

Parent Satisfaction with School Quality: Evidence from One Texas District

Toni Falbo

Robert W. Glover

S. Lynne Stokes

W. Lee Holcombe

Wei Na Lee

Veronica Inchauste

O'Neil Provost

Deanna Schexnayder

And others

University of Texas at Austin

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Abstract

In order to examine parents' satisfaction with the quality of their children's schools, a telephone survey was conducted on a stratified random sample of parents. The results indicated that the mean of the parents' satisfaction scores was similar to the national mean for customer satisfaction. Hispanic parents indicated the greatest satisfaction, while nonHispanic White and African American parents, the least satisfaction. Low-income parents expressed greater satisfaction than did other parents and parents of elementary school students reported greater satisfaction than did parents of secondary school students. These differences are interpreted in terms of meeting expectations, parent involvement, and school success.

Parent Satisfaction with School Quality: Evidence from One Texas District

Many schools have attempted to measure parental satisfaction in order to gauge the quality of the education provided to children and to discover ways of improving the schools (Brown, Cheng, Yau, & Ziegler 1992; Hecht, O'Connell, Michael, Klass, & Dwyer, 1992; Henderson, 1993; Pederson & Wilk, 1993). Increasing parents' satisfaction is considered one way of improving the quality of the schools (Salisbury, Branson, Altreche, Funk, & Broetzmann, 1997). This notion is consistent with the basic tenets of the Quality Movement, a systemic approach to improving goods and services based on satisfying the consumer (American Association of School Administrators, 1992; Deming, 1982; Dobyns & Crawford-Mason, 1991). Parents' satisfaction is similar to consumer satisfaction in that it affects the parents' loyalty and commitment to the schools their children attend (Bhote, 1996; Salisbury et al, 1997; Scheuing, 1995). Dissatisfied parents can move to other school districts or send their children to private schools. Although parents are not the sole consumers of the education their children receive, satisfying parents is thought to be key in promoting community support for schools (Salisbury et al, 1997).

This article reports the results of a survey of parents' satisfaction with public school quality in Austin, Texas. The goal of this survey was to provide parents with an opportunity to evaluate their children's schools so that the district could identify areas of strength and weakness in the quality of the education the children received. The survey was a joint project of the Austin Chamber of Commerce and the University of Texas at Austin. When the survey was conducted, the Austin district enrolled almost 78 thousand students, with roughly half of the students classified as economically disadvantaged.

Hispanic students comprised about 44% of the student body, Whites, about 36%, African Americans, 17%, and 3% were categorized as other.

The literature regarding parent satisfaction suggests that this satisfaction is based on a variety of experiences that the parents have with the school. Meeting the expectations of parents is thought to be essential for creating satisfaction (Olson, 1999). In this regard, the background of the parents, notably their cultural background, has been found to be related to their expectations (Carnevale & Desrochers, 1999). Furthermore, we expected parents who participate in more school activities to be more satisfied. We also expected that parents of successful students to be more satisfied than parents of less successful students (Himmelstein, Graham, & Weiner, 1991).

In addition, previous researchers have found that parents' overall satisfaction is based on their satisfaction with specific aspects of the child's schooling, such as teachers, transportation services, and cafeteria food (Salisbury et al, 1997). Satisfied parents should also be those who feel informed about their children's school experiences, think that the school values their involvement, and who believe their children to be safe in school (Salisbury et al, 1997).

The Quality approach often advises businesses (or government agencies) to take actions that make customers feel that the company (or agency) cares about them (Scheuing & Christopher, 1993). Translated to education, this approach argues that parent satisfaction should be related to parents believing that school personnel truly care about their children.

We wanted to conduct a survey that was free of many of the methodological problems common to surveys conducted by schools. Typically, schools send home

questionnaires for parents to complete, but usually, only small percentages of such questionnaires return to the school completed. Worse, the response rate for such questionnaires is usually much lower for minority or low-income parents (Penaloza & Gilly, 1986) making it difficult to generalize the results of the survey to all the parents of children attending the school.

Thus, one goal of this survey was to interview a representative sample of parents. To do this, parents were randomly selected from a pool of all possible students. We stratified the sample by ethnicity, which we defined in terms of whether the child was Hispanic, nonHispanic White, African American, or Asian American. All other ethnic groups were combined with nonHispanic Whites, referred to hereafter as Whites. The Texas Education Agency has reported that White and Asian American students are more likely to graduate from high school and to pass state-mandated achievement tests than African American and Hispanic students (Texas Education Agency, 2001). We reasoned that if parental satisfaction is related to student's academic success, then White and Asian American parents should be more satisfied than Hispanic or African American parents.

