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Parents' Reports of School Practices to Provide Information to Families: 1996 and 2003

Introduction

Decades of research have provided evidence that parent involvement in education is linked to children's learning and school performance (e.g., Baker and Stevenson 1986; Coleman et al. 1966; Epstein 1983; Epstein and McPartland 1979; Izzo et al. 1999; Marjoribanks 1979; McDill and Rigsby 1973). Although not every measure of parent involvement in every study has been linked to children's cognitive outcomes (e.g., Domina 2005), a recent research synthesis of over 50 studies concluded that there is a "positive and convincing relationship between family involvement and benefits for students, including improved academic achievement." (Henderson and Mapp 2002, p. 24). Studies suggest that parent involvement is related to factors such as children's grades in school (Desimone 1999; Simon 2004), test scores (Jimerson, Egeland, and Teo 1999), and grade retention (Miedel and Reynolds 1999). Given the importance of parent involvement, researchers, policymakers, and practitioners have sought ways to promote it.

The role of schools in involving parents has been emphasized in several authors' theories and frameworks. In the model of school reform proposed by Comer and Haynes (1991), school outreach to parents, including involvement in decision making, is essential to connect families and communities and to affect children's positive development. In Eccles and Harold's (1993) model of parent involvement, they discuss the major role of teacher beliefs and practices for children and the enhancement of this role if teachers work with families. Epstein's model of school-family-community partnerships emphasizes the roles of schools, families, and communities in working together to influence children's development (Epstein 2001). Lareau and Horvat (1999) have noted the vital role of the school in accepting or rejecting parents in their attempts to use their resources to be involved with their children. Also, Hoover-Dempsey and Sandler (1997) have hypothesized that school practices may even serve to increase parent involvement among parents who feel it is their role to be involved, but do not feel they can effectively help their child.

Research has shown that school practices to involve parents are related to parent involvement (Epstein 1996, 2001). For example, several

studies have shown that ongoing communication between parents and teachers is related to increased levels of parent involvement (Gettinger and Guetschow 1998; Watkins 1997). In regard to specific subject areas, such as reading, for example, the degree of parent involvement and student achievement in reading is positively related to teacher requests that parents read and focus on home learning activities with their child (Epstein 1991). Practices to involve parents have been shown to be related to parent involvement beyond the relationships of other family background variables, such as family structure and socioeconomic status, and child characteristics such as grade level, gender, and race or ethnicity (Patrikakou and Weissberg 2000; Simon 2004).

The importance of school practices for involving parents has been reflected in legislation, most recently in the No Child Left Behind Act of 2001 (NCLB), P.L. 107-110, 115 Stat. 1425 (2002). Title I of NCLB (Section 1118) outlines requirements for schools, districts, and states to create partnerships between parents and schools. Under NCLB, schools are required to provide opportunities for parent involvement, including having parent-teacher meetings, reporting to parents on their children's progress, helping parents work with their children to improve achievement, offering parents opportunities to volunteer, and involving parents in the planning and design of school programs.

Because of the role of school practices in encouraging parent involvement, it is necessary to understand whether school efforts to involve families are similar for all types of families and students, and for families in different schools and communities. Previous research suggests that practices initiated by schools vary by school, student, and family characteristics. For example, in a study of middle school principals, Epstein and Lee (1995) found that sending information to parents about how to help children learn at home was more frequent in private schools than it was in public schools. Other studies of teachers and parents have shown differences in school practices by student grade level. For example, research has shown that parent-teacher contact and school efforts to

involve parents decline as children move from lower to higher grade levels (Becker and Epstein 1982; Epstein and Dauber 1991; Izzo et al. 1999). Past research has also shown a relationship between school practices and both race and parents' education level. Epstein (1990) found that teachers asked for more involvement from married parents with less education than from married parents with more education, and from Black parents compared to White parents.

Many previous studies of school practices were based on small community samples. In the past several years, a few national studies have been conducted that include items related to this issue, such as the Early Childhood Longitudinal Study, Kindergarten Class of 1998–1999 (ECLS-K), the National Education Longitudinal Study of 1988 (NELS:88), and the Head Start Family and Child Experiences Survey (FACES, 1996–2003).¹ These studies provide a national picture of school practices to involve families and support findings from smaller studies. For example, findings based on teacher reports from ECLS-K have shown a relationship between teachers' or schools' communication with parents about activities related to children's transition to kindergarten and parent involvement at the school (U.S. Department of Education 2001). At the high school level, Simon (2004) used data from the NELS:88–2000 longitudinal study to show a relationship between specific school practices to involve parents of high school seniors (e.g., talking to parents about their children's plans for after high school, asking parents to volunteer) and parent involvement (e.g., going to workshops about plans for college or work after high school, volunteering at school). While these studies make valuable contributions to the understanding of school practices to involve parents, they focus on children in limited age or grade ranges (e.g., preschool through 1st grade; kindergarten through 5th grade, 8th grade and

¹ The website for ECLS-K, <http://nces.ed.gov/ecls/>, includes information about the study. The website for NELS:1988 is <http://nces.ed.gov/surveys/nels88/>. The website for FACES is <http://acf.hhs.gov/programs/opre/hs/faces/index.html>.

higher), and thus do not cover the full grade range of children's schooling from kindergarten through 12th grade.

In 1996, the National Center for Education Statistics (NCES) collected nationally representative data on parents' involvement in their children's education through the Parent and Family Involvement in Education and Civic Involvement Survey of the National Household Education Surveys Program (NHES). Vaden-Kiernan (1996) used NHES data to link parent-reported school information practices to involve parents and family involvement in schools, school type, school size, parents' education level, student grade level, and student race/ethnicity for children in 1st through 12th grades. The inclusion of similar measures in the 2003 NHES Parent and Family Involvement in Education Survey permits examination of parent-reported school information practices and their relationship to parent involvement between the two years.

For both NHES:1996 and NHES:2003 a random sample of telephone numbers was selected in the first stage, and within each household with eligible children, at least one eligible child was selected in the second stage. The data were collected using computer-assisted telephone interviewing (CATI) technology. Data editing was performed to correct any errors found both during and after administration of the interviews.

In the 1996 survey, Screeners were completed with 55,838 households, with a weighted Screener unit response rate of 70 percent. The number of sampled phone numbers drawn was 161,446. The parent interview was completed by the parents of 20,792 of the 23,835 sampled children age 3 through the 12th grade, a weighted unit response rate of 89 percent. The overall unit response rate was 62 percent. In the 2003 survey, Screeners were completed with 32,049 households, with a weighted Screener unit response rate of 65 percent. The number of sampled phone numbers drawn was 109,800. The parent interview was completed by the parents of 12,426 of the 14,942 sampled children in kindergarten through the 12th grade, a weighted unit response rate of 83 percent. The

overall unit response rate was 54 percent. Information on survey methodology is provided in the Survey Methodology and Data Reliability section at the end of this document. Further details about the 1996 methodology are in Montaquilla and Brick (1997) and details about the 2003 survey are in Hagedorn et al. (2004).

