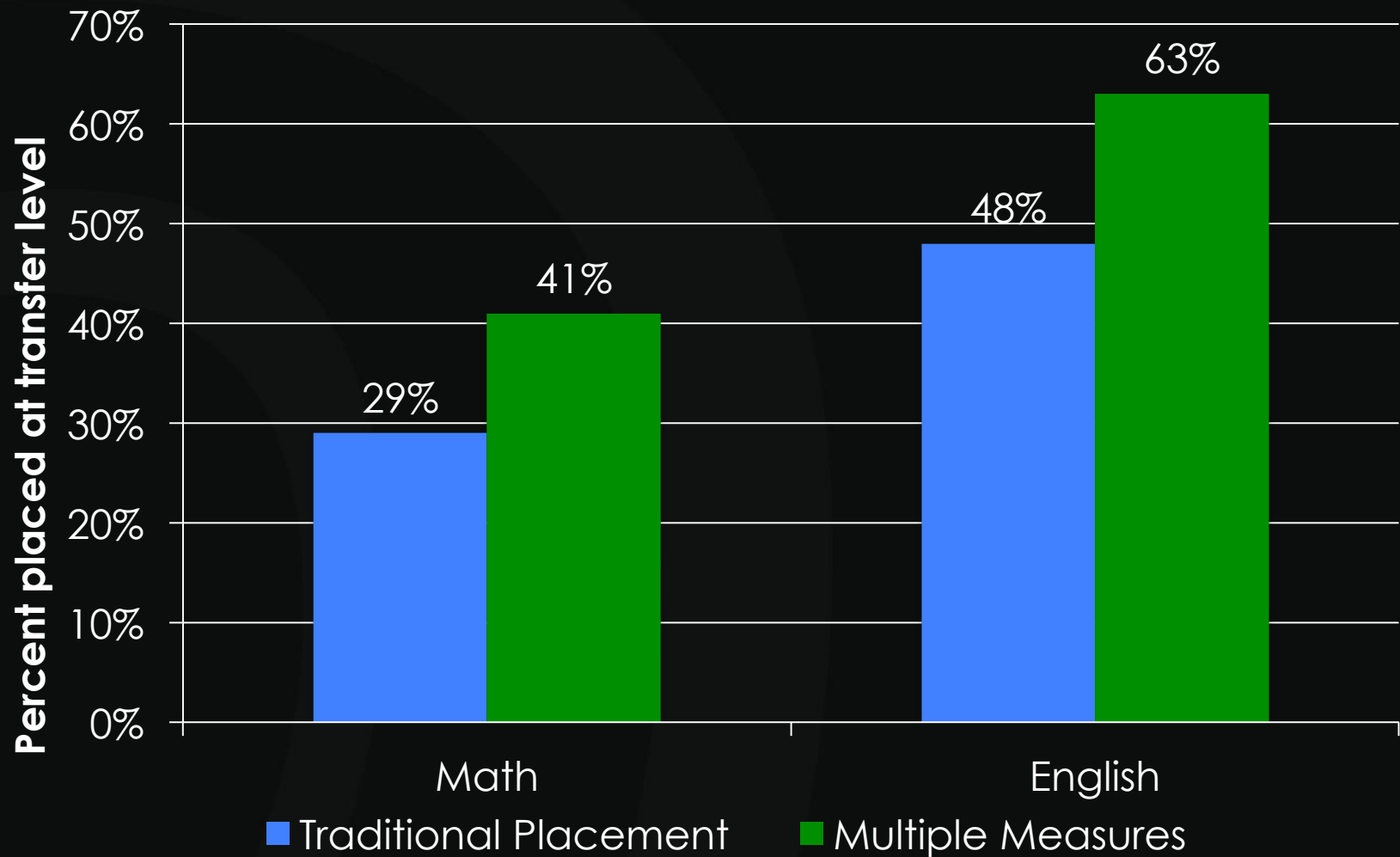
Equity impact: F2011 Baseline Equity Gaps for 2-year rates of achievement



Equity impact: F2012 2-year rates of achievement



Multiple Measures Assessment Project: Potential impact of conservative statewide implementation



