

Are School–Level Supports for Teachers and Teacher Collegiality Related to Other School Climate Characteristics and Student Academic Performance?

Effective learning conditions for students must begin with effective working conditions for staff.¹ In this Factsheet, we use California School Climate, Health, and Learning Survey System (Cal–SCHLS) data to describe how supportive and collegial school environments for teachers are related to California's School Climate Index and student perceptions of the availability of developmental supports, as well as to student academic performance, as measured by California's Academic Performance Index (API). The results reveal that, overall, California high schools that provide supportive working conditions for teachers and exhibit high teacher collegiality, are higher in student perceptions of a positive school climate and school connectedness, and in student performance on the state's standardized tests.

Before describing how teacher relationships and supports are related to school climate and student academic performance, we briefly summarize research describing why staff relationships are an important consideration in school climate improvement efforts.

WHY ARE STAFF SUPPORTS AND RELATIONSHIPS IMPORTANT?

Teacher quality is consistently identified as the most important factor influencing a students' academic

achievement (Hattie, 2009; Sanders & Rivers, 1996). Despite their importance, however, the well-being of teachers is often ignored until their job performance begins to suffer, typically after the burnout cycle is underway. Sadly, among the most important factors contributing to teacher burnout are poor supports and collegial relationships. Whereas there is wide recognition of the need for positive, caring relationships between teachers and students, not enough attention has been paid to the need for positive, collegial relationships among school staff for both retaining high-quality teachers and improving school climates for students. Positive, productive working relationships with peers are among teachers' most frequently cited reasons for staying in the teaching profession (Loeb, Darling–Hammond, & Luczak, 2005). Conversely, relationships characterized by low levels of trust and respect among colleagues are increasingly implicated in studies of teacher attrition, which show that more than 10 percent of new teachers leave the profession after their first year (Berry, Smylie, & Fuller, 2008; Kaiser, 2011). Among the key evidence-based recommendations for improving teacher effectiveness and retention in California is the need to build healthy working environments characterized by supportive teacher relationships (Futernick, 2007).

Lack of perceived support in collegial relationships is related to symptoms of depression and anxiety (Mahan et al., 2010), exhaustion, and reduced empathy, and negatively related to the sense of personal accomplish-

¹ See the Cal–SCHLS Guidebook, *Making Sense of School Climate*, which can be downloaded from californias3.wested.org/tools.

ment (Halbesleben, 2006). Teachers experiencing these burnout characteristics begin to feel a reduced sense of efficacy, which results in them becoming increasingly detached from their students and colleagues (Browers & Tomic, 2000). Burned-out teachers make fewer attempts to engage their students in the learning process and exhibit reduced effort in building working relationships with colleagues. Students are less likely to succeed in school when they are served by teachers who do not receive adequate social and professional support in the workplace.

Ideally, teachers should be provided with thoughtfully organized opportunities to build the types of healthy working relationships with colleagues that protect them from the effects of burnout and, ultimately, support the academic achievement and social-emotional well-being of the youth they serve. For research-based strategies to support the development of healthy, supportive relationships among teachers, refer to *S3 What Works Brief #10: Improving Staff Climate* (O'Malley & Eklund, 2012); available for download at californias3.wested.org/tools.

SAMPLE & MEASURES

Data for this analysis were collected from 554 public high schools in California during the 2008/09 and 2009/10 school years. Data included student responses to the California Healthy Kids Survey (CHKS) as well as teacher responses to the California School Climate Survey (CSCS). To be included in the sample, schools needed to have administered both the CHKS and CSCS.

SUPPORTIVE RELATIONSHIPS AMONG TEACHERS. We assess two aspects of supportive relationships among teachers—school supports for teachers and teacher collegiality. Both measures are based on teacher responses to the CSCS. Although respondents to the CSCS come from numerous staff groups (e.g., administrators, classified staff, counselors/psychologists), only teachers' responses were used for this analysis. We measure school supports for teachers by averaging the following two items: *This school ...* (a) is a supportive and inviting place for staff to work and (b) promotes trust and collegiality among staff ($\alpha=0.89$). Responses ranged from Strongly Disagree (1) to Strongly Agree (5). After averaging the items for

each respondent, school-level averages were calculated to create a school-level measure. All the schools in the sample were then classified into quartiles based on the school-level averages.

