THE HEALTHY KIDS/SCHOOL CLIMATE SURVEY READER

DECEMBER 2010

This document summarizes research that has been conducted based on, or about, the Healthy Kids School Climate Surveys (HKSCS) for students and school staff. Studies are categorized into four sections:

» Articles and reports about students and schools

» Factsheets

» Research conducted outside of the United States

» Psychometric studies of the instruments

Since 2003, these surveys have been administered biennially by almost every school district in California. The student survey (the *California Healthy Kids Survey* [CHKS]) was developed in 1999 and the staff survey (the *California School Climate Survey* [CSCS]) in 2003. Along with a new companion parent survey, they comprise the *California School Climate, Health, and Learning Survey System* (Cal-SCHLS). This is the largest, most comprehensive effort in the United States to provide data to local schools/communities to identify and address the needs of students and schools and to improve efforts to promote academic achievement and well-being for all youth.[1] They are also used statewide in West Virginia's and Louisiana's Safe and Supportive Schools Project. As part of the National Evaluation of the federal Safe Schools/Healthy Students Program, the staff survey has been administered annually in about 3,000 schools across the nation since 2006. The student survey has been used effectively in research across the globe, including Australia, China, Jamaica, South Africa, and Turkey.

The value of these surveys lies not only in the contribution of the data for school and community program decision-making at the local level. They have also been widely used in research because of the large size and value of the survey database, and because they are pioneering, psychometrically-robust efforts to assess school climate and resilience-promoting protective factors. Most of the research falls into five areas: (1) the characteristics of specific population groups and school types; (2) how health, safety, and educational factors are related; (3) how school developmental supports and other school climate factors, school connectedness and engagement, and academic

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1   The surveys were developed by WestEd under contract from the California Department of Education. For more information, visit the survey websites: www.chks.wested.org, www.cscs.wested.org, and www.cal-schls.wested.org

achievement are related; (4) how risk and protective factors are related; and (5) how schools that receive specific grants or share some other common characteristic differ from other schools. The population groups studied include students in alternative high schools and foster care, the homeless, gang members, racial/ethnic groups, and youth who have experienced victimization, harassment, and bullying at school. In most cases, the research would not be possible without such a large, comprehensive dataset. Research has consistently supported its theoretical framework linking the school environment to student engagement and to positive academic and health outcomes.

The surveys are among the nation's first efforts at large-scale strength-based assessment at the individual and school-climate levels, including environmental supports that have been linked to positive academic, psychosocial, developmental, and health outcomes. The size of the database, and the robust psychometric qualities of the instruments, have helped advance and make the case for assessing social-emotional health, environmental supports, and strength-based assessment in general.

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» Resilience and youth development (Benard & Slade 2009; Zheng, Hanson, & McCarthy 2003)

» Risk, resilience, and academic performance (hanson, Austin, & Lee-Bayha, 2003, 2004, 2005; Hanson, Austin & Zheng 2011; Hanson et al. 2004)

» Racial/ethnic group differences (Austin et al. 2007—CHKS factsheet 8; Gandara 2011; Hanson & Trinidad 2003; Kim & McCarthy 2006)

» School violence (Furlong et al. 2001)

» Bullying and harassment (Heck et al. 2005—CHKS factsheet 4; O'Shaughnessy et al. 2004; Felix, Furlong & Austin 2009; Felix & You 2010; Juvonen 2010; You et al. 2008)

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STAFF SCHOOL CLIMATE SURVEY

» California statewide survey results (Austin &Bailey 2008)

» National survey results (SSHS National Evaluation Team 2009)

I. Research on Students and Schools

Austin, G., & Bailey, J. (2008). *What teachers and other staff tell us about California schools: Statewide results of the 2004-2006 California School Climate Survey.* Report prepared for the California Department of Education. San Francisco: WestEd. Report available from, http://www.wested.org/cs/cscst/print/docs/cscst/rr.htm

This report summarizes the first two years of data (2004-06) collected from teachers, administrators, and other staff by the California Department of Education's on-line *California School Climate Survey* (CSCS). The data were derived from 67,901 staff in 4,136 schools in 535 districts across the state — making this the largest study ever conducted of staff *perceptions* of school climate in California. Key findings include:

» There is a consistent decline from elementary to high school across indicators of a positive learning *and* teaching environment (e.g., caring staff-student relations, achievement standards and expectations, and meaningful student participation in school).

» There is a concomitant decline in indicators of student motivation to learn, attendance, and other behaviors that facilitate learning.

» There is a dramatic increase from elementary to high school in the perceived severity of problems that the schools experience related to student risk behaviors, health, and safety (e.g., substance use, vandalism, theft, weapons possession, violence, gang activity). Conversely, perceived school safety dramatically declines.

» In stark contrast to this pattern of increasing challenges, there is a marked decline from elementary to high school in services and policies that address the behavioral and health problems students experience and that form barriers to learning.

» Across school types, there was a strong association at the school level between positive school climate factors and student academic performance, as measured by the Academic Performance Index.

» The findings highlight the need for high school reform, revealing not only the challenges high schools face, but also their need to better address those challenges. Less than half of high school staff felt most or nearly all students were motivated to learn. Only 40% strongly agreed their high school is a supportive and inviting place for students to learn.

Austin, G., Dixon, D., Berliner, B., and Bailey, J. (2008). *Continuation high schools in California: What we know and need to know.* Report prepared for the Irvine Foundation as part of the California Alternative Education Research Project. San Francisco: WestEd.

Data from the California Healthy Kids and School Climate Surveys, the characteristics of schools from the California Basic Educational Data System (CBEDS), state annual standardized tests (STAR), graduation exam (CAHSEE), and other state information sources were examined to profile the current characteristics of students in continuation high schools and community day schools. The data illustrate the dimension of the challenges faced by continuation schools and their students. They are highly vulnerable youth with multiple risk factors and a great deal of turbulence in their lives. Continuation schools are charged with providing alternative ways of helping at risk students to remain in school and meet state performance standards common to all students. But

these academic efforts cannot be separated from the need to address the high level of nonacademic learning barriers that continuation students experience. These data illustrate as well the need for highly skilled educators who can combine instructional content knowledge with strong behavior management skills and a deep understanding of youth development.

CHKS, CSCS, and CBEDS data were examined for factors that might account for why some continuation schools perform better than others. Among the indicators significantly linked to higher Academic Performance Index (API) scores from the state's standardized tests were student perceptions about how connected they felt to the school, school safety, and about the presence of caring relationships, high expectations, and opportunities for meaningful participation in their schools. As well, higher school APIs were associated with staff reports of student behaviors that facilitate learning (including being healthy, alert, ready to learn, and well-behaved) and of low levels of substance use as a problem at the school. This underscores again how closely connected are academic and nonacademic factors in these schools.

Benard, B., & Slade, S. (2009). Listening to students. In M. Furlong, R. Gilman, and Heubner, S., eds. *Moving from resilience research to youth development practice and school connectedness.* Chapter 26.

A process is described for improving schools by moving them from a deficit perspective to a position of resilience-promotion using youth development as a practice in which students become partners. This approach involves facilitated discussions with students about their school and how it can be improved, making optimal use of strengths-based survey data from the California Healthy Kids Survey grounded in resilience theory and research. The paper highlights how the resiliency framework is effective in interactions with all students and not only those deemed by some to be "at-risk." The underlying theme is that everyone harbors resilience and is able to learn and develop the skills and understandings associated with resilience theory. When this approach is taken, everyone benefits—the individual, the school setting, and the community.

California Department of Health Services. (2004). Asthma in schools: Results from the California Healthy Kids Survey. *California Asthma Facts*, 2(3), October 2004.

Asthma is the most prevalent chronic disease among children. Results from the California Healthy Kids Survey (CHKS) indicate that nearly one in five students have asthma. Asthma prevalence rates were highest among Black students. Also, one-third of students experienced one or more asthma-like symptoms during the last year.

Children Now. *California Report Card, 2006-07: The state of the state's children.* Updated annually.

Children Now. (2009). *California County Scorecard of children's well-being: Creating healthier communities for our future.*

Davis, Adam; Kreutzer, R., Lipsett, M., King, G., & Shaikh, N. (2006). Asthma prevalence in Hispanic and Asian American ethnic subgroups: Results from the California Healthy Kids Survey. *Pediatrics*, 118, 363–370.

Davis, Adam, et al. (2007). As association between asthma and BMI in adolescents: Results from the California Healthy Kids Survey. *Journal of Asthma*, 44(1), 873–879.