Current Report

The purpose of the current report is to replicate analyses from the previous NCES report (Vaden-Kiernan 1996) with data from the 2003 survey. As with the previous report, parent-reported school information practices are discussed first and then examined in relation to the frequency of parent involvement at the school. Next, parent-reported school information practices to involve parents are examined in relation to school, family, and student characteristics that have been found to be related to variation in school practices or parent involvement in Vaden-Kiernan (1996) and other studies (Epstein 1990; Epstein and Dauber 1991; Epstein and Lee 1995; Kohl, Lengua, and McMahon 2000; Shumow and Miller 2001). Following these findings, the results are summarized and suggestions are made for future research. Finally, survey methodology, data reliability, and statistical tests used in the report are discussed.

The current report focuses on parent reports of the frequency of their involvement at school meetings or activities. It should be noted that other measures of parent reported involvement both at school and at home are included in the survey but, for brevity, are not included in the current report.

In 1996, most of the questions about school information practices were administered to parents of 1st- through 12th-graders. The previous 1996 report presented data from interviews with the parents of 16,151 children in 1st through 12th grades and excluded data collected from the parents of 244 children who were schooled at home. The 2003 survey included parents of 12,426 children in kindergarten through the 12th grade. In order to replicate the 1996 report, the analyses for the

2003 survey in the current report are limited to data from parents of 11,265 children enrolled in 1st through 12th grades. The current report also excludes data collected about the 262 children who were schooled at home in 2003.

Information about homeschooled children can be found in other NCES publications (Princiotta, Bielick, and Chapman 2004; Bielick, Chandler, and Broughman, 2001).

Parents of children in the 1st through 12th grades were asked how well their child's school carried out seven different practices to involve them in their children's education. The parent-reported school information practices included in the current report are based on types of parent involvement identified by Epstein (1992). Each type of involvement includes practices that are initiated by both schools and parents. For example, the first type of involvement is called "Basic obligations of families" and includes schools' efforts to improve parents' understanding of parenting and child development. Type 1 practices initiated by families would include using appropriate parenting skills to support their children's healthy development (Epstein 2001). For this report, practices initiated by the schools to communicate information to parents are the focus. The five types of involvement addressed in the current report, and their correspondence to specific items in the Parent and Family Involvement in Education Survey, are shown in exhibit 1.

Questions in NHES:2003 addressing various types of involvement were based on items from a questionnaire developed by Epstein and Salinas (1993). Descriptions of these items, which were identical in 1996 and 2003, are shown in the right column of exhibit 1.

Answer categories in the 1996 survey were: "does it very well," "just o.k.," or "doesn't do it at all." In the 2003 survey, an additional category was added that indicated the school did the practice but did it "not very well." In this report, the focus is on school information practices reported to be done "very well." This was done in order to have a succinct measure of parent reported school practices and to examine the best that schools were offering according to parent reports. School information practices that were reported by parents to be done "just o.k.," "not very well" or "not done at all" are not discussed here, but estimates and standard errors for these categories are shown in tables 1 and 2 for the 1996 and 2003 surveys, respectively.

The estimates in this report are based on weighting observations to partially account for nonresponse and coverage bias. The total number of weighted observations was 45,551 in 1996 and 47,753 in 2003. This is discussed further in the Sampling Error section of this report. To test the differences between estimates, Student's *t* statistics were calculated. All differences reported were significant at the .05 level of significance. Only differences of 5 percentage points or more are discussed in order to identify some of the larger differences in the report. In the current report, Cohen's *d* effect sizes were also used to determine the magnitude of statistically significant differences between means. Kendall's tau b was also used to test an association between parent involvement and school information practices. More information about the statistical tests used is in the Statistical Tests section of this report.

Unless otherwise indicated, no differences were detected in estimates between 1996 and 2003. Thus, primarily differences within each year of the study are reported.

Exhibit 1. Correspondence between Epstein’s types of school practices to promote parent involvement and school information practices items from the Parent and Family Involvement in Education Survey of the 2003 National Household Education Surveys Program

Epstein’s six types of school practices to promote parent involvement	Corresponding parent-reported school information practices items from the Parent and Family Involvement in Education Survey of the 2003 National Household Education Surveys Program
	Parents were asked how well their child’s school did the following things during the school year:
Type 1: Improving parents’ understanding of parenting and child development.	Helped parent understand what children at the child’s age are like
Type 2: Communicating with parents and keeping them informed about their child’s progress and school programs.	Let parent know between report cards how the child was doing in school Provided information about why the child was placed in particular groups or classes
Type 3: Encouraging parent volunteering at the school and participation in school activities.	Made parent aware of chances to volunteer at the school
Type 4: Helping families help children learn at home.	Provided workshops, materials, or advice about how to help the child learn at home Provided information about how to help the child with his/her homework
Type 5: School practices to involve parents in decision-making	No corresponding practice
Type 6. Supporting families by collaborating with the community to bring families needed resources and to increase family participation in the community.	Provided information on community services to help the child or family

SOURCE: Epstein (1992); and U.S. Department of Education, National Center for Education Statistics, Parent and Family Involvement in Education and Civic Involvement Survey of the 1996 National Household Education Surveys Program (NHES) and Parent and Family Involvement in Education Survey of the 2003 NHES.

Parents’ Reports of School Practices

The seven school practices were examined to assess whether some school information practices were reported to be done “very well” by greater percentages of parents than other school information practices. As seen in tables 1

and 2, in both 1996 and 2003 the two highest percentages were for children whose parents reported that their child’s school did “very well” at letting them know between report cards how their child was doing in school (59 and 61 percent, respectively) and making them aware of chances to volunteer at the school (57 and 58

Table 1. Number and percentage of students in grades 1 through 12 whose parents reported how well various school information practices were done, by school practice in 1996

School practice	Percentage of students whose parents reported various school information practices were done...								
	"very well"			"just ok"			"not at all"		
	Number ¹	Percent	s.e.	Number ¹	Percent	s.e.	Number ¹	Percent	s.e.
Let parent know between report cards how the child was doing in school	26,719	59	0.5	13,152	29	0.4	5,679	12	0.4
Made parent aware of chances to volunteer at the school	26,001	57	0.5	12,244	27	0.4	7,307	16	0.4
Provided information about why the child was placed in particular groups or classes	18,608	41	0.5	11,796	26	0.4	15,147	33	0.5
Provided information about how to help the child with his/her homework	17,443	38	0.4	13,871	30	0.4	14,237	31	0.4
Provided workshops materials, or advice about how to help the child learn at home	16,725	37	0.5	13,519	30	0.4	15,308	34	0.4
Helped parent understand what children at the child's age are like	15,931	35	0.4	14,485	32	0.4	15,136	33	0.5
Provided information on community services to help the child or family	15,239	33	0.4	15,241	33	0.5	15,071	33	0.5

¹ Number of students for each answer category of school practice (in thousands)

NOTE: The abbreviation s.e. is standard error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Parent and Family Involvement in Education and Civic Involvement Survey of the 1996 National Household Education Surveys Program (NHES), and Parent and Family Involvement in Education Survey of the 2003 NHES.

percent). The percentage of parents who reported that the school did "very well" at providing information about why the child was placed in particular classes was 41 percent in 1996 and 43 percent in 2003. This was higher in both years than the percentage of parents who reported that the school did "very well" at providing information on community services to help the child or family (33 percent in both years). In 2003, in comparison to all other school practices, the lowest percentage of

parents reported that the school was doing "very well" at providing information about community services.

