

# Racial/ethnic Differences in Student Achievement, Engagement, Supports & Safety:

## Are They Greater Within Schools or Between Schools in California?\*

Prior analyses of the *California Healthy Kids Survey* have documented that there is not only a gap in achievement between minority students and White students but also gaps in regard to multiple indicators of school engagement, safety, and support (Austin, Nakamoto, and Bailey, 2010). Hanson et al. (2008) reported that these same measures, as well as academic test scores, varied in relation to the racial/ethnic composition of California schools. They were both substantially lower in predominately Latino and African American/Latino schools compared to predominately White schools, even after controlling for socioeconomic status and other school characteristics.

This factsheet summarizes the key findings from a report<sup>1</sup> that quantified the extent to which observed racial/ethnic gaps in achievement and school engagement, safety, and school developmental supports occurs (1) within secondary schools and/or (2) between secondary schools. Within-school racial/ethnic gaps in achievement and school-related well-being represent differences across students who attend the same school. Between-school racial/ethnic gaps reflect differences across students who attend different schools.

Why is this important? The extent to which racial/ethnic gaps in achievement, access to school developmental supports, safe school environments, and other precursors to achievement occurs within schools and between

schools has important implications for practices aimed at ameliorating the gap. If most of the gap is due to within-school differences, then the gap is likely due to differential access to resources within the same schools, such as within-school racial/ethnic group differences in access to the best teachers, a challenging curriculum, or teachers' expectations for high performance. Substantial within-school racial and ethnic differences suggest that practices designed to ensure that African American, Latino/a, White, and Asian students have equal access to academic resources and adult supports within the same school will be the most effective in ameliorating the gap. If most of the gap is due to between-school differences, then practices aimed at either reducing racial/ethnic segregation or targeting low performing schools serving high proportions of African American and Latino students are likely to have the most benefit in terms of reducing the racial/ethnic gap. Examples of such targeted policies include providing a greater variety of services to support student learning, extending learning time in specific schools, and attracting skilled teachers and administrators to targeted schools (Page, Murname, and Willet, 2008).

### Data and Methods

The examination of the racial/ethnic achievement gap in student academic performance was based on archival California Standardized Test Score data collected

\*This document was produced by WestEd for the California Department of Education's Closing the Achievement Gap project.

in spring 2009 from approximately 1.3 million 7<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> graders in 1,282 middle schools and 1,205 high schools. The analysis of racial/ethnic differences in school engagement, school developmental supports, and school safety relied on California Healthy Kids Survey data collected from 678,082 7<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> graders in 1,916 schools. Students were classified into six groups: African American, Asian, Latino, Multiethnic, White, and Other. In this factsheet, we report on differences between Whites, African Americans, Asians, and Latinos.

For each measure, we calculated the statewide difference (gap) between each non-White racial/ethnic group and Whites. Using the decomposition techniques described by Page, Murnane, and Willett (2008) and Reardon (2007), the analysis then determined how much of each gap was due to three factors:

- a) **between-school differences** — that is a function of racial and ethnic segregation in different schools and differences in school-level averages;
- b) **within-school differences** — differences between whites and the minority group within a school; and
- c) **ambiguous determination** — that is the difference could not be attributed to either a within- or between-school difference (e.g., the product of an interaction of the two).

### Findings

Consistent with prior research, the results indicated that students who are Latino and African American exhibited lower scores on standardized test scores and reported lower classroom grades and lower levels of school-related well-being than their White peers. They felt less connected, safe, and supported in schools, and were more likely to be truant and to experience harassment.

Asian students exhibited higher test scores than Whites, particu-

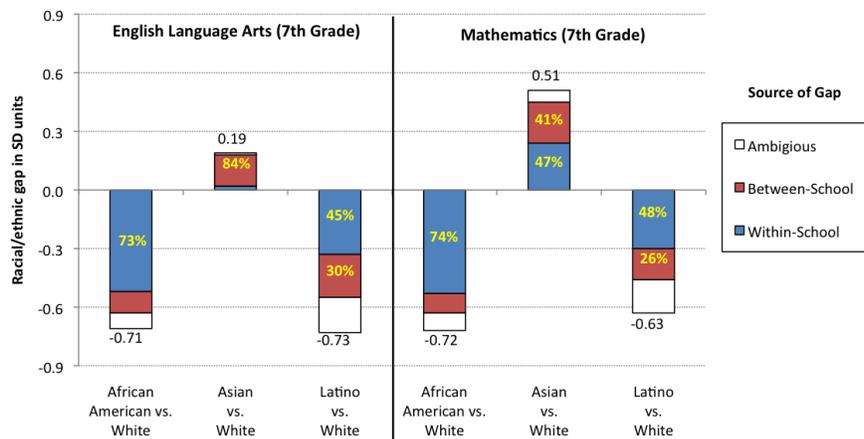
larly for 7<sup>th</sup> grade math. Asian students were also less likely than Whites to report truancy and more likely to report good grades. Despite these academic performance advantages, Asian students reported that they felt less connected, safe, and supported at school than Whites; and they reported the highest level of race/ethnic harassment in both grade levels for any racial/ethnic group. Overall, these results illustrate that there is not just a racial/ethnic achievement gap but a safety gap, an engagement gap, and a supports gap.