Additional first time transfer-level students each year in CA

Math: AT&T Park (~40,000) . **English: Dodger Stadium (~60,000)**



Cornerstone 2: Acceleration of Developmental Education

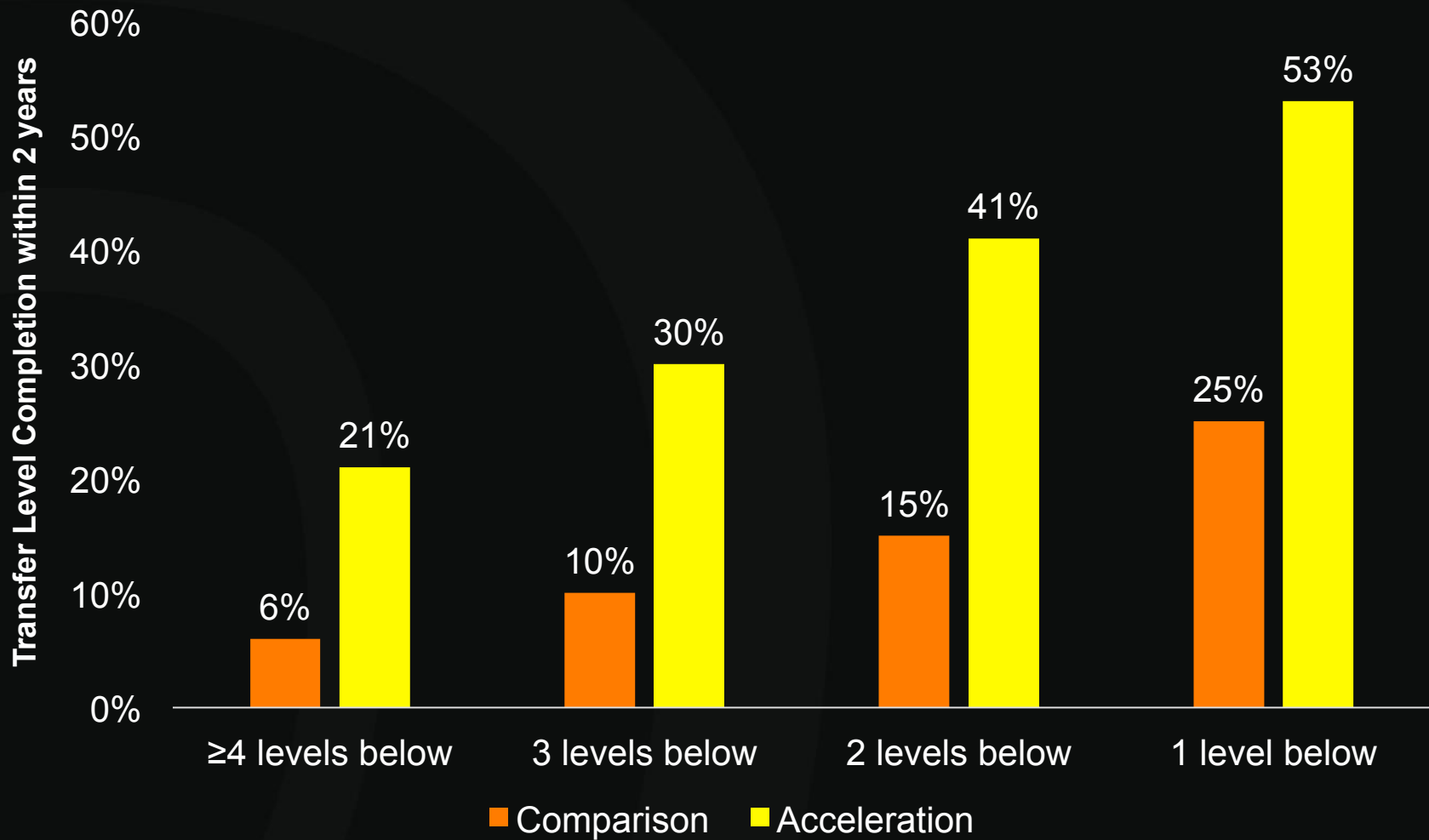
Resources/references

- <http://bit.ly/RPCAP>
- <http://bit.ly/CAPEval>
- <http://bit.ly/RPAcceleration>

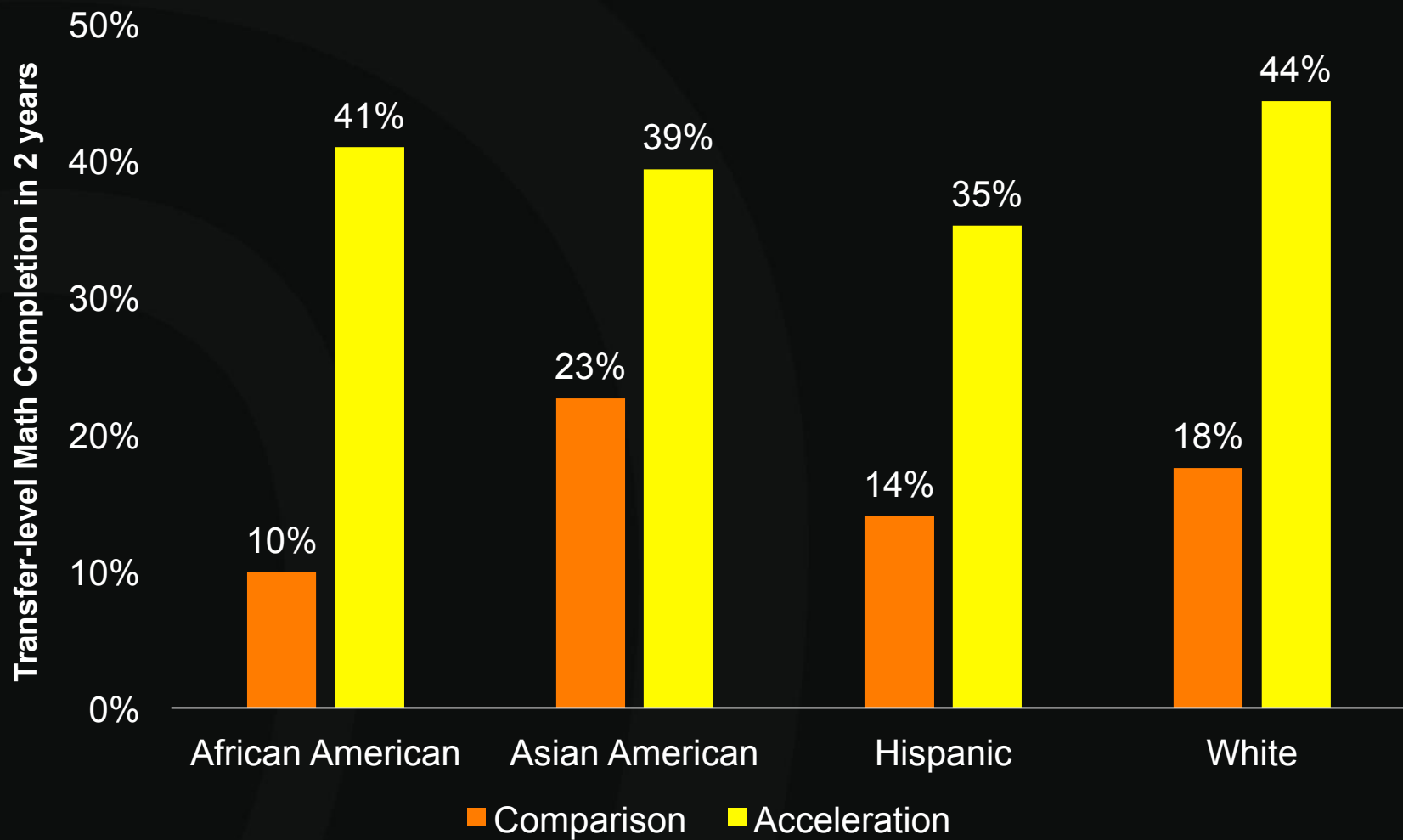
Evaluation of 2011-2012 pilot year of California Acceleration Project

