



**The Parent Perspective: A Survey of Belief Systems  
and Involvement Behavior in the  
Los Angeles Unified School District**

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**Los Angeles Unified School District  
Research and Planning  
Publication No. 2008-12**

**December 2008**

## **Acknowledgements**

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The authors would like to thank the members of the Compensatory Education Advisory Committee (CEAC) as well as the members of the District Advisory Committee (DAC) for their invaluable assistance with review of content and pilot administrations during early stages of survey development. We would also like to thank Christopher Downing and Rita Caldera for facilitating our interactions with the organizations having the content knowledge necessary to provide measurement of issues important to parents in Los Angeles. We would further like to thank Beverly Ryder for facilitating our involvement in focus groups with parents, enabling us to gain an understanding of the issues most relevant to LAUSD parents and their efforts to become more involved in schools. Finally, we give our sincere thanks to Roseanne Macias and Alice Gualpa for their assistance with reviews of the literature and with the development of the survey.

## Preface

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The present study examined parents' home- and school-based involvement, their self-efficacy beliefs, and their perceptions of engagement efforts by schools using a parent survey that was mailed to 15,000 households of children attending schools in all eight Local Districts of the LAUSD. By examining these aspects of parent involvement and parent engagement efforts by schools, the District will be equipped with the insight necessary to tailor policy and district-wide practices that enhance parent engagement efforts in schools that increase parent involvement, which in turn, positively impact children's academic success.

The Research and Planning Division conducted this study with funding by the School, Family and Community, and Parent Services office. The principal author for this study, Dr. Alicia Fernández can be contacted by email at [alicia.fernandez@lausd.net](mailto:alicia.fernandez@lausd.net) or by phone at 213-241-8079. For more information on the Research and Planning Division, contact the Director, Dr. Julie Slayton by email at [julie.slayton@lausd.net](mailto:julie.slayton@lausd.net). More information about the Research and Planning Division is available at <http://research.lausd.net>.

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## Introduction

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The Los Angeles Unified School District (LAUSD) has made it a priority to improve schools' engagement of parents and families to promote the social, emotional, and academic growth of its students. Though abundant research (e.g., Epstein & Dauber, 1991; Grolnick & Slowiaczek, 1994) has shown that parents' involvement in their children's education makes a significant and positive difference in their academic success, the LAUSD has been operating without the data necessary to understand the degree to which parents and families are involved with schools and the factors supporting or impeding their involvement. Building on the research literature around parent attitudes and beliefs, involvement behaviors, and student achievement, the LAUSD created a systematic process for surveying parents. A survey of randomly selected parents of students at all grade levels (pre-kindergarten to twelfth grade) representing the eight Local Districts of the LAUSD, forms the foundation that may inform strategic planning around improving parent engagement.

To begin a conversation with District leadership about linking practice to parent perspectives and involvement behaviors, the present report provides findings from an assessment of parents' attitudes and beliefs that have been linked empirically to involvement (Hoover-Dempsey et al., 2005), including their self efficacy and sense of invitation to participate in education, as well as involvement behaviors; including involvement at the school site, with teachers, and with their children directly (Fantuzzo, Tighe, & Childs, 2000; refer to Appendices A and B for detailed information on how these key terms were defined and measured). We devised a set of key questions that guided our development and administration of the survey. The questions providing the framework for this effort were as follows:

1. What factors are related to parents' involvement in their children's education?

*Parent Beliefs and Attitudes*

- a. Are parents who feel more efficacious about their ability to help their children academically more involved than parents who don't feel very efficacious?

- b. Are parents who perceive their children's school as welcoming more involved than parents who don't feel their children's school is a welcoming environment?
- c. Do parent self efficacy beliefs or perceptions of a welcoming school environment make a difference in how parents are involved, in the context of perceived involvement opportunities?

*Parent Satisfaction*

- d. Are parents, who are satisfied with their children's schools, more involved than parents who are not satisfied with their children's schools?

*How Well Children do in School*

- e. Are parents, who perceive their children as doing well in school, more involved than parents who perceive their children as not doing well in school?

- 2. Are parents, who work full-time, less likely to be as involved with their children as parents who don't work full-time?
- 3. Are parent involvement practices different across ethnicity or socioeconomic level (SES)?

We addressed these guiding questions through analyses of data collected from roughly 4,000 sample households from across the District. A questionnaire was mailed during the summer of 2008 to a random sample of households of students in all grade levels (ranging from pre-kindergarten to twelfth grade) representing the eight Local Districts. The following sections present findings from the survey followed by a discussion of how a large, urban school district serving ethnically and socioeconomically diverse families can enhance parent involvement opportunities and practices.

The results of our analyses are presented below, organized around the main findings for each question posed in the study. We present findings for parents overall rather than comparing findings from parents of elementary or secondary level students because very similar patterns emerged. Demographic information about the parents in our sample can be found in Appendix C.

**The more confident parents felt about their ability to help their children academically, the more likely they were to be involved academically with their children at school and at home.**

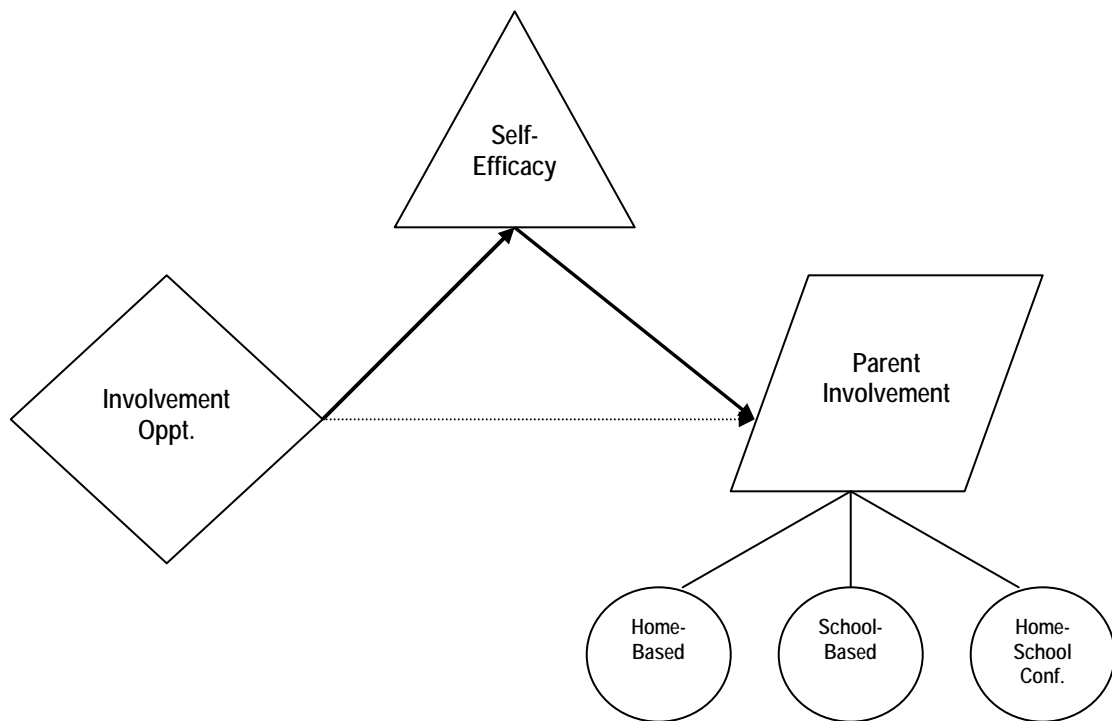
Parents' self-efficacy beliefs (in their ability to help their children succeed in school) were significantly and positively correlated with the following four types of involvement behavior we assessed: home-school conferencing (e.g. parent-teacher conference), home-based actions (e.g., spending time with child on educational activities), home-based verbalizations (e.g., talking to child about the importance of an education), and school-based involvement (e.g., volunteer at child's school; see Appendix D). Thus more efficacious parents tended to be more involved, while less efficacious parents tended to be less involved. This relationship still held true when we ran separate correlation analyses for fathers and mothers in our sample.

