

# A School-University Research Partnership to Identify Disengaged Students: A Descriptive Case Analysis of School Climate

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**Background/Context:** *Much of the literature on school–university research partnerships has focused on collaborations that address curriculum, instruction, and leadership. Less scholarly attention has been paid to how practitioners and academics work together to improve school climate.*

**Purpose:** *We seek to deepen understanding of how educators and researchers collaborate to address aspects of the campus environment that matter to students’ learning. We discuss findings from the first year of a long-term research alliance—between a university research center, a high school, and one of its feeder K–8 school districts—focused on improving school climate. First, we report results from our analysis of students’ responses to a schoolwide survey. Then, we examine the affordances and challenges at every stage of the investigative process, highlighting factors critical to school–university research alliances.*

**Research Design:** *We analyzed students’ school climate survey responses in one low-income predominantly Latino high school ( $n = 1,606$ ). We linked students’ survey data to their administrative records and employed logistic regression modeling to determine the extent to which students’ school climate perceptions were associated to their educational outcomes. We also analyzed the cohort of students who matriculated to the high school from the nearby elementary school feeder district to see whether the middle-to-high-school transition shifted their views on the school environment.*

**Findings:** *Males, students in Grade 11, and those with at least one suspension reported fewer positive experiences on campus relative to their peers. Also, the middle-to-high-school transition had a positive influence on students who reported low average perceptions of care in their middle school. Reflecting on the partnership process, we found that responding promptly to the concerns of stakeholders helped establish credibility and trust. Open and frequent communication was also essential to maintain focus, sustain commitment, and ensure the longevity of the alliance. Further, allowing partners to contribute and make decisions throughout the analysis helped ensure that all perspectives were considered, thus increasing the validity of research findings.*

**Conclusions/Recommendations:** *School–university collaborations can be challenging to maintain. This study suggests that reforming school climate is a long-term participatory process that demands significant resources and ongoing engagement from both researchers and practitioners. By providing a thorough examination of the give and take, ups and downs, and stops and starts of a school–university research alliance, we aim to identify elements that can help partnerships succeed and provide rich evidence that can serve as a foundation for further inquiry.*

There is increased momentum to leverage school–university partnerships to improve the quality of education for students. The Institute for Education Sciences (IES), for instance, has established a new grant program to encourage alliances between educators and researchers in tackling education’s most enduring problems. Such partnerships are warranted because education scholars have fallen short in addressing concerns relevant to the practice and policy contexts of school practitioners (Easton, 2013; Schoenfeld, 2009).

School–university partnerships depart from traditional research in that the process is more participatory, collaborative, and guided by the concerns of the community rather than the university (Coburn, Penuel, & Geil, 2013). Partnerships require great effort and can be challenging to maintain. Researchers must first gain entry into the community, earn the trust and respect of partners, establish effective communication lines, and develop a mutually beneficial relationship (Bryson, Crosby, & Stone, 2006; McLaughlin & London, 2013; Suarez-Balcazar, Harper, & Lewis, 2005). Partners must also resolve issues such as resource constraints (Kania & Kramer, 2011), conflicting cultural values and priorities (Harper et al., 2002; Riger, 2001), and power differentials (Prilleltensky & Nelson, 2002).

The conduct of data use and research in schools also presents structural and organizational challenges (Coburn & Turner, 2011; Marsh, 2012). For example, data are often presented in isolation from one another, can come in complex or confusing formats, and are not available in a timely manner (Lachat, 2002; Roderick, 2012; Schmoker, 2003). Further, there tends to be weak district-level support, few incentives, and little professional development around data literacy (Marsh, McCombs, & Martorell, 2010). As a result, educators are not afforded the time or organizational structures to effectively use data for program improvements and other reforms (Marsh, 2012).

Research documenting school–university partnerships has focused primarily on issues related to curriculum, instruction, and leadership (Walsh & Backe, 2013). Less scholarly attention has been paid to how practitioners and academics come together to tackle the issue of school

climate, which many have long recognized can either increase students' vulnerabilities or promote their resiliency (Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013). This article provides a descriptive examination of a research alliance (Coburn et al., 2013)—between a university research center, a high school, and one of its feeder K–8 school districts—intended to improve students' experiences at school. We present findings from the first year of the partnership; reflect critically on the dynamics, affordances, and limitations at each stage of the research process; and discuss factors critical to school–university collaborations. By integrating evidence from our case analysis with existing knowledge on school climate, we seek to deepen understanding of how practitioners and researchers can collaborate to reform aspects of the campus environment that matter to students' learning, development, and success.

## BACKGROUND

### PARTNERSHIPS BETWEEN UNIVERSITIES AND K–12 DISTRICTS AND SCHOOLS

Historically, colleges and universities have been perceived by many in the community as insular “ivory towers” oriented mostly to their own needs (Rakow & Robinson, 1997). More and more, however, partnerships between schools and universities have centered on the concerns of K–12 educators rather than those of researchers and academics (Brabeck & Walsh, 2003).

Diminishing resources have compelled many districts and schools to seek assistance from nearby postsecondary institutions (Sanders, 2001). For instance, colleges and universities are engaging more with local practitioners to offer subject-matter expertise and professional development trainings to enhance instruction and leadership (e.g., Abell, 2000; Sanders & Harvey, 2002). At the same time, academics are realizing that teachers, parents, and other community members have unique assets that can advance their research and scholarship, such as access to financial resources or knowledge about hard-to-serve populations (London & McLaughlin, 2013; Suarez-Balcazar et al., 2002).

How research–practice alliances are initiated can vary in important ways (Coburn et al., 2013). Some partnerships begin with an explicit request from a faculty member or school district official (e.g., superintendent) to address a particular need (e.g., evaluation of a program). These requests are often project-oriented, short in duration, and have little influence on larger systems (Walsh et al., 2000). Other partnerships may also begin with an explicit request but with objectives that expand to

effect greater systemic change (Coburn et al., 2013; Fahey, 2011). Given that these types of research alliances demand longer term commitment from partners, time helps cultivate a sense of “mutualism” (Coburn et al., 2013) and allows for deeper collaboration, which in turn can support reforms more likely to endure (Kelly, Ryan, Altman, & Stelzner, 2000). Ongoing partnerships also foster a sense of ownership and more open communication between all parties involved (Walsh & Backe, 2013).

