# 4. STUDENT AND FAMILY CHARACTERISTICS ASSOCIATED WITH FAMILY INVOLVEMENT

Thus far, this report has described family support for education at home and at school for youth with disabilities as a group and for those who differ in their primary disability category. However, students and their families differ in many ways beyond a student's disability classification, such as differences in gender, race/ethnicity, behavior and abilities, household income, families' participation in trainings, and parents' expectations. For youth in the general population, differences in student and family characteristics have been found to be related to variations in family involvement (Carter & Wojtkiewicz, 2000; Catsambis & Garland, 1997; Eccles & Harold, 1996; Grolnick, Benjet, Kurowski, & Apostoleris, 1997; Harry, 2002; Hoover-Dempsey et al., 2001; Lareau, 2000; Nord & West, 2001; Simon, 2001b). This chapter extends this understanding to families of students with disabilities by asking the following questions:

- To what extent are variations in student and family characteristics related to differences in levels of family involvement for youth with disabilities?
- How do the relationships between these characteristics and levels of involvement compare with that of families in the general population?

Multivariate analysis approaches (i.e., multiple linear and logistic regression) were chosen to explore the relationships between student and family characteristics and levels of involvement because many family and youth characteristics are interrelated. For example, families who are wealthier also tend to be better educated (Coleman, 1988). If the relationship between household income and family involvement is examined and it appears that wealthier families are more likely to be involved, the extent to which this difference is associated with differences in income or education would be unclear. Multivariate analysis disentangles these complex relationships and examines how one factor is associated with differences in levels of family involvement, independent of other factors included in the analysis.

The result is almost like creating statistical twins—two students who are identical in every way measured in the analysis, except for the one characteristic being examined. For example, if the focus is the relationship between racial/ethnic background and family involvement, it would be as if there are two youth who are identical in all factors included in the analysis, except that one youth is white and the other is African-American. The analysis would identify the relationship between race/ethnicity and family involvement, controlling for all other characteristics included in the analysis.

The chapter begins with a brief description of the three types of family involvement included in the analyses[1]:

- Frequency of helping with homework.

[1] The three types of involvement included in the models are described more fully in Chapters 2 and 3. This report describes the experiences of youth with disabilities who were ages 13 through 17 at the time of the parent interview. Only differences that reach a level of statistical significance of at least .05 are mentioned in the text.

- Frequency of participating in school-based activities—combining parent responses to questions about the three types of involvement that are most highly correlated: frequency of attending a school meeting, attending a school or class event, and volunteering at the school.
- Attendance at an IEP meeting.

The chapter then describes the student and family characteristics expected to relate to levels of family involvement. A presentation of the results from the multivariate analyses, including comparison of findings for families in the general population, concludes the chapter.

## Types of Family Involvement Included in Analyses

During a telephone interview, parents responded to closed-ended questions about three types of family involvement: at home, at school, and in the IEP process. Involvement in school differs from involvement at home in its barriers, facilitators, and benefits, as well as in how it affects student outcomes (Baker & Soden, 1998; Henderson & Mapp, 2002). Research with students in the general population has found that the relationship between family and youth characteristics and family involvement differs for different types of involvement (Eccles & Harold, 1996; Sui-Chu & Willms, 1996; Simon, 2001a). Because of these differences, the three types of families' participation in their children's education are considered separately.

**Helping with homework.** To assess family involvement in homework, parents were asked, "During this school year, how often did you or another adult in the household help [YOUTH NAME] with [his/her] homework? Would you say never, less than once a week, 1 to 2 times a week, 3 to 4 times a week, or 5 or more times a week?" Parents were provided the option to say that their child was not assigned homework. Those whose children were not assigned homework were not asked this item and are not included in the analysis of helping with homework.

A scale measuring the extent that parents help with homework was created, with scores ranging from 1 (never helps with homework) to 5 (helps with homework five or more times a week). The mean scale score for helping with homework is 3.3, with a standard error around the mean of .02. Chapter 2 describes levels of family involvement with homework.

**Involvement at school.** To assess family involvement at school, parents were asked the following questions:

> Since the beginning of this school year, have you or another adult in the household done each of the following at [YOUTH NAME's] school? Attend a general school meeting, for example, back to school night, or a meeting of a parent-teacher organization? Attend a school or class event, such as a play, sports event, or science fair? Volunteer at the school, for example, chaperoning a class field trip, or serving on a committee? Gone to a parent/teacher conference with [YOUTH NAME's] teacher, other than an Individualized Education Plan or IEP meeting?

Parents responded to each item in this series with a "yes" or "no." Those who said "yes" were then asked, "About how many times has that happened?" and were provided with a 4-point scale of "1-2 times" "3-4 times," "5-6 times," and "more than that."

Three of the four school-based involvement activities—participation in general school meetings or in school or class events, and volunteering at school—are included in the

multivariate analysis. Participation in parent-teacher conferences is not included in the scale for statistical purposes because family involvement in parent-teacher conferences is less correlated with each of the other types of school-based activities than they are correlated with each other.[2] As presented in Chapter 3, parent participation in parent-teacher conferences also differs from the other involvement activities in its relationship with family characteristics; for example, families of students with emotional disturbances or mental retardation are among the most likely to attend parent-teacher conferences but are among the least likely to participate in the three other types of school-based activities. Research with students in the general population also has found that participation in parent-teacher conferences is related to family and youth characteristics differently than other forms of involvement in school-based activities are (Deslandes et al., 1997; Sui-Chu & Willms, 1996).

The scale of the remaining three items ranges from 0 (is never involved in these activities) to 12 (has been involved in all three types of activities more than six times in the school year). The mean scale score is 3.1, with a standard error around the mean of .04. Involvement of families of secondary-school-age students in school-based activities is described in Chapter 3.

**Involvement in IEP meetings.** To assess involvement in the IEP process, parents were asked, "During this or last school year, did you or another adult in the household go to a meeting about an Individualized Education Plan, or IEP, for [his/her] special education program or services?" Parents' participation in IEP meetings is included in the multivariate analyses (logistic regression) as a dichotomous variable, with "yes" equaling 1 and "no" equaling 0. Family involvement in IEP meetings is discussed more fully in Chapter 3.