We also stratified the sample by income status. Research has shown that low-income students score lower on standardized tests and are less likely to graduate from high school than other students are (Borman, Stringfield, & Rachuba, 2000; Kaufman, Kwon, Klein, & Chapman, 2000; Texas Education Agency, 2001). We defined low-income students as those who qualified for free or reduced price lunch, or who had a sibling who had received a Pell grant, or whose family had qualified for state welfare. All other parents were categorized as not low income. If children's school performance

influences parents' satisfaction, then the satisfaction of low-income parents should be lower than that of other parents.

Furthermore, parents were stratified by their children's school level. We assumed that the experiences of parents would differ significantly depending on whether their children attended an elementary, middle or high school. In particular, the literature about parent involvement indicates that parents are more active in their children's schools when their children are in elementary school (Stevenson & Stigler, 1992). If participation in the activities of the school promotes satisfaction among parents, then parents of elementary school students should express greater satisfaction.

Finally, another goal of this survey was to include in our data collection a variety of indices that would allow us to interpret group differences in satisfaction. We wanted to test our assumptions about what contributes to satisfaction and know why some groups of parents were more satisfied.

Method

Procedure. To solve the problem of response biases, we decided to conduct telephone interviews with a stratified random sample of parents of students enrolled in district schools. We decided that the unit of analysis was to be the individual student, not household or school. We did this because we wished to frame interview questions in terms of each parent's satisfaction with the school experiences of a specific child. This meant that parents were in the pool as many times as they had children enrolled in the school district.

The plan was for the school district to provide the phone numbers of all their students and that these numbers would serve as a pool from which parents could be

randomly selected to interview. However, about 12% of the parents had indicated at the beginning of the school year that they did not want their phone numbers released outside the school and 23% of the remaining parents had no working phone numbers according to school records. Nothing could be done to include the former parents into our sampling universe. However, we were able to recover 57% of these missing phone numbers by providing the names and addresses of these parents to a vendor who matched this information with information available from several phone companies.

Because we thought that parents whose phone numbers were recovered might be different from parents who had working numbers on record with the district, we stratified our sample in terms of whether the number was recovered or on record. We also stratified the sample in terms of school level, income status, and ethnic group, yielding 48 categories of parents (2 Phone Statuses X 3 School Levels X 4 Ethnic Groups X 2 Income Statuses). The number of parents interviewed within each category was based on the number of completed interviews we needed within each category in order to ensure a margin of error no greater than 6%.

The interviewers made as many as five attempts to interview the parent or guardian of the selected student. The interviewer asked to speak to “the parent or guardian of (child’s name) or the adult in your household who is most involved in decisions about the education of this child.” Then, if the parent could still not be reached, the interviewer randomly selected another student from the same category and began the process of trying to reach that parent. Interviewers continued selecting students until they had completed the number of interviews needed for each category. Interviewing was done in English or Spanish.

Interview Instrument. The interview instrument asked the parents to consider the experiences of one of their children, the one named by the interviewer, during the current school year. Since the interviews took place toward the end of the school year, the parent could reflect upon most of the school year.

We focused on a key index of satisfaction:

How satisfied are you with the quality of education that your child receives at school?

The parents responded by using a 1-10 rating scale, with one indicating “very dissatisfied” and 10, “very satisfied.” This question came near the end of the questionnaire.

Data Analysis: In analyzing our data, we used statistical software that allowed us to calculate estimates and their standard errors appropriately for data from a stratified design (Lohr, 1999). Weights were calculated as the inverse of the selection probability, or N_h/n_h , where N_h is the number of students in stratum h , and n_h is the sample size within that stratum. The plan of analysis was to test our hypotheses regarding correlates of satisfaction first and then test for differences within each of the groups defined by three variables (school level, ethnic group, low-income status). Assuming that significant differences between groups of parents were found, additional analyses were planned in order to aid our interpretation of these differences.

Results

Sample: A total of 3171 telephone calls were made to elicit 1176 usable interviews. The response rate, calculated in terms of the number of completed interviews divided by the total number of valid telephone numbers, was 50%. For the most part, the

reason the parents could not be reached was that they were not at home. Once reached, very few parents refused to be interviewed. Consequently, the cooperation rate, calculated in terms of the number of completed interviews divided by the number of completed interviews plus refusals, was 93%.