With some notable exceptions, the results generally indicate that these racial/ethnic gaps can mostly be attributed to racial/ethnic group differences among students within the same schools, and not due to the racial/ethnic segregation of students into different schools.<sup>2</sup> These results suggest that educators look at the conditions, services, and practices within their schools that may cause some groups of students to experience the school differently than other students.

Detailed tables presenting these data and analyses can be found in the full report.<sup>1</sup> Below, we present results for selected outcomes to illustrate the findings.

**Academic Achievement.** Figure 1 shows the achievement gap between Whites and African Americans, Asians, and Latinos in 7<sup>th</sup> grade. According to the figure, African Americans score about 0.71 standard deviations lower than Whites on the ELA California Standardized Achievement Test in California. As shown, 73% of the African American/White gap is due to within-school differences

Figure 1. Sources of racial/ethnic gap in 7<sup>th</sup> grade CST test scores



between those two groups. Thus, almost three-fourths of total gap is due to achievement differences between African Americans and Whites within the same schools.

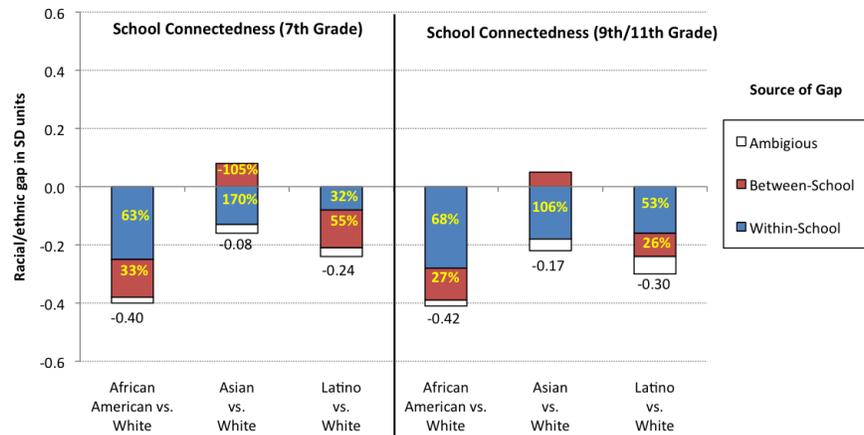
The results for the total Asian/White gap indicate that Asian American 7<sup>th</sup> graders score an average 0.19 standard deviations higher than Whites on ELA test scores. Unlike the case for the African American/White gap, 84% of the total Asian/White ELA test score gap is due to between-school differences among Asians and Whites. Latino students score an average of 0.73 standard deviations lower than Whites, with 45% of the total gap due to within-school differences between those two groups and 30% due to between-school differences.

The results for 7<sup>th</sup> grade mathematics scores are similar to those for 7<sup>th</sup> grade ELA scores with one exception. Asian students score substantially higher than Whites on the Mathematics achievement test than they do on the ELA test—with a total gap of 0.51 standard deviations (compared to 0.19 standard deviations on the ELA test). Moreover, a greater proportion of the Asian/White mathematics achievement gap is due to within-school differences between these two groups (47% vs. 13%), and a smaller proportion is due to between-school differences (41% vs. 84%) than is the case for the Asian/White ELA achievement gap.

**School Connectedness.** The percentage of African Americans, Asians, Latinos, and Multi-ethnic students that reported high school connectedness was lower than the percentage of Whites that reported high school connectedness (Figure 2). The gap was most pronounced for African Americans and smallest for Asians. For African Americans, the differences in school connectedness compared to Whites within the same school was 63% in middle school and 68% in high school. Thus, eliminating school connectedness differences between Whites and African Americans who are enrolled in the same schools,

holding everything else constant, would reduce the total gap by between 63% and 68%.

**Figure 2. Sources of racial/ethnic gap in school connectedness**



Although Latinos, too, were lower in school connectedness than Whites, the within- and between-school differences are not consistent across middle and high schools. In middle school, the within-school gap accounts for 32% of the total gap, compared to 55% for the between-school gap. In high school, the within-school difference is higher, at 53% compared to 26% for the between-school gap.