**Parents who felt welcome at school tended to be involved with conferences and other school activities.**

Welcoming school environment ratings (e.g., on such items as office staff are helpful, teachers provide advice or suggestions to help child with school work, administrators take complaints and suggestions seriously) were significantly and positively correlated with parents' ratings of their involvement in home-school conferencing and school-based activities. Thus, parents who felt welcome at their children's school tended to be more involved in home-school conferencing and school-based activities than parents who felt unwelcome at their children's school. The analysis also showed that the more parents perceived that their children's school provided opportunities (e.g., trainings, workshops or opportunities to volunteer) for them to become involved the more likely they were to do so.

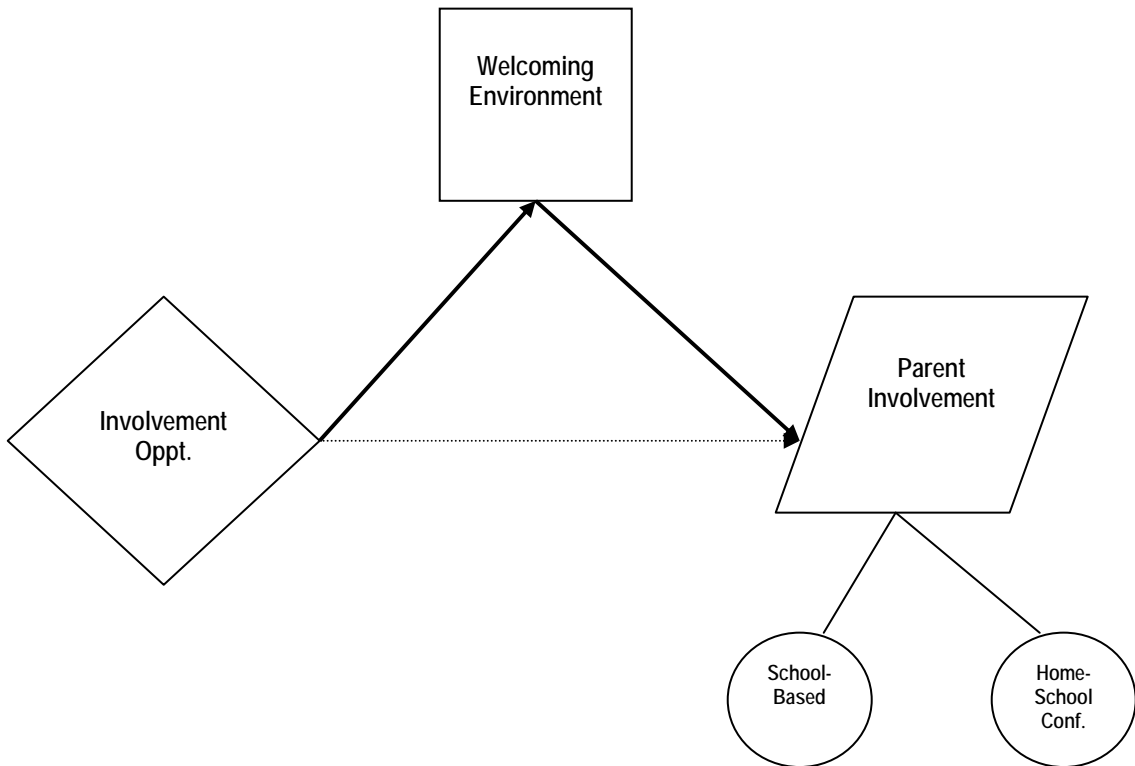
**Parents’ beliefs in their own ability to provide academic assistance to their children played an important role in their providing such support.**

We found that the more parents believed that schools provided them opportunities to become involved at school, the more likely they were to actually become involved at school and support their children academically at home (see Appendix E for in-depth analysis). More importantly, we found that the more secure parents felt about their own ability to assist their children academically the more likely they were to guide their children at home (e.g., reviewing homework, talking about the importance of school) and to become involved at school (e.g., volunteering, attending conferences with teachers). Thus, to make a more substantial impact on parent involvement, schools must also work to impact parents’ abilities and beliefs.



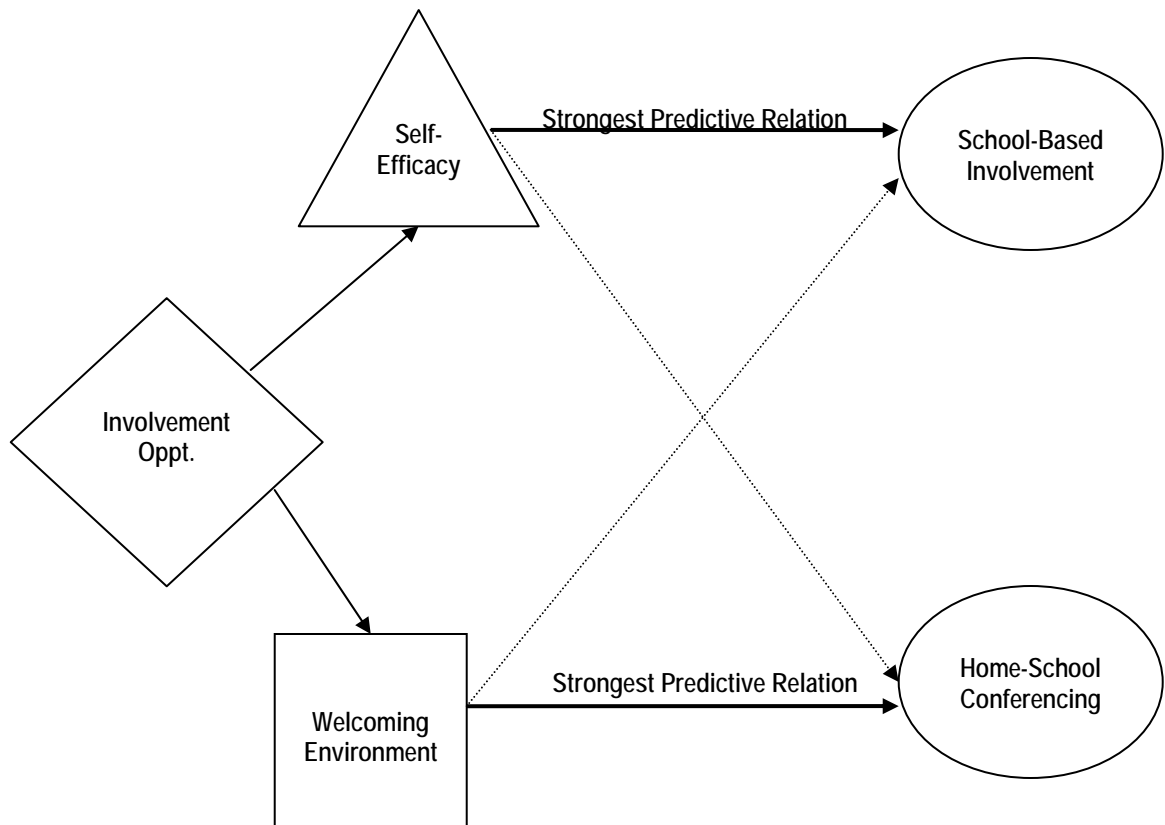
**A welcoming school environment facilitated parents’ home-school conferencing and school-based involvement.**

Parents’ perception of a welcoming school environment (e.g., office staff are helpful, teachers provide advice or suggestions to help child with school work, administrators take complaints and suggestions seriously) was also identified as an important factor that influenced how likely parents would become involved in school-based (e.g., volunteering at the school, attending trainings or workshops) and home-school conferencing activities (e.g. attending teacher conferences; see Appendix E). These findings showed that although opportunities were provided by schools to involve parents in home-school conferencing and school-based activities, a welcoming school environment was significantly more important in influencing the extent of their involvement in such activities. Thus, to increase parents’ involvement in home-school conferencing and school-based activities, schools need to focus on assuring parents feel welcome in addition to providing opportunities for them to become involved.



**Parents' self-efficacy beliefs were more important in their school-based involvement than a welcoming school environment was.**

Parents' self-efficacy beliefs had a stronger influence on parents' school-based involvement than a welcoming school environment. How involved parents became in school-related activities was influenced more by how efficacious they felt in their ability to assist their children academically than by how welcoming schools were to parents. How welcoming schools were to parents was more important in how likely parents were to become involved in home-school conferencing activities than how efficacious they felt about their ability to help their children academically. Thus, findings suggest that schools should focus on building parents' sense of efficacy in their abilities to help their children academically in order to better support parents' involvement in school-based activities and focus on creating a school environment that is welcoming to parents to facilitate their involvement in home-school conferencing activities.



