

Archived Information

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Educational Environments for Students with Disabilities

Each year, the Office of Special Education Programs (OSEP) collects data from States on the number of students with disabilities served in different educational environments. These data help OSEP monitor compliance with the least restrictive environment (LRE) clause of the Individuals with Disabilities Education Act (IDEA) and inform advocates, parents, and researchers of the extent to which students with disabilities are educated with their nondisabled peers. In 1998-99, OSEP began collecting placement data by race/ethnicity. The disproportionate placement of racial and ethnic minorities in more restrictive environments has been documented in the special education literature for over 10 years (Valdes, Williamson, & Wagner, 1990). More recently, research has confirmed that minority special education students are more likely to be educated in restrictive environments (Parrish as cited in "Tracking Urged to Stem," 2001). This module presents further evidence of differences in educational environments between racial and ethnic groups.

In 1998-99, States began using new categories to collect data on the environments in which children ages 3 through 5 with disabilities received services. Concerns were raised over the applicability of the old categories to a younger population. After an analysis of State reporting practices and definitions, eight new preschool environment categories were established: early childhood setting, early childhood special education setting, home, part-time early childhood/part-time early childhood special education setting, residential facility, separate school, itinerant services outside the home (optional), and reverse mainstream setting (optional). In addition, States were required to report the location where children receive special education services, not educational services in general. For example, a child who spent 5 days a week in a regular education kindergarten and received 1 hour of special education per week in a separate school would previously have been reported as served outside the regular class for less than 21 percent of the school day. Under the new reporting categories, that child would be reported only as served in a separate school. Data on the number and percentage of children ages 3 through 5 with disabilities served in these environments are presented in tables AB1 and AB9.

This module summarizes the educational environment data submitted by the States for 1998-99. It describes the educational environments in which students with disabilities were served and changes over time in the percentage of students served in various environments. It also explores factors such as age, race, and disability category that are related to the educational environments in which students receive services.

Table III-1

Percentage of Students Ages 6 Through 21 with Disabilities Educated Outside the Regular Class Less than 21 Percent of the School Day and the Percentage Served in Regular School Buildings: 1984 to 1998

School Year	Outside the Regular Class <21% of the Day	Regular School Buildings
1984-85	24.6	93.0
1985-86	25.5	93.1
1986-87	26.4	93.9
1987-88	28.9	93.6
1988-89	30.5	93.8
1989-90	31.5	93.9
1990-91	32.8	94.4
1991-92	34.9	94.7
1992-93	39.8	94.9
1993-94	43.4	95.6
1994-95	44.5	95.7
1995-96	45.3	95.6
1996-97	45.8	95.7
1997-98	46.4	95.9
1998-99	47.4	95.9

Source: U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS).

Trends in the Data

The percentage of students ages 6 through 21 with disabilities served in both regular schools and in regular education classes within those schools has continually increased. During the 1984-85 school year, only one-quarter of students with disabilities were served outside the regular class less than 21 percent of the school day. By 1998-99, that percentage had increased to almost half (47.4 percent) (see table III-1 and table AB2). Virtually all students (96 percent) are now served in regular school buildings. During the 1998-99 school year, 2.9 percent of students with disabilities were educated in public and private separate day schools; 0.7 percent were educated in public and private residential facilities; and 0.5 percent were educated in home/hospital environments (see table AB2).

Factors Associated with Educational Environments

Educational environments for students with disabilities vary by age, race, and disability category. This section summarizes data on educational environments taking into account these various factors.

Age

During the 1998-99 school year, 80.8 percent of students ages 6 through 11, 72.3 percent of students ages 12 through 17, and 58.8 percent of students ages 18 through 21 were served outside the regular classroom for 60 percent or less of the school day (see tables AB3, AB4, and AB5). Over the past 8 years, progress in serving students in less restrictive settings has continued across all age groups. From 1989-90 to 1998-99, the percentage of students who received special education and related services outside the regular class for less than 21 percent of the school day rose 15.2 percent for students ages 6 through 11 (from 42.0 percent to 57.2 percent), 18.1 percent for students ages 12 through 17 (from 20.3 percent to 38.4 percent), and 14.9 percent for students ages 18 through 21 (from 16.2 percent to 31.1 percent) (see table AB7).

Race/Ethnicity

During the 1998-99 school year, States reported data on educational environments by race/ethnicity for the first time. Table AB10 presents the numbers and percentages for each environment by race/ethnicity. Of the students ages 6 through 21 served outside the regular classroom for less than 21 percent of the school day, 70.1 percent were white; 14.3 percent were black; 12.4 percent were Hispanic; 1.8 percent were Asian or Pacific Islander; and 1.3 percent were American Indian or Alaska Native. These percentages differ somewhat from the racial/ethnic breakdown for the total population of students with disabilities. Sixty-three percent of the total number of students served during the 1998-99 school year were white; 19.5 percent were black; 14.3 percent were Hispanic; 1.8 percent were Asian or Pacific Islander; and 1.3 percent were American Indian or Alaska Native.

The racial/ethnic distribution of students served in correctional facilities represents an even further departure from the total population percentages. Of the students served in correctional facilities, 38.9 percent were white, 40.6 percent were black, 17.1 percent were Hispanic, 1.6 percent were Asian or Pacific Islander, and 1.7 percent were American Indian or Alaska Native (see table AB10).¹

¹ The percentages included in table AB10 are based on the total number of students within the placement.

Table III-2
Percentage of Students Ages 6 Through 21 with Disabilities Served in
Different Educational Environments: 1998-99

	American Indian/ Alaska Native	Asian/ Pacific Islander	Black	Hispanic	White
Served Outside the Regular Class					
< 21% of the day	48.2	47.0	34.8	41.2	52.5
21 to 60% of the day	34.4	26.6	28.2	29.1	28.4
>60% of the day	14.6	22.2	31.5	26.1	15.3
Separate School	1.5	3.1	4.2	2.6	2.7
Residential Facility	0.9	0.6	0.9	0.5	0.6
Home/Hospital	0.4	0.5	0.5	0.6	0.5

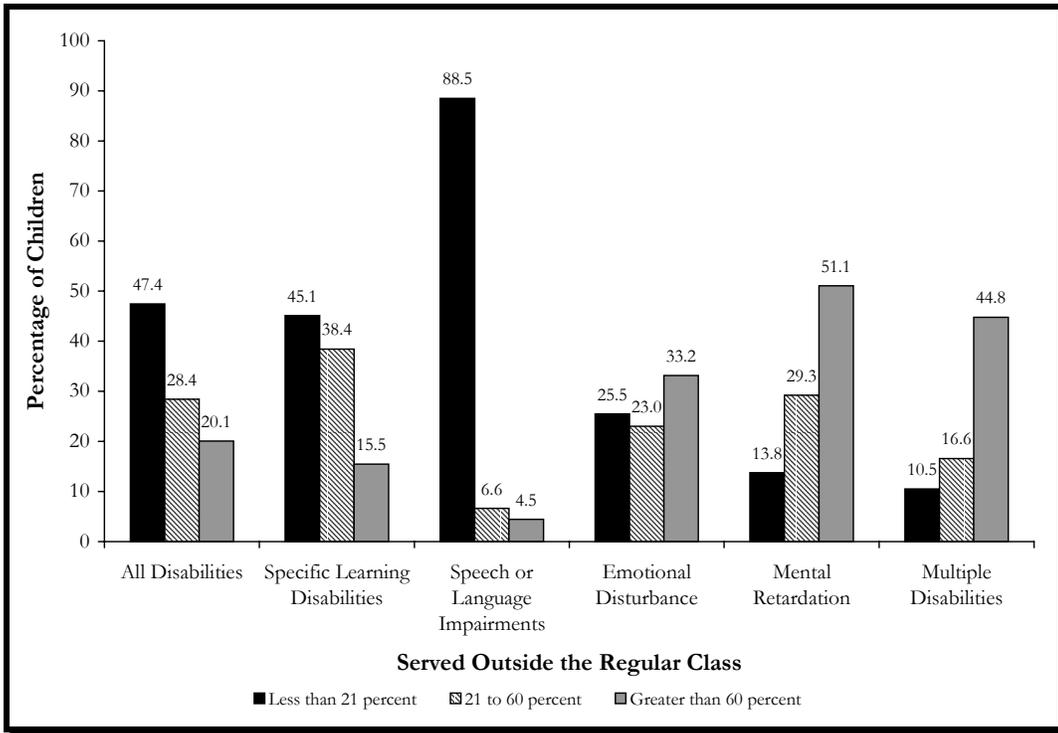
Source: U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS).

The data on educational environments by race/ethnicity can also be examined by looking at the total number of students in each racial/ethnic group served in a given environment (see table III-2). Approximately 80.9 percent of white students, 70.3 percent of Hispanic students, 63.0 percent of black students, 73.6 percent of Asian or Pacific Islander students, and 82.6 percent of American Indian or Alaska Native students were served outside the regular class for 60 percent or less of the school day.

Disability

Settings continued to vary across disability categories during the 1998-99 school year. Figure III-1 shows the percentage of students with high-incidence disabilities (those with a child count over 100,000) served in various settings within regular schools. Students with speech or language impairments and specific learning disabilities continued to be predominantly served in the regular classroom for most of the school day. Students with emotional disturbance, mental retardation, and multiple disabilities were more likely to receive services outside the regular classroom for more than 60 percent of the school day.

Figure III-1
Percentage of Children Ages 6 Through 21 with High-Incidence Disabilities Served in Regular School Buildings During the 1998-99 School Year



Source: U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS).

Summary

Overall, progress continues to be made in educating students with disabilities in less restrictive environments. However, differences in placement between racial and ethnic groups may need further examination to identify potential explanations for variations in placements.

References

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Valdes, K.A., Williamson, C.L., & Wagner, M.M. (1990). *The National Longitudinal Transition Study of Special Education Students, Statistical almanac, Volume 1: Overview*. Menlo Park, California: SRI International.

Family Involvement in the Education of Elementary and Middle School Students Receiving Special Education

In the mid-1990s, a summary of the results of research on family involvement in children's education concluded:

“The evidence is now beyond dispute. When schools work together with families to support learning, children tend to succeed not just in school, but throughout life. In fact, the most accurate predictor of a student's achievement in school is not income or social status, but the extent to which that student's family is able to: create a home environment that encourages learning, express high (but not unrealistic) expectations for their children's achievement and future careers, . . . [and] become involved in their children's education at school and in the community” (Henderson & Berla, 1994, p. 1).

Family involvement in education can create a powerful, shared commitment to learning among students, parents, and educators. Family involvement fosters this commitment by encouraging mutual support between families and teachers, strengthening links between school and home, and creating a shared value regarding the importance of education. Recognizing the importance of family-school partnerships, recent education reform efforts have sought to tap the contributions of families as part of their strategy to improve results. In fact, a large majority of public elementary schools sponsor a variety of activities to encourage parent involvement, and more than 90 percent give parents opportunities to volunteer inside and outside the classroom, to assist in fundraising, and to participate in a parent-teacher organization (Carey, Lewis, Farris, & Burns, 1998).

The principle of family involvement in education has been an important part of the philosophy and practice of the special education field since the 1970s. Indeed, parent advocacy has played an important role in shaping the evolution of the Individuals with Disabilities Education Act (IDEA). The IDEA Amendments of 1997 reiterate the emphasis on parent involvement through provisions related to participation in eligibility determination, individualized education program (IEP) development, and transition planning; parent consent to periodic reevaluations of students; protections of due process rights; and strengthening family-school connections by ensuring

regular reporting to parents of students' school performance. Still, family involvement is not easy to achieve or sustain. Indeed, the Office of Special Education Programs (OSEP) has long invested in parent information activities, including parent training and information centers, to help parents understand their rights under IDEA and how to advocate for their children.

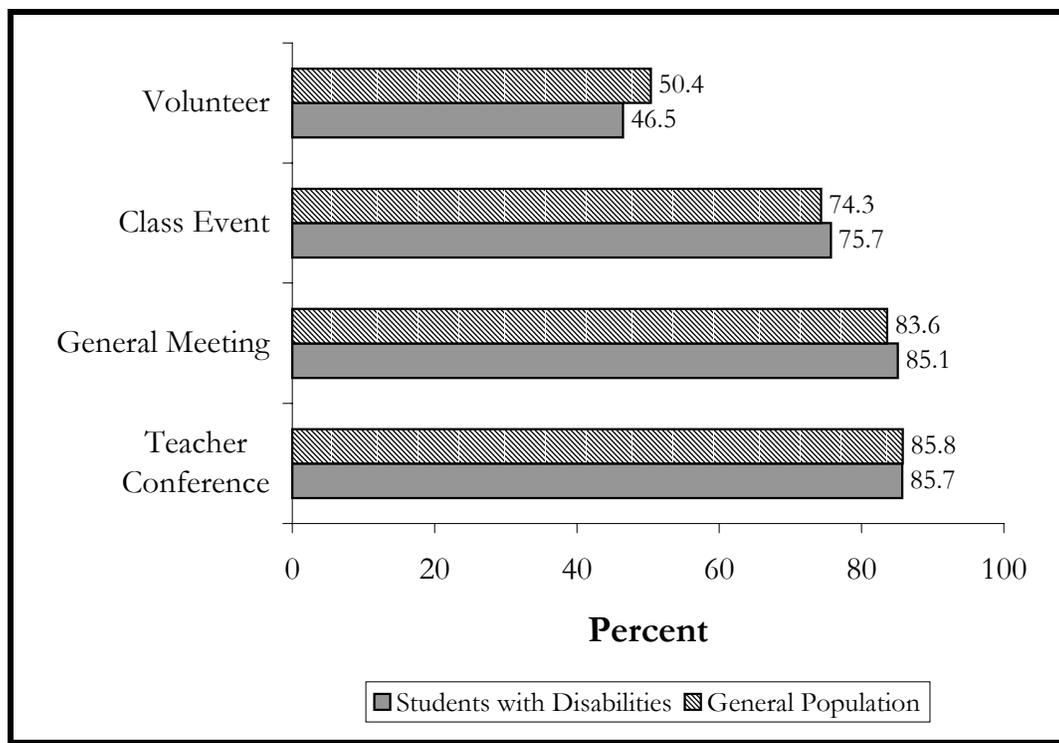
Given the long-standing and deeply held commitment to family involvement in the special education community, it is surprising that so little is known about the involvement of families of students with disabilities. Until now, no national data have described the extent to which families of elementary and middle-school students receiving special education participate in activities at their children's schools or create home environments that promote student learning. In addition, differences in family involvement have been observed in the general population for families with children of different ages and those with different racial/ethnic backgrounds and household incomes, but it is unclear whether those differences are also seen among families of students with disabilities.