Although alliances between schools and universities afford several opportunities, they also pose a range of challenges. For example, districts and schools are characterized by norms and values different from those of postsecondary institutions (Firestone & Fisler, 2002). Some teachers may see research as an add-on activity that takes time away from educating students (McLaughlin & Black-Hawkins, 2006). If teachers do participate in research, they are more likely to pursue questions directly related to their practice (e.g., improving students’ homework completion) or that target specific students (e.g., English learners). Educational researchers are similarly driven by standards of practice inherent in their work. For instance, when disseminating findings, academics may present in overly technical ways that alienate practitioners and impede their ability to understand and use the research (Van der Eb et al., 2002).

The work commitments and the pace of action are also misaligned among most researchers and educators (Gerstein & Christensen, 2013). K–12 personnel may become frustrated with the demands placed on them by researchers (e.g., participating in interviews) and by the slower pace of work among university scholars (McLaughlin & Black-Hawkins, 2006). Decision making in schools is generally quick to respond to the needs of students; the time it takes to conduct rigorous research may conflict with teachers’ deadlines and priorities (Connolly, Plank, & Rone, 2012; Walsh & Backe, 2013). Moreover, the focus on a particular research topic will likely shift as a result of personnel changes (e.g., teacher turnover), logistical issues (e.g., lengthy data collection periods), and other urgencies that require the time and attention of district and school leaders (Gerstein & Christensen, 2013).

Garnering enough resources to maintain the work of partnerships is also a central challenge (Kania & Kramer, 2011). Without sustained support, partners may need to suspend research activities, lay off staff, or focus more of their efforts on raising funds (Suarez-Balcazar et al., 2005). Research alliances are also apt to see their share of staff turnover (e.g., student research assistants graduating, superintendents leaving the district). Thus, partners are forced to continually seek out supports and allocate resources in more efficient ways to sustain their work.

## THE CHALLENGE OF RESEARCH AND DATA USE IN K–12 SETTINGS

Using data and conducting research in K–12 settings are complicated endeavors (Coburn & Turner, 2011). The accountability demands under No Child Left Behind, coupled with equity concerns, have drawn increased attention to data-driven decision making (Lachat & Smith, 2005). Although a tremendous amount of information is being collected in districts and schools (Roderick, 2012), the data are only good if educators can work with them to answer questions pertinent to their practice and local context (Demie, 2003). Studies indicate that teachers and administrators frequently lack the capacity to analyze, interpret, and synthesize data (Demie, 2003; Marsh, 2012). In addition, with the current era of high-stakes testing, some practitioners perceive data as potentially threatening—evaluative tools to make judgments about their performance and pay, rather than as useful information to help them improve or innovate (Braun, 2005). It is important that academics consider the institutional infrastructure as well as educators’ knowledge and beliefs, and how these interact to shape the culture of research and data use in local districts and schools (Coburn, 2010; Spillane, Reiser, & Reimer, 2002).

## WHY SCHOOL CLIMATE MATTERS

School climate refers to the quality and character of school life, which includes the school’s prevailing norms, cultural practices, and organizational structures (Cohen, McCabe, Michelli, & Pickeral, 2009). Although there is no consensus on how to define and measure school climate, Thapa and colleagues (2013) identified five dimensions in their recent review of the literature: safety, relationships, teaching and learning, institutional environment, and the school improvement process. They noted how research has linked these dimensions to an array of outcomes, including students’ emotional and mental health (Way, Reddy, & Rhodes, 2007), substance use (LaRusso, Romer, & Selman, 2008), school behaviors (Lee, Cornell, Gregory, & Fan, 2011), and development (MacNeil, Prater, & Busch, 2009). Recognizing the importance of school climate, the Department of Education developed the Safe and Supportive Schools Project, which encourages states to assess and respond to issues related to the campus environment (e.g., school safety, bullying). In addition, IES has identified improving school climate as a central strategy in preventing students from dropping out of school (Dynarski et al., 2008).

Thapa and colleagues (2013) encourage studies on school climate to encompass multiple methods, including in-depth case study approaches. In response to this call—as well as the call for “rigorous research” relevant

to the practice of educators (Gutiérrez & Penuel, 2014)—we present an analysis of a research alliance between a university research center, a high school, and a K–8 school district focused on school climate. Specifically, we investigate students’ school climate survey responses from the first year of the partnership and critically reflect on the opportunities and challenges at each phase of the research process.

Readers are seldom provided a complete picture of the complexities of conducting school–university research partnerships. Rich descriptions of the prospects and dilemmas researchers encounter, how they negotiate them, and researchers’ perceptions on the collaborative process are absent in most published articles, particularly in the area of school climate. By supplementing findings with key insights on partnership practices, we seek to provide a more complete and nuanced account of the research endeavor—which can serve as a foundation for further inquiry—and highlight important considerations that can guide researchers as they embark on similar partnerships.

## THE PRESENT STUDY

### ABOUT THE JOHN W. GARDNER CENTER FOR YOUTH AND THEIR COMMUNITIES

The John W. Gardner Center for Youth and Their Communities (Gardner Center) is a research organization in the School of Education at Stanford University. The Gardner Center’s mission is to develop partnerships in pursuit of actionable research that enhances the lives of young people. Research alliances with the Gardner Center are established in a variety of ways (e.g., explicit requests, competitive bids) and include K–12 districts, human services agencies, higher education institutions, and other organizations. Gardner Center staff works in an iterative manner with community partners, soliciting their feedback and guidance through all stages of the analysis (e.g., developing research questions, disseminating findings).

### ABOUT THE CHESTNUT ELEMENTARY SCHOOL DISTRICT AND THE YOUTH DATA ARCHIVE

At the time of this study, the Gardner Center’s most developed partnership was that with the Chestnut Elementary School District (CESD) in Forest City—a neighboring city of about 80,000 residents.<sup>1</sup> With 16 operational schools in 2011–2012, CESD served about 9,200 K–8 students, most of whom identified as Latino (72%) and Caucasian (20%). English was the second language for about 46% of the district’s students, and nearly two thirds of students qualified for subsidized school meals (Table 1).

The Gardner Center's partnership with CESD originated through a collaborative body called Forest City's Future. Comprising city leaders, local business owners, and nonprofit agencies, Forest City's Future seeks to enhance outcomes for local children, youth, and families. A chief initiative of the Gardner Center, of which Forest City's Future was an early participant, is the Youth Data Archive—an integrated, longitudinal information system containing administrative student-level data from various institutions (e.g., school districts, human service agencies).

