

4. *Changes in Family Support for Education at Home for Students with Disabilities* By Lynn Newman and Christopher Sanford

Parents convey their support for education by communicating expectations about educational attainment, paying attention to school issues, asking questions and talking with their children about school, helping with and monitoring homework, and providing tools for and creating a physical environment conducive to homework completion (Balli, Demo, & Wedman, 1998; Hoover-Dempsey & Sandler, 1995; Simon & Epstein, 2001). Maintaining a home environment that encourages learning and focuses on school-related issues is a critical contributor to a range of positive outcomes for children, including improved attitudes toward school, homework completion, and academic performance (Cooper, Lindsay, & Nye, 2000; Ho Sui-Chu & Willms, 1996; Hoover-Dempsey et al., 2001; Jeynes, 2003).

This chapter describes the ways in which several aspects of family support for education at home have changed over a 2-year period between Waves 1 and 2 of SEELS. *The Other 80% of Their Time: The Experiences of Elementary and Middle School Students with Disabilities in Their Non-School Hours* (Wagner, et. al., 2002) depicts parents' expectations for and involvement in supporting their children's education development at Wave 1, in 2000. Two years later, many students have transitioned from elementary to middle and middle to high school. Research conducted with children in the general population shows that many types of family involvement decline as students age (Catsambis & Garland, 1997; Cooper et al., 2000; Dauber & Epstein, 1994). How does family support for education at home change over time for students with disabilities?

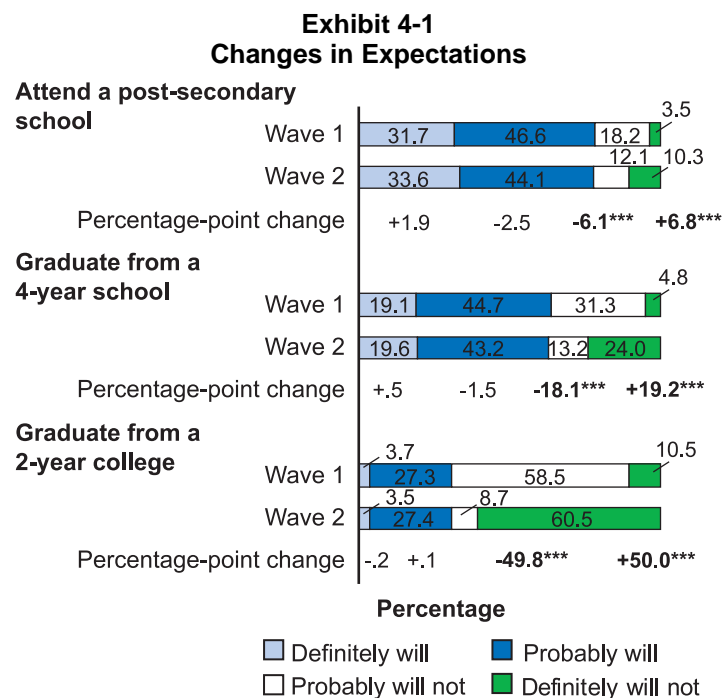
Changes in a 2-year period in parents' expectations for students' educational attainment and aspects of their involvement in the education of their children with disabilities are described in the following sections. They include findings for students with disabilities as a whole and for students who differ in their primary disability category and selected demographic characteristics, when significant.

Parents' Expectations

Research has demonstrated that having clear, consistent, and high expectations for students' learning and academic performance plays a key role in achievement (Goldenberg et al, 2001; Newman & Cameto, 1993; Phillips, 1992; Thorkildsen & Stein, 1998). To learn about parents' expectations for their children's education, SEELS parents were asked to rate the likelihood of their children attaining goals related to several aspects of secondary and postsecondary

education. Parents reported whether they thought their children “definitely will,” “probably will,” “probably won’t,” or “definitely won’t” achieve each potential outcome.