The Special Education Elementary Longitudinal Study (SEELS), part of OSEP's national assessment of IDEA, fills several gaps in the knowledge base by collecting information for a national sample of elementary and middle-school students receiving special education.¹ Information from the first SEELS family interview² portrays several dimensions of family involvement for students with disabilities and their variation for students with different disabilities, ages, racial/ethnic backgrounds, and household incomes. SEELS data on family involvement in general school activities; the IEP process; and parent information, support, and training activities are presented below. Also described are at-home education support activities and resources and discussion of how these several aspects of family involvement differ for families with different characteristics. It must be noted that parent reports of their involvement in their children's education are by definition subject to response bias (Baker & Soden, 1998), and the data reported here should be considered in that light.

¹ SEELS (www.seels.net) is a 6-year longitudinal study of approximately 13,500 students who received special education services and were ages 6 through 12 in the 1999-2000 school year. SEELS findings generalize to the national population of students with disabilities in this age group, as well as to each disability category individually. SEELS data collection activities include family telephone interviews and mail surveys, school staff surveys, and direct student assessments. The data presented here are from the first SEELS family telephone interviews conducted in the summer and fall of 2000. A survey of families who were not reached by telephone was conducted in winter 2000 and will add to this database. Therefore, some changes may occur in the estimates presented here when the complete database is compiled.

² Although we refer to the respondents to the telephone interview as "parents," interviews were conducted with the adult member of the household who was best able to respond to questions about the student's school experiences; the vast majority were mothers.

Figure III-2
Family Involvement in School Activities



Sources: Special Education Elementary Longitudinal Study, 2001.

Family Involvement in School Activities

An important dimension of family involvement is participation in meetings with staff, such as parent-teacher conferences or “back to school night,” and in supporting student-centered school activities, such as plays or musical performances. These kinds of participation support communication between staff and families, allow parents to see first-hand the school environments in which their children spend much of their time, and communicate to students that parents value school.

Figure III-2 shows high levels of this type of participation among parents of elementary and middle school students with disabilities. More than 85 percent of parents reported attending a conference with staff at school (other than IEP meetings) and a general school meeting (e.g., a parent-teacher association meeting) in the past school year. About three-fourths of students had an adult family member attend a student-centered school event, such as a play. Volunteering to help with school activities (such as chaperoning a class field trip or serving on a school committee) extends the notion of parent involvement beyond attending meetings

and events. Volunteering represents a significant investment of parental time and requires flexibility in handling other individual and family responsibilities. Despite the greater commitment of time and energy required to volunteer at school, 47 percent of students with disabilities had an adult household member who had done so in the preceding school year. Figure III-2 demonstrates that these levels of involvement among families of students with disabilities are similar to those measured for families of students in the general population.

When most effective, family involvement is an ongoing and sustained process that is marked by multiple opportunities to participate in school activities throughout the school year. SEELS data suggest that 90 percent of parents were involved in more than one of these four activities. Indeed, the largest group included parents who were involved in all four activities (37 percent).

Variation in family involvement was moderate among families of students in different disability categories (table III-3). For example, the difference in the degree to which families attended a teacher conference or a general school meeting was only 18 percentage points across disability categories (from about 90 percent to about 72 percent). The range of levels of involvement was greater for attendance at class events (27 percentage points, from 83 percent to 56 percent) and volunteering at school (43 percentage points, from 58 percent to 16 percent). Families of students with speech, orthopedic, other health impairments, and visual impairments were among the most active; families of students with mental retardation, emotional disturbance, multiple disabilities, or traumatic brain injury were less active. Parents of students with deaf-blindness were the least active, perhaps because many of those students attended residential schools.

Family Involvement in Activities Related to Children's Disabilities

Because their children have a disability, families whose children receive special education are expected or invited to become involved in a variety of school activities, beyond the overall types of involvement described earlier. In addition, they can participate in parent education, support, and training activities to help them better work with their children's schools and related service systems. This section describes the degree to which families were involved in these kinds of activities and their views of them.

Most family-school activities that are explicitly for students receiving special education revolve around the student's IEP. The IEP has been a central part of the legislation governing special education since the 1970s. The notion of using students' individual needs to establish appropriate educational goals, services to meet them,

Table III-3
Family Involvement in School Activities, by Disability Category

	Disability Category											
	Learning disabilities	Mental retardation	Speech impairment	Emotional disturbance	Hearing impairment	Visual impairment	Deaf-blindness	Orthopedic impairment	Multiple disabilities	Other health impairment	Autism	Traumatic brain injury
Percentage reporting that in the last school year, an adult family member:												
Attended a teacher conference (not IEP)	83.0	82.5	90.7	85.8	84.8	79.0	73.0	85.7	78.2	89.6	84.2	86.5
Attended a school meeting	85.3	75.9	88.8	78.4	85.1	86.1	71.5	89.3	81.4	86.4	80.8	84.8
Attended a school/class event	74.3	63.7	83.4	64.7	80.1	82.7	56.0	79.7	65.5	82.3	70.4	65.6
Volunteered at the school	42.5	36.1	58.2	30.1	42.7	56.2	15.6	55.0	39.5	51.1	55.5	39.1
Sample size*	829	712	712	722	863	697	41	832	798	892	1,075	308

*If sample sizes differ among the variables presented, the smallest sample size is noted.

Source: Special Education Elementary Longitudinal Study, 2001.

and a metric for measuring progress is as conceptually powerful today as it was at its inception. When appropriately implemented, the IEP process can prompt a collaborative conversation about the nature of educational goals for students and how to reach them. SEELS family interview data permit us to examine the extent to which family members of students receiving special education attended IEP meetings and their views of how involved they were in setting the IEP goals that were established at those meetings. We also can explore parents' views of the appropriateness of the IEP goals and the extent to which special education and related services were tailored to their children's needs. Families' general satisfaction with the level of their involvement in the decisions reached as part of the IEP process can be addressed, as can family involvement in parent support and parent training activities and their views of the helpfulness of those activities.

IEP Involvement

Meeting Attendance

The IEP meeting is intended to be a forum in which to discuss a student's status, annual goals, and a service program designed to meet those goals. Although attendance by parents at IEP meetings has not always been high, SEELS data show that nearly 90 percent of elementary and middle school students with disabilities had an adult family member attend their IEP meeting during the preceding school year (table III-4). It appears that the requirement in the IDEA Amendments of 1997 for family inclusion in IEP meetings is being implemented widely.

Goal Setting

Although attendance at meetings is important and valuable, it does not always ensure the family's active participation in the decisionmaking process. For example, SEELS family interview data portray a mixed picture with regard to development of IEP goals. Two-thirds of parents reported collaborating with school staff on the development of IEP goals; however, 32 percent indicated that school staff primarily developed the goals. Nonetheless, a large majority of parents agreed (46 percent) or strongly agreed (45 percent) that their children's IEP goals were both challenging and appropriate. This view of the challenging and appropriate nature of students' goals is important in light of IDEA's strong affirmation of the right of students with disabilities to have access to the same challenging curriculum as their peers in general education.

Table III-4
Family Involvement in Activities Related to Students' Disabilities, by Disability Category

Percentage Reporting	All Students	Disability Category											
		Learning disabilities	Mental retardation	Speech impairment	Emotional disturbance	Hearing impairment	Visual impairment	Deaf-blindness	Orthopedic impairment	Multiple disabilities	Other health impairment	Autism	Traumatic brain injury
Attended an IEP meeting	89.0	88.0	92.1	87.8	90.0	92.2	95.4	98.5	96.4	89.6	95.2	97.4	93.3
IEP goals were created by:													
Mostly family	1.1	1.0	0.7	1.0	1.8	1.4	2.2	0.0	1.0	2.2	0.7	1.9	1.0
Mostly school staff	32.4	33.0	32.8	34.0	30.2	29.2	25.8	22.8	22.2	26.3	28.9	21.5	31.4
Family and school staff	66.0	65.4	66.5	64.4	67.2	68.8	71.6	77.2	76.8	71.1	69.9	76.2	67.4
IEP goals were appropriate													
Strongly agree	44.7	43.0	43.6	48.1	38.8	50.4	52.2	48.9	49.9	44.4	46.9	45.7	42.7
Agree	46.4	46.8	46.9	46.4	47.6	43.8	41.1	49.6	42.2	46.1	42.5	45.1	50.2
Disagree, strongly disagree	8.9	10.2	9.5	5.5	13.6	5.8	6.7	1.5	8.0	9.5	10.6	9.2	7.1
Services were:													
Highly individualized	44.5	42.5	43.8	50.3	36.0	46.8	54.1	58.3	43.8	49.2	35.9	46.2	40.1
Somewhat individualized	48.3	49.0	50.7	45.8	51.0	48.0	41.9	40.5	48.4	43.3	53.0	46.2	46.6
Not individualized	7.2	8.5	5.5	3.9	13.0	5.2	4.1	1.2	7.8	7.6	11.0	7.6	13.3
Family involvement in IEP decision-making was:													
Less than desired	33.0	33.9	38.2	29.7	38.9	27.5	24.3	5.9	25.6	33.8	28.9	30.2	35.3
About right	66.3	65.6	60.8	69.5	60.2	72.2	74.6	94.2	73.8	64.7	70.9	69.5	63.6
More than desired	.7	.6	1.0	.8	.9	.3	1.2	.0	.5	1.5	.2	.4	1.1
Attended parent support or training meetings	26.8	26.5	33.0	18.0	37.4	44.2	38.3	80.8	39.3	42.8	39.4	65.9	34.4
Activity was sponsored by parent information/training center	38.8	36.2	48.2	35.3	35.0	32.8	39.2	41.3	47.9	46.8	46.6	55.5	32.4

Table III-4 (cont'd)

Percentage Reporting	All Students	Disability Category											
		Learning disabilities	Mental retardation	Speech impairment	Emotional disturbance	Hearing impairment	Visual impairment	Deaf-blindness	Orthopedic impairment	Multiple disabilities	Other health impairment	Autism	Traumatic brain injury
Training/information was:													
Very helpful	48.7	44.8	54.0	52.2	55.7	50.2	49.7	28.6	51.3	43.4	43.2	56.0	39.7
Pretty helpful	44.1	50.9	36.4	41.2	30.5	41.6	44.7	64.7	41.9	46.2	40.8	35.1	38.3
Not very or not at all helpful	7.29	4.31	9.59	6.65	13.78	8.21	5.61	6.67	6.75	10.35	16.01	8.82	22.02
Sample size*	8,589	829	712	712	722	863	697	41	832	798	892	1,075	308

*If sample sizes differ among the variables presented, the smallest sample size is noted.

Source: Special Education Elementary Longitudinal Study, 2001.

Individualization of Services

A unique feature of special education that is outlined in the IDEA Amendments of 1997 is the principle that educational goals and accompanying services should address individual student needs. This principle differentiates special education services from regular education and increases the odds of school success for students with disabilities. SEELS asked parents their perceptions regarding how individualized their student's educational programs and services were, and a very large majority reported that their children's special education services were either "somewhat" (48 percent) or "very" individualized (45 percent).

Satisfaction with Involvement in Decisionmaking

As schools strive to be more responsive to the needs of families, it is important to evaluate the degree to which family members are satisfied with the process used to create IEPs for their children. SEELS family interview respondents were asked whether they wanted to be more involved in the decisions about their children's IEPs, less involved, or whether they had the desired level of involvement. Although a majority (66 percent) of families reported that their involvement was the "right amount," one-third of parents reported a desire to be more involved in the process. Almost no parents reported that they were more involved than they wanted to be.

Parent Support and Training

Parents often must make a considerable adjustment when they learn of their child's disability. They may feel they need to learn about the nature of the disability and the needs that it creates. In addition, they may seek information about the options available to them and about an educational service system that can be confusing. To meet this need, there are increasing numbers of independent, district, State, and Federal initiatives to increase parent knowledge and provide support. Sponsoring organizations provide many kinds of services, including information, consultation, case management, and parent support groups. Many of these programs start from the presumption that family members often learn best from the experiences of other families.