**How well parents believed their children were doing in school was related to parents' involvement.**

Parents' perception about how well their children were doing in school was also related to their involvement behavior. Table 1 shows a series of analyses of variance (ANOVA) tests conducted on the four types of involvement across five groups of parents defined by how they responded to an item asking how well they believed their children were doing in school.<sup>1</sup> Differences emerged among the groups for all four types of involvement (significantly large mean scores are indicated in bold). For example, parents who perceived that their children were doing very well in school were significantly more involved in home-school conferencing and home-based verbalization activities than parents who believed their children were not doing as well. The analysis also revealed that parents who perceived their children as doing okay to very well in school were more likely to be involved in home-based actions in comparison to parents who perceived their children were not doing well or having a lot of difficulty in school. Moreover, parents who perceived their children as doing well to very well in school were significantly more involved in school-based activities than parents in other groups.

Table 1  
Comparing Parents' Perceptions of How Well Their Child Does in School and Parents' Involvement Behavior

	Home-school conferencing		Home-based actions		Home-based verbalizations		School-based involvement	
	<i>N</i>	<i>M</i> (SD)	<i>N</i>	<i>M</i> (SD)	<i>N</i>	<i>M</i> (SD)	<i>N</i>	<i>M</i> (SD)
Child doing very well in school	1147	<b>15.47</b> (4.41)	1147	<b>15.65</b> (3.54)	1172	<b>10.72</b> (3.54)	1149	<b>8.69</b> (3.04)
Child doing well in school	1197	14.46 (4.27)	1208	<b>14.60</b> (3.36)	1241	10.26 (3.36)	1212	<b>8.20</b> (2.76)
Child doing okay in school	660	13.91 (4.39)	640	<b>13.82</b> (3.48)	676	10.01 (3.48)	646	7.65 (2.65)
Child not doing well in school	189	13.41 (4.79)	201	12.74 (3.45)	209	10.02 (2.06)	199	7.19 (2.62)
Child having a lot of difficulty in school	109	14.13 (4.36)	108	12.78 (3.92)	111	10.24 (2.11)	109	7.28 (2.70)

Note: *M* identifies the mean score for each parent grouping; *N* identifies the number of parents that had complete information for all factors considered in the analysis; SD is the standard deviation statistic that identifies the average distance of the scores relative to the mean of the distribution.

These findings can be interpreted to suggest that children who are successful in school have parents that are significantly involved in home- and school-based activities that support their learning. Thus, schools should take steps to acknowledge and understand

<sup>1</sup> The five groups were comprised of parents who either perceived their children as: 1) having a lot of difficulty in school, 2) not doing well in school, 3) doing okay in school, 4) doing well in school, or 5) doing very well in school.  
The Parent Perspective

the power of parent involvement in children's school success and to share that understanding with all persons responsible for children's learning.

**How satisfied parents are with their children's school does not account for their involvement behavior.**

To determine if parents' satisfaction with their children's school was related to parents' involvement behavior, a correlation analysis was conducted. The analysis showed a low correlation<sup>2</sup> between parent satisfaction ratings and all four types of parent involvement behavior (see Appendix D). Specifically, more satisfied parents tended to be more involved in talking to or spending time with their children in the home and were more involved in school-based activities. However, in-depth analysis between satisfaction and other variables already observed to predict involvement behaviors (i.e., self-efficacy and welcoming environment) showed that satisfaction was no longer a significant factor when including the other predictors in the equation (see Appendix F). We concluded therefore, that while parent satisfaction was associated with more positive belief systems among parents, it was not a contributing factor in understanding actual parent involvement behaviors.

**Mothers' employment status is related to the extent of their involvement in school-based activities.**

To assess whether differences in parent involvement behavior existed among parents of diverse employment status (i.e., full-time, part-time, not employed/homemaker, or retired), we conducted an ANOVA test. We conducted separate ANOVAs for mothers and fathers because an independent samples t-test revealed a significant difference between mothers and fathers in terms of their employment status. Specifically, the analysis showed that fathers were significantly more likely to be employed full- or part-time than mothers.

As shown in Table 2, fathers' involvement behavior did not differ at all across the four employment levels. However, mothers' involvement in school-based and home-school conferencing activities differed significantly across employment levels. Mothers who reported being unemployed/homemaker or employed part-time were significantly

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<sup>2</sup> According to Cohen (1988), a correlation coefficient is considered low if it is between 0.1 to 0.3; moderate if between 0.3 to 0.5 and marked if between 0.5 to 1.0.

more involved in school-based activities than mothers who were employed full-time (as indicated by mean ratings). Mothers identified as unemployed/homemaker were significantly more involved in home-school conferencing activities than mothers who were employed full-time. No differences were identified with regard to home-based actions or verbalizations among the groups. These findings suggest that mothers who work full-time may have less time flexibility to engage in activities at the school site and therefore such opportunities need to consider this reality for many family households.

Table 2  
ANOVA Findings Comparing Mothers' and Fathers' Employment Status and Their Involvement Behavior

	Home-school conferencing		Home-based actions		Home-based verbalizations		School-based involvement	
	N	M (SD)	N	M (SD)	N	M (SD)	N	M (SD)
Mothers								
Full-time	1309	14.58 (4.36)	1323	14.59 (3.55)	1343	10.50 (1.82)	1319	7.82 (2.69)
Part-time	523	14.87 (4.56)	512	14.78 (3.66)	536	10.37 (1.93)	515	8.52 (2.88)
Not employed or homemaker	756	15.23 (4.21)	753	14.80 (3.54)	780	10.28 (1.95)	764	8.63 (3.11)
Retired	19	14.37 (5.01)	19	14.37 (3.58)	22	10.32 (1.94)	18	8.50 (3.57)
Fathers								
Full-time	511	13.69 (4.55)	508	14.36 (3.63)	528	10.13 (2.00)	517	7.93 (2.78)
Part-time	68	13.59(4.60)	66	14.17 (3.01)	70	10.13 (2.03)	65	7.86 (2.70)
Not employed or homemaker	54	14.37 (4.66)	56	15.00 (3.51)	57	9.77 (2.29)	55	8.56 (2.93)
Retired	13	11.62 (4.00)	14	11.86 (5.56)	15	9.20 (2.76)	14	6.57 (2.79)

Note: *M* identifies the mean score for each parent grouping; *N* identifies the number of parents that had complete information for all factors considered in the analysis; *SD* is the standard deviation statistic that identifies the average distance of the scores relative to the mean of the distribution.

**Parents' socioeconomic status is not a significant influence on their involvement but differences in the extent of school-based involvement were identified across ethnically diverse mothers.**

To assess whether involvement differences existed across socioeconomic status (SES), we conducted an ANOVA test. Student participation in the District lunch program was used as a proxy for SES. We found no significant differences across parents of diverse SES levels and their involvement behaviors.

To assess whether parent involvement differences existed across parents from diverse ethnic backgrounds, we conducted an ANOVA test (see Table 3). Because surveys were predominantly completed by Latino, African-American, and White parents, we limited our analysis to these ethnic subgroups. Separate ANOVA tests were conducted for fathers and mothers because initial findings revealed different patterns in involvement behavior. We found no differences across fathers from diverse ethnic

backgrounds. However, a significant difference in school-based involvement (as indicated by mean scores) emerged among mothers. Specifically, Latino and White mothers were significantly more involved than African-American mothers in school-based activities. No other significant differences across ethnicity emerged.

Table 3  
ANOVA Findings Comparing Ethnically Diverse Mothers' Employment Status and Their Involvement Behavior

	Home-school conferencing		Home-based actions		Home-based verbalizations		School-based involvement	
	<i>N</i>	<i>M</i> (SD)	<i>N</i>	<i>M</i> (SD)	<i>N</i>	<i>M</i> (SD)	<i>N</i>	<i>M</i> (SD)
Mothers								
Latino	1353	14.88 (4.43)	1342	14.36 (3.65)	1411	10.42 (1.91)	1349	8.15 (2.78)
White	336	14.17 (4.42)	340	14.59 (3.41)	343	10.43 (1.70)	338	8.33 (2.98)
African American	196	15.14 (3.99)	197	14.95 (3.54)	200	10.53 (1.88)	202	7.16 (2.61)

Note: *M* identifies the mean score for each ethnic group of mothers; *N* identifies the number of mothers who were considered in the analysis; SD is the standard deviation statistic that identifies the average distance of the scores relative to the mean of the distribution.

