

The Achievement Gap and School Well-being

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Closing California's pervasive racial/ethnic academic achievement gap is one of the state's top educational priorities. An examination of how three critical areas of school climate — developmental supports, safety, and engagement — are related to standardized test scores revealed that those scores were significantly lower in predominantly Hispanic and, especially, African American/Hispanic schools, than in predominantly White and Asian schools. These findings, which remained significant even when the data were adjusted for socioeconomic status, indicate that California's Hispanic and African American students are facing serious shortfalls in school well-being factors that contribute to an achievement gap. Efforts to close this gap should include learning supports that foster caring adult relationships, high expectations, meaningful participation, safety, and connectedness in school.

One of the top educational concerns in California is addressing the vexing, persistent academic achievement gap between African American and Latino students and their White counterparts. Closing this gap is especially important to California because the state serves such high proportions of non-White students. Poverty has long been identified as a major contributing factor to the gap. Yet data from the state's Standardized Testing and Reporting (STAR) system shows that socioeconomic differences do not completely explain it (California Department of Education, 2007). What other factors may account for it?

As shown in California Healthy Students Brief No. 1, Academic Performance Index (API) scores at the school level significantly correlate with the level of developmental supports, safety, and engagement at the school, as measured by student-reported data collected in 2004–06 by the *California Healthy Kids Survey* (CHKS). This second Brief extends this analysis to reveal that these school well-being factors also vary according to the racial/

ethnic composition of schools in ways similar to their API, indicating that efforts to close the achievement gap need to focus on making schools in California with high proportions of African American and Hispanic students more supportive, caring, participatory, safe, and engaging.

How Was the Study Conducted?

Using latent profile analyses, the 1,828 secondary schools that participated in the CHKS in 2004–06 were categorized according to the predominant race/ethnicity of their student enrollment (see Brief No. 1 for a summary of the overall method). Schools fell into four groups: high Hispanic (40–45% of schools, depending on school level), high non-Hispanic White (41–47%), high African American¹ and Hispanic (7–9%), and high Asian (5–7%). In this Brief, references to schools as being African

¹ Only about 1.5% of schools in the state have African American enrollments that are greater than 50% of total enrollment.

American/Hispanic, Hispanic, White, or Asian indicate that the schools' enrollment consisted of *predominantly* that ethnic group(s).

We analyzed how these four school types differed in regard to: 1) 2006 California Standards Test (CST) English language arts scores at the school level in grades seven, nine, and eleven, and in mathematics scores in grade seven; and 2) the same seven CHKS measures of school well-being discussed in Brief No. 1. These CHKS indicators fall into three general areas: 1) *developmental supports* provided by the school (caring adult relationships, high expectations, and opportunities for meaningful participation); 2) *school safety* (the level of harassment/victimization students experience, violent/delinquent behavior, and perceived safety); and 3) *student engagement* (school connectedness and truancy). To describe the magnitude of differences across schools with different racial/ethnic compositions, standardized differences were calculated.

Scope of the Achievement Gap

Confirming the magnitude of the achievement gap, academic-proficiency levels on the standardized tests varied significantly and consistently across schools, based on their racial/ethnic composition. Test scores had the widest standardized differences for all measures in this study (1.37–1.46). Schools serving high proportions of

Hispanic and of both African American *and* Hispanic students had similar mean proficiency percentages, which were about *half* of those in predominantly White and Asian schools.

- For seventh-grade mathematics, only 29% and 30% of students in the African American/Hispanic and Hispanic schools, respectively, scored at proficient levels, compared to 54% and 60% of students in White and Asian schools.
- For ninth-grade English language arts, only 31% of students in Hispanic schools and 32% in African-American/Hispanic schools scored at proficient levels, compared to 58% and 60% of students in White and Asian schools (see Table 1).