Several of parents’ expectations have remained consistent over time. For example, expectations related to graduating from high school with a regular diploma have remained the same. At Wave 2, 92% of students with disabilities are expected “definitely” or “probably” to graduate from high school with a regular diploma. Similarly, expectations that students “definitely” or “probably” will attend a postsecondary school, graduate from a 4-year college, or graduate from a 2-year college have largely remained the same. At Wave 2, 78% of students are expected to attend a postsecondary school, 62% are expected to attend a 4-year college, and 31% of those who expected to go on to postsecondary school but not to attend a 4-year college are expected to attend a 2-year college. However, changes are noted for students who are not expected to achieve these postsecondary education markers, with parent becoming more pessimistic for these children as they age (Exhibit 4-1).



Source: SEELS parent interviews, Waves 1 and 2.

Statistically significant difference in a two-tailed test at the following level:

*** $p < .001$.

- The percentage of students whose parents reported they “definitely won’t” attend postsecondary school has increased by 7 percentage points, whereas the percentage whose parents think they “probably won’t” attend has decreased by 6 percentage points. These changes result in expectations in

Wave 2 that 12% of students with disabilities “probably won’t” and 10% “definitely won’t” attend a postsecondary school.

- There has been a 19-percentage-point increase in those whose parents think they “definitely won’t” graduate from a 4-year college or university and a concurrent 18-percentage-point decrease in those whose parents think they “probably won’t” do so. In Wave 2, 24% and 13% of students with disabilities have parents who report they “definitely” or “probably won’t” graduate from a 4-year college.
- The largest change as students age concerns expectations for graduation from a 2-year college. Of those who are expected to go on to postsecondary education but not to graduate from a 4-year college, 61% have parents who in Wave 2 expect they “definitely won’t” graduate from a 2-year college and 9% “probably won’t.” This is an increase of 50 percentage points in those whose parents say they “definitely won’t” graduate from a 2-year college and a concurrent 50-percentage point decrease in those whose parents think they “probably won’t.”

Differential Changes in Parents’ Expectations Across Disability Categories

Changes in parents’ expectations that differ across disability categories are noted below.

- The expectation that students with disabilities “definitely won’t” attend a postsecondary school has increased for students in each disability category, but the size of those increases ranges widely, from 22 percentage points for students with autism and 19 percentage points for students with multiple disabilities to 5 and 4 percentage points for those with visual or speech impairments, respectively (Exhibit 4-2).
- Students with multiple disabilities (41%) or autism (35%) are the most likely in Wave 2 to have parents who say they “definitely won’t” attend postsecondary school, whereas those with learning disabilities (8%) or speech impairments (5%) are the least likely.
- The expectations that students with disabilities “definitely won’t” graduate from a 2-year or 4-year college also have increased for students in each disability category, but to different degrees. The largest increases are among students with traumatic brain injuries (a 42-percentage-point increase for “definitely won’t” attend a 4-year college, and 69-percentage-point increase for not attending a 2-year college).

Exhibit 4-2
Changes in Expectations for Educational Attainment, by Disability Category

	Learning Disability	Speech/ Language Impairment	Mental Retardation	Emotional Disturbance	Hearing Impairment	Visual Impairment	Orthopedic Impairment	Other Health Impairment	Autism	Traumatic Brain Injury	Multiple Disabilities
Percentage who are “definitely not” expected to:											
Attend post-secondary school											
Wave 1	1.6	1.0	16.4	2.5	1.3	9.4	5.0	3.6	13.2	6.9	22.3
Wave 2	7.6	4.7	28.7	13.4	7.0	14.8	15.8	12.3	34.9	22.6	41.1
Percentage-point change	+6.0***	+3.7**	+12.3***	+10.9***	+5.7***		+10.8***	+8.7***	+21.7***	+15.7**	+18.8***
Graduate from a 4-year college											
Wave 1	3.1	1.4	19.8	3.5	1.6	9.9	5.6	5.2	14.6	8.4	24.4
Wave 2	21.1	13.8	55.0	32.3	14.9	21.2	27.2	33.2	51.1	49.9	56.4
Percentage-point change	+18.0***	+12.4***	+35.2***	+28.8***	+13.3***	+11.3**	+21.6***	+28.0***	+36.5***	+41.5***	+32.0***
Graduate from a 2-year college											
Wave 1	4.7	4.2	27.8	6.5	4.9	35.6	15.8	8.4	23.2	15.1	37.4
Wave 2	52.2	57.8	75.6	64.4	52.3	73.4	74.1	59.5	76.7	84.6	81.9
Percentage-point change	+47.5***	+53.6***	+47.8***	+57.9***	+47.4***	+37.8***	+58.3***	+51.1***	+53.5***	+69.5***	+44.5***

Source: SEELS parent interviews, Waves 1 and 2.