The distribution of parents within ethnic, income status, and school level groups are presented in Table 1. Most of the parents interviewed were mothers (76%) and

Insert Table 1 about here

48% of the students were female. Overall, the weighted mean of the key satisfaction index was 7.31. Although these scores ranged from 1-10, the distribution of satisfaction scores was skewed in the positive direction, with 46% of the parents responding with a 7 or higher.

Testing Our Hypotheses

We ran analyses in order to test our assumptions about the factors underlying the parents' overall satisfaction.

First, we expected that parents would be more satisfied if the school met their expectations. We included in the interview a question about expectations (Considering all of the expectations you have about the education you want your child to receive, to what extent has the quality of education at your child's school met your expectations?). We correlated the parents' scores on the key satisfaction measure with the parents scores on this expectation measure, and found a statistically significant relationship, $r(1151) = .74, p < .0001$.

Second, we expected that parents of more successful students would be more satisfied than parents of less successful students. In our interview, we had not asked parents directly how successful they perceived their children to be in school. However, we had asked the parents if their children had participated in activities designed for gifted and talented children and if their children had participated in activities designed for special education students. We compared the satisfaction of parents whose children had participated in gifted and talented activities ($N = 366$) to those who said their children had not participated in these activities, and found a significant difference, $F(1,1116) = 4.94, p < .01$, consistent with our expectations. Then, we compared the satisfaction of parents whose children had participated in special education activities ($N = 204$) to those who said their children had not, and found no significant difference. Thus, we found that parental satisfaction was positively related to parental perceptions of their children's participation in gifted and talented programs, but parental satisfaction was not affected by the provision of help for children with special needs.

Third, we also expected that parents who participate in more school activities would be more satisfied with their children's schools. To test this idea, we created a score of parents' participation in common school activities. During the interview, we had asked parents if: (1) they had attended Back to School Night, (2) participated in conferences with teachers about their child's academic progress, (3) volunteered at the school, (4) participated in such organizations as PTSA or parent clubs that support various student organizations, or (5) served as a member of a campus advisory committee. Each time a parent indicated an involvement in that type of activity, a point was added to the parent's participation score. The scores of individual parents ranged

from 0-5, with about half of the parents indicating they had participated in zero, one, or two activities, and the other half participating in three or more activities.

We correlated the participation scores with the satisfaction scores and found no significant relationship. Thus, our results indicate that the assumption about participation and satisfaction was not supported. Participation in school activities was unrelated to parental satisfaction.

Differences Within Groups of Parents

We expected parents of different ethnic groups to vary in their satisfaction. Basing our predictions on the assumption that parents are more satisfied if their children are more successful in school, we predicted that White and Asian American parents would be more satisfied than African American and Latino parents. The estimated mean scores on the key satisfaction variable are presented for the four ethnic groups in Table 2.

Insert Table 2 about here

Contrary to our expectations, the mean was highest for Hispanic parents and lowest for White parents. A z -test (described in the Appendix) showed that this difference was significant, $z = 6.49, p < .001$. The satisfaction of Hispanic parents was also significantly higher than that of African Americans, $z = 4.87, p < .001$, and Asian Americans, $z = 3.47, p < .001$. The satisfaction scores of White parents and African American parents were not significantly different from each other. The scores of Asian American parents were significantly higher than the scores of White parents, $z = 2.88,$

$p < .004$, and marginally higher than the scores of African American parents, $z = 1.75$, $p < .08$.

Furthermore, we expected that satisfaction would vary with income status. We predicted that parents who were classified as low income would be less satisfied than parents not classified as low income. While the results of our analysis indicated that income status was associated significantly with satisfaction, $F(1,1121) = 17.91$, $p < .0001$, the weighted means were in the opposite direction. That is, low-income parents indicated greater satisfaction ($M = 7.63$) than other parents ($M = 7.05$) did.

