5. The Social Adjustment of Elementary and Middle School Students with Disabilities

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Middle childhood is a time of dramatic physical, cognitive, emotional, and social change (Cole & Cole, 1993). Children develop on many levels, entering new endeavors and worlds daily. They begin to learn how to establish healthy relationships, find socially acceptable ways to engage in activities that interest them, and make their way through school. However, a number of children experience more trials than their peers (Ford & Coleman, 1999). Some are unable to find solid emotional and social ground as they progress through their developmental stages. An inability to "fit it" can have behavioral manifestations that cause significant difficulty for both children themselves and those around them. When a child's behavior violates the accepted norms at home, at school, or in the community, negative repercussions can result, such as suspensions or expulsions from school.

Many children with disabilities encounter additional hurdles that complicate this difficult time of childhood. As they approach adolescence, when being like their peers is a high priority, many disabilities set children apart in the ways they look, learn, or interact with others, presenting additional challenges to positive social adjustment. Some kinds of disabilities—particularly emotional disturbances, attention deficit or attention deficit/hyperactivity disorder (ADD/ADHD), and autism—are especially associated with social adjustment difficulties. The increased challenges of disabilities and their implications result in children with disabilities facing a greater risk than their peers without disabilities for poor outcomes.

Special education services provided to students with disabilities can address the behavioral issues that challenge their positive social adjustment. In fact, IDEA '97 requires the team that plans a students' individualized education program (IEP) to consider, if appropriate, strategies and supports to address behavior that impedes a student's learning or that of others [34CFR300.346(a)2(i)]. To help strengthen such supports and target them effectively to students who can benefit most from them, it is important to have a clear picture both of how students with disabilities fare on the multiple dimensions of the complex construct of social adjustment and of the factors that are associated with more positive adjustment.

This chapter examines the social adjustment of elementary and middle school students with disabilities in terms of their general social skills and their adjustment in the classroom and outside of school. First, multiple indicators of the social adjustment of all students with disabilities are described and the relationships among them identified. Next, variations in social adjustment across

the various disability categories are presented. Finally, findings from multivariate analyses highlight the associations of individual and family characteristics, school programs and experiences, and services with social adjustment.¹

Dimensions of Social Adjustment of Students with Disabilities

General Social Skills

Whereas some social behaviors are specific to a particular setting, such as the classroom, others are so general that they signal general social competence. It is well established that such general competence is a key factor in school engagement and academic success (Cairns & Cairns, 1994; Coie, 1990; Dodge, 1990). With its wide array of items, the Social Skills Rating System (SSRS; Gresham & Elliott, 1990b) is a widely accepted tool for measuring general social skills.

Using items from the SSRS, parents of students with disabilities were asked to report how often students demonstrate the aspects of social competence depicted in Exhibit 5-1. The possible responses were "very often," "sometimes," or "never."

- Approximately half or more of students receive ratings of "very often" for several behaviors, including making friends easily (58%), avoiding situations that are likely to result in trouble (51%), speaking in an appropriate tone of voice at home (50%), and starting conversations rather than waiting for others to start (49%).
- Approximately one-third or more of students with disabilities receive ratings of "very often" in the areas of cooperating with family members (39%), controlling his or her temper (37%), and joining group activities without being told to do so, and ending disagreements calmly with parents (32%).
- Receiving criticism well appears to be the most problematic behavior; 16% of students with disabilities are reported to do so "very often."
- Although the percentages of students who engage in each type of activity "very often" may be heartening, it also is important to consider how many students were reported "never" to engage in each type of activity. One quarter of students are reported to "never" receive criticism well, and 20% "never" join group activities without being told to do so.
- A significant percentage of students with disabilities are reported to have poor skills with regard to conflict situations. Approximately 15% are reported "never" to end disagreements with parents calmly (16%) or control their temper when arguing with other students (13%).

¹ Analyses similar to those reported in this chapter were conducted for secondary school students as part of the National Longitudinal Transition Study-2 (NLTS2) and are reported in Marder, Wagner, & Sumi, 2003.