These findings showed that differences in school-based involvement exist across mothers of Latino, White, and African-American ethnic backgrounds. Results can be interpreted to suggest that perceptions about involvement in school-based activities may differ across ethnic backgrounds and therefore the relative importance of such activities may not necessarily align to views held by schools. An alternative interpretation is that barriers may limit the involvement of African-American mothers in school-based activities and therefore additional research is necessary to better understand why some mothers are more inclined to become involved in school-based activities while others are not.

## **Discussion and Recommendations with Action Steps**

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Enhancing parent engagement practices that facilitate parent involvement is a key endeavor by the District as a means to improve the academic success of students. The present study was designed to examine the various ways parents are involved in their children's academic lives, key factors that impact parent involvement, and parents' perceptions of engagement practices at the school level. It is clear that the extent of parents' involvement and the types of activities parents engage in are mediated by a variety of factors including parents' beliefs and attitudes about their own abilities to assist their children academically, a welcoming school environment, and shaped by cultural/ethnic underpinnings. The research literature on parent involvement in children's education conveys that parent involvement benefits children's learning and can positively impact children's school success (Chavkin, 1993; Eccles & Harold, 1993; Epstein 2001; Epstein & Sheldon, 2002; Fan & Chen, 2000; Griffith, 1996; Hoover-Dempsey & Sandler, 1995). Thus, focusing parent engagement practices at the school level that motivate parents to become involved and eliminate barriers to parent involvement are of elemental importance if schools are to improve the academic success of students.

These findings, taken together, contribute to an understanding of the various ways parents are involved in their children's academic lives and the underlying factors that contribute to the extent of their involvement at home and at school. The information garnered from this study, can be used by the District to make informed decisions about areas to focus on that may increase the effectiveness of parent engagement practices at the school level to support parent involvement, which in turn, may positively contribute to students' academic success.

## **Recommendations with Action Steps**

Based on the analysis of these findings, we offer the following recommendations to improve efforts to increase parent involvement in LAUSD schools:

### **1. Provide a Welcoming and Attentive School Environment for Parents**

- a) Central and Local District leaders should work together to adopt a professional development curriculum that focuses on how school staff, that includes administrators, teachers, and office personnel, can best communicate and work with parents and families of ethnically and economically diverse backgrounds.
- b) School-site administrators and school staff should collect data on a regular basis from parents to continually improve their collective efforts on ensuring parents feel welcome and attended to.

### **2. Build on Parents' Self-Efficacy Beliefs**

- c) Central and Local District leaders should identify research-based practices that schools can utilize to build on parents' self-efficacy beliefs in their abilities to help their children succeed academically. Such practices can be identified through connecting with researchers and academics with expertise in this area as well as through sharing of knowledge with other school districts and public agencies that have been successful with engaging parents.
- d) School-site administrators should incorporate parent engagement practices that are specific to building on parents' self-efficacy beliefs in their abilities to help their children succeed in school.
- e) Parent Center personnel or personnel charged with working with parents should provide organized and systematic parent engagement opportunities that build on parents' self-efficacy beliefs in their abilities to help their children succeed in school.

### **3. Establish a Common Understanding of Parent Involvement**

- f) Central and Local District leaders should communicate a unified and common language about what is meant by parent involvement and parent engagement.

- g) Central and Local District leaders should communicate expectations held for parent involvement that are shared at all levels of the organization.

#### **4. Incorporate a Continual Improvement Cycle**

- h) Central and Local District leaders should establish a data driven process to monitor the progress of schools in their efforts to engage parents.
- i) School-site administrators and school staff should collect data on a regular basis from parents to continually refine their parent engagement efforts.
- j) School-site administrators should assign responsibilities and accountabilities to Parent Center staff to ensure alignment between parent involvement expectations of the District and school-site practice.
- k) School-site administrators should incorporate monitoring practices to assure that Parent Center personnel or personnel charged with working with parents effectively work to increase involvement of ethnically and socioeconomically diverse parents in their schools.

## **Appendix A: Literature Review**

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Abundant research has shown that parents' involvement in their children's education makes a significant and positive difference in their academic success (Chavkin, 1993; Eccles & Harold, 1996; Epstein, 1996; Epstein & Dauber, 1991; Grolnick & Slowiaczek, 1994; Le Paro, Kraft-Sayer, & Pianta, 2003; Stevenson & Baker, 1987). For example, parent involvement has been associated with increased achievement test results (Jeynes, 2005), a decrease in dropout rate (Barnard, 2004), improved attendance (Epstein & Sheldon, 2002), improved student behavior (Henderson & Mapp, 2002) higher grades, higher grade point average, greater commitment to schoolwork (Fan & Chen, 2001), and improved attitude toward school (Grolnick, et al., 1997; Grolnick & Slowiaczek, 1994). However, it is unclear why some parents are involved while others are not. There is some research to suggest that differences in parent involvement practices are influenced by parents' attitudes and beliefs, educational experiences and ethnic background. On the other hand, some theorists argue that these differences are associated with parents' varied experiences with the host environment. Particularly, the level of parent involvement in a school setting is related to the receptiveness of the host school (Epstein, 2001).

The current study uses a motivation theoretical approach to examine parent involvement behavior. Specifically, this study examines parents' self-efficacy beliefs as it relates to involvement in their children's education. According to this theoretical framework, how parents perceive their own skills and competencies in their ability to assist their children academically influences the kinds of activities engaged by parents. In addition, we believe that how welcoming schools are to parents will be predictive of parents' involvement in school-based activities.

### **Parents' Self-Efficacy Beliefs**

Research suggests that parents' self-efficacy beliefs are important predictors of parent involvement (Ames, DeStefano, Watkins, & Sheldon 1995; Hoover-Dempsey, Bassler, & Brissie, 1992). Ardel and Eccles (2001) define parenting efficacy as parents' beliefs about their ability to influence their children, the wider environment, and to foster their children's development and success. Parent involvement is influenced by parents' beliefs that they have the skills and knowledge to teach or help their children and that

they can acquire the necessary resources to aid their children's school success (Hoover-Dempsey & Sandler, 1995). The more efficacious parents feel in their ability to help their children in academic-related tasks, the more likely they are to become involved in their children's academic development, which in turn helps children succeed in school (Eccles & Harold, 1993). Additionally, parents with a high sense of parenting efficacy select and construct environments that are conducive to their children's development and serve as strong advocates on behalf of their children inside and outside of school settings (Elder, Eccles, Ardel, & Lord, 1995). Thus, we expected to show that parents who felt efficacious in their abilities to help their children academically would demonstrate high involvement in home- and school-based activities with their children.

### **Welcoming Environments**

Also included in models predicting involvement behavior is a parent's sense of invitation to participate (Hoover-Dempsey et al., 2005; Walker et al., 2005). This refers to the degree to which parents feel that their participation in the education process is both welcome and useful in supporting learning and student success. The importance of the concept was described in early theories of parent involvement (Eccles & Harold, 1993; Epstein, 1986) and then operationalized by Walker and colleagues (2005) based on items from a parent satisfaction scale developed by Griffith (1996). The items tapped into parents' perceptions of school culture and climate as influenced by the types of involvement opportunities available as well as the extent to which teachers and other school personnel made them feel welcome. In addition to the empirical evidence linking invitation to participate to parent involvement, our rationale for measurement of the construct included its direct connection to the superintendent's plan to improve parent perceptions of school environments. Our focus in the current study was on parent perceptions of the school environment as a representation of how invited they felt to participate, which we termed *welcoming school environment* to align with District efforts to address the culture and climate of schools that were underway at the time the parent survey was in development. Our expectation was that parents who rate their school environments as more welcoming would be expected to exhibit higher levels of involvement in school-based activities.