The relationship between asthma prevalence and BMI is examined in a cross-sectional survey of 471,969 adolescents. The size of the survey allowed us to investigate this relationship with much greater resolution than previously possible. Both lifetime and current asthma prevalence increased monotonically with increasing BMI, starting with individuals as low as the 45th to 55th percentiles of BMI. The pattern was similar between males and females and among six racial/ethnic groups. The results suggest that weight reduction even among persons not classified as overweight or obese may be an important component of asthma management.

Davis, Brennan, & Carpenter, C. (2009). Proximity of fast-food restaurants to schools and adolescent obesity. *American Journal of Public Health*, 99(3), 505-510.

Exposure to poor-quality food environments has important effects on adolescent eating patterns and overweight. Policy interventions limiting the proximity of fast-food restaurants to schools could help reduce adolescent obesity.

This study examined the relationship between fast-food restaurants near schools and obesity among middle and high school students in California using used geocoded data (obtained from the California Healthy Kids Survey) on over 500,000 youths and multivariate regression models to estimate associations between adolescent obesity and proximity of fast-food restaurants to schools. Students with fast-food restaurants near (within one half mile of) their schools (1) consumed fewer servings of fruits and vegetables, (2) consumed more servings of soda, and (3) were more likely to be overweight (odds ratio [OR] = 1.06; 95% confidence interval [CI] = 1.02, 1.10) or obese (OR=1.07; 95% CI = 1.02, 1.12) than were youths whose schools were not near fast-food restaurants, after we controlled for student- and school-level characteristics. The result was unique to eating at fast-food restaurants (compared with other nearby establishments) and was not observed for another risky behavior (smoking). The study shows, despite these limitations, that exposure to poor-quality food environments has important effects on adolescent eating patterns and overweight. Policy interventions limiting the proximity of fast-food restaurants to schools could help reduce adolescent obesity.

Dowdy, Erin; Furlong, M., & Sharkey, J. (forthcoming). Using surveillance of mental health to increase understanding of youth involvement in high risk behaviors: A value added analysis. *Journal of School Health*, under review.

This study examines the utility of adding a mental health screener to current surveillance techniques for enhanced identification of at-risk youth and to increase awareness of the complexity of their needs.

In 2009, 3,331 students in 8th, 10th and 12th grades in a large, central California school district were co-administered a mental health survey and items from the California Healthy Kids Survey. Stepwise logistic regression examined the added predictive association of elevated mental health risk (EMHR) to risk behaviors after entering student responses to an item assessing chronic sadness.

Both chronic sadness and EMHR were significantly associated with increased risk of suicide ideation, cigarette use, alcohol use, binge drinking, marijuana use, physical fighting, being threatened or injured with a weapon, and skipping school. Chronic sadness was significantly associated with all eight risk behaviors for both females and males. After accounting for the variance attributable to chronic sadness, the change in variance explained by EMHR

was significant for all eight risk behaviors. The combination of chronic sadness and EMHR increased precision of identifying youth engaging in risk behaviors.

This study found that youth who reported both chronic sadness and EMHR had the highest rates of risk behaviors. A balanced approach to youth surveillance that includes additional mental health content could provide additional directions for intervention and provide a more comprehensive understanding of youth risk behaviors.

Estrada, Jose. (2010). *Understanding gang membership: Examining school-related risk and protective factors.* PhD Qualifying Examination Paper, University of Southern California.

While research on risk and protective factors associated with gang membership has been gathered for years, empirical evidence uncovering the extent school dynamics contribute to gang membership is limited. This large-scale study aims to explore gang membership across the State of California, test associations between school violence behaviors and gang membership, and employ an ecological perspective to investigate individual, peer, and school risk and protective factors predictive of gang membership. A sample consisting of 606,815 students from 57 different counties in California was gathered using data from the California Healthy Kids Survey research project. Results indicate prevalence of gang membership is no longer limited to large metropolitan areas. Percent of gang membership is highest in lower grades and declines as students get older. Statistically significant differences exist between gang and non-gang members on school violence variables. Predictors from individual, peer and school domains were found to be significantly associated with gang membership. Implications for school-based policies and interventions and well as suggestions for future research are discussed.

Felix, Erika; Furlong, M., and Austin, G. (2009) A cluster analytic investigation of school violence victimization among diverse students. *Journal of Interpersonal Violence*, 24(10), 1673–1695. Online version: http://jiv. sagepub.com/cgi/content/abstract24/10/1673.

Despite nationwide improvements in school safety, victimization at school continues and affects the well-being of a significant number of students. This study uses CHKS data to address the multiple victimization experiences of secondary students at school. The authors identify subgroups of students based on victimization experience; assess how perceptions of being targeted due to bias relate to cluster membership; and relate victimization to perceptions of school safety, depression, grades, truancy, and internal assets. Victimization rates are given across grade, gender, and ethnicity. Cluster analysis reveals five victimization subgroups: (1) nonvictims, (2) polyvictims, and victims who are predominantly (3) sexually harassed, (4) physically victimized, and (5) teased. Compared to nonvictims, students who are victimized report worse outcomes on measures of psychosocial adjustment, with polyvictims faring the worst. Victims are more likely to perceive that they are targeted due to their gender or perceived sexual orientation. Implications for research and practice are provided.

Felix, Erika, & You, S. (2010. In review.) Peer victimization within the ethnic context of high school. University of California, San Barbara.

Risk for peer victimization tends to vary by ethnicity, but most studies have examined this at the individual-level only, which fails to explore how the ethnic context of the school can affect this. Using a large sample of 9th and 11th grade students who participated in the California Healthy Kids Survey, we used hierarchical linear modeling to explore victimization risk by ethnicity within the ethnic context of the school. Models predicted total, physical,

verbal and sexual harassment victimization. At the individual level, the model included sex, ethnicity, and the percent of same ethnicity students at the school. At the school-level, the variables measured included diversity, overall perception of school safety, mean victimization level, and mean perception that they were targeted due to their race/ethnicity. Overall, we found support that the ethnic context matters when looking at victimization risk. Results showed that the individual-level variables had a stronger relationship to victimization risk, across subtypes, than the school-level variables. This supports the use of interventions targeted at students, such as much of the content of current violence prevention, conflict resolution, or other social-emotional prevention curriculum. At the individual-level, having more same-ethnicity peers in the school reduced victimization, providing group protection from prejudice and discrimination. Native Americans had the highest rates of victimization, and it is unlikely at many schools that they would have many same ethnicity peers to provide support and shift the balance of power at school. At the school-level, greater diversity decreased victimization. This is likely because, when school diversity includes equal group status, common goals, cooperation, and the support of adults in the school, this can create conditions where harassment and bullying due to race / ethnicity disappears. many same ethnicity peers to provide support and shift the balance of power at school. Mean victimization and school safety were also related to most victimization types. Results are reported by grade and victimization type.

Ferguson, Krisin, & Xie, B. (In review.) Mediating effects of social capital on substance use among homeless youths who attend high school. University of Southern California

This study is unique in identifying risk and protective factors associated with high-school-attending homeless youths' substance use with data from the California Healthy Kids Survey, a representative district-level survey of all high-school students in grades 9 and 11 in comprehensive and continuation schools across the state.

A sub-sample of 2,146 homeless youths (70.3% male) was formed of all CHKS respondents who indicated that their primary living situation was in a shelter or on the street, in a car or van, park campground or abandoned building. Model variables included gang membership, partner abuse, truancy, drug-related problems and social capital. The proposed theoretical model was tested via structural equation modeling (AMOS 17.0) using maximum likelihood parameter estimation.

Greater substance use was reported by homeless youths who identified as gang members, experienced partner abuse, were frequently truant, and had more drug-related problems. Lower levels of substance use were reported by youths who reported higher levels of social capital. Additionally, social capital acted as a mediator between the proposed risk factors and substance use. Collectively, gang membership, partner abuse, truancy, drug-related problems, and social capital explained 40% of the variance in homeless youths' substance use. Mediation effects accounted for between 8-16% of the total effects.

Findings expand extant work on homeless youths' substance use by highlighting the mediating effects of social capital on oft-cited risk factors. School-based interventions designed to reduce homeless youths' substance use need to address these risk factors while strengthening the youths' connections to supportive adults outside of school.

Gandara, Patricia. (2011, in press). *Closing the achievement gap for Latino youth in California: Addressing the health and other underlying root causes.* Paper prepared for the California Education Supports Project.

Hanson, T. L., & Austin, G. (2003). *Student health risks, resilience, and academic performance in California: Year 2, longitudinal analysis.* Report to the Stuart Foundation. San Francisco: WestEd. http://www.wested.org/cs/chks/print/docs/chks_health.html
Summary published as Hanson, Austin, & Lee-Bayha 2004.