Parents' Reports of School Practices and the Frequency of Their Involvement at the School

One of the objectives of this report is to examine the relationship between parent-reported school practices done "very well" and the frequency of family involvement at school. In order to

Table 2. Number and percentage of students in grades 1 through 12 whose parents reported how well various school information practices were done, by school practice in 2003

School practice	Percentage of students whose parents reported various school information practices were done...											
	"very well"			"just ok"			"not very well"			"not at all"		
	Number ¹	Percent	s.e.	Number ¹	Percent	s.e.	Number ¹	Percent	s.e.	Number ¹	Percent	s.e.
Let parent know between report cards how the child was doing in school	29,041	61	0.6	12,529	26	0.5	2,828	6	0.3	3,355	7	0.3
Made parent aware of chances to volunteer at the school	27,645	58	0.6	11,824	25	0.5	4,049	8	0.4	4,235	9	0.4
Provided information about why the child was placed in particular groups or classes	20,504	43	0.6	12,362	26	0.5	4,913	10	0.4	9,975	21	0.4
Provided information about how to help the child with his/her homework	19,237	40	0.5	14,414	30	0.5	5,800	12	0.4	8,302	17	0.4
Provided workshops materials, or advice about how to help the child learn at home	18,088	38	0.6	14,470	30	0.5	6,444	13	0.4	8,751	18	0.4
Helped parent understand what children at the child's age are like	18,393	39	0.5	14,526	30	0.5	5,471	11	0.4	9,363	20	0.4
Provided information on community services to help the child or family	15,754	33	0.6	15,192	32	0.6	6,436	13	0.4	10,371	22	0.5

¹ Number of students for each answer category of school practice (in thousands)

NOTE: The abbreviation s.e. is standard error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Parent and Family Involvement in Education and Civic Involvement Survey of the 1996 National Household Education Surveys Program (NHES), and Parent and Family Involvement in Education Survey of the 2003 NHES.

provide an overall measure of school practices, the number of practices reported to have been done "very well" were summed together. In both 1996 and 2003, the average number done "very well" was approximately three out of seven practices (table 3).

Family involvement at school was measured by the following question: "During this school year, how many times have you or other adult family members/adults in the household gone to

meetings or participated in activities at the child's school?" The question was open-ended and respondents reported the number of times they went to a meeting or activity. For this report, answers were coded according to whether families were involved at the school "zero," "one to two," "three to five," "six to nine," or "ten or more" times.

The percentage distribution of parents' reported level of involvement and the means and standard

Table 3. Number and percentage of students in grades 1 through 12 whose parents reported various levels of participation at school and average number of parent-reported school information practices done “very well,” by frequency of family involvement at school: 1996 and 2003

Frequency of family involvement at school	1996					2003				
	Number of students (in thousands)	Percentage of students whose parents reported various levels of participation at school		Average number of parent-reported school information practices done “very well” ¹		Number of students (in thousands)	Percentage of students whose parents reported various levels of participation at school		Average number of parent-reported school information practices done “very well” ¹	
		Percent	s.e.	Mean	s.e.		Percent	s.e.	Mean	s.e.
Total	45,551	100	†	3.0	0.02	47,753	100	†	3.1	0.03
0 times	3,635	8	0.3	1.9	0.08	1,947	4	0.2	2.0	0.14
1–2 times	11,191	25	0.4	2.7	0.05	11,085	23	0.6	2.6	0.06
3–5 times	15,690	34	0.5	3.1	0.04	18,485	39	0.6	3.3	0.05
6–9 times	5,212	11	0.3	3.5	0.07	5,327	11	0.4	3.6	0.09
10 or more times	9,823	22	0.5	3.2	0.05	10,910	23	0.5	3.3	0.07

† Not applicable. Standard error not derived because it is based on an estimate of 100 percent.

¹ The range of responses was from 0 to 7.

NOTE: Parents were asked how many times they or another adult in their household went to meetings or participated in activities at their child’s school during this school year. In both 1996 and 2003, parents of children in the 1st through 12th grades were asked how well their child’s school did the following seven things: let them know how their child was doing in school, helped them understand what children at their child’s age are like, made them aware of chances to volunteer at school, helped them help their child learn at home, provided information about community services, provided information about how to help with homework, and provided information about why their child was placed in particular groups or classes. In 1996, answer categories were: does “very well,” “just o.k.,” or “doesn’t do it at all.” In 2003, answer categories were: does “very well,” “just o.k.,” “doesn’t do it at all,” and “not very well.” The abbreviation s.e. is standard error. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Parent and Family Involvement in Education and Civic Involvement Survey of the 1996 National Household Education Surveys Program (NHES) and Parent and Family Involvement in Education Survey of the 2003 NHES.

