

CORE LESSONS

MEASURING THE SOCIAL AND EMOTIONAL
DIMENSIONS OF STUDENT SUCCESS

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About FutureEd

FutureEd is an independent, solution-oriented think tank at Georgetown University's McCourt School of Public Policy, committed to bringing fresh energy to the causes of excellence, equity, and efficiency in K-12 and higher education. Follow us on Twitter at @FutureEdGU

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FOREWORD

Increasingly, education researchers and school reformers see school climate and social-emotional learning as valuable new avenues of school improvement and student success. In response, the congressional drafters of the federal Every Student Succeeds Act (ESSA) included a provision for measuring school performance that went beyond traditional academic metrics like standardized assessments and graduation rates to include metrics such as “school climate” and “student engagement.”

Three dozen states and the District of Columbia have added chronic student absenteeism to new school accountability systems being implemented under ESSA, a measure that in part captures school culture and students’ social and emotional well-being. New Mexico and seven other states have pledged to introduce school climate and student engagement surveys.

In California, a consortium of large urban school systems known as the CORE Districts has been surveying students, teachers, and parents about the non-academic side of student success for several years. The initiative provides important insights into how school districts are responding to the new information on school performance.

FutureEd studied the experience of the Fresno Unified School District in California’s Central Valley, the state’s fourth largest school system, to understand how educators have used the new surveys and to gauge the surveys’ impact. This report shares what we learned.

We are grateful to several organizations that enabled our study: the CORE Districts; Policy Analysis for California Education (PACE) at Stanford University, which has done important analyses of the CORE Districts’ survey data; Transforming Education, a Boston-based nonprofit that helped the CORE Districts launch the surveys; and Panorama Education, which administers the surveys. We are grateful to Richard Fournier of Transforming Education for his valuable research contributions.

And we are appreciative of the many Fresno Unified administrators, principals and teachers who welcomed us to the district’s central office, schools and classrooms and shared their perspectives with us.

A number of people provided us with valuable feedback on drafts of our report, including Noah Bookman and Julie White at the CORE Districts; Heather Hough and Hans Fricke at PACE; Katie Buckley, Richard Fournier and Sara Krachman of Transforming Education; Kim Mecum, Rita Baharian and Kristi Imberi-Olivares at Fresno Unified; Lisa Quay at the Mindset Scholars Network; Martin West at Harvard; David Yaeger at the University of Texas-Austin; and Laura Hamilton at the RAND Corporation.

Support from the Bezos Family Foundation, the Raikes Foundation, the Stuart Foundation and the W.T. Grant Foundation made this project possible. Jackie Arthur, Molly Breen, and Phyllis Jordan designed and edited the report.

We hope our report is a helpful window into the promise and challenges of expanding schools’ focus beyond the traditional academic boundaries of school success.

Thomas Toch
Director, FutureEd

CORE LESSONS

MEASURING THE SOCIAL AND EMOTIONAL
DIMENSIONS OF STUDENT SUCCESS

After school on a hot, dry afternoon last April, Principal Rebecca Wheeler of Herbert Hoover High School in Fresno, California, an agricultural city in the state's Central Valley, sat with her department heads, assistant principals and other members of Hoover's Instructional Leadership Team in a second-floor conference room in the low-slung 1960s-era school, poring over the results of recent surveys of Hoover's students, educators, and parents.

There were questions on students' self-confidence as learners, the school's inclusiveness, educators' supportiveness and other non-academic aspects of the 1,900-student comprehensive high school. Hit by an exodus of middle-class families to the Fresno suburbs, Hoover serves mostly low-income students near Fresno State University, and it has been plagued by high suspension and expulsion rates. Just 20 percent of its students master California's math standards.

The results of the surveys were striking.

Only a third of students believed they could master the toughest topics in their classes. Less than half responded positively to the question, "I feel like I'm part of this school!" Parents felt Hoover was far safer than educators did. These problems, Wheeler and her colleagues believed, were contributing to the school's troubling academic performance.

The leadership team resolved to act.

Wheeler, a 27-year veteran of Fresno schools with close-cropped sandy hair and a generous manner, shared the survey results and the leadership team's plan with her entire faculty at a local church community hall before the 2018-19 school year started. In September, November, and February, she told her team, a central office expert in

school climate and Hoover's instructional coach would cycle the 100-member staff through day-long sessions to strengthen the non-academic side of Hoover High School.

Last September, Hoover staff took turns attending these sessions in a spare classroom at a local elementary school. While substitutes covered their classes, the educators explored ways to increase students' sense of belonging and strengthen their commitment to learning. They learned how to ask classroom questions that encouraged students to share their perspectives, and how to bring students together through collaborative classroom projects.

After Thanksgiving, these same teams of educators studied strategies to help students overcome the belief that they weren't capable of mastering challenging coursework. They designed writing assignments in which students assumed diverse perspectives, as a way to strengthen writing skills while also increasing student empathy and reducing confrontations at the school.

"The survey results were clear," Wheeler told us. "We needed to address a lot of challenges that we have traditionally seen as non-academic if we wanted to raise student achievement."

In response to a growing body of research pointing to the importance of social and emotional factors in student success, and under pressure from teacher unions and others to dilute the influence of standardized tests in the nation's classrooms, Congress included a provision for measuring school performance beyond traditional academic metrics in the Every Student Succeeds Act (ESSA) of 2015. Alongside familiar measures like standardized tests and graduation rates, the provision suggested metrics such as “school climate” and “student engagement.”

Since then, three dozen states and the District of Columbia have added chronic student absenteeism to the new school accountability systems being implemented under ESSA, a measure that in part reflects school culture and students' social and emotional experiences in schools. New Mexico and seven other states have pledged to introduce school climate and student engagement surveys.

Meanwhile, two major measures of U.S. education, the federally funded National Assessment of Educational Progress and the Programme for International Student Assessment, are for the first time including measures of students' social-emotional skills in forthcoming releases.

But by the time President Obama put his signature to ESSA, the Fresno Unified School District and five other large, urban California school systems with nearly one million students had already been working for several years to include surveys of students, educators, and parents about social and emotional elements of student success in their school report cards. The initiative, by members of a consortium known as the CORE Districts, provides valuable insights into important but often under-addressed aspects of student success.¹

To explore how school districts and schools are responding to the new information from the CORE surveys, and to gauge the information's impact on schools, FutureEd studied Fresno Unified, California's fourth largest school system, with 74,000, predominantly Latinx students, 88 percent of whom live in poverty.

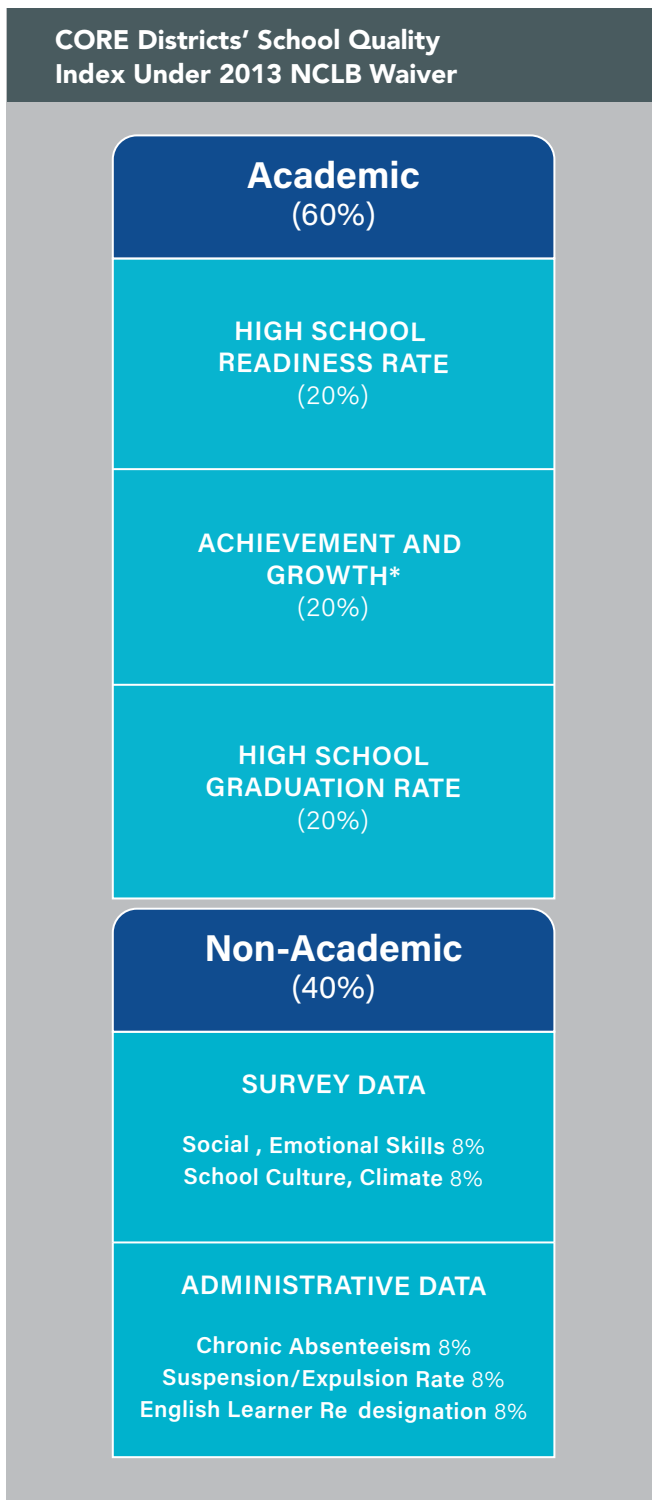
We interviewed CORE leaders, Fresno education officials, and dozens of administrators, teachers, and staff at three demographically representative Fresno schools—Hoover High School, Sequoia Middle School, and Jackson Elementary School.²

In Fresno, the CORE results have been a powerful catalyst to improve school discipline and other social and emotional dimensions of student success.

At the same time, CORE's research partner at Stanford University, Policy Analysis for California Education (PACE), has conducted studies exploring key technical questions about the CORE surveys.

The PACE research points to the conclusion that the CORE surveys help explain student achievement above and beyond non-academic measures that schools already track, chronic absenteeism, for example. Schools influence the survey results, PACE has found. They influence students' sense of themselves as learners and as members of learning communities, and they influence students' social and emotional development—things that contribute to students' classroom success. Together, the PACE and FutureEd work explores the potential of well-designed and well-implemented surveys to help educators understand student needs and respond to them effectively.

The CORE experience also points to the challenges districts face in selecting the best responses to the new survey results. In Fresno, the CORE results have been a powerful catalyst to improve school discipline and other non-academic dimensions of student success. But the surveys themselves don't reveal the causes of the problems they surface or point to the best responses. And many educators acknowledge they don't have a strong grasp of the survey concepts or how best to respond to survey results.



* Measures of academic growth, social-emotional skills, and climate-culture were not featured on schools' accountability report cards until 2016-17.

SOURCE: CORE Districts

Still, while it is too early to trace improvements in student achievement to Fresno's responses to the surveys, and there's much more work to be done to strengthen the technical qualities of the new measures of student, teacher, and parent perspectives on school life, the CORE surveys have clearly opened up an important new avenue of school improvement and student success.

A New Consortium

Ten large urban California school districts launched CORE in 2010 to collaborate on school reform.³

Among the consortium's early priorities was broadening the focus of school accountability beyond test scores and other traditional measures to include the non-academic conditions in schools. "By not attending to all the things that students bring to school, especially students from stressed environments, those that experience trauma, we're not maximizing academic success," Michelle Steagall, CORE's chief academic officer, told us.

Added Michael Hanson, who helped found CORE during 12 years as Fresno's superintendent of schools: "The more completely children are viewed, the less likely they are to be looked at as unteachable. [The CORE data] humanizes students. There's a lot going on behind test scores."

In 2013, six CORE members—Fresno, Long Beach, Los Angeles, Oakland, San Francisco, and Santa Ana—received a federal waiver under the No Child Left Behind Act (NCLB) to build a school accountability system with a wider aperture.