Hanson, T.L., Austin, G., and Lee-Bayha, J. (2003). *Student health risks, resilience, and academic performance: year 1 report.* Report to the Stuart Foundation. San Francisco: WestEd. http://www.wested.org/cs/chks/print/docs/chks_health.html

Hanson, T., Austin, G., and Lee-Bayha, J. (2004). *Ensuring that no child is left behind: How are student health risks & resilience related to the academic progress of schools?* WestEd: San Francisco. http://www.wested.org/cs/chks/print/docs/chks_health.html

California secondary schools made greater progress in raising standardized test scores over a one-year period when they had higher percentages of students who are less engaged in risky behaviors such as substance use and violence, who are more likely to eat nutritiously and exercise, and who report caring relationships and high expectations at school, as measured by the Healthy Kids Survey. These results suggest that addressing the health and developmental needs of youth is a critical component of a comprehensive strategy for meeting the accountability demands for improved academic performance. Efforts to improve schools should go beyond the current emphasis on standards and accountability measured by test scores. Policies and practices focusing exclusively on increasing test scores while ignoring the comprehensive health needs of students are almost certain to leave many children, and many schools, behind. Specifically:

» District and school leaders can take steps that may promote student achievement by increasing student access to moderate-to-vigorous physical activity in physical education classes, monitoring the nutritional content of food offered at school, and promoting greater awareness among students about their physical health and nutrition.

» Crime, violence, antisocial behavior, and other types of social disorganization on school campus can have adverse consequences for student learning and should be targeted with comprehensive prevention programs.

» School practices that provide students with supportive, caring connections to adults at the school who model and support healthy development, and that provide clear and consistent messages that students can and will succeed hold great promise for addressing the developmental needs of children and improving student learning.

Hanson, T., Austin, G., & Lee-Bayha, J. (2005). The Academic Performance Index, student health-risk behavior, and resilience. In: *Getting results: Update 5, Student health, supportive schools, and academic success.* Sacramento, CA: California Department of Education. pp. 21-36.

Hanson, T., Austin, G., & Zheng, C. (2011) Academic performance and school well-being. Paper prepared for the California Education Supports Project. Los Alamitos: WestEd.

California students in low-performing secondary schools (as gauged by their Academic Performance Index) consistently report significantly lower levels of school engagement, safety, and supports on the California Healthy

Kids Survey than students in high-performing schools. These measures reflect the degree to which students experience a positive school climate or "school well-being." As academic Performance Index scores rise. so do the rates of school well-being across seven measures. This relationship largely persists even after taking into consideration how schools differ in socioeconomics, racial/ethnic composition, and other demographic characteristics. Efforts to turn around low-performing schools may be enhanced by fostering learning supports that make these schools more safe, caring, challenging, participatory, and engaging. High schools exhibit particularly low levels of school well-being. Only about one-third of students in the lowest-performing high schools perceived their schools as safe or experienced caring adult relationships and high expectations. Only around one-quarter felt connected to school.

Both academic performance and school well-being also consistently and significantly varied in similar ways in relation to the racial/ethnic compositions of California schools. They were lower in predominantly Hispanic and, especially African American/Hispanic, schools than in predominantly White and Asian schools. Controlling for SES and other school demographic characteristics reduced these racial/ethnic group differences but they still remained. There is not only an achievement gap, but a school safety gap, engagement gap, and student supports gap. Efforts to close the achievement gap should include learning supports that foster caring adult relationships, high expectations, meaningful participation, safety, and connectedness in schools serving large proportions of African American and Hispanic students.

Hanson, T., Cason, C., & Gopal, Ml. (2008). *Safe Schools/Healthy Students funding and changes in student well-being: A California Consortium cross-site analysis.* Final project report to the Research Triangle Institute. San Francisco: WestEd.

Since 1999, the Safe Schools/Healthy Students (SS/HS) Initiative has provided communities with funding to implement a comprehensive set of activities, curricula, programs, and services that focus on creating safe school environments, promoting healthy childhood development, and preventing youth violence and alcohol, tobacco, and other drug (ATOD) use. To date, however, little evidence has been disseminated regarding the effectiveness of the initiative in improving health-related behavior, protective factors, and student academic performance. Eleven 2002 SS/HS grantees sites in California (known as the California Consortium) collaborated on a cross-site evaluation of the SS/HS initiative in the state using common outcome data provided by the California Healthy Kids Survey.

Overall, the results suggest that student health-related behavior, protective factors, and academic performance improved more in SS/HS grantee schools than in similar schools that did not receive SS/HS funding among 5th graders and 7th graders. Among 9th graders and 11th graders, SS/HS funding status was not consistently related to changes in student well-being.

Examining which grantee practices may have been most effective in improving student well-being, in the three sites that exhibited the most consistent positive program effects, more students were exposed to SS/HS services, staff received professional development in more areas, and more partners participated in the initiative in the sites with the most consistent improvements in student well-being. It is possible that these differences in program activities may be responsible for the positive impacts in some sites.

An examination of the relationship between SS/HS program activities and changes in student well-being across SS/HS sites indicated that the characteristics of SS/HS programs assessed were generally inconsistently related to

changes in student well-being – although the number of entities in the partnership was positively associated with changes in student well-being.

Hanson, T., Muller, C., Austin, G., & Lee-Bayha, J. (2004). Research findings about the relationships between student health and academic success. In: *Getting results: Update 5, Student health, supportive schools, and academic success.* Sacramento, CA: California Department of Education. pp. 5-20.

Hanson, T., & Trinidad, D. (2003). *Racial/Ethnic Group Membership, School Composition, and Adolescent Tobacco Use.* Los Alamitos, CA: WestEd

The extent to which racial/ethnic differences in tobacco use are due to the properties of schools that adolescents inhabit and the extent to which racial/ethnic differences are due to shared cultural values that span school boundaries were analyzed among approximately 200,000 11th grade students. Eleventh grade students of European American (white), Mexican, Central American, and Filipino descent have the highest rates of lifetime cigarette use. Korean American, African American, and Vietnamese American students have moderate rates of lifetime use while Chinese American students have the lowest rates of use. Among lifetime users, however, current cigarette use rates are highest among Korean students and lowest among African American students. The results suggest that there is wide variation in cigarette use across different Asian groups and that race/ethnic differences in lifetime use do not necessarily correspond with race/ethnic differences in heavy use. It also appears that lifetime- and daily tobacco use declines as the percentage of nonwhite students in schools increase, and that adolescent tobacco use is strongly associated with lower levels of psychological well-being and higher levels of illicit drug use.

Jennings, G. (2003). An exploration of meaningful participation and caring relationships as contexts for school engagement. *The California School Psychologist, 8,* 43-52.

Most models of academic performance and school engagement have neglected the influence of social and emotional variables related to academic competence. Students are motivated to learn and develop because of a drive to satisfy three core needs: competence, autonomy, and relatedness. CHKS data reveal that students who experience meaningful participation in school have higher GPAs. The data also support a positive association between meaningful participation and the development of supportive relationships with peers and adults in school. Caring Peer Relationships, but not Caring Adult Relationships were correlated with GPA, a surprising finding but one that makes sense developmentally.

Juvonen, Jaana. (2010, in press). *Bullying and violence as barriers to academic achievement.* Paper prepared for the California Education Supports Project.

Kim, Jinsook, & McCarthy, W. (2006). School-level contextual influences on smoking and drinking among Asian and Pacific Islander adolescents. *Drug and Alcohol Dependence 84,* 56-68.

In this study, the researchers seek to identify school contextual predictors of tobacco and alcohol use patterns (smoking only, drinking only, and both) among Asian and Pacific Islander (API) adolescents in California public schools and ethnic variation in determinants of substance use. The data included a sample of 26,692 Asian and 3518 Pacific Islander (PI) adolescents from the 2000-2001 California Healthy Kids Survey. School-level information (n=836 schools) was from the California Basic Educational Data System and the 2000 census.

Multilevel multinomial logistic regression was used to assess the association of school contexts with substance use patterns, controlling for individual-level factors. Pacific Islanders showed much higher prevalence of smoking and drinking than Asians, and the prevalence varied by school. School contexts were independently associated with API adolescents' substance use beyond the individual-level characteristics. The associations between school factors and outcomes also varied by ethnic group. Latino majority schools and schools with a high Asian immigrant concentration in the surrounding neighborhood had a lower risk of substance use among Asians but only to a modest degree among PIs. This study confirmed the importance of distinguishing Asians and PIs and the need for more attention to school contextual factors in adolescent substance use research.