- Approximately one-tenth of students are reported "never" to start conversations rather than waiting for others to start, avoid situations that are likely to result in trouble, or seem confident in social situations.
- Compared with students without disabilities, students with disabilities tend to be rated as less skilled socially. For example, they are more likely to receive a rating of "never" regarding joining group activities and speaking in an appropriate tone and are less likely to "very often" make friends easily or control their tempers. However, a higher percentage of students with disabilities received a rating of "very often" for avoiding situations that are likely to end in trouble.

Exhibit 5-1						
Parents' Ratings of the Social Skills of Students with Disabilities and Students in the						
General Population						

	Students with Disabilities ^a			n the General Jation ^b	
	Never	Very Often	Never	Very Often	
Percentage of students who:					
Make friends easily	5.6	57.7	2.0	64.6	
Avoid situations that are likely to result in trouble	9.8	51.2	4.7	38.0	
Speak in an appropriate tone of voice at home	5.4	49.8	1.4	50.5	
Start conversations rather than waiting for others to start	10.1	48.8	7.5	44.0	
Seem confident in social situations, such as parties or group outings Cooperate with family members without being told to do	9.4	44.1	7.6	47.2	
SO	6.6	38.6	2.6	38.2	
Control his or her temper when arguing with other children	12.9	36.6	9.9	47.7	
End disagreements with parent calmly	15.5	31.8	11.2	33.3	
Join group activities, such as a group having lunch together, without being told to do so	19.9	31.5	7.5	40.3	
Receive criticism well	25.7	15.5	16.8	17.1	
^a Source: Wave 1 parent interviews. ^b Source: American Guidance Service's SSRS national norms data.					

Standard errors and sample sizes are in Appendix B.

Social Adjustment at School

The behavior of children at school is a crucial element in their overall social adjustment. Not only is school the context in which many students spend most of their day, it also is where they engage in the important activities of learning academic knowledge; acquiring and practicing more generalized skills, such as solving problems, being on time, and following directions; and developing formative relationships with peers and adults. Moreover, the consequences of their behavior at school can be powerful. As noted, students' inappropriate behavior at school can distract both the students themselves and those around them from their learning tasks. In addition, research has shown that teachers'

evaluation of students' academic performance is influenced by the students' behavior in the classroom (Polloway et al., 1994).

SEELS is investigating three aspects of the social adjustment of students with disabilities at school: their behaviors in the classroom, their ability to get along with teachers and other students, and the extent to which they have been the subject of disciplinary actions for unacceptable behavior at school.

Classroom social behavior. To elicit information about students' social behavior in the classroom, SEELS asked students' language arts teachers to rate students using the SSRS items indicated in Exhibit 5-2. The possible responses were "very often," "sometimes," or "never."

• Most students receive high ratings on positive social adjustment. Over 50% of the students are reported to transition easily between classroom activities (54%) and to follow teacher (52%) directions "very often." A small percentage of students reportedly "never" exhibit these behaviors (5% and 2%, respectively).

Exhibit 5-2 Teachers' Ratings of the Social Skills of Students with Disabilities and Students in the General Population

	Students w	Students with Disabilities ^a		n the General ulation ^b
	Never	Very Often	Never	Very Often
Percentage of students with frequency of activity:				
Easily transitions between classroom activities	4.9	53.5	6.4	60.5
Follows teacher directions	1.6	51.5	1.7	62.5
Controls temper in conflict situations with peers	10.6	49.8	9.9	62.5
Cooperates with peers without prompting	4.7	46.3	4.0	56.4
Acts sad or depressed	54.9	7.1	61.5	5.8
Fights with others	54.8	6.8	61.0	6.3
Gets easily distracted	10.6	38.5	37.5	20.6
^a Source: Wave 1 teacher questionnaires				

^aSource: Wave 1 teacher questionnaires.

^bSource: American Guidance Service's SSRS national norms data.

Standard errors and sample sizes are in Appendix B.

- Approximately 50% received ratings of "very often" in the areas of controlling their temper in conflict situations with peers (50%) and cooperating with peers without prompting (46%).
- More than half of the students are reported "never" to act sad or depressed or to fight with others (55%).
- Paying attention in class appears to have been the most difficult skill; more than one-third of students (39%) are reported to get easily distracted "very often."
- Overall, 11% of students received a rating of "never" for controlling their tempers in conflict situations, whereas approximately 5% were reported to "never" cooperate with peers without prompting.
- Compared with students without disabilities, students with disabilities are much less likely to receive positive ratings on most measures. For example, a much higher percentage of students with disabilities are said to get easily distracted "very often," and many fewer students with disabilities are reported to transition easily between activities, to follow teacher directions, to control their tempers, and to cooperate with peers "very often."