- Summary of Findings (Hayward & Willett, 2014)
 - Large and robust effects of acceleration that work for
 - Students of all backgrounds
 - Students at all placement levels
 - Not a function of selection/cherry-picking

Regression Adjusted Effects – Math



Completion of transfer-level math by ethnicity

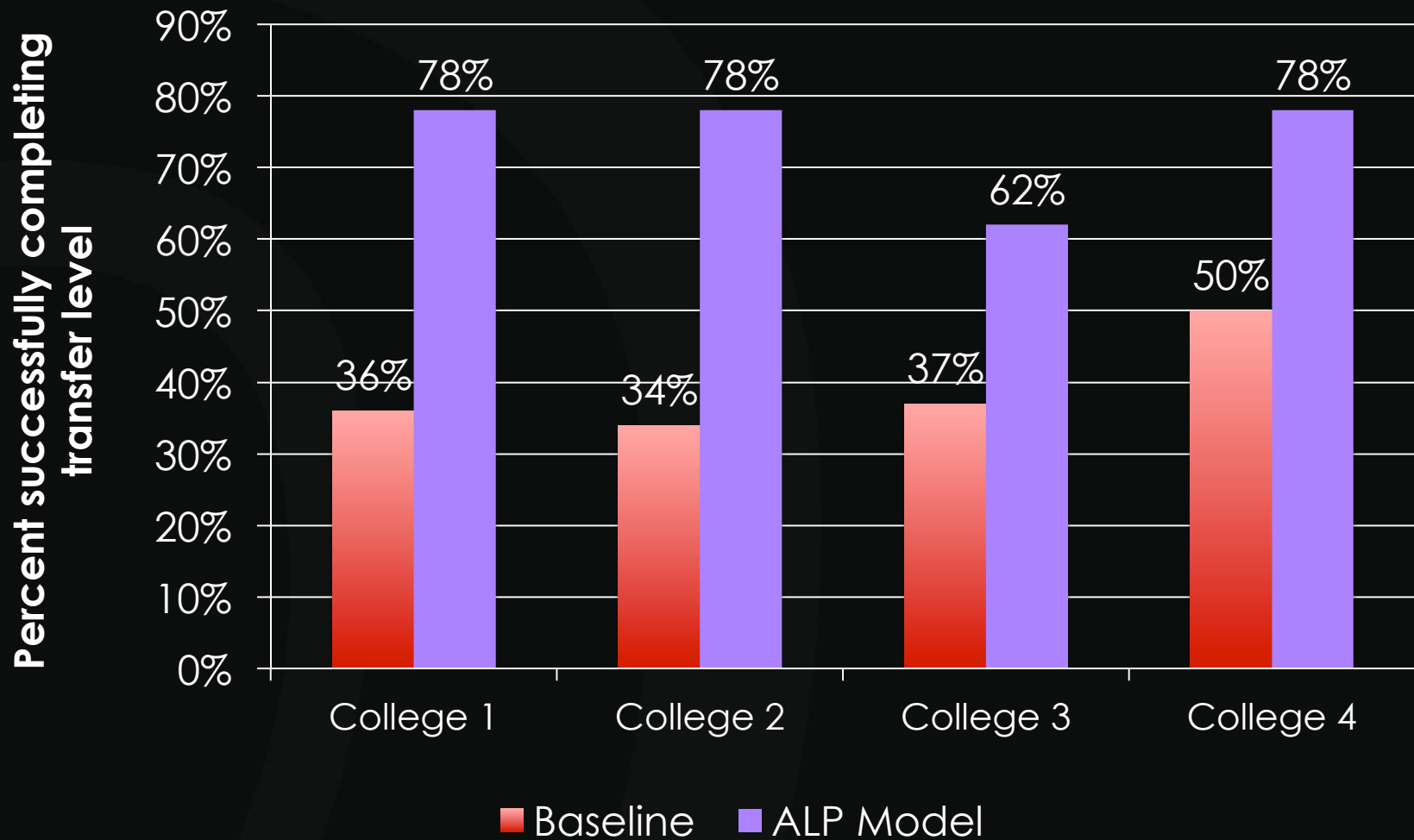


