

### EA 3.1 Family-Child Engagement in Literacy Activities

Numerous studies have documented the importance of *parental involvement* in literacy activities with their children.<sup>32</sup> According to the National Center for Education Statistics, family participation in reading activities provides valuable development experiences for children. In addition to developing an interest in reading, children who are read to, told stories, and visit the library may start school better prepared to learn than other students.<sup>33</sup>

Table EA 3.1 presents three types of literacy activities that parents may engage in with their children. In 1999, a majority of 3- to 5-year-old children (54 percent) were read to by a parent or other family member every day. Fifty percent of children were regularly told stories in 1999 (three or more times a week), a substantial increase from 1991 levels (39 percent).

**Differences by Race and Hispanic Origin.**<sup>34</sup> There are substantial differences in all literacy activities by race and Hispanic origin; for example, in 1999, White, non-Hispanic children were more likely to be read to every day (61 percent) than Black, non-Hispanic children (41 percent) or Hispanic children (33 percent). Similarly, White, non-Hispanic children (53 percent) were more likely to be told a story frequently than either Black, non-Hispanic or Hispanic children (45 and 40 percent respectively) (see Table EA 3.1). Also, more White, non-Hispanic children visited a library at least once in the past month in 1999 (39 percent) than either Black, non-Hispanic children (35 percent) or Hispanic children (25 percent). These differences have been fairly stable over time.

**Differences by Poverty Status.** Children in families living at or above the poverty threshold are much more likely to be engaged in literacy activities on a regular basis than are children who live in poverty; for example, in 1999, 58 percent of children in nonpoor families were read to every day by a parent or other family member, compared with 38 percent of children in poor families (see Figure EA 3.1). There are also substantial differences in literacy activities by mother's education level. For example, about one-fifth (18 percent) of children whose mothers did not have a high school diploma visited a library once or more in the past month, compared with 30 percent of children whose mothers had graduated high school and 50 percent whose mothers were college graduates (see Table EA 3.1).

**Differences by Family Type.** Children in *two-parent* families were more likely to participate in all three types of literacy activities than children who lived with one or no parent.

**Differences by Mother's Employment Status.** Children whose mothers were employed 35 hours or more per week were slightly less likely to engage in any of the three literacy activities than children whose mothers were either working part-time or not working.

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<sup>32</sup> Hannon, P. and Weinberger, J., 1990. Parent Involvement in Preschool Literacy Development. Pages presented at the Annual Convention of the International Reading Association. Atlanta, GA. Hannon, P., 1995. *Home and School: Research and Practice in Teaching Literacy with Parents*. Bristol, PA: Falmer Press.

<sup>33</sup> U.S. Department of Education, National Center for Education Statistics. 1999. *The Condition of Education*. NCES 1999-022. Washington, DC.

<sup>34</sup> Persons of Hispanic origin may be of any race.

**Table EA 3.1**

Percentage of 3- through 5-year-olds<sup>a</sup> in the United States who have participated in literacy activities with a family member, by child and family characteristics: Selected years, 1991-1999

	Read to every day <sup>b</sup>				Told a story at least three times a week					Visited a library at least once in the past month				
	1993	1995	1996	1999	1991	1993	1995	1996	1999	1991	1993	1995	1996	1999
<b>Total</b>	53	58	57	54	39	43	50	55	50	35	38	39	37	36
<b>Gender</b>														
Male	51	57	56	52	37	43	49	55	49	34	38	37	37	35
Female	54	59	57	55	41	43	51	56	50	36	38	41	36	38
<b>Race and Hispanic origin<sup>c</sup></b>														
White, non-Hispanic	59	65	64	61	40	44	53	59	53	39	42	43	41	39
Black, non-Hispanic	39	43	44	41	34	39	42	47	45	25	29	32	31	35
Hispanic	37	38	39	33	38	38	42	47	40	23	26	27	27	25
<b>Poverty status<sup>d</sup></b>														
At or above poverty	56	62	61	58	39	44	53	58	52	38	42	43	41	40
Below poverty	44	48	46	38	38	39	44	49	42	26	29	30	28	24
<b>Family type<sup>e</sup></b>														
Two parents	55	61	61	58	39	44	52	59	52	38	41	43	40	40
One or no parent	46	49	46	43	37	41	46	47	44	23	30	30	29	29
<b>Mother's education level<sup>f</sup></b>														
Less than high school	37	40	37	39	34	37	39	47	36	16	22	20	19	18
High school	48	48	49	45	38	41	48	54	48	29	31	33	31	30
Some college	57	64	62	53	41	45	53	55	52	40	44	42	41	40
Graduated college	71	76	77	71	42	48	55	64	55	55	55	57	56	50
<b>Mother's employment status<sup>e</sup></b>														
35 hrs or more/week	52	55	54	49	37	43	49	53	48	30	34	35	32	—
Less than 35 hrs/week	56	63	59	56	40	45	53	56	55	41	47	46	39	—
Not in labor force	55	60	59	60	42	43	50	56	50	38	37	42	40	40

<sup>a</sup> Estimates are based on children who have yet to enter kindergarten.