Parents' perspectives of students' social adjustment at school. To provide another perspective on students' social adjustment at school, parents were asked how well their sons or daughters get along with teachers and other children (Exhibit 5-3).

- According to parents, students get along better with teachers than with other children. Almost two-thirds (64%) reportedly get along "very well" with teachers, and 52% get along "very well" with other children.
- Parent ratings also show that about 10% of the children do not get along very well or at all well with other children; 7% do not get along very well or at all well with teachers.



Exhibit 5-3 Parents' Ratings of Students with Disabilities Getting Along with Teachers and Other Students

Standard errors and sample sizes are in Appendix B.

Problem behaviors at school. Although most students with disabilities are reported to be getting along well at school, some have problems at school. Parents were asked whether their children had ever been suspended or expelled and if they had been suspended or expelled during the current school year. Fourteen percent of children had been suspended or expelled, 8% in the current school year.

Social Adjustment outside the Classroom

Although the classroom is an important setting for students, social activities outside the classroom are crucial to their development as well. The lives of many children are substantially enriched by their participation in organized extracurricular groups, which are defined broadly to include adult-sanctioned organized activities that children do outside the classroom, whether or not they are school-sponsored. The social, psychological, and educational benefits of extracurricular activities are well known. Extracurricular participation has been shown to have a beneficial effect on academic performance (e.g., Camp, 1990; Marsh, 1992) and to diminish the likelihood of students' dropping out of school (Mahoney & Cairns, 1997).

To understand the out-of-school social activities of students with disabilities, parents were asked whether their sons or daughters belong to any type of organized group and how often they see friends outside of school or organized groups (Exhibit 5-4).²

² Friends may include children both with and without disabilities.

- Parents report that most students with disabilities are fairly socially engaged. Two-thirds (67%) belong to an organized group, with community groups being more common than school groups (50% vs. 29%).
- Almost two-thirds of students with disabilities get together with friends outside of class and organized groups at least once a week, although 9% of students reportedly "never" see friends outside of school or organized groups.
- When looking at both group membership and information friendship interactions, 81% of students are socially engaged; they get together with friends at least once a week or belong to at least one group. However, it is also important to be aware that 19% of students do neither.

In contrast to these aspects of social integration, some students with disabilities exhibit behaviors that so seriously violate community norms that they become involved with the criminal justice system. To assess such behaviors, parents of students with disabilities who were at least 12-years-old were asked whether those children had ever been arrested. Three percent of parents reported that their children had been arrested.

Exhibit 5-4 Social Interactions of Students with Disabilities						
	Percentage					
Participate in an extracurricular school group	29.3					
Participate in an out-of-school group Participate in any extracurricular	50.5					
school or out-of-school group Get together with friends outside of	67.2					
school or organized groups:						
Frequently (four or more times a week)	26.1					
Regularly (one to three times a week)	38.0					
Occasionally (less than once a week)	26.7					
Never	9.1					
Are socially engaged—get together with friends at least once a week or belong to at least one group	81.0					
Source: Wave 1 parent interviews. Standard errors and sample sizes are in Append	dix B.					

Relationships among Dimensions of Social Adjustment

Although SEELS has investigated a variety of behaviors of students with disabilities as they are exhibited in both school and nonschool settings, analyses

demonstrate, not surprisingly, that they are interrelated measures of the broad concept of social adjustment (Exhibit 5-5):

- Most correlations among the various indicators are statistically significant but modest; those that are significant range from .04 to .39.
- As a measure of general social competence, it is not surprising that the social skills scale score has correlations as high as .37. General social skills are moderately and positively correlated with interpersonal aspects of social adjustment, with correlations ranging from .19 with group membership, to .25 with the classroom social behavior scale and with seeing friends outside of groups, to .37 for getting along with teachers and students.
- Positive aspects of social behavior (i.e., general social skills, the ability to get along with others, and appropriate classroom behaviors) are negatively associated with disciplinary actions and arrests. The strongest correlation is between how well a student gets along with teachers and other students and how often disciplinary actions are administered (-.39).