Note: The percentages for “definitely won’t” are reported because that is the response for which the greatest change has occurred.

Statistically significant difference in a two-tailed test at the following levels: **p<.01, ***p<.001.

- Students in other categories also have experienced large increases in parents saying they “definitely won’t” graduate from a 4-year college, including those with autism (36 percentage points) or mental retardation (35 percentage points), as well as “definitely won’t” graduate from a 2-year college, including those with other health impairments (58 percentage points), mental retardation, or learning disabilities (48 percentage points each).
- In Wave 2, students with multiple disabilities or traumatic brain injuries are the most likely to have parents who say they “definitely won’t” graduate from a 4-year college (56% and 50%) or a 2-year college (82% and 85%).

Differential Changes in Expectations Across Demographic Groups

Changes in parents' expectations for postsecondary education vary across income and racial/ethnic groups (Exhibit 4-3).

Exhibit 4-3
Changes in Parents' Expectations, by Household Income and Race/Ethnicity

	Household Income			Race/Ethnicity		
	\$25,000 and Less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic
Percentage whose parent report students:						
Definitely won't attend postsecondary school						
Wave 1	4.4	2.3	2.7	3.2	4.5	3.6
Wave 2	13.0	11.0	6.6	10.1	11.8	8.0
Percentage-point change	+8.6***	+8.7***	+3.9*	+6.9***	+7.3**	
Definitely won't graduate from a 4-year college						
Wave 1	5.7	4.0	3.8	4.7	4.9	5.1
Wave 2	30.9	24.7	15.6	24.5	27.8	17.2
Percentage-point change	+25.2***	+20.7***	+11.8***	+19.8***	+22.9***	+12.1**

Source: SEELS parent interviews, Waves 1 and 2.

Statistically significant difference in a two-tailed test at the following levels: *p<.05, **p<.01, ***p<.001.

- The increased pessimism regarding students with disabilities attending postsecondary school and graduating from college is most apparent for students from lower- and middle-income households. Although an increase in parents reporting student “definitely won’t” attend postsecondary school has occurred for all income groups, it is more than twice as large for students in the lowest and middle income groups (9 percentage points) than the highest income group (4 percentage points).
- With these changes, students in the lowest and middle income groups are more likely than their peers from wealthier families to have parents who say they “definitely won’t” attend a postsecondary school in Wave 2 (13% and 11% vs. 7%)
- A similar pattern is apparent regarding graduating from a 4-year college. The largest increases in parents reporting students with disabilities “definitely won’t” reach this education achievement are for students in the lowest and middle income groups (25 and 21 percentage points vs. 12 for the highest income group). In Wave 2, 31% of those from lower-income families and 25% of those in the middle income group have parents who say they “definitely won’t” graduate from a 4-year college, compared with 16% of those from higher-income families.

- Increases in parents reporting that their children with disabilities “definitely won’t” attend postsecondary school or graduate from a 4-year college have occurred to similar degrees among both white and African-American students (7 percentage points for both groups regarding postsecondary education enrollment and 20 and 23 percentage points, respectively, regarding college graduation). No changes are apparent for Hispanic students.
- In Wave 2, parents’ expectations related to their children’s future education are similar across racial/ethnic groups.