In November of that year, CORE convened teams of administrators—superintendents, directors of student support, directors of social-emotional learning, and directors of special education, nearly 80 people—at the Custom Hotel in Los Angeles to decide what to include in their new school accountability system and how to measure the elements they selected. Working with representatives of the John W. Gardner Center

for Youth at Stanford, Transforming Education, and the Collaborative for Academic, Social and Emotional Learning, they sifted through dozens of possibilities.

The measures the CORE board approved the following month included some obvious candidates: those that were familiar, easy to decipher, readily available, and linked by ample research to student success. They included chronic student absenteeism and suspension and expulsion rates—measures that states would gravitate to under ESSA several years later.

But the CORE leadership also decided to capture aspects of educational life closer to the source of absenteeism and discipline problems: school culture and climate and students' perspectives on learning. Research had demonstrated that these elements contributed

CORE's leaders selected surveys as the most efficient and cost-effective way to measure social and emotional dimensions of school life.

to students' performance in school and beyond, and CORE's leaders were intrigued by earlier work in the Oakland and Sacramento school systems to strengthen students' ability to function effectively in school.

The CORE leaders prioritized social-emotional measures that were "meaningful," "measurable," and "malleable"—that is, predictive of important academic, career, and life outcomes; capable of being administered reliably at scale; and thought to be responsive to schools' improvement efforts.⁴

Those parameters led them to select four aspects of social-emotional development: "growth mindset," the belief that one's abilities could improve; "self-efficacy," a belief in one's ability to achieve a task; "self-management," an ability to regulate one's emotions, thoughts and behaviors; and "social-awareness," the ability to empathize with others from diverse backgrounds.

The CORE administrators also selected four aspects of school culture and climate to capture: "sense of belonging," a feeling of being valued at school; "climate of support for academic learning," a belief that school culture and teacher practices facilitate learning; "knowledge and fairness of school rules and norms," a belief that schools' expectations are communicated clearly and that students are disciplined fairly; and "sense of safety," a feeling that one was able to learn free from physical or emotional threats.

CORE's leaders selected surveys as the most efficient and cost-effective way to measure these non-academic features of school life. They would survey students in grades 4 through 12 in all eight areas, and school staff and parents on the four culture and climate measures.⁵ Because some CORE districts were concerned about having to navigate collective bargaining contracts, CORE didn't include teacher ratings of students' social-emotional skills in its new School Quality Improvement Index under the NCLB waiver. But two districts—Fresno and Santa Ana—chose to survey educators on students' self-management and social awareness skills.

Drawing heavily on student and staff surveys of school climate developed by the research organization WestEd for the California Department of Education's Healthy Kids survey launched in the late 1990s, and on social-emotional measures assembled by Transforming Education, the CORE districts plumbed students' sense of themselves as learners by asking them how strongly they agree or disagree with questions like "I can earn an A in my class" (students, self-efficacy), "I came to class prepared" (students, self-management), "If I'm not naturally smart in a subject, I will never do well" (students, growth mindset), and "When others disagree with you, how respectful are you of their views?" (students, social awareness).⁶

To capture school climate and culture, they asked students, educators, and parents to respond to such questions as "My child is safe on school grounds" (parent, sense of safety)," School staff takes my concerns

CORE Districts Student, Teacher, Parent Survey Measures

Social-Emotional Measures

	Definition
Growth Mindset	The belief that one's abilities can grow with effort. Students with a growth mindset see effort as necessary for success, embrace challenges, learn from criticism, and persist in the face of setbacks.
Self-Efficacy	The belief in one's own ability to succeed in achieving an outcome or reaching a goal. Self-efficacy reflects confidence in the ability to exert control over one's own motivation, behavior, and environment.
Self-Management	The ability to regulate one's emotions, thoughts, and behaviors effectively in different situations. This includes managing stress, delaying gratification, motivating oneself, and setting and working toward personal and academic goals.
Social Awareness	The ability to take the perspective of and empathize with others from diverse backgrounds and cultures, to understand social and ethical norms for behavior, and to recognize family, school, and community resources and supports.

School Culture and Climate Measures

	Definition
Climate of Support for Academic Learning	Students and teachers feel that there is a climate conducive to learning and that teachers use supportive practices, such as: encouragement and constructive feedback; varied opportunities to demonstrate knowledge and skills; support for risk-taking and independent thinking; atmosphere conducive to dialog and questioning; academic challenge; and individual attention to support differentiated learning.
Sense of Belonging	School Connectedness A positive sense of being accepted, valued, and included by others (teachers and peers) in all school settings. Students and parents report feeling welcome at school.
Knowledge and Fairness of Discipline Rules and Norms	Clearly communicated rules and expectations about student and adult behavior, especially regarding physical violence, verbal abuse or harassment, and teasing, clear and consistent enforcement and norms for adult intervention.
Sense of Safety	Students and adults report feeling safe from verbal abuse, teasing, or exclusion by others in school.

SOURCE: CORE Districts

seriously" (parents, sense of belonging), "This school emphasizes helping students academically when they need it" (educators, supportive learning climate), "This school promotes trust and collegiality among staff," (teacher, sense of belonging), "I feel like I am part of this school" (students, sense of belonging), and "Do educators treat students with respect?" (students, knowledge and fairness of discipline rules and norms).

To be responsive to concerns about "over-testing" students, and to respect educators' and administrators' desire to protect instructional time, CORE aimed for students to complete the annual surveys in 20 minutes. There were 52 questions for students, 41 for educators, and 24 for parents.

The survey results counted for 8 percent of a school's rating under the School Quality Improvement Index. Together with absenteeism, suspension, and expulsion rates and the proportion of English language learners transitioned into English instruction, they comprised 40 percent of ratings while achievement test scores, graduation rates and other academic measures made up 60 percent. CORE had wanted to give the non-academic side of the school performance equation equal weight, but then-U.S. Secretary of Education Arne Duncan required the districts to prioritize academic indicators as a condition of granting the waiver.

CORE, Transforming Education, and the Center for Education Policy Research at Harvard conducted a pilot test of the measures in spring 2014 with some 9,000 students and 300 educators in 18 schools. They included 3rd graders but found the results to be unreliable for children that young. They did a second, larger pilot in 2015 with nearly 400,000 students in the six waiver districts. And then the surveys were administered CORE-

wide and counted in the consortium's school ratings for the first time in spring 2016. Wheeler's leadership team pored over results from the surveys' third administration last spring.⁷

"Indicators indicate priorities," CORE executive Noah Bookman told us. "We wanted to put a stake in the ground" that non-academic contributors to student success mattered. "We also wanted to understand schools more fully," Bookman said. "NCLB felt a lot more like a hammer than a flashlight."

Technical Hurdles

To use the surveys confidently, Bookman and his colleagues had to clear a series of technical hurdles in the pilot tests. Because the surveys were themselves largely untested at scale and were to be used in comparing schools' performance, CORE and its research partners had to demonstrate that the surveys had sound measurement properties; they had to have a degree

Sample CORE Districts Social-Emotional Learning Survey Questions	
Skill/Area	Sample Questions
Growth Mindset	<p>Please indicate how true is each of the following statements for you: (not at all true, a little true, somewhat true, mostly true, completely true)</p> <ul style="list-style-type: none"> There are some things I am not capable of learning. Challenging myself won't make me any smarter.
Self-Efficacy	<p>How confident are you about the following at school: (not at all confident, a little confident, somewhat confident, mostly confident, completely confident)</p> <ul style="list-style-type: none"> I can meet the learning goals my teachers set. I can earn an A in my classes.
Self-Management	<p>During the last 30 days.... (almost never, once in a while, sometimes, often, most of the time)</p> <ul style="list-style-type: none"> I allowed others to speak without interruption. I came to class prepared.
Social Awareness	<p>During the last 30 days....</p> <ul style="list-style-type: none"> To what extent were you able to stand up for yourself without putting others down? (not at all, a little bit, somewhat, quite a bit, a tremendous amount) How carefully did you listen to other people's points of view? (not carefully at all, slightly carefully, somewhat carefully, quite carefully, extremely carefully)

SOURCE: CORE Districts

of confidence that the surveys captured students', parents' and educators' true attitudes and that what they were measuring contributed to students' educational outcomes.

They were particularly concerned about three categories of measurement error that could diminish the accuracy of the survey results and skew the CORE school ratings:

- "Reference bias," the tendency for individuals' survey responses to be influenced by the context in which the survey is administered. Students' standards for social awareness, for example, may be influenced by a school's norms.
- "Social desirability bias," the tendency of survey responses to be influenced by social pressures. Students many answer "almost all the time" to a question of how often they are polite to adults, regardless of the accuracy of the response, because they know what is socially desirable.
- "Stereotype threat," the tendency for individuals' survey responses to be influenced by perceptions of how people of their gender, race or class are believed by others to perform in a given area. Research shows, for example, that when female students are asked to report their gender before taking a math test, they perform worse than male students with similar math skills.

CORE and its research partners made several moves to address these and related problems.

They gave two different forms of the surveys during the 2014 pilot and then compiled questions for the 2015 pilot from those that held up the best, including those that produced answers that aligned most closely with students' GPAs, suspension and absenteeism rates, and standardized test scores.⁸ Then they repeated the process during the large-scale 2015 pilot.⁹

To reduce social desirability bias, CORE communicated that all students' survey responses would remain confidential and would not influence grades or other assessments of the students' performance. Adults who

proctored survey administration stood at the back of classrooms, so that students were able to complete the surveys without feeling judged. They addressed stereotype threat by asking students for demographic information only at the end of surveys or by eliminating demographic questions and using bar codes as confidential student identifiers.

The results were encouraging.

The Harvard Center for Education Policy Research found no evidence of widespread reference bias in analyses it conducted.¹⁰ Finding a stronger relationship between survey results and student test scores and

The CORE measures of social-emotional learning and school culture and climate demonstrate validity and reliability.

other measures within schools than across CORE's school network would have suggested the presence of reference bias. But the Harvard center found a weaker connection within the schools it studied than in the CORE network as a whole.

"We find that the CORE measures of social-emotional learning and school culture and climate demonstrate validity and reliability [in reflecting those dimensions of schooling] , distinguish between schools, [and] are related to other academic and non-academic measures," PACE executive director Heather Hough, Demetra Kalogrides of Stanford's Center for Education Policy Analysis, and Susanna Loeb, director of Brown University's Annenberg Institute for School Reform, wrote in a 2017 report on the technical properties of the CORE surveys.¹¹

Hough, Kalogrides, and Loeb reported that the measures account for a portion of student achievement (4 percent of the variation in math scores in both elementary and middle schools, after controlling for student demographics and other non-academic factors such as

chronic absenteeism). In “illuminating aspects of student achievement that go beyond traditional indicators” the surveys add “a new dimension of school performance that has been invisible” in the past and “can inform a deeper understanding of a school’s strengths and weaknesses,” they concluded.¹²

Other researchers have reached similar conclusions.

Robert Meyer of the University of Wisconsin—Madison and colleagues reported in a 2018 study commissioned by PACE of over 400,000 CORE student surveys that the reliability of questions in the surveys’ social-emotional

section are relatively high, with the exception of those measuring growth mindset in grades 4 through 6, where the likely problem, the researchers said, is that questions are phrased negatively—“there are some things I’m not capable of learning”—causing young children to interpret them in differing ways. CORE has piloted positively phrased versions of the growth mindset items that yield more reliable results and is introducing them in its 2019 surveys.