## Youth and Family Characteristics Included in Analyses

Theoretical models of family involvement have long asserted the importance of considering youth and family characteristics when examining the extent to which families support children's education and development (Bronfenbrenner, 1979; Epstein, 1987b; Epstein, 1994; Simon & Epstein, 2001). Most of the family and youth variables included in the NLTS2 analyses have been found to be related to variations in levels of family involvement for families of youth in the general population (Catsambis, 2002; Eccles & Harold, 1996; Grolnick et al., 1997; Kalyanpur, Harry, & Skrtic, 2000; Nord & West, 2001; Simon, 2001b). They are included in the multivariate analyses to learn how and whether they are related to the involvement of families of secondary-school-age students with disabilities. Also included are factors specific to youth with disabilities, including those related to their disabilities and functioning.

### *Youth Characteristics*

Family involvement has been found to be related to student characteristics, such as gender, age, abilities, and behaviors (e.g., Catsambis, 2002; Sui-Chu & Willms, 1996; Zellman & Waterman, 1998). The parent-child dyad is a complex, two-way relationship. Not only do parents affect their children, but children help shape their parents (Maccoby, Snow, & Jacklin, 1984). Including youth characteristics in the analyses is particularly important when examining the involvement of families of children with disabilities. Aspects of students' disabilities or functioning may be associated with differences in levels of involvement; for example, some

[2] Correlations among types of family involvement are presented in Appendix A.

disabilities have behavioral implications that might in turn influence their parents' behavior of helping with homework.

The following aspects of youths' abilities, disabilities, and demographic and school-related characteristics have been included in the analyses. Additional information on demographic characteristics of youth and their households can be found in Appendix B.

**Disability category.** Research has shown that youth with disabilities differ from each other on many dimensions; for example, youth with visual impairments have very different postsecondary education experiences than do youth with mental retardation (Wagner, D'Amico, Marder, Newman, & Blackorby, 1992). As presented in Chapters 2 and 3, family involvement in children's education at home and at school also differs across disability categories.

The assignment of youth to a disability category is based on the primary disability designated by the youth's school or district in the 2000-01 school year. Almost two-thirds (62%) of students receiving special education in the NLTS2 age group are classified as having a learning disability. Youth with mental retardation or emotional disturbances make up 12% and 11% of students, respectively. Another 5% of youth are classified as having other health impairments (many are students with attention deficit disorders), and 4% are identified as having speech impairments. The seven remaining disability categories each account for 1% or fewer of students and, together, make up about 5% of youth with disabilities (Wagner, Marder, Levine, et al., 2003).

The federally defined special education disability categories in use for secondary-school-age students are included in the multivariate analyses as dichotomous variables (i.e., an independent variable for each disability category, except for the learning disability category). In multivariate analyses, dichotomous variables such as these statistically contrast the effects of being in a category that is included in the analyses with being in a comparison category. Learning disability is the comparison category in NLTS2 multivariate analyses because it is the largest category and, therefore, most closely represents the experiences of students with disabilities as a whole.

**Number of domains influenced by disability.** The number of functional domains affected by disability indicates the breadth of the potential impact of disability on the youth. To assess the breadth of the functional impacts of youth's disabilities, parents were asked to report whether youth experience limitations in six areas: general health; vision; use of arms, hands, legs, and feet; speech production; understanding of speech; and participation in bidirectional communication. Parents of youth with disabilities report that half have problems in a least one area, whereas 8% have problems in four or more of these areas (Wagner, Blackorby, Marder, & Levine, 2003).

**Self-care skills.** To assess the independence of youth in caring for their fundamental physical needs, parents of youth with disabilities were asked to rate how well youth can feed and dress themselves without help on a 4-point scale that ranges from "not at all well" to "very well." A summative scale of abilities ranges from 2 (both skills done "not at all well") to 8 (both skills done "very well"). According to parents, the vast majority of youth feed and dress themselves on their own "very well"; only 3% and 6% feed and dress themselves "not very well" or "not at all well," respectively. Virtually all youth (94%) have a high self-care skills scale score (Cameto, Levine, & Wagner, 2003).

**Functional cognitive skills.** Parents were asked to use a 4-point scale that ranges from "not at all well" to "very well" to evaluate their children regarding four skills that often are used in daily activities: reading and understanding common signs, telling time on a clock with hands, counting change, and looking up telephone numbers and using the telephone. Parents report that approximately 90% of youth with disabilities read and understand common signs, about 80% count change, about 75% look up telephone numbers and use the telephone, and about 85% tell time on a clock "very well" or "pretty well" (Cameto et al., 2003).

**Behavior at home.** The behavior and social skills of youth with disabilities are assessed by asking parents to rate the frequency with which youth exhibit four aspects of social interactions at home: ending disagreements with parents calmly, receiving criticism well, behaving at home in a way that causes problems for the family, and speaking in an appropriate tone at home. These items were drawn from the Social Skills Rating System, Parent Form (Gresham & Elliott, 1990). Parents were asked to rate these behaviors on a 3-point scale: "never," "sometimes," or "always." More than half of youth with disabilities are reported to speak in an appropriate tone at home always, approximately one-third always end disagreements with parents calmly, 36% never behave at home in a problematic way, but only 17% always receive criticism well (Marder, Wagner, & Sumi, 2003).

A summative scale of home behavior was created by first reverse coding the "behaving at home in a way that causes problems" item and then summing the four items, yielding scores that range from 0 (parents indicated "never" to all four items) to 8 (parents indicated "very often" to all four items).

**Gender.** Whereas youth in the general population are split about evenly between boys and girls, almost two-thirds of youth with disabilities in the NLTS2 age range are boys. Further, it is also clear that gender is intertwined with the nature of youth's disabilities, with males accounting for a much higher proportion of some disability categories (e.g., autism, emotional disturbance) than others (e.g., hearing or visual impairment) (Marder, Levine, & Wagner, 2003). Including both gender and disability in multivariate analyses enables their independent relationships with family involvement variables to be identified.