Family Support for Education at Home

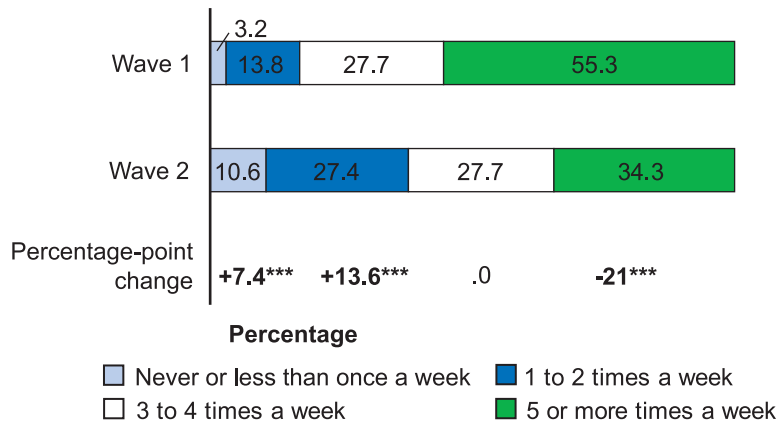
In addition to having expectations related to their children’s educational attainment, parents may be involved in supporting their children’s education at home in multiple ways, including talking with them about school, reading with them, having family rules about homework and TV watching, and providing computers for educational purposes. This section describes the extent to which several aspects of family involvement at home have changed in a 2-year period.

- Some aspects of family support for education at home have not changed as children age. The frequency with which parents talk with their children about school has remained the same; in Wave 2, 90% of students with disabilities having regular conversations about school.
- The frequency of having rules related to doing homework and to going to bed at specific times on school nights also are unchanged. In Wave 2, 96% of students have parents who report having rules about doing homework, and 95% have parents who report having rules about appropriate bed times on a school night.
- Other types of home-based involvement, such as helping with homework, reading with children, having rules related to acceptable grades, and having a computer in the home have changed as students aged, as noted below.

Helping with Homework

- Overall, parents of students with disabilities are less involved in helping with homework as their children age. In this, they mirror their peers in the general population (Catsambis & Garland, 1997; Cooper et al., 2000; Dauber & Epstein, 1994).
- There has been a 21-percentage-point decrease in students receiving homework help five or more times a week (Exhibit 4-4), resulting in 21% of students receiving frequent homework assistance in Wave 2.

Exhibit 4-4
Changes in the Frequency of Families Helping with Homework



Source: SEELS parent interviews, Waves 1 and 2.

Statistically significant difference in a two-tailed test at the following level:

*** $p < .001$.

- There has been a corresponding increase in the percentages receiving infrequent help with homework, with a 7-percentage-point increase in those helped less than once a week and a 14-percentage-point increase in those helped one or two times a week. In Wave 2, 27% of students receive homework assistance between one to two times a week, and 11% receive help less than once a week.

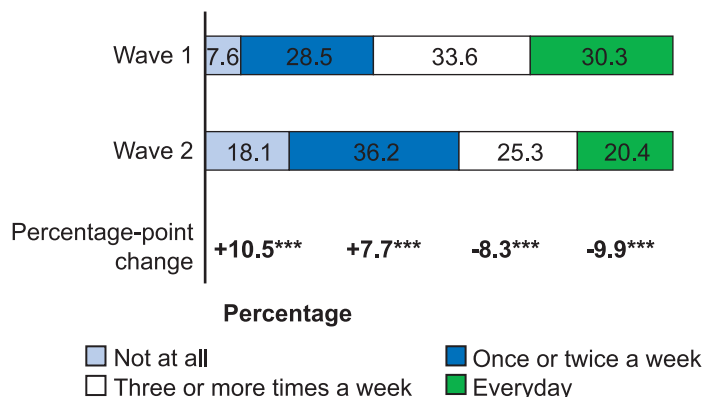
Reading with Children

Reading with children at home has been found to improve their literacy skills (National Center for Education Statistics, 1998). As students get older, family members are less likely to read with them frequently (Exhibit 4-5). This decline in frequency of reading with students parallels the decrease in the rate of helping with homework.

There has been a 10-percentage-point decrease in parents reading with children every day, and an 8-percentage point decrease in reading together three or more times a week. In Wave 2, 20% of students have parents who read with them every day, and another one-quarter are read to three or more times a week.

