

What Parents Suggest Is Important –  
A Longitudinal Trend Study of Parent Perceptions  
Of School District Climate

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### Abstract

This longitudinal trend study sought to determine whether parent perception data could be used to identify enduring school district-wide climate factors. School climate has been the focus of considerable study as it relates to school site decision-making. Little research has focused on district-wide climate factors and their usefulness. The study data were drawn from archived biennial survey results between 1999 and 2009 in one high school district. Factor analysis was used to extract parent perception scales in each of six survey cycles. The scales were compared to identify those that demonstrated consistency across the six survey cycles. Four parent perception scales were isolated – instructional experience, learning environment, communication, and overall satisfaction. The district level scales are consistent with school site climate research findings and suggest that school districts reflect climate characteristics that may be useful to those setting and implementing policy for all schools in the district.

### **Introduction**

Much has been written about school climate and the relationship to school effectiveness (Witcher, 1993, Hoy & Miskel, 1996; Hoy, Hannum & Tschannen-Moran, 1998). Freiberg (1989, 2003) and others have repeatedly pointed to the value of school climate data in efforts to improve school learning environments. The same, however, cannot be said of research regarding school district climate. Anderson (1982) noted that insight into school district climate was elusive. A review of the literature since 1982 suggests that Anderson's conclusion remains valid (Fullan, 2005; Fare, Grosskopf & Weber, 1989; Schmoker, 1999). Yet, it seems that if school site climate is important in individual school improvement efforts then understanding district-wide climate would be equally important to those responsible for decision-making and administering of the school district.

### **Purpose**

This study sought to explore the nature of school district climate in one suburban high school district by investigating parent perception data trends collected over time using the same survey with the same general population. Specifically, data from biennial surveys conducted over ten years (six survey cycles) were analyzed to determine if trends could be identified that would suggest district-wide climate factors that provide a robust and durable picture of the district and thereby address Anderson's (1982) suggestion that measures of school district climate are elusive. Once identified, do these factors have the sufficient durability to serve as a foundation for assessing district-wide climate for the long-term and thereby guide school district decision-making?

### Research Literature

Schools and school districts are often characterized as complex organizations (Bolman & Deal, 2008; Borger, et. al, 1985; Ellis, 1988). Policies, decision-making, and administration of schools and districts reflect this complexity. On the matter of what contributes to the effectiveness of schools as complex organizations research has suggested that evaluating school climate is especially useful (Hoy, Hannum & Tschannen-Moran, 1998). Knowing the climate of a school can serve well the need to set policies and make decisions regarding the school organization and its goals (Hoy et al, 1998; Freiberg, 2003). Thus, the focus on improving schools is tied closely to findings about the importance of school climate. Like minded logic would seem to suggest that effectiveness at a school district level would also be tied to district-wide climate. But, as Anderson noted 28 years ago, school district climate research has received little attention and we are left to assume that the climate at individual district schools can “stand-in” for the need to describe district-wide climate factors.

Among the many instruments available for probing the dimensions of school climate, surveys have been used to discover the school climate perceptions of teachers, parents, community members, and in some instances, students (Hoy, Hannum and Tschannen-Moran, 1998; Freiberg, 2003; Freiberg & Stein, 2003; Stevens & Sanchez, 2003; Stichter, 2008). If the logic of using perception data as one source of information about climate at the school level is valid, then it would appear to be equally valid to use perceptions to probe the climate of a school district at large.

Since parents represent a key component within the political boundaries of a school district (Lutz & Merz, 1992) accessing their perceptions of overall district effectiveness has the potential of isolating factors that can be used to describe the district-wide climate. Certainly, as

the annual Phi Delta Kappa/Gallup Poll findings have repeatedly suggested (Bushaw & Lopez, 2010), parents view their own schools differently than they do the larger context of public education. To some extent the same is probably true of parent views of a school district – they have judgments that are focused on their experience with the school of their children. However, a school district is the sum of its schools and thus the climate of a school district is likely to be a product of the aggregate perceptions of parents from the schools. But research to date has not probed this assumption. Building on research findings about the value of investigating parent perceptions of school climate (Borger, Lo, Oh, & Walberg, 1985, Stevens & Sanchez, 2003) this study sought to explore the use of district-wide parent perception data to identify enduring factors that describe school district climate. Moreover, this study sought to determine whether district-wide climate factors could serve as a resource for sustainable (Fullan, 2005) decision-making at the district level.