Consistent with the influence that poverty has on achievement, adjusting the data as if schools in these different racial/ethnic groupings served similar proportions of low-income students and were equal in other school characteristics reduced the standardized differences across groups for all four of the performance measures.² However, they still were significant, at .67–.84 standardized deviation units, indicating that other factors besides social-economic standing and demographic characteris-

2 The controls included SES (percentage of students eligible for free/reduced price meals and average parental education), student gender, enrollment size, urban/rural status, percentage of English language learner students, as well as year of survey administration.

Table 1. Outcomes by School Ethnic Composition, Ninth Grade

	Predominant School Ethnic Composition				SD†
	Hispanic	African Am/Hsp	White	Asian	
English Language Arts CST Scores (% proficient)	31	32	58	60	1.42*
School Developmental Supports					
Caring Relations & High Expectations (% high)	30	31	36	32	0.08*
Opportunities for Meaningful Participation (% high)	11	11	14	13	0.09*
School Safety					
Harassment / Victimization (% any)	76	79	77	70	0.15*
Violence / Delinquency (% any)	65	69	55	49	0.30*
Perceived Safety (% safe or very safe)	43	35	55	56	0.35*
School Engagement					
Connectedness to School (% high)	26	18	38	35	0.30*
Truancy (% any)	46	48	33	31	0.30*

†Standardized Differences *Differences across groups are statistically significant ($p < .05$).

tics also account for the achievement gap. What role does school well-being play?

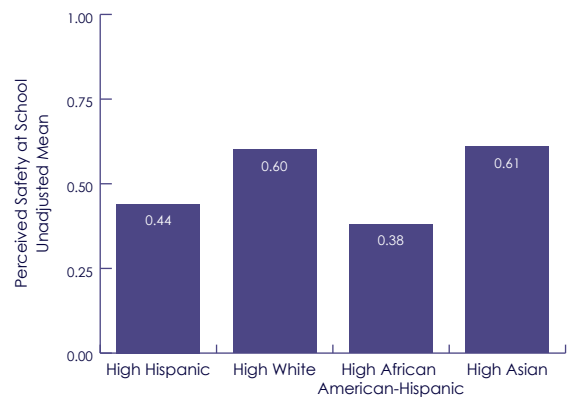
How does School Well-Being Vary by Race/Ethnicity?

Similarly, although to a much lesser degree, school well-being measures were consistently lower in Hispanic and African American/Hispanic schools than in White and Asian schools. Results were significantly different across the four groups for each of the 21 indicators (seven measures in each of three grades), as shown in Table 1 for ninth grade. Students attending California secondary schools serving high proportions of African Americans and/or Hispanics were less likely than students in White schools to perceive that their schools provide the conditions, relationships, and supports that are associated with positive educational outcomes. Arguably, as a result, they feel less connected to their schools and have higher truancy.

African American/Hispanic schools, with only a few exceptions, had the lowest percentages on safety and engagement indicators. In ninth grade, their percentages were 20 points lower than in White schools for school connectedness (18% vs. 38%) and perceived safety (35% vs. 55%). Their percentages were about 15 points higher for school violence/delinquency (69% vs. 55%) and truancy (48% vs. 33%). They were also 5 points lower for relationships/expectations (31% vs. 36%). For perceived safety and connectedness, African American/Hispanic schools were eight points lower than Hispanic schools. Otherwise, the results for these two groups of schools were relatively similar.

Perceived school safety (feeling safe or very safe) showed the widest range in rates across school groups, with standardized differences ranging from .30 in seventh grade to .41 in eleventh, as illustrated in Figure 1, the percentages for African American/Hispanic and Hispanic schools were 38% and 44%, respectively, compared to 60% and 61% among White and Asian schools. The next largest standardized differences were, in order, for violence/delinquency (.29–.30 across grades), school connectedness (.21–.32), and truancy (.23–.30).