**Age.** Youth with disabilities in NLTS2 were ages 13 through 17 when Wave 1 interview data were collected from parents. The age distribution of youth differs across disability categories (e.g., youth with speech impairments tend to be younger, on average, than other groups) (Marder, Levine, et al., 2003).

**Race/ethnicity.** The racial/ethnic background of youth was determined primarily from data provided by schools or districts. For youth for whom information was not provided by schools or districts, data were taken from the parent interview. Overall, 62% of youth with disabilities are white, 21% are African-American, 14% are Hispanic, and 3% have other or multiple racial/ethnic backgrounds. The racial/ethnic composition of most disability categories does not differ significantly from that of the general population of youth. However, African-Americans make up significantly larger proportions of youth with mental retardation (33%), emotional disturbance (25%), and autism (24%) than their proportion of the general population, and Hispanics make up a significantly larger proportion of youth with hearing impairments (17%) and significantly smaller proportions of youth with mental retardation (10%), other health impairments (8%), and autism (9%) than their proportion of the general population (Marder,

Levine, et al., 2003). Again, multivariate analyses permit the relationships of these factors to family involvement for youth with disabilities to be assessed independently.

**Neighborhood school attendance.** Parents were asked whether youth attend a school that is located in the neighborhood where they live. Overall, 72% of youth with disabilities attend a neighborhood school. Parents of the 1% of students who attend residential facilities are not included in the family involvement analyses because these parents were not asked the family involvement items.

**Participation in school activities outside of class.** Overall, 46% of youth with disabilities are reported by parents to have participated during the past year in school activities outside of class, such as sports teams, band or chorus, school clubs, or student government.

### *Family Characteristics*

Families bring a wide range of strengths and resources to bear in raising children and in providing the support and attention needed for academic success. Most families share a deep desire for their children to be successful, and most want to help their children succeed (Mapp, 2003; Scott-Jones, 1988). Families also differ in many ways, including differences in cultures and languages, number of parents and siblings in the household, work experiences, education and literacy levels, and levels of support. Many of these differences have long been associated with variations in levels of involvement (e.g., Kalyanpur & Harry, 1999). The following family characteristics are included in the multivariate analyses.

**Household income.** Household income is reported in categories (e.g., $25,001 to $30,000) rather than specific dollar amounts. The incomes of families of youth with disabilities range widely, with 19% living in households with annual incomes of $15,000 or less and 13% living in households with incomes of more than $75,000.

**Mother's education level.** Parents were asked to indicate the highest year or grade the youth's mother had completed in school. Responses were coded into 10 categories: 8th grade or less; 9th grade or above, not a high school graduate; high school graduate or GED; post-high-school education, no college degree; vocational-technical degree or certificate; 2-year college degree; 4-year college degree; some post-BA work with no degree; master's degree; professional degree. Using these categories, a 10-point scale was created. The educational levels of mothers of youth with disabilities vary widely. Mothers of 14% of youth have completed college, whereas 21% have not completed high school.

**Language spoken at home.** Parents were asked whether a language other than English is regularly spoken in the home. Overall, 14% of students with disabilities live in homes in which a language other than English is spoken regularly. This percentage varies by race/ethnicity, with 4% of white students and 7% of African-American students regularly speaking a language other than English at home, compared with 67% of Hispanic students.

**Number of parents in the household.** Youth with disabilities are less likely than youth in the general population to live with both parents. Sixty-one percent of students with disabilities live with two parents, whereas 74% of secondary students in the general population live with both parents (Wagner, Marder, Levine, et al., 2003).

**Mother's employment status.** Parents were asked whether the youth's mother "has a paid job now." Those who responded "yes" were then asked, "In an average week, about how many hours [does youth's mother] work for pay?" Those who were unable to provide the number of hours were asked whether the youth's mother usually works "less than 20 hours a week, 20 to 35 hours a week, or more than 35 hours a week." The responses for the three items were combined to create a three-category scale: (1) not employed; (2) employed part-time; (3) employed full-time. Full-time is defined as more than 35 hours a week; part-time is defined as working at all, but 35 hours a week or less. Because respondents were asked to report mother's employment status at the time the interview was conducted, the data do not necessarily reflect their employment status during the entire year. About half (51%) of mothers of secondary school students with disabilities are employed full-time, 21% are employed part-time, and 28% are not working outside the home.

**Number of children/siblings in the household.** Parents were asked to indicate the number of children living in the household. Approximately one-fourth of youth with disabilities are the only children in their households, about 60% live in households with two or three children, and 15% live in households with four or more children.

**Other children with disability in the household.** If there were other children living in the household, parents were asked whether any of these other children, not including the youth, "have any disability, developmental delay, special need, or condition?" Slightly more than one-third (36%) of secondary-school-age students with disabilities with siblings live in a household in which one or more other children also have a disability.

**Number of years family has lived in the community.** Parents were asked to report "How long has [YOUTH NAME] lived in the community?" Responses coded in number of months were converted to number of years. Overall, four-fifths of families of children with disabilities have lived in their communities at least 5 years, with 21% having lived in their community between 5 and 10 years, 35% 11 to 15 years, and 24% more than 15 years.

**Belonging to a support group for families of children with disabilities.** Parents were asked, "Do you or another household member belong to any support groups for children with disabilities or their families?" Fewer than 10% of families belong to a support group for families of children with disabilities.

**Family participation in OSEP-supported trainings and other trainings.** Parents were asked, "Have you, or anyone in your family, ever participated in any parent meetings, programs, or trainings for families of students with disabilities?" Those who responded "yes" were asked if "any of the meetings, programs, or trainings [were] sponsored by a parent training and information center, such as…." Names of parent centers for the state in which the respondent lived were displayed on the interviewer's screen and read to the respondent. Slightly more than one-quarter (28%) have participated in programs or trainings for families of students with disabilities. Of those who have participated in these types of trainings, 42% have attended trainings sponsored by OSEP Parent Training and Information Centers (PTIs).