	Classroom Social Behavior Scale ^a	Gets Along with Teachers and Students ^b	Belongs to a Group ^a	How Often Sees Friends Outside of Groups ^a	Has Received Disciplin ary Action in the Current School Year ^c	Has Been Arrested ^a
Social skills scale score	.25***	.37***	.19***	.25***	14***	05
Classroom social behavior scale score	.25***	.21***	.14***	.04	18***	08
Gets along with teachers and students Belongs to a group			.05***	.07*** .17***	39***	16***
How often sees friends outside of groups					.06***	.05
Has received disciplinary action in the current school year						.24***

Exhibit 5-5 Correlations among Indicators of the Social Adjustment of Students with Disabilities

All correlations in the exhibit are statistically significant at at least the p<.05 level; those with asterisks are significant at the p<.001 level.

^aSource: Wave 1 teacher questionnaire.

^bSource: Wave 1 parent interviews, , and

^cSource: Wave 1 student's school program questionnaire.

• Indicators of the social integration of students outside the classroom—the frequency of their friendship interactions and whether they belong to school or to community groups—are fairly weakly related to other indicators. Except for their relationship to overall social skills (.25 and .19) and to each other (.17), correlations of friendship interactions and group membership with other indicators of social adjustment are no higher than .14.

• Receiving disciplinary actions at school is mildly correlated with involvement with the criminal justice system (.24).

Another perspective on the interrelationships of general social competence to these aspects of social adjustment is provided by examining the profiles of students with high and low social skills scale scores (Exhibit 5-6). Students with high social skills scale scores have more positive social adjustment than lower scoring students on all indicators investigated in SEELS.

• For example, 52% of students with high social skills scale scores have high classroom social behavior scale scores, compared with virtually none of those with low social skills.

Exhibit Relationship of Social Skil Social Adjustment among S	ls to oth					
	Soc	ial Skills Rated	d as:			
	Low	Medium	High			
Percentage with classroom social behaviors rated: ^a						
Low	1.8	.5				
Medium	76.8	64.4	48.0			
High	21.4	35.0	52.0			
How well students get along with others ^b						
Not well	7.5	2.0	.5			
Well or very well	72.7	90.6	98.1			
Percentage who:						
Belong to a group ^ь	57.8	71.1	78.8			
See friends outside of groups at least weekly ^b	53.0	67.3	74.3			
Have been the subject of a disciplinary action at school in the past year ^c	21.6	11.9	4.6			
^a Source: Wave 1 teacher questionnaire. ^b Source: Wave 1 parent interviews. ^c Source: Wave 1 students' school program questionnaire. Standard errors and sample sizes are in Appendix B.						

• Among students with high social skills scale scores, about three-fourths belong to at least one group and see friends outside of groups at least weekly, compared with 58% and 53%, respectively, of low-scoring students. Only 5% of students with high social skills had been the subject of a disciplinary action at school in the past year, compared with 22% of students with low social skills scale scores.

Disability Differences in Social Adjustment

Clearly, differences in disabilities are associated with differences in social adjustment. The very nature of some disabilities can create emotional, cognitive, or perceptual states that can result in social difficulties. Other types of disabilities involve communication limitations that can present challenges to social functioning. Still other types of disabilities are less likely to adversely affect students' social adjustment (Exhibit 5-7):

- Children with learning disabilities or speech, hearing, visual, or orthopedic impairments tend to excel, relative to other groups, on several measures of positive social adjustment. Between 73% and 82% in these disability categories score high or medium on the social skills scale, and between 29% and 44% score high on the classroom social behavior scale.
- Students with learning disabilities or speech impairments are joined by those with hearing or other health impairments as being the most likely to belong to a group or see friends outside of groups at least weekly; 80% or more do so. In contrast, 63% to 76% of the other disability categories, with the exception of autism (39%), do so.
- At the other end of the spectrum, approximately 48% of students with emotional disturbances and almost 60% of students with autism score low on the social skills scale. Students with emotional disturbances also are more likely to be the subject of disciplinary actions at school (49%) and involved with the criminal justice system (11%) than the next closest category of students (other health impairments).