According to SEELS family interview data, approximately 25 percent of students had an adult family member who had participated in an informational or training meeting for families of students with disabilities at some time in the past. Among those who had attended such meetings, nearly 40 percent reported that the meetings were supported by a federally funded parent training and information center (PTIC). These centers have been sponsored by OSEP since the 1980s and exist in many

communities. They vary in design and approach but share the principle of helping families navigate the school processes involved with eligibility determination, IEP and transition planning, and the challenges of service systems outside the schools. Data suggest that there are additional parents who might benefit from parent support services.

The informational meetings appear to be generally well-received by attendees. Families viewed the variety of meetings they had attended positively and considered such meetings to be “very” (49 percent) or “pretty” helpful (44 percent).

Differences by Disability Category

Among families whose children had different disability classifications, involvement in IEP and parent training and support activities and views of those activities did not differ substantially. A high rate of IEP meeting attendance was consistent across disability categories, ranging from 88 percent to 99 percent. The level of participation in IEP goal development varied somewhat more. For example, more than three-fourths of parents of students with orthopedic impairments, deaf-blindness, or autism reported collaborating with school staff on IEP goals, while 65 percent or fewer of parents of students with learning disabilities or speech impairments did so.

When asked about the IEP goals, parents of students across the disability spectrum either strongly agreed (39 percent to 52 percent) or somewhat agreed (41 percent to 50 percent) that their children’s IEP goals were challenging and appropriate. Taken together, more than 90 percent of parents of students in most disability categories viewed their children’s goals this way. The only exceptions were parents of students with learning disabilities, emotional disturbance, and other health impairments. The latter two groups, along with parents of students with traumatic brain injury, also were somewhat less likely than others to think the services provided their children were highly individualized.

Regarding the amount of family involvement in decisionmaking, there was moderate variation among the disability categories. Parents of students with deaf-blindness were the most satisfied (94 percent), whereas parents of students with mental retardation (38 percent) or emotional disturbance (39 percent) were most likely to report that their involvement was less than they desired.

Like IEP involvement, family participation in informational, support, or training activities for family members also varied by disability category. Families of students with deaf-blindness (81 percent) and of students with autism (66 percent) were most likely to have attended such meetings, while one-third or fewer of family members of

Family Involvement in the Education of Elementary and Middle School Students Receiving Special Education

students with learning disabilities (27 percent), mental retardation (33 percent), or speech impairments (18 percent) had done so. Of those who attended such meetings, more than 55 percent of families with children with autism had attended meetings sponsored by a PTIC, as had more than 45 percent of family members of students with mental retardation, orthopedic impairments, multiple disabilities, or other health impairments. Family members of students with hearing impairments or traumatic brain injury were least likely to access PTIC activities. Parents of students with autism (56 percent) or emotional disturbance (56 percent) were most likely to characterize the received training as “very helpful.” Parents of students with traumatic brain injury or other health impairments found the information least useful. This variation in access and perception of the training experiences speaks to the difficulty of designing informational programs that provide information that is equally engaging for all participants.

Support for Education at Home

Many of the foundations of learning and communication that are central to success in school, and in life more broadly, have their foundation in the home. Family attitudes about education, rituals associated with reading and homework, expectations for academic success, modeling of behavior, and direct investment in educational supports such as tutors and computers for educational use, all represent forms of family involvement that can enhance student success in school. The importance placed by schools on at-home supports for education is evident in the fact that 89 percent of public elementary schools provide information to parents on how to help with homework, 85 percent provide information on helping to develop study skills, and 83 percent provide information on specific learning activities that could be done outside of school (Carey, Lewis, Farris, & Burns, 1998). SEELS data enable an examination of the extent to which families of elementary and middle-school students with disabilities engaged in a variety of educational support activities and provided educational resources at home.

Forms of At-Home Support

Talking About School Experiences

One of the primary ways that families support their children’s education is by valuing it and students’ educational attainment highly. This is communicated to students in many direct and indirect ways, including the degree to which school experiences are a topic of conversation at home. Conversations about such things as daily classroom events, projects, homework assignments, or field trips signal that education is valued. When asked about the prevalence of such conversations, 90 percent of parents of students with disabilities reported that they “regularly” talked with their children

about school experiences. Only about 2 percent reported talking to their children about such topics “rarely” or “not at all.”

Homework Help

Homework extends and reinforces the educational activities that occur during the school day and can provide opportunities to practice skills and learn concepts. When family members help with homework, they can learn about what is happening at school and have an opportunity to work with students on educational tasks. SEELS data indicate that virtually all students (96 percent) had a quiet place to do schoolwork at home, and 83 percent had help with homework from a family member three or more times per week.

Reading at Home

Reading is a core academic skill that is central to the IEPs of many students with disabilities. Research suggests that families can make significant contributions to the development of literacy skills through such activities as having books in the home, adults reading frequently, and, in particular, parents reading to children. Reading together provides informal instructional opportunities and helps to develop positive habits and an interest in written materials as a source of information and entertainment. Respondents to the SEELS family interview were asked how often in a typical week someone in the household read to the SEELS student. Two-thirds of respondents reported that someone read to their child three or more times in a typical week. Given the importance of this activity, the one-third of families who read to their children less often present an opportunity to increase this form of at-home support, perhaps through increased education about its importance and explicit “tips” on how families can make reading together a positive experience.

Household Rules

In identifying family factors that correlate with high student achievement, “establishing a daily family routine, providing time and a quiet place to study, assigning responsibility for household chores, being firm about times to get up and go to bed . . . [and] setting limits on TV watching” have been shown consistently to relate to better student performance (Clark, 1990; Henderson & Berla, 1994). SEELS family interview data suggest that families of students with disabilities used household rules about such activities extensively at home. Ninety percent or more of students with disabilities reportedly had household rules about completing homework, bedtime on school nights, the types of television shows they could

Table III-5
At-home Educational Support Activities, by Student Disability Category

Percentage of Respondents Reporting That They:	All Students	Disability Category											
		Learning disabilities	Mental retardation	Speech impairment	Emotional disturbance	Hearing impairment	Visual impairment	Deaf-blindness	Orthopedic impairment	Multiple disabilities	Other health impairment	Autism	Traumatic brain injury
Talked about education with their student regularly	90.2	90.0	85.9	92.0	91.2	90.6	90.9	63.9	91.6	81.9	93.7	83.2	87.6
Provided a quiet place to do homework	96.3	96.5	96.5	95.8	95.3	96.6	97.7	100.0	97.9	97.3	98.5	98.3	97.7
At least three times in a typical week: Provided homework help	82.6	83.9	80.7	81.8	76.5	84.2	86.4	88.6	84.2	83.2	84.4	83.5	80.6
Read to the student	66.0	63.9	68.7	70.4	55.5	63.7	66.7	39.3	73.3	68.5	61.3	71.7	66.6
Had household rules about: Doing homework	96.9	97.4	93.9	96.9	98.0	97.4	95.6	74.1	96.6	93.3	97.0	92.7	96.0
Doing household chores	89.7	91.1	84.5	90.4	92.8	86.9	86.1	63.7	79.4	74.8	89.7	76.2	79.6
Acceptable grades	45.7	46.9	44.5	46.2	52.7	39.5	41.6	16.7	41.2	33.8	35.2	14.4	37.3
Bedtime	95.4	93.7	94.9	97.1	98.0	97.7	95.8	78.2	97.2	95.2	97.2	96.1	96.7
Acceptable amount of TV	78.0	76.6	77.6	80.8	78.0	78.0	80.6	48.9	77.1	77.5	74.1	74.9	81.6
Allowable TV programs	90.1	89.1	89.5	92.0	88.4	91.7	89.2	68.9	91.3	88.4	92.1	90.0	91.7
Had a home computer	63.9	61.7	51.3	70.9	55.6	65.9	70.9	69.5	71.0	55.3	74.4	77.6	63.1
Used home computer for education	74.2	73.4	67.8	77.0	69.9	81.1	69.3	16.5	80.0	60.5	78.0	79.9	80.4
Sample size*	8,589	829	712	712	722	863	697	41	832	798	892	1,075	308

*If sample sizes differ among the variables presented, the smallest sample size is noted.

Source: Special Education Elementary Longitudinal Study, 2001.

watch, and doing household chores. The frequency of such rules for students with disabilities was quite similar to that for the general population of elementary school students (e.g., 97 percent had rules about bedtime and 92 percent about allowable television programs; NCES, 1998). Overall, 78 percent of families limited the amount of television students with disabilities could watch, again a figure quite similar to the general population (80 percent, NCES, 1998). However, significantly fewer parents in the SEELS sample (46 percent) had rules about academic performance targets, such as grade point average.

Computers at Home

Continuing advances in computer and networking technologies during the last two decades have made computers and the Internet increasingly important tools for accessing information and supporting learning for all students. For some students with disabilities, assistive technologies have allowed access to information and communication that was never before possible. And computer literacy already is an expectation for labor market success. However, there has been growing concern about the “digital divide” between the “haves” and “have-nots” in their access to computers. SEELS family interview data reveal that 64 percent of students with disabilities in elementary and middle schools had computers at home. This percentage may exceed that for the general population (51 percent, NCES, 1997).¹ The importance of computer accommodations and supports that are used by some students with disabilities may contribute to their greater prevalence among families of students with disabilities. Among almost three-fourths of the families who had them, home computers were used for educational purposes.

Differences by Disability Category

There were only modest variations in most forms of at-home support for education among students with different disability classifications, with the exception of families of students with deaf-blindness, probably because of the communications barriers related to that disability. For other families, consistency of experience was the rule. For example, rates of families having regular conversations about school experiences varied by only 12 percentage points across disability categories other than deaf-blindness. Rates of homework help and providing a suitable place to do homework also were quite high and consistent across disability categories, as were having rules about doing homework, bedtime, and television watching.

¹ It is unclear how much of this difference relates to the 3-year time difference between the measurements.

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However, some dimensions of at-home education support varied more widely. Specifically, the extent to which family members frequently read to students varied from 73 percent for families of students with orthopedic impairments to 56 percent of those with emotional disturbances. Setting standards for acceptable grades also varied more widely, ranging from 53 percent for students with emotional disturbances to 14 percent for students with autism. Finally, there were notable differences in computer access, with more than 70 percent of students with speech, visual, orthopedic, or other health impairments and autism having home computers, compared with only 51 percent and 55 percent of students with mental retardation and multiple disabilities. Computer use for educational purposes occurred for more than three-fourths of families whose children had speech, hearing, orthopedic, or other health impairments, autism, or traumatic brain injury. Educational use was much less common for students with deaf-blindness and other multiple disabilities.

Differences in Family Experiences

Differences in family involvement for students with different disability classifications are not the only, or even the most notable, differences revealed by SEELS data. In fact, SEELS data confirm that the differences in family involvement noted in the general population also are reflected among elementary and middle-school students with disabilities, as described below.

Student Age

In the general population, family involvement in educational activities declines markedly as students age. For example, in the general population, 80 percent of elementary school students had a family member who attended a parent-teacher conference, compared with only 48 percent of secondary school students (NCES, 1996). This pattern of declining involvement with age also is true among students with disabilities, but it is generally modest and is focused only on some kinds of involvement (table III-6). For example, rates of attendance at both general school meetings and IEP meetings did not decline significantly with age. Involvement in IEP goal-setting and decisionmaking also were fairly steady across the age range, as were attendance at parent information, support, and training sessions and the extent to which sessions attended were PTIC-sponsored. Similarly, families were about equally likely to have rules at home pertaining to most of the topics addressed in SEELS, regardless of students' ages. In fact, families with older students were significantly more likely than those with younger students to have family rules about acceptable grades (increasing from 39 percent to 60 percent across the age groups).

Table III-6
Family Involvement, by Student Age

Percentage Reporting:	Student Age		
	6 to 9	10 to 12	13 or Older
General School Involvement in the Last School Year			
Attended a teacher conference (not IEP)	88.3	83.4	82.8
Attended a school meeting	86.3	84.1	80.3
Attended a school/class event	80.0	72.6	60.1
Volunteered at the school	53.5	41.4	22.0
IEP Process Involvement			
Attended an IEP meeting	90.1	88.4	83.0
IEP goals were created:			
Mostly by family member(s)	.9	1.2	.0
Mostly by school staff	33.1	31.5	37.5
By family member(s) and school staff	65.7	66.4	62.5
IEP goals were appropriate and challenging			
Strongly agree	49.1	41.0	34.5
Agree	43.6	48.7	54.5
Disagree and strongly disagree	7.3	10.3	11.0
IEP services were			
Highly individualized	50.2	39.6	35.3
Somewhat individualized	44.4	51.9	51.4
Not individualized	5.4	8.5	13.3
Involvement in the IEP process was:			
Less than desired	31.4	34.1	41.5
About the right amount	67.9	65.3	57.7
More than desired	.8	.6	.8
Parent Training and Support Activities			
Attended parent support or training meetings	26.3	27.9	17.5
Activity was PTIC-sponsored	38.2	39.5	33.3
Training/information was:			
Very helpful	51.0	46.4	58.4
Pretty helpful	40.1	47.8	34.5
Not very or not at all helpful	8.9	5.9	7.1

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Table III-6 (cont'd)

Percentage Reporting:	Student Age		
	6 to 9	10 to 12	13 or Older
At-Home Educational Supports			
Talked about school experiences with their student regularly	91.4	89.7	79.5
Provided a quiet place to do homework	95.6	97.0	95.4
At least three times in a typical week:			
Provided homework help	86.7	79.7	66.5
Read to the student	78.5	55.5	46.3
Had household rules about:			
Doing homework	96.6	97.4	92.9
Doing household chores	87.4	91.9	87.3
Acceptable grades	39.3	50.7	59.7
Bedtime	96.9	94.2	90.3
Acceptable amount of TV	79.3	76.8	78.4
Allowable TV programs	92.3	88.3	87.5
Had a home computer	63.1	65.0	56.0
Had a home computer and used it for education	72.5	76.0	68.9
Sample size*	4,437	3,894	252

*If sample sizes differ among the variables presented, the smallest sample size is noted.