## Parent Involvement Behaviors

Traditional definitions of parent involvement tend to focus on specific practices or behaviors that take place in highly structured settings such as participating in school fundraisers, attending PTA/PTO and ‘back-to-school’ nights, volunteering in children’s classrooms, and serving on parent advisory councils and/or school governance boards (Lopez, 2001). Researchers have broadened this view of parent involvement to include the conscientious effort that parents make to be aware of their children’s school performance; activities that often take place out of the school and in the home (Chao, 2000; Grolnick & Slowiaczek, 1994).

Epstein (2001) discusses parent involvement in the context of *overlapping spheres of influence*, taking into account the role parents play in a complex system that includes families, schools, and the community as factors contributing to educational success. She further explains that the essential components of this framework, including multiple levels of parent behaviors, translate easily into well-specified measures for understanding the links between parent involvement and learning. Building on this framework, in a study focusing on the behaviors of parents in an early education context, Fantuzzo, Tighe, & Childs (2000) found that parent involvement occurs across three dimensions; school-based (e.g., attending meetings or volunteering time at the school), home-based (e.g., talking to the child about the importance of school, helping with homework), and home-school conferencing (e.g., having conversations with the teacher about the child’s performance).

This study not only focuses on these three dimensions of parent involvement to assess the ways in which parents are involved, but rather broadens the scope of parent involvement behavior to include another dimension to home-based involvement we term, “*home-based verbalizations*.” The factor analysis conducted on the survey for this study, which is adapted from the parent survey by Fantuzzo, Tighe, & Childs (2000) revealed *home-based involvement* as two-pronged; *home-based verbalizations* and *home-based actions*. Examining home-based involvement as a dichotomous variable may provide a clearer understanding about the various ways parents are involved with their children at home. Specifically, ethnically and economically diverse parents may engage in activities that may favor actions or verbalizations or a combination of these involvement behaviors.

Thus, in order to have a clearer understanding as to how parents are involved at home, we assessed home-based involvement as two distinct factors; *home-based verbalizations* and *home-based actions*.

### **Parent Satisfaction**

In response to a request from District policy makers to understand parent satisfaction levels in the LAUSD, we explored the meaning of the term *parent satisfaction* and how it might fit into established models linking parent belief systems and practice. Research on parent satisfaction as a construct is scant, primarily due to the recognition from previous work that surveying parents about their satisfaction levels tends to yield little variance (Falbo et al., 2003; Garcia, 2008; Hecht et al., 1992), thus limiting the value of including it as a factor in parent engagement. Parents tend to give favorable ratings of their schools when asked directly about their satisfaction levels, while higher variance is observed among parents when tapping into psychological processes associated with parent involvement behaviors (Walker et al., 2005). Our approach included the development of a parent satisfaction index to determine whether a current survey of LAUSD parents would be consistent with past research findings and to enable us to assess the utility of predicting parent involvement behaviors with parent satisfaction in conjunction with existing models. Our expectation was that when controlling for existing measures of parent beliefs and attitudes, parent satisfaction would be unrelated to parent involvement behavior.

## **Appendix B: Data and Methodology**

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### **Participants**

Survey respondents were ethnically, economically, and linguistically diverse parents of students in grades ranging from pre-kindergarten to twelfth grade. The population of families was approximately 73% Latino, 11% Black, 9% White, 4% Asian, 3% other ethnicities, and nearly 80% of students in the District were eligible for free or reduced meal programs. These percentages mirrored the demographic make-up of the student body of LAUSD in 2007-08 giving us confidence in the representativeness of the sample. Of actual respondents (those returning questionnaires), Latino and Black households were slightly underrepresented (67% and 7%, respectively), whereas Asian and White households were slightly overrepresented (6% and 13% respectively). Responses by student grade level generally represented the numbers of students across grade levels in the District, though households of middle school students (grades 6 through 8) tended to respond at a slightly higher rate than did households of pre-kindergarten, elementary, or high school students. Slightly less than half (47%) of returned questionnaires were completed in Spanish, remaining questionnaires in English, a reasonable pattern given that about 60% of households in LAUSD primarily speak Spanish in the home.<sup>3</sup> Based on the comparability of demographics characteristics of respondents to those of the general population, we were confident in our ability to use survey results to make inferences about the population of parents in LAUSD.

### **Materials**

A printed survey consisting of 65 items designed to assess frequency of parent involvement behavior in the home, in school, and with teachers, as well as parenting self efficacy, and sense of invitation to participate in school was designed to measure each of the components outlined in the framework presented above. The survey was mailed to a random sample of 15,000 households of parents with children currently attending schools in the Los Angeles Unified School District. These items were meant to represent three

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<sup>3</sup> We assumed that spoken languages in the home as reported in the R30 language census did not necessarily represent parents' comfort levels in particular languages or how they would choose to complete documents. However, given that the District does not currently have data on parent literacy levels in particular languages, we deemed the pattern of responses we observed to be reasonable.  
The Parent Perspective

dimensions of parent involvement behavior including school-based involvement, home-based involvement, and home-school conferencing involvement as well as parent beliefs and attitudes toward their role in their children's education.

Items measuring parent involvement behavior were adapted from a previously validated scale in a study of pre-kindergarten parent involvement by Fantuzzo, Tighe, & Childs (2000) and adapted for administration to parents at all school levels of a pre-K through 12 system. However, a factor analysis, post-survey administration, identified *home-based involvement* as a dichotomized dimension of parent involvement. Specifically, the factor analysis revealed *home-based involvement* as two-pronged; *home-based verbalizations* and *home-based actions*. Examining home-based involvement as a dichotomous variable may provide a clearer understanding about the various ways parents are involved with their children at home. Specifically, ethnically and economically diverse parents may engage in activities that may favor actions (e.g., review child's school work, spend time with child on educational activities, or take child to places in the community) or verbalizations (e.g., talk to child about the importance of having an education, share stories with child about when parent was in school, or talk to child about how much the parent enjoys learning new things) or a combination of these involvement behaviors. Thus, in order to have a clearer understanding as to the many ways parents are involved our survey measured parents' *home-school conferencing involvement, school-based involvement, home-based verbalizations* and *home-based actions*.

Items measuring self-efficacy were adapted from the original scale produced by Walker et al. (2005) to measure the extent to which parents feel they have the ability to act in ways that will produce desired outcomes. In this particular case, we measured the extent to which parents feel they are capable of positively influencing their children's education.

In addition, items measuring parents' perceptions of a welcoming and attentive school environment were adapted from a measure of parent satisfaction used in the Maryland County Public School organization (Griffith, 1996). Finally, a parent satisfaction scale was developed to gauge parents' level of satisfaction with targeted aspects of the school setting. Areas of satisfaction included the quality of instruction as

well as operational issues such as nutrition, campus cleanliness, and safety. The items were developed based on discussions with parent leaders in focus groups about school characteristics that are of concern to parents.

### **Sampling Procedures**

Prior to sampling, households were linked to existing student records to ensure adequate representation of students at all grade levels and households in all areas of the District. Linking to the records also enabled us to reduce the size of the instrument by omitting questions about demographic characteristics that we were able to obtain from student records. A pilot administration of the questionnaire was conducted during its development with a group of 600 parent volunteers who participated in central parent involvement organizations. Although a recognized limitation of conducting the survey with this particular group of parents was the lack of representativeness of the population of typical parents, we were able to improve the quality of the instrument through item analysis in preparation for this administration of a larger and more representative sample. A principal components analysis of the parent involvement items, for example, revealed a four-factor solution, aligning almost perfectly with the three-dimensional scale from Fantuzzo et al. (2000). An improved version of the questionnaire was then administered to the randomly selected sample of 15,000 households closely following the methods outlined by Dillman (2000) on mail and internet surveys, including pre-notification letters, in the interest of maximizing the response rate among participants.