In Fresno and Santa Ana, the two CORE districts that surveyed educators, student and educator responses to

Sample CORE Districts Culture and Climate Survey Questions

Skill/Area	Sample Questions
Knowledge and Fairness of Discipline Rules and Norms	<p><i>How strongly do you agree or disagree with the following statements? (Strongly Disagree, Disagree, Neither Disagree Nor Agree, Agree, Strongly Agree)</i></p> <p>STUDENT</p> <ul style="list-style-type: none"> Rules in this school are made clear to students. Students know how they are expected to act. <p>STAFF</p> <ul style="list-style-type: none"> Rules in this school are made clear to students. Students know how they are expected to act. <p>PARENT</p> <ul style="list-style-type: none"> This school clearly informs students what would happen if they break school rules. At this school, discipline is fair.
Sense of Safety	<p>STUDENT</p> <p><i>During the past 12 months, how many times on school property have you ... (0 Times, 1 Time, 2 or 3 Times, 4 or More Times)</i></p> <ul style="list-style-type: none"> Been pushed, shoved, slapped, hit or kicked by someone who wasn’t just kidding around? Been made fun of because of your looks or the way you talk? <p>STAFF</p> <p><i>How much of a problem at this school is... (Insignificant Problem, Mild Problem, Moderate Problem, Severe Problem)</i></p> <ul style="list-style-type: none"> Harassment or bullying among students. Lack of respect of staff by students. <p>PARENT</p> <p><i>How strongly do you agree or disagree with the following statements about your experience with this school this year? (Strongly Agree, Agree, Neither Agree nor disagree, Disagree, Strongly Disagree)</i></p> <ul style="list-style-type: none"> My child is safe in the neighborhood around the school. My child is safe on school grounds.

(CONTINUE)

the social-emotional questions aligned closely, another sign of the surveys' validity. Further, "there is a strong relationship between students' reports on the social-emotional surveys and teacher, student, and staff reports about school culture and climate," Hough wrote in a 2018 analysis of the validity and reliability of the CORE surveys done with Hunter Gehlbach, a University of California, Santa Barbara researcher who helped Transforming Education assemble the social-emotional components of the surveys and who is research director at Panorama Education, the Boston-based company that administers the CORE surveys.¹³ They found that high school

students' responses aligned more closely to parents' perspectives than did elementary school students' responses. Overall, they concluded that educator and parent surveys can be valuable in triangulating students' perspectives on schools' culture and climate.

Some researchers, including Angela Duckworth of the University of Pennsylvania, who has helped popularize social-emotional learning through her writing about "grit," opposed CORE's use of surveys in school ratings, in part because holding educators responsible for survey results could encourage them to "game" survey responses to

Sample CORE Districts Culture and Climate Survey Questions <small>(continued)</small>	
Skill/Area	Sample Questions
Climate of Support for Academic Learning	<p><i>How strongly do you agree or disagree with the following statements? (Strongly Disagree, Disagree, Neither Disagree Nor Agree, Agree, Strongly Agree)</i></p> <p>STUDENT</p> <ul style="list-style-type: none"> Adults at school encourage me to work hard so I can be successful in college or at the job I choose. Teachers give students a chance to take part in classroom discussions or activities. <p>STAFF</p> <p><i>This school... (Strongly Agree, Agree, Disagree, Strongly Disagree, Not Applicable)</i></p> <ul style="list-style-type: none"> Is a supportive and inviting place for students to learn. Emphasizes helping students academically when they need it. <p>PARENT</p> <p><i>This school... (Strongly Agree, Agree, Disagree, Strongly Disagree, Not Applicable)</i></p> <ul style="list-style-type: none"> has high expectations for all students.
Sense of Belonging	<p><i>How strongly do you agree or disagree with the following statements? (Strongly Disagree, Disagree, Neither Disagree Nor Agree, Agree, Strongly Agree)</i></p> <p>STUDENT</p> <ul style="list-style-type: none"> I feel like I am part of this school. I am happy to be at this school. <p>STAFF</p> <ul style="list-style-type: none"> This school is a supportive and inviting place for staff to work. This school promotes trust and collegiality among staff. <p>PARENT</p> <ul style="list-style-type: none"> School staff welcomes my suggestions. My child's background (race, ethnicity, religion, economic status) is valued at this school.

SOURCE: CORE Districts

improve the ratings.¹⁴ “I do not think we should be doing this,” she told the *New York Times* in 2016. “It is a bad idea.”¹⁵

CORE pushed back. “The alternative is to do nothing, because it’s easier,” Bookman told us. “You learn by doing, carefully.”

But the debate proved moot.

CORE elected to reduce the impact of the survey results on individual students and educators by not reporting results at the student and classrooms levels. Instead, CORE reported results at the school, division (elementary, middle, and high), and district levels, by gender, race, English-language-learner status, and socio-economic status. Some districts, including Fresno, went a couple of steps further, providing educators and administrators with results for each survey question at the grade, school and school district levels, also broken down by gender, race and socio-economic status, under contract with CORE’s survey administrator, Panorama. But individual students and educators weren’t singled out.

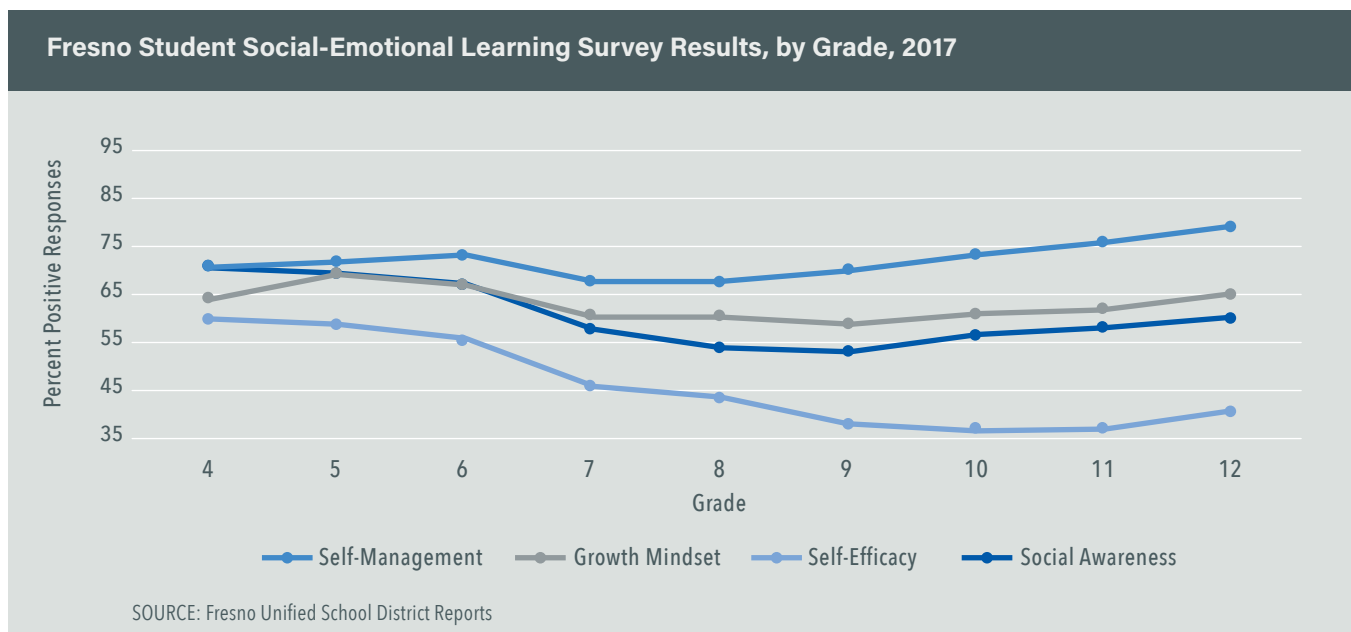
More importantly, the results were never used for accountability. Educators and administrators never

faced the threat of losing their jobs or other significant consequences for low survey scores. And the Fresno educators we interviewed said they weren’t worried that there would be consequences. Under the federal NCLB waiver to the CORE Districts, low-scoring schools would be paired with high-performing counterparts that would help them improve, a short-lived initiative.

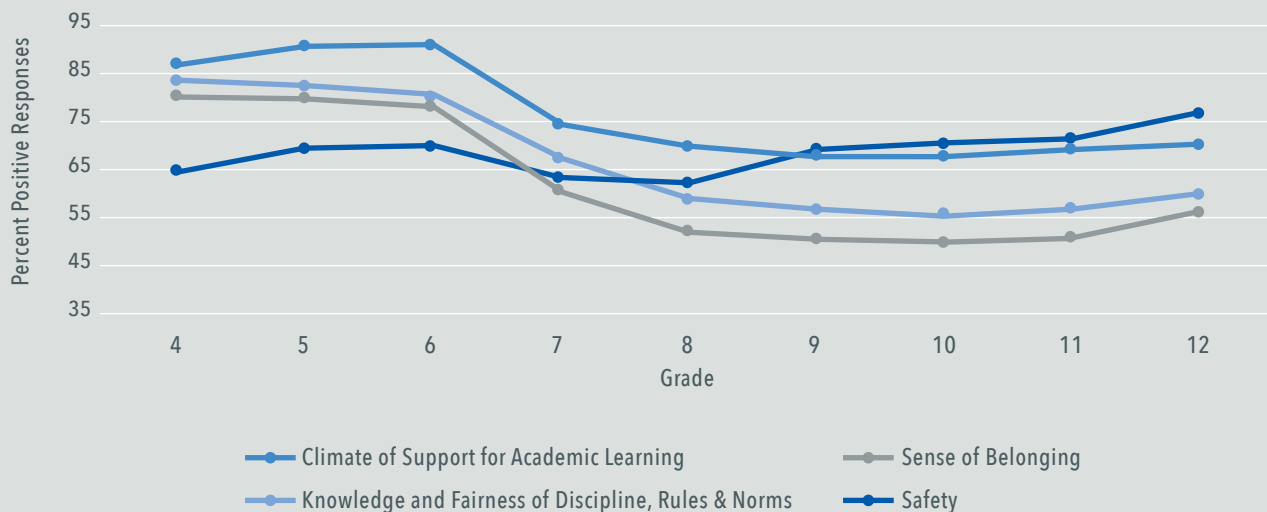
When the waiver expired in August 2017, California education officials chose to not include survey results in the state’s new school-rating system. The CORE Districts sought to continue to count the survey scores as part of a state pilot project. But the California State Board of Education never considered the proposal.

A Value Statement

Nonetheless, the CORE Districts continued to conduct the surveys, and Fresno’s experience suggests that surveys don’t have to be part of accountability systems to be influential. Fresno educators told us that merely by administering the annual surveys to students, educators, and parents and conveying the results to schools, the CORE Districts have signaled the importance of social-



Fresno Student Culture and Climate Survey Results, by Grade, 2017



SOURCE: Fresno Unified School District Reports

emotional contributors to student success and have galvanized educators to act on problems the surveys surface.

“The [survey] reports are a value statement,” Kim Mecum, Fresno Unified’s chief academic officer, said. “The natural tendency [of educators] is to go to academics only. From the classroom to the boardroom, the hiring process, everything is focused on academics. The survey data signals that the other half of school life is equally important, and that’s our goal!”

More broadly, the CORE surveys are part of an effort to elevate instructional standards for Fresno Unified’s many impoverished students, Mecum told us. “The tendency is to lower expectations because they’re poor,” she said during a morning conversation in her high-ceilinged corner office in the school district’s aging downtown headquarters, across the street from Fresno’s imposing city jail. “Our goal is to help address the consequences of poverty and push standards higher. The survey data creates a place to begin conversations about how to make that happen. It makes the issue present.”

“What gets monitored gets addressed, and the surveys give schools a common language with which to address non-academic issues; it’s a way for the school community to pull together,” agreed Principal Karina Stenfort of 393-student Jackson Elementary School, located in an older downtown neighborhood with royal palms and orange trees, where most of the students are Spanish-speakers.

Many Fresno school leaders and educators told us they welcomed the school district’s expanded agenda. “Our response to the CORE surveys was, ‘Hallelujah, we would be measured on more than how many of our students are at or above proficient [on state achievement tests].’ We were very happy to see it,” said Matt Ward, principal of Sequoia Middle School, a single-story cinderblock building serving 812 mostly Latinx 7th and 8th graders on Fresno’s south side, where nearly every student received federally subsidized school lunches, and where most struggle academically.

Some educators told us they would value survey results for each student, as a way to better understand individual student needs. But Fresno Unified officials

decided to release data only at the grade and school levels, to avoid stigmatizing students and teachers and out of concern that the surveys would not produce valid and reliable results at such a fine-grained level. The grade-level, gender, and racial subgroup reporting would give teachers and principals a pretty clear picture of the conditions in their schools, the officials reasoned.