Source: Special Education Elementary Longitudinal Study, 2001.

However, significant declines were noted in some kinds of family involvement. For example, compared with younger students, fewer parents of students 13 and older attended class events (60 percent vs. 80 percent) or volunteered at school (22 percent vs. 54 percent). Parents of older students also were somewhat less satisfied with the level of their involvement in IEP decisionmaking (58 percent vs. 68 percent). Conversations about school occurred less frequently as children aged; 91 percent of parents of students ages 6 to 9 reported regular talks about school, compared with 80 percent of students 13 or older. Parents of older students were also significantly less likely than parents of younger students to provide homework help frequently (67 percent vs. 87 percent) or to read to or with their children frequently (46 percent vs. 79 percent). This reduced family involvement, both at school and at home, may be a potentially problematic trajectory because of the types of risks that students face as they transition to secondary schools, where ongoing support may still prove helpful. However, a decline in some variables may be expected, since parents of nondisabled

students also experience a decrease in family involvement as their children become teenagers.

Household Income

In the general population, household income is a significant factor in explaining variations in family involvement in education. For example, among families of elementary and middle school students in the general population nationally, 69 percent of those with incomes between \$20,000 and \$25,000 attended a general school meeting and 29 percent volunteered at school, compared with 84 percent and 49 percent of parents with incomes between \$50,000 and \$75,000. This is consistent with previous research in which staff in 28 percent of high-poverty schools reported that “most or all” parents attended the school open house, compared with staff in 72 percent of low-poverty schools (Carey et al., 1998). However, this variation was not apparent regarding at-home supports for education. For example, there were no sizable differences between income groups in the general population in the extent to which they had rules at home regarding television watching or bedtime (NCES, 1998).

Significant differences in involvement in school activities by income also were noted for students with disabilities in the SEELS sample (table III-7). Family members from households with incomes of \$50,000 or more were more likely than others to participate in the four kinds of general school activities SEELS explored, significantly so in all cases except attendance at general school meetings. However, these differences were not found regarding involvement in the IEP process; family members were about equally likely to attend IEP meetings, to collaborate in goal-setting, and to approve of the goals and services that resulted, regardless of income. However, higher income families were significantly more likely than lower income families to report that their level of involvement in the IEP process in general was satisfactory (80 percent vs. 54 percent for families with incomes of \$25,000 or less).

Participation in parent information, support, or training sessions was fairly consistent across income levels, with families with incomes greater than \$50,000 being only marginally more likely than others to attend such sessions. Among attendees, however, they were somewhat less likely than others to attend PTIC-sponsored sessions (30 percent vs. 42 percent), which were more likely to serve lower income families. On the other hand, higher income participants viewed the meetings as more helpful.

At home, there was a good deal of similarity in support for education, regardless of income. For example, about equal proportions of families reported reading to their

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Table III-7
Family Involvement, by Household Income

Percentage Reporting:	Household Income		
	\$25,000 or Less	\$25,001 to \$50,000	\$50,000 or More
General School Involvement in the Last School Year			
Attended a teacher conference (not IEP)	79.4	86.0	91.7
Attended a school meeting	64.0	77.3	90.2
Attended a school/class event	34.9	45.1	62.6
Volunteered at the school	82.8	85.9	91.6
IEP Process Involvement			
Attended IEP meeting	83.9	92.8	93.3
IEP goals were created:			
Mostly by family member(s)	.8	1.1	1.1
Mostly by teachers and school staff	34.1	31.3	29.5
By family member(s) and school staff	63.7	67.5	69.2
Level of agreement that IEP goals were appropriate			
Strongly agree	41.9	45.0	47.7
Agree	46.4	46.9	45.1
Disagree and strongly disagree	11.8	8.2	7.2
Percentage reporting that IEP goals were			
Highly individualized	43.4	43.7	44.9
Somewhat individualized	47.3	49.2	49.6
Not individualized	9.3	7.1	5.5
Involvement in the IEP process was:			
Less than desired	44.8	30.6	20.0
About the right amount	53.8	69.2	79.8
More than desired	1.5	.2	.2
Parent Training and Support Activities			
Attended parent support or training meetings	25.9	25.0	31.9
Activity was PTIC-sponsored	41.6	42.2	29.5
Training/information was:			
Very helpful	49.7	54.0	42.9
Pretty helpful	44.4	38.9	47.7
Not very or not at all helpful	5.9	7.2	9.4

Table III-7 (cont'd)

Percentage Reporting:	Household Income		
	\$25,000 or Less	\$25,001 to \$50,000	\$50,000 or More
At-Home Educational Supports			
Talked about education with their student regularly	84.9	92.1	96.3
Provided a quiet place to do homework	95.8	95.6	96.8
At least three times in a typical week:			
Provided homework help	79.7	84.0	84.8
Read to the student	66.0	67.9	64.2
Had household rules about:			
Doing homework	96.5	97.2	97.7
Doing household chores	90.9	89.4	90.5
Acceptable grades	53.8	40.9	38.1
Bedtime	94.7	94.6	96.7
Acceptable amount of TV	79.0	76.2	77.4
Allowable TV programs	88.7	88.4	93.0
Had a computer at home	38.4	69.7	91.2
Used home computer for education	61.2	72.1	82.8
Sample size*	2,743	2,353	2,316

*If sample sizes differ among the variables presented, the smallest sample size is noted.

Source: Special Education Elementary Longitudinal Study, 2001.

children and providing homework help often and having rules about homework, chores, and television watching. However, the highest income families were somewhat more likely than those in the lowest income group to talk regularly with their children about school experiences (96 percent vs. 85 percent). In contrast, the lowest income families were significantly more likely to have rules about acceptable performance at school than the highest income group (54 percent vs. 38 percent).

Perhaps not surprisingly, the greatest difference in at-home supports was related to computer availability. There was evidence of a “digital divide” with respect to family income: more than 90 percent of families with incomes greater than \$50,000 had computers, while only 38 percent of parents with incomes under \$25,000 did. This gap mirrors findings for the general population, in which 62 percent of families with incomes between \$50,000 and \$75,000 had home computers, a rate twice that of families with incomes between \$20,000 and \$25,000 (NCES, 1997). Among families

who had computers, there were no marked differences in the extent to which they were used for educational purposes.

Student Racial/Ethnic Background

In the general population, families with minority backgrounds are as involved as white families in some forms of educational activities, both at school and at home; however, they are significantly less involved in some activities. For example, family members are about equally likely to attend general school meetings and parent-teacher conferences regardless of racial/ethnic background. Similarly, there are no marked differences in the general population in having family rules related to bedtime, amount of television watching, or acceptable programs to watch (NCES, 1996). In fact, among middle and high school students, families of those with African American backgrounds were more likely to be rated as “highly involved” than families of white students (56 percent vs. 37 percent; Binns, Steinberg, & Amorosi, 1998).

In contrast, there are significant differences in the general population in family involvement in such activities as attending a class event (71 percent for white students compared with 56 percent and 55 percent for African American and Hispanic students; NCES, 1996) and volunteering at school (44 percent for white students compared with 30 percent and 28 percent for African American and Hispanic students; NCES, 1998). A similar difference is reported by school staff, with staff in 30 percent of high-minority schools reporting that “most or all” parents attended the school open house, compared with 63 percent of school staff from low-minority schools (Carey et al., 1998). However, some research suggests that differences in income may be an explanation for much of this variation among racial/ethnic groups (e.g., Zellman & Waterman, 1998).

Some aspects of this pattern of racial/ethnic differences were mirrored among families of elementary and middle-school students with disabilities (table III-8). For example, attendance at general school meetings was fairly consistent for families of different racial/ethnic backgrounds. Families of Asian (92 percent) and Native American students (93 percent) were the most likely to attend such meetings, but more than 80 percent of families in all racial/ethnic groups reported doing so. Family members of white students were most likely to attend parent-teacher conferences (88 percent), but 86 percent and 84 percent of families of Native American and African American students also did so. IEP meeting attendance also did not differ widely between ethnic groups, ranging from 93 percent of Asian and Pacific Islander families to 82 percent of African American families.

Table III-8
Family Involvement, by Student Ethnicity

Percentage Reporting:	White	African American	Hispanic	Asian/ Pacific Islander	Native American
General School Involvement					
Attended a teacher conference (not IEP)	87.7	80.1	81.8	91.8	93.3
Attended a school meeting	81.7	65.4	65.4	47.8	91.5
Attended a school/class event	53.6	34.5	35.3	32.6	32.2
Volunteered at the school	87.8	84.1	79.2	72.6	85.5
IEP Process Involvement					
Attended IEP meeting	91.5	82.2	85.4	93.3	82.9
IEP goals were created:					
Mostly by family member(s)	1.2	1.1	0.4	0.0	14.3
Mostly by school staff	32.2	30.3	39.8	23.2	30.4
By family member(s) and school staff	66.3	67.0	59.7	76.5	55.4
IEP goals were appropriate and challenging:					
Strongly agree	46.4	44.0	35.2	39.9	30.1
Agree	46.0	44.3	55.2	52.9	27.9
Disagree and strongly disagree	7.6	11.7	9.7	7.2	42.0
IEP services were:					
Highly individualized	45.5	43.0	46.1	24.1	37.2
Somewhat individualized	49.1	47.9	41.2	68.8	47.9
Not individualized	5.4	9.2	12.8	7.1	14.9
Involvement in the IEP process was:					
Less than desired	26.4	49.7	42.0	60.5	30.4
About the right amount	73.3	48.8	56.3	39.5	69.0
More than desired	0.4	1.5	1.7	0.1	0.6
Parent support or training activities					
Attended meetings	27.0	32.8	18.3	20.2	21.7
Activity was PTIC-sponsored	33.3	55.3	44.0	31.8	85.7
Training/information was:					
Very helpful	42.8	60.1	57.9	74.3	27.6
Pretty helpful	49.6	36.4	29.5	23.4	56.6
Not very or not at all helpful	7.5	3.6	12.6	2.3	15.8

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Table III-8 (cont'd)

Percentage Reporting:	White	African American	Hispanic	Asian/ Pacific Islander	Native American
At-Home Educational Supports					
Talked regularly about school experiences	94.5	84.5	80.3	79.9	99.2
Provided a quiet place to do homework	96.9	98.0	91.8	95.2	100.0
At least three times in a typical week:					
Provided homework help	82.3	85.9	78.6	73.8	84.7
Read to student	65.6	68.2	65.0	47.9	81.2
Had household rules about:					
Doing homework	97.5	97.3	95.0	79.6	97.3
Doing household chores	90.8	91.5	85.2	57.5	93.3
Acceptable grades	37.7	64.2	50.8	76.1	60.3
Bedtime	96.4	94.8	91.8	91.6	99.1
Acceptable amount of TV	76.6	82.1	80.7	92.0	84.1
Allowable TV programs	91.9	89.1	83.4	94.8	80.1
Had a home computer	77.1	43.1	38.3	65.1	65.5
Used a home computer for education	77.0	61.5	64.0	80.5	93.4
Sample size*	5,140	1,775	1,020	174	44

*If sample sizes differ across the variables presented, the smallest sample size is noted.

Source: Special Education Elementary Longitudinal Study, 2001.

However, some sizable differences were apparent between racial/ethnic groups on attendance at class events and volunteering at school. Native American and white families were significantly more likely than other families to attend school or class events (92 percent and 82 percent compared with 65 percent to 48 percent). White parents were significantly more likely than parents in any other ethnic group to volunteer at their child's school (54 percent vs. 35 percent and fewer). Asian and Pacific Islander families were the least likely to participate in such activities.

Family members of different racial/ethnic backgrounds also reported different views of their involvement in the IEP process and of the goals and services that resulted. For example, collaboration on goal-setting was most common among Asian families (77 percent) and least common among Native American families (55 percent), who were the only group to report in substantial numbers that they developed the IEP goals fairly independently of school staff (14 percent). Despite this high level of

involvement, Native American parents were significantly less likely than others to agree that the goals arrived at were appropriate and challenging (58 percent vs. 92 percent for white families, for example). White and African American families reported similar levels of collaboration in goal setting (66 percent and 67 percent, respectively) and similar levels of satisfaction with the goals that resulted (92 percent and 88 percent) and with the individualization of services (95 percent and 91 percent). However, they differed dramatically on their satisfaction with their level of involvement in IEP decisionmaking in general. Almost three-fourths of white parents reported having the right amount of involvement, compared with fewer than half of African American parents; only 40 percent of Asian and Pacific Islander and 56 percent of Hispanic families reported they had the right amount of involvement in the IEP process. Although such relationships are inherently bi-directional, it is clear that there is room for improvement in including some parents more fully in the IEP process.