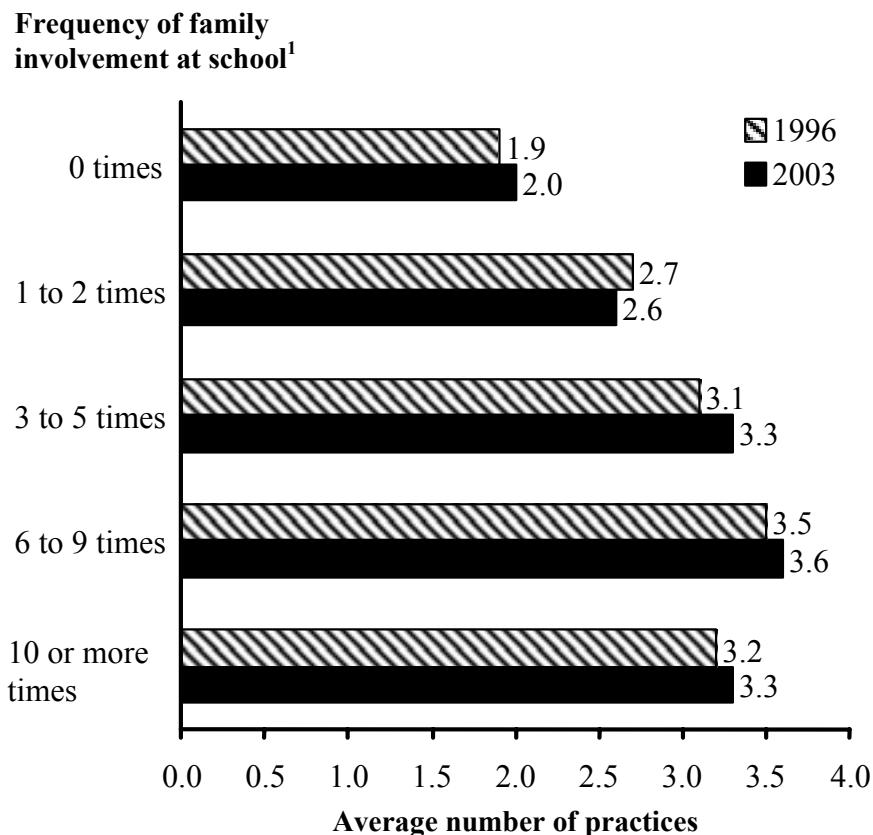
errors for the number of school information practices done “very well” at each level of involvement are reported in table 3. In 1996 and 2003, the smallest percentage of children had family members who reported not attending any meetings or activities at the school (8 and 4 percent, respectively), while the largest percentage of children had family members who were involved at the school 3–5 times during the school year (34 and 39 percent, respectively). In 2003, a larger percentage of children had parents who reported being involved at the school 3–5 times (39 percent), compared with the percentage of children whose parents reported involvement 3–5 times in 1996 (34 percent).

As seen in table 3 and figure 1, in 1996 the average number of school information practices

reported by parents as done “very well” was lower for children whose parents reported being involved 0 times at the school than for those whose parents reported being involved at the school 1–2 times or more. The average number of school information practices reported by parents was also lower for children whose parents reported being involved at the school 1–2 times than for children whose parents reported being involved 6–9 times.

In 2003, the average number of school information practices reported to be done “very well” by parents was lower for children whose parents reported being involved 0 times at the school than for those involved at the school 3–5 times or more. The average number of school information practices reported to be done “very

Figure 1. Average number of parent-reported school information practices done “very well,” by frequency of family involvement at school: 1996 and 2003



¹Parents were asked how many times they or another adult in the household went to meetings or participated in activities at their child’s school during the current school year.

NOTE: In both 1996 and 2003, parents of children in the 1st through 12th grades were asked how well their child’s school did the following seven things: let them know how their child was doing in school, helped them understand what children at their child’s age are like, made them aware of chances to volunteer at school, helped them help their child learn at home, provided information about community services, provided information about how to help with homework, and provided information about why their child was placed in particular groups or classes. In 1996, answer categories were does “very well,” “just o.k.,” or “doesn’t do it at all.” In 2003, answer categories were does “very well,” “just o.k.,” “doesn’t do it at all,” and “not very well.”
 SOURCE: U.S. Department of Education, National Center for Education Statistics, Parent and Family Involvement in Education and Civic Involvement Survey of the 1996 National Household Education Surveys Program (NHES) and Parent and Family Involvement in Education Survey of the 2003 NHES.

well” by parents was also lower for children whose parents reported being involved at the school 1–2 times compared to those involved at the school 3–5 times or more.

The association between school practices done “very well” and the categorical measure of parents’ frequency of involvement was tested in both years using Kendall’s tau b. In both 1996 and 2003, a relationship was found between the two variables.

These findings could indicate that schools that conduct more information practices “very well” lead parents to become more involved. It is also possible that higher parent involvement encourages schools to communicate better with parents.

Of course, parent involvement could be driven by other factors that are not examined in this study, such as employment, family composition, or parents’ own experiences with school when they were children.

Parent-Reported School Information Practices by School, Family, and Student Characteristics

Variations in school information practices by school, family, and student characteristics were also examined (table 4). Variables included in this analysis were those that have been shown to be linked either to school information practices or to levels of family involvement. These variables do not represent an exhaustive list of characteristics thought to be related to school information practices. Rather, they were chosen to provide at least one key indicator from each

of the domains of school, family, and student characteristics.

The purpose of the current report is descriptive and the average number of school information practices done “very well” are examined separately for each characteristic. However, because these school, family, and student characteristics may be interrelated, future research should use multivariate analyses to determine which variables are related to school information practices done “very well” when controlling for the relationships of the other variables.

Table 4. Average number of parent-reported school information practices done “very well,” by selected characteristics: 1996 and 2003

Characteristic	1996			2003		
	Number of students in grades 1 through 12 (in thousands)	Average number of parent-reported school information practices done “very well”		Number of students in grades 1 through 12 (in thousands)	Average number of parent-reported school information practices done “very well”	
		Mean	s.e.		Mean	s.e.
Total	45,551	3.0	0.02	47,753	3.1	0.03
School type¹						
Public, assigned	34,614	2.8	0.03	35,312	3.0	0.03
Public, chosen ²	6,228	3.2	0.07	7,334	3.4	0.10
Private, church-related	3,654	4.0	0.06	3,976	3.7	0.08
Private, not church-related	1,054	3.8	0.16	1,131	4.0	0.16
School size³						
Under 300	7,503	3.4	0.06	8,265	3.4	0.08
300–599	17,345	3.2	0.04	17,143	3.4	0.05
600–999	10,294	2.8	0.05	10,894	3.0	0.07
1,000 or more	10,409	2.6	0.05	11,451	2.6	0.06
Parents’ highest level of education⁴						
Less than high school	4,492	3.7	0.10	3,395	3.4	0.13
High school graduate or equivalent	13,890	3.1	0.04	12,049	3.3	0.06
Vocational/technical education after high school or some college	13,592	2.8	0.05	15,099	3.0	0.05
College graduate	7,000	2.9	0.06	9,082	2.9	0.07
Graduate or professional school	6,577	2.9	0.06	8,128	3.1	0.06
Student grade level						
1st grade	4,349	4.0	0.08	4,187	4.1	0.09
2nd–3rd grade	7,710	3.7	0.06	7,696	3.9	0.07
4th–5th grade	7,811	3.4	0.06	8,368	3.6	0.06
6th grade	3,927	3.1	0.07	4,182	3.1	0.08
7th–8th grade	7,567	2.6	0.06	7,988	2.8	0.07
9th grade	3,734	2.3	0.08	4,034	2.6	0.09
10th–11th grade	7,049	2.2	0.06	7,477	2.3	0.06
12th grade	3,377	2.3	0.08	3,815	2.4	0.08
Ungraded	19	‡	‡	5	‡	‡

See notes at end of table.