In the multivariate analyses, a dichotomous variable is included for those who have ever participated in OSEP PTIs. A dichotomous variable also is included for those who have ever participated in other types of training. These two variables are mutually exclusive; if parents have participated in OSEP trainings, they are counted in the OSEP variable, whereas if they have

not participated in OSEP trainings but have participated in trainings, they are included in the "other trainings" variable.

**Parent satisfaction with child's school.** Parents were asked to rate their satisfaction with their child's school, teachers, special education services, education, and how well the school keeps the family informed about their child's behavior and academic performance. They were asked to use a 4-point scale, with responses including "very satisfied," "somewhat satisfied," "somewhat dissatisfied," and "very dissatisfied." Regarding satisfaction with the school overall, 37% are very satisfied, and 20% are somewhat/very dissatisfied. Forty-four percent are very satisfied with their child's teacher, and 14% are somewhat/very dissatisfied. Half are very satisfied with their child's special education services, and 16% are somewhat/very dissatisfied. Regarding students' overall education, 40% are very satisfied, and 14% are somewhat/very dissatisfied. More than half (53%) are very satisfied with how well the school keeps parents informed, and 16% are somewhat/very dissatisfied. Summing these five satisfaction items produces a scale that ranges from 0 (very dissatisfied with all four aspects of schooling) to 20 (very satisfied with all four aspects); the mean scale score is 12.8.

**Parents' expectations for children's postsecondary education.** Parents were asked to report their expectations that their adolescent children with disabilities will "attend school after high school," using a 4-point scale ranging from "definitely will" to "definitely won't." Overall, 25% of parents expect that their children definitely will attend postsecondary school, 37% think they probably will attend, and 38% feel they probably or definitely will not attend postsecondary school. Parents who thought their children would definitely or probably not graduate from high school were not asked the question about postsecondary school but are included in the analyses as "definitely will not attend school after high school."

**First request for special services for student.** Parents were asked whether they were the one who first asked for special services for their child in school, or whether school staff first suggested that the child might need services. For more than half of students (56%), school staff were the first to recommend services; for 41% of students, parents initiated the request for special services, and for 3% of the students, someone else first suggested that the students needed services.

## Characteristics Associated with Family Involvement

Multivariate regression analyses were conducted to explore the associations of these youth and family characteristics with family involvement at home, at school in general, and in the IEP process in particular. Results from these analyses illuminate the association of each variable with family involvement, controlling for other variables in the analyses. All of the factors noted above were included in the analyses; however, if they were not significant, they are not reported in the discussion below.[3] For each exhibit, an example of how to interpret the data is provided, using the first data presented in the exhibit's first row.

[3] Disability category variables are not included in the discussion, irrespective of their level of significance in the models. Bivariate relationships between disability category and parent involvement are described in Chapters 2 and 3. Appendix C presents the full findings, including disability category variables, coefficients, and $r^2$ values, related to the three regression models.

### *Individual Characteristics*

Individual characteristics, presented in Exhibits 4-1 through 4-3, include those associated with students' functioning, demographics, and school-related characteristics.

**Functioning.** Students' functional abilities and behavior are associated with differences in levels of family involvement at home and at school, but not their involvement in the IEP process (Exhibit 4-1).

- Students with limitations in a greater number of functional domains (i.e., health, vision, use of arms and hands, use of legs and feet, speech production, or participation in bidirectional communication) are likely to receive more help with homework, other factors being equal. The number of problem domains is not related to levels of family involvement in school-based and IEP activities.
- Students' self-care skills and functional cognitive skills are related in opposite directions to family involvement at home but are not related to family involvement at school.
- When other differences among students are held constant, those with stronger self-care skills (i.e., feeding and dressing themselves without help) are more likely to receive homework assistance.
- Conversely, the stronger students' functional cognitive skills, such as reading signs, telling time, and counting change very well, the less likely they are to receive frequent homework assistance from their parents.

**Exhibit 4-1**
**DIFFERENCES IN FAMILY INVOLVEMENT ASSOCIATED WITH FUNCTIONAL ABILITY CHARACTERISTICS OF YOUTH WITH DISABILITIES[a]**

| | Direction of Significant Difference in: | | |
|---|---|---|---|
| | Frequency of Helping with Homework | Participation in School-Based Activities Scale Score | Participation in Individualized Education Program |
| Number of problem domains (more vs. fewer) | **+*** ** | | |
| Self-care skills (high vs. low) | **+*** | | |
| Functional cognitive skills (high vs. low) | **–*** ** | | |
| Behaves well at home (very often vs. rarely) | **+*** ** | **+** ** | |

Source: NLTS2 Wave 1 parent interviews.

Exhibit reads: The frequency of helping with homework for families of youth with more problem domains is higher than for families of youth with fewer domains, controlling for other factors.

+ higher; – lower.

Blank cell = characteristic not significantly related to family involvement.

[a] Statistics in this exhibit are calculated from models that include all functional ability characteristics shown in this table, as well as disability categories (not included in exhibits), demographic and school-related characteristics (results shown in Exhibits 4-2 and 4-3), household characteristics (results shown in Exhibit 4-4), demands on and supports for families (results shown in Exhibits 4-5 and 4-6), and family perceptions and relationships among different types of involvement (results shown in Exhibits 4-7 and 4-8).

*p<.05; **p<.01; ***p<.001.

The relationship between functional cognitive skills and involvement for families of students with disabilities mirrors that for families in the general population. Research with families in the general population has found that students who have lower reading and math achievement scores and lower IQs are more likely to receive parental help with homework

(Milne, Myers, Rosenthal, & Ginsburg, 1986; Muller, 1993; Zellman & Waterman, 1998). Similar to their peers, students with disabilities who have weaker functional cognitive skills are more likely to receive homework assistance.

