

Evaluating the California Acceleration Project

Equity implications of increasing
throughput via curricular redesign

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The California Acceleration Project

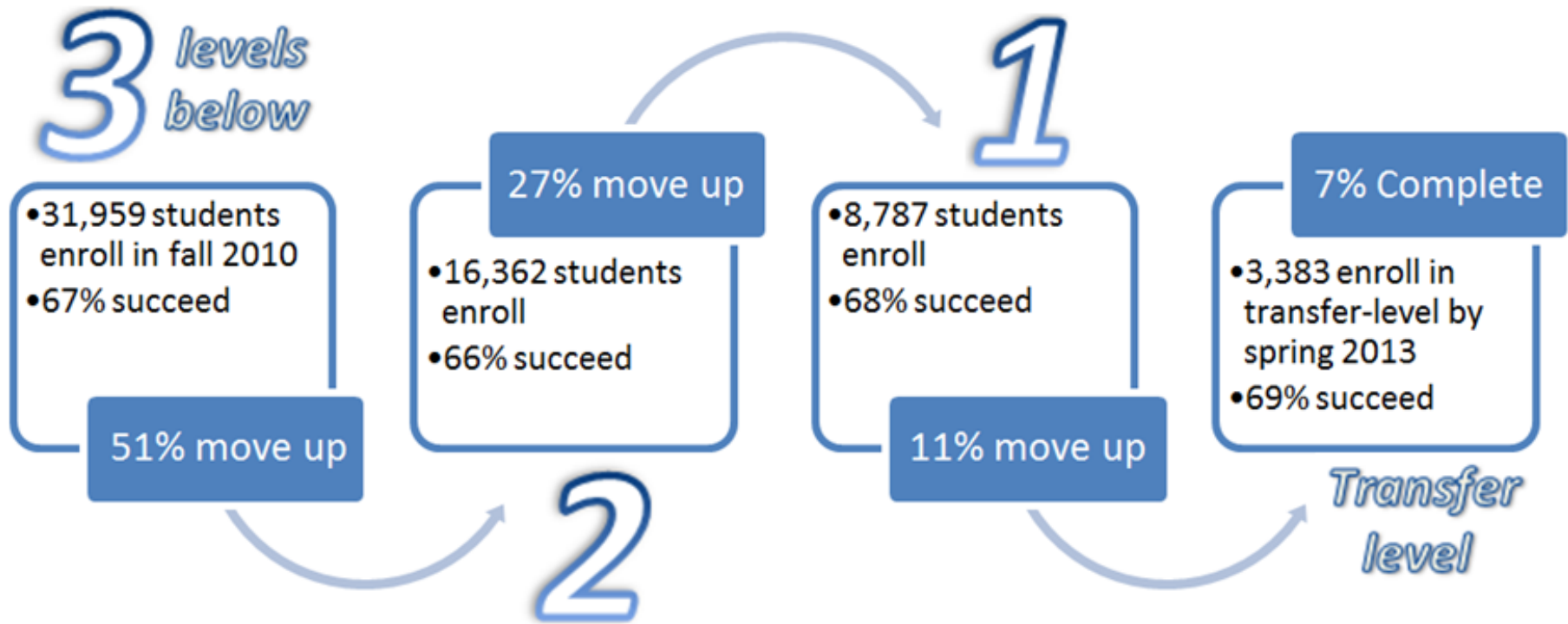
- All 112 community colleges have participated in CAP workshops and broad outreach
- As of fall 2014, there are 47 colleges offering English and Statistics pathways that:
 - Reduce students' time in remediation by at least a semester
 - Align remediation with college-level requirements
 - Use high-challenge, high-support pedagogy
 - Make no changes to transfer-level course (only remediation is changed)
- Between 2011-12 and 2013-14, enrollment in CAP accelerated courses tripled, from 3,200 to 10,000 students

Evaluation Framework

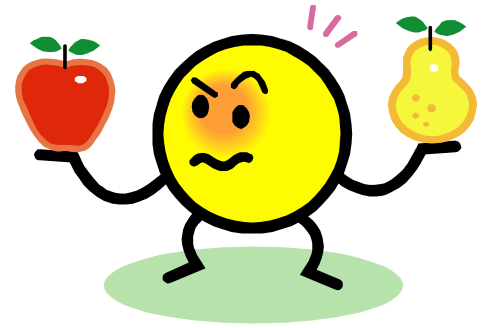
- Problem
 - Low completion of transfer level English and math among basic skills students (“throughput”)
- Intervention
 - Shorten remedial sequence to “accelerate” progression to transfer level English and non-STEM math
- Hypothesis
 - Students in accelerated pathways complete the transfer-level gatekeeper course at a rate higher than comparable students who participate in the traditional sequence

Resources/Acknowledgements

- Funded by California Community College Success Network (3CSN) and the Walter S. Johnson Foundation
- Technical support from the California Community College Chancellor's Office (CCCCO)
- Participation by CAP pilot colleges



Statewide progression of students from three levels below transfer to transfer-level math from fall 2010 through spring 2013.



Methods

- Accelerated students compared to traditional
- Equated on 13 variables including current level, non-subject GPA, ethnicity, EOPS, ESL, financial aid, disability, and prior successes
- Outcome is passing the relevant transfer-level gatekeeper course
- Multivariate logistic regression and marginal means analysis
- Study included an implementation survey

The Students

Sample

- Compare outcomes of accelerated students and similar students enrolled in traditional English and math basic skills sequences
- 18 accelerated pathways at 16 colleges
- 2011-2012 academic year - CAP's first pilot year
- Students were followed through spring 2013
- 1,836 accelerated English students & 22,354 comparison students with complete data
- 653 accelerated math students & 23,607 comparison students with complete data

English students

Compared to the English comparison group, accelerated English students were:

- more likely to have a lower current level;
- more likely to be Black or Hispanic;
- more likely to have received a Pell grant;
- equally likely to have been in EOPS;
- equally likely to be female;
- slightly more likely not to have graduated HS;
- and more likely to have an identified disability.

