

School Climate and Measurement

When done reliably and efficiently, measuring school climate can help improve schools' vital signs and help state boards of education realize their goals and objectives for the system as a whole. Moreover, because it is as consequential to schools as checking heart rates and blood pressure are to humans, schools should always use climate measures for planning and continuous improvement. School climate data can be used appropriately as a metric for statewide accountability as well.

School climate is the term for how people experience the school environment, including their interactions with and experience with each other in education settings: Do they feel respected and supported? Do they have relational trust? Climate also encompasses how members of the school community experience school norms, culture, and structures, and feel that they belong at a school. School climate affects outcomes that members of state boards of education care about: student attendance, learning, achievement, and safety, as well as teacher morale, attendance, performance, and safety.

Climate is a necessary though not sufficient contributor to productive, robust learning environments. Good climate both functions as a leading indicator of improvement and contributes to improvement. It can be measured efficiently and without great expense. And it can produce understandable, actionable data that can be collected objectively and used to improve outcomes at school, district, and state levels.

Early Adopters

We have successfully done this work of assessing school climate and generating the data necessary for improving the conditions for learning in many states and cities. For example, Cleveland

has assessed student perceptions of the conditions for learning since 2007 using AIR's Conditions for Learning survey. Cleveland educators use these data to target interventions aimed at supporting students' emotional and physical safety, experience of adult support and academic challenge, and social and emotional learning. Since they began collecting the data, Cleveland's schools have improved their state rankings and performance on the National Assessment of Educational Progress, increased students' experience of safety, reduced chronic absenteeism and the number of students identified as having committed a suspendable offense, and increased graduation rates.

At a state level, Nevada is using climate data to help frontier and rural schools as well as urban and suburban schools improve outcomes. The Nevada Department of Education worked with AIR to select topics from the ED School Climate Surveys (EDSCLS), developed by the National Center for Education Statistics in 2014. The topics were those deemed to best represent Nevada's goals for supporting safe, respectful learning environments. Selecting just a few topics for their state survey enabled them to keep it short while generating scores based on the EDSCLS benchmark performance levels—a key to ensuring that their data are meaningful to a wide variety of stakeholders.

Since the Nevada department launched its survey in 2015, its staff have supported Nevada's districts and schools in survey use and data interpretation, and they have incorporated the survey into ongoing statewide improvement efforts, including the placement of social workers in schools (box 1). Nearly all schools and eligible students in Nevada participate in the survey, with the exception of Clark and Washoe Counties, which use preexisting surveys. Participating schools receive reports of their results in English and

All schools should be using climate data, which can be used statewide for accountability, too.

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Spanish within days of completing their surveys and can see trends across time and comparisons to similar Nevada schools.

EDSCLS is a suite of four surveys for students, instructional staff, noninstructional staff, and families. While the data are collected using the EDSCLS platform, the U.S. Department of Education does not receive any of the data. Each survey is based on the updated Safe, Supportive Schools Model of school climate (figure 1), which covers engagement, safety, and environment and has key scales (for example, cultural and linguistic competence, emotional safety, and mental health). These surveys come with free resources on how to administer the survey, interpret results, and use the data to drive actionable improvement. EDSCLS has made it easier for many schools, districts, and states to collect high-quality data about school climate and the conditions for learning and to draw meaningful insights.

There are many other school climate surveys. States should consider six factors in identifying a survey or developing one of their own: the strength of evidence that a survey is reliable and valid in the context for which it will be used, who is surveyed in terms of type of stakeholder and grade, what areas are surveyed, how data are reported back, how easy the survey is to use, and cost. The National Center on Safe Supportive Learning Environments maintains a compendium of valid, reliable surveys, assessments, and scales of school climate.

