

Using School Climate Index Data to Improve Social-Emotional Learning, Student Engagement and Support, and School Safety



Students, their families, and educators all desire a safe and supportive school climate.

Research has demonstrated that school climate can influence student outcomes including academic achievement, school success, effective violence prevention, students' healthy development, and teacher retention.^{i-v} As a result, a growing number of state and local education agencies and schools have included climate measures as an essential component of school improvement initiatives. A school climate index offers an objective measure of student, staff, and parent perceptions of the quality, character, and health of the learning environment in a school. Educators and administrators can use this type of index to assess these perceptions in areas such as student engagement and school safety.

An index also makes it possible for school leaders to make valid and reliable comparisons of these perceptions between [school communities](#), between members of these communities, and over time.

REL Mid-Atlantic partnered with the Pennsylvania Department of Education (PDE) to develop a school climate index using data from surveys of students and staff. **School districts across Pennsylvania will calculate overall school climate index scores, as well as sub-index scores, in three domains: (1) social-emotional learning, (2) student engagement and support, and (3) safe and respectful school climate.** This fact sheet discusses how districts will use these scores to develop action plans and support schools in need. It also describes the development of PDE's school climate index, drawing on a [memo](#) that details the approach and results.

HOW WE DEVELOPED THE INDEX

Development involved five steps:

1. **Surveying** perceptions of school climate from a representative group of stakeholders
2. **Assessing** and addressing the validity and reliability of the survey
3. **Setting** benchmarks for each domain to indicate where survey respondent's perceptions fall across a spectrum ranging from unfavorable to most favorable
4. **Translating** individual responses into a simple scale score for each domain using the benchmarks
5. **Calculating** average school-level domain scores

WHAT WE LEARNED

- ❖ **PDE's school climate surveys can produce valid and reliable data with appropriate adjustments to domains and strong response rates.** Our analysis found that PDE's staff and middle and high school student surveys are valid and reliable. However, the elementary school student survey required refinement to improve its reliability in the context of Pennsylvania public schools. We also found that parent and community survey response rates were too low to incorporate their scores in index calculations or use them to make meaningful school-level judgments.

- ❖ **PDE's overall climate index and sub-domain scores can differentiate between schools, suggesting that they can also identify schools and domains that merit attention.** Social-emotional learning domain scores were low among participating schools, with many schools falling in the "unfavorable" category.

- ❖ **PDE's overall climate index and sub-domain scores can differentiate between respondent perceptions of school climate.** For example, we found that students perceive their learning environment to be less academically rigorous than their teachers do.

MAKING EVIDENCE-BASED DECISIONS

At the state level, developing a climate index can allow for comparisons of demographically similar schools and systems, help comply with federal grant program requirements, inform [Every Student Succeeds Act](#) planning, and expand measures of school quality and performance.

At the local level, a school climate index can help communities answer four questions that can inform evidence-based decisions to address needs:

- 1. In which school climate domains do schools need to improve?** In addition to identifying schools with low domain scores to target for intervention,