Math students

Compared to the math comparison group, accelerated math students were:

- more likely to have a lower current level;
- more likely to be Black or White;
- more likely to have received a Pell grant;
- more likely to have been in EOPS;
- more likely to be female;
- slightly less likely not to have graduated HS
- and; more likely to have an identified disability

Survey Data: Which Students Did Colleges Recruit for Accelerated Courses?

Target Population	English	Math
At risk for academic failure	43%	100%
Unsuccessful in traditional sequence	43%	88%
Students with low confidence in their skills	29%	75%
Students of color	29%	50%
First-time college students	43%	38%
Honors students	0%	13%
Students with high confidence in their skills	0%	13%
Learning community participants	29%	13%
Count of Responses	7	8

Outcomes

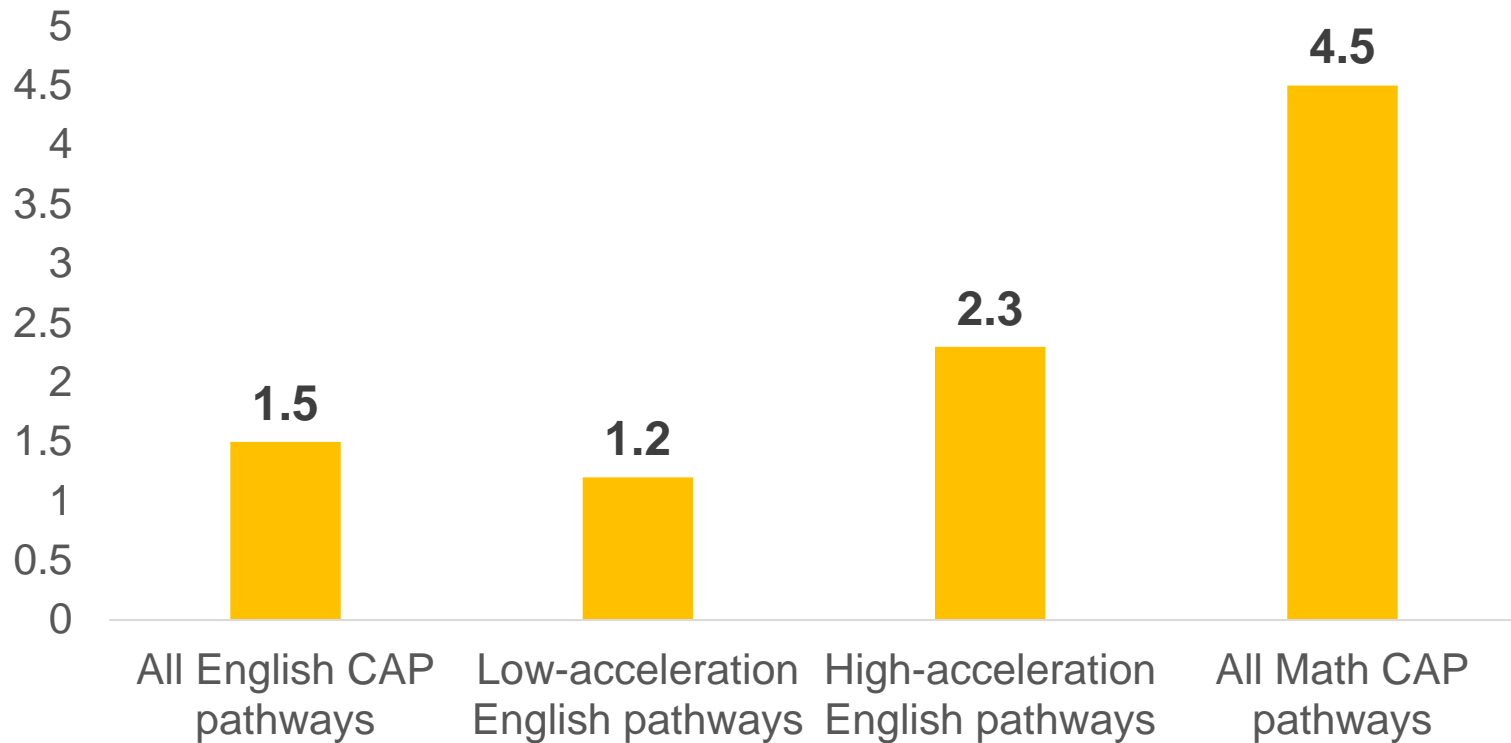
After controlling for differences
in pre-existing student characteristics