Despite a common focus on young people, most youth-serving institutions are uninformed about each other's organizational goals, programs, and approaches (McLaughlin, Scott, Deschenes, Hopkins, & Newman, 2009). By integrating students' information in a central repository, the Youth Data Archive helps to dismantle organizational silos, improve coordination and learning among youth-serving entities, and afford partners the opportunity to investigate questions that no single agency could answer on their own. The Gardner Center serves as a neutral third party, housing the data on a secure university server for the benefit of the community. Partners retain ownership of their data and actively participate in research projects. Studies involving the Youth Data Archive have included analyses of foster care youth as well as out-of-school-time participation.

#### ABOUT ELDERBERRY HIGH SCHOOL

A key partner of Forest City's Future and contributor to the Youth Data Archive was the Eucalyptus High School District (EHSD)—the high school district where most of Chestnut Elementary School District students matriculated. In 2011–2012, EHSD contained seven high schools, including Elderberry High School, which enrolled about 2,000 students, a majority of whom identified as Latino (59%) and Caucasian (29%). Roughly 21% of Elderberry High School students were designated as English learners, and 40% take part in the free and reduced-price lunch program (Table 1).

Similar to the Chestnut Elementary School District, the Gardner Center had extensive relations with the Eucalyptus High School District through Forest City's Future over the last decade. The Gardner Center functioned as an independent research organization and supported EHSD by investigating a variety of concerns important to the district; findings were then funneled back to key leaders with the goal of improving practice and policy. The Gardner Center aided the district in multiple ways, including conducting an implementation study of coordinated school-health efforts and examining students' health using data from the state's annual physical fitness tests.

**Table 1. Characteristics of Chestnut Elementary School District, Eucalyptus High School District, and Elderberry High School Students, 2011–2012**

	Chestnut Elementary School District		Eucalyptus High School District		Elderberry High School	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Total enrollment	9,273		8,947		2,031	
Race/ethnicity						
Latino	6,659	72%	4,095	46%	1,190	59%
Caucasian	1,852	20%	3,115	35%	597	29%
Other	176	8%	1,737	19%	244	12%
English learner	4,215	46%	1,611	18%	422	21%
Free and reduced price lunch	6,000	66%	2,837	33%	763	40%
Graduates (prior year)	n/a	n/a	1,904	n.r.	315	n.r.
State standardized tests						
English language arts	n.r.	54%	n.r.	65%	n.r.	62%
Math	n.r.	60%	n.r.	44%	n.r.	41%

Source: California Department of Education DataQuest, <http://data1.cde.ca.gov/dataquest/>

*Note:* n.r. = not reported

## JOINING FORCES TO STUDY STUDENTS’ PERCEPTIONS OF SCHOOL CLIMATE

Given the Gardner Center’s history with the Eucalyptus High School District, a multiyear partnership evolved with Elderberry High School to tackle the issue of school climate. In the spring of 2012, Elderberry’s principal reached out to the Gardner Center to assist in an analysis of students’ survey responses to determine factors associated with their perceptions of school climate. Elderberry High School had administered a mandatory online survey to students (and their families) in the 2010–2011 academic year. Recognizing that the survey could be improved, the principal solicited the support of the center to ensure that measures were based on validated scales; a revised instrument was then administered in the summer of 2012.

The superintendent of Eucalyptus High School District expressed support of the partnership and permitted the Gardner Center to use students’ administrative data for the research. The principal of Elderberry High

School also reached out to the superintendent of Chestnut Elementary School District, who was interested in knowing whether students' perceptions of the school environment shifted from eighth to ninth grade—a highly vulnerable period in students' developmental life span (Barber & Olson, 2004).<sup>2</sup>

After several meetings, which the Gardner Center facilitated, CESD's superintendent agreed to take part. She allowed the Gardner Center to link students' school climate and administrative data from CESD (e.g., demographic information, attendance) with data collected from Eucalyptus High School District. Data from both districts were uploaded, secured, and maintained in the Youth Data Archive.

For the first year's analysis, partners agreed to focus on students' survey responses. Two questions guided the research: (1) How did results of the Elderberry High School survey differ by student demographic characteristics? and (2) To what extent did the transition from Chestnut Elementary School District middle schools to Elderberry High School influence ninth-grade students' perceptions of school climate? What were the characteristics of students whose perceptions changed during this transition? Following a series of discussions, the Gardner Center proposed a budget and a scope of work detailing the research activities for the inaugural year. Partners agreed and made financial contributions to support the analysis.

## METHOD

### DATA

We matched students' administrative records and school climate survey data from the 2010–2011 and 2011–2012 school years, focusing in particular on students who matriculated from Chestnut Elementary School District middle schools to Elderberry High School. During the spring of 2011, CESD's survey was administered in all middle schools (response rate = 68%). Researchers from the Gardner Center introduced the study in every CESD middle school classroom. Students were recruited to participate, and those who volunteered to take part signed assent forms and were given identification numbers that were later used to link their survey responses to their administrative records. Students enrolled in Elderberry High School during the 2011–2012 school year were required to complete the school's online school climate survey to obtain their class schedules for the following year. Transfer and incoming ninth-grade students were not required to participate.

## KEY MEASURES OF SCHOOL CLIMATE IN ELDERBERRY HIGH SCHOOL'S SURVEY

Students were asked to respond to 41 close-ended questions using a 6-point measure, where 1 equaled *very untrue* and 6 equaled *very true*. These questions comprised a total of 13 scales that measured students' appraisals of various school climate dimensions. Guided by discussions with partners, we focused the analysis on five scales: *academic care*, *academic expectations of school adults*, *autonomy support*, *respect for racial/ethnic diversity*, and *overall sense of care at school*. These scales comprised two or more interrelated questions that were averaged together to produce internally consistent estimates (see the appendix). We calculated Cronbach's alpha to determine the reliability of each scale, or how closely related the set of items are as a group. Cronbach's alpha is frequently used to indicate the degree to which a set of items measure a single unidimensional latent construct (Streiner, 2003). We describe each scale in the paragraphs that follow.

### *Academic Care*

*Academic care* ( $\alpha = 0.77$ ) referred to students' beliefs that their teachers were responsive to their learning needs. Research with ethnically diverse low-income urban students has shown that students appreciate teachers who consistently check their work, call their parents, and help them combat their habits of not completing assignments (e.g., Wilson & Corbett, 2001). Students were asked to assess the truthfulness of three statements in the survey, including, "My teachers are available during nonclass time to answer questions to assist me in my studies."