Members of African American families were somewhat more likely than others to attend parent information, support, or training sessions, but among attendees of such sessions, Native American family members were by far the most likely to attend sessions sponsored by a PTIC. They also were marginally less likely to find such meetings helpful.

Regarding at-home supports for education, white, African American, and Hispanic families reported similar practices on many of the dimensions explored. There were no significant differences between them in frequency of talking with children about school experiences, providing homework help or reading to students frequently, or having rules regarding doing homework or chores, bedtime, and television watching. However, they differed markedly in having standards for acceptable grades, with white families being significantly less likely than African American families to have such standards (38 percent vs. 64 percent). White families were significantly more likely to have a computer at home than other families (77 percent vs. 43 percent for African American and 38 percent for Hispanic families). These differences mirror those in the general population, in which 49 percent of white families had computers at home, compared with 22 percent and 23 percent for African American and Hispanic families, respectively (NCES, 1997). As computers become more important in education, the lack of access for some students will represent an increasing challenge.

Native American families were the most likely to talk with their students regularly about school experiences (99 percent), read to their students frequently (33 percent), and use a computer for educational purposes if one was available in the home (93 percent). In contrast, Asian and Pacific Islander families were least likely to engage in these same activities.

It is important to note that family income is a mediating factor for ethnicity, and differences in school experiences across ethnic groups within the same income group are often much smaller or nonexistent (Hebbeler & Wagner, 1999). Variations in how often parents came to the school to participate in these various activities or to provide supports at home likely reflect a number of factors, including parental interest, parent opportunities and time constraints, language and cultural issues, and school factors that may encourage or differentially inhibit participation among families from minority ethnic groups.

Alternate Dispute Resolution

An additional way parents may participate in their child's education is through alternate dispute resolution. The IDEA Amendments of 1997 require State and local educational agencies to ensure that procedures are established and implemented to allow disputes between parents and schools to be resolved through a mediation process with a qualified and impartial mediator. However, the law does not mandate mediation; it requires that mediation be voluntary and that it not be used to deny or delay a parent's right to a due process hearing or any other rights.

The National Association of State Directors of Special Education (NASDSE) conducted a survey of States regarding this issue (NASDSE, 1998). They found that all but eight States already had mediation systems in place prior to the IDEA Amendments of 1997.

The majority of States reported that a specific set of qualifications for mediators had been established, and all reported that mediators were provided with initial training and ongoing support. Most States reported using IDEA funds to support this program.

One State summed up the process by stating that conflicts between parents and schools are often caused by lack of communication. Therefore, third-party assistance made available as early as possible may prevent disagreements from escalating into formal disputes.

Summary and Conclusions

This initial look at families of students with disabilities has provided some information about their involvement in their children's education, both at school and at home. It also has raised important questions. Families in the SEELS sample were very likely to have attended parent-teacher conferences, general school meetings, and IEP meetings. In general, they gave high ratings to the IEP goals established for their

children and to the individualization of services provided them, generally with modest differences by disability category, student age, race/ethnicity, or household income. Further, approximately two-thirds of families reported that the amount of involvement was “about right.” This provides evidence that many of the family involvement mechanisms of IDEA functioned well for the vast majority of students in elementary and middle school.

However, there remains room for increased family involvement in the education of students with disabilities. Some forms of involvement, such as attending student-centered events and volunteering in the classroom, were significantly less common for families of students in some disability categories, for parents of older students, those who were minorities, and those from low-income households. Further, about one-third of families reported being less involved in the IEP process than they desired, although it is unclear how much family or school reasons accounted for this discrepancy. Families that expressed reservations about their level of involvement in the IEP process were disproportionately from African American, Hispanic, and Asian and Pacific Islander families and from low-income households, which signals the need to improve outreach to those communities. There also are clear opportunities to increase participation in parent information, support, and training sessions, including those that were PTIC-sponsored, particularly given the fact that most attendees reported that they found these trainings and meetings to be helpful.

Another clue as to where additional effort could enhance family involvement in the IEP process is the fact that families of children in high-incidence disability categories were less involved on several dimensions than were other families and were less satisfied with their involvement. For example, families of students with learning disabilities were less likely than most other families to attend IEP meetings, collaborate on goal-setting, and view the resulting goals as challenging and appropriate. They also were less likely to attend parent information, support, or training activities than families with children in most other disability categories.

It is encouraging to note that most families provided a variety of in-home supports for the education of their children, with many of those supports being irrespective of disability, age, race/ethnicity, or income. The vast majority of parents wanted their children to succeed academically and did what they could at home to support that success. It is worthy of note that minority families and those with low incomes were significantly more likely than other families to set standards about acceptable academic performance, perhaps in an effort to communicate the importance they placed on education and to motivate their children to succeed.

However, several differences in at-home support are worthy of attention. In particular, parents of older students were much less likely to talk with their students

Family Involvement in the Education of Elementary and Middle School Students Receiving Special Education

regularly about school, to provide homework help, and to read to them frequently. Given the increasing academic challenges facing students as they age, and the social pressures that work against investing high value in school success, parents of older students may be reducing their support on these dimensions at a crucial time. In addition, the “digital divide” was glaringly apparent among families of students with disabilities, as is true with families in general. Although students with disabilities may have been more likely than nondisabled students to have a computer at home and to use it for educational purposes, there were significant differences that placed at a disadvantage students in minority and low-income families. As access to information grows in importance in our society, these differences are likely to present increasingly difficult challenges to these students.

Finally, we are left with the question of how much and/or what types of family involvement are best, for which students, and at what times. Indeed, each type of family involvement should reflect a match between fluctuating levels of student and family need. The “right amount and type” of family involvement can and should vary among families, and for individual families over time. The multidimensional nature of the concept of family involvement suggests that there are multiple perspectives on these questions. Future data from SEELS and other OSEP-funded longitudinal studies will provide additional insights into these questions in the next several years, particularly in examining the issue of the relationship between family involvement and student progress.

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Special Education Teacher Recruitment and Hiring

The United States is experiencing a critical shortage of personnel to meet the needs of children with disabilities. In 1998-99, approximately 387,284 teachers were employed to provide special education services to students with disabilities. However, 39,466 of those teachers were not fully certified for their positions.

Ensuring an adequate supply of high-quality personnel to serve students with disabilities is important to meeting the letter and spirit of the Individuals with Disabilities Education Act (IDEA). During the last reauthorization hearings for IDEA, Congress heard testimony from numerous stakeholders emphasizing the need for highly qualified service providers. In amending IDEA in 1997, Congress reasserted its support for high-quality, intensive professional development that will give personnel the knowledge and skills they need to help students meet challenging education goals and lead productive, independent lives (§601(c)(5)(E)).

Since the early 1970s, Congress has provided a variety of funds to State educational agencies (SEAs), institutions of higher education, and other nonprofit institutions for personnel preparation. For example, Congress has consistently made the Personnel Preparation Program the most highly funded discretionary program under Part D of IDEA, appropriating \$82 million for the program in fiscal year 2001. The Office of Special Education Programs (OSEP) awards competitive grants to assist States in meeting their identified personnel needs. As further evidence of its concern about and commitment to ensuring an adequate supply of high-quality personnel to serve students with disabilities, OSEP awarded a contract to Westat to conduct the national Study of Personnel Needs in Special Education (SPeNSE).

Description of SPeNSE

SPeNSE was designed to address concerns about nationwide shortages in the number of personnel serving students with disabilities and the need for improvement in the qualifications of those employed. SPeNSE will describe the adequacy of the workforce and attempt to explain variation in workforce quality based on State and local district policy, working conditions, preservice education, and continuing professional development.

SPeNSE includes personnel from a nationally representative sample of districts, intermediate educational agencies, and State schools for students with vision or hearing impairments. In spring and fall of 2000, approximately 8,000 local

administrators, preschool teachers, general and special education teachers, speech-language pathologists, and paraprofessionals participated in a telephone interview. (Additional information on the study can be found on the study's web site, www.spense.org.) Special education administrators of 358 school districts, intermediate educational units (IEUs), and State schools for students with hearing or visual impairments were interviewed.

Information from the survey of administrators on the demand for special education teachers and local administrators' efforts to fill job openings for teachers have been analyzed; nationwide estimates based on their responses are presented in this module. Additional analyses and publications that will be available in the near future will examine the relationship between these factors and the extent to which personnel are adequately prepared to serve students with disabilities.

The Demand for Special Education Teachers

For the 1999-2000 school year, special education administrators¹ reported 69,249 job openings for special education teachers. These open positions included 5,914 teachers of preschool students, 2,738 teachers of primarily students with hearing or visual impairments, 12,013 teachers of students with emotional disturbance, and 48,584 other special education teachers. It should be noted that these reported openings may represent multiple openings for one or more positions. For example, if a special education teacher moves from one district to another, he or she may be counted twice as an opening because he or she filled one job opening while creating another. Almost 97 percent of districts had at least one special education opening during the 1999-2000 school year. On average (using the mean), districts² reported having openings for less than one preschool teacher (.58) and teacher of primarily students with hearing or visual impairments (.27). One vacancy per district was the mean for teachers of primarily students with emotional disturbance, and on average, districts needed five other special education teachers during the 1999-2000 school year. Thus, the average district had approximately 7 openings for special education teachers during the year.

The administrators also indicated that as of October 1, 1999, there were 12,241 funded positions that were left vacant or were filled by substitutes because suitable candidates could not be found. Among this total were 612 teachers of preschool

¹ These individuals include school district special education directors, IEU special education directors, and representatives of State schools for students with visual or hearing impairments.

² For purposes of this module, the term district will refer to the school districts, IEUs, and State schools represented by the administrators interviewed.

Table III-9
Proportion of Administrators Viewing New Special Education Hires To Be Excellent Personnel by Size of School District

Size of District	Mean Proportion ^{a/}
Very large	62.3
Large	75.0
Medium	80.9
Small	89.2

^{a/} F=.000; means of large and medium-sized districts were not significantly different.

Note: All differences between groups are significant at $p < .05$ except large and medium districts.

Source: SPeNSE Administrator Survey, Item MD8.

students, 385 teachers of students with hearing or visual impairments, 2,970 teachers of students with emotional disturbance, and 8,274 other special education teachers.

As of October 1, 1999, administrators reported that there were 50,310 newly hired special education teachers across the country, including 3,354 preschool teachers, 1,407 teachers of students with hearing or visually impairments, 8,027 teachers of students with emotional disturbance, and 37,522 other special education teachers. While administrators across the country were able to hire only some of the new teachers they needed, they felt that 85 percent of all newly hired teachers and service providers in the last 3 years were excellent at the time they started. The proportion viewed as excellent, however, was negatively related to the size of the district.³ That is, administrators from small districts judged a greater proportion of their special education personnel to be excellent than did administrators from larger districts (see table III-9).

Administrators were also asked how many person days of substitute teaching they used in a typical week for special education teachers. For the nation, slightly over 50,000 (50,024) person days of substitute teaching were used each week. Assuming that there are 36 weeks in the typical school year, the total number of person days of

³ Analyses by size of district excluded IEOUs. Very large districts are defined as districts with total enrollments of over 50,000 students. Large districts have enrollments of from 10,000 to 50,000 students. Medium districts have enrollments from 2,500 to 10,000 students, and small districts have enrollments under 2,500 students.

Table III-10
Percent of Districts Using Different Methods To Recruit Special Education Teachers and Related Services Providers

Recruitment Method	Percent	Standard Error
Advertise in national education publications	22.6	3.5
Advertise in local publications	96.8	1.4
Contact educators in other schools and agencies	97.2	1.5
Contact teachers' organizations	54.8	4.6
Contact colleges and universities	98.0	1.5
Use any other special recruitment efforts	92.2	74.5

Source: SPeNSE Administrators Survey, Item MB8.

substitute teachers needed in a school year would be 1,800,864. This is the equivalent of 10,048 full-time substitute teachers each year across the country.

Teacher Recruitment Efforts

Administrators reported using a variety of methods to recruit special education teachers; most were traditional methods, while others involved new technology and activities. As can be seen in table III-10, almost all of the administrators recruiting special education teachers and related service providers in the last 3 years used local publications, contacted educators in other schools, or contacted colleges and universities. Over half of all administrators recruiting special education teachers contacted teacher organizations (55 percent), while only 23 percent advertised in national publications. Other methods of recruitment were reported by 92 percent of administrators and included listing job openings on a web site, participating in job fairs, and working with their State departments of education or using State resources to recruit candidates.

Advertisements in local publications, contacts with educators in other schools, and contacts with colleges and universities were used uniformly across districts in different regions,⁴ of different sizes, of different metropolitan status,⁵ and with

⁴ Region is defined in terms of the six Regional Resource Centers funded by OSEP.

