AUSTIN INDEPENDENT SCHOOL DISTRICT
Department of Program Evaluation

## Introduction

In 2009-2010, Austin Independent School District (AISD) campuses participated in the staff/teacher (fall), parent (winter), and student (spring) climate surveys. In total, 65,694 students, parents, teachers, and campus staff completed surveys that assessed various dimensions of school climate. Previous analyses found that several of these dimensions positively influenced student performance on Texas Assessment of Knowledge and Skills (TAKS) (Schmitt, Cornetto, \& Lamb, 2009). This report examines the relationship between five broad dimensions of school climate (i.e., respectful school environment, school engagement, expectations for student achievement, campus support for teachers, and community involvement) and the percentage of students meeting the state standard on TAKS (mathematics [math] and reading only). See page 6 for an overview of the school climate dimensions related to TAKS reading and math performance by grade level and level of economic disadvantage.

## Respectrul School Environment

The degree to which students, parents, and staff feel safe at school often is positively related to students' academic achievement; in fact, students perform better when teachers effectively manage student's disruptive behaviors in the classroom than when teachers are unable to manage student disruptions (Mitchell, Bradsaw, \& Leaf, 2010). In this study, respectful school environment (Figure 1) included the degree to which students felt respected by their peers and safe at school (i.e., behavioral environment from the student climate survey); staff ratings of school safety and satisfaction with the way their campus addressed behavioral issues (i.e., safety and behavioral management from the staff climate survey); and the degree to which parents felt that their child's school had a respectful school community and was safe (i.e., parent survey).

Figure 1. Ratings of Respectful School Environment by Level, 2009-2010


What combination of climate dimensions best describes schools with high TAKS passing rates in reading and/or math?

High economically disadvantaged' schools

## Elementary

- teachers are satisfied with their jobs, and
- students perceive a safe learning environment (reading only).
Secondary
- staff report a safe school environment, and
- parents are involved (math only).

Lower economically disadvantaged schools

## Elementary

- students perceive a safe learning environment, and
- teachers are satisfied with their jobs.
Secondary
- staff have high academic expectations for their students, and
- parents are involved (math only).
${ }^{1}$ Elementary schools with $80 \%$ of students identified as
economically disadvantaged, and secondary schools with $60 \%$ of students identified as economically disadvantaged are considered high economically disadvantaged schools.

TAKS performance in AISD was related to respectful school environment in the following ways.

- TAKS passing rates in reading/English language arts (ELA) were greater at schools where students reported feeling safe and respected by their peers (behavioral environment) than at schools where students did not, regardless of school economic disadvantage.
- TAKS passing rates in reading/ELA and math were greater at schools where parents believed that their child's school was a safe learning environment (safety) than at schools where parents did not, regardless of economic disadvantage.
- TAKS passing rates in reading/ELA and math were greater at schools where staff reported fewer negative behaviors (e.g., gang-related activities, bullying, and disrespect for teachers [safety]) and greater satisfaction with how their campus addressed student behavior (e.g, behavior management) than at schools with lower ratings of safety and behavior management.
- Among high economically disadvantaged schools, TAKS math passing rates were greater at campuses where parents reported feeling respected by staff at their child's school (respectful school community) than at campuses where parents did not.


## School Engagement and Community Involvement

Another dimension of school climate that often contributes to students' academic achievement is the degree to which students, parents, staff, and community members are engaged on their campus (see Fan \& Chen, 2001) (Figure 2). AISD survey results support Bowen, Richman, Brewster, and Bowen's (1998) theoretical model identifying student engagement as one of two major protective factors contributing to academic success at high-poverty schools (also see Brewster \& Bowen, 2004).

Figure 2. Ratings of School Engagement and Community Involvement by Level, 2009-2010


Which high economically disadvantaged schools outperformed similarly disadvantaged schools?

The graph below represents the percentage of elementary school students who met the math TAKS standard, by school level of student economic disadvantage. Although a clear relationship was found between poverty and student performance, some schools with high levels of economic disadvantage showed strong student performance despite this trend (circled).


ELEMENTARY
Becker, Blackshear, Blanton, Dawson, Graham, Joslin, Metz, Ortega, Overton, Ridgetop, and St. Elmo.

SECONDARY
Ann Richards School for Young Women Leaders

TAKS performance in AISD was related to school engagement and community involvement in the following ways.

- TAKS math and reading/ELA passing rates were greater at schools where staff reported having positive relationships with their campus community that schools where staff reported poor relationships with their campus (community engagement).
- Among high economically disadvantaged secondary schools, TAKS math passing rates were greater on campuses where parents reported being involved in their child's education (parental assistance, communication, and school involvement), and felt the school supported their involvement (support for parental involvement) than campuses where parents reported less involvement in their child's education and less support for their involvement.
- TAKS passing rates in reading/ELA (elementary) and math (secondary) were greater at campuses where students reported enjoying school and believing that their schoolwork was relevant and engaging (student engagement), and where students reported feeling supported by their teachers (teacher support), than at campuses with lower ratings of student engagement and teacher support, particularly among high economically disadvantaged schools.