Many districts, especially large and urban ones, have been collecting and using data on

students' perceptions of school climate for a decade or more. Chicago Public Schools developed a survey on student school connectedness in 2005 and now uses the 5Essentials survey, which is also used in other Illinois districts. Austin ISD launched its survey in 2003 to measure aspects of environment and interactions. New York City launched its survey in 2007 as a measure of school quality and to drive school improvement. The survey in Washoe County, Nevada, has helped schools “celebrate strengths, monitor changes, and respond to areas of challenge” since 2011.¹

The Importance of Elevating Climate

School climate encompasses the social and emotional conditions for learning, teaching, and wellness—experience of safety, support, belonging, connectedness, engagement, academic focus, and individual and cultural respect (see also articles on page 7 and 12). These multifaceted conditions interact dynamically and affect student and teacher behavior, performance, and wellness. For example, when students and teachers feel unsafe, they are more likely to experience health-threatening levels of stress and less likely to attend to learning or to the needs of others. Stress limits working memory. Conversely, positive emotions affect mental and physical wellness and aid in the retention of knowledge.²

There are relationships between the conditions for learning and student

Box 1. Making State and Local Surveys Comparable

Because their two largest districts use their own surveys and the rest of the state uses the state survey, the Nevada Department of Education faced a challenge in finding a method to equitably distribute funding for school social workers that was responsive to student voice on the question. The department worked with AIR to study the relationship between the state and district surveys and develop equations that allowed for sound linkages.

Doing so allowed Nevada's large districts to continue using surveys they developed while the department can still compare scores across the state to understand where student need is the greatest. Its staff use these data to inform their placement of social workers in schools. In some cases, similar psychometric methods can be used to preserve data trends when changes are made to a survey.

Figure 1. Safe, Supportive Schools Model of School Climate



attendance, learning, achievement, and graduation and between climate and teacher attendance, performance, and mobility.³ These conditions are malleable: Policy, administrators, and teachers can improve or undermine them.⁴ Research and practice also suggest that these conditions may be particularly important for students who experience adversity or barriers to learning as well as schools that are considered to be low performing.⁵

Statewide Accountability and Reporting

With the passage of the Every Student Succeeds Act (ESSA) in 2015, states began making decisions about how to incorporate nonacademic factors into a fifth indicator of accountability. Many states treat attendance as a nonacademic indicator, but a growing cohort of states incorporate school climate surveys into their ESSA plans.⁶

Forty-five states had begun using school climate measures under ESSA for accountability, improvement, or other efforts by 2018.⁷ As of January 2020, eight have formally included data from school climate surveys into their accountability rubrics, and five others administer and publicly report and/or require use of school climate survey data in struggling schools.⁸

Other states also use school climate data. For example, Virginia surveys students in grades

4-5 and 9-12 and surveys teachers on working conditions. Iowa surveys students grades 3-12. Survey data are collected in other states by universities and associations. Two examples are the Delaware School Climate Survey, which includes students, teachers, and staff, and the Alaska Association of School Boards' School Climate and Connected Survey, which surveys students and teachers.

The wave of states moving toward statewide school climate surveys continues to grow. In the 2018–19 school year, the New York State Department of Education launched a pilot of the EDSCLS across approximately 100 districts as a key step toward promoting healthy school environments. It continues to roll out this survey on a large scale.

Three concerns have been raised about using climate data for accountability: sufficiency of the survey instruments and related research in a new area, cost, and potential for gaming. Each can be addressed.

- **Reliable instruments and research.** There are, in fact, reliable surveys, and policymakers can leverage over two decades of research demonstrating that valid surveys and their effective use can improve school climate and student outcomes.
- **Cost.** Some reliable instruments are freely available (e.g., EDSCLS).

States experienced some “stepping back” in situations where they did not include critical partners from the beginning.

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■ **Gaming.** Gaming, which is a form of goal displacement, is a risk of high-stakes data collection (e.g., teaching to the test rather than focusing on learning).⁹ But under four conditions, climate assessments are hard to game without realizing the goal of improving climate: (1) students are surveyed through valid, reliable instruments (2) that are administered and reported out in a manner that ensures confidentiality, (3) response rates are high, and (4) when sampling or analyses address selection bias. (These practices are described in “The School Climate Improvement Resource Package” listed below.)