Using an analogous procedure, teacher collegiality was measured based on responses to the following two items: *How many adults at this school ...* (a) have close professional relationships with one another, and (b) support and treat each other with respect ($\alpha=0.82$). Responses ranged from *Almost None* (1) to *Nearly All* (5).

SCHOOL CLIMATE INDEX (SCI). The SCI is used as a global indicator of school climate. It provides a state normed, school-level description of several non-academic factors that are known to influence learning success in schools. Scores on the SCI are based on student CHKS data and school-level truancy incident data. It is calculated by computing the weighted average of three domains: (1) *Supports and Engagement* (45%); (2) *Violence, Victimization, and Substance Use at School* (45%); and (3) *Truancy Incidents* (10%). SCI scores can range from 100 to 500, with higher scores representing more positive school climates. During the 2008/10 period, the average SCI score for all comprehensive high schools in California was 300. In order to compare the student results across quartiles of teacher-reported school and peer supports, SCI percentile scores were converted to normal curve equivalent (NCE) scores based on the distribution of scores among all 789 high schools that administered the CHKS over the two year period 2008/10. For normally distributed scores, the NCE score is 99 if the percentile rank score is 99, and the NCE score is 1 if the percentile rank score is 1. NCE scores are on an equal-interval scale, and can be averaged.

The SCI was developed by WestEd for the California Department of Education (CDE) as part of the federally-funded Safe and Supportive Schools (S3) Project. All schools participating in the S3 Project received their SCI in a *School Climate Report Card*, all of which are publicly posted at californias3.wested.org. Other schools can request a similar report card as a custom service by contacting their CHKS Regional Center.

DEVELOPMENTAL SUPPORTS. Three subdomains of the SCI were used to measure the availability of developmental sup-

ports for students at the school—High Expectations and Caring Relationships, Opportunities for Meaningful Participation, and School Connectedness. The items constituting each of these dimensions were defined by a factor analytic study of the California Healthy Kids Survey (Hanson, 2012). School-level averages were calculated to create school-level measures of developmental supports, and then state percentile scores were calculated for all the high schools that administered the CHKS in the state. In order to compare the student results across quartiles of teacher reported supports and collegial relationships, the state percentiles of each of these student-reported dimensions were converted to NCE scores.

- » **HIGH EXPECTATIONS AND CARING RELATIONSHIPS.** The High Expectations and Caring Relationships dimension was measured using the following six CHKS items: *At my school there is ...* (a) an adult who really cares about me, (b) an adult who tells me when I do a good job, (c) an adult who notices when I am not there, (d) an adult who always wants me to do my best, (e) an adult who listens to me when I have something to say, and (f) an adult who believes I will be a success.
- » **OPPORTUNITIES FOR MEANINGFUL PARTICIPATION.** The Opportunities for Meaningful Participation dimension was measured using the following three CHKS items: *At school ...* (a) I do interesting activities, (b) I help decide things like class activities and rules, and (c) I do things that make a difference.
- » **SCHOOL CONNECTEDNESS.** The School Connectedness dimension was measured using the following four CHKS items: (a) I feel close to people at this school, (b) I am happy to be at this school, (c) I feel like I am a part of this school, and (d) The teachers at this school treat students fairly.

ACADEMIC PERFORMANCE INDEX (API). Academic performance is assessed with the API—the cornerstone of California’s accountability system. The API is a school-level, summary measure of academic performance that is calculated by converting a student’s performance on statewide assessments (i.e., California Standardized Tests and California High School Exit Examination (CAHSEE)) across multiple content areas into points on the API scale. These points

are then averaged across all students and all tests to create an API. API scores range from 200 to 1000.

RESULTS

SCHOOL CLIMATE INDEX. Figures 1 and 2 display the relationship of teachers’ perceptions of school supports for teachers and collegiality to the School Climate Index (SCI). Recall that the SCI is based exclusively on *student-reported* CHKS data and school-level truancy incident data. The index captures three domains of school climate from the perspective of students: supports and engagement; violence, victimization, and substance use at school; and truancy incidents. Figures 1 and 2 show that school-level SCI scores vary substantially by teachers’ perceptions of school supports and collegiality. In general, the higher the level of school supports for teachers and the greater the number of teachers at a school who feel that their colleagues are respectful and supportive of one another, the higher the school’s SCI score. Schools with the lowest levels of school supports for teachers and collegiality have an average state SCI NCE percentile of 41. SCI average NCE percentiles then increase for each successive quartile, with high schools in the highest quartile exhibiting average SCI NCE percentiles of between 62 and 63. The difference in SCI scores between the top and bottom quartiles is more than one standard deviation in magnitude—a substantial difference. Clearly, school supports provided to teachers and supportive relationships among teachers are strongly related to student reports of school climate.