Finally, we expected parents of elementary school students to express greater satisfaction than parents of secondary students. The results of our analysis of variance indicated that school level did vary significantly with parents' satisfaction, $F(2,1121) = 8.06$, $p < .0001$. The weighted means support our hypothesis. Parents of elementary school students ($M = 7.60$) were more satisfied than parents of middle school students ($M = 7.08$) or parents of high school students ($M = 7.02$). Z scores were computed to compare the three means, and the results indicated that the satisfaction scores of parents of elementary school children were significantly higher than the scores of parents of middle school students, $z = 2.56$, $p < .01$, and the scores of parents of high school students, $z = 2.93$, $p < .004$. The mean scores of parents of middle and high school students were not significantly different.

Interpretation of Group Differences

We ran additional analyses in order to interpret the differences we found between groups of parents.

Ethnic Group Differences. We wanted to understand why Hispanic parents were so much more satisfied than other parents. We wondered if there was something about the Hispanic culture that promoted satisfaction. For example, if the Hispanic family was from Mexico, the Austin schools might seem wonderful in comparison to the kind of schools Mexican parents are accustomed to in their homeland (Romo & Falbo, 1996). We had avoided asking the parents about their country of birth in case this would discourage parents from participating in the interview. However, we had volunteered to conduct the interview in Spanish and 107 parents took us up on this offer. Presumably, parents who preferred to complete the interview in Spanish were likely to have been born outside the U.S. Census information tells us that the vast majority of foreign-born Hispanic residents in Texas are from Mexico (Therrien & Ramirez, 2000). We compared the scores of Hispanic parents who completed the interview in English ($M= 7.46$) with those parents who completed the interview in Spanish ($M= 9.02$) and found a statistically significant difference, $F(1,306)= 35.60, p <.0001$. Thus, it is likely that the cultural background of the Hispanic parents affected their satisfaction scores.

We also considered how the four ethnic groups responded to other items during the interview in order to understand why Hispanic parents scored comparatively high in satisfaction, while African American and White parents scored low. In Table 3 we

Insert Table 3 about here

present the items that we used to help interpret the findings of satisfaction differences between ethnic groups as well as satisfaction differences between income status and school level group.

Meeting Expectations. We compared the four ethnic groups in terms of meeting their expectations. We found that Hispanic parents scored higher on this item than White, $z = 5.40, p < .0001$, Asian American, $z = 3.88, p < .0001$, or African American students, $z = 4.92, p < .0001$. None of the other ethnic groups differed significantly from the other. This strongly suggests that the satisfaction of Hispanic parents may have been based on the schools meeting their expectations.

Satisfaction with Aspects of School. We also found that Hispanic parents were more satisfied with specific aspects of the school than were other parents. Hispanic parents expressed greater satisfaction with teachers than did White parents, $z = 3.80, p < .0001$ and African American parents, $z = 3.87, p < .0001$. White parents expressed less satisfaction with teachers than Asian American parents, $z = 2.16, p < .03$. African American parents expressed lower satisfaction with teachers than Asian American parents, $z = 2.45, p < .01$. Furthermore, Hispanic parents were the most satisfied with the transportation services provided to their children, more satisfied than White parents, $z = 4.71, p < .0001$, Asian American parents, $z = 3.20, p < .0001$, and African American parents, $z = 3.69, p < .0001$. Hispanic parents also expressed greater satisfaction with cafeteria food served in the school than did White, $z = 4.52, p < .0001$ and African American, $z = 3.04, p < .002$ parents did. Asian American parents also evaluated the cafeteria food higher than White, $z = 3.53, p < .0001$ and African American parents, $z = 2.16, p < .03$

Truly Caring. The parents responses to this item helped us to interpret why African American parents were less satisfied. African American parents expressed significantly less agreement with the statement that the teachers and staff truly cared about their children than did Whites, $z = 3.78, p < .0001$, Asian Americans, $z = 2.75, p < .006$, and Hispanic parents, $z = 3.51, p < .0001$. The responses of White, Asian American and Hispanic parents did not differ significantly from each other.

Being Informed. Both African American and White parents indicated that they felt less informed than did other parents. Specifically, African Americans felt less informed about what their child was learning than did Asian Americans, $z = 3.23, p < .001$ and Hispanics, $z = 3.30, p < .001$. Similarly, White parents felt less informed than Asian Americans, $z = 4.85, p < .0001$, and Hispanic parents, $z = 4.90, p < .0001$. Asian American and Hispanic parents were not significantly different from each other; while African American and White parents were not significantly different from each other.