Main Findings

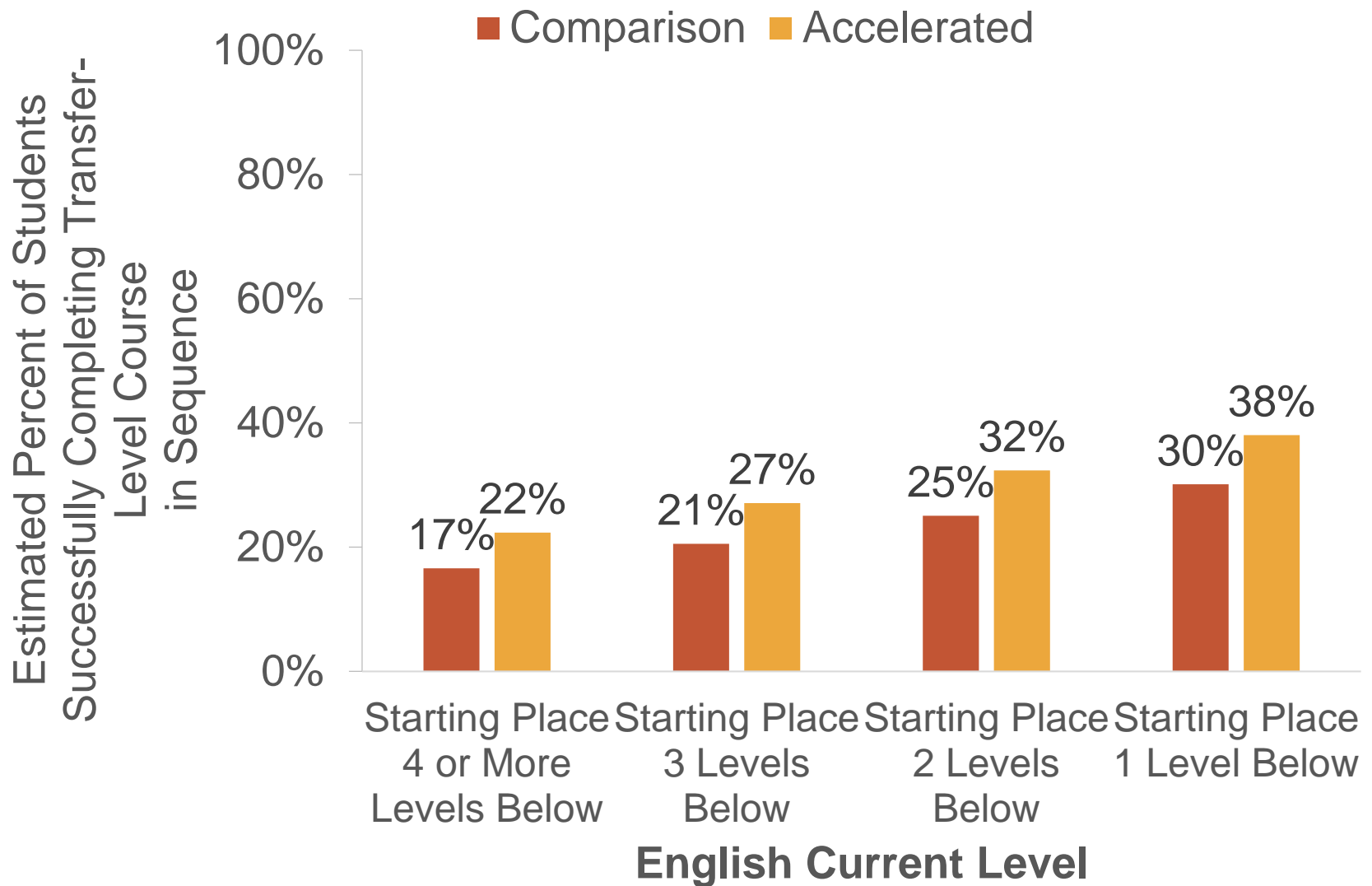
- Acceleration effects were large and robust
- Acceleration worked for students of all backgrounds
- Acceleration worked for students at all placement levels
- Implementation Mattered™

CAP Acceleration increased odds of sequence completion

Acceleration Odds Ratio (Effect Size) for English CAP Colleges



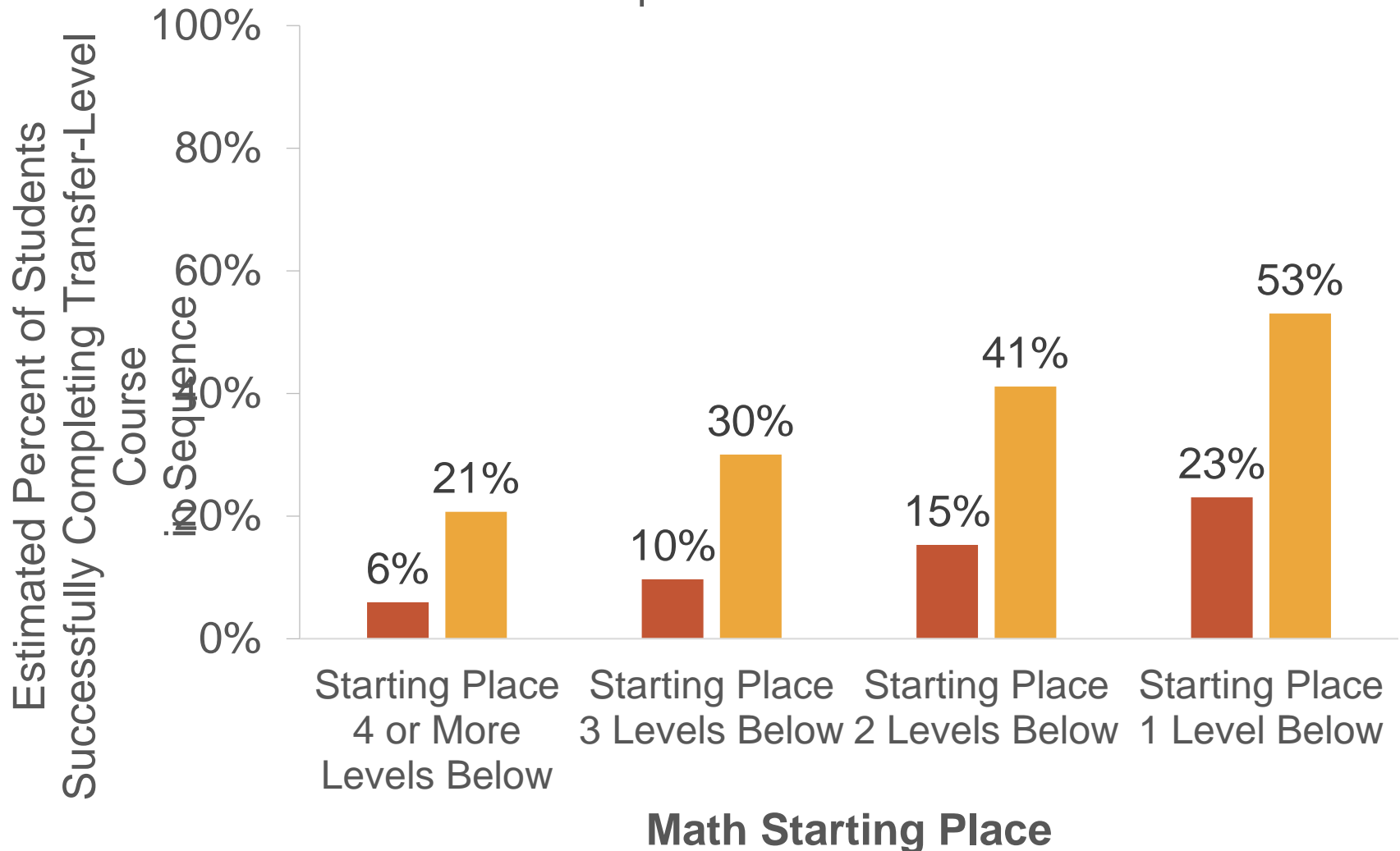
Regression Estimated Effects – Not Raw Throughputs