Lynch, C. J. (2007). *Exploring the implementation of a life skills training program for adolescents in the Texas foster care system.* Ph.D. dissertation, The University of Texas at Austin, United States -- Texas. Retrieved March 21, 2008, from ProQuest Digital Dissertations database. (Publication No. AAT 3277554).

The purpose of this exploratory study was to gain an increased understanding of an independent living skills training program's impact on resilience, social support, and life skills for foster care youth participants. This study used a qualitative case study methodology and involved a non-random, purposive sample of 16 ethnically diverse youths and 9 state-level, independent living staff members. Youth participants were recruited through one of several state-contracted agencies that provided life skills training to foster care youths. Data were collected through multiple sources and were analyzed using descriptive statistics, comparisons of means, and content analysis. Scores on standardized measures of resilience, social support, and life skills, and youths' descriptions of these same constructs were also compared. The resilience measures were derived from the Healthy Kids Survey's Resilience and Youth Development Module. The change in scores on the standardized measure of social support was statistically significant ($p=.006$; $p<.05$), while overall scores on measures of resilience and life skills were not. In individual interviews, youths described negative experiences in foster care, but also several positive factors, which seemed somewhat congruent with their relatively high scores on standardized measures. Findings from this study highlighted the strengths of foster care youth and have implications for future use of strengths-based theories and frameworks, and for gender-specific life skills training. Findings also indicate important implications for teaching life skills to youths in foster care and policies related to independent living services.

McCarthy W. J., Freed, B., Hanson T. L., Zheng H, Dietsch B, & Baezconde-Garbanati, L. (2003, December). Cigarette Smoking Behavior Among California Latino Subgroups: Cuban-origin and Puerto Rican-origin Latinos Smoke More. TRDRP Annual Investigators Meeting, San Diego, California.

McCarthy W. J., Dietsch B., Hanson T. L., Zheng H., Aboelata M. (2002, December). Impact of ethnicity on boy/girl differences in tobacco use. TRDRP Annual Investigators Meeting; San Jose, California.

O'Brennan, Lindsey M., & Furlong, M.J. (2010). Relations between students' perceptions of school connectedness and peer victimization. *Journal of School Violence, 9*(4), p. 375.

This study examines the relations between student's perceptions of school connectedness and their self-reported rates of victimization (physical, verbal, and relational), as well as perceived reasons for peer victimization (ethnicity, sexuality). Data come from 8th-, 10th-, and 12th-grade students who completed the California Healthy Kids Survey as part of an evaluation of a Safe School/Healthy Students project (N = 1,253). Multivariate analyses indicate that

the main effects of both school connectedness and grade level are significant. Follow-up univariate ANOVAs reveal that school connectedness is significantly related to students' experiences of all forms of victimization and perceived reasons for victimization, whereas grade level is only related to the form of victimization experienced.

Consistent with previous research, the effect sizes for physical ($d = .29$) and relational ($d = .28$) victimization were both small; however, the effect size for verbal victimization was moderate ($d = .39$), which suggests that students perceptions of their interpersonal connections at school were most strongly associated with their experiences of direct verbal teasing and mocking.

10th graders experience more physical victimization than 11th graders, and less connectedness than 8th and 12th. May be because schools tend to welcome incoming students but may overlook mid-grade levels.

Based on the current findings, it appears students' bullying experiences are intertwined with their overall feelings of belongingness and safety in their school environment. Given this relation, schools may want to utilize whole-school prevention programs that establish school-wide rules and expectations related to student behavior and promote positive behavioral expectations, thereby altering the social norms regarding bullying behavior, such as Positive Behavior Supports (Sugai & Horner 2006) and Second Step (Committee for Children 1997) and promote interpersonal connectedness within the school system.

Furthermore: "Given the moderate relation between connectedness and victimization found in this study, school-based mental health professionals may want to use the SCS [School Climate Scale] as a screener for student involvement in at-risk behaviors and social-emotional functioning." (p. 388)

O'Shaughnessy, M. et al. (2004). *Safe place to learn: Consequences of harassment based on actual or perceived sexual orientation and gender non-conformity and steps for making schools safer.* San Francisco: California Safe Schools Coalition; and Davis, CS: The 4-H Center for Youth Development.

Four years after the enactment of the California Student Safety and Violence Prevention Act, this study examined the prevalence in the state of harassment and violence on the basis of actual or perceived sexual orientation and gender non-conformity. This study analyzes data from two sources: (1) the 2001-2002 California Healthy Kids Survey (CHKS), which includes a question about harassment based on actual or perceived sexual orientation; and (2) the 2003 Preventing School Harassment (PSH) survey, carried out by the California Safe Schools Coalition in partnership with Gay-Straight Alliance Network and a more detailed examination of school climate and harassment based on sexual orientation and gender nonconformity. These surveys reveal that:

» Harassment based on actual or perceived sexual orientation is pervasive;

» Harassment based on actual or perceived sexual orientation has dangerous consequences for students;

» School climates are unsafe for LGBT students, students perceived to be LGBT, and gender non-conforming students;

» Schools can take steps to improve safety and health for all students

In order to ensure schools are safe places for **all** students to learn, sustained action is needed at the state and local levels.

Ruiz de Velasco, Jorge, Greg Austin, Don Dixon, Joseph Johnson, Milbrey McLaughlin, & Lynne Perez. (2008). *Alternative education options: A descriptive study of California continuation high schools. A brief prepared by the California Alternative Education Research Project conducted by WestEd, the John W. Garner Center for Youth and their Communities at Stanford University, and the National Center for Urban School Transformation.*

Continuation high schools are a cornerstone of the state's dropout prevention strategy. This study summarizes the results of a series of investigations into the characteristics and effectiveness of these schools. It draws on survey results and state administrative data reviewed by staff at WestEd and detailed in a supporting technical report (Austin & Dixon, *et al*., 2008). Additionally, it draws on results from field research undertaken during the winter and spring of 2007 in 9 southern, central, and northern California counties. Within these counties, researchers visited 26 school districts and 40 schools (including 3 sending schools and 37 continuation high schools) that differed in focus, student outcomes, size, and metropolitan status. Researchers also interviewed individuals associated with county and community youth-serving agencies, such as juvenile justice, mental health, child protective services, and foster care. The results indicate that these schools of last resort may be the last schools ever attended by large numbers of California students because they are not getting the academic and support services they need to succeed.

Safe Schools/Healthy Students National Evaluation Team. (2009). *Understanding the results of the School Climate Survey, 2009 administration, staff version.* Washington, DC: Manila Corporation.

Reports the results as reported by 27,000 staff respondents nationally in 2009 across schools in districts that were awarded federal Safe Schools/Healthy Students (SS/HS) grants in 2006, 2007, and 2008. The survey was administered as part of the national evaluation of the SS/HS grant programs.

Sharkey, Jill; You, S., & Schnoebelen, K. (2008). Relations among school assets, individual resilience, and student engagement for youth grouped by level of family functioning. *Psychology in the Schools 45*(5), 402–418.

There has been recent interest in exploring factors related to student engagement due to increasing recognition that it is crucial to engage students for high levels of academic performance and to avoid negative outcomes such as delinquency, substance use, dropout, and teen pregnancy. For school-based intervention efforts, it is important that studies investigate relationships between factors influencing student engagement to understand whether school-based assets have an impact on engagement above and beyond the important influence of family and individual factors. Unfortunately, such research has been limited by a lack of valid instrumentation. After examining the psychometrics of the California Healthy Kids Survey Resilience Youth Development Module, the researchers used this risk and resilience instrument with a randomly selected sample of 10,000 diverse 7th-, 9th-, and 11th-grade students to test a model of relations between school assets, individual resilience, and student engagement for students grouped by level of family assets. Although youth in the low family asset group reported lower student engagement, multigroup structural equation modeling revealed, contrary to hypothesis, that school assets did not have a differential relation for low family asset youth compared to their high family asset peers. School assets were associated with student engagement for all groups, even accounting for individual resilience. Thus school assets are not merely protective factors, but also important assets, or promotive factors. This result is meaningful in showing the importance of school assets for all students, not just those who are at risk. This is consistent with research showing that student perceptions of caring teacher relationships are related to psychological feelings of engagement for students from diverse backgrounds. Although direct relations between school assets and Internal Resilience

factors were significant for all groups, they were stronger for the Family Risk group than the Family Strength group. This suggests that school assets may have more of an impact on internal resilience for youth with low family assets.

You, Sukkung, et al. (2008). Relations among school connectedness, hope, life satisfaction, and bully victimization. *Psychology in the Schools 45*(4), 446-460.

