Reinvestigating the Achievement Gap: An Analysis of Student Performance on the SBAC and CAHSEE

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(Roundtable Session: *Test-Based Accountability and Achievement Gaps*)

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Policy Context:

- Partnership between Michal Kurlaender (and colleagues) at University of California Davis and Jonathan Isler (and colleagues) at California Department of Education
    - Funded through Institute of Education Sciences grant
    - Examine college & career readiness for 11 cohorts of 11th graders in California
    - Answer timely and relevant policy questions as CDE implements new SBAC assessments and new accountability framework
- California High School Exit Exam (CAHSEE) suspended in 2016 (California Senate Bill 172)
- California Assessment of Student Performance and Progress (CAASPP) implemented in 2015
    - Based on Smarter Balanced Assessment Consortium (SBAC) exam
- Advisory Panel formed by legislature to make recommendations on future of high school exit exam and graduation requirements
    - Requested our help in examining student performance on CAHSEE and SBAC

Research Questions:

- What is the variation in student performance on the CAHSEE exam?
    - What are the differential achievement outcomes across student subgroups, including gender, race/ethnicity, and English language learner (ELL) status?
- What is the variation in student performance on the SBAC exam?
    - What are the differential achievement outcomes across student subgroups, including gender, race/ethnicity, and English language learner (ELL) status?
- How do differential achievement outcomes persist in the absence of high stakes testing?

Data & Methods:

- One cohort of high school students (n ~ 390,000)
    - CAHSEE performance as 10th graders in 2013-2014
    - SBAC performance as 11th graders in 2014-2015
- Descriptive statistics
    - Distribution of performance on CAHSEE and SBAC by subgroup
- Logistic regression – predicted probabilities
    - Outcome variables (binary) for both Math and ELA
        - Failed CAHSEE
        - Did Not Meet SBAC standards
    - Predictor variables
        - Gender
        - Race/ethnicity
        - ELL status
        - SES status
        - Special Education status

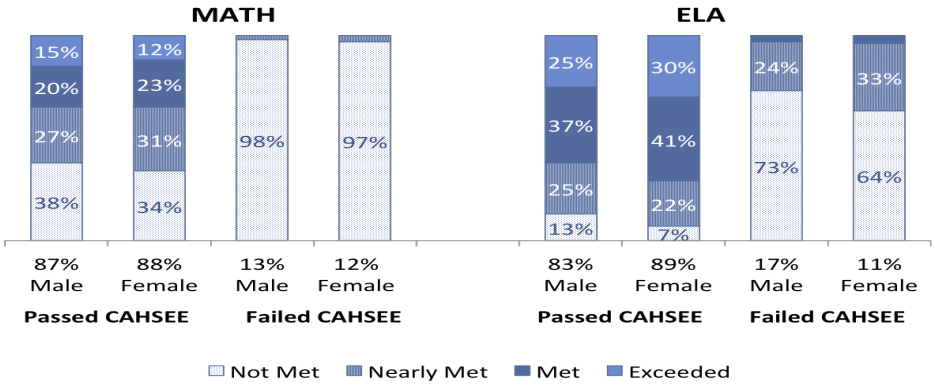
Link to full report: http://www.cde.ca.gov/ta/tg/hs/documents/hspathwayrpt.doc

"The research reported here was supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305E150006 to the Regents of the University of California. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education."

Findings:

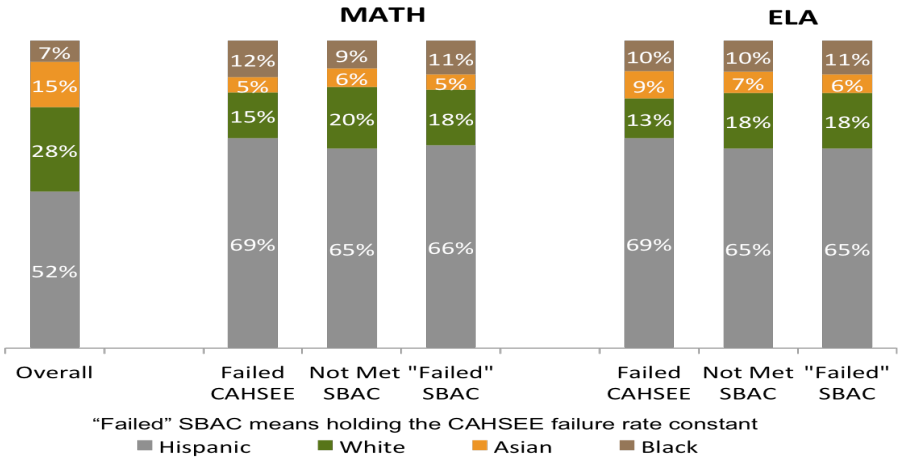
- Overall, students perform better on ELA compared to Math assessments
- Females perform better than males on ELA assessments

Figure 1: Student Performance on SBAC by Gender and Pass/Fail on CAHSEE



- Subgroups disproportionately represented among students that did not meet SBAC standards
- The gap in achievement narrows in the absence of a high-stakes setting for
  - Hispanic students by nearly 0.5 percentage points for ELA
  - English language learners by over 8 percentage points for ELA
  - Students with disabilities by over 4 percentage points for ELA
  - Students with disabilities by over 1.5 percentage points for math

Figure 2: Race/Ethnicity by CAHSEE and SBAC Performance



Implications:

- Great disparities on such assessments for key subgroups of students
  - Further research and analysis about disparities and differential impact
- SBAC performance as a college readiness signal
  - Level 3/MET indicates that a student is "conditionally ready" for college
  - Level 4/Exceeds indicates that a student is "ready" for college

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