## Appendix C: Sample Demographic Information

Means and Standard Deviations for the Variables (N=3767)

Variables	Range	Mean	SD
Parent's Level of Education 1= No formal schooling 2= Elementary School 3= Some high school 4= High school diploma/GED 5= Trade/Vocational school 6= Some College/AA degree 7= Bachelor's degree 8= Graduate school	1-8	4.44	1.99
Parent's Employment Status 1= Retired 2= Not employed/ homemaker 3= Part-time 4= Full-time	1-4	3.28	0.88
Parental Self-Efficacy	4-24	18.72	3.49
Welcoming and Attentive School Environment	6-36	28.55	6.48
Satisfaction with Child's School	7-42	32.61	7.12
Home-School Conferencing	5-30	14.69	4.42
Home-Base Action	5-25	14.66	3.59
Home-Base Verbalization	3-12	10.36	1.92
School-Base Involvement	4-16	8.20	2.88

## Appendix D: Correlation Table

Correlations Among the Variables (Parent Sample N=3689)

Variable	1	2	3	4	5	6	7	8
1. Home-School Conferencing	---							
2. Home-Base Action	.55**	---						
3. Home-Base Verbalization	.41**	.51**	---					
4. School-Base Involvement	.48**	.45**	.25**	---				
5. Welcoming School Environment	.27**	.20**	.10**	.24**	---			
6. Parents' Self-Efficacy Beliefs	.25**	.37**	.26**	.20**	.30**	---		
7. Parents' Satisfaction with Children's School	.20**	.19**	.07**	.19**	.68**	.26**	---	
8. Perceived Involvement Opportunities	.20**	.19**	.13**	.29**	.66**	.30**	.52**	--

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

## Appendix E: Mediator Model Analyses

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### **Parent's beliefs in their own ability to provide academic assistance to their children played an important role in their providing such support.**

To assess whether parents' self-efficacy beliefs mediated the relations between parents' perception of involvement opportunities and their involvement behavior, we conducted a mediator model analysis. First, a series of correlations were generated to examine bivariate relations among the predictor variable (i.e., parent involvement opportunities), the mediator variable (i.e., parents' self-efficacy beliefs), and each outcome variable (i.e., home-school conferencing, home-based actions, home-based verbalizations, and school-based). Second, to test for mediation, several regression equations were estimated separately for each dependent variable: (a) regressing the mediator variable (i.e., parents' self-efficacy beliefs) on the predictor variable (i.e., parent involvement opportunities); (b) regressing each dependent variable (i.e., home-school conferencing, home-based actions, home-based verbalizations, and school-based) on the predictor variable; and (c) regressing the dependent variable on both the predictor variable and the mediator variable. Separate coefficients for each equation were estimated and tested. Mediation was established if: (a) the predictor variable (parent involvement opportunities) affected the mediator (parents' self-efficacy beliefs) in the first equation; (b) the predictor variable affected the dependent variables (home-school conferencing, home-based actions, home-based verbalizations, and school-based) in the second equation; and (c), the mediator affected the dependent variables in the third equation. The mediation model was considered to be supported if inclusion of the mediator decreased the strength of the relation between the direct predictor and the outcome and if the indirect path between the predictor to the outcome through the mediator was significant (Holmbeck, 1997). Perfect mediation held if the predictor variable had no effect when the mediator was controlled (Baron & Kenny, 1986).

#### *School-Based Involvement*

First, the covariate (parents' education) and parents' perception of involvement opportunities were entered to predict parents' self-efficacy beliefs. As shown in Model 1 of Table 4, parent involvement opportunities and parent's education were found to be significantly associated with parents' self-efficacy beliefs and jointly predicted 14% of

the variance explained,  $\beta=.47$  and  $.23$ ,  $R^2=.14$ ,  $F(2, 3351)=273.01$ ,  $p<.001$ . The second regression, in which the covariate (parents' education) and parent involvement opportunities were entered using school-based involvement as the outcome variable showed that parent involvement opportunities as the only variable that was significantly associated with school-based involvement and predicted 9% of the variance explained,  $\beta=.00$  and  $.20$ ,  $R^2=.09$   $F(2, 3320)=153.61$ ,  $p<.001$ . Third, a regression in which the covariate (parents' education), parent involvement opportunities, and the mediator variable (parents' self-efficacy beliefs) were entered as predictor variables using school-based involvement as the outcome variable. Findings showed that parents' education, parents' involvement opportunities, and parents' self-efficacy beliefs predicted 10% of the variance in parents' school-based involvement. Moreover, when the mediator variable (parenting self-efficacy) was entered in conjunction with the predictor variable (parent involvement opportunities) in the regression equation, the contribution of the predictor variable to the outcome variable (school-based involvement) decreased,  $\beta=.17$ ,  $R^2=.10$ ,  $F(3, 3182)=123.14$ ,  $p<.001$ . Meaning, parents' self-efficacy beliefs partially mediated the relation between parents' perception of parent involvement opportunities and parents school-based involvement. Further analyses were conducted using the Goodman (I) version of the Sobel test suggested in Baron & Kenny (1986) to test whether the mediator carried the influence of parent involvement opportunities (IV) to school-based involvement (DV). Results showed that parents' self- efficacy beliefs did partially mediate the relation between parent involvement opportunities and school-based involvement (*Sobel test statistic*  $z = 7.33$ ,  $p < .01$ ). Thus, roughly 10% of the *parent involvement opportunities* → *school-based involvement path* was accounted for by the mediator (parents' self-efficacy beliefs).

### *Home-School Conferencing*

In the second regression as seen in Model 2 of Table 4, in which the covariate (parents' education) and parent involvement opportunities were entered using home-school conferencing as the outcome variable showed that both parents' education and parent involvement opportunities were significantly associated with home-school conferencing and jointly predicted 4% of the variance explained,  $\beta=-.08$ ,  $.21$ ,  $R^2=.04$   $F(2,$

3304)= 72.97,  $p < .001$ .<sup>4</sup> Third, a regression in which the covariate (parents' education), parent involvement opportunities, and the mediator variable (parents' self-efficacy beliefs) were entered as predictor variables using home-school conferencing as the dependent variable was conducted. Findings showed that parents' education, parents' involvement opportunities, and parents' self-efficacy beliefs predicted 9% of the variance in parents' home-school conferencing involvement. Moreover, when the mediator variable (parenting self-efficacy) was entered in conjunction with the predictor variable (parent involvement opportunities) in the regression equation, the contribution of the predictor variable to the outcome variable (home-school conferencing) decreased,  $\beta = .14$ ,  $R^2 = .09$ ,  $F(3, 3165) = 107.42$ ,  $p < .001$ . Meaning, parents' self-efficacy beliefs partially mediated the relation between parents' perception of parent involvement opportunities and parents home-school conferencing.

Further analyses were conducted using the Goodman (I) version of the Sobel test suggested in Baron & Kenny (1986) to test whether the mediator carried the influence of parent involvement opportunities (IV) to school-based involvement (DV). Results showed that parents' self-efficacy beliefs did partially mediate the relation between parent involvement opportunities and school-based involvement (*Sobel test statistic*  $z = 10.70$ ,  $p < .01$ ). Thus, roughly 9% of the *parent involvement opportunities* → *home-school conferencing path* was accounted for by the mediator (parents' self-efficacy beliefs).

#### *Home-Based Verbalizations*

As seen in Model 3 in Table 4, we entered the covariate (parents' education) and parent involvement opportunities in the second regression step using home-based verbalizations as the outcome variable. Findings showed that parents' education and parent involvement opportunities were significantly associated with home-based verbalizations,  $\beta = .13$  and  $.06$ ,  $R^2 = .03$   $F(2, 3402) = 58.09$ ,  $p < .001$ . Third, a regression in which the covariate (parents' education), parent involvement opportunities, and the mediator variable (parents' self-efficacy beliefs) were entered as predictor variables using home-based verbalizations as the outcome variable. Findings showed that parents'

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<sup>4</sup> The first regression step that is conducted in this 3-step process is identical to that which was previously conducted above with school-based involvement; therefore we will not describe it here or in the following mediator model analyses with parents' self-efficacy beliefs as the mediator variable.

education, parents' involvement opportunities, and parents' self-efficacy beliefs predicted 8% of the variance in parents' home-based verbalizations. Moreover, when the mediator variable (parenting self-efficacy) was entered in conjunction with the predictor variable (parent involvement opportunities) in the regression equation, the contribution of the predictor variable to the outcome variable (home-based verbalizations) decreased,  $\beta = .03$ ,  $R^2 = .08$ ,  $F(3, 3257) = 92.59$ ,  $p < .001$ . Meaning, parents' self-efficacy beliefs partially mediated the relation between parents' perception of parent involvement opportunities and parents home-based verbalizations.