Among Asians, a third, more complex pattern emerges. Within-school differences are greater than between-school differences, but the direction of the differences vary. In 7<sup>th</sup> grade, Asians are 3.8 percentage points less likely than Whites to report high levels of school connectedness (not directly shown in figure). Within the same schools, Asians report even lower levels of school connectedness relative to Whites; the gap is -6.5 percentage points. In contrast, the between-school difference favors Asian Americans over Whites. Asians in different schools than Whites reported higher school connectedness, by 4 percentage points. These results mean that if the negative within-school gap of -6.5 was eliminated, Asians would be 2.7 points higher in school connectedness. This counteracting within-school and between-school gap is shown in Figure 2, which shows that the between-school gap is positive (Asians > Whites) by 105% while the within-school gap is negative (Asians < Whites) by

170%. The counteracting within- and between-school gaps result in a smaller total gap than either the within- or between-school gaps between Asians and Whites. A similar mixed pattern also occurs among high school students, although less pronounced. This mixed picture of negative within-school results and positive between-school results occurs in almost all the analyses of non-academic outcomes for Asians. However, in interpreting these counteracting gaps, it should be noted that overall differences between Asians and Whites are relatively small in magnitude.

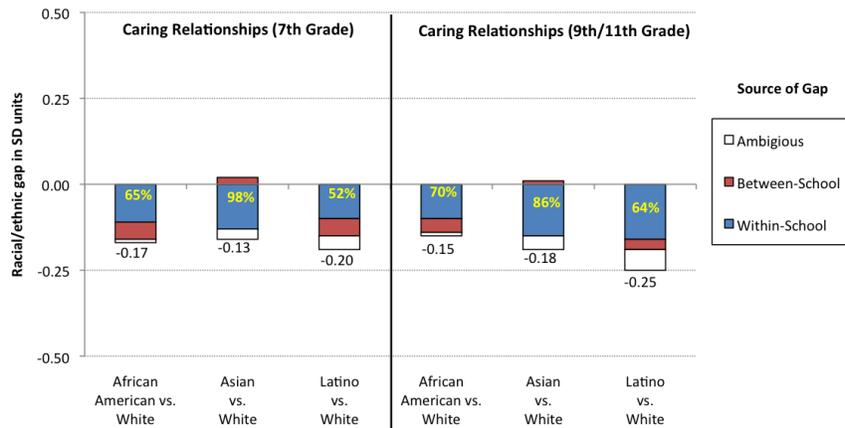
**Caring Relationships with Adults at School.** African American, Asian, and Latino students reported lower percentages for caring adult relationships than White students (Figure 3), although the differences were not as pronounced as the racial/ethnic differences in academic achievement and school connectedness. These

differences were mostly due to within-school differences between racial/ethnic groups.

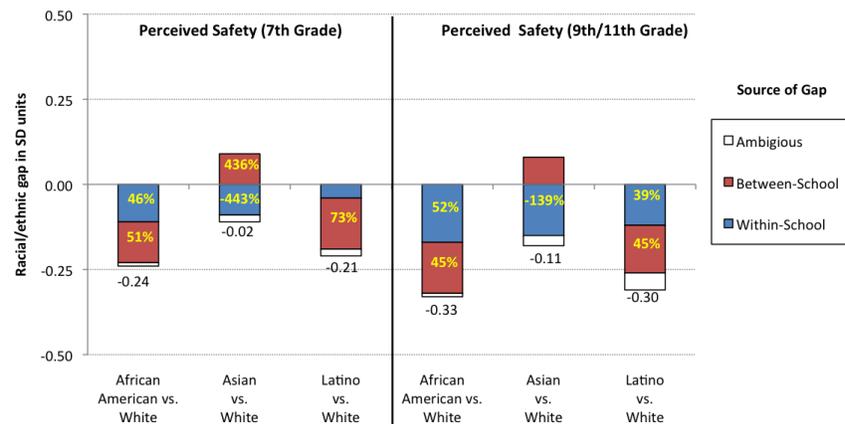
**School Safety.** Like the other indicators of school-related well-being, African American- and Latino students are less likely than their White counterparts to report that they feel safe or very safe at school (Figure 4). About half of the African American/White gap is due to within-school differences and half is due to between-school differences, in both middle school and high school. The same pattern is evident for the Latino/White gap among high school students. Among middle-school students, however, the total gap between Latinos and Whites is primarily attributable to between-school differences among students in these two groups.

As was the case with school connectedness, the between-school Asian/White gap in perceived school safety is positive and the within-school Asian/White gap is negative

**Figure 3. Sources of racial/ethnic gap in caring relationships with adults at school**



**Figure 4. Sources of racial/ethnic gap in perceived safety**



— resulting in a smaller total gap (–0.02, –0.11) between Asians and Whites than that between Asians and Whites within the same school (–0.09, –0.15). Asian students in different schools than Whites actually report higher levels of safety than their White student counterparts.