### **Climate Factors**

For purposes of this study, school district climate factors are defined as shared parent perspectives about what is happening within the day-to-day routines of the school district. This definition is consistent with research based descriptions of school climate (Hoy & Miskel, 1996; Hoy & Feldman, 2003; Freiberg, 2003). The idea that the climate of a school district reflects the aggregation of identifiable indicators from among the schools of the district reflects the view of Ellis (1998) that schools and districts are complex organizations and any effort to simplify descriptions of climate require the consolidation of qualities into identifiable factors. Research on school site climate has isolated factor constructs that include perceptions about quality of academic programs, communication, learning environment, how people are treated, student and teacher relations, leadership, physical environment, security, and a sense of belonging (Borger,

Lo, Oh & Walberg, 1985; Griffith, 1997, 1998; Stevens & Sanchez, 2003). Research has also suggested that sustainable decision-making at the school district level requires reliance on data sources that serve both formative and summative assessment over extended periods of time (Fullan, 2005). It is conceivable that school district climate data tracked longitudinally for several years can serve well the needs suggested by Fullan (2005) and others (Hoy & Feldman, 2003; Stichter, 2008).

### **Background**

The data for this study were drawn from a high school district in suburban Southern California. The district has six comprehensive high schools and a continuation high school serving a diverse student population from five feeder districts. Of the 16,000 plus students in the seven schools during the six survey cycles, approximately 40% were Latino, 12% Asian, and 36% White. The 2009 enrollment for the six comprehensive high schools ranged from a low of 2021 to a high of 2578 students.

As part of the district's biennial assessment of school and district goal attainment, a parent survey was used. The survey involved a stratified random sample of parents from each school. The survey consisted of 50, five-point Likert-type items (Yes, most of the time; Yes, some of the time; No, seldom; No, not at all; and Insufficient Information/Does Not Apply). The survey was developed by the district and was unchanged for the six survey cycles – 1999, 2001, 2003, 2005, 2007, and 2009. Resulting data, in addition to being included with many other data in the overall assessment of performance on the district goals, were published and made available to the public. Published data were descriptive only with the focus on frequency of responses by individual survey item. Although trends for each item were tracked, no emphasis was placed on the use of data to identify school or school-district climate factors.

### Methods

As noted in Table 1, the number of questionnaire items remained unchanged, but the sample sizes and response rates did vary over time.

Table 1

*Survey cycles, questionnaire items and the number of respondents*

Year	Questionnaire Items	Parent Sample Size	Number of Parents Responding	Percent
1999	50	1,250	937	75
2001	50	1,900	1,354	71
2003	50	1,850	959	52
2005	50	1,900	1,164	61
2007	50	1,850	1,002	54
2009	50	1,850	800	43
Total		10,600	6,216	Avg. 59

Investigation of the survey process used revealed the prevailing guideline for selecting the parents was to allocate a sample size of 300 parents to each comprehensive high school. An additional 100 parents came from the continuation high school whose student population was usually about 300. Consequently, except for 1999, the parent sample was between 1,850 and 1,900 parents. The parent sample drawn from each school was then stratified to proportionally reflect each school according to students per grade level and student residences per Zip Code. No other demographic stratifications were used. As Table 1 notes, the actual sample size and the percent of respondents varied widely over the six survey cycles. Though, on review for purposes of this study, there was concern for the large variance of respondents over the 10 years, the data

were deemed viable because the district used the same survey throughout and adhered to the same sampling and administration protocols during the six cycles. This was complemented by the fact that an outside vendor was responsible for collecting, tabulating, and reporting the raw data results.

Procedurally, parents were notified in advance that they had been selected to participate in the survey. This notification, along with a subsequent cover letter with accompanying survey, was printed on school letterhead and signed by both the principal and superintendent. Parents were also notified that a copy of the survey was available in Spanish and Korean languages and procedures for obtaining alternative language surveys were detailed. Parents were provided a self-addressed envelope that would return the survey to the student's school. Follow up postcards and phone calls were used to encourage participation. The entire process, from the mailing of the actual survey to concluding the collection of returned surveys was one month – mid April to mid May.

All returned envelopes were given to an outside vendor responsible for opening the envelopes and scanning the responses. Results of the data were then given to the district in both a raw data results format and a report of frequency of responses by item format for each school and the district overall. No district personnel were involved in any of the data analysis. For purposes of this study, the district provided the raw data results to the researcher.