Positive youth behaviors at home—ending disagreements with parents calmly, receiving criticism well, behaving in a way that rarely causes problems for their family, and speaking in an appropriate tone at home—are consistently related to higher levels of family involvement at home and at school.

- When controlling for disability category and other student differences, those who are rated as behaving well at home are more likely to receive homework assistance and to have parents who participate in school-based activities.

Youth behavior has been found to be a predictor of parent involvement for students in the general population as well. Other studies have found that parents who describe their children's behavior as being more difficult are less likely to be involved both at home and at school (Grolnick, Apostoleris, & Rosen, 1995; Sui-Chu & Willms, 1996). Clearly, it can be difficult to sit across the kitchen table from a child with conduct disorder and try to help with math problems. In addition, whereas parents are more likely to be involved in school activities when their children are participating in them (Epstein, 2001), children with negative behaviors often do not participate in the types of extracurricular activities at school, such as theater, sports, or school events, that frequently bring families to school (Wagner, Cadwallader, et al., 2003).

**Demographics.** Both age and gender are related to family involvement at home and at school, but not to involvement in the IEP process (Exhibit 4-2).

- Parents of older students are consistently less likely to be involved, both at home and at school.

Family involvement is lower for older students in studies of the general population as well (Ames, deStefano, Watkins, & Sheldon, 1995; Burke, 2001; Cooper et al., 2000; Crosnoe, 2001; Dauber & Epstein, 1993); not only does participation decline as students move from elementary to secondary schools, but it continues to decline as students progress through secondary schools.

Multiple factors may contribute to this decline as families and students mature and change, including adolescents' growing need for independence, the increasingly technical content of homework, and the organization and policies of secondary schools. Schools attended by secondary-school-age students with disabilities use significantly fewer strategies to reach out to families and encourage involvement than do elementary schools. For example, 44% of elementary-age and middle-school-age students attend schools that offer services to support parent involvement, such as child care or transportation, compared with only 12 percent of secondary-school-age students.[4]

- Parents of daughters are more likely than parents of sons to be involved in their schooling, both at home and at school, independent of differences in disability and other factors.

[4] Unpublished data from Wave 1 of U.S. Department of Education SEELS (www.seels.net) and NLTS2.

**Exhibit 4-2**
**DIFFERENCES IN FAMILY INVOLVEMENT ASSOCIATED WITH DEMOGRAPHIC CHARACTERISTICS OF YOUTH WITH DISABILITIES[a]**

| | Direction of Significant Difference in: | | |
|---|---|---|---|
| | Frequency of Helping with Homework | Participation in School-Based Activities Scale Score | Participation in Individualized Education Program |
| Age (older vs. younger) | **–*** ** | **–*** ** | |
| Gender (female vs. male) | **+** ** | **+* ** | |
| Race/ethnicity | | | |
| African-American vs. white | **+*** ** | **–* ** | **–*** ** |
| Hispanic vs. white | **–* ** | | **–*** ** |
| Other or multiple race/ethnicity vs. white | | **–** ** | |

Source: NLTS2 Wave 1 parent interviews.

Exhibit reads: The frequency of helping with homework is lower for families of older students than for families of younger students, other factors being equal.

+ higher; – lower.

Blank cell = characteristic not significantly related to family involvement.

[a] Statistics in this exhibit are calculated from models that include all demographic characteristics shown in this table, as well as disability categories (not included in exhibits), functional ability characteristics (results shown in Exhibit 4-1), school-related characteristics (results shown in Exhibit 4-3), household characteristics (results shown in Exhibit 4-4), demands on and supports for families (results shown in Exhibits 4-5 and 4-6), and family perceptions and relationships among different types of involvement (results shown in Exhibits 4-7 and 4-8).

*p<.05; **p<.01; ***p<.001.

Parents of secondary-school-age daughters in the general population also are more likely to help with homework and to be involved at school (Carter & Wojtkiewicz, 2000; Grolnick et al., 1995; Sui-Chu & Willms, 1996). It is interesting to note that for both students with disabilities and those in the general population, when students are in elementary school, parents of sons are more likely than parents of daughters to be involved in supporting their children's educational development (Cooper et al., 2000; Newman, 2004).

**Race/ethnicity.** Differences in race and ethnicity are associated with differences in family participation at home, at school, and in the IEP process.

- Families of Hispanic students are less likely than those of white students to be involved in home-based education-related activities.
- Families of African-American students are more likely to help with educational activities at home than families of white students, although they are less likely to be involved at school, when controlling for other youth and family characteristics, such as income and mother's education level.

In this way, as in many others, parents of students with disabilities are similar to their peers in the general population. Research focusing on students in the general population has found that African-American youth have families who are more likely to be involved at home than their white peers but are less likely to be involved at school (Keith & Keith, 1993; Sui-Chu & Willms, 1996).

- Families of African-American and Hispanic students are less likely than families of white students to participate in the IEP process.

These findings support concerns some have voiced that IEP participation maybe particularly problematic for culturally diverse families whose beliefs and values may differ from those held by school staff and the mainstream culture (Harry, 1992, 2002; Kalyanpur et al., 2000).

**School-related characteristics.** When students attend neighborhood schools and are part of their schools' social fabric, their families are more likely to participate in school-based activities (Exhibit 4-3).

More than one-quarter of students with disabilities do not attend schools located in the neighborhood where they live.[5] School proximity is clearly a factor related to whether a family is involved at school.

- Students whose educational placements are in their neighborhood schools are more likely to have families who participate at the school and attend IEP meetings than are those who attend schools that are farther away, other factors being equal.

**Exhibit 4-3**
**DIFFERENCES IN FAMILY INVOLVEMENT ASSOCIATED WITH SCHOOL-RELATED CHARACTERISTICS OF YOUTH WITH DISABILITIES[a]**

| | Direction of Significant Difference in: | | |
|---|---|---|---|
| | Frequency of Helping with Homework | Participation in School-Based Activities Scale Score | Participation in Individualized Education Program |
| Youth attends neighborhood school (yes vs. no) | | **+*** ** | **+** ** |
| Youth participates in school activities outside of class (yes vs. no) | NA | **+*** ** | |

Source: NLTS2 Wave 1 parent interviews.