In terms of the item about being informed about their children's academic performance, African American parents and White parents indicated feeling less informed. In particular, African American parents indicated less agreement than Asian Americans, $z = 2.44, p < .02$ and Hispanic parents, $z = 2.50, p < .01$, with the statement about being informed about performance. White parents indicated being less informed than Asian American parents, $z = 2.11, p < .04$, and Hispanic parents, $z = 2.18, p < .03$. White and African American parents scored similarly on this item as did Asian American and Hispanic parents.

Input Valued. The interview included two items that measured the extent to which the parents thought the school valued their input. White parents demonstrated a

distinctive pattern of responses. White parents agreed less with the statement that their children's school took their ideas and suggestions seriously, compared to Asian American parents, $z = 3.29, p < .001$, African American parents, $z = 3.29, p < .001$, or Hispanic parents, $z = 2.80, p < .005$. The nonWhite parents did not significantly differ from one another on this item. White parents also indicated less agreement with the statement that "the school does not encourage my involvement in school activities" than did nonWhite parents. Specifically, African American, $z = 4.41, p < .0001$, Asian American, $z = 4.71, p < .0001$, and Hispanic parents, $z = 6.74, p < .0001$, indicated that the school did not encourage their involvement in school activities more than did White parents. The nonWhite parents did not differ significantly on this item. In combination, this set of findings suggests that Whites feel that their input is ignored, while nonWhites feel that their children's schools do not encourage their involvement.

Loyalty. Presumably, parents who are more satisfied with the quality of education their children are receiving are more loyal to the school. The interview included three items that assessed aspects of loyalty. Overall, ethnic group differences in response to these items shed light upon the relatively low satisfaction of African American parents. Specifically, African American parents were significantly less likely to indicate a willingness to recommend their school to others, compared to White, $z = 3.70, p < .0001$, Asian American, $z = 2.55, p < .01$, or Hispanic parents, $z = 4.82, p < .0001$. The responses of White parents to this item did not differ from the responses of Asian American and Hispanic parents. Hispanic parents did indicate more positivity to this item than Asian American parents, $z = 2.27, p < .02$.

Furthermore, African American parents were significantly more likely to indicate a willingness to move to another public school than were White, $z = 5.68, p < .000$, Asian American, $z = 2.81, p < .005$, and Hispanic parents, $z = 3.64, p < .0001$. In contrast, White parents were significantly less willing to move their children to another public school than were Asian American parents ($M = 2.55$), $z = 2.89, p < .004$, African American, $z = 5.68, p < .0001$, and Hispanic parents, $z = 2.01, p < .05$.

In addition, African American parents were significantly more likely to indicate a desire to enroll their children in private schools than were White, $z = 4.09, p < .0001$, Asian American, $z = 3.90, p < .0001$, and Hispanic parents, $z = 3.56, p < .0001$. The other groups did not differ significantly from each other on this item.

Finally, there were no significant differences between the ethnic groups in terms of beliefs of the safety of their children's schools.

Income Status. We used the same items to interpret our finding about income status and satisfaction. Recall that low-income parents expressed greater satisfaction with their children's schools than did other parents. Specifically, when we compared the low and not low-income parents on the items presented in Table 3, we found that low-income parents responded differently from other parents. In particular, when we looked at the item measuring meeting expectations, we found that low income parents indicated that the school met their expectations more than did other parents, $t(1,1109) = 3.55, p < .0001$. In addition, low income parents indicated greater satisfaction with the cafeteria food, $t(1,1090) = 3.84, p < .0001$; they agreed more with the statement that the school kept them informed about what their children were learning, $t(1,1125) = 3.70, p < .001$; and,

they agreed more with the statement that the school took their ideas and suggestions seriously, $t(1,1084) = 3.47, p < .001$.

In terms of participation in school activities, however, low income parents indicated that they were less encouraged to involve themselves in the school's activities, $t(1,1102) = 5.82, p < .0001$ than were other parents. Low-income parents also expressed less loyalty to the school than other parents did. Low income parents agreed more than other parents with the statement that they would move their child to another public school, $t(1,1122) = 4.26, p < .0001$, and they would enroll their child in a private school, $t(1,1111) = 2.08, p < .04$, if they could.

Low income parents did not differ significantly from not low income parents on their satisfaction with teachers or their satisfaction with transportation services. There were no significant differences in their beliefs about whether teachers and staff truly cared about their children, about whether they were informed about their child's academic performance, and the safety of the school. There were also no significant differences between income groups in terms of whether they would recommend their school to others.