Learning from States’ Experiences

State board members can learn from other states’ experiences with surveys. At the time the EDSCLS was being developed, 11 states were receiving federal Safe and Supportive School Grants.¹⁰ These grants funded measurement of school safety in 458 high schools across 199 districts at the building level and interventions in schools with the greatest needs attended by 475,000 students altogether.

The ultimate goal of the four-year grants (school years 2010–11 through 2013–14) was to make school climate improvements that would reduce substance use and improve safety by managing a broad continuum of detrimental behaviors occurring in schools, including disruptive behaviors, bullying, violent crime, and alcohol, tobacco, or other drug use. Improvements in these areas aimed to increase the academic success and overall well-being of students.

Grantees used the model in figure 1 to guide their approach. This model portrays multifaceted conditions for learning across three broad domains of the school experience: engagement, safety, and environment.

The first, engagement, refers to the quality of relationships among students, staff, families, and community members or programs that work with schools. This includes respect for diversity within the student and adult population. Engagement also encompasses whether schools are providing culturally and linguistically supportive education and services. The second domain, safety, includes physical and emotional safety (e.g., with respect to experiencing

violence, bullying, or weapons in schools) as well as substance use (e.g., drugs or alcohol). The third domain, environment, refers to the physical infrastructure of schools, instructional approaches, student health concerns, and the disciplinary environment.

The S3 grants were also charged with measuring school safety with the same rigor with which academic progress is measured. Mandating measurement of school climate ensured that data-driven decision making and transparency in communicating grant progress kept grantees and their district- and school-level climate improvement teams focused on the core issues represented by the three pillars of the S3 model. Grantees initially engaged in three core activities: building school climate teams, performing needs assessments to identify their readiness to introduce climate improvement efforts, and developing detailed work plans. Grantees engaged in five sets of activities that could prove beneficial for any state or district that plans to undertake a comprehensive school climate initiative (box 2).

There are several key lessons learned from the work of these grantees that are critical to consider in future state planning or policymaking:

- **Devote time to planning.** States that considered the alignment and integration of a school climate initiative with other existing priorities were more successful at stakeholder buy-in and sustaining their initiative.
- **Leverage partners’ expertise and resources.** It was critical to involve community-based organizations, such as mental health, police departments, and youth-serving agencies, as well as universities, consultants, and nonprofits.
- **Build stakeholder support.** Possibly the most important aspect of their work was building stakeholder support by drawing the connection between school climate work and academic outcomes and using data and evidence for making critical decisions. When the grants were launched, implementing Common Core State Standards was a top priority nationally. Connecting academic achievement to school climate initiatives was considered key to the program’s success. States experienced some “stepping back” in situations where they did not include critical

partners from the beginning, such as families, youth, teachers and community members and where they did not maintain ongoing communication with those groups throughout implementation.

■ **Professional development is critical.** A final lesson centered on data collection, data use, fidelity, and reporting. Grantees realized that using data to guide decision making was an effective way to choose and implement interventions designed to address climate needs. Training district and school staff and having dedicated staff (e.g., school climate coaches) to support schools increased chances for success. Continuously monitoring and supporting efforts at fidelity of implementation—that is, ensuring that interventions are administered as intended to the appropriate students—proved to be essential to improving climate. Those schools that thoughtfully observed their progress, adjusted course regularly in response to results, and willingly learned from challenges and tried new strategies enjoyed more improved climate than schools that did not take these steps. Therefore, state planning for comprehensive training and professional development is critical.