Marginal means for the percentage of students completing transfer-level English for accelerated and comparison sequences by current level. McFadden's pseudo- $R^2 = 0.15$

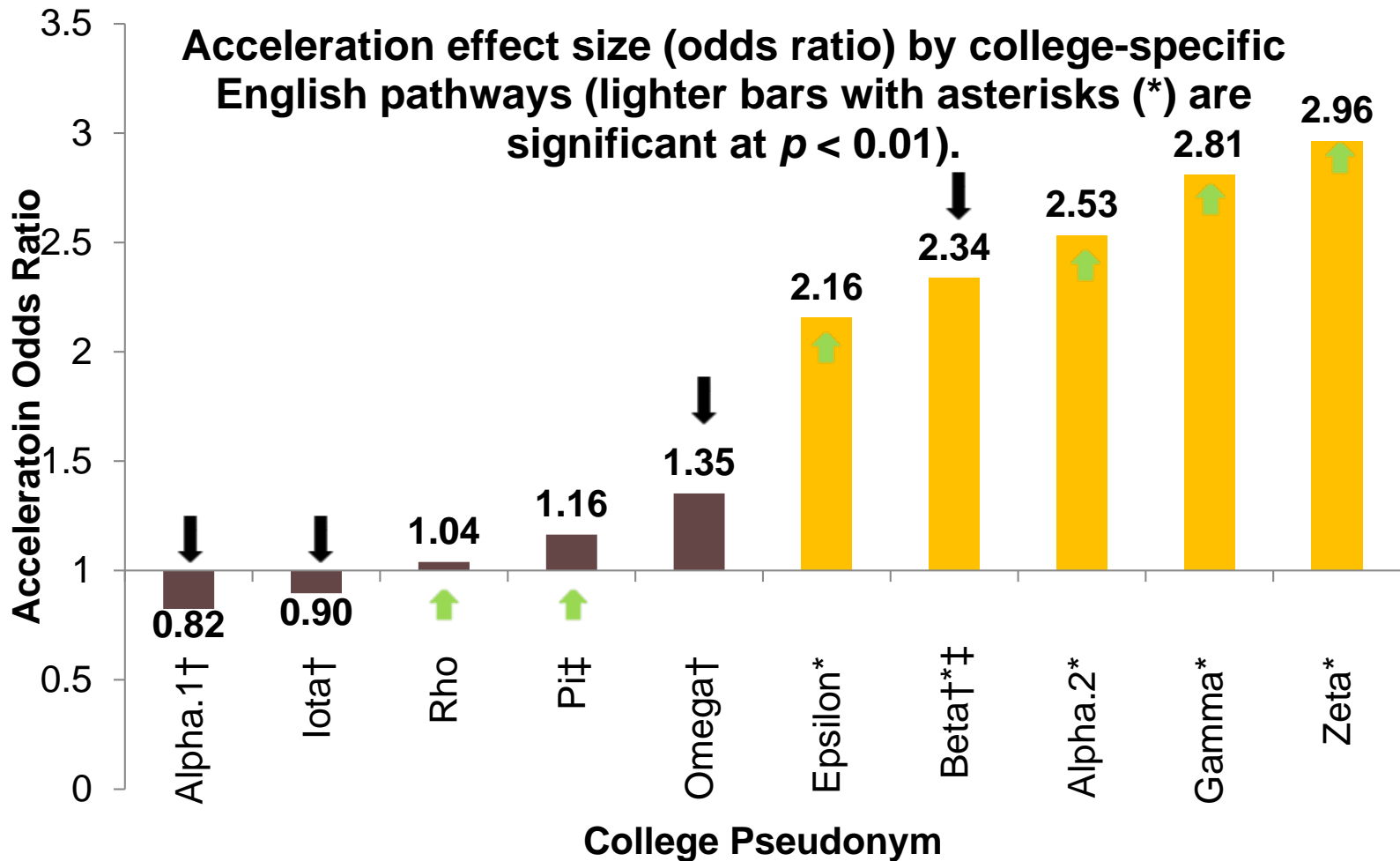
Regression Estimated Effects – Not Raw Throughputs