Exhibit reads: The frequency of participating in school-based activities is higher for families of students who attend neighborhood schools than for families of students who do not attend neighborhood schools, controlling for other factors.

+ higher; – lower. NA = not included in analysis.

Blank cell = characteristic not significantly related to family involvement.

[a] Statistics in this exhibit are calculated from models that include all school-related characteristics shown in this table, as well as disability categories (not included in exhibits), functional ability characteristics (results shown in Exhibit 4-1), demographic characteristics (results shown in Exhibit 4-2), household characteristics (results shown in Exhibit 4-4), demands on and supports for families (results shown in Exhibits 4-5 and 4-6), and family perceptions and relationships among different types of involvement (results shown in Exhibits 4-7 and 4-8).

**p<.01; ***p<.001.

Student participation in extracurricular activities at school also is associated with family involvement at school, although not in the IEP process. As presented in Chapter 3, parents who participate in school-based activities are most often there for school or class events—activities such as student performances and sports activities. Families of students with disabilities, as well as those in the general population, are more motivated to attend these events when their children are participants.

- Families of students who are actively involved in extracurricular activities at school, such as sports teams, band or chorus, school clubs, or student government, are more likely to be involved at school than are families of students who do not participate in these types of activities, holding other factors constant.

[5] Parents of the 1% of students who attend residential facilities are not included in the family involvement analyses because these parents were not asked the family involvement items.

### *Family Characteristics*

Beyond differences in their children's characteristics, families differ in many ways, including income, mother's educational attainment, and language spoken at home. As indicated in Exhibits 4-4 through 4-8, several aspects of students' households are related to differences in levels of involvement.

**Income and mother's educational level.** Income and the educational attainment of mothers of students with disabilities are strongly related to family involvement (Exhibit 4-4).

- ❖ Holding other family and child factors constant, wealthier families are more likely to be involved at school and participate in the IEP process.
- ❖ In contrast, wealthier families are less likely to be involved at home, which might be due in part to their hiring tutors to help with homework.
- ❖ Children with better-educated mothers are more likely to have families who are involved in their education across multiple settings—at home, at school, and in the IEP process.

Except for the lower likelihood of wealthier families' being involved at home, these findings are consistent with findings for the general population, which indicate that wealthier and better-educated parents are more likely to be involved in their children's education (Coleman, 1987; Gavidia-Payne & Stoneman, 1997; Grolnick et al., 1997; Hickman, Greenwood, & Miller, 1995; Lareau, 2000).

**Exhibit 4-4**
**DIFFERENCES IN FAMILY INVOLVEMENT ASSOCIATED WITH HOUSEHOLD CHARACTERISTICS OF YOUTH WITH DISABILITIES[a]**

| | Direction of Significant Difference in: | | |
|---|---|---|---|
| | Frequency of Helping with Homework | Participation in School-Based Activities Scale Score | Participation in Individualized Education Program |
| Household income (higher vs. lower) | **–*** ** | **+*** ** | **+*** ** |
| Mother's education level (higher vs. lower) | **+** ** | **+*** ** | **+* ** |
| Primarily speak a language other than English at home (yes vs. no) | | | |

Source: NLTS2 Wave 1 parent interviews.

Exhibit reads: The frequency of helping with homework is lower for families with household incomes between $55,000 and $60,000 than for families with incomes between $20,000 and $25,000, other factors held constant.

+ higher; – lower.

Blank cell = characteristic not significantly related to family involvement.

[a] Statistics in this exhibit are calculated from models that include all household characteristics shown in this table, as well as disability categories (not included in exhibits), functional ability characteristics (results shown in Exhibit 4-1), demographic and school-related characteristics (results shown in Exhibits 4-2 and 4-3), demands on and supports for families (results shown in Exhibits 4-5 and 4-6), and family perceptions and relationships among different types of involvement (results shown in Exhibits 4-7 and 4-8).

*p<.05; **p<.01; ***p<.001.

**Primary language spoken at home.** When using a multivariate approach to analyzing the NLTS2 data, speaking a language other than English at home is not related to differences in levels of families' support for their children's education at home or at school. NLTS2 interviews were conducted only in English or Spanish; therefore, most families who report they primarily speak a language other than English at home, speak Spanish. Multivariate analyses already account for differences in family involvement related to being Hispanic; therefore, when speaking primarily Spanish at home is included in the multivariate analyses, it is not associated with differences in family involvement beyond those already found for being Hispanic.

Research with students in the general population frequently uses a bivariate approach—looking only at the relationship between language and involvement, and not taking other factors into account—instead of a multivariate approach to analyze family involvement data. These studies have found that primarily speaking a language other than English at home is related to differences in levels of family involvement (Delgado-Gaitan, 1991; Pena, 2000; Tinkler, 2002). Analysis of NLTS2 data with a bivariate approach corroborates the findings of these other studies. Crosstabulations of primary language spoken at home and frequency of helping with homework indicate that 33% of NLTS2 families who primarily speak a language other than English at home assist with homework less than once a week, compared with 22% of families where English is the primary language at home ($p<.05$).

**Demands on families.** None of the family stressors included in these analyses are related to family involvement in the IEP process, but several are associated with other types of family support for education, when other differences among students and families are held constant (Exhibit 4-5).

- Students with disabilities living in two-parent households are more likely to have families who are involved in education-related activities at home and at school than are their peers in single-parent households, other factors being equal.

Having two parents in the household is linked to increased parent involvement both at home and at school for families of youth in the general population as well (Grolnick et al., 1997; Milne et al., 1986; Nord & West, 2001; Sui-Chu & Willms, 1996).

- Students who have more siblings are less likely to receive homework support.