Table 4. Average number of parent-reported school information practices done “very well,” by selected characteristics: 1996 and 2003—Continued

Characteristic	1996			2003		
	Number of students in grades 1 through 12 (in thousands)	Average number of parent-reported school information practices done “very well”		Number of students in grades 1 through 12 (in thousands)	Average number of parent-reported school information practices done “very well”	
		Mean	s.e.		Mean	s.e.
Total	45,551	3.0	0.02	47,753	3.1	0.03
Student race/ethnicity						
White, non-Hispanic	30,684	2.8	0.03	29,744	2.9	0.03
Black, non-Hispanic	7,166	3.3	0.07	7,626	3.4	0.08
Hispanic	5,777	3.6	0.08	7,557	3.5	0.08
Other	1,924	2.9	0.10	2,826	3.1	0.13

‡Reporting standards not met. There were less than 30 unweighted cases in the ungraded category; thus, it was not included in the analyses.

¹School type was reported by parents.

²Parents were asked whether their child’s school was his or her regularly assigned school or a school that the parent chose. If parents answered that the assigned school was also their school of choice, the school was categorized as a chosen school.

³School size was reported by parents.

⁴Parents’ highest education level refers to the highest level of education completed by the child’s parent or parents.

NOTE: In both 1996 and 2003, parents of children in the 1st through 12th grades were asked how well their child’s school did the following seven things: let them know how their child was doing in school, helped them understand what children at their child’s age are like, made them aware of chances to volunteer at school, helped them help their child learn at home, provided information about community services, provided information about how to help with homework, and provided information about why their child was placed in particular groups or classes. In 1996, answer categories were does “very well,” “just o.k.,” or “doesn’t do it at all.” In 2003, answer categories were does “very well,” “just o.k.,” “doesn’t do it at all,” and “not very well.” The abbreviation s.e. is standard error. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Parent and Family Involvement in Education and Civic Involvement Survey of the 1996 National Household Education Surveys Program (NHES) and Parent and Family Involvement in Education Survey of the 2003 NHES.

Differences by School Type

Based on past research using NELS:1988 which showed differences in school information practices between public and private schools (Epstein and Lee 1995) and differences in levels of parent satisfaction in private schools, public schools that were chosen by families, and public schools that were assigned (Bielick and Chapman 2003), school information practices were examined with respect to school type. Public schools were identified by parents as either “regularly assigned” or “chosen” by the parents. Parents were asked the question, “Is it (his/her) regularly assigned school or a school that you chose?” If parents volunteered that the school their child was assigned was also their school of choice, the school was categorized as a

“public, chosen” school.² Private schools were identified by parents as either “church-related” or “not church-related.”

Parent reports of school information practices varied by school type (table 4). In both 1996 and 2003, the average number of school

² Because respondents may have moved to a neighborhood to choose a school or decided to stay in a neighborhood because of the assigned school, NHES has included these types of school choice in the “chosen” school category. This definition of school choice has also been used in previous NHES surveys. The category corresponds to respondents’ perceptions of chosen schools; however, some researchers may want to redefine the variable for their own research and place all assigned schools in the assigned school category, regardless of whether these schools were also considered “chosen” by the respondent.

information practices reported by parents to have been done “very well” was higher for children in church-related or other types of private schools than for children in public schools that were assigned. In 1996, parents of children in private schools reported 4.0 and 3.8 practices done “very well” (for church-related and non-church related, respectively) compared to 2.8 in public schools that were assigned. In addition, parents of children in private schools that were church-related also reported a higher number of school information practices done “very well” (4.0) than parents of children in chosen public schools (3.2). In 2003, parents of children in private schools reported 3.7 and 4.0 practices done “very well” (for church-related and non-church related, respectively) compared to 3.0 in public schools that were assigned.

Differences by School Size

Results from the current analysis also show that parent reports of school information practices were related to parent reports of school size. Parents of children in smaller schools gave more favorable reports about school information practices, on average, than did parents of children in larger schools. In 1996, parents of children in schools with under 300 students reported an average of 3.4 school information practices done “very well,” compared to 2.6 practices reported by parents of children in schools with 1,000 or more students. In 2003, parents of children in schools with under 300 students and those with children in schools with 300–599 students both reported an average of 3.4 school information practices done “very well” compared to 2.6 practices reported by parents of children in schools with 1,000 or more students.

Differences by Parents’ Highest Level of Education

Another important family characteristic included in the current study was parents’ education level. Past research suggests that parents with higher levels of educational attainment have higher levels of involvement in their children’s education (Lareau 1989; Nord, Brimhall, and West 1997). A variable was created to define the

highest level of schooling completed by either parent or guardian in the household or the only parent or guardian in the household. In 1996, parents who had not completed a high school program reported, on average, more school information practices done “very well” (3.7 practices) than did parents with a high school education (3.1 practices), or those with higher education levels (2.8 to 2.9 practices, reported by those who had completed vocational or technical education or some college; college; or graduate or professional school). In 2003, no differences in the average number of school information practices were detected by parents’ highest level of education.³

Differences by Student Grade Level

As noted earlier, past research has shown that school efforts to involve parents decrease as children enter higher grades and progress to different levels of school (e.g., middle school, high school) (Epstein and Dauber 1991). In general, parents of students in lower grades reported more practices were done “very well,” compared to parents of children in later grades. In 1996 and 2003, the average number of school information practices reported by parents to have been done “very well” was highest in the 1st grade, at 4.0 and 4.1 practices, respectively, compared to practices reported by parents with children in grades 6 through 12 in 1996 and grades 4 through 12 in 2003. The average number of school information practices reported to be done “very well” by parents of 2nd-through 3rd-graders and 4th- through 5th-graders were not detected to be different from each other, but were greater than the average number of practices reported by parents with children in grades 7 through 12 in 1996 and 2003. Examination of differences between reported school practices in earlier and later grades showed that the average number of

³ The range in the mean number of practices reported by parents’ educational attainment is slightly smaller in 2003 than in 1996, therefore differences between means in 2003 are not detectable using the statistical criteria applied throughout this report.

school information practices reported done “very well” decreased by nearly one school practice between the 1st grade and the 6th grade in both 1996 and 2003. The average number of school information practices reported done “very well” decreased by another school practice in 1996 between the 6th grade and the 9th grade.

Differences by Student Race/Ethnicity

Differences in school information practices were also examined with respect to race/ethnicity. In this report, only differences in school information practices reported by parents of White, non-Hispanic; Black, non-Hispanic; and Hispanic children are discussed.⁴ Results show that parent reports of school information practices varied by the racial and/or ethnic background of the child. In 1996, parents of Hispanic children reported more school information practices done “very well” (3.6) than parents of White children (2.8). In 2003, parents of Hispanic children also reported more school information practices done “very well” (3.4 and 3.5, respectively) than parents of White children (2.9).