Resources

The National Center on Safe Supportive Learning Environments is a national technical assistance center funded by the U.S. Department of Education. It helps states, districts, schools, institutions of higher learning, and communities focus on improving student supports and academic enrichment. It also maintains a compendium of 50 valid, reliable surveys, assessments, and scales of school climate. Its **School Climate Improvement Resource Package** includes resources to meet diverse stakeholder needs.

U.S. Department of Education School Climate Surveys. The EDSCLS allows states, local districts, and schools to collect and act on reliable, nationally validated school climate data in real time. Its web-based platform includes a suite of school climate surveys for middle and high school students, instructional staff, noninstructional staff, and parents/guardians. Student and parent surveys can be completed in English or Spanish. Staff surveys are available in

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Box 2. Five Steps to Improving School Climate



PLANNING. Taking the time to step back, assess what is in place, and devote time to planning are critical first steps. State agencies, districts, schools, and other leaders may need up to a year to build and enlist support from stakeholders, identify supports and resources within the broader community, work out contracts and relationships with partners, and determine a solid data collection and review plan.

ENGAGING STAKEHOLDERS. Partnerships with organizations that specialize in violence prevention, support to students and families, and mental health services are critical in building the necessary supports in schools. Family and student voice play an important role in success at the school level. State agency staff play a critical role as ambassadors to communicate the purpose and goals of school climate efforts to districts and articulate the connection between positive school climate and academic success. Building on existing educational reforms and initiatives reduces the burden on states, districts, and schools. Integrating school climate work into related efforts can result in more buy-in and support. Intra-agency and interagency partnerships can facilitate success by seeking common ground and promoting solutions that integrate diverse viewpoints.

COLLECTING AND REPORTING DATA. Plans to collect survey data and additional qualitative data can ensure effective monitoring on the accountability measure, which is important at the state and district levels but also at the school level—ultimately the unit of change.

CHOOSING AND IMPLEMENTING INTERVENTIONS. Intervention selections should be implemented consistently and with fidelity, with implementation monitoring at the school and classroom levels.

MONITORING AND EVALUATING. Schools that thoughtfully observe their progress, adjust their course regularly in response to data, and try new strategies are more likely to have more improved climate than schools that do not take these steps.

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educator-prep/standards/adopted-tpes-2016.pdf; Hanna Melnick and Lorea Martinez, "Preparing Teachers to Support Social and Emotional Learning: A Case Study of San Jose State University and Lakewood Elementary School" (Palo Alto, CA: Learning Policy Institute, 2019).

⁷Leib Sutcher et al., "Learning to Lead: Understanding California's Learning System for School and District Leaders," research brief (Palo Alto, CA: Learning Policy Institute, 2018).

cont'd from page 16... *What Learning and Developmental Science Says*

They can adopt new measurement and evaluation techniques that rely less on averages and instead measure individual growth over time. In doing so, state boards can significantly contribute to transformative, equitable change from the goals and purpose of the current system to a new system that establishes positive life trajectories and substantially different outcomes for many more students. ■

¹Pamela Cantor et al., "Malleability, Plasticity, and Individuality: How Children Learn and Develop in Context," *Applied Developmental Science* 23, no. 4 (2019): 207–37.

²George M. Slavich and Steven W. Cole, "The Emerging Field of Human Social Genomics," *Clinical Psychological Science* 1, no. 3 (2013): 331–48.

³Benjamin S. Bloom, "The 2 Sigma Problem: The Search for Methods of Group Instruction as Effective as One-to-One Tutoring," *Educational Researcher* 13, no. 6 (1984): 4–16.

⁴Todd Rose, *The End of Average: How We Succeed in a World That Values Sameness* (New York: HarperCollins Publishers, 2016).

⁵Pamela Cantor et al., *Whole-Child Development: A Dynamic Systems Approach* (New York: Cambridge University Press, forthcoming).

⁶David S. Moore, *The Developing Genome: An Introduction to Behavioral Epigenetics* (New York: Oxford University Press, 2017); George M. Slavich and Steven W. Cole, "The Emerging Field of Human Social Genomics," *Clinical Psychological Science* 1, no. 3 (2013): 331–48.