**Exhibit 4-5**
**DIFFERENCES IN FAMILY INVOLVEMENT ASSOCIATED WITH DEMANDS ON FAMILIES OF YOUTH WITH DISABILITIES[a]**

| | Direction of Significant Difference in: | | |
|---|---|---|---|
| | Frequency of Helping with Homework | Participation in School-Based Activities Scale Score | Participation in Individualized Education Program |
| Number of parents in the household (2 vs. 1) | **+**** | **+*** | |
| Mother's employment status (full-time vs. not employed) | | | |
| Number of children in the household (more vs. fewer) | **–***** | **+***** | |
| Other children with a disability (yes vs. no) | | | |

Source: NLTS2 Wave 1 parent interviews.

Exhibit reads: The frequency of helping with homework in two-parent families is higher than in one-parent families, other factors held constant.

+ higher; – lower.

Blank cell = characteristic not significantly related to family involvement.

[a] Statistics in this exhibit are calculated from models that include all demands on families shown in this table, as well as disability categories (not included in exhibits), functional ability characteristics (results shown in Exhibit 4-1), demographic and school-related characteristics (results shown in Exhibits 4-2 and 4-3), household characteristics (results shown in Exhibit 4-4), supports for families (results shown in Exhibit 4-6), and family perceptions and relationships among different types of involvement (results shown in Exhibits 4-7 and 4-8).

*p<.05; **p<.01; ***p<.001.

Although it appears that students with more siblings are more likely to have parents who are involved in activities at school, the relationship of number of children to school-based involvement could be an artifact of the way this item is worded, in that parents could include visits to the school for other children in the family when describing school involvement. Indeed, research with families in the general population has found that as the number of children in the household increases, parent involvement at home and at school decreases (Revicki, 1981; Sui-Chu & Willms,1996).

Other demands that one might expect to limit parents' time for supporting students' learning are unrelated to levels of involvement, when other student and family differences are held constant.

- Mothers who work outside the home are no more or less likely than those who stay at home to be involved in their children's educational development, both in their frequency of helping with homework and their participation in school-based activities or IEP meetings.
- Having another child in the household with a disability also is unrelated to levels of family involvement.

Research with families of students in the general population also does not find any relationship between mother's employment and parent involvement (Grolnick et al., 1997; Zill & Nord, 1994). Although Zill and Nord found that mothers who work part-time are more involved in school-related activities than both mothers who work full-time and mothers who are full-time homemakers, NLTS2 does not find a significant difference when part-time and full-time employment are included separately in analyses.

**Family supports.** Families who have the benefit of social supports and supports that provide training and information are more likely to be involved in several aspects of their children's education, when other differences among students and families are held constant (Exhibit 4-6).

- The longer families live in the same community, the more likely they are to help with homework and participate in school-based activities, although they are less likely to participate in the IEP process.
- Belonging to a support group for families of children with disabilities also is positively associated with family involvement at home and at school, although it is not associated with any difference in IEP participation.
- Families who attend OSEP-supported (i.e., parent center) trainings or trainings sponsored by other entities are more likely to be involved at school and to attend IEP meetings, other factors being equal.

Trainings and group activities provide parents with the information and support they need to be actively involved in their children's education. In this way, as in many others, they are similar to their peers in the general population, among whom social supports also have been linked to increased levels of school involvement (Brantlinger, 1991; Gavidia-Payne & Stoneman, 1997).

**Exhibit 4-6**
**DIFFERENCES IN FAMILY INVOLVEMENT ASSOCIATED WITH SUPPORTS FOR FAMILIES OF YOUTH WITH DISABILITIES[a]**

| | Direction of Significant Difference in: | | |
|---|---|---|---|
| | Frequency of Helping with Homework | Participation in School-Based Activities Scale Score | Participation in Individualized Education Program |
| Number of years family has lived in the community (15 years vs. 1 year) | **+*** ** | **+*** ** | **–** ** |
| Belongs to support group for families of children with disabilities (yes vs. no) | **+** ** | **+*** ** | |
| Family participation in OSEP-supported trainings (yes vs. no) | | **+*** ** | **+** ** |
| Family participation in other trainings (yes vs. no) | | **+*** ** | **+** ** |

Source: NLTS2 Wave 1 parent interviews.

Exhibit reads: The frequency of helping with homework for families who have lived for a long time in their community is higher than for families who have lived in the community for a shorter time, controlling for other factors.

+ higher; – lower.

Blank cell = characteristic not significantly related to family involvement.

[a] Statistics in this exhibit are calculated from models that include all support characteristics shown in this table, as well as disability categories (not included in exhibits), functional ability characteristics (results shown in Exhibit 4-1), demographic and school-related characteristics (results shown in Exhibits 4-2 and 4-3), household characteristics (results shown in Exhibit 4-4), demands on families (results shown in Exhibit 4-5), and family perceptions and relationships among different types of involvement (results shown in Exhibits 4-7 and 4-8).

**p<.01; ***p<.001.

**Families' perceptions**. How families feel about their children and their children's schools also influences their involvement. Families' expectations for their children's postsecondary school attendance and their satisfaction with their children's current schools are both associated with differences in levels of family involvement (Exhibit 4-7).

- ❖ Students who are thought to be more likely to attend postsecondary school are less likely to receive homework help, other factors being equal.
- ❖ Conversely, parents who hold higher expectations related to their children's postsecondary educational attainment are more likely to be involved in activities at school.

In this regard, they are comparable to their peers in the general population, among whom parent expectations have been found to be an important predictor of parent involvement at school (Coots, 1998; Mutua & Dimitrov, 2001).

Family satisfaction with their children's schools is also related to family involvement.

- ❖ The more satisfied families are with their children's schools, the less likely they are to spend time on homework support.

Neither family expectations nor satisfaction with their children's schools is related to differences in levels of participation in IEP meetings.

**Exhibit 4-7**
**DIFFERENCES IN FAMILY INVOLVEMENT ASSOCIATED WITH PERCEPTIONS OF FAMILIES OF YOUTH WITH DISABILITIES[a]**

| | Direction of Significant Difference in: | | |
|---|---|---|---|
| | Frequency of Helping with Homework | Participation in School-Based Activities Scale Score | Participation in Individualized Education Program |
| Expectations for child's postsecondary attendance (definitely will vs. probably won't) | **–*** | **+*** | |
| Satisfaction with child's school (very satisfied vs. very dissatisfied) | **–*** | | |

Source: NLTS2 Wave 1 parent interviews.