### **Type of Data**

Essentially the survey was a cross-sectional trend design with the sample drawn from a predetermined population (Borg, Gall, & Gall, 2007). Although data collection was at biennially established points in time, it is understood that there are unique limitations in this approach given the nature of schools. Each survey cycle was likely to include some parents who had participated

in previous survey cycles; however, the district did not gather the data needed to ascertain where this was the case. Thus, there were no longitudinal cohort data.

In reporting, results for individual survey items a parent satisfaction level of 80% positive (“Yes, most of the time” + “Yes, some of the time” responses as opposed to the combined results of “No, seldom” + “No, not at all”) was regarded by the district as the acceptable benchmark response to each item. Thus, discussion of results at the district, school and community level focused on frequencies for discrete items at points in time and as part of individual item trends when compared with the prior two surveys.

### **Factor Analysis**

For purposes of this study, the survey used in the six cycles was studied to determine if there were clusters of questions imbedded within the survey which were consistent with what prior research had identified as school climate dimensions (Borger, Lo, Oh, & Walberg, 1985; Ellis, 1988; Witcher, 1993). The next task was to determine how much the individual survey items aligned with the observable imbedded themes and with research suggested constructs for measuring school climate. If school climate is an “aggregate of indicators” (Ellis, 1988, p. 1) then parent perceptions aggregated district-wide should reflect factors that speak to the complex ways that parents perceive the climate of the school district. For this purpose, the data for all parent responses across the district were combined for each cycle. Factor analysis was then used to explore the alignment of perceived themes within each cycle of survey results and determine if multiple questions would group on common factors. This approach would, given the large number of survey items, also reduce the number of item variables to a “smaller number of composite variables” (Morgan & Griego, 1998, p. 111) and provide a context for assessing the relationship between discrete survey items.

The results were compared to ascertain whether there were sustainable and robust factors common to all six cycles. Once the common factor scales were determined, the component items of each scale, the individual questionnaire items, were compared to identify the parent satisfaction levels for each of the six cycles. Chronbach's alpha was computed for each factor scale. This approach provided a way of tracking parent perceptions and gauging the reliability of each factor scale over time.

### **Findings**

Principal Component Factor analysis resulted in extraction of four district climate factor scales common across the six survey cycles. Other factors emerged but were not deemed useful for one of two reasons – there was not sufficient consistency across the survey cycles or they did not meet reliability standards suggested by a Cronbach's alpha. The alpha standard of .70 suggested by Pedhazur and Schmelkin (1991) was used to gauge internally reliable. If the alpha was less than .70 it could be considered reliable if the number of items loaded was small (Griffith, 1998) and the loading correlations were above .30 (Kline, 2002).

The four district climate factors extracted are summarized under the following descriptors: Teaching Practices, Facility Quality and Safety, Communication, and Overall Satisfaction (see tables 2 – 5). These factors are reasonably aligned with school site climate factors found by others (Stevens & Sanchez, 2003; Griffith, 1997; Hoy, Hannum, & Tschannen-Moran, 1998). To give greater credence to the value of these factors, performance trends over time are tracked. The climate of a school district is not a static affair and trend analysis provides a more robust picture of perceived climate than does point in time data (Hoy, Hannum & Tschannen-Moran, 1998; Hoy & Feldman, 2003).

**Factor Scale 1: Teaching Practices**

It should not be surprising that parent perceptions of what goes on in the classroom emerges as the primary factor of importance. The annual Phi Delta Kappa/Gallup Poll results consistently suggest parent and other adult views of teachers are at the heart of perceptions about schools. Stevens and Sanchez (2003) arrived at similar conclusions. In the loadings for Teaching Practices (see Table 2) the focus of parent perception is on the breadth of satisfaction with teacher initiated learning experiences that include instruction, homework and grading.

Table 2

*Loadings by Year for Factor Scale 1 – Teaching Practices*

Factor Scale Items	1999	2001	2003	2005	2007	2009
Satisfied with teacher teaching practices	.765	.707	.786	.726	.524	.653
Satisfied with son/daughters teachers	.755	.647	.728	.653	.559	.605
Satisfied with teacher grading practices	.690	.792	.761	.699	.559	.767
Satisfied with teacher homework practices	.607	.701	.721	.634	.474	.557
Cronbach's Alpha	.78	.77	.86	.83	.83	.83

For the district in this study, survey items reflecting parent perceptions of teaching practices improved for the first four survey cycles and have dropped and leveled off in the past two cycles (see Figure 1). However, the overall satisfaction level after 2001 met or exceeded the district's internal benchmark of 80% positive.