⁵ The variable used is defined by the U.S. Census Bureau; it includes a central city of a metropolitan statistical area (MSA), an MSA but not a central city, and outside an MSA.

different levels of poverty.⁶ Contacting teacher organizations was less frequently used by districts, but no differences existed across districts based on region, size, metropolitan status, or level of poverty. Small and medium-sized districts were less likely to advertise in national publications than were larger districts. Metropolitan status, poverty, and region did not have an impact on the use of national publications.

Another recruitment tool that has been promoted by some educators is the use of incentives such as signing bonuses, placing newly hired personnel on a higher step of the salary schedule, providing an increase in base salaries or other raise in salary through reclassification, or providing additional fringe benefits. Administrators were asked if they used these types of incentives to recruit or retain special education teachers and service providers for the 1999-2000 school year. Only 15 percent indicated that they had used such incentives. Among these districts, bonuses were used most frequently; however, the districts using bonuses represented only about 7 percent of the number of districts nationwide.

Smaller districts were less likely to use incentives than larger districts, with very large districts most frequently using incentives. Perhaps surprisingly, district poverty had little impact on the use of incentives; that is, wealthier districts were no more likely to use incentives than were poor districts.

Some school districts offered other benefits to entice teachers to take jobs in their districts. For example, some districts offered free training to prepare staff members to become special education teachers or to obtain additional certification, licensure, or endorsement. Nationwide, 46 percent of district administrators maintained that such training was available. However, this training was offered more frequently by districts in the Mid-South than by districts in the Northeast, Great Lakes, Mountain Plains, and Western regions. Small districts were less likely to offer free training than were very large and medium districts.

In addition, many States currently utilize a combined general and special education web-based statewide recruitment approach. The web-based approaches frequently include:

- A single application that can be submitted to some or all districts;

⁶ Poverty was operationalized using the Orshansky index (percent of students below the Federal poverty level as a proportion of all students enrolled in the district). These data were obtained from the January 2000 Quality Education Data (QED) file. Districts were assigned a relative poverty index (1-4) based on the quartiles of the range of Orshansky scores.

- Links to local newspapers and cultural resources;
- Links to State certification offices; and
- Links to higher education programs.

Many States report that the web-based approach has been highly effective.

Criteria Used in Hiring Teachers

Research demonstrates that teacher shortages may not be due to insufficient numbers of individuals seeking teaching positions. Instead, such shortages may be the result of an insufficient supply of teachers with the qualities sought by school districts (Boe, Bobbitt, & Cook, 1996). To examine the qualities sought by administrators in hiring special education teachers, the SPeNSE questionnaire asked about the criteria used to evaluate teaching applicants.

Several evaluation criteria were used by more than 80 percent of the districts nationwide (see table III-11). These criteria included full certification for the students, subjects, and grade levels to be taught; at least an emergency or temporary State certification or endorsement for the specific teaching assignment; graduation from a State-approved teacher education program; a college major or minor that matches the teaching assignment; and the passage of a State test of basic skills. About 75 percent of all agencies reported that they use passage of a State test of subject knowledge; 56 percent used passage of the National Teachers Examination (NTE) or the Praxis Series Core Battery Test of Professional Knowledge. Eighteen percent of administrators reported using other criteria, such as prior experience/professional background, references and recommendations or referrals, and academic performance. Nearly all administrators (96 percent) reported that they often obtain an appraisal from an applicant's former principal, supervisor, or supervising teacher before making a job offer.

Virtually all administrators (99.9 percent) reported using full standard State certification as a criterion for evaluating job candidates. Graduation from a State-approved program, possession of at least an emergency or temporary State certification or endorsement, and having a major or minor that matches the teaching assignment were also widely used by districts, regardless of region, size of district, metropolitan status, or level of district poverty. Districts in the Northeast and Mid-South were more likely to consider passage of the NTE or Praxis than were districts in other regions. The Mountain Plains region was less likely than the Mid-South, Southeast, Great Lakes, and Western regions to use basic skills tests. These last two findings are undoubtedly a function of the certification policies of individual States.

Table III-11
Percent of Districts Using Different Selection Criteria for General and
Special Education Teachers

Selection Criteria	Percent	Standard Error
Full standard State certificate for the students, subjects, and grade levels to be taught	99.9	0.0
At least an emergency or temporary State certificate or endorsement for teaching assignment	86.7	2.9
Graduation from a State-approved teacher education program	88.8	2.8
College major or minor that matches the teaching assignment	88.2	2.9
Passage of State test of basic skills	82.5	3.0
Passage of State test of subject knowledge	74.7	3.3
Passage of NTE or the Praxis Series Core Battery Test of Professional Knowledge	55.9	4.0
Any other criteria	18.0	3.4

Source: SPeNSE Administrators Survey, Item MD1.

Barriers To Hiring Teachers

Many researchers and policymakers have speculated as to why it is so difficult to recruit special education teachers. Suggested explanations range from low salaries and lack of qualified candidates, to constraints posed by unions, schools' control over hiring, and affirmative action. Through the SPeNSE survey, local administrators have provided the first national look at the barriers they faced in recruiting special education teachers over the last 3 years.

Table III-12 indicates that some factors were viewed by the majority of administrators as significant barriers to hiring while others were not. More than 80 percent of administrators concluded that the shortage of qualified applicants was a great or moderate barrier to hiring special education teachers, confirming the findings of Boe and his colleagues (1996). The only other factors considered moderate or great barriers to hiring by more than 40 percent of administrators were geographic location (50 percent), openings becoming available too late in the year (44 percent), and insufficient salary and benefits (59 percent). Examining the mean values of the administrators' responses, the relative rankings of the barriers were the same. However, few administrators reported that other institutional barriers were problematic. Inability to offer job security (9 percent), schools having too much control over hiring decisions (6 percent), constraints imposed by affirmative action

Table III-12
Percent of Districts Viewing Factors as a Barrier To Obtaining Qualified Special Education Teachers in the Last 3 Years

Barrier	Not At All		To a Small Extent		To a Moderate Extent		To a Great Extent		Mean Value (1-4)
	Percent	Standard Error	Percent	Standard Error	Percent	Standard Error	Percent	Standard Error	
Shortage of qualified applicants	4.4	2.0	12.1	3.3	32.0	3.9	51.5	4.5	3.3
Insufficient salary and benefits	21.5	3.4	19.6	3.5	41.9	4.4	17.0	3.3	2.5
Inability to offer job security	68.9	3.9	22.1	3.3	7.2	2.3	1.8	1.7	1.4
Unwillingness to teach the types of students in your district	55.1	4.2	20.0	3.4	18.7	3.6	6.3	2.3	1.8
Perceptions of the working environment in your district	54.0	4.3	29.6	4.3	10.6	2.8	5.7	2.3	1.7
Difficulty identifying the applicant with the best qualifications	59.8	4.2	25.1	3.8	12.8	2.8	2.3	1.4	1.6
Openings becoming available too late	27.4	4.1	28.5	3.8	30.2	3.9	13.9	3.5	2.3
Schools having too much control over hiring decisions	76.8	3.8	17.0	3.2	6.2	2.2	.03	.009	1.3
Constraints imposed by unions or associations	69.4	3.9	17.5	3.2	11.9	2.6	1.2	.5	1.4
Constraints imposed by affirmative action	85.9	2.8	12.9	2.7	1.2	.9	.03	.01	1.2
Geographic location of school	25.9	3.4	23.6	3.4	29.4	4.1	21.0	4.0	2.5

Source: SPeNSE Administrators Survey, Item MB11.

(1 percent), and constraints imposed by unions or associations (13 percent) were not generally seen as great or even moderate barriers to recruiting special education teachers.

Very large districts were more likely than small and medium-sized districts to see the shortage of qualified applicants as a problem. Districts in the Northeast were less likely to report this as a barrier than were districts in the Southeast, Great Lakes, and Mountain Plains regions; this may be a function of the large number of teacher training institutions in the Northeast region. Insufficient salary and benefits were more often viewed as a barrier by the poorest districts than by more wealthy districts. MSA suburban districts were less likely to view insufficient salary and benefits as a barrier than were non-MSA districts.

Small districts viewed the geographic location of the school as a barrier to hiring to a greater extent than did larger districts. Relatedly, districts outside MSAs were more likely to report geographic location as a barrier than were districts within MSAs. Districts in the Northeast were less likely than those in the Southeast, Great Lakes, and West to report openings becoming available too late as a barrier; this again may be related to the large number of teacher training programs in the Northeast.

Conclusions

Across the country, administrators responding to the SPeNSE survey reported having almost 70,000 openings for special education teachers at some time during the 1999-2000 school year. Virtually every district, IEU, and State school for students with hearing impairments or visual impairments had an opening for a special education teacher. On average there were seven openings per district.

The SPeNSE administrator survey provides some explanations and potential solutions to shortages of special education teachers. When asked about barriers to finding teachers, administrators noted that the most significant barriers were related to the supply of quality teachers and to salary and benefits rather than to institutional barriers such as job security, schools' control of the hiring process, and the impact of unions and affirmative action. This suggests that policymakers should put additional efforts into increasing the supply of quality teachers, working to raise teacher salaries and benefits, and attempting to equalize salaries across districts.

Perhaps two of the most problematic hiring barriers cited by administrators are the district's geographic location and the fact that openings become available too late in the year. New approaches to recruitment may help to overcome these barriers. Administrators noted that they overwhelmingly used traditional methods of finding

new teachers, such as advertising in local newspapers and contacting local colleges and universities. Relatively few administrators reported using methods such as posting job openings on the World Wide Web. The lack of success that administrators reported in finding qualified teachers and the number of positions left vacant or filled by substitutes suggests that new methods of recruitment need to be more widely utilized. For example, the Mountain Plains Regional Resource Center at Utah State University and the Kansas Department of Education have developed and implemented an Internet-based system that allows school administrators to post regular and special education job openings and provide information about the school and community. Applicants can submit applications and resumes to the school district online. The system has been extended to other States, and those using it have reported success in recruiting regular and special education staff. Their experience suggests that a nationwide system of online recruitment might prove helpful in hiring teachers who are interested in various geographic locations and available late in the hiring season.

While administrators across the country were generally pleased with the teachers they recruited, many openings remained at the beginning of the school year, and some administrators reported that the applicants they hired were not excellent teachers. Some openings were filled by substitutes, while others were left vacant because administrators were unable to hire teachers with the qualities they sought. These findings suggest that greater efforts need to be made to ensure congruence between teacher training programs and the qualities that administrators seek in special education teachers.

Future SPeNSE publications will examine the extent to which special education personnel are adequately prepared to serve students with disabilities, variation in personnel preparation, and factors that explain that variation. Results from those analyses will provide additional information to guide policy development at the national, State, and local levels to ensure an adequate supply of highly trained personnel to serve students with disabilities.

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Services Received by Children and Families Entering Early Intervention

Service delivery under Part C of the Individuals with Disabilities Education Act (IDEA) has been found to vary depending on a variety of factors (Harbin, McWilliam & Gallagher, 2000; Hebbeler, 1997; Kochanek & Buka, 1998; Spiker, Hebbeler, Wagner, Cameto, & McKenna, 2000). In part, this is due to the fact that there was considerable variation in the history of early intervention service delivery prior to the implementation of Part C. The law further allowed States some latitude in implementing Part C. Understanding the nature of early intervention is clearly of significance at many levels, including the development of Federal and State policies to improve services and ultimately the results of those services. Describing the nature of early intervention, however, is not a straightforward task. Early intervention can be described with regard to many different features and, as yet, we do not know which features of early intervention are the most important. Early intervention can be characterized with regard to type of service (e.g., speech therapy, nutrition services, etc.), location of service (home, specialized center, etc.), or provider of service (nurse, physical therapist, etc.), to mention just a few potential critical features.

Data on Part C services have been collected from States by the Office of Special Education Programs (OSEP) for the past several years and are reported in tables AH1 through AH12 of this report. There also exist some data from statewide evaluations (e.g., Farel, Schackelford, & Hurth, 1997; Roberts, Innocenti, & Goetze, 1999). The National Early Intervention Longitudinal Study (NEILS) adds considerably to what is known about early intervention services by providing more in-depth information about multiple features of services provided to a nationally representative sample of 3,338 children and families. These infants and toddlers and their families began receiving early intervention services for the first time in 1997-98. This module provides initial information about their first 6 months of service.

At the time of enrollment into early intervention, when families completed and signed the initial individualized family service plan (IFSP), staff members at agencies enrolling families into NEILS were asked to name one of the early intervention professionals who would be most knowledgeable about the services that the child and family would be receiving. Frequently, this individual was the family's designated service coordinator, but he or she could be any type of professional familiar with the services provided to the child and the family. Six months after the signing of the initial IFSP, this provider was asked to complete a NEILS Service Record to report information about the services provided to the child and family during the prior 6

months. The service data reported here are weighted to represent the national population of infants and toddlers entering early intervention.

The following questions are addressed in the data from NEILS reported here:

- (1) What types of early intervention services are provided to infants, toddlers and their families?
- (2) Where are early intervention services provided (i.e., locations or settings)?
- (3) What are the types of providers who are delivering early intervention services to infants, toddlers and their families?
- (4) What are the reasons that those early intervention services scheduled for infants, toddlers and their families are missed, when they are missed?
- (5) How well are the infants and toddlers receiving early intervention services progressing towards the goals specified in their individualized family service plans (IFSP)?