In Wave 2, students are more likely not to read with parents at all, or to read with parents only once or twice a week. More than one-third (36%) read with parents once or twice a week, and 18% never read with parents, resulting from 7-percentage-point and 10-percentage-point increases between Wave 1 and Wave 2.

Exhibit 4-5
Changes in the Frequency of Families Reading with Children



Source: SEELS parent interviews, Waves 1 and 2.

Statistically significant difference in a two-tailed test at the following level:

*** $p < .001$.

Household Rules

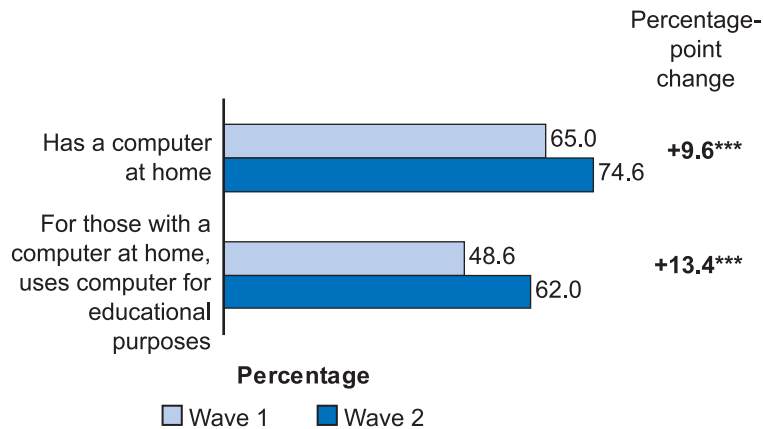
Maintaining a home environment that encourages behaviors that are conducive to learning is an important way for parents to demonstrate their support for education (Epstein, 2001).

- The frequencies with which families have rules related to doing homework and going to bed at specific times on school nights are unchanged across the two waves. In Wave 2, 96% of students with disabilities have parents who report having rules about doing homework, and 95% have parents who report having rules about appropriate bed times on a school night.
- However, having rules related to acceptable grades has changed as students age. Families are more likely to have rules about getting a certain grade point average in school, now that students are 2 years older. In Wave 2, 51% of students have family rules related to grades, resulting from a 6-percentage-point increase over time.

Having a Home Computer

A supportive home environment provides the tools necessary for homework tasks, such as access to a computer. Students are more likely to have a home computer and use it for educational purposes as they age (Exhibit 4-6).

Exhibit 4-6
Changes in Use of Home Computer for Educational Purposes



Source: SEELS parent interviews, Waves 1 and 2.

Statistically significant difference in a two-tailed test at the following level:

*** $p < .001$.

- There has been a 10 percentage-point-increase in the rate of computer ownership over a 2-year period, with three-quarters of students with disabilities having a computer in their household at Wave 2.
- Among students with a home computer, there has been a 13-percentage-point increase in their use of those computers for educational purposes. In Wave 2, approximately two-thirds of students (62%) use their home computer for education-related purposes.

Differential Changes in Family Support for Education at Home across Disability Categories

Changes in family involvement in supporting their children's education varies across disability categories (Exhibit 4-7).

- Students in most disability categories have experienced large decreases in the frequency of being helped with homework and being read to by their parents, ranging from 15 to 24 percentage points. Only those with autism or traumatic brain injury have not experienced a change in the frequency of these kinds of family support.
- In Wave 2, students with emotional disturbances are the least likely to have parents who help with homework or read to them frequently (30% and 16%, respectively), and students with autism are the most likely to have these forms of family support (47% and 31%).