As a result, Fresno's 4,000 educators and 400 school leaders largely view the surveys as a way to help students, not as something they should be wary of—despite pushback from the Fresno Educators Association, which opposed collection of additional information on school performance. Educators don't seem to worry they're being judged on things beyond their control, as has been the case with some new teacher-evaluation systems that rely heavily on student test results. "People feel like it's an improvement tool,"

In interviews, teachers said they didn't lower their standards for their students or think less of them after learning the survey results.

Lisa Milazzo, a fourth-year science teacher at Sequoia Middle School, told us. "It gives us a much clearer picture of how the entire school community sees the non-academic side of school life," noted Courtney Curtis, Hoover High School's former vice principal.

In some instances, the survey results have confirmed long-simmering problems in schools and have empowered educators to act on them. Hoover's troubling results "opened up conversations on topics that were on people's minds," Aleyda Valencia, an Advanced Placement Spanish teacher, told us. "It was a red flag. There was a lack of clear rules and inconsistent responses by educators to discipline problems." In addition to this year's faculty-wide training, students' and educators' concerns produced more consistent application of the school's three-level discipline model, increased analysis of when and where discipline

problems were occurring (locker rooms were a hot spot), and a new app that notifies parents when students are removed from class.

In other instances, the survey results have spurred educators by disabusing them of misperceptions. "When you're teaching every day you think 'Oh, everyone's connected, I call on everyone, I shake everyone's hand at the door,'" Sequoia history teacher Sarah Chavez-Kemp told us. "But the data suggests something like 35 percent of our kids don't feel connected. In a school of 800, that's a substantial number."

Many educators at Jackson Elementary were also taken aback by what they learned from the surveys. "Most of the children here are upbeat, so it was very surprising to learn that a group of students said 'I can't rise to the challenge,'" 2nd-grade teacher Nancy Hinojosa said during a conversation at Jackson, where 15 percent of students were chronically absent in 2014-15 and 14 percent of students met state math standards. "It was surprising to think that some of them were hiding that." In 2016, only 41 percent of the school's students responded positively to the question, "I can master the hardest topics in my class."

None of the dozens of educators we spoke to felt absolved of their responsibilities as educators by the often-discouraging findings on students' self-perception as learners. They said they didn't lower their standards or think less of students after learning the survey results. On the contrary, we heard a lot of talk in the schools we visited about building school culture that promotes learning.

Annual Administrations

The CORE surveys are administered in Fresno anonymously during a three-week window in January and February. In the first two annual administrations, students, educators and parents filled out scannable paper questionnaires. Beginning in 2018, students and educators completed the surveys online using

school computers to speed the process and reduce administration costs. The paper parent surveys go home in English, Spanish and Hmong.

Panorama Education compiles the completed surveys and, in the spring, sends reports to CORE, school districts, and, where contracted, individual schools. In Fresno, principals download their schools' reports from the Fresno website, where they're able to see their year-over-year performance and compare their schools' performance to division and district averages and CORE deciles.

Mecum, who like many Fresno teachers and administrators was educated at Fresno State, includes the information in a document she uses to track the performance of Fresno Unified's 106 schools using both academic and non-academic indicators. Fresno's administrators focus on the CORE survey results in regional meetings they convene several times a year to bring together representatives of schools in elementary-

middle-high school feeder patterns. And the information works its way into schools via all-staff meetings, smaller teams, and large-scale training initiatives like Hoover's.

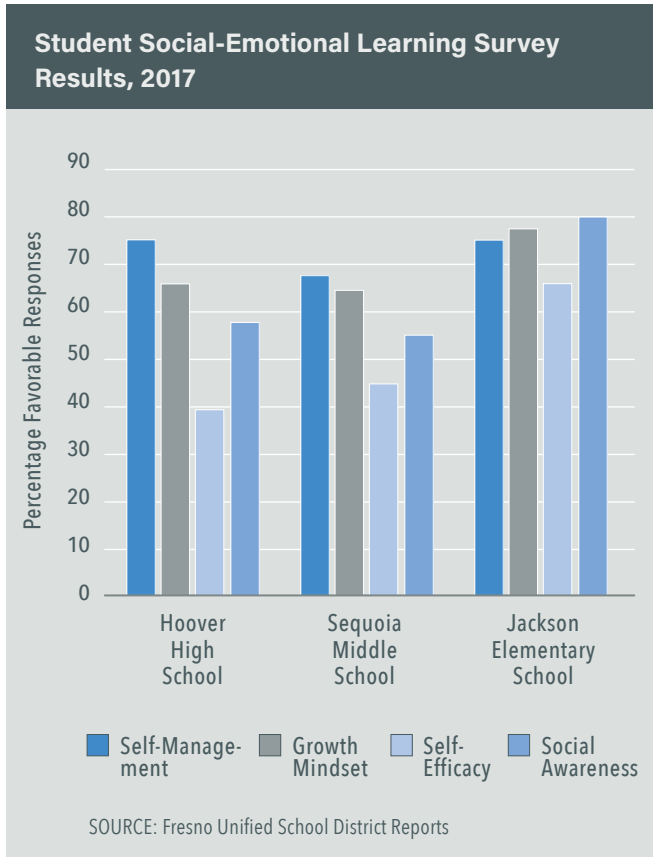
At Jackson Elementary, Principal Karina Stenfort reviews Jackson's survey results for her staff at the start of each school year, to explore trends and get teachers' reactions. The surveys, she says, "help drive conversations with teachers." Sequoia Principal Matt Ward—who has read *Grit*, *Mindset*, *How Children Succeed*, and other recent writing on social-emotional aspects of student success—shares the CORE results with his staff in the spring. In a whole-faculty meeting, he stresses how Sequoia's performance stacks up against that of other Fresno middle schools.

The CORE surveys have yielded some striking trends, throughout Fresno and the CORE Districts.

As at Hoover High, the surveys revealed that students became less confidence in themselves as learners the longer they're in school. Self-confidence reached strikingly low levels by the time students entered high school, with the confidence of girls much lower than that of boys. Former superintendent Mike Hanson recounted a presentation on early CORE survey results to the CORE Districts board: "We noticed that the self-efficacy of girls started tumbling in late elementary school and fell like a stone through high school. We were stunned. We'd been blind to it"

The confidence gap was even more troubling in Fresno Unified, Hanson told his school leaders at a citywide administrators' gathering following the 2016 surveys. Self-efficacy among the district's students declined from 59 percent in the elementary grades to 45 percent among secondary students (reflected in positive answers to questions like, "I can master the hardest topics in my classes" and "I can do well on my tests, even when they're difficult"). High school scores were in the bottom 10th percentile CORE-wide.

The results were unsettling, "a jaw-dropper" in the words of Dave Calhoun, then Fresno Unified's executive director of research, evaluation and assessment and now on



the CORE Districts’ staff. No less problematic, Calhoun told us, was the revelation that Latinx students had a lower sense of self-efficacy than white students and that African American students expressed less confidence in themselves than Latinx students.

Students’ sense of belonging, of being valued members of their school communities, also declined sharply the longer students were in school, according to the surveys. In 2017 in Fresno Unified, 82 percent of Latinx 4th-graders and 76 percent of African American 4th-graders felt they were valued in their schools. But only 52 percent of Latinx 9th-graders and 44 percent of African American 9th-graders shared that perspective.

Subsequent analysis revealed that students of color had more negative perspectives than white students in every one of the four social-emotional categories CORE surveyed at every grade level, and that students from lower socio-economic backgrounds had more negative perspectives than their more affluent peers in every area.¹⁶ These results could reflect larger social influences affecting how children of color and those living in poverty view themselves.

Improvement Priorities

While the surveys identified problems, it was up to Fresno Unified administrators to develop solutions. Two improvement priorities emerged in the wake of the troubling findings.

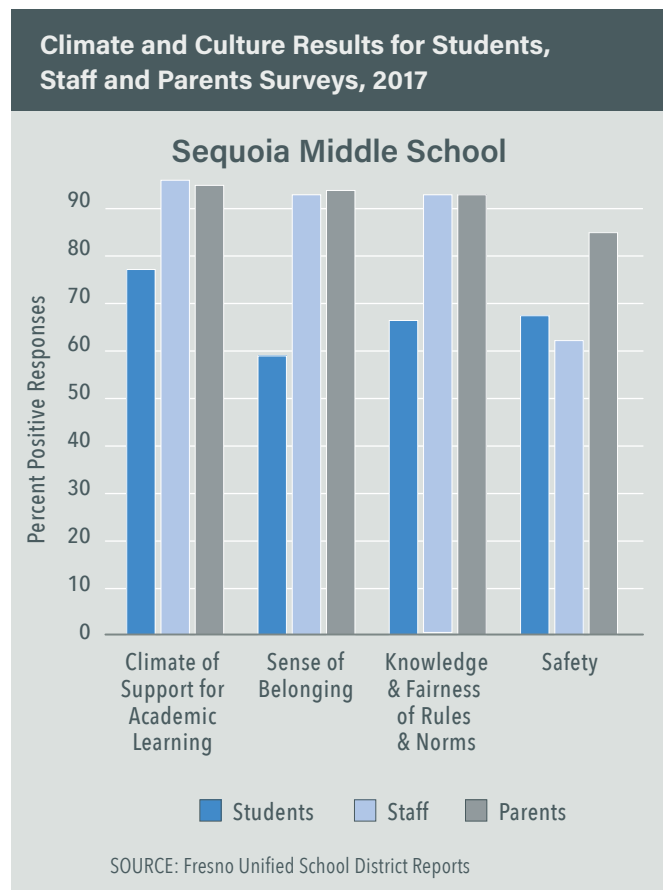
Hoover and other Fresno high schools, flagged in the past by the U.S. Department of Education’s Office of Civil Rights for disproportionately high suspension rates among African American special education students, have intensified efforts to standardize disciplinary referrals to ensure that the same misbehaviors generate the same consequences, to improve school culture, and to reduce behavior that may lead to suspensions and expulsions.¹⁷ At Hoover, where 19 percent of students were chronically absent in 2017-18, the effort has included helping teachers and staff set consistent

expectations for student behavior throughout the school, from classrooms to the cafeteria and bleachers at away sporting events.

Many schools in Fresno Unified have also sought to strengthen students’ sense of themselves as learners, to deepen their belief in their ability to improve and to thrive in the classroom, as a way of reducing discipline problems and increasing achievement.

Some schools have drawn on outside resources to address these “mindset” and “belongingness” issues. Others have improvised.

At Jackson Elementary, the schoolwide message to struggling students has been that learning is a process, that it takes times. “It’s not, I can’t get there,” says kindergarten teacher Michele Hayashi. “It’s, I can’t get there yet.” Hayashi and her kindergarten colleagues use the Scholastic picture book *Giraffes Can’t Dance*, about



an awkward giraffe that slowly, with the help of a friendly grasshopper, overcomes self-doubt to conquer the dance floor.

Other Jackson educators have performed classroom skits to encourage students to “believe in themselves” and have had students write songs on the theme “I can do it,” set to Bruno Mars melodies. There’s a weekly whole-school rally at Jackson to increase students’ sense of connectedness. “The [CORE] surveys have focused people’s attention on the non-academic side of instruction,” kindergarten teacher Sonia Juaregui told us.

Sequoia Middle School has sought to infuse more “positivity” in its classrooms by having teachers consciously use a ratio of three compliments to one criticism in talking to their students and having students write essays about overcoming obstacles.

Principal Matt Ward, who often sports an emerald green track top with the school’s logo embossed on the breast pocket, has worked with his dean of students to create middle-schooler-friendly videos on growth mindset that they beam into homerooms during Monday advisory periods. To demonstrate how intellectual exertion expands brain capacity, they created a Mr. Brain as a prop, built from a mail order plastic brain with Blues Brothers sunglasses attached to a badminton racket.

Some teachers have taken steps on their own. To counter students’ weak sense of belonging reflected in the CORE surveys, history teacher Sarah Chavez-Kemp at Sequoia has worked to connect with students throughout the school day. “I try to say ‘Hi’ to kids in the hall, to reach out to kids I think maybe aren’t connected—‘join my club,’ ‘do you like to garden?’ The surveys make you aware that kids are struggling.”