This study investigates the role of school connectedness in mediating the relation between students' sense of hope and life satisfaction for three groups: Bullied Victims, Peer Victims, and Nonvictims. Students in grades 5 to 12 (*N* =866) completed the California Bully/Victim Scale, the School Connectedness Scale from the California Healthy Kids Survey, Children's Hope Scale, and Students' Life Satisfaction Scale. The CHKS scale had a Cronbach's alpha coefficient for the current sample of 0.82.

Multigroup latent mean analysis revealed significant group mean differences in hope, school connectedness, and life satisfaction, supporting our bullying classification. Multigroup structural model analysis showed differential patterns between hope, school connectedness, and life satisfaction. Specifically, school connectedness partially mediated the relation between hope and life satisfaction for the Nonvictims only. The effect of hope on school connectedness was stronger for the Bullied Victims than the Nonvictims, and the effect of hope on life satisfaction was stronger for the Peer Victims and Bullied Victims than the Nonvictims group. It appears that students who are victimized at school experience less hope and lower levels of connectedness to school, both of which are associated with lower life satisfaction.

Considering these results in light of prior research, it appears that simply encouraging school connectedness may not be adequate to promote healthy outcomes for students who have been victimized by their peers in the school setting. The cumulative effects of being purposefully and chronically victimized by a peer and repeated failed efforts to assertively deflect these unjust attacks may make the goal of stopping the bullying seem too elusive to pursue. This, in turn, may adversely affect a victim's beliefs that he or she can deter future attacks. As more failure is experienced, hope may diminish. This could make it more difficult for the bullied child to trust peers, thereby making the formation and maintenance of peer connections more challenging.

Nickerson and associates (2006) suggested that targeted interventions for bullied students should focus on building meaningful social support networks. Efforts to rebuild social connections may be helpful. Such an approach suggests that in addition to implementing traditional social skills training for bullied children, an enhanced approach to the prevention of school bullying may draw on principles of positive psychology. Bullying prevention programs do not have a strong record of success generalization (Rigby, 2004). Perhaps intervention effectiveness can be enhanced by using strategies that seek to enhance both cognitive pathways (e.g., hope, life satisfaction) and social contexts (e.g., school connectedness) in an effort to disrupt the bullying cycle by reducing the vulnerability of the victim to chronic attacks.

A practical implication of this study is that school psychologists should attend to the cognitive processes experienced by bullied students. The results of this study suggest that bullied youth lose access to the potentially reinforcing effects of positive social connections at school, could potentially benefit from efforts to resituate them into more nurturing and caring social contexts (e.g., Nickerson & Nagle, 2004; Nickerson et al., 2006), and thereby work to rebuild their positive social connections at school, as a way to simultaneously boost their hope.

Zheng, Hong; Hanson, Thomas L.; and McCarthy, William J. (2003). *School Resilience Assets and Cigarette Smoking among Youth: Individual and Contextual Relationships.* WestEd, Los Alamitos and UCLA Division of Cancer Prevention and Control Research, Los Angeles.

Using data from a sample consisting of 185,717 7th, 9th, and 11th graders at 1,155 middle and high schools who completed the California Healthy Kids Survey between 1998 and 2002, estimates from two-level hierarchical linear modeling indicated that individual-level school resilience assets are negatively associated with lifetime smoking, current smoking among lifetime smokers, and frequent smoking. Moreover, *school-level* resilience assets are associated with lower levels of lifetime and current smoking, even after controlling for individual-level school assets.

II. Factsheets

These factsheets are based on analyses of data from the California Healthy Kids Survey. Their preparation was made possible wholly or in part through funding by the California Department of Education. Download at http://chks.wested.org/using_results/publications

1. Hanson, T.L. and Austin, G.A. (2002). *Health risks, resilience, and the Academic Performance Index.*

Ensuring that students are safe, drug-free, healthy, and resilient is central to improving academic performance. Many adolescents are coming to school with a variety of health-related problems that make successful learning difficult, if not impossible. Moreover, research is increasingly demonstrating that promoting assets and resilience among students is associated with both improvements in academic achievement and reductions in health risk. An analysis of data from the *California Healthy Kids Survey* (CHKS) indicates a significant relationship across secondary schools between *Academic Performance Index* (API) scores and three-quarters of the health-related indicators examined. The analysis covered substance use, violence, nutrition, exercise, and environmental assets. This factsheet summarizes the results for four key variables: eating breakfast on the day of the survey; using alcohol, tobacco, or marijuana at school; school safety; and external assets (resilience). The results suggest that schools where students are low in health risk factors and high in protective factors have higher levels of academic achievement than other schools.

2. Hanson, T.L., & Zheng, H. (2003). *Student tobacco use and TUPE competitive grant funding.*

Analysis of CHKS data between 1998 and 2003 shows that tobacco use among 11th graders declined markedly in all California schools over this period. However, smoking declined more among schools that received grant funding under the Tobacco Use Prevention Education (TUPE) program compared to schools that did not. Specifically, 4 of the 6 smoking measures declined significantly more in TUPE-funded schools than in schools without these extra funds. These measures were Lifetime smoking, lifetime regular smoking, current smoking, and daily smoking. In addition, TUPE grantees showed significantly greater improvements in 2 of 5 tobacco use precursors (likelihood of smoking in the future and overestimation of peer smoking prevalence). Finally, TUPE schools showed improvements in smoking cessation relative to non-TUPE schools, although this difference was not quite statistically significant at conventional levels ($p=.09$).

3. Hanson, T.L. and Austin, G.A. (2003). *Are student health risks and low resilience assets an impediment to the academic progress of schools?*

This factsheet summarizes findings from a longer report, Hanson, T.L., Austin, G.A. & Lee-Bayha, J. (2004). *Ensuring that no child is left behind: How are student health risks & resilience related to the academic progress of schools.* San Francisco, CA: WestEd. The analysis of the relationship between academic performance and student well-being presented in Factsheet #1 was extended by examining how student health risk and resilience, as measured by the CHKS, are related to the *academic progress* of schools by investigating how these factors are related to subsequent *changes* in academic performance. The analyses suggest that health risk and low levels of resilience assets do impede the progress of schools in raising test scores. California secondary schools made greater progress in raising standardized test scores over a one-year period when they had higher percentages of students who are

less engaged in risky behaviors such as substance use and violence, who are more likely to eat nutritiously and exercise, and who report caring relationships and high expectations at school. These results suggest that addressing the health and developmental needs of youth is a critical component of a comprehensive strategy for meeting the accountability demands for improved academic performance. Efforts to improve schools should go beyond the current emphasis on standards and accountability measured by test scores. Policies and practices focusing exclusively on increasing test scores while ignoring the comprehensive health needs of students are almost certain to leave many children, and many schools, behind. Specifically:

» District and school leaders can take steps that may promote student achievement by increasing student access to moderate-to-vigorous physical activity in physical education classes, monitoring the nutritional content of food offered at school, and promoting greater awareness among students about their physical health and nutrition.

» Crime, violence, antisocial behavior, and other types of social disorganization on school campus can have adverse consequences for student learning and should be targeted with comprehensive prevention programs.

» School practices that provide students with supportive, caring connections to adults at the school who model and support healthy development, and that provide clear and consistent messages that students can and will succeed hold great promise for addressing the developmental needs of children and improving student learning.

4. Heck, K., Russell, S., O'Shaughnessy, M., Laub, C., Calhoun, C., and Austin, G. (2005.) *Bias-related harassment among California students.*

CHKS data were collected during the 2001-02 school year from 237,544 students in grades 7, 9 and 11 in 1,208 California schools throughout the state. The data from all three grades were combined for the analyses. The results indicate that victims of bias-related harassment (BRH) are more likely than other students to smoke cigarettes, drink alcohol, and use illicit drugs. BRH victims are more likely to report feeling sadness and hopelessness; lower grades, school attendance, and connectedness to adults and peers; and higher levels of victimization such as having property stolen or being threatened with a weapon at school as well as experiencing relationship violence. They were also more likely to carry a weapon to school. Victims of harassment based on sexual orientation (actual or perceived) or disability reported particularly high levels of these negative behaviors, feelings, and experiences.