Exhibit 4-7
Changes in Family Support for Education at Home, by Disability Category

	Learning Disability	Speech/ Language Impair- ment	Mental Retar- dation	Emotional Distur- bance	Hearing Impair- ment	Visual Impair- ment	Ortho- pedic Impair- ment	Other Health Impair- ment	Autism	Traumatic Brain Injury	Multiple Disabili- ties
Percentage with parents reporting students:											
Are helped with homework five or more times a week											
Wave 1	56.8	53.9	56.4	48.6	54.9	52.5	55.8	56.5	53.8	48.1	62.9
Wave 2	33.1	33.5	41.9	30.1	31.8	35.8	40.8	36.6	47.2	45.8	38.8
Percentage- point change	-23.7***	-20.4***	-14.5**	-18.5***	-23.1***	-16.7**	-15.0**	-19.9***			+24.1***
Are read to every day											
Wave 1	26.8	34.4	29.6	24.7	31.1	34.8	37.1	33.2	37.4	26.0	35.2
Wave 2	17.1	22.1	28.4	15.6	19.4	21.7	25.2	20.1	31.1	22.2	25.9
Percentage- point change	-9.7***	-12.3***	-1.2	-9.1**	-11.7***	-13.1**	-11.9**	-13.1***			+9.3*
Have rules about acceptable grades											
Wave 1	44.8	48.4	42.0	50.8	40.5	41.2	42.9	31.8	15.4	41.3	32.9
Wave 2	52.1	52.2	47.8	57.4	48.6	51.5	45.8	42.3	19.7	49.8	34.6
Percentage- point change								+10.5**			
Of those with a home computer, percentage using it for educational purposes											
Wave 1	47.4	52.6	35.9	40.0	59.2	48.1	57.8	59.6	61.7	44.5	34.9
Wave 2	60.3	71.4	42.3	49.6	68.0	61.0	64.8	69.1	65.5	49.0	41.9
Percentage- point change	+12.9***	+18.8***		+9.6*		+12.9*		+9.5*			

Source: SEELS parent interviews, Waves 1 and 2.

Statistically significant difference in a two-tailed test at the following levels: *p<.05, **p<.01, ***p<.001.

- Only students with other health impairments are more likely at Wave 2 than Wave 1 to have rules related to attaining a specific grade point average. In Wave 2, 45% of students with other health impairments have this type of family rule, a 10-percentage-point increase over Wave 1.
- In Wave 2, students with emotional disturbances are the most likely and students with autism the least likely to have rules about grades (57% and 20%).
- Students in several disability categories have experienced sizable increases in their use of home computers for educational purposes. Increases of 9 to 19

percentage points are noted for students with learning disabilities; emotional disturbances; or speech, hearing, or other health impairments.

- Students with speech impairments are the most likely in Wave 2 to use a home computer for educational purposes (71%) and students with mental retardation or multiple disabilities are the least likely to do so (42%).

Differential Changes in Family Support for Education at Home across Demographic Groups

Age. Many changes in family support for education at home have occurred differentially across age groups (Exhibit 4-8).

Exhibit 4-8			
Changes in Family Support for Education at Home, by Student's Age			
	Age In 2000		
	7 to 9	10 to 12	13 or 14
Percentage helped with homework five or more times a week			
Wave 1	62.4	52.1	41.5
Wave 2	46.4	27.0	17.3
Percentage-point change	-16.0***	-25.1***	-24.2***
Percentage read to every day			
Wave 1	39.8	24.4	20.2
Wave 2	29.5	14.8	8.9
Percentage-point change	-10.3***	-9.8***	-11.3***
Percentage having family rules related to acceptable grades:			
Wave 1	39.7	46.8	54.0
Wave 2	42.6	55.4	59.8
Percentage-point change		+8.6**	
Of those with a family computer, percentage using it for educational purposes			
Wave 1	45.8	51.4	44.4
Wave 2	59.7	63.4	64.2
Percentage-point change	+13.9***	+12.0***	+19.8**

Source: SEELS parent interviews, Waves 1 and 2.
 Statistically significant difference in a two-tailed test at the following levels:
 p<.01, *p<.001.

- Helping with homework frequently has declined across the age span, with changes being particularly large among older children. The decrease in helping with homework five or more times a week range from 16 percentage points for those 7 to 9 years old in Wave 1 and 24 and 25 percentage points for older students.
- The decrease in reading with children every day is 10 or 11 percentage points for all age groups.