## Expectations for Student Achievement

The influence of teachers' expectations for their students' success (see Rosenthal \& Jacobson, 1968; Rubie-Davis, 2006) have long been identified as contributing to student achievement. More recently, researchers have begun to analyze how student, teacher, and parent expectations for student achievement work together to influence students' academic performance (Rubie-Davies, Peterson, Irving, Widdowson, \& Dixon, 2010). Several items on the climate surveys measured the extent to which students, staff, and parents foster a positive learning environment through high expectations (Figure 3).

Figure 3. Ratings of Expectations for Student Achievement by Level, 20092010


Page 3

How do high-performing, high economically disadvantaged ${ }^{2}$ schools differ from similarly disadvantaged schools?

They have higher staff ratings of:

- Principal support
- Staff appreciation
- Collegial leadership
- General climate
- Safety , Data use
- Colleague collaboration
- Job satisfaction
- Achievement press
- Community engagement
- Professional teaching behavior
- Behavior management
- Mentor relationships
- Teacher appreciation


## They have higher parent ratings of:

- Respectful school community, Acad. planning
- Safe school environment
- Information about student expectations and progress
- Support for parental involvement, parental involvement
- Teacher expectations


## They have higher student ratings of:

- Academic self-confidence
- Adult fairness and respect
- Teacher support
- Student engagement
- Behavioral environment
- Teacher expectations
${ }^{2}$ High economically disadvantaged schools received a score of 2 for having TAKS passing rates of $90 \%$ or higher, a score of 1 for having TAKS passing rates between $80 \%$ and $90 \%$, and a score of 0 for having TAKS passing rates less than $80 \%$. These scores were summed across reading and math so that schools' scores ranged from 0 (both reading and math passing rates less than 80\%) to 4 (both reading and math passing rates greater than 90\%). The characteristics above reflect significant differences between schools with scores of 0 and schools with scores of 4.

TAKS performance in AISD was related to expectations for student achievement in the following ways.

- Among high-poverty schools, TAKS passing rates (reading/ELA at the elementary level and math at the secondary level) were greater at schools where students reported confidence in their academic abilities (academic self-confidence) than at schools where students did not.
- TAKS passing rates in reading/ELA and math were greater at schools where staff reported all stakeholders had high expectations for their students' academic achievement (achievement press) than at schools where staff did not report all stakeholders had high expectations for their students' academic achievement.
- Among less economically disadvantaged secondary schools, TAKS math passing rates were greater at schools where parents believed that their child's teachers had high expectations (teacher expectations on parent survey), and that school staff clearly communicated information regarding their child's academic progress and school expectations (information about student expectations and progress) than at schools where parents did not report high levels of these factors.
- Similarly, among less economically disadvantaged secondary schools, TAKS math passing rates were greater at campuses where students believed that their teachers had high expectations for their academic achievement (teacher expectations by student) than at campuses where students did not.


## CAMPUS SUPPORT FOR TEACHERS

A supportive working environment for teachers is a critical component of positive school climate. This includes the degree to which campus staff members enjoy working at their school, have high levels of morale, and trust their coworkers (Hoy, Smith, \& Sweetland, 2002). Importantly, in the current study, many of these campus support dimensions (Figure 4) were positively related to TAKS passing rates.

Figure 4. Ratings of Campus Support for Teachers by Level, 2009-2010


TAKS performance in AISD was related to campus support for teachers in the following ways.

- TAKS reading/ELA passing rates were greater at schools where staff reported having a principal who was open and egalitarian (collegial leadership) than at schools where staff did not report having a principal who was open and egalitarian
- Among high economically disadvantaged schools, TAKS passing rates in reading/ELA and math were greater at schools where staff felt supported by their principal (principal support), satisfied with their jobs (job satisfaction), and appreciated in their work (staff appreciation), and where teachers approached their work with professionalism (professional teacher behavior) than at schools where staff did not report high levels of these factors.


## Conclusion

The school climate characteristics described in this report are critical components of the learning environment and lay the groundwork for student achievement in AISD. District staff will continue to monitor the teaching and learning conditions on each campus and explore the ways in which school climate may influence student performance. District administrators must continue to discuss the variety of policies and practices that can best support a positive school climate for staff and students.

## References

Bowen, G. L., Richman, J. M., Brewster, A., \& Bowen, N. (1998). Sense of school coherence, perceptions of danger at school, and teacher support among youth at risk of school failure. Child and Adolescent Social Work Journal, 15, 273-286.
Brewster, A. B., \& Bowen, G. L. (2004). Teacher support and the school engagement of Latino middle and high school students at risk of school failure. Child and Adolescent Social Work Journal, 21, 47-67.
Fan, X., \& Chen, M. (2001). Parental involvement and students' academic achievement: A metaanalysis. Educational Psychology Review, 13(1), 1-22.
Hoy, W. K., Smith, P. A., \& Sweetland, S. R. (2002). The development of the organizational climate index for high schools: Its measure and relationship to faculty trust. The High School Journal, 86, 38-49.
Mitchell, M. M., Bradshaw, C. P., \& leaf, P. J. (2010). Student and teacher perceptions of school climate: A multilevel exploration of patterns of discrepancy. Journal of School Health, 80, 271279.