■ Comparison ■ Accelerated

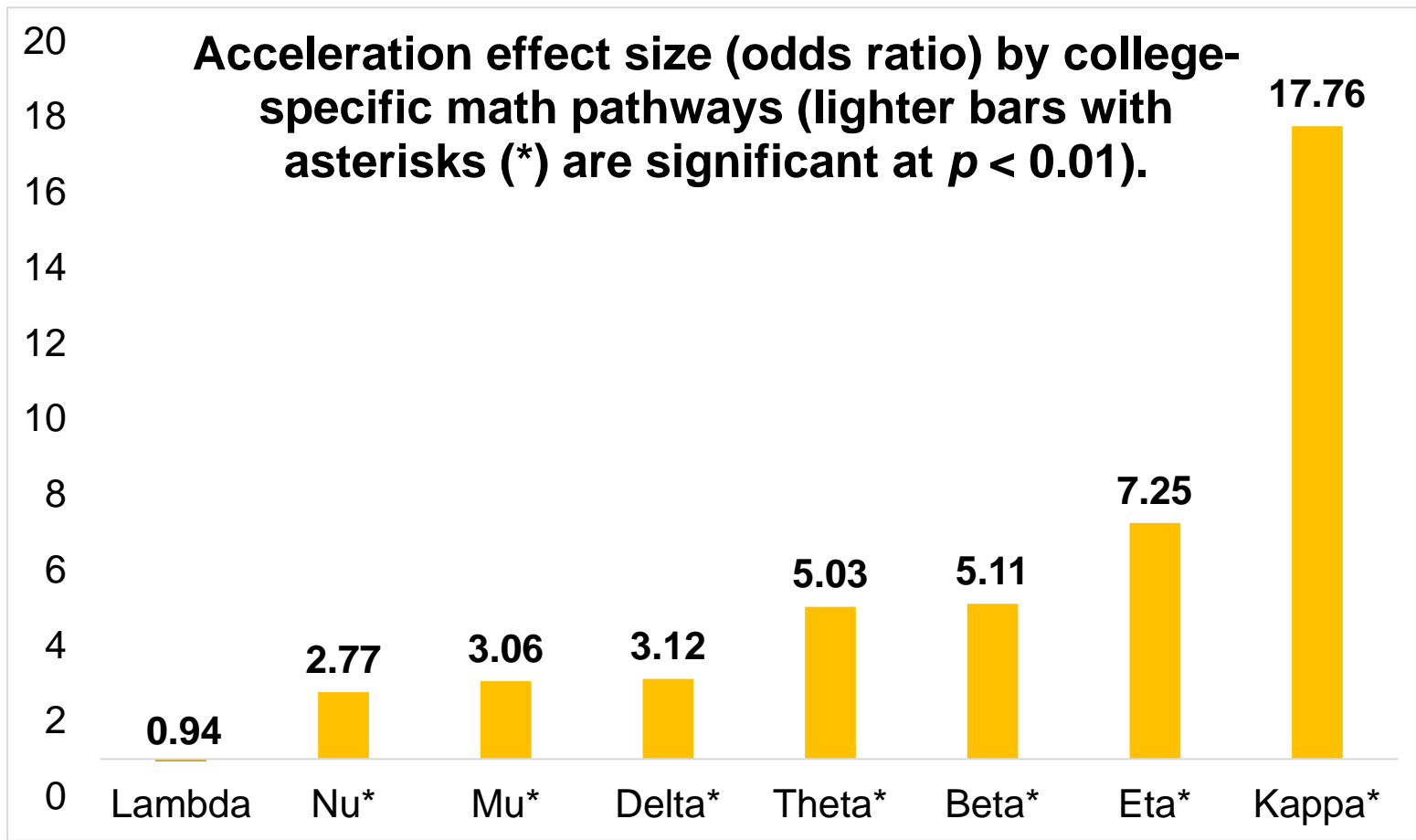


Marginal means for the percentage of students completing transfer-level math for accelerated and comparison sequences by current level. McFadden's pseudo- $R^2 = 0.14$

