

# *RESEARCH BRIEF*

Department of Research Services

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## **Possible District Level Trends in School Climate: Three Years of Survey Results**

The annual reports of the results of the School Climate Survey clearly indicate that the perceptions of the district's schools held by the various groups of survey respondents do not change quickly. The issues of school climate are perceived in a similar way across groups and levels, and the forces that produce change in school climate work slowly. Consequently, any trends that may be developing are difficult to detect, particularly in the short term.

Recently, however, the question of "trends" has been raised anew, and this report is a response to that renewed interest. There are now three years of comparable data available since the 1998-99 change in the survey instruments, enough to observe gross changes but insufficient for an analysis of particular items.

The report is restricted to the district level, and to the overall group responses to the surveys. Only the results for the regular schools are presented here. There are separate surveys for each of three groups: staff, parents, and students. The responses for each group are further broken down by level: elementary, middle, and senior, for a total of nine subgroups. Each subgroup was separately analyzed for change from one year to the next. All results are presented in terms of the percent of respondents agreeing with each item, where the "agree" and "strongly agree" responses are combined for an overall percentage.

### **The Distribution of Changes by Responding Group**

With three years of results available for each survey, there are now two sets of year-to-year changes to observe. Counting the difference from one year to the next for each item as a score, there are 68 scores for each of the staff and parent subgroups (34 items x 2 years), and 52 scores for each student subgroup (26 items x 2 years). The null hypothesis assumes that the changes that occur are random fluctuations caused by small independent changes in respondents and conditions in each survey each year.

Random changes should be normally distributed. Each distribution, in the form of a histogram, was tested for normality. Using a criterion of  $p < 0.01$ , none of the distributions was found to deviate from normality.

Similarly, the mean change should not differ from zero. However, three of the nine groups were found to have mean change scores that tested significantly different from zero, all in the positive direction. These are the elementary and senior high staff groups, and the senior high parent group. The means of these three groups are as follows. The elementary staff group had a mean of 0.59, with a standard deviation of 1.32. The senior high staff group's mean was 1.06, and the

standard deviation was 1.94. Finally the mean and standard deviation for the senior level parent group were 0.71 and 1.71, respectively.

These mean changes are small, one percentage point or less, and although they are statistically significant, they may not be large enough to be of any practical significance. This is especially true given the relatively large Ns (68 in each case). Nevertheless, it may be instructive to examine the changes in these three subgroups in greater detail. To this end Tables 1, 2, and 3 show the items which have changed by 4 or more percentage points (all the changes are positive, there were no negative changes this large). In each table, the item number and content are given in the leftmost columns, followed by three columns giving the percent agreeing with that item, by year. Then the year to year change scores are computed in the next two columns, as the difference between the later year's agreement score and the earlier year's agreement score. Finally the two change scores are summed in the rightmost column, and the items sorted on the result—from the largest down to the smallest.

Table 1 shows the results for the Elementary Staff group. The three items, each of which reflects a total increase of 4 percentage points, seem to indicate an improvement in administrative leadership.

Table 1  
Changes in Elementary School Staff Responses: 1999 through 2001

Item #	Survey Item	Pct Agree/ Strongly Agree			Change		
		1999	2000	2001	1999- 2000	2000- 2001	Sum
3	At my school personnel work together as a team.	75	79	79	4	0	4
10	My principal deals with conflict constructively.	73	76	77	3	1	4
13	My principal is receptive to constructive criticism.	64	66	68	2	2	4

Table 2 shows that for the Senior High Staff group there are eight items with an increase of 4 or more percentage points. Although two of these reflect a growing concern with workload and overcrowding, the remainder also strongly suggest improvements in administrative leadership.

Table 2  
Changes in Senior High Staff Responses: 1999 through 2001

Item #	Survey Item	Pct Agree/ Strongly Agree			Change		
		1999	2000	2001	1999- 2000	2000- 2001	Sum
15	My ability to do the best possible job at this school is limited by too many students in each class.	55	55	61	0	6	6
26	I have a feeling of job security in my present position.	73	77	79	4	2	6
7	My principal is an effective administrator.	75	75	80	0	5	5
9	My principal demonstrates good interpersonal skills.	71	74	76	3	2	5
29	I frequently feel overloaded and overwhelmed while working at my school.	43	45	48	2	3	5
3	At my school personnel work together as a team.	65	68	69	3	1	4
10	My principal deals with conflict constructively.	67	68	71	1	3	4
14	My principal is supportive of teachers.	73	74	77	1	3	4

Finally, the changes in the responses of Senior High Parents are depicted in Table 3. The parent items with a percentage increase of 4 or greater are those that reflect a perception of organizational improvement in the social environment. This reinforces the indications from the staff changes noted from Table 1 and 2, pointing to improvements in administrative leadership.

Table 3  
Changes in Senior High Parent Responses: 1999 through 2001

Item #	Survey Item	Pct Agree/ Strongly Agree			Change		
		1999	2000	2001	1999- 2000	2000- 2001	Sum
7	My child's school serves lunches that are nutritious and taste good.	30	31	36	1	5	6
1	My child's school is safe and secure.	64	68	69	4	1	5
26	The school and law enforcement authorities effectively work together to keep my child's school free of substance abuse.	52	56	57	4	1	5
20	My child's school is effectively teaching students to use computers.	52	56	57	4	1	5
25	The school and law enforcement authorities effectively work together to keep my child's school free of gang activity.	60	62	64	2	2	4

### Concluding Remarks

This analysis has focused on the overall district; there are other ways to view this information. Given the variety of conditions faced by our schools, it is possible that trends of interest may wash out in the act of combining all the schools together. Other sources of such trends may lie in the changes that might be occurring within SES groupings or in the state-determined School Performance Grade groupings.