Receipt of Early Intervention Services and Types of Services

Six months after enrollment into early intervention (defined as signing the initial IFSP), 81 percent of infants and toddlers and their families were still enrolled in early intervention. Of those who were no longer enrolled in early intervention after 6 months, 3 percent of the children had died, 37 percent were no longer eligible for services because they no longer met the State's eligibility criteria for developmental delay or they had reached 36 months of age, and 24 percent had moved away or had a change in custody/household. Significant minorities of families had discontinued services (18 percent) or could not be located by early intervention providers (11 percent).

Federal law specifies the types of services that are designated as early intervention services. The percentages of children and families receiving these and other services are shown in table III-13. The most frequently provided service was service coordination, which was provided to 80 percent of the families. (It should be noted that the family may decline this service or choose to perform this coordination function themselves. Some respondents may also have neglected to identify service coordination because it is a service to which every family is entitled.) Social work services were provided to 12 percent of NEILS families, and it is possible that these providers performed some of the functions considered under the rubric of service

Table III-13
Early Intervention Services Received by Children and Families During the First 6 Months, as Reported by Service Providers

Service	Percent
Assistive technology	4
Audiology	14
Behavior management services	6
Developmental monitoring	38
Family counseling/mental health counseling	4
Family training	20
Other family support	10
Genetic counseling/evaluation	3
Health services	7
Medical diagnosis/evaluation	11
Nursing services	7
Nutrition services	7
Occupational therapy	39
Physical therapy	38
Psychological or psychiatric services	4
Respite services	4
Service coordination	80
Social work services	12
Special instruction for the child	44
Speech/language therapy	53
Translation services (interpreter)	2
Transportation and/or related costs	7
Vision services	6
Other	2

Notes: Percentages sum to more than 100 percent because children and families could receive more than one service.

Percentages exclude 2.3 percent of children and families who received no services in the first 6 months after signing the IFSP.

N=2,651.

Source: National Early Intervention Longitudinal Study.

coordination. One major goal of the Part C legislation was to provide families with better coordination of services (Roberts, Behl, & Akers, 1996; Roberts, Innocenti, & Goetze, 1999).

Since Part C was enacted to enhance the development of infants and toddlers with disabilities or at risk for developmental delay, it is not surprising that direct services related to supporting and promoting the child's development and functioning were

frequently provided. After service coordination, different therapy services were the next most common service provided. Speech therapy was provided to about half of all NEILS children (53 percent) during their first 6 months in early intervention. Occupational therapy and physical therapy were provided to about 4 in 10 children (39 percent and 38 percent, respectively). Special instruction to the child was another common service, provided to about 4 in 10 children (44 percent).

Another important area of early intervention service is that of evaluation and assessment of the child's development, health, and overall functioning. Developmental monitoring was a commonly provided service, provided to 38 percent of the children. Other services that relate to a variety of evaluation and assessment needs of children and families were provided to significant minorities of families. For instance, 14 percent received audiology services, 11 percent received medical diagnosis or evaluation services, and 3 percent received genetic counseling.

One of the fundamental goals of the Part C program is to provide support to improve families' capacity to meet the special needs of their infants and toddlers (Bailey et al., 1998; Wesley, Buysse, & Tyndall, 1997). To this end, services related to family training and other family support were provided fairly frequently. For instance, of the family-related services shown in table III-13, 20 percent of families received family training, 10 percent received other family support services, 12 percent received social work services, and 4 percent received family or mental health counseling services.

Most of the children and families (77 percent) received between two and six different services, with about one in five receiving two different services (18 percent), three different services (19 percent), or four different services (17 percent). Nearly 1 in 10 families received eight or more services during the first 6 months in early intervention.

Location of Early Intervention Services

Early intervention services can be provided in a variety of settings. Federal law specifies that services should be provided in natural environments to the maximum extent appropriate, which for infants and toddlers means the home and community settings in which children without disabilities participate (e.g., child care or preschool programs).

The majority of infants and toddlers received services in a home or community setting. Nearly 8 in 10 infants and toddlers in the NEILS sample (78 percent)

Table III-14
Locations of Early Intervention Services Received During the First 6 Months After the Initial IFSP as Reported by Service Providers

	Percent
In the family's home	78
In a family day care/preschool/nursery school	10
In a specialized center-based early intervention program	28
In a clinic or office (e.g., hospital-based clinic, therapist office)	29
Another setting (e.g., inpatient services in a hospital)	5

Notes: Percentages sum to more than 100 percent because children and families could receive more than one service.

Percentages exclude 2.3 percent of children and families who received no services in the first 6 months after signing the IFSP.

N=2,651.

Source: National Early Intervention Longitudinal Study.

received services in the home (see table III-14). One in 10 children (10 percent) received services in a family day care, nursery, or preschool setting, and a small percentage received services in other settings, including community-based programs like a gym or YMCA program or various types of community-based offices. Finally, 3 in 10 children received services in specialized early intervention programs (28 percent) or clinics (29 percent). Most children and families received services in one (58 percent) or two (33 percent) different settings. Eight percent received services in three settings, and 1 percent were served in four settings.

Types of Providers of Early Intervention Services

There is a wide variety of early intervention services; thus, many different kinds of personnel provide these services (table III-15). The most common types of early intervention providers were service coordinators, speech and language therapists, occupational and physical therapists, child development specialists, and special educators.

Most of the children and families had two or more different types of providers delivering services to them. About half of the NEILS families (46 percent) had two or three providers working with them, while another 28 percent of families had four or five different providers working with them. For a small minority of families (13 percent), there were as many as six or more different types of providers at one or more agencies working with their child and family.

Table III-15
Types of Providers of Early Intervention Services to Children and Families
During the First 6 Months After the Initial IFSP as Reported by Service
Providers

Type of Provider	Percent
Audiologist	12
Behavior therapist	2
Child development/infant specialist	33
Family support specialist	5
Family therapist/mental health professional	1
Nurse	9
Nutritionist	5
Occupational therapist	38
Occupational therapy assistant	3
Orientation/mobility specialist	<1
Paraprofessional	5
Parent (other than parent of the child)	1
Pediatrician	7
Physical therapist	39
Physical therapy assistant	2
Psychologist/psychiatrist	6
Physician	7
Service coordinator	64
Social worker	10
Special educator	29
Speech/language therapist/pathologist	53
Vision specialist	5
Other	4
Number of different types of providers	
None	1
One	13
Two	23
Three	23
Four	17
Five	11
Six	6
Seven	4
Eight or more	3

Notes: Percentages for types of providers sum to more than 100 percent because children and families could receive services from more than one provider.

Percentages exclude 2.3 percent of children and families who received no services in the first 6 months after signing the IFSP.

N=2,651.

Source: National Early Intervention Longitudinal Study.

The providers who completed the NEILS Service Records were asked to indicate whether the different providers consulted with each other on a regular basis in order to coordinate and share information. Because children and families may receive multiple services from different providers, consultation among providers is an essential component of an effective service delivery system (Paisha & Wesley, 1998; Roberts, Behl, & Akers, 1996). Such consultation was reported for 94 percent of the families. For 14 percent of the families, one or more early intervention professionals working with the family consulted regularly with the child's day care or preschool teacher.

Reasons for Missing Early Intervention Services

Understanding the differing reasons that children and families miss scheduled services is important for the design and improvement of local early intervention systems, including issues related to staffing and allocation of expenditures, among other issues. For instance, if family factors, such as lack of transportation, prevent families from consistently participating in early intervention services, knowing which factor is a barrier may suggest a specific strategy for program improvement. Another strategy might be developed in response to knowing that missed services are due to a lack of available staff.

Nearly 2 in 10 children and families missed no services in the first 6 months after entering early intervention (see table III-16). Of those who did miss some services during that time, nearly 6 in 10 (58 percent) did so for reasons associated with the child, such as illness. Another 46 percent missed services because of reasons related to family circumstances, such as lack of transportation. More than one-fourth of families missed services due to problems related to programs or providers, such as provider illness or lack of available staff. This is consistent with other studies that have shown that families do not typically receive all of the services they are scheduled to receive. For instance, Kochanek & Buka (1995) reported that 72 percent of the total number of services scheduled for infants, toddlers, and their families were actually provided. They also found that the major reason for missing services was due to factors related to families being unable or electing not to use the services offered. This study did not distinguish between reasons related to the child versus those related to the family.

Perceived Progress Toward IFSP Outcomes

Finally, providers were asked to rate the child's progress toward achieving the outcomes specified on the IFSP. Providers gave positive progress ratings for the majority of children. Forty-nine percent of the children were rated as making about

Table III-16

Reasons Children and Families Missed Early Intervention Services During the First 6 Months After the Initial IFSP as Reported by Service Providers

	Percent
No services missed in the past 6 months	19
Missed for reasons related to child (e.g., illness)	58
Missed for reasons related to family (e.g., transportation problems, forgot appointment)	46
Missed for reasons related to program or provider (e.g., provider illness, staff not available)	27
Unknown	22

Notes: Percentages for reasons for missing services sum to more than 100 percent because families could miss services for more than one reason.

N=2,651.

Source: National Early Intervention Longitudinal Study.

as much progress as expected, and 23 percent were rated as making more progress than expected. Only 12 percent of NEILS children were rated as making less progress than expected. Progress ratings were not provided for 16 percent of the children. Future analyses will examine these ratings in relation to other information. For example, it will be important to determine how these ratings correspond to other indicators of child progress and how they relate to the actual services received, as well as to other data obtained from parents via the annual phone interviews, (e.g., disability types, family demographic characteristics).

Summary

This in-depth first national look at the services received by infants and toddlers and their families in the first 6 months after entering the Part C early intervention program shows that there is considerable variability with regard to service types and characteristics. Most children and families received between two and six different early intervention services, with about 8 in 10 families receiving service coordination. Therapy services and special instruction for the child were the most frequently provided services, with nearly half of all children receiving speech therapy and nearly 4 in 10 receiving special instruction for the child, physical therapy, or occupational therapy. Services were provided in a variety of settings, but the vast majority of families (78 percent) received some services in their homes. Most children and families received services in either one setting (58 percent) or in two settings (33 percent). Additional analyses which include more information about the combination and intensity of services and how these aspects of services relate to child and family characteristics and outcomes will be forthcoming in future reports from NEILS.

A wide variety of professionals and paraprofessionals provided early intervention services to children and families. Providers reported consultation among providers for 94 percent of the families, suggesting a significant degree of collaboration and information-sharing among the personnel providing early intervention services. For 14 percent of the families, one or more early intervention personnel consulted with the child's day care providers or preschool teachers. Additional analyses will examine the percentage of children in child care settings to provide further insight into this estimate.

In future reports from NEILS, the information about services and providers reported here will be examined in the context of data about the backgrounds and training of early intervention personnel and the characteristics of early intervention programs and agencies. Ultimately, service and provider data will also be used to determine how these service characteristics relate to child and family outcomes.

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Using Implementation Data To Study State, District, and School Impacts

Introduction

In 1997, Congress made significant changes to the Individuals with Disabilities Education Act (IDEA), the landmark law that helped ensure access to education for children with disabilities. With access to public schools already guaranteed for 6.1 million children with disabilities, the 1997 reauthorization of IDEA set educators' and policymakers' sights on improving achievement for these students, as well as on ensuring positive transitions to work or postsecondary education after graduation.

As part of the reauthorization, Congress instructed the Office of Special Education Programs (OSEP) to conduct a national assessment to “examine how well schools, local educational agencies, States and other recipients of assistance” were making progress toward:

- Improving the performance of children with disabilities in general scholastic activities and assessments as compared to nondisabled children;
- Providing for the participation of children with disabilities in the general curriculum;
- Helping children with disabilities make effective transitions from early intervention to preschool, preschool to school, and school to adult life;
- Placing and serving children with disabilities, including minority children, in the least restrictive environment appropriate;
- Preventing children with disabilities, especially those with emotional disturbance or specific learning disabilities, from dropping out of school;
- Addressing behavioral problems of children with disabilities as compared to nondisabled children;
- Coordinating services provided under IDEA with other educational and pupil services, including preschool and health and social services funded from other sources;

- Providing for the participation of parents in the education of their children with disabilities; and
- Resolving disagreements between education personnel and parents through activities such as mediation.

OSEP responded to these issues by designing two sets of studies: child-outcome longitudinal studies and topic-specific studies. The former include studies of infants and toddlers, children in preschool, children in elementary school, and youth transitioning from school to adult life. The latter cover three issues: the cost of special education; an investigation into personnel needs in special education; and a longitudinal policy study of how States, districts, and schools are implementing IDEA. (See the module on OSEP's national assessment in Chapter IV of this report.)

The State and Local Implementation of IDEA (SLIIDEA) is a longitudinal study of how States, districts, and schools are implementing IDEA. To guide SLIIDEA, OSEP has developed a set of implementation and impact questions to address the congressional issues annually, as well as over time. They are the following:

- How do States, districts, and schools use policies, practices, and resources to serve children and youth with disabilities? What factors influence the use of these policies, practices, and resources? (In this question, policies refer to legislation, rules, and procedures; practice refers to the activities carried out to implement the policy; and resources include the staff and money set aside or identified to implement the policy and practice.)
- To what extent are States, districts, and schools making progress toward achieving academic outcomes?
- What is the relationship between State policy and practice and district and school policy and practice? Do State policies affect district and school practices, policies, and resources or the process of local change, and if so, how?
- What are the critical and emerging issues in States, districts, and schools?