Pathway-specific results: English



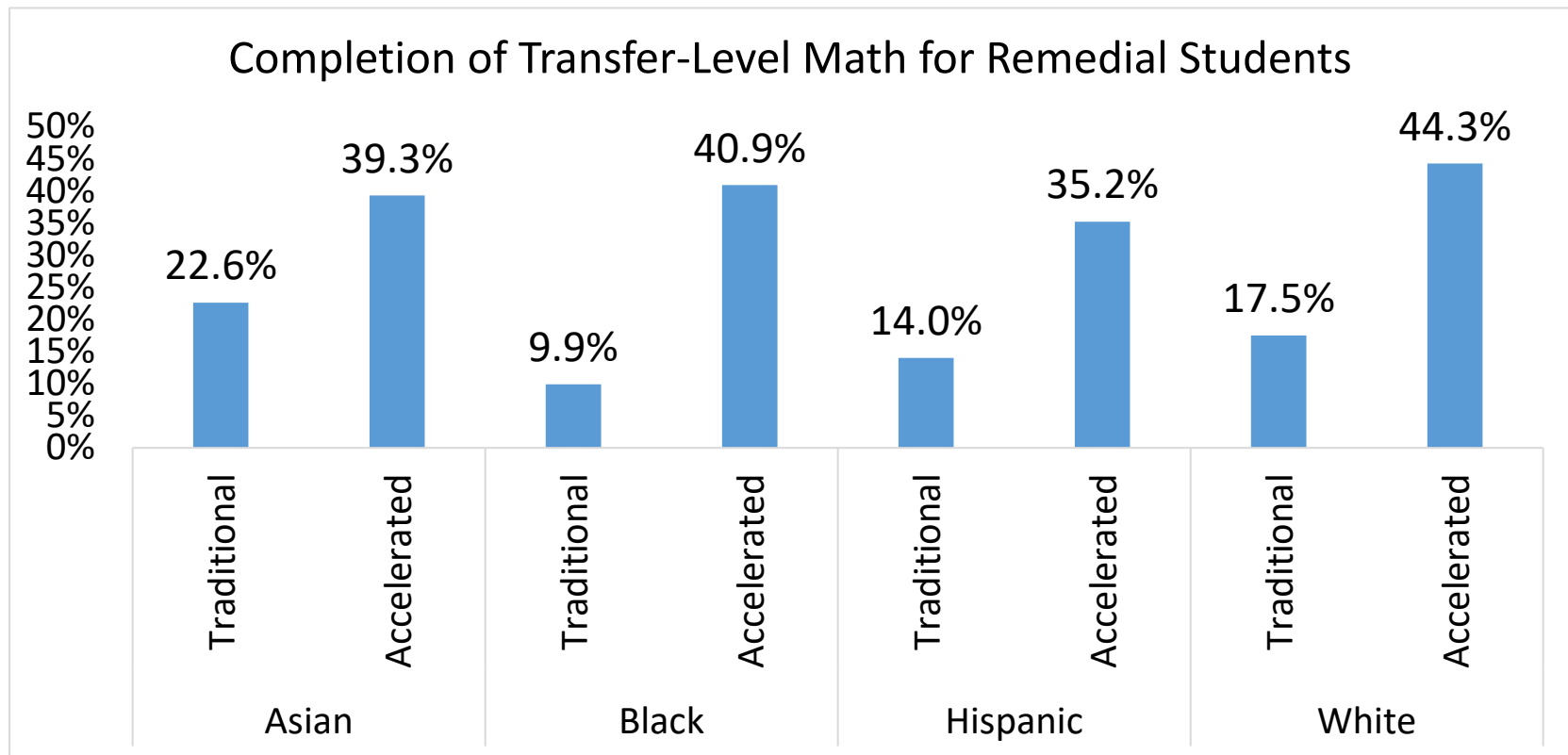
Pathway-specific results: Math



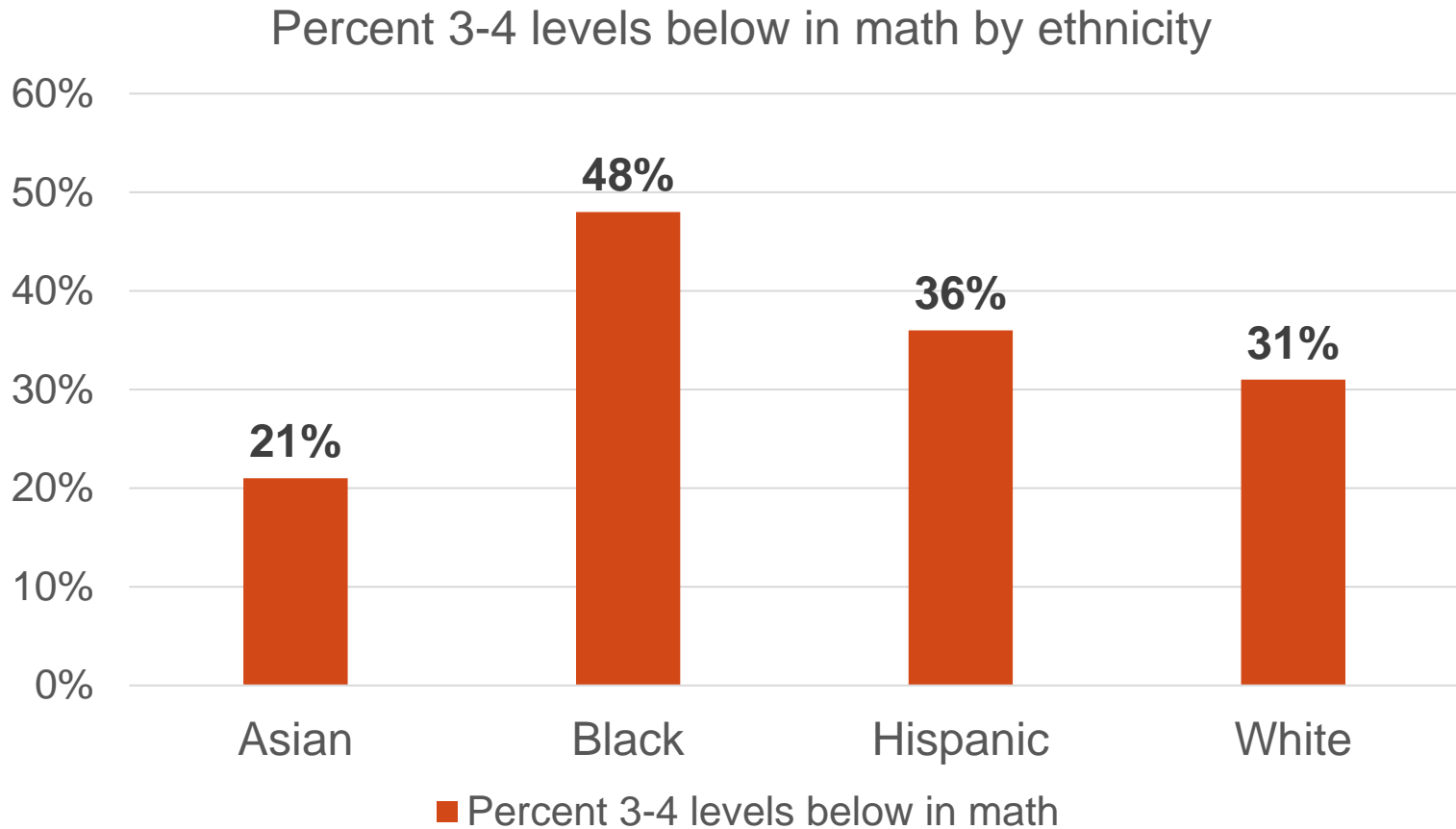
Raw Descriptive Data

(Not adjusted for statistical controls)

Unadjusted throughput rates for traditional and accelerated pathways by ethnicity