Figure 1. School Climate Index by School Supports for Teachers

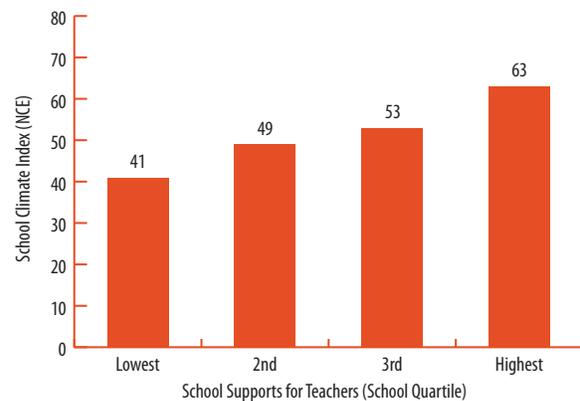
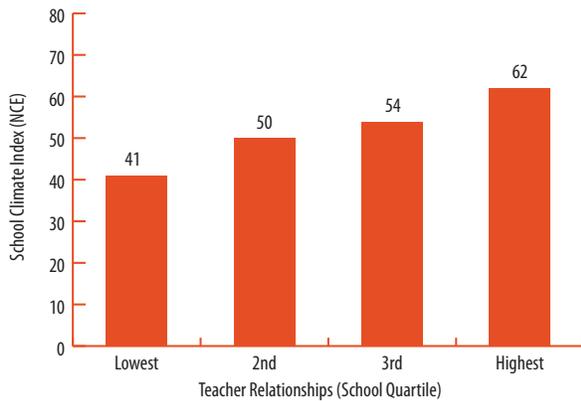


Figure 2. School Climate Index by Teacher Collegiality



DEVELOPMENTAL SUPPORTS FOR STUDENTS. Figures 3 and 4 show how school supports for teachers and teacher collegiality are related to three subdomains of the SCI that assess the availability of developmental supports for students at school—high expectations and caring relationships, opportunities for meaningful participation, and school connectedness. Consistently, students' perceptions of developmental supports at school increase as their teachers report higher levels of school supports and collegiality.

» **HIGH EXPECTATIONS AND CARING RELATIONSHIPS.** High levels of school supports for teachers and teacher collegiality are positively related to students' perceptions of high expectations and caring relationships with adults at their schools. In schools at the lowest quartile of school supports for teachers and collegiality, students' reports of high expectations and caring relationships only reach a state NCE percentile of 41–42. For each successive quartile of staff collegial support, the student perception of high expectations and caring relationships improves, reaching an average state NCE percentile of 60 for the highest quartile.

» **OPPORTUNITIES FOR MEANINGFUL PARTICIPATION.** Schools with higher scores on school supports for teachers and teacher perceptions of positive, respectful collegial relationships had larger percentages of students who reported having meaningful opportunities to participate at school. In schools at the lowest quartile of teacher supports, students' reports of opportunities

for meaningful participation reach a state NCE percentile of 40–41. For each successive quartile of staff collegial support, the student perception of meaningful participation improves, reaching an average state NCE percentile of 60–61 for the highest quartiles.

» **SCHOOL CONNECTEDNESS.** School supports for teachers and teacher collegiality were also positively related to students' connectedness to school. In schools at the lowest quartile of school supports and collegiality, students' reports of school connectedness reach a state NCE percentile of 39, compared to an average state NCE percentile of 62–63 for the highest quartile.

Overall, the results indicate that schools that are able to foster a socially supportive environment for teachers are more likely to be able to meet the developmental needs of students and to promote students' school connectedness.