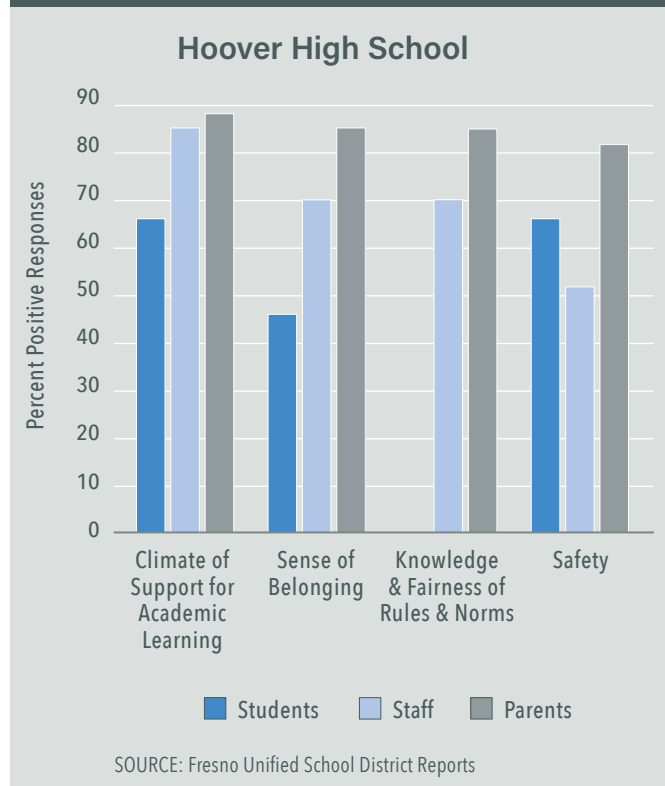
It would take closer study to learn how closely these well-intentioned steps reflect best practices and to gauge their effectiveness. But many teachers and administrators readily acknowledge that the new CORE measures and the research behind them are unfamiliar and challenging. “I had a panic attack when the first CORE results came out,” Wheeler, in her fifth year as

Hoover’s principal, told us. “I knew nothing about the concepts. It was a steep learning curve.” A 2018 PACE study of 10 middle schools in CORE districts found widely varying and often superficial interpretations of the CORE concepts.¹⁸ Says Michelle Steagall, the CORE chief academic officer (and a competitive calf roper), “Are we at a point where everyone has a solid awareness of the social-emotional landscape? No.”

Building Infrastructure

Indeed, not all Fresno educators buy into the new surveys, believing their priority should be academics. And many of those who do embrace the new emphasis on school culture and students’ social and emotional development lack a clear understanding of how best to respond to the survey results. It’s not enough, we learned

Climate and Culture Results for Students, Staff and Parents Surveys, 2017



from our Fresno research, for districts to rely on schools to respond to the new data on their own.

Rather, they need to build infrastructure at the district and school levels to deepen educators' understanding of the new concepts, help them interpret results accurately, and enable them to respond to the new information in the most effective ways—avoiding well-intentioned but counter-productive responses such as over-reacting to small shifts in survey scores or introducing “false-mindset” strategies, telling kids to work harder rather than communicating that their capacity to learn will grow if they work harder.

Recognizing this, Fresno Unified leaders have moved deliberately over the past few years to create a district-wide infrastructure to address these issues and to expand buy-in among frontline educators, building on the district's prior efforts to reduce truancy, suspensions, bullying, and other behavioral disruptions among a student population with many needs.

The effort is led by Rita Baharian, the director of climate and culture in Fresno Unified's Department of Prevention and Intervention, an agency dealing with such non-academic areas as attendance, discipline, mental health and student mentoring. “When we started, we were just exposing people to the information, to the concepts,” she told us. “People didn't grasp what to do if students don't have a growth mindset, how to teach it. They want to know how to imbed social-emotional learning in instruction. Now we're working to develop these skills in age-appropriate ways, like we do with math and literacy skills.”

Buffeted by racial disparity in suspension rates and high expulsion rates, the district as far back as 2002 began using federal funding to bring in a host of commercial behavioral-management programs such as Safe and Civil Schools, Positive Behavioral Interventions and Support, Olweus Bullying Prevention Program, Restorative Practices and Second Step. The district's Department of Prevention and Intervention manages the work, helping teachers with everything from addressing students in

class effectively to being more consistent in disciplining students in different racial groups.¹⁹ To implement the programs, the district created “climate and culture teams” in every school—committees of teachers, classified staff and administrators tasked with working with their colleagues to produce safer, more caring schools with fewer discipline problems.

“There were varying levels of implementation. We didn't have leverage. Now that it's in the CORE dashboards, people are paying attention. The work is more systematic.”

-Rita Baharian, Director of Climate and Culture

But not all schools were sufficiently invested in the initiatives. There was more compliance than commitment to the work in many schools. The CORE surveys have changed the response in many schools. “There were varying levels of implementation,” Baharian told us. “We didn't have leverage. Now that it's in the CORE dashboards, people are paying attention. The work is becoming more systematic.”

Since the first administration of the CORE surveys in 2016, the climate and culture teams have become a key component of Fresno's campaign to strengthen the social-emotional side of its schools, helping principals convey the CORE results to teachers and working with school staff to implement responses, while serving as staff sounding boards on school safety and related issues. Some of the teams are stronger and more engaged than others, Fresno officials say. Baharian's team brings them together twice a year for briefings on survey results, training and planning.

The district supports the school-based teams with a cadre of “climate and culture specialists,” district-trained roving experts working out of Baharian's office. They introduce the school teams to the CORE constructs, help

them interpret results, and identify resources. They do tutorials on the CORE surveys for new principals, lead professional development at school staff meetings, bring in school district resources and work side-by-side with grade-level teacher teams.

They also work in classrooms, measuring such things as the ratio of positive to corrective teacher interactions with students and the number of opportunities students have to respond to their teacher, and helping educators with bullying prevention, deescalating disruptions and increasing students' sense of belonging and engagement.

Baharian's team has focused the specialists' support on schools, such as Hoover, with particularly troubling CORE survey results, and the specialists have become a key catalyst for change in the district. Ashley Trippel, a school psychologist, told us: "I'm excited about what I've seen over the last four years; we've made a lot of strides."

Fresno Unified leadership has recently doubled down on the strategy. In the program's first years, seven climate and culture specialists worked with regional portfolios of 12 to 14 schools. Last summer, the Fresno school board expanded the number of specialists to 21 and reduced their caseloads to five or six schools each, using new state monies to fund the added positions—money that the board also invested in additional social workers and psychologists.

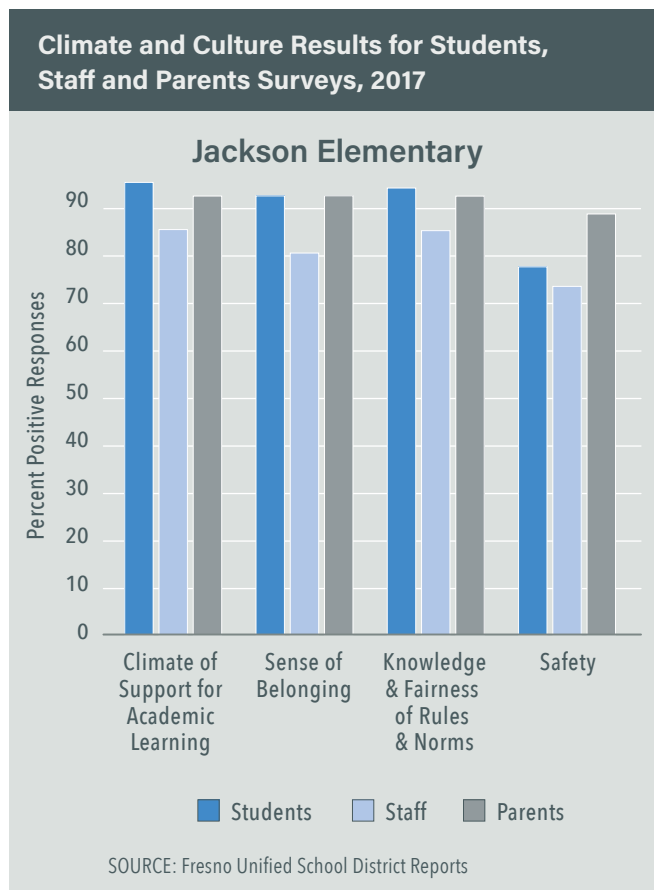
Internal Champions

Another component of Fresno Unified's expanding infrastructure is week-long workshops on social-emotional learning developed and delivered by the district's Department of Prevention and Intervention. Taught by the district's climate and culture specialists during winter and summer breaks, the so-called SEL Institutes are designed to develop "internal champions" for the work, with the instructors recruiting many of the participants from schools' culture and climate teams.

At a January institute we visited, over four dozen elementary- and middle- school educators gathered for four consecutive days in a meeting room with polished concrete floors at Toby Lawless Elementary, where they studied the four CORE social-emotional learning constructs, the science supporting them, and their relationship to teaching students to high standards.²⁰

The session included community-building activities for developing belongingness, a TED talk on the physiological and psychological consequences of exposure to trauma, and readings on why educators need social-emotional skills and how to embed them in instruction—topics that many teacher-education programs don't address, Trippel told us. Baharian's office also has done sessions on social-emotional learning for principals and Fresno Unified administrators.

Growth mindset and other CORE survey concepts also have filtered into Fresno Unified's regular teacher-training activities.



The day before we visited Hoover High School, the school's educators had participated in a districtwide professional-development day that included numerous sessions on developing growth mindset. Workshops available to educators at Hoover and other high-needs schools now include sessions on school culture and students' social and emotional perspectives.

The school district has organized educators at every grade level in every school into "professional learning communities," and they too have begun to explore the CORE competencies. Hoover's former football coach told us that the focus on the social-emotional side of the education equation gives the entire school staff a stake in students' success.

At the same time, the CORE surveys have helped build bridges to parents. Including them in surveys signals that their voices are valued, a step towards greater engagement, especially among parents who find engaging with educators intimidating, or who may otherwise only have contact with schools if their children are in trouble. And though Fresno Unified does not share the survey results publicly (other than in summary form at school board meetings), some individual schools do share them at parent functions, as a way of signaling the importance of the non-academic components of student success and investing parents in school-improvement efforts.²¹ "It helps us communicate what we do and what we want to do, and that they have a role to play at home," Irene Santacruz, a first-grade teacher at Jackson Elementary, told us.

Parent survey responses are also a window into schools' treatment of a key constituent. When Hoover parents reported feeling disconnected from the school early in Wheeler's tenure as principal, she created a parent center led by a vice-principal tasked with getting parents more involved in their children's school lives. She found that parents became more engaged in school activities.

Incremental Progress

But as much as Fresno Unified has done to help its schools respond to the CORE results, the experience in Fresno suggests that getting schools to the point where they are able to engage fully and effectively on non-academic aspects of school life requires a long-term commitment and substantial training.

Even with the advantage of a good deal of existing infrastructure, Fresno Unified's progress has been incremental.

"Learning to operationalize the school climate and culture work, learning to live it, that's hard," Mecum told us. As Baharian put it: "You can't do this in one year. Teachers would never be in classrooms, principals would never be at school sites...we have some schools doing phenomenal things, and some struggling."

Teacher skepticism is a continuing challenge. "Despite all the work we've done on the issue, there's still learning to do, there's still a sense that 'I don't need this because my kids are fine,'" Wheeler told us in her Hoover office. "A sense that only 9th- and 10th-graders need [help], or that it's only a discipline problem, even though the whole campus is telling us the same things."

And though a majority of educators told us that the CORE survey information was valuable, many also say they're overwhelmed by the number of themes the surveys cover and that they're expected to address. "That's why we take simple steps first, and it takes a while to understand what we're seeing. We want to make sure we're implementing things effectively—making solid decisions," said Sandy Tapia, a Sequoia music teacher and member of the middle school's climate and culture team.