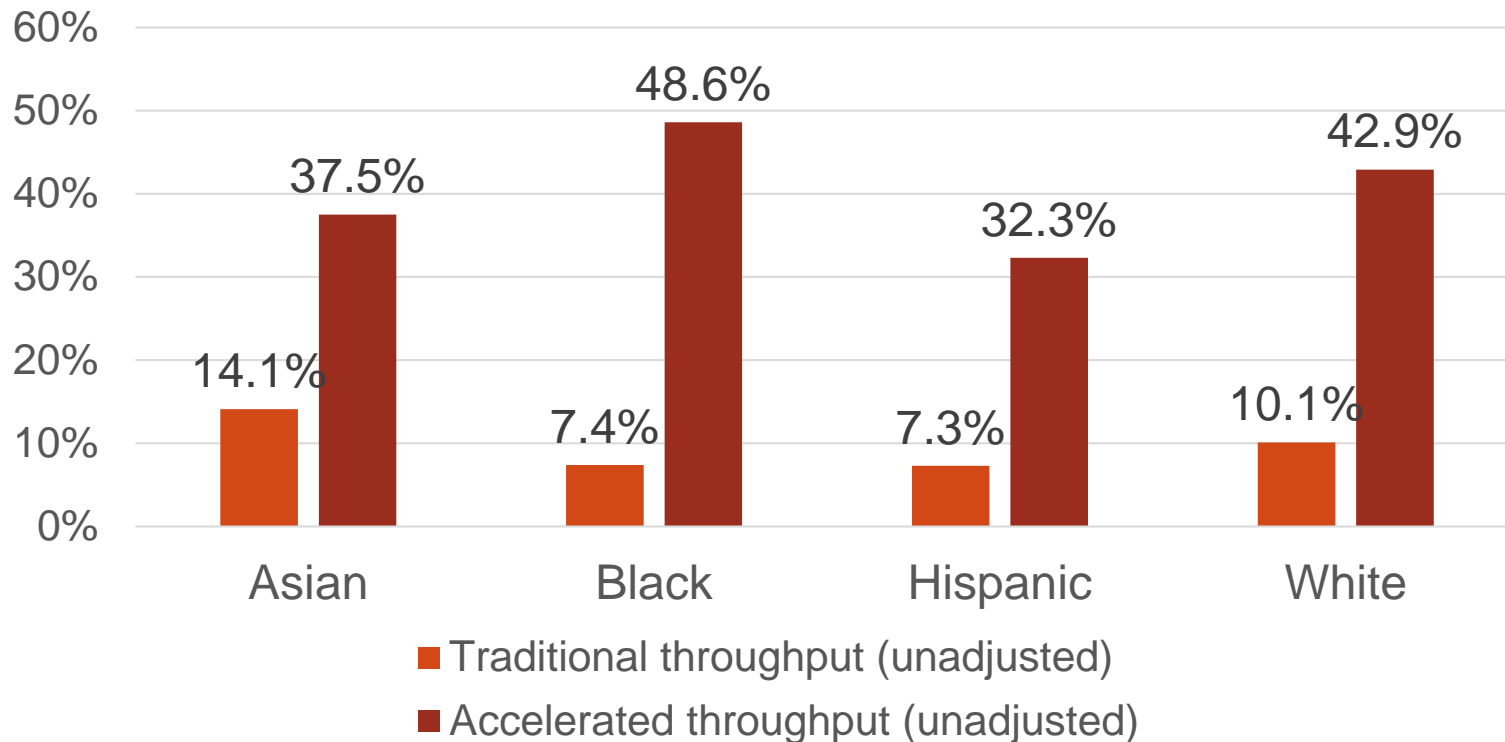


Percent at 3 or 4 levels below transfer in math



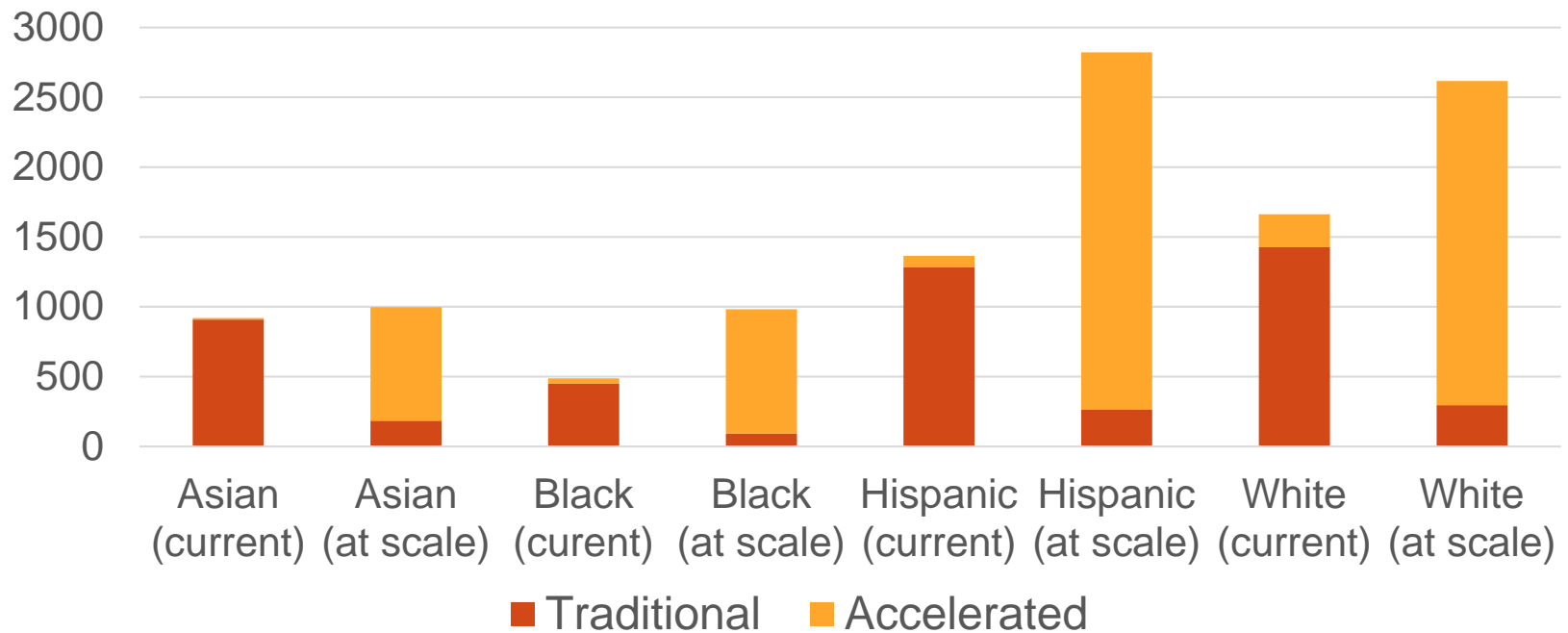
Large differences in outcomes for students in lowest 2 levels in math