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		Speech/		Emo-			Ortho-	Other		Trau-	
		anguage	e Mental Retar-	tional Distur-	Hearing Impair-		pedic	Health		matic	Multiple Disabili-
	Learning Disability	Impair- ment	dation	bance	ment	Impair- ment	Impair- ment	Impair- ment	Autism	Brain Injury	ties
Porcontago with social skills	Bloability	mont	aation	barroo	mont	mont	mont	mont	7 (010)11	ngary	
Percentage with social skills scale score of: ^a											
High	9.9	14.5	4.3	2.8	10.3	12.9	11.2	6.7	1.7	4.3	5.4
Medium	62.7	66.8	56.6	49.8	65.9	61.7	65.6	58.1	40.0	56.5	55.9
Low	27.4	18.7	39.0	47.5	23.9	25.4	23.2	36.3	58.3	39.2	39.1
Percentage with classroom											
social behavior scale score of	-b										
High	29.3	43.8	24.0	11.7	39.3	36.5	34.4	20.7	21.2	31.3	26.8
Medium	70.3	55.6	74.8	87.0	60.2	62.1	64.8	77.7	77.9	68.6	70.2
Low	0.4	0.6	1.2	1.3	0.5	1.4	0.8	1.6	1.0	0.1	3.0
Percentage who:											
Belong to a group or get											
together with friends at least											
weekly ^a	82.7	84.0	69.9	76.4	79.8	72.3	75.0	86.9	63.1	70.7	68.0
Have been subject to											
disciplinary action at school ^c	15.8	5.3	17.0	48.7	7.8	4.6	6.7	17.3	6.7	16.3	13.8
Have been arrested ^a	2.0	2.5	1.9	11.1	2.2	.0	1.4	3.6	0.6	2.3	4.3
^a Source: Wave 1 parent interview	10										
^b Source: Wave 1 teacher questio											
[°] Source: Wave 1 school program		ire.									

Exhibit 5-7 Social Adjustment of Students, by Disability Category

Standard errors and sample sizes are in Appendix B.

Factors Related to Social Adjustment

Analyses presented thus far have demonstrated that the majority of students with disabilities are relatively well-adjusted socially; parents rate many as having high social skills, most behave reasonably well in class, and the majority see friends regularly and belong to organized groups in which they can build relationships and pursue their interests. Relatively few demonstrate negative social adjustment. However, the social adjustment of students with different primary disability classifications differs dramatically. Clearly, much more is involved in understanding variations in the social adjustment of students with disabilities than is apparent from these disability category differences. What other factors are related to social adjustment, and how does the association of disability and social adjustment change when other factors are taken into account?

To answer these questions, multivariate analyses were used to examine the relationship between selected indicators of social adjustment and characteristics of the students themselves, their families, and their school programs and experiences. Multivariate analyses identify the independent relationship to social adjustment of each factor in the analysis, holding constant the effects of all other factors. Three indicators of social adjustment are used: two indicators of positive

social adjustment—seeing friends at least weekly and belonging to groups; and one indicator of negative social adjustment—disciplinary actions in school.

Individual Characteristics

Three kinds of individual characteristics are considered: disability characteristics, functioning, and demographic characteristics.

Disability characteristics. When other factors in the analysis are held constant, relationships between disability and social adjustment are weaker for the most part than in bivariate analyses (Exhibit 5-8). Nevertheless, there still are important relationships:

- Given the nature of their disability, it is not surprising that students with emotional disturbances are the most likely of any students to have problems with social adjustment, as was apparent in the bivariate analyses. Although students with emotional disturbances are no more or less likely than students with learning disabilities to see friends often or belong to groups, they are 9 percentage points more likely than students with learning disabilities to be subject to disciplinary actions at school.
- Consistent with the disability category differences noted earlier in the chapter, students with visual impairments or orthopedic impairments, or autism are significantly less likely to belong to groups compared with students with learning disabilities, other factors held constant. They also less likely than their peers with learning disabilities to see friends outside of school or groups.
- Students whose parents report they have ADD/ADHD are more likely than students with learning disabilities to be the subject of disciplinary actions at school; however, they also are more likely than students with learning disabilities to see friends at least weekly.
- Independent of the category of their disability, students who were identified for special education services at an older age are less likely to see friends outside of groups than students identified at a younger age.
- Students whose disabilities affect more functional domains are less likely to see friends outside of groups and to receive disciplinary actions at school.