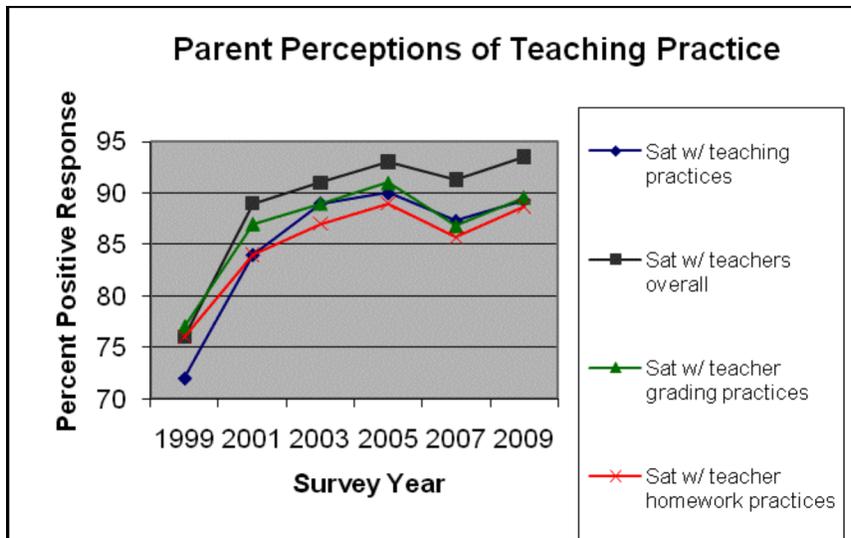


Figure 1: Factor Scale 1 – Parent perceptions of teaching practice

## Factor Scale 2: Facility Quality and Safety

Events in schools across American during the past 20 years make it clear that there is parent concern for issues of safety. The loadings for Factor Scale 2 (see Table 3) advance the notion that parents view issues of school safety in part through the lens of their observations regarding facility and equipment conditions. This makes sense when one considers that such observations also stimulate thoughts about how a school district is using its financial resources.

Using the metaphor of school as having organic qualities, Freiberg and Stein (2003) advance the notion that observable physical qualities have a significant influence on the overall health of a school environment. This idea seems to be born out in Factor Scale 2 and takes on special meaning when Factor Scales 1 and 2 are considered together. Learning and the learning environment are part of the same construct for parents.

Table 3

*Loadings by Year for Factor Scale 2 – Facility Quality and Safety*

Factor Scale Items	1999	2001	2003	2005	2007	2009
Buildings & grounds adequate & safe	.767	.684	.797	.698	.786	.617
School equipment adequate & good condition	.710	.636	.663	.742	.707	.761
Buildings & grounds clean & good condition	.654	.748	.698	.585	.677	.552
School safe place for student	.385	.687	.648	.649	.325	.747
District financial resources used responsibly	.547	.636	.475	.569	.489	.700
Cronbach's Alpha	.69	.75	.76	.70	.73	.75

As noted in Figure 2, parent perceptions of the quality and safety of school district facilities improved during the initial survey cycles but have leveled off in recent years. With positive responses above 75% for four out of the five items in this factor for the past four survey cycles, it is probably safe to say that parents were comfortable with their observations.