Summary and Suggestions for Future Research

In this report, data from the Parent and Family Involvement in Education Survey of the 2003 National Household Education Surveys Program were used to replicate previous analyses using the Parent and Family Involvement in Education and Civic Involvement Survey of the 1996 National Household Education Surveys Program. Parent reports of school information practices to involve them in their children’s education were examined in relation to family involvement at school, and school, family, and student characteristics. Results show that in both 1996 and 2003 the average number of parent-reported school information practices done “very well” was positively related to the frequency of the family’s involvement at school, although

⁴ White, non-Hispanic and Black, non-Hispanic will be referred to as White and Black, respectively, for the remainder of the report.

causality or its direction cannot be addressed in a cross-sectional study. Without longitudinal research or an experimental design it cannot be determined whether schools that do very well at giving parents information create conditions that lead to greater parent involvement, or whether parents that are more involved at school receive more information about the school and thus are more aware of school practices done well.

Findings for parent reports of school information practices in 1996 and 2003 are similar to each other. The average number of school information practices reported by parents as being done “very well” in both survey years was three out of seven practices. In addition, some types of school information practices were less frequently reported by parents to be done “very well” by schools. For example, 38 percent of parents in 2003 and 37 percent in 2003 reported that their child’s school provided information about how to help their child learn at home. Research has shown that providing children with learning opportunities at home, such as reading or helping with homework, is related to school performance (Epstein 1991; Simon 2004; U.S. Department of Education 1994).

Other results in both survey years show that the average number of parent-reported school information practices done “very well” differed by school, family, and student characteristics. More practices were reported to be done “very well” by parents of children in private versus public schools that were assigned; children in smaller versus larger schools; children whose parents had less education compared to children whose parents had more education (in 1996 but not 2003); children in lower grade levels versus those in higher grade levels; and Hispanic children, compared to White children. Because these school, family, and student characteristics are themselves interrelated, future research is needed to address which characteristics have the strongest relationship to reports of practices done “very well.”

The current report was limited to practices reported by parents to have been done “very well.” Future research could also address the relationships between school, family, and

student characteristics and school information practices that were reported by parents to have been done “just ok”, “not very well” or “not at all.”

Also, in this report, the number of school information practices done “very well” were added together to create a summary variable. Although this was a useful method for examining the cumulative effect of multiple practices, there is a limitation in combining practices that may have different functions in relation to parent involvement. In addition, the information about school practices comes from reports from the parent respondent and not from the school. Parents’ reports are based on their knowledge and perception of school practices and may differ from actual school practices. In addition, the type of parent involvement included in the current report was limited to parent reports of the number of times they went to meetings or participated in activities at the child’s school. Teacher reports of parents’ activities may be different from those of parents. Also, examining parent or teacher reports of involvement outside of school may produce different results. Further research with the NHES:2003 data could use parent reports to explore whether specific school information practices are related to particular types of parent involvement outside of school that were included in the survey. For example, the school practice of informing parents about how to help their children learn at home could be examined in relation to reading and learning activities in the home. The school practice of providing information about homework could be examined in relation to data about involvement in homework by persons inside and outside the household.

Specific school information practices at the middle and high school levels could also be examined in relation to school information practices and parent activities with older children that were not part of the current study. Simon (2004) found that when high schools initiated school outreach activities such as contacting parents about their children’s plans for after high school, parents were more likely to go to workshops about this issue and to talk to

their senior high school student about their plans. This issue could also be addressed with the 2003 survey data by examining the two school information practices of “providing information about how to help plan for college or vocational school” and “how to help plan for work after the child completes his or her education” in relation to the frequency that the parent reports talking with the child about his or her plans for further education after high school and plans for work after the child finishes his or her education. In interpreting such an analysis, it should be noted that both school practices and reports of talking to the child about specific subjects were reported by parents.

Survey Methodology and Data Reliability

The National Household Education Surveys Program (NHES) is a program of telephone surveys sponsored by the U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics (NCES). NHES was first conducted in 1991 and has covered a wide range of education-related topics. NHES surveys focused on parent and family involvement in education in 1996 and 2003. This report presents data from the Parent and Family Involvement in Education Survey of NHES in both years (1996 and 2003). NHES:1996 and NHES:2003 data collections were conducted by Westat and took place from January through April of 1996 and 2003, respectively. This section provides a brief description of the survey methodology; further details about the 2003 study methodology appear in Hagedorn et al. (2004). Details about the 1996 study methodology are in Montaquilla and Brick (1997).

The NHES:1996 and NHES:2003 were list-assisted, RDD samples. For NHES:1996, the sampling frame was Marketing Systems Group’s (MSG’s) Genesys database as of December 1995. For NHES:2003, the sampling frame was MSG’s Genesys 3rd quarter 2002 database. The data were collected using computer-assisted telephone interviewing (CATI) technology. A random sample of telephone numbers was selected in the first stage, and within each household with eligible children, at least one

eligible child was selected in the second stage. The samples for the 1996 and 2003 surveys are nationally representative of all children in kindergarten through 12th grade, enrolled in regular school or homeschooled in the 50 states and the District of Columbia. The person chosen as the respondent for the 1996 and 2003 interviews was the parent or guardian in the household who knew the most about the child's education. In about 80 percent of interviews in both years, the respondent was the child's mother or a female guardian or respondent. Interviews were conducted in both English and Spanish. Data for this report come from 16,151 completed parent interviews for children in grades 1 through 12 in 1996 and 11,265 completed parent interviews for children in the same grade range in 2003.

Data Reliability

Estimates produced using data from the 1996 and 2003 surveys are subject to two types of error, sampling and nonsampling errors. Nonsampling errors are errors made in the collection and processing of data. Sampling errors occur because the data are collected from samples of respondents rather than the whole population.

Nonsampling Error

Nonsampling error is the term used to describe variations in the estimates that may be caused by population coverage limitations and data collection, processing, and reporting procedures. The sources of nonsampling errors are typically problems like unit⁵ and item nonresponse, the differences in respondents' interpretations of the meaning of the questions, response differences related to the particular time the survey was conducted, and mistakes in data preparation. In the 1996 and 2003 surveys, efforts were made to minimize nonsampling error through cognitive testing in the survey design stage, a two-stage field test of the survey, on-line data edits and

⁵ In the 1996 and 2003 surveys, the unit nonresponse rate is defined as the percentage of eligible sampled children whose parents did not complete the survey.

post-interview edits, and a comparison of the survey estimates with similar estimates from previous surveys. Estimation procedures were used to help reduce the bias in the estimates associated with excluding the 4 percent of children in the population who do not live in households with telephones.