Cornerstone 3: Corequisite models

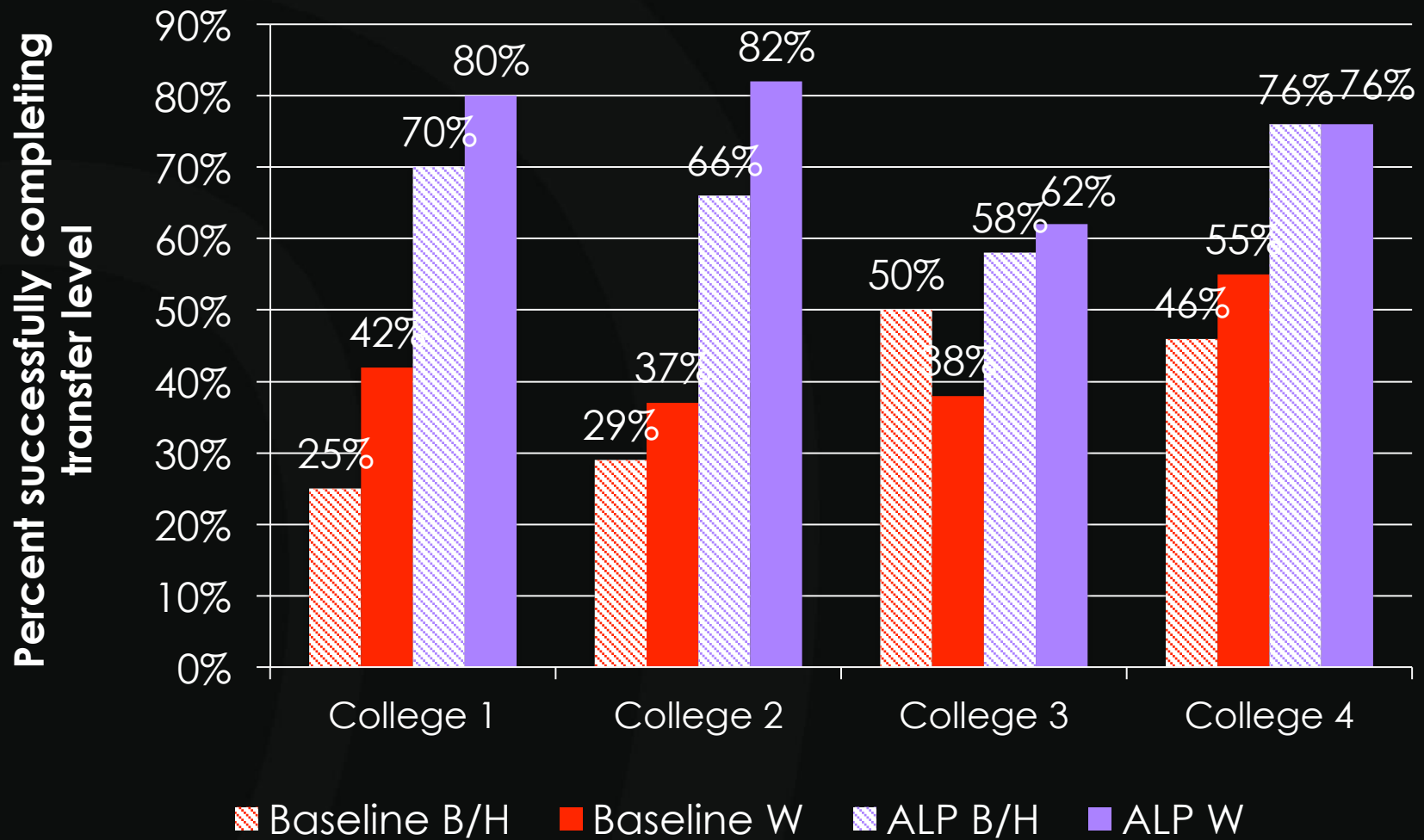
Resources/references:

- <http://bit.ly/2015ALP> (Coleman, 2015)
- <http://alp-deved.org>

Completion of College-Level English (of those who take one-level below course)



Completion of College-Level English (of those who take one-level below course)