5. Austin, G., McCarthy, W., Slade, S., and Bailey, J. (2007.) *Links between smoking and substance use, violence, and school problems.*

Students who engage in one form of risk-taking behavior generally engage in other types of as well. An analysis of 2003-2005 CHKS data over 560,000 students indicates that current smokers are significantly more likely than nonsmokers to engage in alcohol and other drug (AOD) use, be involved in violence and gang membership, and experience school-related problems and disengagement. To a lesser extent, current smokers are also more likely than nonsmokers to be victims of violence and harassment, feel unsafe at school, and experience incapacitating sadness and loneliness. These results suggest that efforts to reduce student smoking will be more successful if embedded in approaches that address a broad range of risk behaviors and problems. Cigarette smoking as a marker for other problem behavior is especially true among 7[th]graders, suggesting that early onset smokers are particularly

in need of a broad range of prevention services. There were smaller group differences among 11th graders than 7th, possibly because many early smokers are no longer in school by the 11th grade.

6.   Austin, Greg, Jones, G., and Annon, K. (2007.) *Substance use and other problems among youth in foster care.*

Of secondary students that took the CHKS in 2005/06, 3.5% (5,122 9th and 4,240 11th) lived in another relatives home (not their parents), and 0.5% (769 9th and 563 11th) lived in *"foster home, group home, or awaiting placement."* Compared to Parent Home Youth, the Foster Care Youth reported much higher rates of substance abuse, poor school attendance and grades, and more violence-related behaviors, as well as more harassment and depression risk. They also were more likely to be low in caring adult relationships and total environmental assets. Relative Home Youth tended to fall in the mid-range. The group differences were greater in 9th grade than 11th, and they increased with level of substance use involvement. The results underscore the need to direct greater attention, services, and developmental supports to youth in foster care.

7.   Austin, G., Dixon, D., and Bailey, J. (2007.) *Risk behaviors and problems among youth in nontraditional schools.*

This analysis examined risk-taking behavior among students that attend Nontraditional Schools (NTS) such as Continuation and Community Day Schools, compared to the peers in regular 11th grade. The sample consisted of 25,600 NTS students and 182,000 11th graders who completed the CHKS in the 2004 through 2006. It finds generally higher rates of substance use among Nontraditional School students and concludes that "there is much more to be done to create the intimate, nurturing atmosphere that nontraditional schools need to ensure these high-risk youth are reconnected with school and graduate."

8.   Austin, G., Hanson, T., Bono, G., & Cheng, Z. (2007.) *The achievement gap, school well-being, and learning supports.*

How does academic performance and school well-being vary by the racial/ethnic composition of schools? School well-being refers to a school having a developmentally positive learning climate characterized by environmental supports, safety, and school attachment, as measured by student-reported data collected in 2004-06 by the California Healthy Kids Survey (CHKS). Both academic performance and school well-being varied consistently and persistently across schools by racial/ethnic groupings. They were lowest in schools with large proportions of African American and Hispanic students, as well as in low-income schools, which have high enrollments of both groups. Controlling for SES and other school demographic characteristics reduced these racial/ethnic group differences but they still remained between these schools and those serving predominantly White students. This suggests that school-climate factors related to student well-being may also play a role in the gap and that one strategy to close it is to enhance learning supports that foster caring adult relationships, high expectations, meaningful participation, safety, and connectedness in schools serving large proportions of low-income African American and Hispanic students.

9.   *Racial/Ethnic Differences in School Performance, Engagement, Safety, and Supports*

Describes how 17 school-based CHKS indicators covering these areas differed significantly across eight racial/ethnic groups of secondary students. Overall, White and Asian students reported the most positive outcomes, and African American and Latino students had the least positive outcomes in regard to school performance, engagement,

and safety. Latinos were the lowest of all groups in school developmental supports; African-Americans, in school connectedness and safety. The results demonstrate that underlying the Achievement Gap, there are also gaps in school engagement, safety, and supports that need to be addressed.

10. *Harassment Among California Students, 2006–08*

Updates Factsheet #4 in providing current and expanded data on bullying among California secondary students, 2006-08. The data suggest the state has made little if no progress in reducing harassment, especially for race/ethnicity. Thirty-seven percent of secondary students self-report being harassed at least once. Victims of harassment are more likely to not feel safe at, and connected to, school; to have higher truancy; and to experience lower developmental (resilience) supports at school, and they report higher rates of fighting and weapons possession at school, as well as risk of depression. Students who reported bias-related harassment, particularly for disability and sexual orientation, have poorer well-being than students who were only harassed for other reasons.

III. International Research

Because it pioneered theoretically-based, psychometrically sound assessment of resilience factors, the HKS/RYDM has been used in research across the globe, including:

- » Australia (Hazel 2006; Russo & Bomn 2007)

- » China (Wang, Zhang, & Xy 2007)

- » Jamaica (Hope Enterprises 2001)

- » South Africa (Johnson & Sazarus 2008)

- » Turkey (Gizir & Aydin 2009)

Gizir, Cem Ali, & Aydin, G. (2009). Protective factors contributing to the academic resilience of students living in poverty in Turkey. *Professional School Counseling, October 1, 2009.*

An examination of the factors that promote academic resilience among impoverished 8th-grade students in Turkey, using the RYDM, revealed that home high expectations, school caring relationships and high expectations, and peer caring relationships were the prominent external protective factors that predicted academic resilience. Internal protective factors were having positive self-perceptions about one's academic abilities, high educational aspirations, empathic understanding, an internal local of control, and hope for the future. The findings indicate that school counselors may assist poor students by promoting caring relationships between peers, creating a positive school climate, and providing adequate emotional support for students. In addition, they should provide individual and group counseling to improve their coping, problem solving, and academic skills as well as self-regulatory processes. Although impoverished schools likely offer the poorest quality teaching, the role of protective factors in the school environment appears crucial for the development of academic resilience.

Hazel, Trevor. (2006). *MindMatters: Evaluation of a professional development program and school-level implementation.* Hunter Institute of Mental Health, Australia.

Hope Enterprises (2001). *What protects teenagers from risk behaviours? Applying a resiliency approach to adolescent reproductive health in Jamaica.* Jamaica: Hope Enterprises Ltd, and the Rural Family Support Organization.

Johnson, Bridget, & Sazarus, S. (2008). The role of schools in building the resilience of youth faced with adversity. *Journal of Psychology in Africa. 18*(1), 19-30. *Special Issue: Positive psychology in African.*

This study explored factors related to risk, resilience and health amongst South African teenagers. Grade nine students (N = 472; males = 210, females = 262, age range = 12 to 18 years) at seven schools in the Western Cape participated in the study. The California Healthy Kids Survey, which includes risk and resilience modules, was utilized. Focus group interviews were also conducted with the students to determine their needs and support at school. Questionnaires relating to the health promoting schools framework were administered to teachers. Quantitative and qualitative research methodologies were employed. The results indicated that the students were

engaged in a variety of risk behaviors that threatened their well-being and that their external and internal assets were limited. A multi-faceted approach to reducing risk and enhancing resilience, involving family, peer, school and community support within a health promoting schools framework, is advocated.

Russo, Rebecca, & Bomn, P. (2007). Primary school teachers' ability to recognize resilience in their students. *The Australian Educational Reseacher, 34*(1), 17-32.

This study investigated teachers' knowledge of, and capacity to identify resilience, in 92 primary school children in Far North Queensland. It was found that although teachers' knowledge of resilience was apparently strong, and they reported a significant level of confidence in their ability to assist children in building resilience, their capacity to identify levels of resilience in their students was lacking based on data from students using the California Healthy Kids Survey. The paper concludes with suggestions for future research.

Wang, J-J, Zhang, H-B, & Xy, J. (2007). Relationship between resilience and social support of primary school students in Hefei. *Chinese Mental Health Journal 21*(3), 162-164.

Objective: To determine the relationship between resilience and social support among primary school students. Over two thousand primary school students from grade 3 to 5 were surveyed with questionnaires of Social Support Questionnaire and the Student Resilience Survey revised from the California Healthy Kids Survey in Hefei. Results are reported in three areas. First, the average scores of resilience of students in Hefei were 49.0 ± 8.8, Girls got higher scores (50.1 ± 8.6) than boys on resilience (47.9 ± 8.8, $t = 5.11$, $P < 0.01$). The scores of resilience of students in grade 5 were higher (49.0 ± 8.8) than grade 3 and 4 (47.9 ± 8.7, 47.9 ± 8.7, $F = 21.39$, $P < 0.01$). There was different on resilience among schools. Second, social support had positive association with psychological resilience ($r = 0.49$, $P < 0.01$). Third, by unconditional multivariate logistic regression model, related factors for student resilience in grade 3 were ranked as follows: peer support, school support, relative support. Student resilience in grade 4 was associated with peer support, parent support, relative support, school support. Related factors for student resilience in grade 5 were ranked as follows: parent support, peer support, school support, and relative support. It is concluded that social support in daily life has positive correlation with resilience of primary students.