Rosenthal, R., \& Jacobson, L. (1968). Pygmalion in the classroom: Teacher expectation and pupils' intellectual development. New York, NY: Holt Rinehart \& Winston.
Rubie-Davies, C. M. (2006). Teacher expectations and student self-perceptions: Exploring relationships. Psychology in the Schools, 43(5), 537-552.
Rubie-Davies, C. M., Peterson, E., Irving, E., Widdowson, D., \& Dixon, R. (2010). Expectations of achievement: Student, teacher and parent perceptions. Research in Education, 83, 36-53.
Schmitt, L., Cornetto, K., \& Lamb, L. (2009). Austin ISD 2008-2009 board level reports (DPE Publication No. 08.86, 08.87, 08.88). Austin, TX: Austin Independent School District.
Webster-Stratton, C. L., Reid, M. J., \& Stoolmiller, M. (2008). Preventing conduct problems and improving school readiness: Evaluation of the Incredible Years Teacher and Child Training Programs in high risk schools. The Journal of Child Psychology and Psychiatry, 49, 471-488.

Appendix. Climate Survey Items and Relationship to Percentage of Students Meeting the 2010 State Standard in TAKS Math and Reading, by Level and Economic Disadvantage

| Survey | Climate subscale | Elementary |  | Secondary |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Low econ D ( $n=31$ ) | High econ D $(n=47)$ | Low econ D $(n=14)$ | $\begin{gathered} \text { High } \\ \text { econ D } \\ (n=19) \end{gathered}$ |
|  | Colleague collaboration |  |  | -M, -R | R, M |
|  | Principal support | R, M | R, M | -M | R, M |
|  | Job satisfaction | R, M | R, M |  | R, M |
|  | Attachment to profession | M |  | R | R, M |
|  | Investment in teaching | R, M |  | M | R, M |
|  | Attachment to district | R, M |  | R | R, M |
|  | Interest in alternative work options |  |  | -R | R |
|  | Mentor relationships | M |  | $-\mathrm{R},-\mathrm{M}$ | R, M |
| $\begin{aligned} & \frac{4}{0} \\ & \stackrel{y}{*} \end{aligned}$ | Staff appreciation | R, M | R, M |  | R, M |
|  | Collegial Leadership | R, M | R, M | R | R |
|  | General climate | R, M | R, M | R | R, M |
|  | Behavior management | R, M | R, M | R, M | R, M |
|  | Data use | R, M | R, M | -M |  |
|  | Safety | R, M | R, M | R, M | R, M |
|  | Community engagement | $\mathrm{R}, \mathrm{M}$ | $\mathrm{R}, \mathrm{M}$ | $\mathrm{R}, \mathrm{M}$ | $\mathrm{R}, \mathrm{M}$ |
|  | Achievement press | R, M | R, M | R, M | R, M |
|  | Professional teaching behavior | R, M | R, M | R | R, M |
| $\begin{aligned} & \text { U } \\ & \text { U } \\ & \text { No } \end{aligned}$ | Respectful school community | R, M | R, M | -M | M |
|  | My child's school is a safe learning environment | R, M | R, M | R, M | R, M |
|  | Support for parental involvement | R, M |  | $-\mathrm{R},-\mathrm{M}$ | M |
|  | Information about student expectations and progress | R, M |  |  | M |
|  | Academic planning information | R, M |  |  | -R |
|  | Parental assistance, communication, and school investment | R, M |  | R, M | M |
|  | Teacher expectations - parent | M |  |  | M |
| $\begin{aligned} & \stackrel{\rightharpoonup}{v} \\ & \stackrel{\rightharpoonup}{7} \\ & \stackrel{\rightharpoonup}{n} \end{aligned}$ | Adult fairness and respect | R | R | -M | M |
|  | Academic self-confidence | R, M | R |  | M |
|  | Teacher support |  | R | -M | M |
|  | Student engagement |  | R | -M | M |
|  | Behavioral environment <br> Teacher expectations - student | R, M | $\mathrm{R}, \mathrm{M}$ | R | $\mathrm{R}, \mathrm{M}$ |

Note. $M=$ significantly related to math; $R=$ significantly related to reading. All correlations are $\geq .20$.

SUPERINTENDENT OF
Schools
Meria J. Carstarphen Ed.D.

Office of
Accountability
William H. Caritj, M.Ed.

Department of
Program Evaluation
Holly Williams, Ph.D.

## Board of Trustees

Mark Williams, President • Vincent Torres, M.S., Vice President
Lori Moya, Secretary • Cheryl Bradley • Annette LoVoi, M.A. - Christine Brister Robert Schneider • Tamala Barksdale • Sam Guzman