Sampling Error

The samples of telephone households selected for the 2003 and 1996 surveys are just two of many possible samples that could have been selected. Therefore, estimates produced from this sample may differ from estimates that would have been produced from other samples. This type of variability is called sampling error because it arises from using a sample of households with telephones, rather than having surveyed all households with telephones.

The standard error is a measure of the variability due to sampling when estimating a statistic; standard errors for estimates presented in this report were computed using a jackknife replication method. Standard errors for all of the estimates are presented in the tables and can be used to produce confidence intervals. For example, an estimated 61 percent of parents reported in 2003 that the school did very well at letting them know between report cards how their child was doing in school. This figure has an estimated standard error of 0.6. Therefore, the estimated 95 percent confidence interval for this statistic is approximately 60 to 62 percent ($61 \pm 1.96 (0.6)$). That is, if the processes of selecting a sample, collecting the data, and constructing the confidence interval were repeated, it would be expected that in 95 out of 100 samples from the same population, the confidence interval would contain the true participation rate.

All of the estimates in this report are based on weighting the observations using the probabilities of selection of the respondents and other adjustments to partially account for nonresponse and coverage bias. Weights were developed to produce unbiased and consistent estimates of the national totals. The weight variable used to estimate the characteristics of

children and youth in both 1996 and 2003 was FPWT. In addition to properly weighting the responses, special procedures for estimating the statistical significance of the estimates were employed because the data were collected using a complex sample design. Complex sample designs result in data that violate some of the assumptions that are normally used to assess the statistical significance of results from a simple random sample. For example, frequently the standard errors of the estimates from these surveys are larger than would be expected if the sample were a simple random sample and the observations were independent and identically distributed random variables. Eighty replicate weights (FPWTR1 to FPWTR80 in 1996, and FPWT1 to FPWT80 in 2003) were used to produce estimates of the sampling errors of the estimates.

Response Rates

In both the 1996 and 2003 surveys, there were samples of both households and children. In the 1996 survey, Screeners were completed with 55,838 households, with a weighted Screener unit response rate of 70 percent. The parent interview was completed by the parents of 20,792 of the 23,835 sampled children age 3 through the 12th grade, a weighted unit response rate of 89 percent. Thus, the overall unit response rate for the Parent and Family Involvement in Education Survey in 1996 was 62 percent (the product of the Screener unit response rate and the parent interview unit response rate).

In the 2003 survey, Screeners were completed with 32,049 households, with a weighted Screener unit response rate of 65 percent. The parent interview was completed by the parents of 12,426 of the 14,942 sampled children in kindergarten through the 12th grade, a weighted unit response rate of 83 percent. Thus, the overall unit response rate for the Parent and Family Involvement in Education Survey in 2003 was 54 percent.

A unit nonresponse bias analysis was undertaken for NHES:2003. This study involved an examination of unit response rates as a whole

and for various subgroups, an analysis to determine characteristics that are associated with Screener unit nonresponse, and a comparison of estimates based on adjusted and unadjusted weights. The analysis of unit nonresponse bias showed no evidence of bias in estimates from the PFI-NHES:2003 survey. The statistical adjustments used in weighting may have corrected at least partially for biases that might have existed due to differential unit nonresponse. Unit nonresponse bias may still be present in other variables that were not studied.

Response rates were also calculated at the item level. The item response rate is based on unweighted responses and is the number of persons responding to an item divided by the number of persons eligible for an item, multiplied by 100. Item nonresponse (i.e., the failure to complete some items in an otherwise completed interview) was very low for most items in the 1996 and 2003 surveys. In 1996, the item nonresponse rate for most variables included in this report were generally less than 2 percent, except for school size which had an item nonresponse rate of 6 percent. In 2003, the item nonresponse rates for most variables included in this report are 3 percent or lower. Again, the exception is the item for school size (with an item nonresponse rate of 6 percent). Items with missing data were imputed using a hot-deck procedure (Rao and Shao 1992) in which cells are formed that contain cases with similar characteristics and a donor value is used to impute the missing value. The estimates included in this report are based on the imputed data.

Statistical Tests

The tests of significance used in this analysis are based on Student's *t* statistics for the comparison of individual estimates and for bivariate relationships. Only differences of 5 percentage points or more are discussed in the report. Due to the large sample size, many of the group differences that were examined were statistically significant at the .05 alpha level used for these analyses, including many very small differences. Because of that, an arbitrary 5 percentage point difference criterion was established for

determining which group differences would be discussed in the text of this report.

The report also used Cohen's *d*, a measure of effect size (Cohen 1988; Rosenthal, Rosnow, and Rubin 2000), to determine the magnitude of statistically significant differences between means. With relatively large sample sizes, population differences of little or no practical importance may be statistically significant. Effect size measures are a tool for assessing practical significance. Cohen's *d* is calculated by dividing the estimated difference between two population parameters by the estimated population standard deviation. Cohen's (1988) convention for interpreting effect sizes was used, and only effect sizes of .20 and larger are discussed in the text of the report. This effect size is an arbitrary criterion established for determining which group differences would be discussed given the large sample size and the significant differences found for many comparisons. Finally, Kendall's tau b was used to provide a measure of association between school practices done "very well" and parents' frequency of involvement. Kendall's tau b is a measure of association between two ordinal variables. An association is present when tau b is significantly greater than 0.

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References

- Baker, D.P., and Stevenson, D.L. (1986). Mothers' Strategies for Children's School Achievement: Managing the Transition to High School. *Sociology of Education*, 59: 156-166.
- Becker, H.J. and Epstein, J.L. (1982). Parent Involvement: A Survey of Teacher Practices. *Elementary School Journal*, 83: 85-102.
- Bielick, S., and Chapman, C. (2003). *Trends in the Use of School Choice: 1993 to 1999* (NCES 2003-031). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Bielick, S., Chandler, K., and Broughman, S. (2001). *Homeschooling in the United States: 1999* (NCES 2001-033). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. New York: Academic Press.
- Coleman, J.S., Campbell, E.Q., Hobson, C.J., McPartland, J.M., Mood, A., Weinfeld, F.D., and York, R.L. (1966). *Equality of Educational Opportunity*. Washington, DC: U.S. Government Printing Office.
- Comer, J.; and Haynes, N. (1991). Parent Involvement in Schools: An Ecological Approach. *Elementary School Journal*, 91(3): 271-277.
- Desimone, L. (1999). Linking Parent Involvement With Student Achievement: Do Race and Income Matter? *Journal of Educational Research*, 93(1): 11-30.
- Domina, T. (2005). Leveling the Home Advantage: Assessing the Effectiveness of Parental Involvement in Elementary School. *Sociology of Education*, 78(July), 233-249.
- Eccles, J. S., & Harold, R. D. (1993). Parent school involvement during the early