A surfeit of categories and constructs is a substantial challenge for the burgeoning field of social-emotional learning, which now extends well beyond the CORE Districts' eight topic areas to encompass, among other things, student motivation, bullying prevention, teamwork, resilience, self-awareness, character,

citizenship, and emotional intelligence. The many policy priorities and organizational agendas that have coalesced under the banner of social-emotional learning leaves local educators confused and important initiatives open to ideological attack.

At best, the term is an incomplete rendering of the social-emotional dimension of schooling. At worst, it signals the wrong way to achieve important goals. A sense of belonging within a school, for example, is not a skill to be taught; it is a perspective that is derived from students' sense of safety and respect and the nature of their relationships in schools, which schools can cultivate through staffing, curriculum and other policies. While there are important social and emotional components to learning, it might be wise to drop sweeping terms like social-emotional learning for narrower and more precise descriptors.

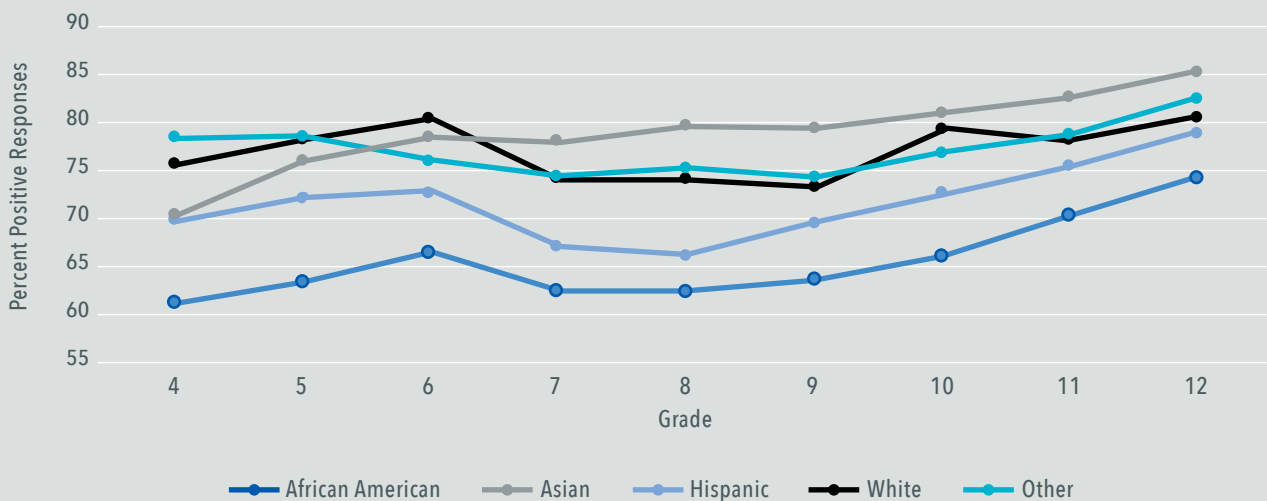
Teacher shortages and educator turnover compound the challenges that Fresno Unified and other districts face in trying to weave non-academic priorities into the fabric of school life. Hoover, for example, has lots of long-term substitute teachers, who have fewer opportunities than

their colleagues to work on responses to the CORE survey results, while the school district must introduce over 250 new educators a year to the work.

And while the district's leaders rightly believe that efforts to strengthen students' self-efficacy, self-management, mindsets and social awareness pay the biggest dividends when they're incorporated into classroom practices, the department of prevention and intervention is in a different building than its instructional counterpart and has traditionally worked independently. "We haven't yet fully combined the two," Calhoun told us when he led the district's research office. "It's not happening naturally."

The district has established internal working groups to bridge this divide, and it is planning to publish social-emotional standards by summer 2019, to signal the importance of the work, drive it into classrooms, and give schools concrete steps to build these competencies within the academic curriculum. The standards will detail for schools the age-appropriate skills in self-awareness, social awareness, self-management, self-efficacy and growth mindset their students should have.

Fresno Students' Self-Management Survey Scores, by Grade and Race, 2017



SOURCE: Fresno Unified School District Reports

It's not expensive for Fresno Unified to administer and report the CORE survey results. Educators and students complete the surveys in schools. Schools send home parent surveys in backpacks. And the district pays vendor Panorama about \$140,000 a year to tally the surveys and produce district- and school-level electronic dashboards of the results.²²

But responding to the results is much more costly. The Department of Prevention and Intervention's budget grew by \$4 million this year to pay for the new climate and culture specialists and additional staff and resources. And the per-student price of building a response to survey results is likely to be higher in school districts that don't have the foundational infrastructure that Fresno Unified started with.

For all these reasons, school district leaders would seem to help themselves by focusing on a smallish number of non-academic indicators that research suggests are developmentally appropriate and have the most impact. Heather Hough, Demetra Kalogrides, and Susanna Loeb at PACE found that among the social-emotional elements measured in the CORE surveys, self-management and self-efficacy correlate most strongly

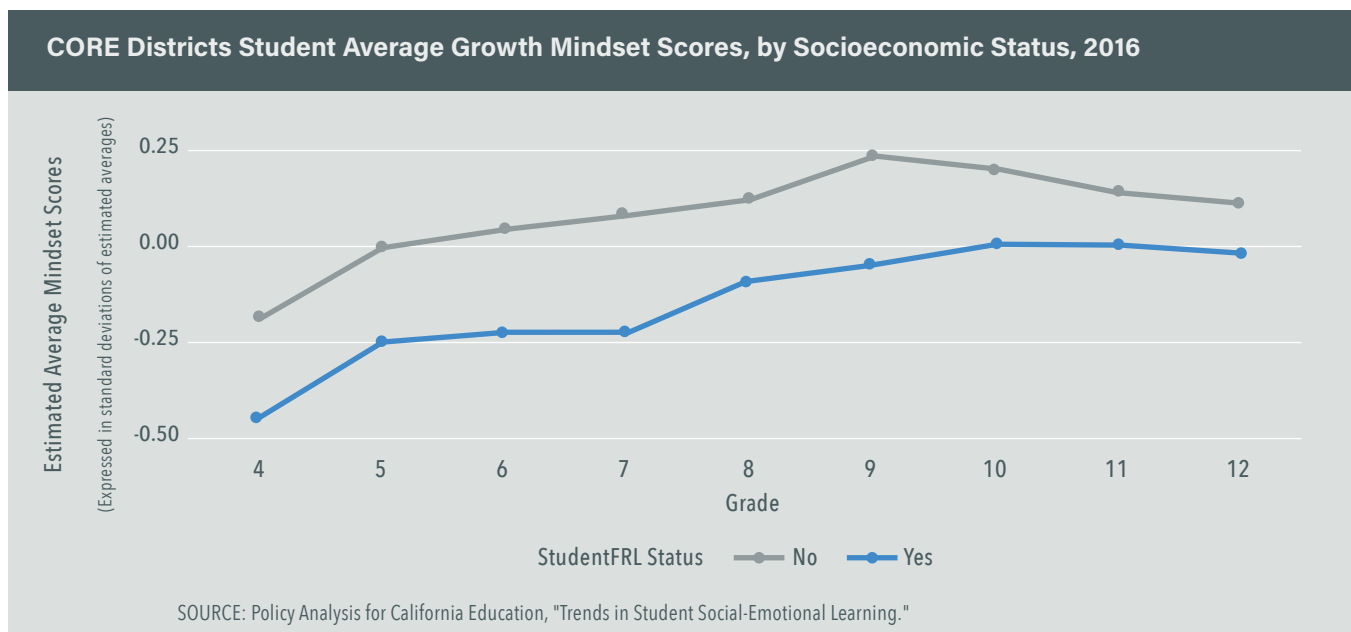
with students' grades in elementary school, and they found growth mindset and self-awareness responses to be the strongest predictors of student performance in high school.²³

Early Results

It is not clear yet if Fresno Unified's investment in improving the climate in its schools and the social and emotional well-being of its students has paid dividends in greater student engagement and higher student achievement.

PACE researchers analyzed the relationship between the 2015 and 2016 CORE survey results on growth mindset, self-efficacy, self-management, and social awareness and growth in student achievement in CORE schools. They found that year-over-year changes in students' survey scores varied from school to school, suggesting that schools influence students' social-emotional development.

The effects of schools on social-emotional measures were about the same size as the schools' effect on test scores, the authors found. That suggests, but does



not prove conclusively, that social-emotional status and perceptions of school climate and culture have an important role in school improvement.²⁴

The survey results in the schools we studied have fluctuated from year to year. At Hoover High School, for example, educators' reported sense of belonging and familiarity with school rules have risen, while their sense of safety plunged a couple of years ago, when a student pulled a replica of a gun on a campus guard on the third day of classes. Attendance at Hoover hasn't improved much since the introduction of the CORE surveys, but suspensions are down. Reading proficiency was up significantly in 2017-18 after being flat for three years, but math proficiency was down sharply.²⁵

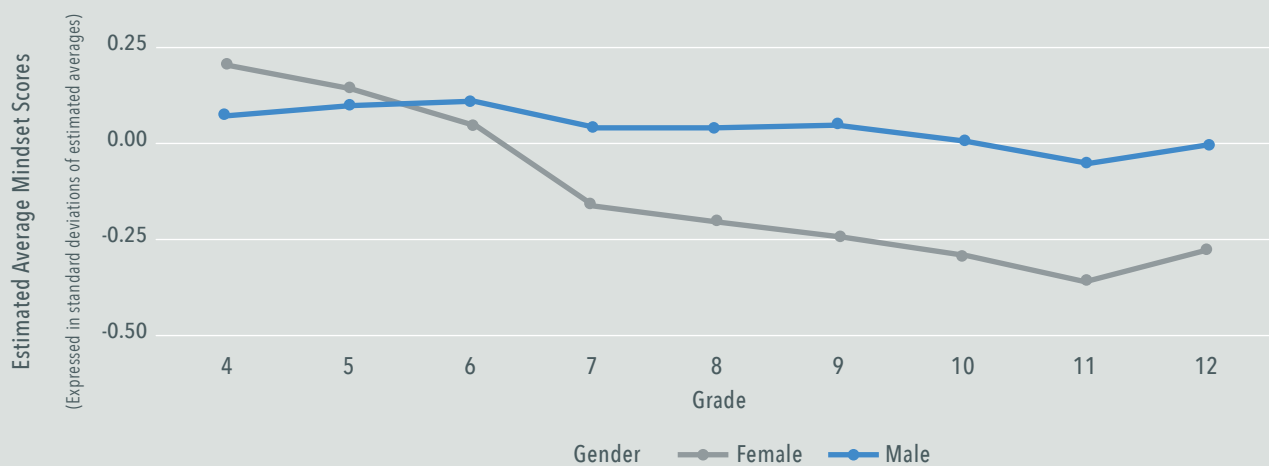
At the district level, the survey results haven't shifted significantly since the start of the surveying in 2015-16. But Fresno Unified's graduation rates rose from 79 percent in 2013-14 to 84 percent in 2017-18 and is now a couple of percentage points below the California average. Suspension and expulsion rates are down. And the proportion of Fresno students meeting state standards in reading and math has risen steadily since 2014-15, though students still lag state averages.

It's too early to say that the CORE surveys and the Fresno Unified responses to them have contributed to these and other shifts in the school district's performance. But Baharian says she's optimistic about the bet Fresno Unified has made on the social-emotional side of student success. "We're putting the right resources in the schools, and I believe that three years from now our district data will reflect that."

But Fresno Unified and the other CORE districts are going to have to work hard to ensure the soundness of the surveys undergirding their efforts.

It is encouraging that researchers found that the correlation between CORE survey results and student achievement is supported by substantial evidence of validity and reliability, in the wake of steps by the CORE Districts and their partners to address reference bias, social desirability bias, and stereotype threat during pilot testing. The integrity of the CORE surveys has been further strengthened by the CORE Districts' decision to not report results at the student and classroom levels, and because the results have not posed significant consequences for educators.

CORE Districts Student Self-Efficacy Scores, by Gender, 2016



SOURCE: Policy Analysis for California Education, "Trends in Student Social-Emotional Learning."