Figure 1. Eleventh Grade Perceived Safety at School by School Racial/Ethnic Composition



Are these differences brought about because schools serving high proportions of Hispanic and/or African American students are also more likely to be in low-income communities? To some extent, yes. As was the case with the variations in performance, controlling for SES and other school characteristics did substantially reduce racial/ethnic differences in school well-being. But they were still significant for all but two of 21 indicators. African American/Hispanic schools generally still had the most negative results. Regardless of SES, students in predominantly African American and/or Hispanic schools suffer by being in schools with lower levels of the learning conditions and supports that are linked to higher performance.

These findings support those reported in Brief No. 1, which showed that the same school well-being indicators were significantly lower in low-performing schools compared to high-performing schools. This reflects that African American and Hispanic students predominate in low-performing schools. They also predominate among low-SES schools (based on free or reduced price meal program). These factors are inter-related, and support research showing that students of color are concentrated in low-income, poorly performing schools and that “as the percentage of students at a school that are living in poverty rises, the school conditions needed to enable those students to succeed...decline,” a phenomenon that has been called “nested inequalities” (National Research Council, 2004). African American and Hispanic students face multiple educational disadvantages on many fronts

in terms of the impacts of poverty, race, and exposure to more negative school environments — environments that are less conducive to learning because they are less safe and are lacking in supportive, caring relationships between teachers and students, high expectations, and meaningful participation. As a result, these schools are less engaging, contributing even more to educational disadvantage.

What Can We Do?

There are no definitive answers to what factors are most responsible for the achievement gap, nor to what actions will result in the largest improvements. What is evident is that the problem has deep, intertwined roots in conditions in and out of school (Barton, 2001). Poverty clearly plays a central role. Controlling for SES and other school characteristics in these analyses did substantially reduce racial/ethnic-group differences in STAR test scores and school well-being indicators. This is not a surprising finding, as poverty is highly correlated with both race/ethnicity and academic performance. This underscores the need for schools, families, communities, and government agencies to work in concert to address the consequences of poverty in America.

However, as the CDE analysis of test-score data showed and these results support, poverty alone does not explain the gap. Even after adjusting for SES and other school factors, academic proficiency remained lower in schools serving high proportions of Hispanic and African American students. Variations in school well-being, as measured by the school developmental supports, safety, and engagement indicators on the CHKS, are another contributing factor. In all cases, differences in these measures were significant across the four racial/ethnic groups. *There not only exists a racial/ethnic achievement gap, but also a school safety gap, an engagement gap, and a student supports gap.*

These findings have practical significance for schools. While schools on their own may not be able to affect the broader socioeconomic factors underlying the achievement gap, they can affect those well-being factors within the school that contribute to it by fostering a comprehensive system of learning supports. Providing safer, more caring, more academically supportive, and more engaging school environments for schools with high African

American and Hispanic enrollment should be a part of a comprehensive approach to closing the achievement gap. Indeed, the very value of providing such learning supports may lie in their function as protective factors that mitigate the many disadvantages and risk factors that students face related to poverty and race. As discussed in Brief No. 1, resilience research has consistently shown that youth who experience the three developmental supports assessed by the CHKS are more likely to have positive educational, social, personal, and health outcomes even in poor, high-risk environments, and school connectedness has been found to be associated with both improved academic outcomes and health.

References

- Barton, P. E. (2001). *Facing the hard facts in education reform*. Princeton, NJ: Educational Testing Service.
- California Department of Education, News Release, August 25, 2007. *State Superintendent Jack O'Connell releases 2007 STAR results showing encouraging, troubling trends*. <http://www.cde.ca.gov/nr/ne/yr07/yr07rel98.asp>
- National Research Council. (2004). *Engaging schools: Fostering high school students' motivation to learn*. Committee on Increasing High School Students' Engagement and Motivation to Learn, National Research Council. Washington, DC: National Academy Press.

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The California Healthy Students Research Project is devoted to understanding and addressing issues of health and well-being that hurt student achievement. By researching health and education issues in the state, the project provides evidence-based policy and practice recommendations

to foster the school culture, environment, supports and services needed to give all youth the opportunity to be successful learners.

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Find complete research reports at LearningWellBeingWell.org

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