School Level. We also used the parents' responses to the other items in the interview to interpret our finding that parents of elementary school students were more satisfied. Our comparisons indicated that parents of elementary school students reported that the school met their expectations better than did the parents of middle school students, $z = 2.19, p < .03$, or high school students, $z = 3.34, p < .001$. Parents of elementary school students expressed greater satisfaction with teachers than parents of middle, $z = 4.80, p < .0001$ or high school students, $z = 5.18, p < .0001$. Parents of elementary school students also

expressed greater satisfaction with cafeteria food than did parents of high school students, $z = 2.78, p < .006$. Parents of elementary school students agreed more with the statements that the teachers and staff truly cared about their children than did parents of middle, $z = 4.89, p < .001$ or high school students, $z = 4.50, p < .001$. Parents of elementary school students also agreed more with the statement that the school kept them informed about what their children were learning than did parents of middle, $z = 6.26, p < .001$ or high school students, $z = 7.90, p < .0001$. Similarly, parents of elementary students agreed more with the statement that the school kept them informed about how their children were performing academically than did middle school parents, $z = 4.48, p < .0001$ or high school parents, $z = 4.71, p < .0001$. Parents of elementary school students agreed more with the statement that their children were safe at school than did parents of middle school students, $z = 4.82, p < .0001$, or high school parents, $z = 6.67, p < .0001$.

In terms of participation, parents of elementary school students agreed less than middle school parents, $z = 2.08, p < .04$ or high school parents, $z = 2.44, p < .02$. with the statement that the school does not encourage my involvement in school activities. In other words, this finding suggests that secondary school parents regard themselves as less encouraged to participate in school activities than did elementary school parents.

Parents of elementary school students were more likely to agree with the statement that they would recommend their child's school to others than were parents of middle school students, $z = 4.30, p < .0001$ or high school students, $z = 3.16, p < .002$.

In all comparisons reported above, the scores of parents of middle school students did not differ significantly from the scores of high school parents.

School level was not significantly related to satisfaction with transportation, believing that the school takes the ideas of parents seriously, or the desire of parents to enroll their children in other schools.

Interactions. In order to consider the possibility of interaction effects on overall parent satisfaction scores, three analyses of variance were conducted. Each included the test of one of the two-way interactions (ethnic X income, ethnic X school level, school level X income) as well as the two relevant main effects. None of these interaction effects yielded a statistically significant F in the three analyses of variance.

Discussion

The results of this study argue for the usefulness of parent satisfaction as an indicator of the quality of schools. Our finding of a grand mean of 7.3 on a 10-point scale for parental satisfaction puts these satisfaction scores at the national American Customer Satisfaction Index average of 7.3 (Bryant & VanAmburg, 2000). The federal government-wide customer satisfaction for 2000 was 6.9; while the private sector service index was 7.1 (Bryant & VanAmburg, 2000). Thus, the school district welcomed these results because they suggested that parents were reasonably satisfied with the schools (Reston, 2000).

Overall, the finding of a strong correlation between parents' satisfaction and meeting their expectations suggests that meeting parents' expectations is key to creating satisfaction. Meeting expectations helps to explain why Hispanic parents were so much more satisfied than White and African American parents. We found that the schools were more likely to meet the expectations of Hispanic parents than the expectations of White or African American parents. Likewise, the greater satisfaction of low-income

parents was related to the schools meeting their expectations to a greater degree. Parents of elementary school students were more satisfied than parents of secondary school students, and this is probably related to the elementary schools meeting their expectations more so than did the secondary schools.

The results also suggest that parental satisfaction was not related to children's academic success in a simple linear manner. Although we found that parents who reported that their children participated in activities for talented and gifted children were more satisfied than parents whose children did not, parents who reported receiving special education services were no more satisfied than others. Furthermore, the children of Hispanic and low-income parents have lower achievement than White or higher income children (Romo & Falbo, 1996; Texas Education Agency, 2001). Yet, we found that Hispanic and low-income parents were more satisfied than other parents. This finding is significant because many state accountability policies assume that low achievement scores cause parents to become dissatisfied and that this dissatisfaction drives school improvement. Our results suggest that parental satisfaction is not automatically triggered by low academic achievement, at least as measured by objective standards imposed by state experts.