Exhibit 5-8 Differences in Measures of Social Adjustment Associated with Individual Characteristics of Students with Disabilities

	Estimated	Difference in Prob		
	Belonging to a Group	Seeing Friends Outside of Groups at Least Weekly	Receiving Disciplinary Action at School	Comparison Categories
Disability Category				
Students classified with:				
Speech impairment				vs. learning disability ^b
Mental retardation				vs. learning disability
Emotional disturbance			9.1***	vs. learning disability
Hearing impairment				vs. learning disability
Visual impairment	-10.1	-10.7		vs. learning disability
Orthopedic impairment	-9.8	-10.8		vs. learning disability
Other health impairment				vs. learning disability
Autism	-15.9***	-20.7***		vs. learning disability
Traumatic brain injury				vs. learning disability
Multiple disabilities/deaf-				
blindness		-9.2	0 4 ***	vs. learning disability
ADD/ADHD		6.1	3.4***	Yes vs. no
Age at identification		4.6		8 years old vs. 4 years old
Number of domains in which a students has limitations		-3.5	-1.7	Three domains vs. one
Functioning				
Self care skills	12.4***			High score (8) vs. low (4)
Functional cognitive skills	7.7	8.4		High score (15) vs. low (7)
Social skills	7.1	27.9***	-4.0***	High score (27) vs. low (17)
Demographic characteristics				
Age	5.9***	-4.7	3.3***	12 years old vs. 9 years old
Gender		4.6	5.0***	Male vs. female
Student is:				
African-American			7.5***	vs. white
Hispanic	-17.2***			vs. white
Other ethnicity				vs. white
Uses primarily a language other than English at home	-7.5			Yes vs. no

^aStatistics in this exhibit are calculated from models that included all individual characteristics shown in this exhibit, as well as household characteristics (results shown in Exhibit 5-9), and school programs and experiences (results shown in Exhibit 5-10). All statistics in the exhibit are statistically significant at at least the p<.05 level; those with asterisks are significant at the p<.001 level. ^bMultivariate analyses require that for categorical variables, such as disability category, each category be compared with another specified category. Learning disability was chosen as the category against which to compare the relationships for other disability categories because it is the largest category and, therefore, most closely resembles the characteristics of youth with disabilities as a whole.

^dADD/ADHD is included to determine its relationships as a primary or secondary disability to academic performance, independent of youth's primary disability category.

Exhibit reads: Students with visual impairments are 10 percentage points less likely to belong to an organized group than students with learning disabilities, other factors being equal. Students with high social skills are 4 percentage points less likely than those with low social skills to be subject to disciplinary action at school. Other analysts could choose different comparisons (e.g., medium and low social skills), which would result in a different estimate, but would have no effect on its statistical significance.

Functioning. Higher functioning is associated with more positive social adjustment on all three measures; those with higher skills have a higher likelihood of positive adjustment and a lower likelihood of negative adjustment:

- Students who score higher on the self-care scale are more likely to belong to groups than students who have low scores.
- With other factors being held constant, students with higher functional cognitive skills are more likely to belong to a group and see friends outside of groups.
- Similarly, students with high scores on the social skills scale are more likely to belong to a group and 28 percentage points more likely to see friends outside of groups. This group of students also is less likely to be the subject of disciplinary actions at school.

Demographic Characteristics

- Age is related to all three aspects of social adjustment. Holding other factors constant, older students with disabilities are more likely to belong to a group and to see friends outside of those groups than younger peers. They also are more likely to be subject to disciplinary actions at school.
- Gender also is a significant factor with respect to social adjustment. Boys with disabilities are more likely than girls to see friends outside of groups and be the subject of disciplinary actions at school; however, boys and girls are almost equally likely to belong to groups.
- African-American and Hispanic students have quite different patterns of social adjustment and both are different from their white peers. Compared with their white peers, African-American students are more likely to be the subject of disciplinary actions, and Hispanic students are 17 percentage points less likely to belong to a group. Neither group differs from white students in their probability of seeing friends regularly, and African-American students do not differ from white students in their probability of group membership.
- Students who use primarily a language other than English at home are less likely to belong to a group, but no more or less likely to see friends regularly or be the subject of disciplinary actions at school.