- Consistent with their peers in the general population, older students are consistently less likely to be read to or helped with homework frequently. In Wave 2, 46% of the youngest students are helped with homework five or more times a week compared with 17% of the oldest students. Almost one-third (30%) of the youngest students are read to daily, compared with 9% of the oldest.
- The significant increase in students with disabilities having family rules related to attaining a specific grade point average that is noted for students with disabilities as a whole has occurred entirely among students who were 10 to 12 years old in Wave 1. They have experienced a 9-percentage-point increase, resulting in 55% having these types of rules at Wave 2.
- Older students are more likely than younger students to have this type of family rule. At Wave 2, almost 60% of the oldest students have parents who report having rules related to grades, compared with 43% of the youngest students.
- All age groups have experienced increases in using a family computer for educational purposes, ranging from 12 percentage points for those who were 10 to 12 in Wave 1, to 20 percentage points for those who were 13 or 14. At Wave 2, the percentage of students using computers in this way ranges from 60% for the youngest students to 64% for the oldest.

Household income. Some changes in family support for education at home have occurred differentially across income and racial/ethnic groups (Exhibit 4-9).

- Helping with homework frequently has declined for students in all incomes groups. However, decreases ranging from 19 percentage points for the lowest-income group to 24 percentage points for the highest income group result in lower-income students being more likely to have frequent homework help in Wave 2 than students in the highest income group (38% vs. 29%).
- Seven- to 13-percentage- point decreases are noted across income groups in students reading with parents daily. These decreases have opened a gap between the highest and lowest income groups in this form of family support in Wave 2 that did not exist in Wave 1, favoring lower-income students (23% vs. 17%).

Exhibit 4-9
Changes in Support for Education at Home,
by Household Income and Race/Ethnicity

	Household Income			Race/Ethnicity		
	\$25,000 and Less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic
Percentage helped with homework five or more times a week						
Wave 1	56.7	55.5	52.5	53.9	66.3	47.3
Wave 2	37.6	33.7	29.2	32.6	43.0	31.5
Percentage-point change	-19.1***	-21.8***	-23.3***	-21.3***	-23.3***	-15.8*
Percentage read to every day						
Wave 1	29.9	30.5	30.0	29.7	31.3	28.9
Wave 2	23.2	20.4	17.0	19.4	26.3	18.2
Percentage-point change	-6.7*	-10.1*	-13.0***	-10.3*		
Percentage having a family rule related to acceptable grades						
Wave 1	53.9	37.6	40.4	35.7	66.6	53.5
Wave 2	56.1	45.6	48.1	45.9	63.2	57.6
Percentage-point change		+8.0*		+10.2***		
Of those with a family computer, percentage using the computer for educational purposes						
Wave 1	24.9	49.2	75.5	59.8	26.7	26.3
Wave 2	39.3	67.4	84.4	72.3	41.3	42.7
Percentage-point change	+14.4***	+18.2***	+8.9**	+12.5***	+14.6**	+16.4*

Source: SEELS parent interviews, Waves 1 and 2.

Statistically significant difference in a two-tailed test at the following levels: *p<.05, **p<.01, ***p<.001.

- Although only students in the mid-income level have experienced a significant increase in having parental rules related to attaining a specific grade point average (8 percentage points), students in low-income families are more likely than others to have this type of rule. In Wave 2, 56% of those in families with incomes of less than \$25,000 have this type of family rule, compared with 46% of those with incomes between \$25,001 and \$50,000, and 48% of those with incomes of more than \$50,000.
- Students at all income levels have experienced increases in using a home computer for educational purposes, with the increase being smallest among students in the highest income group (9 percentage points vs. 14 and 18 percentage points for students in the lowest and middle income groups). Higher-income students were already more likely than others to use a computer in Wave 1, and their smaller increase did little to narrow the gap between income groups. More than four of five students (84%) in the highest income group use their home computer for educational purposes, compared with 67% of those in the middle income group, and 39% of those in the lowest income group.

Racial/Ethnic background. Changes in aspects of family support for education at home have occurred differentially across racial/ethnic groups, mirroring those noted for income differences (Exhibit 4-9).