Figure 3. Developmental Supports for Students by School Supports for Teachers

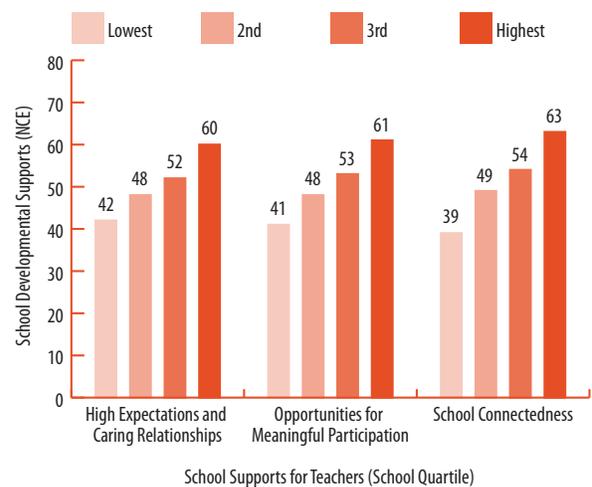
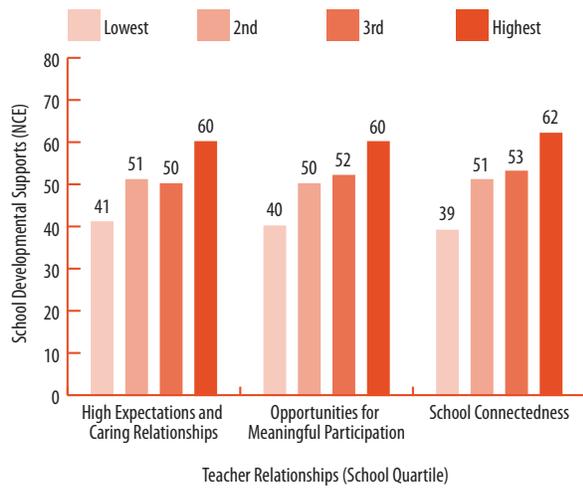


Figure 4. Developmental Supports for Students by Teacher Collegiality



ACADEMIC PERFORMANCE. Figures 5 and 6 show how school supports for teachers and collegiality are related to academic performance. The figures show that schools that provide more school supports for teachers and exhibit higher levels of teacher collegiality have higher API scores. For school supports (figure 5), schools in the lowest quartiles had average API scores of 731, increasing to 759 in the second quartile, 771 in the 3rd quartile, and 796 in the top quartile. The results for teacher collegiality (figure 6) are roughly similar, except the difference between the 3rd and top quartile is less pronounced for teacher collegiality than it is for school supports for teachers. For both measures, the difference in average API scores between the bottom and top quartiles is approximately one standard deviation—a substantial difference that is of similar magnitude as the differences across quartiles for the SCI and developmental supports measures described above. Overall, high academically performing schools provide more supportive work environments for teachers and exhibit higher levels of teacher collegiality—suggesting that healthy and supportive work environments translate into increased student learning in school.

Figure 5. Academic Performance Index by School Supports for Teachers

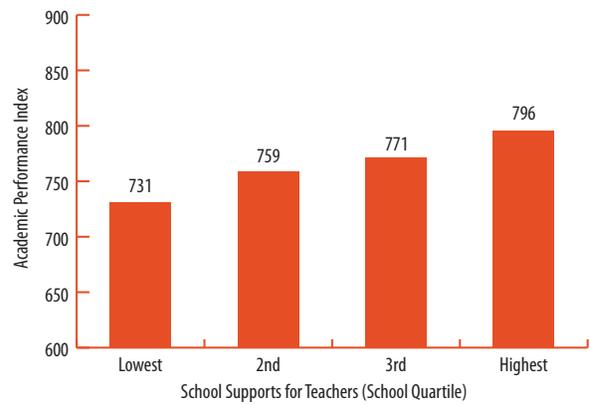
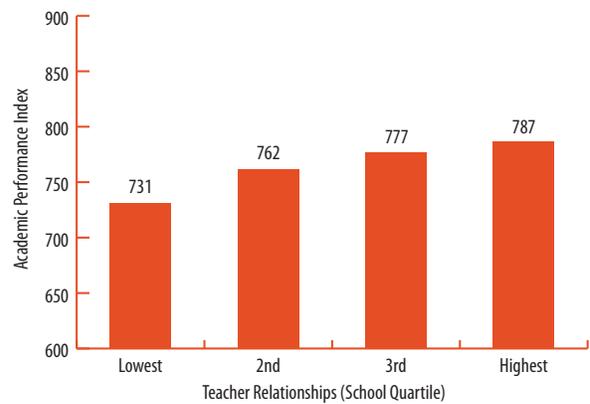