Further analyses were conducted using the Goodman (I) version of the Sobel test suggested in Baron & Kenny (1986) to test whether the mediator carried the influence of parent involvement opportunities (IV) to school-based involvement (DV). Results showed that parents' self-efficacy beliefs did partially mediate the relation between parent involvement opportunities and school-based involvement (*Sobel test statistic*  $z = 10.14$ ,  $p < .01$ ). Thus, roughly 8% of the *parent involvement opportunities* → *home-based verbalizations path* was accounted for by the mediator (parents' self-efficacy beliefs).

#### *Home-Based Actions*

As seen in Model 4 in Table 4, we entered the covariate (parents' education) and parent involvement opportunities in the second regression step using home-based actions as the outcome variable. Results showed that parents' education and parent involvement opportunities were significantly associated with home-based actions,  $\beta = .24$  and  $.16$ ,  $R^2 = .05$   $F(2, 3298) = 89.10$ ,  $p < .001$ . Third, a regression in which the covariate (parents' education), parent involvement opportunities, and the mediator variable (parents' self-efficacy beliefs) were entered as predictor variables using home-based actions as the outcome variable. Findings showed that parents' education, parents' involvement opportunities, and parents' self-efficacy beliefs predicted 15% of the variance in parents' home-based actions. Moreover, when the mediator variable (parenting self-efficacy) was entered in conjunction with the predictor variable (parent involvement opportunities) in the regression equation, the contribution of the predictor variable to the outcome variable (home-based actions) decreased,  $\beta = .08$ ,  $R^2 = .15$ ,  $F(3, 3164) = 187.90$ ,  $p < .001$ . Meaning, parents' self-efficacy beliefs partially mediated the relation between parents' perception

of parent involvement opportunities and parents' home-based actions. Further analyses were conducted using the Goodman (I) version of the Sobel test suggested in Baron & Kenny (1986) to test whether the mediator carried the influence of parent involvement opportunities (IV) to school-based involvement (DV). Results showed that parents' self-efficacy beliefs did partially mediate the relation between parent involvement opportunities and school-based involvement (*Sobel test statistic*  $z = 13.07, p < .01$ ). Thus, roughly 15% of the *parent involvement opportunities* → *home-based actions path* was accounted for by the mediator (parents' self-efficacy beliefs).

Table 4  
Detecting Mediation: Parents' Self-Efficacy Beliefs as the Mediator Controlling for Parent Education in the Relations Between Parent Involvement Opportunities and Parent Involvement Behavior

	Detecting steps in mediation model	$\beta$	SE B	B
<b>Model 1</b>	<b>Step 1 (Path c)</b>			
	Outcome: School-based involvement			
	Control: Parent education	.00	.02	.00
	Predictor: Parent involvement opportunities	.20	.01	.29***
	<b>Step 2 (Path a)</b>			
	Outcome: Self-efficacy beliefs			
	Control: Parent education	.47	.03	.27***
	Predictor: Parent involvement opportunities	.23	.01	.28***
	<b>Step 3 (Paths b and c')</b>			
	Outcome: School-based involvement			
Control: Parent education	-.05	.03	.04*	
Mediator: Self-efficacy beliefs	.12	.02	.15***	
Predictor: Parent involvement opportunities	.17	.01	.25***	
<b>Model 2</b>	<b>Step 1 (Path c)</b>			
	Outcome: Home-school conferencing			
	Control: Parent education	-.08	.04	-.04*
	Predictor: Parent involvement opportunities	.21	.02	.20***
	<b>Step 2 (Path a)</b>			
	Outcome: Self-efficacy beliefs			
	Control: Parent education	.47	.03	.27***
	Predictor: Parent involvement opportunities	.23	.01	.28***
	<b>Step 3 (Paths b and c')</b>			
	Outcome: Home-school conferencing			
Control: Parent education	-.23	.04	-.10***	
Mediator: Self-efficacy beliefs	.31	.02	.24***	
Predictor: Parent involvement opportunities	.14	.02	.13***	
<b>Model 3</b>	<b>Step 1 (Path c)</b>			
	Outcome: Home-based verbalizations			
	Control: Parent education	.13	.02	.13***
	Predictor: Parent involvement opportunities	.06	.01	.13***
	<b>Step 2 (Path a)</b>			
	Outcome: Self-efficacy beliefs			
	Control: Parent education	.47	.03	.27***
	Predictor: Parent involvement opportunities	.23	.01	.28***
<b>Step 3 (Paths b and c')</b>				

	Outcome: Home-based verbalizations			
	Control: Parent education	.07	.02	.08***
	Mediator: Self-efficacy beliefs	.12	.01	.23***
	Predictor: Parent involvement opportunities	.03	.01	.07***
<b>Model 4</b>	<b>Step 1 (Path c)</b>			
	Outcome: Home-based actions			
	Control: Parent education	.24	.03	.13***
	Predictor: Parent involvement opportunities	.16	.02	.19***
	<b>Step 2 (Path a)</b>			
	Outcome: Self-efficacy beliefs			
	Control: Parent education	.47	.03	.27***
	Predictor: Parent involvement opportunities	.23	.01	.28***
	<b>Step 3 (Paths b and c')</b>			
	Outcome: Home-based actions			
	Control: Parent education	.08	.03	.04*
	Mediator: Self-efficacy beliefs	.35	.02	.34***
	Predictor: Parent involvement opportunities	.08	.02	.10***

\*\*\*= p<.001, ^=p<.01

Notes.

$\beta$ : Is an unstandardized regression coefficient that indicates the average change in the dependent variable associated with a 1 unit change in the independent variable, statistically controlling for the other independent variables.

B: Is the standardized Beta coefficient that is used to compare the strength of the effect of each independent variable on the dependent variable. The independent variable with the largest standardized Beta (independent of the sign) has the strongest effect.

### **A welcoming school environment facilitated parents' home-school conferencing and school-based involvement.**

To assess whether a welcoming school environment mediated the relation between parents' perception of involvement opportunities and their home-school conferencing and school-based involvement we conducted a mediator model analysis. The three-step process in the regression model is identical to that which was conducted previously in the mediation analyses conducted with parents' self-efficacy beliefs as a mediator and therefore will not be covered here.

#### *Home-School Conferencing*

First, the covariate (parents' education) and parents' perception of involvement opportunities were entered to predict parents' perception of a welcoming and attentive school environment. As shown in Model 1 in Table 5, parent involvement opportunities and parent's education were found to be significantly associated with welcoming and attentive school environment and jointly predicted 43% of the variance explained,  $\beta = -.10$ , and  $1.0$ ,  $R^2 = .43$ ,  $F(2, 3355) = 1280.25$ ,  $p < .001$ . The second regression, in which the covariate (parents' education) and parent involvement opportunities were entered using home-school conferencing as the outcome variable showed that both parents' education and parent involvement opportunities were significantly associated with home-

school conferencing and predicted 4% of the variance explained,  $\beta = -.08$  and  $.21$ ,  $R^2 = .04$   $F(2, 3304) = 72.97$ ,  $p < .001$ . Third, a regression in which the covariate (parents' education), parent involvement opportunities, and the mediator variable (welcoming and attentive school environment) were entered as predictor variables using home-school conferencing as the outcome variable. Findings showed that parent involvement opportunities, and parents' self-efficacy beliefs predicted 7% of the variance in parents' home-school conferencing involvement. Moreover, when the mediator variable (welcoming and attentive school environment) was entered in conjunction with the predictor variable (parent involvement opportunities) in the regression equation, the contribution of the predictor variable to the outcome variable (home-school conferencing) decreased,  $\beta = .07$ ,  $R^2 = .07$ ,  $F(3, 3172) = 78.41$ ,  $p < .001$ . Meaning, parents' perceptions of a welcoming and attentive school environment partially mediated the relation between parent involvement opportunities and home-school conferencing.

Further analyses were conducted using the Goodman (I) version of the Sobel test suggested in Baron & Kenny (1986) to test whether the mediator carried the influence of parent involvement opportunities (IV) to school-based involvement (DV). Results showed that parents' self-efficacy beliefs did partially mediate the relation between parent involvement opportunities and school-based involvement (*Sobel test statistic*  $z = 9.10$ ,  $p < .01$ ). Thus, roughly 7% of the *parent involvement opportunities* → *home-school conferencing path* was accounted for by the mediator (welcoming and attentive school environment).