- The frequency of helping with homework has declined for students in all racial/ethnic groups. Decreases range from 16 percentage points among Hispanic students to 23 percentage points for African-American students. In both waves, African-American students are more likely to be helped with homework at least five times a week than white students (43% vs. 33% in Wave 2).
- Only white students have experienced a significant decline in the likelihood of being read to daily by parents (10 percentage points). With this decline, in Wave 2 white students are less likely than African-American students to read with parents daily (19% vs. 26%), a difference that was not apparent in Wave 1.
- Although they are the least likely to have family rules related to grades, white students are the only racial/ethnic group to have experienced an increase in having this type of rule (10 percentage points). In Wave 2, 46% of white students have rules about attaining a specific grade point average, compared with 63% of African-American students and 58% of Hispanic students.
- Students in all racial/ethnic groups are more likely to use a home computer for educational purposes as they age, with increases ranging from 13 to 16 percentage points. Although their increase is the smallest, in both waves, white students with disabilities are more likely than their African-American or Hispanic peers to use a home computer in this way. In Wave 2, 72% of white students with disabilities who have a home computer use it for educational purposes, compared with 41% of African-American and 43% of Hispanic students.

Summary

This chapter has examined changes in both parents' expectations related to their children's educational attainment and in family involvement in their children's education. Overall, expectations for students with disabilities achieving various educational milestones have remained the same over time. Students who were expected to graduate from high school, attend a postsecondary school, or graduate from a 2- or 4-year college in Wave 1 continue to be expected to attain these educational goals.

However, changes are noted for students who are not expected to achieve these education markers. Parents of students who are not expected to attend or graduate from a postsecondary school have become more pessimistic as their children grow older. There is a consistent increase in the percentages whose parents say they "definitely won't" attend or graduate from postsecondary

school, with a concurrent decrease in those whose parents say they “probably won’t.” This is true for students in all disability categories, but with the size of the increase of those who “definitely won’t” attend or graduate varying widely across categories. The increases in students whose parents say they “definitely won’t” attend or graduate tend to be the largest for those with autism, mental retardation, traumatic brain injuries, or multiple disabilities and smallest for those with visual or speech impairments. The increased pessimism regarding students with disabilities attending or graduating from a secondary school tends to be the most apparent for students from lower-and middle-income families.

Although some aspects of family involvement in children’s education at home, such as the frequency with which parents talk with their children about school, have not changed as children age, other types of home-based involvement, such as helping with homework and reading with children, have changed. Overall, parents of students with disabilities are less involved in helping with homework and reading with their children in Wave 2 than Wave 1. This decline in the frequency students with disabilities receive help with homework and are read to as they age mirrors the experiences of their peers in the general population.

The majority of students with disabilities in both waves have family rules related to doing homework and to going to bed at specific times on a school night, with no change over time. When students are older, families are more likely to report having rules related to acceptable grades, and students are more likely to have home computers and use them for educational purposes.

Changes in family support for education at home varies across disability categories. Although students in most disability categories have experienced large decreases in the frequency of being helped with homework and being read to by parents, those with autism or traumatic brain injuries have not experienced a change in these kinds of support. Only those with orthopedic impairments have experienced increases in having family rules related to acceptable grades.

Family involvement in education at home has changed differentially across age groups. Helping with homework frequently has declined across the age span, but changes are most apparent for older children. The increase in students with disabilities having family rules related to attaining a specific grade point average has occurred entirely among students who were 10 to 12 years old in Wave 1, although older students are more likely than younger students to have this type of family rule.

Differential changes in aspects of family support for education at home across income and racial/ethnic groups has resulted in Wave 2 in changes in between-group relationships. Decreases in helping with homework frequently and reading with students are noted across income and racial-ethnic groups, but the smaller decreases for those in the lower income group, as well as for African-American students, result in lower-income students and African-American students being more likely to have frequent homework help and to be read to

daily at Wave 2. Conversely, higher-income students and white students are more likely to have a home computer for educational purposes.

Although the kinds of family expectations and involvement described here are important factors in understanding students' academic outcomes, their school experiences also play an important role. The next chapter describes changes in students' school enrollment and participation in special education.