III. Psychometric Studies

Since the CHKS was introduced in 1999, it has provided one of the few and richest sources in the nation for conducting psychometric research on strength-based assessment, resilience, and school connectedness and climate. Its scales assessing environmental developmental supports (assets or protective factors) and school connectedness have consistently been found to be robust and reliable for use among secondary students. The psychometric research has also supported its theoretical framework linking the school environment to student engagement and health-risk behaviors. This research guides improvements in the survey instruments.

SCHOOL CONNECTEDNESS SCALE

Furlong, M., O'Brennan, L., & You, S. (In press). Psychometric properties of the Add Health School Connectedness Scale for 18 socio-cultural groups. *Psychology in the Schools,* forthcoming.

The School Connectedness Scale (SCS), originally derived from the National Longitudinal Study of Adolescent Health (Add Health), has been widely used in psychological and public health research, but has undergone limited psychometric analysis. The responses of 500,800 junior and senior high school students who completed the biennial California Healthy Kids Survey, which includes the SCS, were used in this study. The core psychometric properties of the SCS (reliability, concurrent validity, and latent structure) were very robust. The results showed that across 18 socio-cultural groups the SCS has acceptable reliability and concurrent validity. A series of multiple group analyses confirmed configural, metric, and scalar equivalence across groups. The findings lend confidence to the use of the 5-item SCS as a one-factor scale by researchers and practitioners working with diverse groups of students. It is appropriate to compare the effects of the SCS across these groups. The SCS appears to be a valid and reliable measurement instrument; however, further research is needed to examine its underlying latent construct.

Although the results of this study support the core psychometric properties of the SCS and its use across diverse socio-cultural groups, this analysis did not resolve the more fundamental conceptual issues raised by Libbey (2004) in her review of the terminology used for school connectedness related constructs. The SCS purports to measure student perceptions of adult caring relationships at school, however, based on face validity only one of the five items refers to specifically to adults (teachers). Conversely, the CHKS' School Support Scale (caring relationships and high expectations), which was used in the present study for concurrent validation purposes, also appears to have strong face validity given that it directly asks students about caring adults at their school. What is particularly salient when using the SSS in this analysis is that its prompting statement asks students to specifically consider their perceptions of their relationships with adults at school, which follows directly from the school connectedness definition (CDC, 2009).

In addition, the SCS-SSS correlation was significant but different enough that it can be concluded that these two scales do not measure the same exact construct. Consequentially, researchers may want to further examine the relations among scales that claim to measure aspects of school connectedness and school bonding because the nature of the construct being measured by these scales is not fully resolved. In the meantime, when conducting school connectedness related studies, researchers should carefully consider which trait is the most critical to

the conceptual model being tested. If caring adult relationships is what is being tested, then using the SCS in combination with the SSS or similar measures might be considered.

The findings from the current study also have implications for school-based health practitioners working with diverse populations. Given the SCS' robust psychometric properties coupled with its relations with reduced at-risk behavior, it is an assessment tool that may have applications when used as part of comprehensive school health screenings and/or student well-being benchmarking assessments. For instance, school-based mental health professionals could administer the 5-item SCS multiple times a year to students as an efficient proxy measure for school climate. Such types of data may assist in implementing school-wide prevention and intervention strategies, as well as provide feedback to teachers and school staff about progress being made to sustain campus conditions that are conducive to learning. In sum, the current study provides evidence to support the use of the SCS as a reliable and valid measurement tool for both researchers and practitioners alike.

Waters, S., & Cross, D. (2010). Measuring students' connectedness to school, teachers, and family: Validation of three scales. *School Psychology Quarterly 25*(3), 164–177.

This article describes the measurement properties of three composite scales of adolescent connectedness, adapted from the ADD Health study and the CHKS. These composite scales are created by either summing or taking the mean of all individual items, measured on an ordinal scale. This approach fails to account for the ordinal, non-normal nature of the data. The use of these shorter scales appear to be somewhat valid and reliable measures to determine the importance of teacher and family connectedness in improving health, academic and social outcomes for young people. Students' connectedness to school however requires further exploration as to the true factor structure of this composite score. Confirmatory factor analysis techniques in lisrel appear superior to exploratory factor analysis conducted using data analytic packages such as SPSS given their sensitivity to dealing with ordinal, skewed data. Developmental Supports/Resilience

RESILIENCE/YOUTH DEVELOPMENT SCALES

Furlong, M., Ritchey, K., & O'Brennan, L. (2009). Developing norms for the California Resilience Youth Development Module: Internal assets and school resources subscales. *The California School Psychologist. 14,* 99–114.

Resilience and other positive psychological constructs are gaining attention among school psychologists. Theoretically, external assets (e.g., support from caring adults, participation in meaningful activities) help to meet youths' basic developmental needs, which, in turn, promote the growth of internal assets (e.g., ability to problem solve, empathize with others). Despite this knowledge, existing measures of resilience-building assets are underutilized. With the aim of facilitating broader access to and use of one strengths-based assessment tool, the current article attempts to further examine and increase the applicability of the Resilience Youth Development Module (RYDM) of the California Healthy Kids Survey (CHKS) for practicing school psychologists. The authors provide normative data on the internal assets and school-focused external resources subscales of the RYDM, while examining grade, ethnicity, and gender patterns. Although prior research has examined the general psychometric properties of the RYDM (Hanson & Kim, 2007), using their derived factor structure the current paper examined the applicability of this scale for practitioner use with individual students. The sample for this study came from CHKS

data collected during the 2006-2007 and 2007-2008 school years from across schools in 50 of 58 California counties. The final sample included 141,004 students (55% female, 45% male) in grades 7 (34%), 9 (34%), and 11 (32%).

The results show moderate to high internal consistency reliabilities (alpha coefficients) for each of the RYDM subscales for both males (range .75–.93) and females (range .69–.91). As would be expected, the Total Internal Assets and the School Support scores, both of which have the most items, had the highest alpha coefficients. The variation of RYDM scores attributable to grade and ethnicity were small, less than 1%; there was more variance attributable to gender (2.3%), but the reliabilities of the scores were moderate to high for both males and females. Most of the variation in scores was related to individual differences across students. The results support school psychologists using the RYDM as part of social-emotional assessments with individual students. Other applications could include being used as a pretest-posttest evaluation of a discrete service, a school benchmarking assessment of students' flourishing administered periodically throughout the year, or as part of a multigating assessment coordinated with other more detailed resilience scales such as ClassMaps

The RYDM was developed as a population-based survey but because the RYDM is based in sound research and theory and is widely used throughout California schools, it offers school psychologists a viable, cost-effective measure with which to assess factors associated with youth resilience, a critical component of strength-based assessment. Given the resource constraints of California's current economic climate, expanding psychological assessment to include positive experiences and characteristics may not be considered a top priority. Fortunately, California already collects such information as part of the biennial CHKS survey, with the RYDM element including items that assess internal assets (personal strengths) and external resources (developmental supports and opportunities).

Hanson, T., & Kim, J-O. (2007). *Measuring the psychometric properties of the California Healthy Kids resilience and youth development module.* Regional Educational Laboratory West, Report REL 2007–No. 034. WestEd: San Francisco.

Using HKS data processed for school districts by WestEd's Health and Human Development Program, staff in the Regional Educational Laboratory West analyzed the module's psychometric properties. This report describes the results of this analysis, provides recommendations on the proper use of the instrument, and suggests modifications to the module.

For the secondary school module, the results are consistent with the instrument's current use as an epidemiological tool and with its conceptual foundation. It provides comprehensive and balanced coverage of eight environmental resilience assets and four internal resilience assets; its subscales exhibit good internal consistency and are associated with student risk factors in expected ways. And, if certain items are dropped, the module also demonstrates measurement equivalence across racial/ethnic groups, males and females, and grades.

The secondary school RYDM scales exhibit low test-retest reliability, however, which suggests that the module is not well suited for examining student-level changes over time. The instrument was not designed to examine individual differences across students and should not be used this way. Moreover, two of the six internal assets that the secondary school module was designed to measure—cooperation and goals/aspirations—could not be assessed validly. Several measures would benefit if additional items were included in derived scales to increase domain coverage.

The elementary school module was designed to assess seven environmental resilience assets and three internal resilience assets, but it can reliably assess only two environmental assets and one internal asset. Most of the scales measured by the elementary school instrument have poor psychometric properties. The elementary school instrument should thus be modified considerably to make it suitable for research.

Pinterits, E.J. (n.d.) *Assessing resilience in youth exposed to trauma: Development of the life assets and values assessment.* SAMHSA Grant Report.