### *Academic Expectations of School Adults*

*Academic expectations of school adults* ( $\alpha = 0.80$ ) assessed students' perceptions that staff on campus recognized their strengths and conveyed to them high-expectation beliefs. Studies have demonstrated that when teachers have high expectations and provide tasks that are of high interest, students are more likely to report increased motivation (Deci & Ryan, 2000; Rubie-Davies, 2010). Students evaluated a total of four statements, including, "At my school, there is a teacher or some other adult who tells me when I do a good job."

### *Autonomy Support*

*Autonomy support* ( $\alpha = 0.78$ ) referred to students' perceptions that there were opportunities for them at school to contribute in meaningful ways. Evidence suggests that students who experience learning conditions that

have a high degree of autonomy support tend to be more motivated and participate more in school activities (Jang, Reeve, & Deci, 2010; Reeve, 2006, 2012). By contrast, students who experience low levels of autonomy support (e.g., an authoritarian classroom management approach) are, on average, more likely to report negative affect toward school (Reeve, 2009). Students responded to four statements in the survey, including, “I have many opportunities to make decisions at my school.”

#### *Respect for Racial/Ethnic Diversity*

*Respect for racial/ethnic diversity* ( $\alpha = 0.71$ ) tapped students’ perceptions on whether students and adults at school respected racial/ethnic diversity. Research on youth reveals that conflict-free, racially diverse school contexts promote cross-ethnic friendships (Hallinan, Kubitschek, & Liu, 2009), which in turn can reduce stereotypical views toward outgroup members (Hallinan & Teixeira, 1987). Racial/ethnic diversity has also been linked to feelings of safety and social satisfaction at school, where youth report feeling safer, less harassed, and less lonely in multiethnic campuses (Juvonen, Nishina, & Graham, 2006). Students assessed four statements, including, “Students at this school respect students of different racial and ethnic groups.”

#### *Overall Sense of Care at School*

*Overall sense of care at school* ( $\alpha = 0.80$ ) referred to students’ beliefs that there was a culture of care and mutual respect among students and staff at their school. Studies indicate that caring relationships promote high levels of effort and persistence, positive academic attitudes, and greater satisfaction with school (McNeely & Falci, 2004; National Research Council and Institute of Medicine, 2003; Ryan & Deci, 2000). Students assessed four statements, including, “Teachers and students treat each other with respect in this school.” *Overall sense of care at school* appeared in CESD’s middle school survey, which allowed us to note changes in students’ responses as they transitioned from their middle school to Elderberry High School.

### STUDENTS’ INFORMATION FROM THE YOUTH DATA ARCHIVE

We linked students’ survey information with their academic and demographic data stored in the Youth Data Archive. Data included information about students’ gender, grade level, race/ethnicity, participation in the free and reduced price lunch program, English language proficiency, parental education level, special education status, and disciplinary records. As a measure of academic achievement, we also accounted for students’ grade point averages (GPAs).

SAMPLE

A total of 1,606 Elderberry High School students completed the survey (response rate = 77%). Fifty-six percent of respondents identified as Latino, 33% as Caucasian, and 11% as other race/ethnicities (e.g., Asian). Although survey respondents were demographically similar to the overall student population at Elderberry High School, we found statistically significant differences between survey respondents and nonrespondents—where respondents were more likely to be female, Caucasian, and have a parent with a college degree (Table 2).

**Table 2. Characteristics of Elderberry High School Survey Respondents and Nonrespondents, 2011–2012**

	Respondents		Nonrespondents	
	N	%	N	%
Gender				
Male***	766	48%	265	57%
Female***	840	52%	203	43%
Race/ethnicity				
Latino***	896	56%	309	66%
Caucasian***	534	33%	106	23%
Other	176	11%	53	11%
Parent education				
No high school	413	26%	136	29%
High school graduate	494	31%	166	35%
College graduate***	524	33%	98	21%
Grade level				
9***	454	28%	97	21%
10	459	29%	116	25%
11	399	25%	96	21%
12***	294	18%	159	34%
English learner***	301	19%	171	37%
Free and reduced price lunch*	772	48%	252	54%
Special education***	183	11%	93	20%
Total	1,606		468	

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

At the request of partners, we examined the cohort of students who transitioned from the Chestnut Elementary School District to Elderberry High School in 2011–2012 and who completed school surveys both in the eighth and ninth grade. This cohort of students ( $n = 275$ ) made up about half of the overall freshman class in Elderberry High School in 2011–2012 ( $n = 551$ ). Compared with Elderberry students who came from other districts, those who originated from CESD and completed both middle and high school school climate surveys were more likely to be female and to reside in higher educated households and were less likely to identify as Caucasian.

## DATA ANALYSIS

We first examined how results from Elderberry High School’s survey differed by student characteristics. We converted mean scale scores into a dichotomous variable indicating which students responded, on average, *true* or *very true* on each of the five school climate dimensions. A value of 1 was given where the average scale score was above 4.5 out of 6 on the scale, and 0 if the score was 4.5 or below. An average above a 4.5 on the 6-point scale ensured that the respondent was in agreement with a majority of the items that comprised the scale.

Next, we estimated a series of logistic regression models to determine the degree to which students’ background characteristics were associated with their reporting on key school climate measures. We accounted for the influence of students’ gender, race/ethnicity, grade level, parent education, poverty level (as measured by their eligibility for subsidized school meals), GPA, English learner designation, special education status, and suspension history.

Finally, we analyzed the cohort of students who transitioned from CESD to Elderberry High School in 2011–2012 and who completed school surveys in the eighth and ninth grade. Accounting for the same covariates in the models, we analyzed students’ responses on the *overall sense of care at school* dimension (the only scale that appeared in the middle and high school surveys) and noted whether their perceptions changed.