Traditional and accelerated throughput rates (unadjusted)



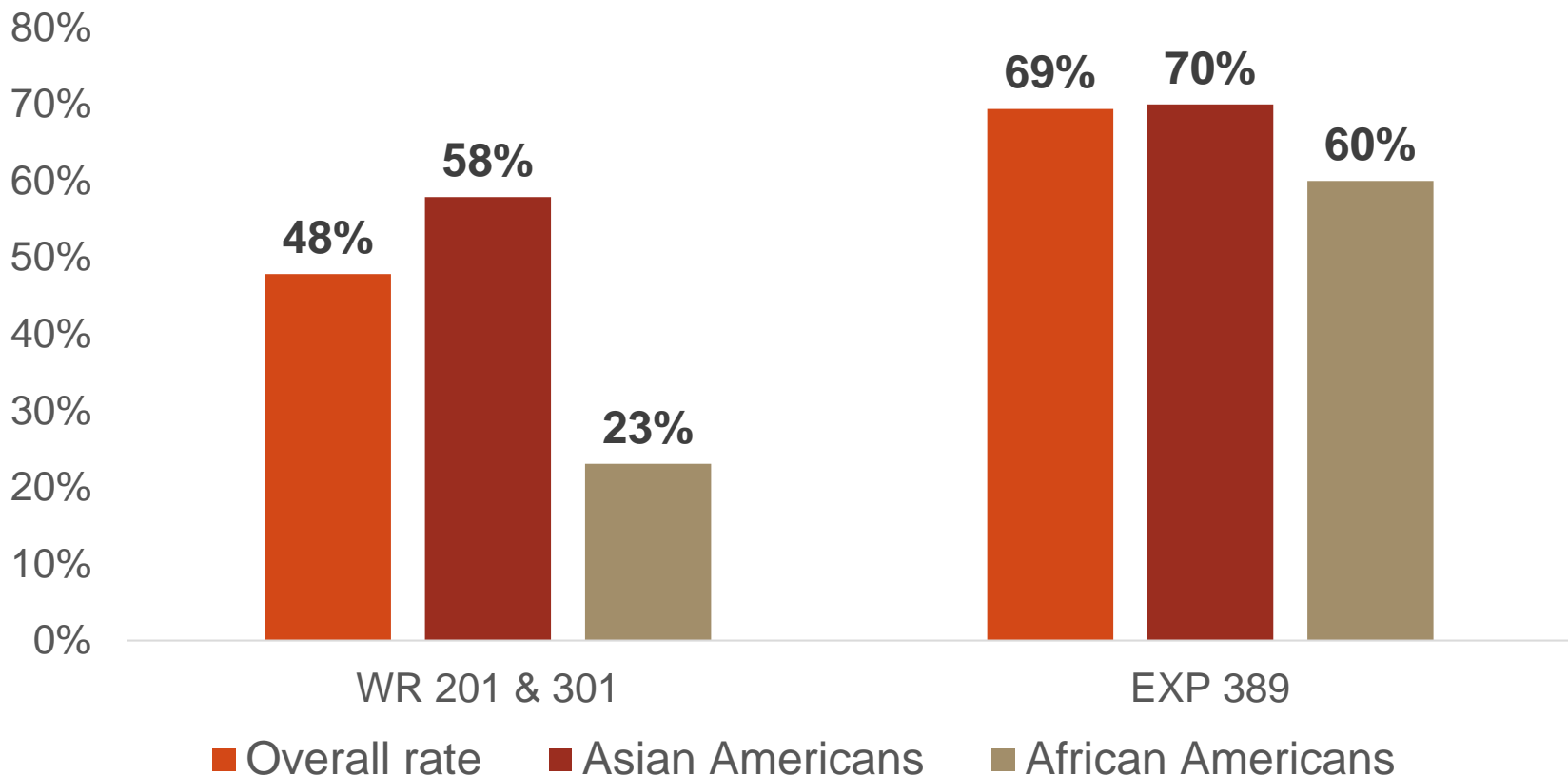
How many more students would complete transferable math if acceleration were scaled?

Number of students completing math in current vs. scaled scenario



Equity implications at one 'second wave' college

Throughput in traditional English sequence vs. accelerated:
IVC fall 2012 - fall 2014



Placement and Education Plan Implications

Accelerated English

- Placement could be binary = transfer level or not
- Students may also be able to place beyond college composition with AP test, high school articulation, etc.

Accelerated Math

- Placement potentially more complex with student ed plans having STEM or non-STEM pathways
- Placement into statistics binary = stats or pre-stats
- Placement into STEM pathways has more levels
- Non-STEM math can also have more pathways such as business prep, teacher prep, or general education

Thank You!

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RP Group Evaluation Report, <http://www.rpgroup.org/projects/cap>

CAP Project, <http://cap.3csn.org/>