Figure 6. Academic Performance Index by Teacher Collegiality



SUMMARY

In California high schools that provide support for teachers and exhibit high teacher collegiality, overall student perceptions of school climate, as measured by the School Climate Index, is improved. Moreover, high schools that concentrate on building and sustaining positive working relationships among staff have more students who report that they enjoy a developmentally supportive environment characterized by positive adult relationships, high expectations for achievement, and meaningful opportunities to participate. Students in these high schools are also more likely to report high levels of school connectedness—to feel that they belong at school. What is more, it appears that this relationship between teacher

supports and school climate translated into increased school performance. California high schools where teachers report that the school is a supportive and inviting place to work, and that relationships with colleagues are respectful and supportive, have substantially higher academic performance, as measured by California's Academic Performance Index.

The analyses are based on non-experimental, correlational data, and thus causal inferences should not be made based on these analyses. Nevertheless, the associations between school supports for teachers and teacher collegial support to student outcomes are strong and consistent, and the results do suggest that staff perceptions of supportive collegial relationships are strongly related to student-reported outcomes. These results support previous research suggesting that providing teachers opportunities to engage in healthy, productive collegial relationships supports a positive school climate, improves conditions for learning for students, and improves academic achievement.

REFERENCES

- Berry, B., Smylie, M., & Fuller, E. (2008). *Understanding teacher working conditions: A review and look to the future*. Carboro, NC: Center for Teaching Quality. Retrieved June 15, 2012 at: http://www.teachingquality.org/pdfs/TWC2_Nov08.pdf
- Browsers, A., & Tomic, W. (2000). A longitudinal study of teacher burnout and perceived self-efficacy in classroom management. *Teaching and Teacher Education, 16*, 239–253.
- Futernick, K. (2007). *A possible dream: Retaining California's teachers so all students learn*. Sacramento: California State University. Retrieved May 18, 2012 from http://www.calstate.edu/teacherquality/documents/possible_dream.pdf
- Halbesleben, J. (2006). Sources of social support and burnout: A meta-analytic test of the conservation of resources model. *Journal of Applied Psychology, 91*, 1134–1145. doi:10.1037/0021-9010.91.5.1134
- Hanson, T. (2012). *Construction of California's School Climate Index (SCI) for high schools* (White paper). San Francisco, CA: Health and Human Development Program, WestEd.
- Hattie, J. A. C. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London, UK: Routledge.
- Kaiser, A. (2011). *Beginning teacher attrition and mobility: Results from the first through third waves of the 2007–08 Beginning Teacher Longitudinal Study* (NCES 2011–318). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubs2011/2011318.pdf>
- Loeb, S., Darling-Hammond, L., & Luczak J. (2005). How teaching conditions predict teacher turnover in California schools. *Peabody Journal of Education, 80*, 44–70.
- Mahan, P. L., Mahan, M. P., Park, N. J., Shelton, C., Brown, K. C., & Weaver, M. T. (2010). Work environment stressors, social support, anxiety, and depression among secondary school teachers. *AAOHN Journal, 58*, 197–205. PMID: 20415318
- O'Malley, M. D., & Eklund, K. (2012). *What Works Brief #10: Staff Climate Improvement*. Los Alamitos, CA: WestEd.
- Sanders, W., & Rivers, J. (1996). *Cumulative and residual effects of teachers on future student academic achievement*. Knoxville, TN: University of Tennessee Value-Added Research and Assessment Center. Retrieved June 14, 2012 from: http://www.beteronderwijsnederland.nl/files/cumulative_and_residual_effects_of_teachers.pdf
- Suggested citation:** O'Malley, M. D., Hanson, T., & Zheng, C. (2012). *Are school-level supports for teachers and teacher collegiality related to other school climate characteristics and student academic performance?*. S3 Factsheet #4. Los Alamitos, CA: WestEd.

Prepared by WestEd for the California Department of Education, under contract for the Safe and Supportive Schools Initiative.