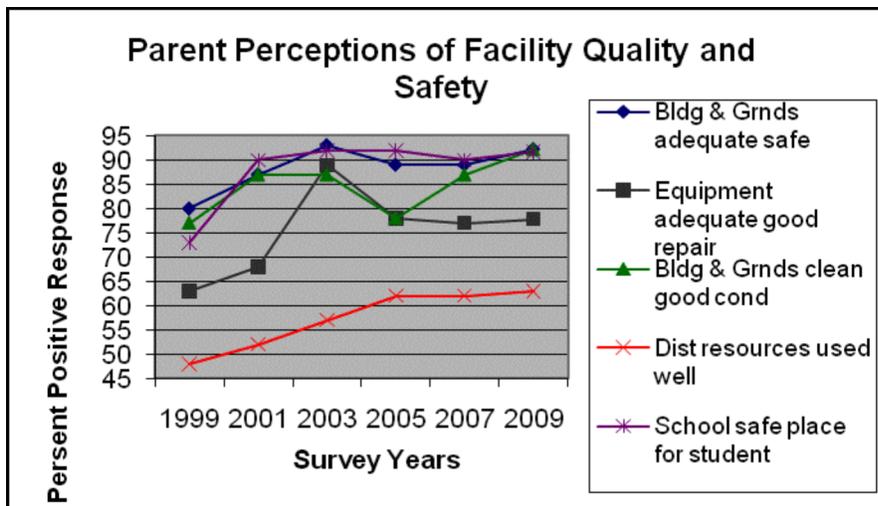


Figure 2: Factor Scale 2 – Parent perceptions of facility quality and safety

One might be concerned that perceptions regarding the use of district resources, as an element in this factor, do not reflect the level of positive response suggested by the other items in the factor. However, the trend was one of improvement. Of the five items in this factor, the issue of use of resources was probably a parent extrapolation based on observations of facilities more than a perception based on actual knowledge related to district decision making regarding capital expenditures of district funds. The district is distant from the school site and parents are not apt to feel confident in judging district resource use decisions as they are in judging what they see at the site level.

### **Factor Scale 3: Communication**

It is difficult to conceive that parents would have a healthy view of a school district in the absence of positive perceptions about communication. Research has regularly found that issues of communication are fundamental to the health of school climate (Griffith, 1997; Stevens & Sanchez, 2003; Friedman, Bobrowski & Harris, 2007). This study affirms the importance of communication district-wide (see Table 4).

Table 4

#### *Loadings by Year for Factor Scale 3 - Communication*

Factor Scale Items	1999	2001	2003	2005	2007	2009
Adequate information school activities/plans	.630	.413	.414	.592	.635	.400
Adequate information courses for graduation	.634	.424	.454	.599	.766	.432
Adequate information student attendance	.550	.509	.792	.668	.671	.675
Adequate info student grades & progress	.537	.476	.443	.647	.678	.473
Cronbach's Alpha	.56	.70	.72	.73	.75	.69

Since this study focused on the perceptions of high school parents, it is not surprising that the items loading on the communication factor stress a range of elements that include issues of attendance, grades, graduation requirements and school activities. It appears that parent perceptions of communication are more encompassing than simply wanting to know how their child is doing.

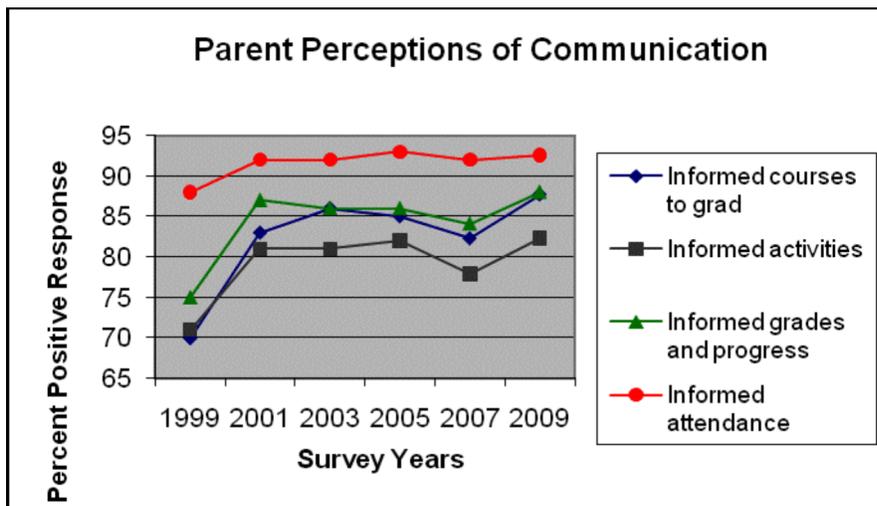


Figure 3: Factor Scale 3 – Parent perceptions of communication

Perception satisfaction levels for communication remained at or above 80% positive for most of the survey cycles (see Figure 3). The trend lines suggest that all four items in this factor track in tandem as perceptions are measured every two years. It seems that the issue of what is adequate communication is best answered by suggesting that it covers a broad spectrum of information that goes beyond the individual student.

#### Factor Scale 4: Overall Satisfaction

Overall satisfaction with what is happening in the schools of the district in this study appears to be a perception based on an extended spectrum of observations on the part of parents.

The items loading on Factor Scale 4 (see Table 5) confirm this perspective and are consistent with the literature (Griffith, 1997; Freiberg & Stein, 2003). The impact of Factor Scale 4 in this study is given even more substance by the fact that overall satisfaction is regarded by parents as a rationale for determining whether their child should be attending the school.