This module describes the conceptual foundation of SLIIDEA, and in so doing, answers an important question: What is implementation and impact research and why is it so important? It also sets forth preliminary hypotheses about State and local implementation of IDEA. Finally, the module presents preliminary data from the first-year survey on the policy instruments that States use to potentially influence districts and schools.

Implementation Research Defined

As its name implies, implementation research most often looks at how programs or policy innovations are being implemented. Implementation studies primarily focus on “what is happening” in the design and implementation of a program. They also respond to the questions “What is expected or desired?” and “Why is it happening?” In sum, they evaluate and explain program phenomena.

In addition, implementation research helps to identify the degree or extent to which a program has been implemented, identifying different stages of implementation beginning from early planning all the way to full implementation. Evaluators also use implementation research to determine how effective program planners were in implementing a program as designed. If a program model is implemented differently from the original design, this could have an impact on the studied outcomes. Similarly, implementation research can help measure how well a program model has been adapted to local conditions, and whether the conditions have affected implementation to such an extent that outcomes might be skewed.

Examples of Coordinated Uses of Implementation and Impact Studies

Over the past few decades, implementation research has become a major vehicle for policy analysis. In the first generation of implementation studies, researchers focused primarily on whether the results of a given policy were consistent with expectations. In the second generation, they focused on variations in the response of individuals and institutions. The latest generation of implementation research has focused on what instruments can be used during implementation to achieve the desired effects. For example, researchers have begun to explore the different effects of such policy levers as mandates and inducements and why policymakers use them (McDonnell & Elmore, 1987; Odden, 1991).

Implementation research has become especially important in the context of impact evaluation. This became apparent to researchers and policymakers in the 1970s when many large-scale studies of the impact of Federal educational programs were first undertaken. One notable example is the national evaluation of Follow Through, which reported findings about such educational approaches as open classroom models or models that emphasized the acquisition of basic skills or thinking skills (Stebbins, St. Pierre, Proper, Anderson, & Cerva, 1977). The Follow Through evaluation could not explain very much about how or why the results occurred. Researchers later realized that the study could not provide such explanations because each model was implemented in up to 20 different sites, and no information had been gathered on whether the programs had been implemented uniformly or if the

model as implemented matched the program design. This made it impossible for evaluators to determine how or why the results occurred.

As a result of these and similar research experiences, proponents of randomized impact studies began to recognize the need for understanding how programs were implemented. This realization led, in the 1980s and 1990s, to more common coordination between implementation and impact studies.

At least half a dozen examples can be offered on possible uses of implementation data in evaluations of program impact. They include instances in which evaluators are interested in: (1) describing programs, (2) changing programs through mandates, (3) expanding programs because of successful pilots, (4) explaining observed outcomes, (5) helping to identify plausible rival hypotheses for observed program impacts, and (6) testing hypotheses about which program features work.

Describing Programs. Data on how programs are implemented are valuable for providing straightforward descriptive information. Such data help policy analysts understand how a program is operating and the variations in how it is implemented in different settings. For example, in a national evaluation of the Even Start Family Literacy Program in 1995 and 1998, descriptions of provided services and the characteristics of participating families and the services the families received helped program officials understand how the program operated at the local level (St. Pierre, Swartz, Gamse, Murray, & Deck, 1995; Tao, Gamse, & Tarr, 1998). Ultimately, this information allowed officials to understand program deficiencies.

Changing Programs Through Mandates. When legislative mandates require new program responsibilities in existing programs, implementation and impact data can help evaluators sort out the effects of the mandates. Evaluators might be interested, for example, in knowing whether the new legislative mandates stretched the capacity of an existing program by adding responsibilities that outstrip resources. The implementation study can reveal important descriptive information, while the impact study can determine if the innovations worked. For example, the reauthorization of IDEA in 1997 made a number of changes to the original law, including a greater focus on higher expectations and improved achievement for children with disabilities. Thus, the original goal of IDEA—ensure access to education for children with disabilities—was expanded to include achieving academic excellence (Kaufman & Lewis, 1999).

Expanding Programs Because of Successful Pilots. Researchers are sometimes interested in the relationship between the extent of implementation and outcomes. For example, when a model program has successful results, planners are often interested in expanding the program to other sites. Researchers can create surveys to

measure important indicators of the model program and then use the surveys to determine if the indicators are present in the replicated programs. Such information was very useful when researchers studied replication of James Comer's School Development Program. Millsap and colleagues (2000) found that better program-level implementation was associated with greater student-level outcomes. Fidelity to a program's original design can also be used to predict program outcomes.

Explaining Observed Outcomes. Implementation data can be useful in explaining observed outcomes. *How* a program is implemented can explain *why* the outcomes were positive or not. Researchers (Goodson, Layzer, St. Pierre, Bernstein, & Lopez, 2000) who evaluated the Comprehensive Child Development Program, authorized by Congress in 1988 and administered initially by Health and Human Services, determined that the program was ineffective at meeting any of its goals of enhancing children's school readiness and parents' economic self-sufficiency. Was the problem the program's implementation or the underlying theory of the program? The study revealed that it was implemented as planned but that the underlying logic of the program was flawed.

Helping To Identify Plausible Rival Hypotheses for Observed Program Impacts. Implementation data can be used to identify or discount plausible rival hypotheses for observed impacts. Researchers need to be able to say if a program actually caused the observed effects or if some other unaccounted for intervention caused the results. Even in an experimental design, possible problems can lead to improper conclusions, including poor implementation or minimal participation of the experimental group. Implementation data on the program being studied and on the evaluation being conducted can help sort out these issues.

Testing Hypotheses About Which Program Features Work. Implementation data can help policymakers construct hypotheses about which features lead to positive outcomes. Beyond knowing if something works, researchers want to learn how well it works, for whom it works best, the circumstances under which it works best, and the program components that are most helpful. These answers are often forthcoming when implementation studies are combined with impact studies. For example, the Even Start evaluation used implementation data to determine the extent to which outcomes are related to the intensity of services provided (St. Pierre et al., 1995).

Implications for SLIIDEA

SLIIDEA follows the model of an implementation study in the context of an impact evaluation; its charge is to understand both the implementation and impact of policy changes made in the IDEA Amendments of 1997 at State, district, and school levels.

Therefore, the study is gathering data that are descriptive, evaluative, and interpretive (i.e., implementation data) and is using the data to draw conclusions about expected variations in how States and localities have implemented policies and practices to achieve their legislative goals.

It is expected that the study will show evidence that States and localities have to various degrees addressed issues such as service coordination, accountability systems, and procedural safeguards needed to achieve the goals of the law. Because of the existence of these indicators, it is also expected that the study will reveal evidence of short-term outcomes, or impact, over the next 5 years. Examples of impact might include (at State, district, and school levels) increased use of accountability systems, better transition services and results, fewer dropouts, greater family involvement, and increased use of positive behavioral supports in schools. It is also possible that the collective impact of these short-term outcomes will lead to longer term outcomes: better academic performance and increased access to postsecondary opportunities.

Hypotheses

SLIIDEA is currently examining the hypothesis that there is variation in implementation across sites and across time (McLaughlin, 1987; Moore, Goertz, & Hartle, 1983; Stearns, Greene, & David, 1980). Congress established requirements in the IDEA Amendments of 1997 but did not prescribe how they would be accomplished. One requirement of the legislation, for example, was that children with disabilities would participate in statewide assessments, but Congress did not specify what accommodations these students should receive, leaving local decisions to States and districts.

But Federal programs are typically administered by State agencies with their own priorities and mandates. In special education, the leadership in, history of, and priorities for educating children with disabilities have proven to be important factors in how laws are implemented (Hasazi, Furney, & DeStefano, 1997; Stearns et al., 1980; Weatherly & Lipsky, 1977). At the next level—the district and school level—Federal and State priorities are translated again, with variations that depend on resources, capacity, and demographics (Singer, Butler, Palfrey, & Walker, 1986).

In general education, this dynamic plays out, for example, in accountability. Nearly every State has implemented standards-based systems that now hold schools accountable to external standards and scrutiny. The movement is national, but implementation varies from State to State and district to district. Within each district, implementation varies from one school to the next according to the culture, skills, knowledge, and expertise of the school (Elmore, 2001). Understanding school response to accountability standards must take into account the initial position of the

school relative to the policy; the internal conditions already present, including organizational structures, internal accountability systems, and collective expectations; and the strategic choices and actions of those within it (Siskin, 2001).

Similarly, State action on school governance issues can have a profound impact, both intended and unintended, on the district. In Illinois, for example, State mandates on the creation, composition, and powers of school improvement councils have had a huge influence on how Chicago public schools operate. In particular, the councils were empowered to hire or fire principals. These powers, in combination with new regulations on tenure and school performance mandates, led to massive turnover of principals in the mid- to late 1990s. To recoup and adjust to the new environment, the Chicago principals union initiated some of the most progressive professional development programs in the country for its membership. This is a clear example of how State policy can influence local implementation and practice in ways that nobody could have predicted (Cohen & Thompson, 2001).

In special education, evidence of State policy influencing local implementation and promising practices is more fragmented or unavailable. This study is helping to capture such information as described below. The first step in this process was the administration of a survey to all 50 States and the District of Columbia ($N = 51$), a nationally representative sample of districts and a nationally representative sample of schools within the sampled districts.

State Policy Instruments

Policymakers have a range of instruments available to them to accomplish their goals. Analysts have identified them as fitting into the following classification scheme: mandates, inducements, capacity-building, and system-changing (McDonnell & Elmore, 1987). The SLIIDEA data are identifying certain policy instruments that States may use to influence special education activities at the local level. They include mandates such as legislation, written requirements, or guidance and inducements such as incentives, rewards, sanctions, technical assistance, financial assistance, and accountability through public reporting.

The information gathered thus far from the survey shows the following patterns in the States:

Student Assessments

- Forty-three States provide some combination of technical and financial assistance to districts and schools where students do poorly on achievement tests. Twenty-six of these States offer some combination of technical and financial assistance focusing on students with disabilities. None of the States provides financial assistance only.
- Thirty-one States reward or sanction schools or districts on the basis of students' academic performance on achievement tests. Six of these States do not consider the results of students using accommodations when determining eligibility for rewards or sanctions, and one other State considers separately the test results of students who take tests with accommodations.

Dropout Rates

- Thirty-five States issue reports on dropout rates. Nine of them report separately on the rates of students with disabilities.
- Twelve States reward or sanction schools on the basis of graduation or dropout rates. Only one does not consider the rates of students with disabilities when determining these rewards or sanctions.
- Thirty-three States provide some combination of technical and financial assistance to districts or schools with high dropout rates or low graduation rates. Twenty-eight of these States focus some combination of financial and technical assistance on schools serving students with disabilities. None of the States provides financial assistance only.

Parental Supports

- Twenty-seven States regularly evaluate parent/guardian satisfaction with special education services. Fourteen of the States report these results by district.
- Fifty States offer workshops for district personnel on IDEA regulations as they pertain to parent involvement.
- Forty-seven States offer workshops for district personnel on ways to involve parents/guardians in the individualized education program (IEP) process.
- Sixteen States provide districts with funds for such services as transportation and babysitting to encourage parental participation in IEP meetings.

In addition to describing the policy instruments that States are using, the study is examining whether the use of these instruments affects policies and practices at the district and school levels. An examination of the data also could lead to the generation of another hypothesis that might show, for example, that during early implementation, States use technical/financial assistance as the strategy of choice for supporting district policies that benefit children and youth with disabilities, while States might decrease or withdraw such assistance once implementation has been underway for 3 or 4 years. Consequently, the study is examining States' use of policy instruments at different points in time.

Conclusion

During the past two decades, implementation research has become a major vehicle in evaluating the effectiveness of public policy, especially in the context of impact evaluation. Among other things, implementation research, when combined with impact evaluation has helped policy analysts clarify program effects, explain observed outcomes, test hypotheses and identify plausible rival hypotheses.

The SLIIDEA study includes both implementation and impact components; its charge is to describe the implementation in order to understand the impact of the IDEA Amendments of 1997. It is gathering data that are descriptive, evaluative, and interpretive and is using such data to draw conclusions about hypothesized variations in how States and localities have implemented the law to achieve its goals.

The research is guided by the questions Congress generated about how students are being served and by research questions drafted for the study. The inquiry is expected to show indicators of implementation at State, district, and school levels. These indicators are likely to be associated with the outcomes, as defined by the congressional questions.

Collection of data has already begun. All 50 States and the District of Columbia have been surveyed, along with representative numbers of districts and schools within the districts to ensure generalizability to the nation's districts and schools. Two hypotheses have been generated. The first is that there is variation in implementation across sites and across time. The second is that Federal and State policy can direct and shape a program or initiative through mandates and provisions but that forces at the local level determine how the program is implemented. After reviewing the policy instruments that States have put in place to accomplish their goals, a third hypothesis may emerge suggesting, for example, that during early implementation States use technical and financial assistance as the strategy of choice for supporting district policies that benefit children with disabilities.

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