Rhee, Sabrina; Furlong, Michael; Turner, Joseph, & Harari, Itamar. (2001). Integrating strength-based perspectives in psychoeducational evaluations. *The California School Psychologist, 6,* pp. 5-17.

Until recently, children's social/interpersonal strengths have not been systematically examined and there have been few standardized measures specifically designed to assess strengths. This article discusses the importance of a strength-based perspective by school psychologists when assessing students. A review of the literature is provided that focuses on positive youth development, resilience, and coping. These principles are emphasized by demonstrating the utility of two strength-based instruments: The Behavioral Emotional Rating Scale (BERS) and the California Healthy Kids Survey (CHKS) in school psychology research and practice. Recommendations are made for school psychologists on how to incorporate a strength-based perspective in assessment, consultation, collaboration, intervention and program evaluation.

Both the BERS and the CHKS measure individual strengths, yet each brings a unique perspective through their respective conceptualization, operationalization, and measurement of these constructs. Generally, both have strong psychometric properties and have been created for use within the school and research settings. School psychologists need to take active participation in wellness promotion and look more broadly at strength-based issues.

Sharkey, Jill; You, S., & Schnoebelen, K. (2008). Relations among school assets, individual resilience, and student engagement for youth grouped by level of family functioning. *Psychology in the Schools 45*(5), 402-418.

There has been recent interest in exploring factors related to student engagement due to increasing recognition that it is crucial to engage students for high levels of academic performance and to avoid negative outcomes such as delinquency, substance use, dropout, and teen pregnancy. Given this, research needs to investigate whether school-based assets promote student engagement beyond individual and family influences. Unfortunately, such research has been limited by a lack of valid instrumentation. The only large-scale school-based survey that has systematically included a resilience measure is the California Healthy Kids Survey, which includes a Resilience and Youth Development Module (RYDM). It is ideal for examining relations among various social supports, individual resilience, and student engagement in the most diverse population of students in the United States. Based on a theoretical model, it provides reliable measures of external (environmental) assets in the school as well as the community, home, and peer group, internal assets linked to resilience, and school connectedness, using a scale derived from the Add Health survey. After examining the psychometrics of the RYDM, the researchers used this risk and resilience instrument with a randomly selected sample of 10,000 diverse 7th-, 9th-, and 11th-grade students to test a model of relations between school assets, individual resilience, and student engagement for students grouped by level of family assets. School assets were associated with student engagement for all groups, even accounting for individual resilience. Direct effects were significant. An empirical validation found the RYDM a psychometrically sound, parsimonious measure of internal resilience. Factor analyses using a sample of a diverse group of

adolescents suggest that a three-factor structure (Self-concept, Interpersonal Skills, Goals and Aspirations) best fits the internal resilience.

Sun, Jing, & Stewart, D. (2007). Development of population-based resilience measures in the primary school setting. *Health Education, 107*(6), 575.

The purpose of this paper is to report on progress in formulating instruments to measure children's *resilience* and associated protective factors in family, primary school and community contexts. A total of 2,794 students, 1,558 parents/caregivers, and 465 staff were surveyed in October 2003. A cross-sectional research method was used for the data collection. Three surveys (student survey, parent/caregiver survey, and staff survey) were developed and modified to measure student *resilience* and associated protective factors. In total, 34 of the total 47 items in the student survey were from California Healthy Kids Survey (2004), while the remaining 13 items were developed from Perceptions of Peer Support Scale. The items from the California Healthy Kids Survey were modified to make them more accessible to Australian primary school students. Exploratory factor analysis with Oblimin rotation and confirmatory factor analysis were used to analyze the reliability and validity of the scales of the three surveys.

The surveys in this paper find good construct validity and internal consistency for the social support scale of parent/caregiver survey, which had been modified from previous studies. Confirmatory factor analysis indicated a goodness of fit for the following scales: student *resilience* scale of the student survey; the school organization and climate scale and family functioning scale of the parent/caregiver survey; and the health-promoting school scale and social capital scale of the staff survey. The paper specifies aspects of the *resilience* concept within a holistic or socio-ecological setting. Measures of validity and reliability indicate that these instruments have the sensitivity to elucidate the complexity of both the *resilience* concept and the intricacy of working within the multi-layered world of the school environment. This paper provides health educators and researchers with reliable and valid *resilience* measures, which can be used as guidelines in implementing evaluation programs for the health-promoting school project and the prevention of mental health problems in children.

Waaktaar, T. & Torgersen, S. (2010). How resilient are resilience scales? The Big Five scales outperform resilience scales in predicting adjustment in adolescents. *Scandinavian Journal of Psychology, 51,* 157–163.

This study's aim was to determine whether resilience scales could predict adjustment over and above that predicted by the five-factor model (FFM). A sample of 1,345 adolescents completed paper-and-pencil scales on FFM personality (Hierarchical Personality Inventory for Children), resilience (Ego-Resiliency Scale [ER89] by Block & Kremen, the Resilience Scale [RS] by Wagnild & Young) and adaptive behaviors (California Healthy Kids Survey, UCLA Loneliness Scale and three measures of school adaptation). The results showed that the FFM scales accounted for the highest proportion of variance in disturbance. For adaptation, the resilience scales contributed as much as the FFM. In no case did the resilience scales outperform the FFM by increasing the explained variance. The results challenge the validity of the resilience concept as an indicator of human adaptation and avoidance of disturbance, although the concept may have heuristic value in combining favorable aspects of a person's personality endowment.

Gabriel, Roy. (2006). *Recommended school climate instrument, scales, and reliabilities — School staff version.* Memo to Manila Corporation's SS/HS Network. Portland, Oregon: RMC Corporation.

The School Climate Survey for Staff developed by WestEd is recommended as a viable instrument to be used as part of the national evaluation of Safe Schools/Healthy Student grantees. The recommendation is based on an analysis of the 2004-5 administration of the survey in California schools (N=18,000-20,000, depending upon the scale). A factor analysis showed that the items fell into five reliable scales measuring A Positive Learning and Working Environment; Staff and Student Safety; Clear, Consistent Communication and Enforcement of School Rules; Adequate Health and Counseling Services; and Perception of Problems with Student ATOD Use. The Positive Learning/Working Environment scale further had three subscales measuring School-level Norms and Standards; Staff/Student Relationships; and Student Behaviors that Facilitate Learning.

You, Sukkyung, O'Malley, M., & Furlong, M. (Under review). *Brief California School Climate Survey: Dimensionality and measurement invariance across teachers and administrators.* Submitted to *Educational and Psychological Measurement.*

This study used school climate data collected from teachers and administrators working in public elementary, middle, and high schools throughout California. A brief 15-item version of the California School Climate Scale (B-CSCS) was evaluated and further analyses examined the invariance of the scale across teachers and administrators. Confirmatory factor analyses indicated that school climate could be measured as a multidimensional construct. Support was found for a higher order measurement model in which general school climate is a second-order latent factor that influences organizational and relational supports in schools. Results from a series of multiple group analyses indicated that the higher order measurement model exhibits measurement invariance of factor loadings across both teachers and administrators. Additional analyses revealed that administrators hold more positive perceptions of school climate than teachers, with this difference increasing from elementary through high school.

The B-CSCS is an efficient measure of essential dimensions of school climate. As such, it may be a useful tool for use in ongoing data gathering and progress monitoring toward the goal of achieving and maintaining positive school climates. By providing support for the measurement of school climate more frequently than annually or biennially, the B-CSCS provides an opportunity for regular feedback to school leaders for integration into discussions and ongoing school-level reform efforts.

You, Sukkyung, & Furlong, M. (nd) *A psychometric evaluation of staff version of school climate survey.* University of California, Santa Barbara

The CSCS is the first large-scale school-based survey that has systematically included a staff climate measure. This study examined the factor structure of the CSCS as an initial step to understand the validity of the instrument as a sophisticated research-based and empirically-validated tool. The four-factor model emerged as most meaningful and parsimonious model in both substantive and statistical issues. The four dimensions of CSCS were labeled as *Academic Climate, School Readiness, Caring Relations,* and *Misbehavior*. Items with factor loadings of <.40 on each factor were dropped so 23 items out of 31 original items were finally selected. Data from 2004-2005 suggest that the

CSCS scales had high internal consistency and alphas for the four scales ranged from .81-.92 (Specifically, alphas for *Academic Climate, School Readiness, Caring Relations,* and *Misbehavior* were .86, .92, .81 and .83). Multigroup invariance analysis indicated that there were no meaningful differences between teachers and other staffs with respect to their perceived school climate. CSCS functions well and equivalently across teachers and other staffs. Staff version of school climate factors is a promising area for education researchers.