Household Characteristics

- Household income is related in opposite directions to two measures of social adjustment (Exhibit 5-9). The higher a student's family income, the more likely he or she is to belong to a group and the less likely to be subject to disciplinary actions at school.
- The importance of family involvement and support for their children at school is confirmed in these analyses. Family involvement at school is associated positively with both measures of positive social integration, with a

particularly strong relationship with the likelihood of students belonging to groups.

Exhibit 5-9 Differences in Measures of Social Adjustment Associated with Household Characteristics of Students with Disabilities

	Estimated I	Difference in P		
		Seeing Friends Outside of Groups at	Receiving Disciplinary	
	Belonging to a Group	Least Weekly	Action at School	Comparison Categories
Household income	10.5***		-1.2*	\$55,000-\$60,000 vs. \$20,000-\$24,000 (12 vs. 5)
Family involvement at home				High (8) vs. low (4)
Family involvement at school	17.5***	7.3***		High (6) vs. low (1)
Family expectations for postsecondary education	8.2***			Definitely will vs. probably won't

^aStatistics in this exhibit are calculated from models that included all household characteristics shown in this exhibit, as well as individual characteristics (results shown in Exhibit 5-8) and school programs and experiences (results shown in Exhibit 5-10). All statistics in the exhibit are statistically significant at at least the p<.05 level; those with asterisks are significant at the p<.001 level.

Exhibit reads: Students with high family involvement at school are 17.5 percentage points more likely to belong to an organized group than students with low family involvement, other factors being equal. Other analysts could choose different comparisons (e.g. \$30,000 to \$34,000 and \$40,000 to \$44,000 for household income), which would result in a different estimate, but would have no effect on its statistical significance.

School Programs and Experiences

Some aspects of students' school programs and experiences have strong associations with social adjustment (Exhibit 5-10).

- Greater inclusion in general education classes is related to positive social adjustment among students with disabilities. Independent of the nature of his or her disability, level of functioning, and demographic characteristics, the greater proportion of a school day a student spends in general education classes, the more likely he or she is also to be included in extracurricular group activities.
- Receiving social adjustment supports is related to a higher likelihood of students with disabilities being subject to disciplinary actions at school, perhaps because having disciplinary problems at school results in students receiving help with social adjustment issues.
- School performance also relates to social adjustment; compared with a student who gets mostly Cs and Ds, a student who gets mostly As and Bs is less likely to be subject to disciplinary action at school.
- The negative impacts of school mobility are apparent. The more times a student has changed schools other than because of grade promotions, the more likely he or she is to be subject to disciplinary actions.

• Absenteeism and grade retention are not related to either of the two indicators of positive social adjustment or to the indicator of negative social adjustment.

Exhibit 5-10 Differences in Measures of Social Adjustment Associated with School Programs and Experiences of Students with Disabilities

	Estimate	d Change in Probab		
	Belonging to a Group	Seeing Friends Outside of Groups at Least Weekly	Receiving Disciplinary Action at School	Comparison Categories
Percentage of classes that are general academic education classes	4.8			75% vs. 25%
Number of social				
adjustment supports			6.2***	Two vs. none Changed schools 3 times vs. not at all, except for
School mobility			3.2***	promotions
Overall grades			-2.1	Mostly As and Bs vs. mostly Cs and Ds
Ever been retained at grade level				Yes vs. no
Absenteeism				5 days vs. 0 days

^aStatistics in this exhibit are calculated from models that included all factors shown in this exhibit, as well as individual and household characteristics (results shown in Exhibits 5-8 and 5-9). All statistics in the exhibit are statistically significant at at least the p<.05 level; those with asterisks are significant at the p<.001 level.