## RESULTS

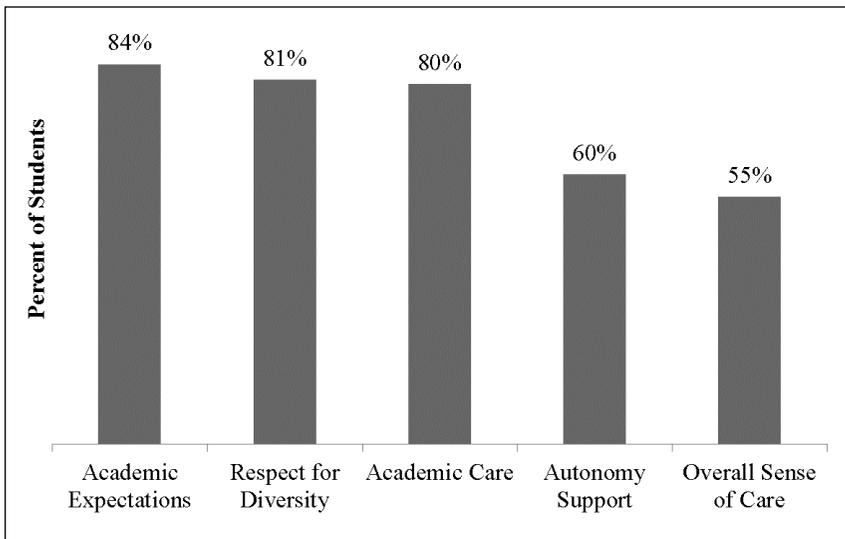
We report the results in three parts. First, to understand students’ experiences at Elderberry High School, we summarize students’ self-reports on five school climate dimensions. Second, we present findings from logistic regression models that identified factors predictive of students’ perceptions of the campus environment. Last, focusing on the cohort of CESD students who transitioned to Elderberry High School, we describe how

their *overall sense of care at school* shifted during the middle-to-high-school transition. It is important to note that because Elderberry High School students were required to complete the survey and their responses could be linked back to their identities, results may be biased toward more positive assessments of school climate.

### STUDENTS' SCHOOL CLIMATE PERCEPTIONS AT ELDERBERRY HIGH SCHOOL

Figure 1 depicts the percentage of Elderberry High School students who responded *true* or *very true* (on average) to each of the five scales. Most reported positive experiences; for instance, respondents perceived that a majority of adults at school held high academic expectations for them (84%). Students also experienced a sense of respect for racial/ethnic diversity on campus (81%) and felt cared for academically by their teachers (80%). By contrast, fewer respondents (60%) felt supported to exercise their decision-making skills (i.e., autonomy support), and fewer still perceived there was a strong overall culture of care (55%).

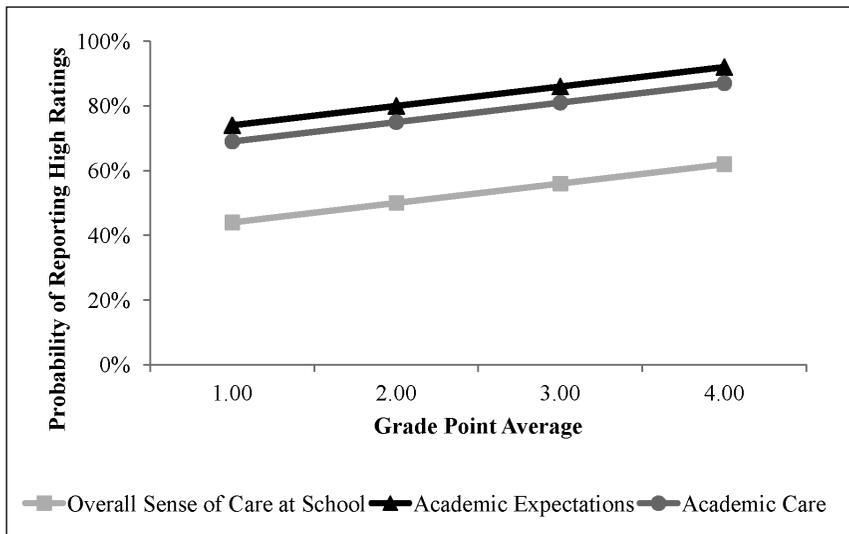
**Figure 1. Percentage of Elderberry High School students reporting *true* or *very true* on key school climate dimensions, all respondents 2011–2012**



## FACTORS ASSOCIATED WITH STUDENTS' SCHOOL CLIMATE PERCEPTIONS AT ELDERBERRY HIGH SCHOOL

We found several factors linked to students' school climate perceptions. Students' grades were linked to high average ratings on their perceptions of *academic care*, *academic expectations*, and *overall sense of care at school* (Figure 2). On average, for every grade point increase in students' GPA, the probability of reporting high ratings on these three scales increased by 6 percentage points. Likewise, a 1-point GPA increase heightened a student's probability of reporting high average scores on *overall sense of care at school* (from 81% to 87%) as well as *academic care* (from 56% to 62%).

**Figure 2. Difference in probability of reporting high average ratings by grade point average on Elderberry High School students' perceptions of academic care, academic expectations, and overall sense of care at school, all respondents 2011–2012**



Students' gender, grade level, and disciplinary background also influenced how they felt about particular school climate dimensions. Table 3 depicts results for survey scales and student characteristics where there were statistically significant findings. Examining students' perceptions of *overall sense of care at school*, males (52% vs. 58% of females), students with at least one suspension (45% vs. 56% of students with no suspensions), and those in the 11th grade (42% vs. 59% of students in the 12th grade) were less likely to report high average ratings. Similarly, when examining students' perceptions of *autonomy support*, we found that 11th graders

(53% vs. 62% of students in the 12th grade) and individuals with one or more suspensions (51% vs. 60% of students with no suspensions) were less likely to report high ratings. Finally, males were less likely than females to report high average ratings on their perceptions of *academic expectations* (82% vs. 86%).

**Table 3. Probability of Reporting High Average Ratings by Gender, Grade Level, and Disciplinary Background on Students’ Perceptions of Overall Sense of Care at School, Autonomy Support, and Academic Expectations, All Respondents 2011–2012**

	Overall Sense of Care at School	Autonomy Support	Academic Expectations
Gender			
Male	52%	n.s.	82%
Female	58%	n.s.	86%
Disciplinary Background			
At least 1 suspension	45%	51%	n.s.
No suspensions	56%	60%	n.s.
Grade Level			
11	42%	53%	n.s.
12	59%	62%	n.s.