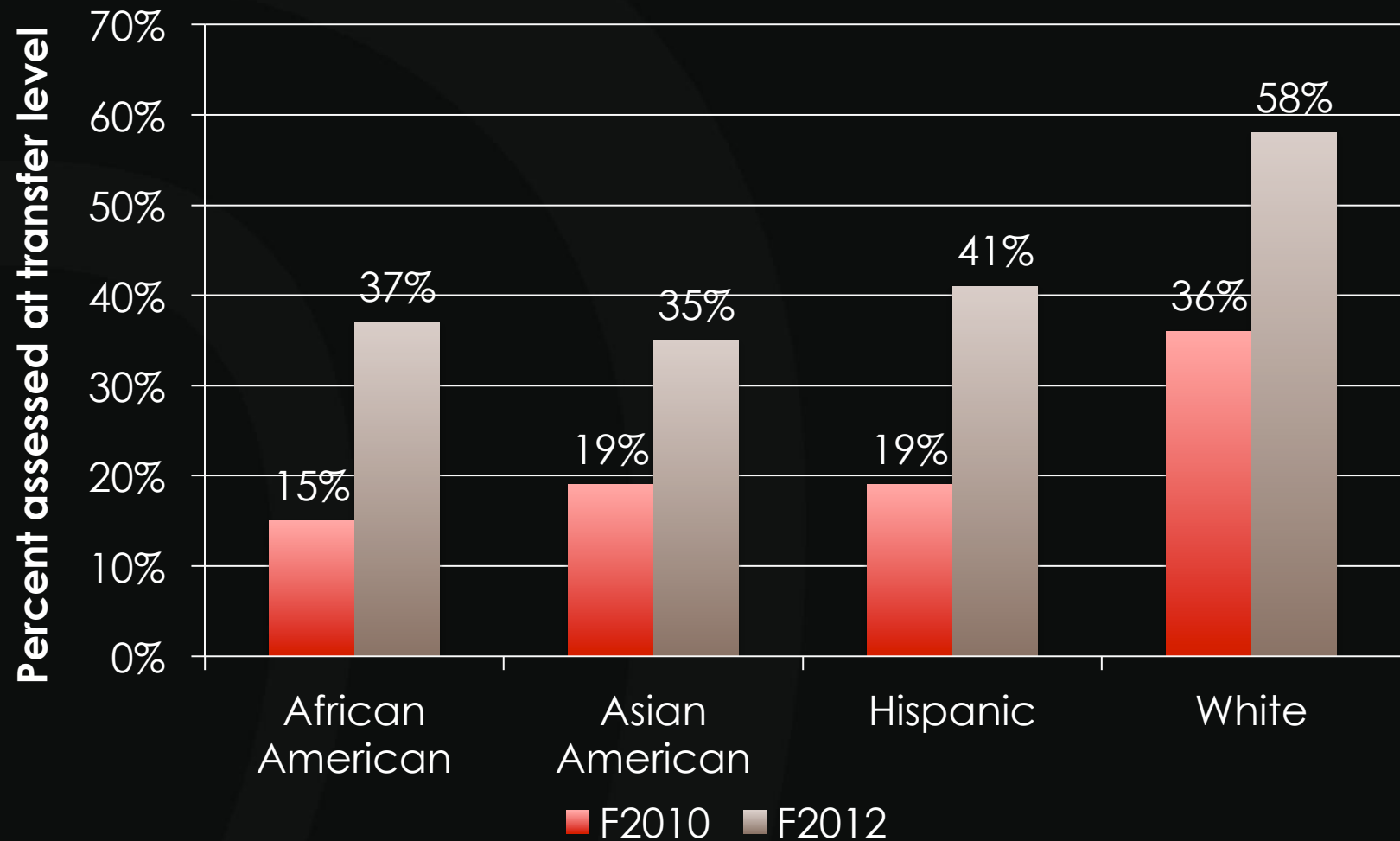


Cornerstone 4: Lower the cut scores

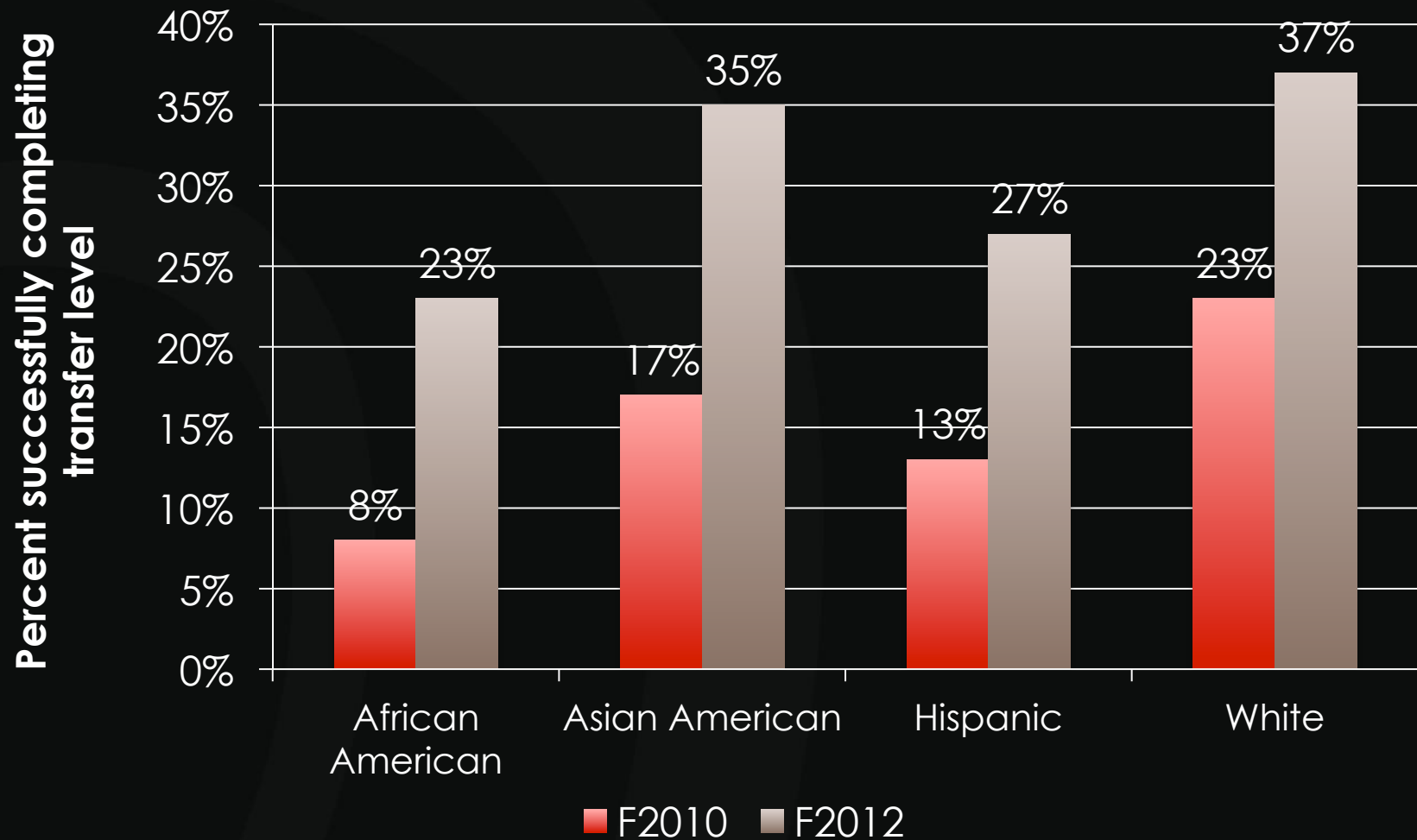
Resources/references:

- <http://bit.ly/LetThemIn> (Henson & Hern, 2014)
 - Newport Beach 1 at 10:30
- <http://bit.ly/Kalamkarian2015> (Kalamkarian, Raufman, & Edgecombe, 2015)
- <http://bit.ly/Rodriguez2014> (Rodriguez, 2014)

Butte College: Assessment of first-year students

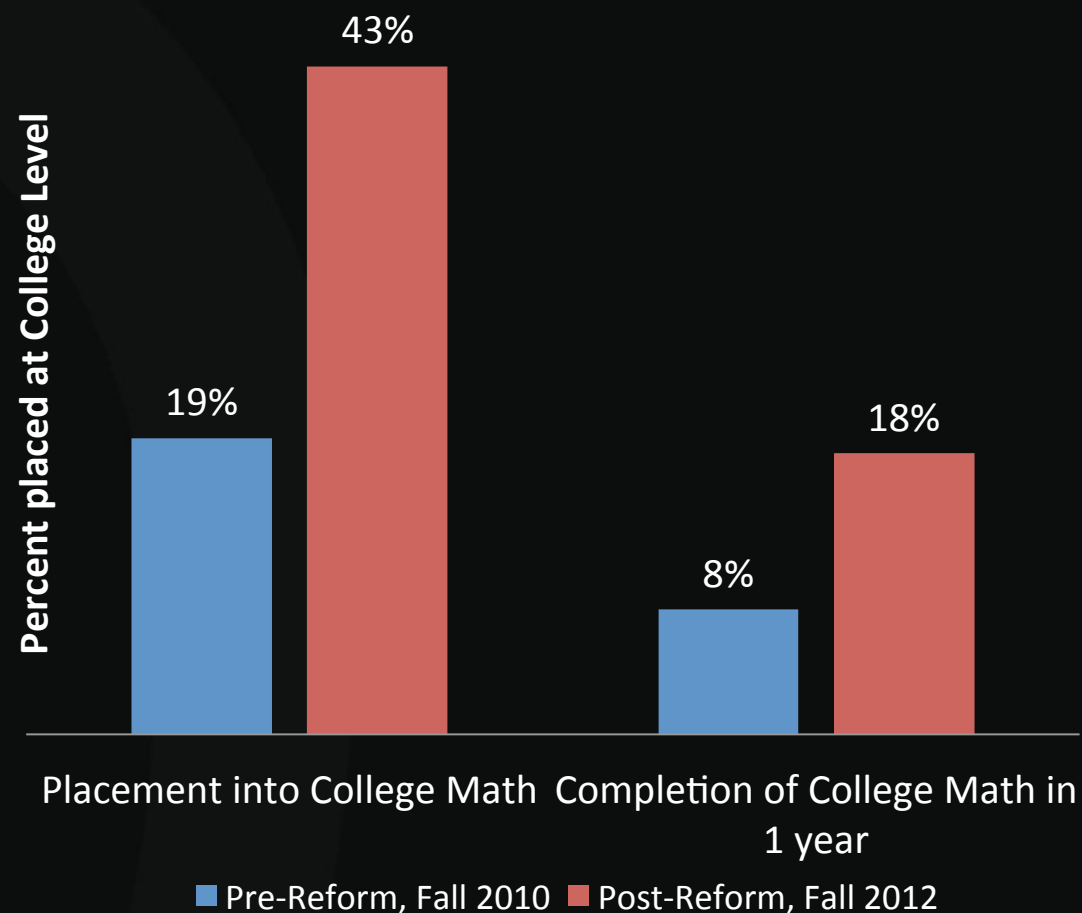


Butte College: Completion of Transfer-Level English in 1st Year



Developmental Math Reform – Virginia Community College System

- Introduced new instrument (VPT-MATH)
- Intentionally increased percentage assigned to college-level math
- Far larger percentage of first-time students successfully completed entry-level college math in first year