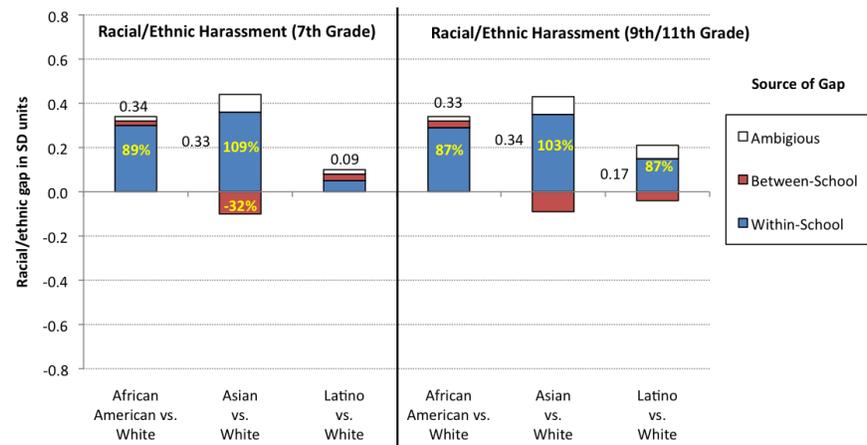
**Harassment in School.** As would be expected, students who reported that they were African American, Asian, and to a lesser extent, Latino, reported higher levels of harassment because of race, ethnicity, or national origin than White students (Figure 5). Moreover, almost all of these differences can be attributed to differences between racial/ethnic groups within the same school.

### Summary

The results of the analysis confirm that important gaps exist on academic achievement test scores and on CHKS indicators of school-related well-being between White and non-White students, although less for Asians than for other groups. Overall, non-Whites feel less connected, safe, and supported at school, and they are more likely to have been harassed for their race/ethnicity. In the majority of cases, with notable exceptions for Asians, these racial/ethnic gaps are greater within-schools than between-schools. African American, Latino, and Asian students feel less safe, engaged, and supported than their White peers in the same school. These results suggest that practices designed to ensure that African American, Latino/a, White, and Asian students have equal access to academic resources and adult supports within the same school may be effective in ameliorating the academic achievement gap, the school engagement gap, the developmental supports gap, and the school safety gap.

**Suggested Citation:** Hanson, T.L., Austin, G., and Li, J. (2012). *Racial/ethnic differences in student achievement, engagement, supports, and safety: Are they greater within schools or between schools in California?* CHKS Factsheet #13. Los Alamitos: WestEd Health and Human Development Program for the California Department of Education. Available from [http://chks.wested.org/using\\_results/publications](http://chks.wested.org/using_results/publications)

**Figure 5. Sources of racial/ethnic gap harassment because of race, ethnicity, or national origin**



This document was produced by WestEd for the California Department of Education's Closing the Achievement Gap project.

### Endnotes

1 Hanson, T.L., Austin, G., and Li, J. (2012). *Racial/ethnic differences in student achievement, engagement, supports, and safety: Are they greater within schools or between schools in California?* Los Alamitos: WestEd Health and Human Development Program for the California Department of Education. Available from [http://chks.wested.org/using\\_results/publications](http://chks.wested.org/using_results/publications)

2 There are two exceptions to this finding. The English Language Arts (ELA) test score advantage for Asians relative to Whites was primarily due to between-school differences. Over 80% of the total Asian/White ELA test score gap is due to between-school differences among Asians and Whites. That is, most of the difference in ELA test scores is due to the differences in Asian and Whites who attend different schools. Second, the greater levels of perceived safety of Whites relative to African Americans and Latinos is due equally to both within- and between-school differences, except for Latinos in middle schools, where the gap is primarily due to between-school differences.

### References

- Austin, G., Nakamoto, J., and Bailey, J. (2010). *Racial/ethnic differences in school performance, engagement, safety, and supports*. CHKS Factsheet #10. Los Alamitos, CA: WestEd Health. Available from [http://chks.wested.org/using\\_results/publications](http://chks.wested.org/using_results/publications)
- Hanson, T.L., & Bono, G., Zheng, H., & Austin, G. (2008) *Academic performance and school-related well-being in California schools*. San Francisco: WestEd.
- Page, L.C., Murname, R.J., and Willet, J.B. (2008). Understanding trends in the Black-White achievement gap: The importance of decomposition methodology. Harvard Graduate School of Education Working Paper. Downloaded on 2/29/12 from: <http://www.agi.harvard.edu/events/2007Conference/Papers.php>