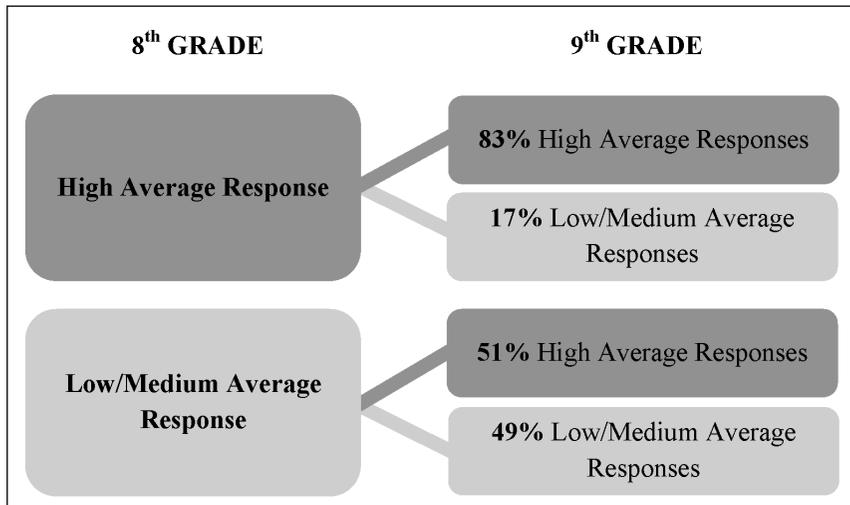
n.s. = statistically nonsignificant findings

### STUDENTS’ OVERALL SENSE OF CARE AT SCHOOL DURING THE MIDDLE-TO-HIGH-SCHOOL TRANSITION

At the request of the Chestnut Elementary School District superintendent, we did not report the exact number of students with above or below average ratings on their perceptions of care at school. Rather, we reported the percentage of students who maintained the same level of perceptions or who shifted during the transition to Elderberry High School (Figure 3). The superintendent felt that the transition was the most important aspect to focus on rather than the exact number of students. Eighty-three percent of eighth-grade respondents who reported high average responses on their perceptions of *overall sense of care at school* in CESD continued to report high positive ratings when they transitioned to Elderberry High School in the ninth grade, while 17% moved to the low/medium category. By contrast, among youth who had low/medium average responses during the eighth grade, 49% remained in the low/medium category, and 51% moved into the high category when they matriculated to Elderberry High

School. Additionally, among this cohort of students, those with at least one suspension in ninth grade and students of other race/ethnicities (non-White, non-Latino students) were less likely to report perceiving a strong culture of care at Elderberry High School.

**Figure 3. Students’ perceptions of overall sense of care at school in the ninth grade by their eighth-grade response on the same scale**



## DISCUSSION

Few studies have documented how districts and schools partner with local postsecondary institutions to address school climate. We seek to build on the literature by providing a comprehensive first-year account of a long-term school–university research alliance intended to enhance students’ experiences on campus. In the sections that follow, we embed the findings within the larger context of the partnership and describe in detail the complexities encountered in the preanalysis, analysis, and postanalysis stages of the research process.

### PREANALYSIS PHASE: RESPONDING DIRECTLY TO PARTNERS’ CONCERNS

Promptly responding to the needs of partners and consistently communicating are essential strategies to gain credibility, maintain a shared focus, and build trusting relationships (Coburn et al., 2013; Suarez-Balcazar et al., 2002). Our early revision of Elderberry High School’s original school climate survey provided an opportunity to establish trust

and legitimacy with the school principal. Although researchers from the Gardner Center had collaborated with the superintendent for many years, we had not worked directly with the principal of Elderberry High School; therefore, it was not surprising that she had some level of skepticism early on in the partnership.

These kinds of apprehensions are noted in past studies (e.g., Donovan & Pellegrino, 2003). Typically, the presence and involvement of university researchers can provoke concerns about how data and findings will be used and disseminated (McLaughlin & London, 2013). Research can appear “evaluative” to some practitioners, which can lead to defensiveness about letting researchers into their schools. Community members can also feel exploited by some academics, which increases uncertainty and suspicions about the viability of collaborations (Jordan, Bogat, & Smith, 2001). For instance, some researchers make promises to district officials about the benefits of their research to gain entry into schools or acquire data but leave before sharing their findings or following through on their promises (Donovan & Pellegrino, 2003; Roderick & Easton, 2007). Partnerships between schools and universities must deal with issues related to legitimacy and power sharing regardless of the focus of the work (Coburn, Bae, & Turner, 2008). As such, it was vital that we respected the concerns of the school principal by developing the revised survey instrument within her preferred timeframe.

Revising the survey instrument for Elderberry High School showed how practitioners and researchers use a diversity of school climate models and measures (Cohen, 2006; Thapa et al., 2013). The process of identifying key school climate dimensions, which were consistent not only with research but also respectful of the measures the school had previously drafted, helped establish a two-way learning relationship among partners—where academic and community knowledge complemented one another in ways that strengthened trust and “mutualism” (Coburn et al., 2013).

Consistent communication was key during the preanalysis phase. New priorities emerged during the period it took to establish research questions, construct a valid survey, administer it to students, and obtain the data for analysis. The Gardner Center had to assign new staff to the project, which stalled the momentum of the partnership and initiated an additional period of relationship and trust building. Open and frequent communication, both formal (e.g., scope of work agreements) and informal (e.g., emails) between partners, was necessary to maintain focus, sustain commitment, and ensure the longevity of the alliance.

## ANALYSIS PHASE: AFFIRMING EQUITABLE RELATIONS

After linking all information in the Youth Data Archive, we conducted a series of analyses, including creating and testing the internal consistency of survey scales, as well as merging students' responses to their academic records. We then met with the principal of Elderberry High School to review preliminary findings. We produced an internal fact sheet that outlined emergent results, including the demographic characteristics of survey respondents and the percentage of students who reported positive experiences at school for each school climate dimension.

Reviewing early findings with the principal before engaging in statistical modeling provided an opportunity for us to make sure that she understood the data and our analytic strategies, and verify that initial results were consistent with her experiences and knowledge of Elderberry High School. This discussion reflected the cooperative and iterative nature of the partnership, demonstrated respect for the knowledge and authority of the principal, and deepened a sense of trust and ownership. It also showed how in collaborative partnerships, researchers must be comfortable playing a variety of other roles, including facilitator and broker (Connors & Seifer, 2000).