### *School-Based Involvement*

The first regression step of this model is identical to the first step identified above in the home-school conferencing model and therefore will not be elaborated on here. As seen in Model 2 in Table 5, the covariate (parents' education) and parent involvement opportunities were entered in the second regression step using school-based involvement as the outcome variable. Findings showed that only parent involvement opportunities was significantly associated with school-based involvement and predicted 9% of the variance explained,  $\beta = .20$ ,  $R^2 = .09$   $F(2, 3320) = 153.61$ ,  $p < .001$ . Third, a regression in which the covariate (parents' education), parent involvement opportunities, and the mediator variable (welcoming and attentive school environment) were entered as

predictor variables using school-based involvement as the outcome variable. Findings showed that parent involvement opportunities, and parents' self-efficacy beliefs predicted 9% of the variance in parents' home-school conferencing involvement. Moreover, when the mediator variable (welcoming and attentive school environment) was entered in conjunction with the predictor variable (parent involvement opportunities) in the regression equation, the contribution of the predictor variable to the outcome variable (school-based involvement) decreased,  $\beta=.18$ ,  $R^2=.09$ ,  $F(3, 3175)= 104.91$ ,  $p< .001$ . Meaning, parents' perceptions of a welcoming and attentive school environment partially mediated the relation between parent involvement opportunities and school-based involvement.

Further analyses were conducted using the Goodman (I) version of the Sobel test suggested in Baron & Kenny (1986) to test whether the mediator carried the influence of parent involvement opportunities (IV) to school-based involvement (DV). Results showed that parents' self- efficacy beliefs did partially mediate the relation between parent involvement opportunities and school-based involvement (*Sobel test statistic*  $z = 3.09$ ,  $p < .05$ ). Thus, roughly 9% of the *parent involvement opportunities*→ *school-based involvement path* was accounted for by the mediator (welcoming and attentive school environment).

Table 5

Detecting Mediation: Welcoming and Attentive School Environment as the Mediator Controlling for Parent Education in the Relations Between Parent Involvement Opportunities and Parent Involvement Behavior

Detecting steps in mediation model		$\beta$	SE B	B
Model 1	<b>Step 1 (Path c)</b>			
	Outcome: Home-school conferencing			
	Control: Parent education	-.08	.04	-.04*
	Predictor: Parent involvement opportunities	.21	.02	.20***
	<b>Step 2 (Path a)</b>			
	Outcome: Welcoming school environment			
	Control: Parent education	-.10	.04	-.03*
	Predictor: Parent involvement opportunities	1.00	.02	.66***
	<b>Step 3 (Paths b and c')</b>			
	Outcome: Home-school conferencing			
Control: Parent education	-.06	.04	-.03	
Mediator: Welcoming school environment	.15	.02	.21**	
Predictor: Parent involvement opportunities	.07	.02	.06*	
Model 2	<b>Step 1 (Path c)</b>			
	Outcome: School-based involvement			
	Control: Parent education	.00	.02	.00
	Predictor: Parent involvement opportunities	.20	.01	.29***
	<b>Step 2 (Path a)</b>			
	Outcome: Welcoming school environment			
	Control: Parent education	-.10	.04	-.03*
	Predictor: Parent involvement opportunities	1.00	.02	.66***
	<b>Step 3 (Paths b and c')</b>			
	Outcome: School-based involvement			
Control: Parent education	.01	.03	.01	
Mediator: Welcoming school environment	.03	.01	.07**	
Predictor: Parent involvement opportunities	.18	.02	.25***	

\*\*\*= p<.001, \*=p<.01

Notes.

$\beta$ : Is an unstandardized regression coefficient that indicates the average change in the dependent variable associated with a 1 unit change in the independent variable, statistically controlling for the other independent variables.

B: Is the standardized Beta coefficient that is used to compare the strength of the effect of each independent variable on the dependent variable. The independent variable with the largest standardized Beta (independent of the sign) has the strongest effect.

### Parents' self-efficacy beliefs were more important in their school-based involvement than a welcoming school environment was.

To assess the relative effect of parents' self-efficacy beliefs and a welcoming school environment in the relation between parent involvement opportunities and their involvement behavior in home-school conferencing and school-based activities we conducted a multiple mediator model analysis. As suggested by Preacher and Hayes (2008) a multiple mediator model via a bootstrapping<sup>5</sup> method was conducted to assess the relative magnitude of the specific indirect effects related to each mediator while

<sup>5</sup> Bootstrapping is a nonparametric resampling procedure that provides what Preacher and Hayes (2008) consider to be "the most powerful and reasonable method of obtaining confidence limits for specific indirect effects under most conditions."

controlling for parents' employment status. The bootstrap estimates presented in Table 6 are based on 1,000 bootstrap samples. As can be seen, the total and direct effects of *parent involvement opportunities on home-school conferencing* are 0.2039,  $p < .001$ , and 0.0335,  $p < .18$ , respectively. Examination of the pairwise contrasts of the indirect effects shows that the indirect effect through *welcoming and attentive school environment* is larger than the specific indirect effect through *self-efficacy beliefs* with a BCa 95% CI of .0878 to .1572. Bootstrap findings also indicate that the total and direct effects of *parent involvement opportunities on school-based involvement* are 0.1979,  $p < .001$ , and 0.1541,  $p < .01$ , respectively. Examination of the pairwise contrasts of the indirect effects shows that the indirect effect through *self-efficacy beliefs* is larger than the specific indirect effect through *welcoming school involvement* with a BCa 95% CI of .0231 to .0229.

Table 6  
Mediation of the Effect of Parents' Perceived Involvement Opportunities on Parents' Involvement Behavior through Self-Efficacy Beliefs and Welcoming School Environment Controlling for Employment Status

Home-School Conferencing						
	Point Estimate	SE	Bootstrapping Percentile 95% CI		BCa 95% CI	
			Lower	Upper	Lower	Upper
			Indirect Effects			
Self-efficacy beliefs	.0492	.0062	.0375	.0620	.0371	.0620
Welcoming school environment	.1212	.0169	.0874	.1568	.0878	.1572
			Contrast			
Self-efficacy beliefs vs. welcoming school environment	-.0720	.0192	-.1103	-.0346	-.1112	-.0357
School-Based Involvement						
	Point Estimate	SE	Bootstrapping Percentile 95% CI		BCa 95% CI	
			Lower	Upper	Lower	Upper
			Indirect Effects			
Self-efficacy beliefs	.0438	.0033	.0168	.0294	.0171	.0298
Welcoming & attentive school environment	.0207	.0100	.0006	.0411	.0007	.0413
			Contrast			
Self-efficacy beliefs vs. welcoming & attentive school environment	.0024	.0112	-.0203	.0256	-.0189	.0267

## Appendix F: Regression Analysis

### How satisfied parents are with their children’s school does not account for their involvement behavior.

When examining correlations between satisfaction and other variables already observed to predict involvement behaviors, we found strong correlations between satisfaction and self-efficacy as well as satisfaction and perception of a welcoming environment, suggesting that these variables might explain the apparent connection between satisfaction and parents’ involvement in home-school conferencing and school-based activities. To test this, we conducted a series of regression analyses, beginning with satisfaction as a predictor of home-based conferencing and school-based involvement, then successively entering perception of a welcoming environment and self-efficacy as predictors. As shown in Table 7, satisfaction dropped to non-significance when including the other predictors in the equation. We concluded therefore, that while parent satisfaction is associated with more positive belief systems among parents, it is not a contributing factor in understanding actual parent involvement behaviors.

Table 7  
Using Regression to Predict Parent Involvement Behavior

	<i>Dependent Variable</i>			
	Home-school Conferencing		School-based Involvement	
	Beta	<i>t</i>	Beta	<i>t</i>
<b>Block One:</b>				
Parent Satisfaction	.194	10.93**	.192	10.83**
<b>Block Two:</b>				
Parent Satisfaction	.024	.998	.054	2.82*
Welcoming Environment	.253	10.72**	.207	8.76**
<b>Block Three:</b>				
Parent Satisfaction	.004	.181	.040	1.72
Welcoming Environment	.211	8.96**	.175	7.35**
Self-Efficacy	.185	10.26**	.138	7.57**

\*\* =  $p < .01$ , \* =  $p < .05$

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