Exhibit reads: Students who take 75% of their courses in general education classes are 4.8 percentage points more likely to belong to a group than students who take 25% of their courses in general education classes, other factors being equal. Students who receive two social adjustment supports are 6.2 percentage points more likely to be subject to disciplinary actions at school than students who presumably do not need and do not receive social adjustment supports. Other analysts could choose different comparisons (e.g. 60% and 40%), which would result in a different estimate, but would have no effect on its statistical significance.

How Much is Explained?

The multivariate analyses are helpful in explaining associations of various factors with measures of social adjustment, holding all other factors constant, and they explain a significant portion of variation in each social adjustment measure. Specifically, the PI values for the full models range from .12 to .23.³ Individual characteristics have by far the strongest association with the various measures of social adjustment, accounting for almost 100% of the variance explained by the models related to a student seeing friends outside of organized groups and to being subject to disciplinary actions at school. Individual characteristics account for approximately 74% of the explained variation for the model related to belonging to a group and increase the PI of this model from .14 to .20. When combined with household characteristics, they account for 100% of the explained variation of the model. School characteristics and experiences variables add little explained variation to the models.

Summary

Findings in this chapter present a mixed picture of the social adjustment of students with disabilities. Many students with disabilities are reported to be quite socially well adjusted. Parents report that between one-third and one-half "very often" exhibit a variety of social skills, and most other students are reported to do so at least some of the time. The majority of students also behave well in the classroom, reportedly getting along well with their teachers and other students and controlling their behavior well. Approximately half are reported to follow directions in the classroom well. In addition, most students with disabilities are socially integrated outside the classroom; more than 80% of students get together with friends at least weekly or belong to at least one group.

However, social adjustment challenges clearly remain for some students with disabilities. According to parents, approximately one in ten students with disabilities "never" seem confident in social situations, start conversations, control their tempers when arguing with peers, or avoid situations that are likely to result in trouble. One in six reportedly "never" end disagreements with their parents calmly, and one in five "never" receive criticism well. Furthermore, approximately one in ten do not get along well with other students. Outside of school, one in five appear to be somewhat socially isolated, in that they do not belong to any type of organized group and see friends less than once a week.

Students with learning disabilities or speech, hearing, visual, or orthopedic impairments tend to have the most positive social adjustment, according to the social skills rating scores. Students with emotional disturbances or autism tend to have the lowest social skills scale scores, and students with autism or multiple disabilities are among the least socially integrated outside the classroom. In

³ Possible PI values range from 0 to 1 in a similar way to conventional r² statistics. See Appendix A for a complete description.

contrast, students with emotional disturbances see friends regularly and belong to groups, but are much more likely than any other group of students to be the subject of disciplinary actions at school.

A student's disability category is not the only factor related to his or her social adjustment. The student's level of functioning, demographic characteristics, family characteristics, and school program and experiences also are related. In fact, when these factors are held constant in multivariate analyses, the associations between disability category and measures of social adjustment tend to weaken somewhat. Compared with students with learning disabilities, students with emotional disturbance tend to get into more trouble at school than does any other disability group, and students with visual or orthopedic impairments or autism are the least likely to belong to a group and see friends outside of groups at least weekly.

On the other hand, higher levels of functional cognitive skills and social skills also are associated with increased probabilities of the two measures of positive social adjustment, and higher social skills are associated with decreased probabilities of receiving disciplinary actions at school. Moreover, a student with problems in more domains is less likely to see friends regularly and to get in trouble at school.

A student's demographic and family characteristics have some association with his or her social adjustment, in that boys are more likely than girls to see friends regularly but also are more likely to get into trouble. In addition, African-American students with disabilities are more likely than white students to have disciplinary problems at school, and Hispanic students are much less likely to belong to a group than their white peers. In addition, students from more affluent families are more likely to belong to a group and less likely to be the subject of disciplinary actions at school. Students whose families are involved at their schools and who have high expectations for their educational futures tend to be more socially integrated.

A student's school program and experiences have strong associations with his or her social adjustment in predictable ways. Students who change schools frequently tend to get into more trouble at school. At the same time, students who spend more time in general education classes and those who get better grades tend to be more socially integrated and get into trouble less often. Finally, students who receive more social adjustment supports are more likely to receive disciplinary actions at school, probably because poor behavior is the basis for their receipt of the supports.