⁷Richard M. Lerner, *Concepts and Theories of Human Development*, 4th ed. (New York: Routledge, 2018).

⁸Jack P. Shonkoff et al., "The Lifelong Effects of Early Childhood Adversity and Toxic Stress," *Pediatrics* 129, no. 1 (2012): 232–46.

⁹Vincent J. Felitti et al., "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults," *American Journal of Preventive Medicine* 14, no. 4 (1998): 245–58.

¹⁰Richard M. Lerner, *Liberty: Thriving and Civic Engagement among America's Youth* (Thousand Oaks, CA: Sage Publications, 2012); E. Tobach and T. C. Schneirla, "The Biopsychology of Social Behavior of Animals," in R. Robert E. Cooke and Sidney S. Levin, eds., *Biologic Basis of Pediatric Practice* (New York: McGraw-Hill, 1968).

¹¹Cantor et al., *Whole-Child Development*.

¹²Rose, *End of Average*; Lerner, *Concepts and Theories of Human Development*.

¹³Cantor et al., *Whole-Child Development*; Rose, *End of Average*.

¹⁴K. Brooke Stafford-Brizard, "Building Blocks for Learning: A Framework for Comprehensive Student Development" (New York: Turnaround for Children, 2016).

¹⁵Ibid.; Cantor et al., *Whole-Child Development*.

¹⁶Ibid.; Bloom, "2 Sigma Problem"; Kurt W. Fischer and Thomas R. Bidell, "Dynamic Development of Action and Thought," in William Damon and Richard M. Lerner, eds., *Handbook of Child Psychology, Vol. 1: Theoretical Models of Human Development*, 6th ed. (Hoboken, NJ: Wiley, 2006).

¹⁷Drawn from scientific literature as summarized in three papers published in *Applied Developmental Science*, with emphasis on the 2019 article "Implications for Educational Practice of the Science of Learning and Development," by Linda Darling-Hammond and others. We modified the graphic to ensure applicability to and beyond K-12 settings while retaining the core design principles.

¹⁸Cantor et al., *Whole-Child Development*.

¹⁹Turnaround for Children, "Vision for School and Student Success" (New York and Washington, DC: TFC, 2020).

²⁰Cantor et al., *Whole-Child Development*; Lerner, *Concepts and Theories of Human Development*.

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English only. The EDSCLS can be downloaded and administered free of charge. Education agencies administering the survey can store the data locally; ED has no access to the data.

Directories of Federal School Climate and Discipline Resources. This set of directories, last updated in 2017, includes federal resources on school discipline and climate for different groups of education stakeholders. The directories contain information on capacity-building tools; data, measurement, and reporting; policy guidance; and a compilation of technical assistance centers. There are specific resources for state staff. ■

¹Washoe County School District, "Welcome to the School Climate Survey Project," web page, <https://www.washoe-schools.net/domain/231>.

²For example, Linda Darling-Hammond et al., "Implications for Educational Practice of the Science of Learning and Development," *Journal of Applied Developmental Sciences* (February 2019).

³Amrit Thapa et al., "A Review of School Climate Research," *Review of Educational Research* 20, no. 10 (2013).

⁴See, for example, David Osher, Deborah Moroney, and Sandra Williamson, *Creating Safe, Equitable, Engaging Schools: A Comprehensive, Evidence-Based Approach to Supporting Students* (Cambridge, MA: Harvard Education Press, 2018).

⁵David Osher et al., "School Influences on Child and Youth Development," in Zili Sloboda and Hanno Petras, eds., *Defining Prevention Science* (Boston: Springer, 2014).

⁶On how climate affects attendance, see Hedy Chang et al., "Using Chronic Absence Data to Improve Conditions for Learning" (Washington, DC: AIR and Attendance Works, September 2019).