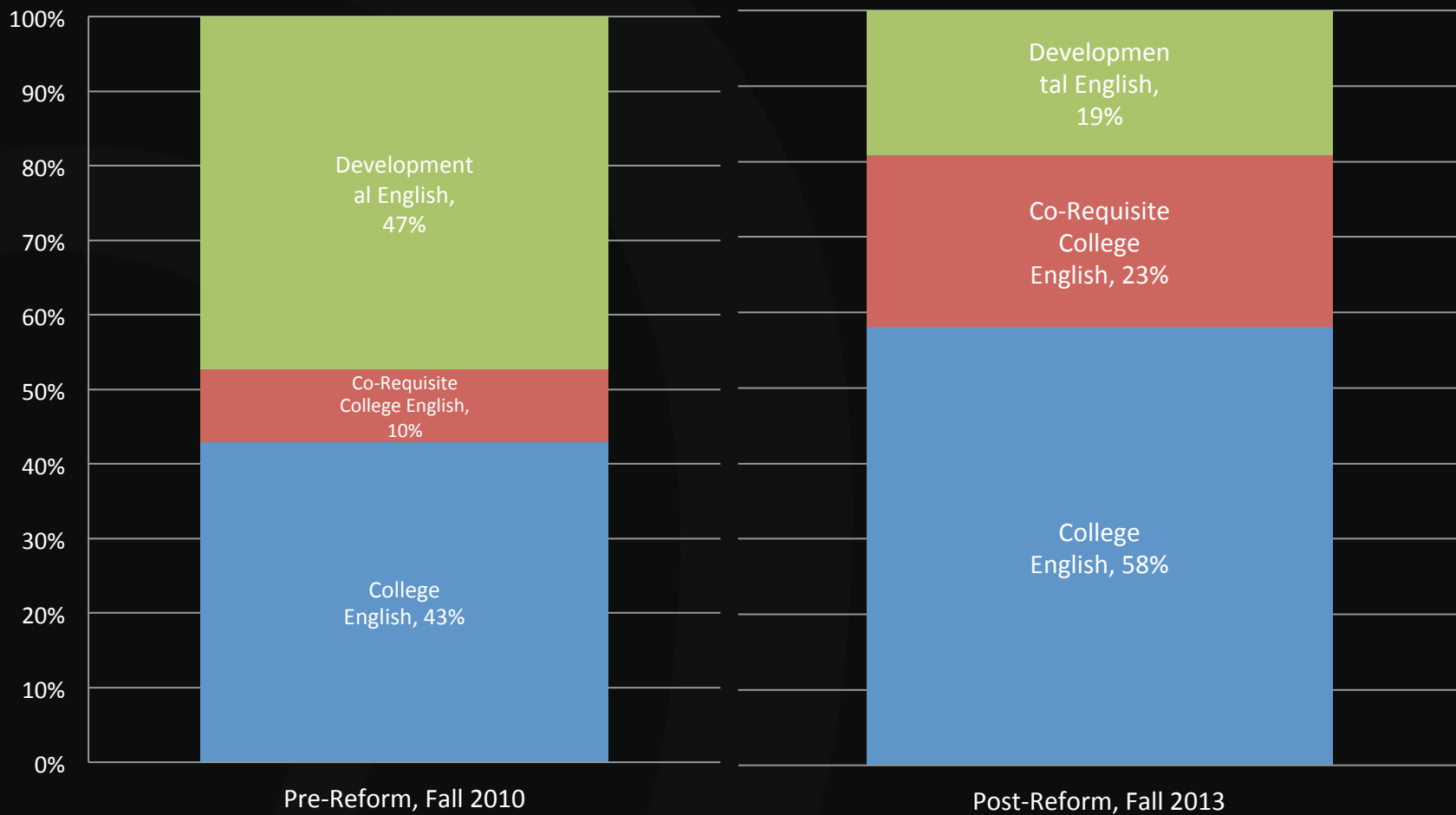


Impact of putting one more of the four cornerstones in place

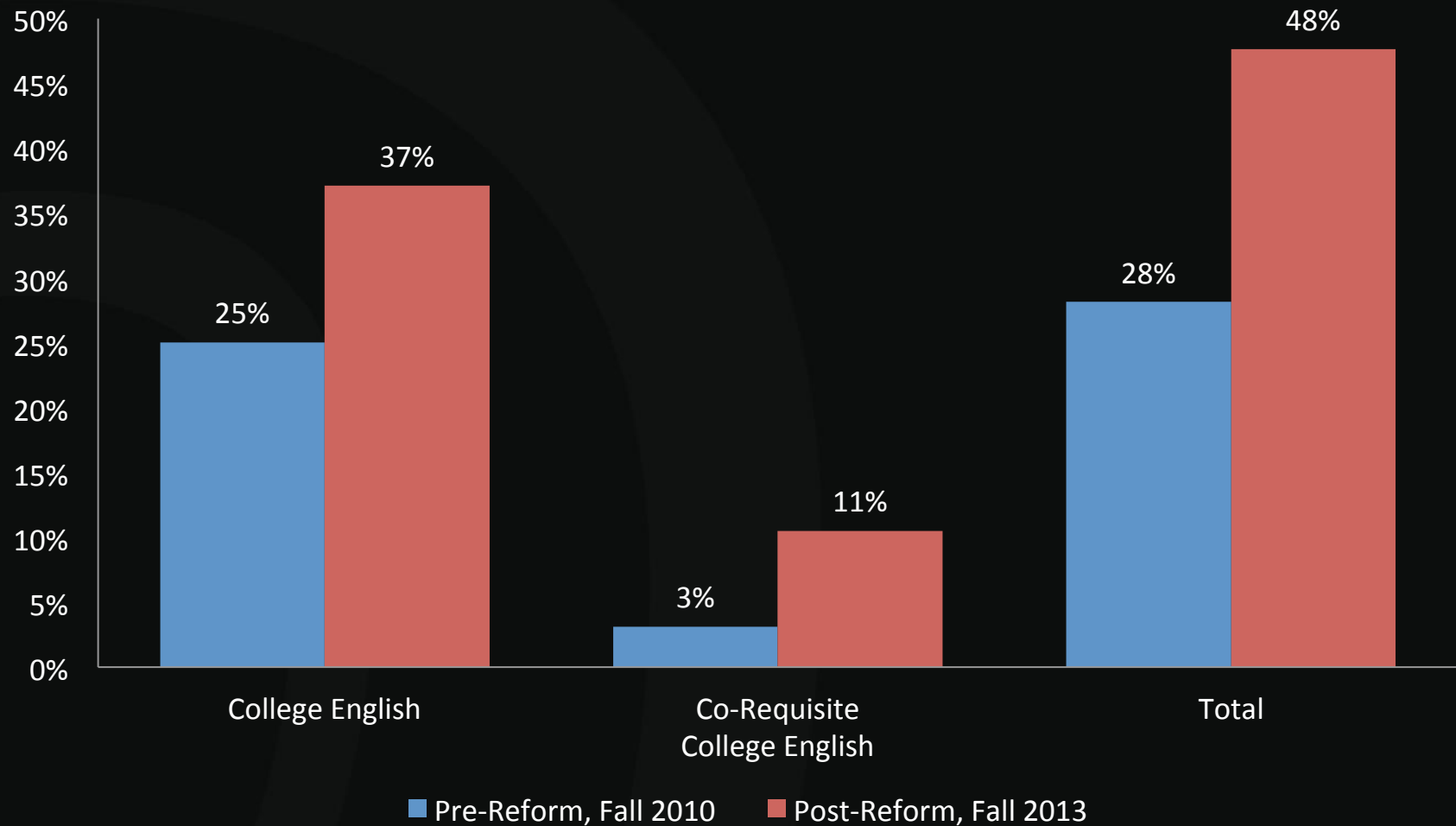
(Why one more?)

- <http://bit.ly/Kalamkarian2015> (Kalamkarian, Raufman, & Edgecombe, 2015)
 - Balboa 2 10:30

Combining cutscore revision and corequisite expansion in English - Virginia Community College System



Completion of College English



Summary of impacts

Pillar	Transfer-level success rates (if taken)	Developmental Success Rates	Transfer-level completion (by entire cohort)	Meaningful equity impacts	Upfront Development of Curriculum
Multiple Measures	No change to higher	Lower overall (but no change for students that remain)	Much higher	Substantial	Low
Acceleration	No change to higher	No change to higher	Much Higher	Substantial	High Moderate
Corequisite models	Higher	Higher	Much Higher	Substantial	High Moderate
Cutscore revision	Slightly lower	No change to slightly lower	Much Higher	Substantial	Low

What might this mean for our students?

- LBCC saved students >10,000 semesters (5000 years) of unneeded remediation in first three years.
 - ~\$250 per course for student (plus books!), \$750 per course for state
- Dramatic opportunity costs of college reduced
 - Median 2012 salary of “some college” is ~\$30,000/year
 - Don't lose their first year or median salary though, they lose their **last** year.

What might this mean for all of us?

- These evidence-based cornerstones save students 1-2 semesters of developmental education that:
 - Evidence predicted and research demonstrated that they did not need
 - By law, fairness, and **basic educational practice** should not have been required to take

What might this mean for all of us?

Great Recession in CA, BLS data



- The worst recession in any of our lifetimes took a million people out of the CA workforce for a year or more, causing suffering on epic scale.
- There are **two million** community college students in California who have been taken out of the productive workforce for a year or more.

What is gained through reimagining student capacity

- The ability to transform student outcomes by adding one more of these cornerstones immediately.
- Powerful levers to address student equity gaps
- A clarion call to reassess our understanding of student capacity
 - An opportunity to stop meeting students at the front door to work so very hard to convince them that they're not college material
 - A renewed opportunity to collaborate with our K-12 educational partners
- **A critical reminder of Daedalus' second instruction to Icarus**
 - **It's just as important not to fly too low.**

Thank you!

- Contact information
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 - 714-380-2678 cell
 - Twitter: @jjhetts
- **“We are now faced with the fact that tomorrow is today. We are confronted with the fierce urgency of now. In this unfolding conundrum of life and history, there "is" such a thing as being too late. This is no time for apathy or complacency. This is a time for vigorous and positive action.” -Dr. Martin Luther King**