After discussing each finding, the principal requested that the complete analysis, including statistical modeling, be written up and presented to the school staff in 6 weeks; this accelerated the schedule agreed on in the original scope of work at the beginning of the project. Knowing that this new timeline was better suited to the needs of the principal, we agreed to complete the statistical analysis but stressed that a written report would not be available at such time—because all products were first subject to review and approval by all partners in the project, including the superintendent of Chestnut Elementary School District who contributed data to the study. Although the principal's request was only partially met, reiterating the need for all members to authorize publications before their distribution helped affirm egalitarian relations among them. Requesting feedback from everyone on the accuracy and completeness of the research and reporting helped balance power differentials (Prilleltensky & Nelson, 2002) and allow for all voices to be heard, thus increasing the likelihood that findings would be perceived as trustworthy and useful (Evans et al., 2001).

Two central tenets of the Gardner Center's approach to partnership are to build the research capacity of community members and communicate findings in accessible ways. We provided Elderberry High School guidance on how survey constructs, rather than individual questions, could be used to understand students' perceptions in particular school climate dimensions. Per the request of the principal, we reported percentages rather

than mean scaled scores, because percentages were more meaningful to educators. Also, we discussed only statistically significant findings to prioritize action for school personnel. Conveying essential results and implications in a straightforward manner is an important strategy to foster effective partnerships (Suarez-Balcazar et al., 2005).

Before findings were presented to the school staff, partners requested edits to our PowerPoint slides. Elderberry High School's principal requested that a slide explaining why school climate mattered for students' learning and development be excluded because she felt it devalued the knowledge and expertise of teachers. Similarly, the superintendent from the Chestnut Elementary School District requested that counts of students be omitted in favor of percentages out of concern that key findings from the study could be overshadowed by details that some might use to potentially portray the district in a negative light. Allowing partners to have decision-making power throughout the analysis and dissemination process solidifies trust and avoids community members feeling devalued or ignored by academics (Penuel, Roschelle, & Shechtman, 2007).

School-university partners have different responsibilities when it comes to the distribution of research findings. Academics are generally concerned with presenting results in an objective and critical fashion, mostly in scientific journals or at professional meetings. By contrast, practitioners have to deal with political issues when considering findings, especially when results could potentially be threatening or are less positive than previously envisioned (Evans et al., 2001).

## POSTANALYSIS PHASE: THE CHALLENGE OF MOBILIZING FINDINGS INTO ACTION

Translating school climate research evidence into action is a multifaceted process. It requires an intentional community-wide effort where school personnel, students, and families are working together to generate and implement strategies (Cohen et al., 2009). Because a variety of stakeholders are involved and each person possesses distinct knowledge, beliefs, and social networks that vary from one another, there can be different ideas on which issues need to be addressed (Coburn, 2005; Gray, 2004; Rickinson, 2005; Spillane et al., 2002).

Data indicate that although most Elderberry High School students had positive assessments of the school environment, lower achieving students, males, students in Grade 11, and those with at least one suspension reported fewer positive experiences relative to their counterparts. As researchers, we perceived these findings to be actionable with direct implications for practice and policy. However, teachers during the research presentation did

not appear to share our perspective; they showed more interest in how their school's ratings compared with those of others. The principal confirmed the finding that juniors were less likely to report positive perceptions because programs and services at Elderberry High School targeted mostly freshmen and seniors; thus, it made sense to her (as well as the teachers) that these students would report fewer positive assessments of the school's climate.

Although researchers bring the analytical knowledge and take the lead in reporting and presenting the key findings, it is important that they do not mandate specific recommendations that school leaders and personnel should take as a result of the research findings. Rather, academics should foster a community-owned process and defer to partners as the "experts" who have the knowledge of local conditions and capacities. Affording community members opportunities to contribute their know-how in translating research findings into action is a chief element in any alliance. Moreover, academics should be mindful of where partners are developmentally in their readiness to shift practice and policy as a result of research evidence. Although change may not happen right away, greater engagement with research and analysis may yield more systemic reforms.

Action that results from research findings often take many forms (Dukakis & London, 2013). Action may mean shifting the types of programs offered at school, terminating a certain policy, or continuing with the status quo until a more opportune period for change emerges (Nelson, Strobel, & London, 2010). Action may take place without the knowledge or direct participation of researchers, given the dynamic conditions, pressures, and policy windows that exist within schools, districts, or local communities. Taking action within the context of collaborative partnerships also requires substantial negotiation and time (Dukakis & London, 2013). Thus, we view the teachers' and principal's reactions to the survey findings as the beginning of an ongoing discussion of school climate—one that will build over time with future analyses and further engagement with stakeholders (e.g., students, parents).

Coming to a shared understanding of what school climate survey findings mean, why they are important, and how to use them to make changes at school will require time and extensive effort (Cohen et al., 2009). Site leadership is a critical element in this, given that the climate of a school is significantly shaped by the actions and behaviors of administrators. Studies have demonstrated that the ways in which principals establish high student expectations, organize classrooms, allocate resources, establish and enforce rules, and communicate with teachers and parents can have considerable influence in how students perceive the environment at school (Bryk & Schneider, 2002; Bryk, Sebring, Allensworth, Easton, & Luppescu, 2010; Klem & Connell, 2004; Libbey, 2004).

As a cross-sectional snapshot of students' school climate perceptions, the first year's survey findings are not likely to produce meaningful change. What matters is how school leadership and personnel make use of these and future findings to set in motion a continuing process of learning and school improvement, which uses data and research to improve the campus environment (Cohen et al., 2009). As Tseng (2012) noted, "As important as getting the right people in the room is creating the conditions for back-and-forth discussion about the research and its implications" (p. 12).

Following our presentation of the first year's findings and dissemination of written products (e.g., a district report), we began conversations with EHSD administrators to expand the inaugural analysis. One suggestion was to administer the survey in additional schools in the Eucalyptus High School District, but because of competing priorities (e.g., redrawing of district boundaries, passing school bond measures) and resource constraints, the motivation for the school climate work decreased. Another suggestion was to align a parent survey with the student survey—a suggestion school leaders implemented in the following year's survey administration.

At the time of writing this article, the principal of Elderberry High School was promoted to a position at the district office. We established contact with the new principal and initiated new analyses and write-up of the most recently administered survey data. The new principal also discussed expanding the initial study to include analyses of how early-warning indicators (e.g., chronic absence) and students' participation in various school programs (e.g., leadership trainings) were linked to their perceptions of the school environment.

### SOME IMPORTANT CONSIDERATIONS FOR RESEARCHERS

In this article, we seek to document the intricacies from the first year of a school–university research alliance and the myriad factors that shape the partnership process. Next, we highlight three strategic considerations that may support other researchers as they embark on similar work.