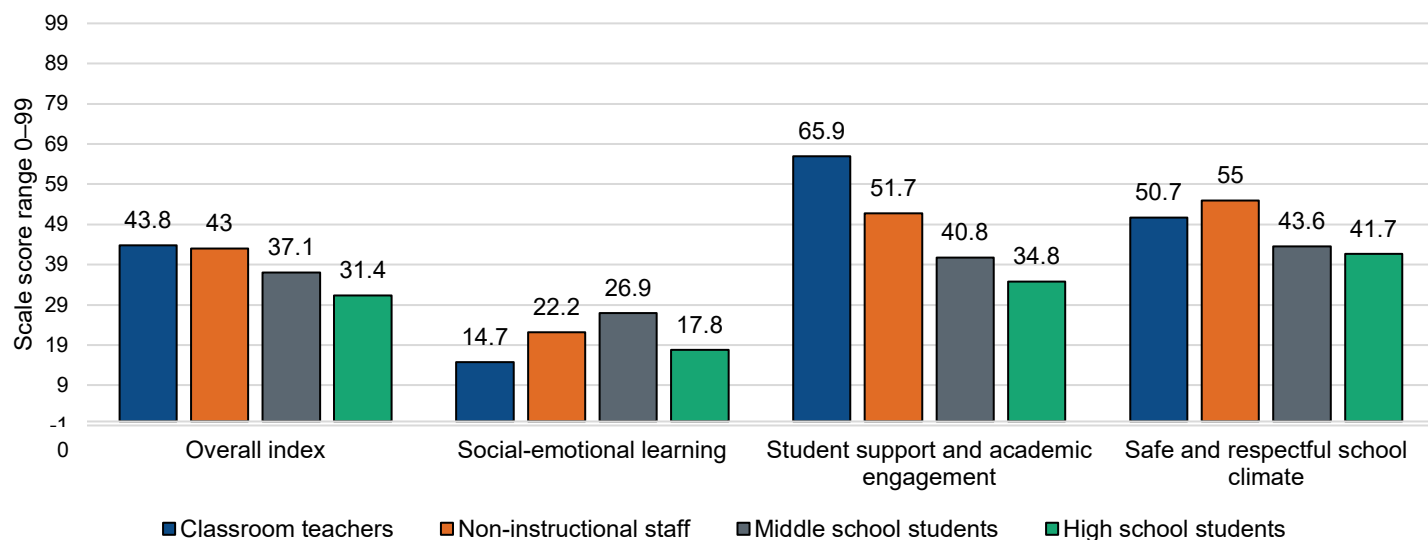
districts and schools can investigate the full range of responses within each domain to better understand aspects of a school's climate that may contribute to low domain scores.

- 2. For which members of our school community do we need to improve?** Understanding the extent to which and for whom perceptions of a school's climate vary requires disaggregating index scores. Overall index and domain scores at the school level by respondent type, grade level, and demographic characteristics, can inform school or districts as they investigate the root causes of school climate disparities and adopt interventions that can result in equitable and positive change.

- 3. Which schools might benefit from targeted supports or intervention?** Districts can use index scores to examine and compare the distribution of scores within and across schools. Doing so can help identify schools with poor climate and determine to what degree a substantial number of students or staff are dissatisfied with school climate.

- 4. Are school climate reforms and initiatives making progress towards desired outcomes?** Schools and districts can use climate indices to monitor shifts in student and staff perceptions of school climate over time.

Figure 1. School climate overall index and domain scores by respondent type, 2017–2018



Source: PDE School Climate Survey 2017–2018.

Note: Significance tests demonstrate significant differences in perceptions of school climate between students and staff and between classroom teachers and non-instructional staff.

ENDNOTES

- i. Cohen, J., McCabe, L., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. *Teachers College Record*, 111(1), 180–213. <https://eric.ed.gov/?id=EJ826002>.
- ii. MacNeil, A. J., Prater, D. L., & Busch, S. (2009). The effects of school culture and climate on student achievement. *International Journal of Leadership in Education*, 12(1), 73–84. <https://eric.ed.gov/id=EJ830019>.
- iii. Ripski, M. B., & Gregory, A. (2009). Unfair, unsafe, and unwelcome: Do high school students' perceptions of unfairness, hostility, and victimization in school predict engagement and achievement? *Journal of School Violence*, 8(4), 355–375. <https://eric.ed.gov/?id=EJ864851>.
- iv. Shindler, J., Jones, A., Williams, A.D., Taylor, C., & Cardenia, H. (2016). The school climate-student achievement connection: If we want achievement gains, we need to begin by improving the climate. *Journal of School Administration Research and Development*, 1(1), 9–16. <https://eric.ed.gov/?id=EJ1158154>.
- v. Stewart, E. B. (2008). School structural characteristics, student effort, peer associations, and parental involvement: The influence of school- and individual-level factors on academic achievement. *Education and Urban Society*, 40(2), 179–204. <https://eric.ed.gov/?id=EJ781142>.

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