Our results also provided qualified support for the idea that parents who are more involved in school are more satisfied. Parents' responses to interview items that assessed the parents' perceptions about whether the school took their input seriously, encouraged their involvement in school activities, and kept them informed about the child's learning and academic performance were found to be associated with degrees of satisfaction. Parents' responses to these items helped to explain group differences in satisfaction,

particularly differences between income and school level groups. However, when we added up participation in common school activities and created a score for each parent, we found no association between this score and satisfaction.

Our finding that Hispanic parents were much more satisfied with the quality of education their children received is consistent with the results of other studies comparing Hispanics to other groups on their satisfaction with public schools (Carnevale & Desrochers 1999). Perhaps their expectations for schools are lower or based on experiences with Mexican schools and this makes it easier for American schools to look good. Ethnographic studies of Austin Hispanic parents indicate that they are impressed that the schools provide textbooks, meals, transportation, computers, and sports equipment to their children, resources unavailable to public school students in Mexico (Romo & Falbo, 1996). Consistent with this interpretation is our finding that Spanish-speaking Hispanic parents were much more satisfied than English-speaking Hispanic parents. In addition, Hispanic parents expressed greater satisfaction with their children's teachers, the transportation services provided by the school and the cafeteria food than did White, African American, or Asian American parents. These factors may drive the satisfaction of Hispanic parents even though their children, on the average, do not perform as well in school.

The results of this study also help to explain why African American parents were less satisfied with their children's schools. Not only were the schools less likely to meet their expectations, they were also less satisfied than Hispanics with teachers, transportation services, and cafeteria food. Like White parents, the African American parents indicated that they felt less informed about what their children were learning in

school and their academic performance. However, African American parents were like other nonWhite parents in indicating that their input was taken less seriously by the school and in reporting that the school encouraged their involvement in school activities less than White parents did.

Most distinctive, however, was the finding that African American parents indicated that they felt that teachers and school personnel expressed lower levels of “truly caring” for their children than did all the other parents. This finding may explain why African American parents were less willing to recommend their child’s school to others, and more willing to consider enrolling their children in another public school or a private school.

Overall, the responses of White parents during the interview were most similar to those of African American parents. Specifically, White parents reported that the schools met their expectations less and they were less satisfied with teachers, transportation services, and cafeteria food than were Hispanic parents. White parents also indicated lower levels of being informed about what their children were learning and their children’s academic performance.

The distinctive responses of White parents were in the areas of valuing parent input and loyalty. White parents were more likely to report that the school did not take their input seriously than did all the other parents. In contrast, White parents indicated that the school encouraged their involvement more than did all other parents. While this pattern of distinctive responses may seem inconsistent, they may also reveal the White parents’ source of dissatisfaction. That is, White parents may feel that they are encouraged to participate in school activities, but they may also feel that their

contribution is not particularly valued. Despite this, White parents were less willing to consider enrolling their children in another public school than were other parents.

The pattern of responses of the Asian American parents was more difficult to interpret. In all of our comparisons, the responses of Asian American parents were similar to those of at least one other ethnic group. Overall, their level of satisfaction was similar to that of Whites and African American parents, as was their responses to items about meeting expectations. They expressed greater satisfaction with teachers and cafeteria food, like Hispanic parents. They were like White and Hispanic parents when evaluating the extent to which they thought teachers and school personnel truly cared about their children. They were like Hispanics when responding to questions about whether they were informed about their children, and they were like all nonWhites when responding to questions about whether their input was valued. Perhaps this lack of distinctiveness for this group reflects the fact that Asian American parents in Austin are very heterogeneous, including immigrants and refugees from many different countries as well as fully acculturated Asian Americans.

The comparisons between low-income parents and others also revealed useful information about the strengths and weaknesses of the schools. Contrary to our original expectation, low-income parents expressed greater satisfaction with the quality of education their schools provided their children. It is possible that their satisfaction overall was based on their perception that the schools met their expectations, that they felt informed about their children's learning and academic performance, and that they felt that their ideas and suggestions were taken seriously by the school. The finding that they were more satisfied with cafeteria food than other parents is noteworthy because low-

income children are more likely to get their meals at the school cafeteria than other children.

Nonetheless, low-income parents expressed some reservations about the schools. They indicated that they felt that their children's school encouraged them to get involved in their children's school activities less than did other parents. This may reflect their own reluctance to participate in an institution controlled by middle class people or it may represent a real discomfort that middle class people express when they are expected to interact with low-income parents (Romo & Falbo, 1996). Low-income parents also expressed a stronger willingness to enroll their children in another public or a private school than other parents. This may reflect upon their desire to live in a better neighborhood or to have the extra income to be able to afford a private school.