Table 5

*Loadings by Year for Factor Scale 4 – Overall Satisfaction*

Factor Scale Items	1999	2001	2003	2005	2007	2009
Overall satisfaction with school & district	.835	.579	.639	.684	.749	.724
Overall satisfaction w/h learning environment	.770	.582	.572	.643	.654	.700
If choice, would choose same school	.686	.488	.475	.583	.694	.634
Cronbach's Alpha	.70	.71	.80	.80	.79	.80

What makes the issue of overall satisfaction especially valuable in this study is the reality that the long-term trends for the three items loaded in the scale point to a steady progression of satisfaction that started out strong and remained so over 10 years (see Figure 4).

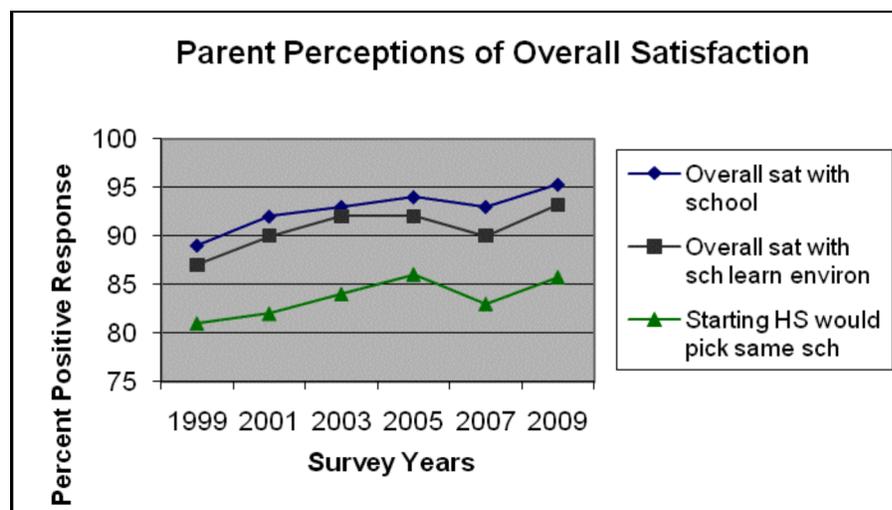


Figure 4: Factor Scale 4 – Parent perceptions of overall satisfaction.

To a large extent, the results for parent perceptions of overall satisfaction in Factor 4 are an extension of attitudes expressed by parents in this study in Factors 1, 2, and 3. District-wide there is consistently, over six survey cycles, a high level of parent satisfaction with teaching, school environment, and levels of communication. Since the data speak to the aggregate perceptions of parents across the district, it would take only a poor perception level at one school to significantly alter the results. The picture painted by Factors 1, 2, 3, and 4 seems to indicate that the data speak not only to the seven schools but to the district at large.

### **Summary and Implications**

In today's politically charged educational environment, student achievement tends to be regarded as the *sine qua non* for measuring school effectiveness. But, as research suggests, such metrics are not the only way of measuring school effectiveness (McNeil, 1986; Hoy, Hannum, Tschannen-Moran, 1998; Ladwig, 2010). Having said that, it is reasonable to believe, since a school district is the sum of its attendant schools, a school district is more than the test scores of its schools. But as data in this study suggest, the distance between issues of achievement and supporting school district factors is narrow. The complexity of school districts and their member schools (Ellis, 1988) suggests student experiences and subsequent levels of achievement are closely related to how the school district sees the broader climate.

The findings in this study speak to the use of aggregate district-wide school site climate data as a window into the climate of a school district. In summarizing the implications of the four factor scales it could be said that parents equate what is happening in the classroom with their observations of facilities, equipment and safety features, their perspectives regarding the broad spectrum of communication, and their overall perception of their child's experience in school. Schools and school districts are, indeed, complex organizations for which test scores alone do

not adequately speak to effectiveness. While it is important for a school district to address student achievement results, which may vary from school to school, it appears equally important that a school district focus attention on the factors that promote a healthy school climate across all member schools. What is ultimately happening at individual schools is really a measure of whether the school district is attending appropriately to the broad spectrum of organizational and operational factors that support the achievement activities across the district. Such factors are best seen as enduring climate elements subject to parent perceptions and a source of assessment data that can be evaluated formative and summative ways over an extended period of years.

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