- adolescent years. *Teachers College Record*, 94(3), 568-587.
- Epstein, J.L. (1983). Longitudinal Effects of Family-School-Person Interactions on Student Outcomes. In A. Kerckhoff (Ed.), *Research in Sociology of Education and Socialization, Volume 4* (pp. 19-128). Greenwich, CT: JAI Press.
- Epstein, J.L. (1990). Single Parents and the Schools: Effects of Marital Status on Parent and Teacher Interactions. In M.T. Hallinan, D.M. Klein, and J. Glass (Eds.), *Change in Societal Institutions* (pp. 91-121). New York: Plenum.
- Epstein, J.L. (1991). Effects on Student Achievement of Teachers' Practices of Parent Involvement. In S. Silvern (Ed.), *Advances in Reading/Language Research, Vol. 5: Literacy Through Family, Community and School Interaction* (pp. 261-276). Greenwich, CT: JAI Press.
- Epstein, J.L. (1992). School and Family Partnerships. In M. Alkin (Ed.), *Encyclopedia of Educational Research* (6th ed.) (pp. 1139-1151). New York: MacMillan.
- Epstein, J.L. (1996). Perspectives and Previews on Research and Policy for School, Family, and Community Partnerships. In A. Booth and J.F. Dunn (Eds.), *Family-School Links: How Do They Affect Educational Outcomes?* (pp. 209-246). Mahwah, NJ: Lawrence Erlbaum.
- Epstein, J.L. (2001). *School, Family, and Community Partnerships: Preparing Educators and Improving Schools*. Boulder, CO: Westview Press.
- Epstein, J.L., and Dauber, S.L. (1991). School Programs and Teacher Practices of Parent Involvement in Inner-City Elementary and Middle Schools. *The Elementary School Journal*, 91(3): 289-305.
- Epstein, J.L., and Lee, S. (1995). National Patterns of School and Family Connections in the Middle Grades. In B. Ryan, G. Adams, T. Gullotta, R. Weissberg, and R. Hampton(Eds.), *The Family-School Connection: Theory, Research, and Practice* (pp. 108-154). Thousand Oaks, CA: Sage Publications.
- Epstein, J.L., and McPartland, J.M. (1979). Authority Structures. In H. Walberg (Ed.), *Educational Environment and Effects* (pp. 293-310). Berkeley: McCutchan.
- Epstein, J.L., and Salinas, K.C. (1993). *School and Family Partnerships: Questionnaires for Teachers and Parents in Elementary and Middle Grades*. Baltimore: The Johns Hopkins University Center on Families, Communities, Schools and Children's Learning.
- Gettinger, M., and Guetschow, K.W. (1998). Parental Involvement in Schools: Parent and Teacher Perceptions of Roles, Efficacy, and Opportunities. *Journal of Research and Development in Education*, 32(1): 38-52.
- Hagedorn, M., Montaquila, J., Vaden-Kiernan, N., Kim, K., and Chapman, C. (2004). *National Household Education Surveys of 2003: Data File User's Manual, Volume 1*. (NCES 2004-101). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Henderson, A. T. and Mapp, K.L. (2002). *A New Wave of Evidence: The Impact of School, Family, and Community Connections on Student Achievement*. Southwest Educational Development Laboratory.
- Hoover-Dempsey, K. V., & Sandler, H. M. (1997). Why do parents become involved in their children's education? *Review of Educational Research*, 67(1): 3-42.
- Izzo, C.V., Weissberg, R.P., Kasprow, W.J., and Fendrich, M. (1999). A Longitudinal Assessment of Teacher Perceptions of Parent Involvement in Children's

- Education and School Performance. *American Journal of Community Psychology*, 27(6): 817-839.
- Jimerson, S., Egeland, B., and Teo, A. (1999). A Longitudinal Study of Achievement Trajectories: Factors Associated With Change. *Journal of Educational Psychology*, 91(1): 116-126.
- Kohl, G.O., Lengua, L.J., and McMahon, R.J. (2000). Parent Involvement in School: Conceptualizing Multiple Dimensions and Their Relations With Family and Demographic Risk Factors. *Journal of School Psychology*, 38(6): 501-523.
- Lareau, A., and Horvat, E. M. (1999). Moments of social inclusion and exclusion: Race, class, and cultural capital in family-school relationships. *Sociology of Education*, 72: 37-53.
- Majoribanks, K. (1979). *Families and Their Learning Environments: An Empirical Analysis*. London: Routledge/Kegan Paul.
- McDill, E.L., and Rigsby, L. (1973). *Structure and Process in Secondary Schools: The Academic Impact of Emotional Climates*. Baltimore: Johns Hopkins University Press.
- Miedel, W.T., and Reynolds, A.J. (1999). Parent Involvement in Early Intervention for Disadvantaged Children: Does it Matter? *Journal of School Psychology*, 37(4): 379-402.
- Montaquilla, J., and Brick, M. (1997). *Unit and Item Response Rates, Weighting, and Imputation Procedures in the 1996 National Household Education Survey* (NCES No. 97-40). U.S. Department of Education. Washington, DC: National Center for Education Statistics Working Paper.
- Patrikakou, E.N. and Weissberg, R.P. (2000). Parents' Perceptions of Teacher Outreach and Parent Involvement in Children's Education. *Journal of Prevention & Intervention in the Community*, 20(1-2): 103-119.
- Princiotta, D., Bielick, S., and Chapman, C. (2004). *1.1 Million Homeschooled Students in the United States in 2003* (NCES 2004-115). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Rao, J.N.K., and Shao, J. (1992). Jackknife Variance Estimation With Survey Data Under Hot Deck Imputation. *Biometrika*, 79: 811-822.
- Rosenthal, R., Rosnow, R.L., and Rubin, D.B. (2000). *Contrasts and Effect Sizes in Behavioral Research*. Cambridge University Press. Cambridge, UK.
- Shumow, L., and Miller, J.D. (2001). Parents' At-Home and At-School Involvement With Young Adolescents. *Journal of Early Adolescence*, 21(1): 68-91.
- Simon, B.S. (2004). High School Outreach and Family Involvement. *Social Psychology of Education*, 7: 185-209.
- U.S. Department of Education. (1994). *Strong Families, Strong Schools: Building Community Partnerships for Learning*. (ED371909). Washington, DC.
- U.S. Department of Education, National Center for Education Statistics. (2001). *Papers From the Early Childhood Longitudinal Studies Program Presented at the 2001 AERA and SRCD Meetings* (NCES 2001-06). Washington, DC: National Center for Education Statistics Working Paper.
- Vaden-Kiernan, N. (1996). *Parents' Reports of School Practices to Involve Families: 1996* (NCES 97-327). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Watkins, T.J. (1997). Teacher Communications, Child Achievement, and Parent Traits in Parent Involvement Models. *Journal of Educational Research*, 91(1): 3-14.