Our results strongly supported our expectation that parents of elementary school students were more satisfied than secondary parents with the quality of education their children received at school. Note that we found no significant differences when comparing the scores of parents of middle school students to those of parents of high school students. In addition to meeting expectations more, elementary schools inspired many positive evaluations, including greater satisfaction with teachers and the cafeteria food. Parents of elementary school students indicated greater agreement with the statement that the teachers and staff truly cared about their children. Parents of elementary school students reported being informed more about what their children were learning and how they were performing academically. These parents expressed the sense that the school encouraged their participation more than did the parents of secondary school students. Parents of elementary school students gave higher safety ratings to the

school than did parents of secondary students. Not surprisingly, overall, then, parents of elementary school students were more willing to recommend the school to others than were parents of secondary school students.

On balance, these results provide a complex prescription for improving the district's schools. It is ironic that Hispanic parents report the greatest satisfaction, since on average, their children have greater difficulties in school, particularly in terms of passing standardized tests and graduating from high school. If the school district attempts to raise the expectations that Hispanic parents have about schools, the district may reap the dubious benefit of lowering their satisfaction. Thus, the schools lack the motivation to assist Hispanic parents develop expectations more in line with those of other parents. Perhaps a community based effort at aligning expectations between school and family is needed. In addition, these results suggest that if the school district wants to improve parent satisfaction, it should focus on meeting the expectations of African American and White parents, and improve the quality of the secondary schools.

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Appendix:

To test the hypothesis that the mean satisfaction of two groups, say g_1 and g_2 , are the same; i.e.,

$$H_0 : \mu_{g_1} = \mu_{g_2} \text{ vs. } H_1 : \mu_{g_1} \neq \mu_{g_2}$$

we use the statistic

$$z = \frac{\bar{y}_{g_1} - \bar{y}_{g_2}}{\sqrt{\text{var}(\bar{y}_{g_1}) + \text{var}(\bar{y}_{g_2})}}.$$

Since the data arise from a complex sample design, the estimates of the means of group g_j is

$$\bar{y}_{g_j} = \frac{\sum_{i \in g_j} w_i y_i}{\sum_{i \in g_j} w_i},$$

where the weights are those appropriate for a stratified random sample design. The estimated variances, $\text{var}(\bar{y}_{g_j})$, are also those appropriate for data from a stratified random design from a finite population. See, for example, Lohr (1999, Chapter 4).

Table 1

Distribution of Parents By Ethnic Group, Income Status, and School Level

School Level	Income Status						Total
	Low			Not Low			
	Elem.	Mid.	High	Elem.	Mid.	High	
Ethnic Group							
Hispanic	93	76	42	23	41	51	326
White *	16	12	9	84	84	120	325
Black	92	46	39	28	28	48	281
Asian	40	16	17	83	39	49	244
Total	241	150	107	218	192	268	1176

Note: Low means the family qualified for free or reduced price lunch, or a sibling of the target child had received a Pell grant, or the family had received public assistance. Not Low includes all other families. Elem. means the target child attended elementary school, mid. means the target child attended middle school, and high means the child attended high school. All ethnic group designations are self-reported by the student. White* means that this category combines nonHispanic Whites with others, primarily native Americans.

Table 2

Weighted Means of Parent Satisfaction by Ethnic Group

Ethnic Group	Weighted Mean
Hispanic	7.98
Asian Americans	7.28
African Americans	6.89
Whites	6.70

Table 3
Items from Telephone Interview

Topic	Item
Satisfaction with	
Teachers	•How satisfied are you with your child's teachers at school?
Transportation	•How satisfied are you with the district's transportation services provided to your child?
Cafeteria	•My child is satisfied with the food served in the school cafeteria.
Beliefs about	
Truly Caring	• Teachers and staff at my child's school truly care about my child.
Being Informed	• The school keeps me informed about what my child is learning in school. • The school regularly keeps me informed about how my child is performing academically.
Valuing Input	• My child's school takes my ideas and suggestions seriously. • My child's school does not encourage my involvement in school activities.
Safety	• My child is safe at school.
Loyalty	• I would recommend my child's school to others. • If I could I would move my child to another public school. • If I could I would enroll my child in a private school.