Exhibit reads: The frequency of helping with homework for families who expect their children to attend a postsecondary school is lower than for families who do not expect their children to attend a postsecondary school, other factors being equal.

+ higher; – lower.

Blank cell = characteristic not significantly related to family involvement.

[a] Statistics in this exhibit are calculated from models that include all perceptions shown in this table, as well as disability categories (not included in exhibits), functional ability characteristics (results shown in Exhibit 4-1), demographic and school-related characteristics (results shown in Exhibits 4-2 and 4-3), household characteristics (results shown in Exhibit 4-4), demands on and supports for families (results shown in Exhibits 4-5 and 4-6), and family involvement in other types of activities (results shown in Exhibit 4-8).

*p<.05; ***p<.001.

**Relationships among types of involvement.** Clearly, parents who feel they should be involved in their children's education have this value, regardless of whether the involvement is at home, in school-based activities, or in the IEP process. These NLTS2 findings support research findings for students in the general population (Hoover-Dempsey & Sandler, 1997) and suggest that families who decide to be involved are involved in many ways and across multiple settings (Exhibit 4-8).

- Families who were the first to advocate for special services in school for their children are more likely to continue to be involved in their children's educational development than families of students for whom school staff were the first to suggest the need for services, other factors being equal.
- Families who are involved at home are more likely to participate at school and in IEP meetings.
- Those who are involved at school are more likely to provide homework assistance and attend IEP meetings.
- Those involved in the IEP process are more likely to be involved at home and at school, when other differences among students and families are held constant.

**Exhibit 4-8**
**DIFFERENCES IN FAMILY INVOLVEMENT ASSOCIATED WITH FAMILIES OF YOUTH WITH DISABILITIES' TYPES OF INVOLVEMENT[a]**

| | Direction of Significant Difference in: | | |
|---|---|---|---|
| | Frequency of Helping with Homework | Participation in School-Based Activities Scale Score | Participation in Individualized Education Program |
| Family was the first to ask for special services for child (yes vs. no) | **+*** | **+***** | **+*** |
| Family involvement at home (high vs. low) | NA | **+***** | **+***** |
| Family involvement at school (high vs. low) | **+***** | NA | **+***** |
| Involvement in IEP (yes vs. no) | **+***** | **+***** | NA |

Source: NLTS2 Wave 1 parent interviews.

Exhibit reads: The frequency of helping with homework for families who were the first to ask for special services for their child is higher than for families where school staff were the first to suggest the child needed services, controlling for other factors.

+ higher; – lower. NA = not included in analysis.

[a] Statistics in this exhibit are calculated from models that include all other types of involvement shown in this table, as well as disability categories (not included in exhibits), functional ability characteristics (results shown in Exhibit 4-1), demographic and school-related characteristics (results shown in Exhibits 4-2 and 4-3), household characteristics (results shown in Exhibit 4-4), demands on and supports for families (results shown in Exhibits 4-5 and 4-6), and family perceptions (results shown in Exhibit 4-7).

*p<.05; ***p<.001.

## Summary

Although family involvement in the educational development of children with disabilities is multidimensional, included in the analyses reported here were helping with homework, participating in school-based activities, and attending IEP meetings. These aspects of involvement are strongly related to each other; parents who participate actively in one way are likely to participate actively in others. Nonetheless, some youth and family characteristics are

related to variations in levels of these forms of family involvement in the same way, whereas other factors relate differently, as summarized below.

Supporting the notion that students are important participants in parent-child dynamics, several characteristics of students with disabilities are related to the participation of their families in their educational development, when controlling for other differences.

- Families of those experiencing problems in more domains and having lower functional cognitive skills are more likely to help with homework than families of students with fewer impairments.
- Negative youth behavior is related to lower levels of family involvement at school and at home.
- Involvement in home- and school-based activities is lower among families of older students with disabilities.
- Parents of daughters in secondary school are more likely than parents of sons to help with homework and to be involved at school.
- Neither age nor gender is related to parent participation in the IEP process.
- Families of Hispanic students are less likely than families of white students to be involved in home-based education-related activities.
- African-American students have families who are more likely to be involved at home than their white peers but less likely to be involved at school and to attend IEP meetings.
- Students who attend their neighborhood schools are more likely to have families who participate at the school and attend IEP meetings than are those who attend schools not located in their local area.
- Families of students who are actively involved in extracurricular activities at school are more likely to participate in school-based activities.

In addition to the relationships between family involvement and student characteristics, levels of involvement also relate to characteristics of families themselves.

- Having more family resources—higher incomes or higher levels of parental educational attainment—is associated with higher levels of involvement of all kinds.
- Families with two parents in the household are more likely than single-parent families to be involved at home and at school.
- Having external supports is related to more frequent family participation. Those who belong to support groups for families of children with disabilities and those who participate in OSEP-supported or other types of training are more likely to support their children's educational development.
- Families with higher expectations for their children's postsecondary educational attainment are less likely to help with homework but more likely to be involved at school than families of youth with disabilities who are less optimistic for their children's continued education.

- The more satisfied families are with their children's schools, the less likely they are to spend time on homework support.

Families of students who receive special education services often deal with issues unique to parenting these students, including participation in the IEP process. However, the relationship between their characteristics and their levels of involvement mirror those of other families in many ways. Variations in levels of participation associated with differences in youth's cognitive abilities, behavior, age, gender, race/ethnicity, family income, mother's educational attainment, number of parents and siblings in the household, and level of social support for families of students with disabilities parallel those of families of students in the general population.

This chapter has examined the relationships between student and family characteristics and levels of family involvement in activities at home and at school that support students' learning. Family expectations regarding their children's future achievements have been identified as a factor that is associated with students' academic success. Chapter 5 provides greater detail regarding parents' expectations for their children's educational attainment and independence.