But more research needs to be done to prove that these measures can be used effectively to gauge school improvement efforts. And the credibility of the survey results could be compromised in other school districts if the results were parsed too narrowly, or if they were used to rate educators and schools under stringent accountability systems. If Duckworth's critique of the CORE Districts' surveys was perhaps overstated, given the absence of consequences for the survey results, her broader concerns are legitimate. We don't know how educators would react if the stakes were higher than they are in Fresno Unified.

We didn't find any evidence in the schools we studied of educators encouraging students or parents to answer questions in ways that flatter their schools. But there were some caution flags. Principal Matt Ward of Sequoia told us that one year he read the questions over the intercom during advisory in an effort to clarify the questions' meaning, and to build understanding of the importance of the survey—a well-intentioned step that could introduce bias into survey responses.

And we don't know if parents, students, and educators would continue to give genuine responses year after year, or if social desirability bias or other challenges might creep into the surveys, threatening their reliability, especially after schools like Hoover make major investments in improving school culture and strengthening student engagement.

Getting sufficient participation rates is another challenge. Seventy-three percent of Fresno Unified elementary school students (who must have parental permission to participate in the surveys) completed questionnaires in the first two years of surveying in Fresno Unified. Secondary school student participation has hovered around 80 percent (parents can opt secondary students out of the surveying). About 77 percent of the school district's educators have participated, as have just over half of the district's parents.

But parent and teacher participation rates have been lower in other CORE districts, raising questions about the representativeness of the survey responses.²⁶ The

schools we studied in Fresno Unified used pizza parties and other incentives to boost parental participation rates, well-intentioned steps that may influence survey results.

A New Path to Improvement

Researchers counsel caution.

In their studies that presented validity and reliability evidence for the CORE Districts' measures, PACE researchers noted that hoped-for school-to-school variations in social-emotional survey results and the measures' contribution to student achievement were modest. Hough, Kalogrides, and Loeb reported that only half of the schools throughout the CORE network had results that could be distinguished statistically from the CORE-wide average.²⁷

Such results don't support fine-grained comparisons of schools' impact on students' social and emotional skills, the researchers concluded.²⁸ “[The eight CORE categories] can distinguish schools that are well above the mean from those that are well below the mean,” Hough, Kalogrides and Loeb wrote in 2017. “They are not measured precisely enough to distinguish more than these blunt categories.”²⁹

Robert Meyer and his colleagues at the University of Wisconsin—Madison also concluded that the CORE surveys shouldn't be used to make narrow distinctions between schools.³⁰

Hough and others say there needs to be more research to identify the most effective strategies for strengthening school climate and students' social and emotional competencies. “We feel pretty confident that growth in social-emotional learning is a real thing that schools contribute to, we know that students in some schools grow more than others,” Hough told us. “And we can track student performance [on the surveys] over time [a prerequisite for measuring schools' ability to improve students' social-emotional capacities]. But we have not attempted to prove [with the CORE survey results]

the effectiveness of specific approaches [to improving students' social-emotional standing]."³¹

Further, Hough and Gehlbach have written, additional research would help "disentangle school effects from classroom or teacher effects" on survey responses, and "better understand the role of school and classroom contexts on students' social-emotional development."³²

Researchers from CASEL, RAND, and Transforming Education also recently cautioned against over-interpreting the results of social-emotional and school climate measures. In an analysis of the social-emotional assessment landscape as a whole, it concluded that "most [social-emotional learning] assessments were

"We feel pretty confident that growth in social-emotional learning is a real thing that schools contribute to, we know that students in some schools grow more than others."

-Heather Hough, PACE Executive Director

not specifically developed for the purpose of comparing schools and little research exists to determine whether currently available assessments have the precision necessary to make such comparisons."³³

Recognizing the problems that could compromise the use of surveys to measure social-emotional competencies and school climate, Fresno Unified has looked at complementing surveys with so-called performance measures, such as observing students' social-awareness in group settings or having students respond to game-based simulations or scenarios to gauge their self-management and social awareness.

But Dave Calhoun, the school district's former research director, told us that such alternatives to surveys are time-consuming and ultimately difficult to complete. "How do you directly assess growth mindset," he asked, "and what does effective self-management mean at kindergarten, grades one, two, three, and

what's the difference between 'proficient' and 'needs improvement'?"

Together, the many challenges that have emerged as Fresno Unified and other CORE Districts have introduced surveys of students, educators, and parents counsel against using the new measures to rate school performance, even though only a small percentage of schools nationwide face consequences under the federal Every Student Succeeds Act if they perform poorly under state accountability systems. By using the survey results for school improvement rather than accountability, the CORE districts have the latitude to explore what works for strengthening social and emotional development and how it influences student success.

Chronic student absenteeism is a smarter school accountability measure. Though it's not without its own challenges, it often reflects school culture and students' social and emotional perspectives. When students feel alienated in school or lack confidence in themselves as learners, they're less likely to attend school. And absenteeism has the virtue of being a simple, concise metric for public consumption, less susceptible to measurement problems, and more easily audited for accuracy. That 36 states and the District of Columbia have included chronic absenteeism in their school-rating systems under ESSA is encouraging.

But Fresno Unified's experience suggests that surveys capturing the social and emotional conditions in schools can be effective in focusing attention on important contributors to chronic absenteeism, and in encouraging schools and school districts to improve conditions for learning. It suggests that surveys can be a catalyst for a powerful new component of systematic school improvement.

RECOMMENDATIONS

There are a number of steps education policymakers and practitioners can take to maximize the contributions to school effectiveness and student learning of large-scale surveys of school culture and students' social and emotional perspectives.

Limit the number of topics surveyed.

The social and emotional landscape in learning is sprawling, with scores of sometimes confusing and conflicting subcategories that can overwhelm educators and principals charged with responding to them. So less is more when it comes to setting a survey agenda. There's likely to be greater buy-in and more effective implementation when educators can focus more deeply on fewer, developmentally appropriate constructs that have been shown to leverage learning.

Report results by student subgroups.

While a number of cultural factors can influence how different student groups respond to survey questions, the CORE surveys have surfaced important differences among groups of students that can help educators respond to survey results most effectively, including girls' struggles with self-efficacy as they move into middle school, and African American students' declining sense of belonging as their school careers progress.³⁴

Aggregate results at the grade level or above.

Sharing survey results at the individual student and classroom levels risks stigmatizing both students and educators, and may encourage educators to sway students' responses. Grade-level, gender, and racial subgroup reporting would give educators and principals a sense of the conditions in their schools without those risks, though in some instances, subgroups may be small enough to warrant reporting only at the school level.

Use surveys for improvement rather than accountability.

Fresno's experience suggests that sharing survey results with educators heightens their sensitivity to non-academic issues and strengthens their commitment to addressing problems on that side of the school equation. Doing so without linking the results to employment consequences for educators and administrators makes it more likely that educators would color school life accurately in their surveys and those of their students.

Don't overwhelm schools with new strategies

Educators can be easily overwhelmed if confronted with expectations that they improve school climate and students' social and emotional perspectives on several fronts simultaneously. Better to identify only a few goals—introducing growth mindset, say, or improving students' sense of belonging—and stay focused on them. That strategy is likely to increase teacher buy-in to the work and to produce tangible improvements, wins that will sustain educators' commitment. An effective approach is to identify a school's most urgent problems and work backwards to school climate or social-emotional strategies that best address those problems.

Build school and district infrastructure to support educators and principals in the work.

Fresno Unified's experience makes clear that individual educators can't be expected to interpret and respond to survey results on their own. They need substantial opportunities to digest and reflect on survey results. They need help in understanding the science behind the concepts being surveyed, how to interpret results, and how to act on them. Providing educators and staff with training and support in the form of coaches

signals to educators that the work is important and that they're going to be supported as they move into what is for many new territory. Establishing in-school culture and climate teams creates a sense of collegiality and a shared agenda among school staff, a sense that they're learning and tackling problems together. An important part of infrastructure-building is providing educators with reference guides, research summaries, instructional videos and other resources they can turn to for support.

Resist thinking about non-academic issues in schools merely as a matter of students acquiring social or emotional “skills.”

Some social and emotional aspects of student success, such as growth mindset and self-management, can be taught. Others, like a sense of belonging and a sense of safety, are perspectives that flow from school climate and institutional norms. They can't be taught directly. As a result, defining this dimension of student success as social-emotional “learning” of social-emotional “skills” wrongly focuses the work—and responsibility for success—exclusively on students, when in fact there are many non-instructional steps schools can take to improve students' sense of themselves as learners and as valued members of learning communities.

ENDNOTES

- ¹ Here and elsewhere in the report we refer to “non-academic” dimensions of student success. We recognize that the academic, social and emotional dimensions of learning are, on one level, inseparable, as the emerging literature of learning science suggests. We use the term “non-academic” simply to distinguish school culture and climate and students’ social and emotional development from curriculum, testing, teacher quality, instructional materials and other traditional priorities in school improvement and student learning.
- ² FutureEd worked with the CORE Districts, Policy Analysis for California Education, and Transforming Education to identify a school district to study. Fresno Unified agreed to work with us and nominated three schools for us to study in depth. These schools serve students representative of the district’s demographics (inner quartile values on key indicators), and each was on the forefront of efforts to use survey data based on either data usage statistics shared by Panorama Education or the opinions of central office personnel. We gathered input from 35 school-based personnel (teachers and administrators) and 7 central office employees using on-site and telephone interviews following a structured interview guide designed to capture variation and nuance on several themes. Responses of CORE Districts personnel and other stakeholders in semi-structured interviews supplement analytic memos summarizing each school-based interview to form the basis of our analysis.
- ³ The original CORE districts were Garden Grove, Sacramento City, Fresno, Long Beach, Los Angeles, Oakland, San Francisco, and Santa Ana.
- ⁴ Transforming Education developed the matrix. See <https://www.transformingeducation.org/wp-content/uploads/2017/04/TransformingEducationCaseStudyFINAL1.pdf>.
- ⁵ CORE’s research and other studies found surveys of students younger than 4th-graders to be unreliable.
- ⁶ Participation in the Healthy Kids Survey was a condition for receiving federal Title IV funds. Fresno Unified stopped participating in the survey in 2011, when the requirement ended (personal communication with Greg Austin, Director, WestEd Health and Human Development Program, March 14, 2017). The RAND Corporation recently released an analysis of non-academic measures of student social-emotional status and school culture and climate, reporting that there are 213 such assessments, which RAND has included in a new on-line repository designed to help policymakers and practitioners assess the measures for use in schools and school districts. See Jonathan Schweig, Garrett Baker, Laura S. Hamilton, and Brian M. Stecher, “Building a Repository of Assessments of Interpersonal, Intrapersonal, and Higher-Order Cognitive Competencies,” RAND Corporation, 2018.
- ⁷ See Martin R. West, Katie Buckley, Sara Bartolino Krachman, and Noah Bookman. “Development and Implementation of Student Social-Emotional Surveys in the CORE Districts,” *Journal of Applied Developmental Psychology*, March-April (2017), pp. 119-129.
- ⁸ Internal reliability is a measure of the degree to which items included in a test measure the same skills. The general rule of thumb in assessment development is that assessments must have reliability coefficients above 0.7 to be considered reliable.
- ⁹ To simplify the testing process, CORE combined the social-emotional and culture-climate items into a single survey for the 2015 field test.
- ¹⁰ To mitigate concerns about reference bias, the CORE Districts partnered with ETS to pilot “anchoring vignettes,” a technique that uses brief descriptions of sample students who exhibit varying levels of the target competency as a tool for norming students’ responses to ensure comparability. Ultimately, the analyses conducted by Harvard University’s Center for Education Policy Research (CEPR) revealed that the anchoring vignettes did not improve the quality of the survey data and CORE decided to not use them for the 2014-15 pilot and beyond. One possible interpretation of this finding is that the school cultures were not dramatically different across schools, so students taking the surveys at different schools had relatively similar frames of reference. This interpretation is supported by [additional findings](#) from Martin West and other researchers at CEPR. See Martin West, “Should Non-cognitive Skills Be Included in School Accountability Systems?” Preliminary Evidence from California’s CORE Districts *Evidence Speaks Reports*, 1 (13), Brookings Institution.
- ¹¹ Heather Hough, Demetra Kalogrides, Susanna Loeb, “Using Surveys of Students’ Social-Emotional Learning and School Climate for Accountability and Continuous Improvement,” Policy Analysis for California Education, March 2017, p.1. The researchers point to the importance of future reliability and validity studies to gauge the effectiveness of efforts to improve school climate and students’ social and emotional development.
- ¹² *Ibid*, p. 11.
- ¹³ Heather Hough and Hunter Gehlbach, “Measuring Social Emotional Learning Through Student Surveys in the Core Districts: A Pragmatic Approach to Validity and Reliability,” Policy Analysis for California Education, May 2018, p. 19.
- ¹⁴ Angela L. Duckworth and David S. Yeager, “Measurement Matters: Assessing Personal Qualities Other Than Cognitive Ability for Educational Purposes,” *Educational Researcher*, 44(4), (2015), pp. 237-251.
- ¹⁵ Kate Zernike, “Testing for Joy and Grit? Schools Nationwide Push to Measure Students’ Emotional Skills,” *New York Times*, February 9, 2016.
- ¹⁶ 2018 PACE report by Martin West of the Harvard Graduate School of Education and colleagues for about 400,000 CORE students in 2015 and 2016 surveys reveals students’ “self-efficacy” drops sharply in middle school. Martin R. West, Libby Pier, Hans Fricke, Heather Hough, Susanna Loeb, Robert H. Meyer, Andrew B. Rice, “Trends in Student Social Emotional Learning: Evidence from the CORE Districts,” Policy Analysis for California Education (2018), pp. 8, 13.