First, the path to successful school–university collaborations is not straightforward or well-defined; it is almost always in a state of flux. Communicating and actively engaging partners throughout is necessary to promote trust and credibility and to stabilize commitment to the work. A range of factors can emerge that influence the concerns, needs, and priorities of partners during the course of the alliance. Roles, accountability, and commitment may also evolve as members become more immersed in the research endeavor. Additionally, issues such as

staff turnover, delays in data retrieval, and changes in goals and expectations may arise to thwart the process. Given these potential challenges, it will require researchers to establish ongoing and open communication with partners and to stay alert and flexible in accommodating possible changes and obstacles.

Second, partnerships often oblige researchers to give up their “expert” mentality and identity. Given that alliances are guided by the concerns of educators and local constituents, who have deep knowledge and understanding of issues facing their school, district, and community, researchers must take the requisite time to learn about the context in which they work—its value systems, beliefs, and norms (Gomez, Weiss, Stipek, & Bransford, 2009). Researchers should recognize that the knowledge residing in the community is equally important as the knowledge that exists in academia (Datnow, Hubbard, & Mehan, 2002). Academic and experiential knowledge can supplement one another in ways that facilitate innovation and strengthen the credibility of research findings (Suarez-Balcazar et al., 2002). The expertise of both researchers and practitioners is especially relevant when creating and implementing efforts related to school climate, where evidence-based strategies and programs may be applied, tested, and fashioned to fit the local context.

Finally, how research evidence and knowledge implicate practice is a nonlinear process contingent on multiple factors (Gomez et al., 2009). Less involved researchers may inaccurately perceive partners as being slow in mobilizing research findings even when study results appear readily actionable. Researchers may underestimate personalities, factors, and other conditions at play in most districts and schools, which can influence the melding of research and practice (e.g., political support; Schoenfeld, 2009). For example, district or school leaders can play a significant buffering or facilitating role in the interpretation, adaptation, or enactment of new interventions and policies by directing resources, intensifying focus, or integrating reforms into other school activities (Coburn, 2001). In addition to the context, researchers should consider how practitioners’ prior knowledge, beliefs, and connections to school reforms shape the extent to which they shift (or do not shift) their practice (Coburn, 2005; Spillane et al., 2002). With all these and other complexities, researchers are advised to exercise patience and take on additional roles (e.g., advocate, learner) to cultivate partnerships based on trust and rooted in principles of respect, equity, and joint decision making. The success of research–practice alliances hinges on sustained interactions and supports, as well as the willingness of researchers and practitioners alike to open up to new and more collaborative ways of working and learning (Gomez et al., 2009).

## LIMITATIONS AND CONCLUSION

Although this article provides some insights on the dynamics of school–university alliances, it has important limitations. Chief among them is the focus on a single partnership, which limits the generalizability of results. This article is also reflexive in nature, capturing the perspectives of only the researchers involved in the partnership. Qualitative data to capture the vantage point of other stakeholders were not collected; thus, it is highly plausible that other key participants (e.g., superintendent) had a different interpretation of the dynamics encountered in the first year of the partnership.

Still, we argue that this article helps extend existing research on school climate by providing a nuanced description and critical examination of the give and take, ups and downs, and stops and starts of a school–university research alliance. The experience described here suggests the need for researchers to respond directly to the concerns of school and district leaders early in the process and to maintain open communication lines to nurture and sustain trusting relationships. This case example also indicates the potential of school–university partnerships to develop the capacity of community members to be better users and consumers of research by encouraging their feedback and decision-making throughout the analytic process. Finally, the present partnership hints at how the creation and implementation of strategies to improve school climate will likely demand significant time, resources, and leadership. Iterative and sustained engagement of researchers and practitioners may help foster the conditions necessary to generate useful knowledge that stakeholders can use to enhance students’ educational prospects.

## NOTES

1. Pseudonyms are used to protect the identity of community partners.
2. Beginning in 2009, the Gardner Center worked with the Chestnut Elementary School District (CESD) in administering surveys to all middle school students to assess their motivational beliefs, and classroom and school experiences. Questions that focused on students’ perceptions of *overall sense of care at school* were asked in both CESD’s and Elderberry High School’s surveys; this afforded an opportunity to investigate whether students’ perceptions on this measure shifted as they transitioned from eighth to ninth grade.

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APPENDIX

**Selected Scales of Elderberry High School's School Climate Survey**

Scale	Average Response Rates (scale of 1-6)	Alpha	Survey Item Number	Survey Question
<b>Academic Care</b> <i>(refers to students' beliefs that their teachers are responsive to their academic needs)</i>	4.95 (0.78)	0.77	26	My teachers are available during nonclass time to answer questions to assist me in my studies.
			30	My teachers help me when I have trouble with the work.
			38	My teachers go out of their way to help me with my work.
			6	At my school, there is a teacher or some other adult who believes that I will be a success.
<b>Academic Expectations of School Adults</b> <i>(refers to students' perceptions that adults on campus recognize their strengths and convey to them high expectation beliefs)</i>	5.18 (0.71)	0.80	10	Elderberry teachers have high academic expectations for all students.
			23	At my school, there is a teacher or some other adult who always wants me to do my best.
			28	At my school, there is a teacher or some other adult who tells me when I do a good job.
<b>Autonomy Support</b> <i>(refers to students' perceptions that there are opportunities for them to contribute and participate in meaningful ways)</i>	4.62 (0.86)	0.78	8	Adults at this school act on students' concerns.
			13	Adults at this school listen to students' concerns.
			24	The principal at this school asks students about their ideas.
			35	I have many opportunities to make decisions at my school.

Scale	Average Response Rates (scale of 1–6)	Alpha	Survey Item Number	Survey Question
<b>Respect for Racial/Ethnic Diversity</b> <i>(refers to students' perceptions that the school environment is respectful of racial/ethnic diversity)</i>	5.00 (0.80)	0.71	5	Students at Elderberry respect students of different racial and ethnic groups.
			21	Adults at Elderberry respect students of different racial and ethnic groups.
			22	There are many friendships between students of different racial and ethnic groups at Elderberry.
<b>Overall Sense of Care at School</b> <i>(refers to students' beliefs that there is a culture of care and mutual respect among students and staff)</i>			12	Students in this school help each other, even if they are not friends.
	4.56 (0.92)	0.80	17	People care about each other in this school.
			36	My school is like a family.
			41	Teachers and students treat each other with respect in this school.

Note: Standard deviation values are in parentheses.

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