- ¹⁷ This report offers historical context for the federal Department of Education's concern with "significant disproportionality" in Fresno Unified: "Improving Special Education Services in the Fresno Unified School District," Council of the Great City Schools (2018).
- ¹⁸ Julie A. Marsh, Susan McKibben, Heather J. Hough, Michelle Hall, Taylor N. Allbright, Ananya M. Matewos, and Caitano Siquiera, "Enacting Social-Emotional Learning: Practices and Supports Employed in CORE Districts and Schools," Policy Analysis for California Education (2018).
- ¹⁹ Fresno received a Safe School/Healthy Kids grant in 2002. <https://www.samhsa.gov/safe-schools-healthy-students/success-stories>.
- ²⁰ Compensation for attending the SEL Institutes is tied to the status of the "sending" school. "Designated Schools" enjoy additional resources emanating from the district's Local Control Accountability Plan. Besides working an additional 30 minutes per day, teachers in designated schools elect to work between seven to ten days over and above the standard contractual number of 185 days. The extra work entails a salary boost of between 10 percent and 12 percent and institute participation counts toward the extra work requirement. See "Collective Bargaining Agreement between Fresno Unified School District and Fresno Teachers Association/CTA/NEA," available [here](#).
- ²¹ Originally, the CORE Districts published survey results on the school district dashboards, accessible through its website. This practice ended when the CORE Districts' federal waiver from the reporting requirements of the No Child Left Behind Act ended in August 2017.
- ²² Bookman of the CORE Districts says Panorama's basic fee to administer the surveys is \$80,000 a year.
- ²³ Heather Hough, Demetra Kalogrides, and Susanna Loeb, March 2017
- ²⁴ Susana Loeb, Michael S. Christian, Heather Hough, Robert H. Meyer, Andrew B. Rice, and Martin R. West, "School Effects on Social-Emotional Learning: Findings from the First Large-Scale Panel Survey of Students," Policy Analysis for California Education (2018). A second year of data will tell more about whether the gains remain significant and whether schools influence those gains. Beyond the results for students, researchers are working to improve the surveys, to sharpen their use as an instrument for assessing social-emotional development.
- ²⁵ At Jackson Elementary, students rejecting the statement, "my intelligence is something I can't change very much," a gauge of growth mindset, jumped from 34 percent in 2016 to 51 percent in 2017. The proportion of students confident that "I can master the hardest topics in my classes," a measure of self-efficacy, jumped from 41 percent in 2016 to 58 percent in 2017. But the following year Jackson's growth mindset and self-efficacy scores dropped. Even so, the proportion of the school's students meeting California's English language arts standards rose steadily between 2015 and 2018, from 25 percent to 42 percent, while proficiency in math rose from 14 percent to 31 percent.
- ²⁶ Hough, Kalogrides, and Loeb 2017, p. 7.
- ²⁷ Hough, Kalogrides, and Loeb 2017, pp. 9-12.
- ²⁸ *Ibid*, p. 11.
- ²⁹ Hough, Kalogrides, and Loeb 2017, p.11; brief, p. 3. See also, Robert H. Meyer, Caroline Wang, and Andrew B. Rice, "Measuring Students' Social-Emotional Learning Among California's CORE Districts: An IRT Modeling Approach," Policy Analysis for California Education (2018), p. 12; Susana Loeb, Michael S. Christian, Heather Hough, Robert H. Meyer, Andrew B. Rice, Martin R. West, "School Effects on Social-Emotional Learning: Findings from the First Large-Scale Panel Survey of Students," Policy Analysis for California Education (2018).
- ³⁰ Meyer, Wang, and Rice 2018.
- ³¹ An additional challenge is that scores on social-emotional measures don't tend to increase in linear ways from year to year, unlike test scores.
- ³² Hunter Gehlbach and Heather Hough, "Measuring Social Emotional Learning Through Student Surveys in the CORE Districts: A Pragmatic Approach to Validity and Reliability," Policy Analysis for California Education (2018), p. 20.
- ³³ Jeremy Taylor, Katie Buckley, Laura S. Hamilton, Brian M. Stecher, Lindsay Read, and Jonathan Schweig, "Choosing and Using SEL Competency Assessments: What Schools and Districts Need to Know," Collaborative for Academic Social, and Emotional Learning (2018), p. 7.
- ³⁴ Reporting by subgroups creates its own challenges, such as heightening concern about the cultural appropriateness of measures for all students. See <https://measuringSEL.caseli.org/wp-content/uploads/2018/11/Frameworks-Equity.pdf>.

BIBLIOGRAPHY

Council of the Great City Schools. "Improving Special Education Services in the Fresno Unified School District," Council of the Great City Schools (2018), <https://www.fresnounified.org/Documents/20180709-Fresno-Special-Education-Report.pdf>.

Data Quality Campaign. "Using Social-Emotional Learning Data in the CORE Districts: Lessons Learned," Data Quality Campaign (2018), <https://dataqualitycampaign.org/resource/using-social-emotional-learning-data-core-districts/>.

Duckworth, Angela L., and David S. Yeager. "Measurement Matters: Assessing Personal Qualities Other Than Cognitive Ability for Educational Purposes," *Educational Researcher*, 44(4), 237-251 (2015), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4849415/>.

Gehlbach, Hunter, and Heather Hough. "Measuring Social Emotional Learning Through Student Surveys in the CORE Districts: A Pragmatic Approach to Validity and Reliability," *Policy Analysis for California Education* (2018), <http://www.edpolicyinca.org/publications/sel-validity>.

Hall, Michelle, Julie A. Marsh, Heather J. Hough, Taylor N. Allbright, and Susan McKibben. "Social Emotional Learning Programs in Middle School: A Multidistrict Analysis of Implementation, Education, and Interpretation," AERA Presentation, April 2018.

Hamilton, Laura S., and Brian M. Stecher. "Commentary on the Special Issue on Social-Emotional Assessment to Guide Educational Practice," *Journal of Applied Developmental Psychology*, Volume 57 (July-August 2018), 74-76, https://www.rand.org/pubs/external_publications/EP67712.html.

Hough, Heather, Erika Byun, and Laura Steen Mulfinger. "Using Data for Improvement: Learning from the CORE Data Collaborative," *Policy Analysis for California Education* (2018), <http://www.edpolicyinca.org/publications/using-data-improvement-learning-core-data-collaborative>.

Hough, Heather, Demetra Kalogrides, and Susanna Loeb. "Using Surveys of Students' Social-Emotional Skills and School Climate for Accountability and Continuous Improvement," *Policy Analysis for California Education* (2017), <https://edpolicyinca.org/publications/using-sel-and-cc>.

Humphrey, Daniel C., Julia E. Koppich, Magaly Lavadenz, Julie A. Marsh, Jennifer O'Day, David N. Plank, Laura Stokes, and Michelle Hall. "How Stakeholder Engagement Fuels Improvement Efforts In Three California School Districts," *Policy Analysis for California Education* (2018), <http://www.edpolicyinca.org/publications/how-stakeholder-engagement-fuels-improvement-efforts-three-california-school-districts>.

Kraft, Matthew A., Erik Ruzek, Katerina Schenke, Katie H. Buckley, and Chris S. Hulleman. "The Effect of School Climate on Students' Social-Emotional Competencies," AERA Presentation, April 2018.

Loeb, Susana, Michael S. Christian, Heather Hough, Robert H. Meyer, Andrew B. Rice, and Martin R. West. "School Effects on Social-Emotional Learning: Findings from the First Large-Scale Panel Survey

of Students," *Policy Analysis for California Education* (2018), <http://www.edpolicyinca.org/publications/sel-school-effects>.

Marsh, Julie A., Susan McKibben, Heather J. Hough, Michelle Hall, Taylor N. Allbright, Ananya M. Matewos, and Caitano Siquiera. "Enacting Social-Emotional Learning: Practices And Supports Employed in CORE Districts and Schools," *Policy Analysis for California Education* (2018), <http://www.edpolicyinca.org/publications/sel-practices>.

Meyer, Robert H., Caroline Wang, and Andrew B. Rice. "Measuring Students' Social-Emotional Learning Among California's CORE Districts: An IRT Modeling Approach," *Policy Analysis for California Education* (2018), <http://www.edpolicyinca.org/publications/sel-measurement>.

Schweig, Jonathan, Garrett Baker, Laura S. Hamilton, and Brian M. Stecher. "Building a Repository of Assessments of Interpersonal, Intrapersonal, and Higher-Order Cognitive Competencies," RAND Corporation (2018), https://www.rand.org/pubs/research_reports/RR2508.html.

Taylor, Jeremy, Katie Buckley, Laura S. Hamilton, Brian M. Stecher, Lindsay Read, and Jonathan Schweig. "Choosing and Using SEL Competency Assessments: What Schools and Districts Need to Know," Collaborative for Academic, Social, and Emotional Learning (2018), https://www.rand.org/pubs/external_publications/EP67751.html.

University of Texas. "Neuroscience Online: An Electronic Textbook for the Neurosciences," University of Texas, UTHealth, McGovern Medical School (1997-present), <https://nba.uth.tmc.edu/neuroscience/index.htm>.

West, Martin R. "Should Non-Cognitive Skills Be Included in School Accountability Systems? Preliminary Evidence from California's CORE Districts," *Brookings* (2016), <https://www.brookings.edu/research/should-non-cognitive-skills-be-included-in-school-accountability-systems-preliminary-evidence-from-californias-core-districts/>.

West, Martin R., Katie Buckley, Sara Bartolino Krachman, and Noah Bookman. "Development and Implementation of Student Social-Emotional Surveys in the CORE Districts," *Journal of Applied Developmental Psychology* (2017), <http://dx.doi.org/10.1016/j.appdev.2017.06.001>.

West, Martin R., Libby Pier, Hans Fricke, Heather Hough, Susanna Loeb, Robert H. Meyer, and Andrew B. Rice. "Trends in Student Social Emotional Learning: Evidence from the CORE Districts," *Policy Analysis for California Education* (2018), <http://www.edpolicyinca.org/publications/sel-trends>.

Zernike, Kate, "Testing for Joy and Grit? Schools Nationwide Push to Measure Students' Emotional Skills," *New York Times*, February 9, 2016, <https://www.nytimes.com/2016/03/01/us/testing-for-joy-and-grit-schools-nationwide-push-to-measure-students-emotional-skills.html>.



CORE LESSONS

MEASURING THE SOCIAL AND EMOTIONAL
DIMENSIONS OF STUDENT SUCCESS