<sup>b</sup> No data for 1991.

<sup>c</sup> Persons of Hispanic origin may be of any race.

<sup>e</sup> Parents include any combination of a biological, adoptive, step-, and foster mother and/or father. No parents in the household indicates that the child is living with nonparent guardians (e.g., grandparents).

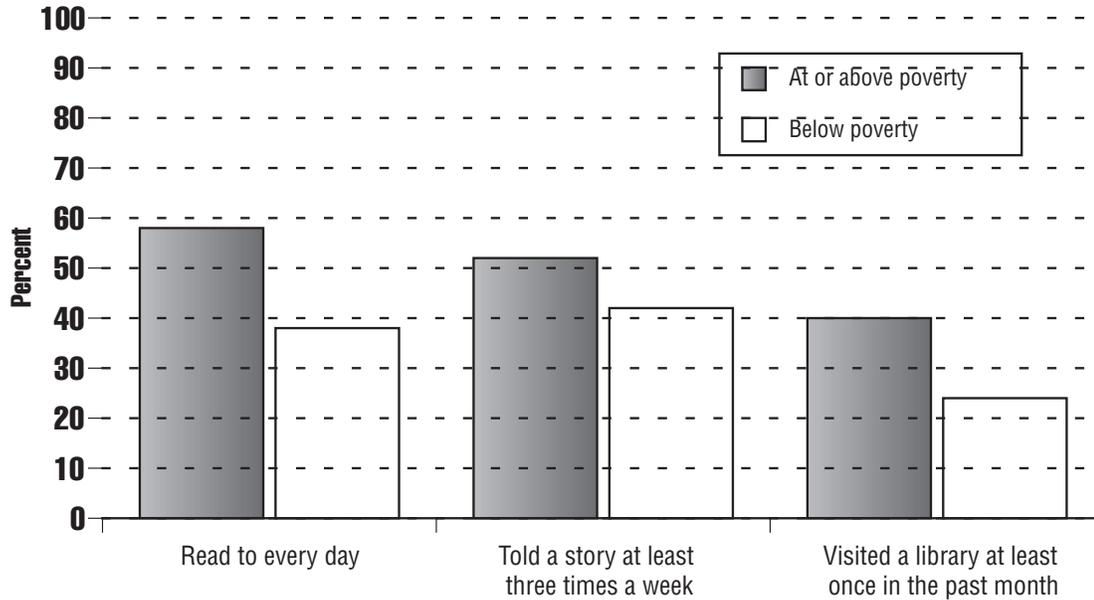
<sup>f</sup> Children without mothers in the home are not included in estimates dealing with mother's education or mother's employment status. A mother is defined as a biological mother, adoptive mother, stepmother, foster mother, or female guardian (e.g., grandmother) who resides in the home with the child.

Sources: U.S. Department of Education, National Center for Education Statistics, 1991, 1993, 1995, 1996, and 1999 National Household Education Survey (unpublished data); Tabulated by U.S. Department of Education, National Center for Education Statistics; Estimates of "read to every day" as published in *America's Children: Key Indicators of Well-Being, 2001*. Federal Interagency Forum on Child and Family Statistics, Washington, DC: U.S. Government Printing Office, (Table ED1).

## Related Behaviors and Characteristics

**Figure EA 3.1**

Percentage of 3- through 5-year-olds in the United States who have participated in literacy activities with a family member, by poverty status: 1999



Sources: U.S. Department of Education, National Center for Education Statistics, 1999 National Household Education Survey (unpublished data); Tabulated by U.S. Department of Education, National Center for Education Statistics; Estimates of "read to every day" as published in published in *America's Children: Key National Indicators of Well-Being, 2001*. Federal Interagency Forum on Child and Family Statistics, Washington, DC: U.S. Government Printing Office, (Table ED1).

***EDUCATION AND ACHIEVEMENT***

## **EA 3.2 Reading Habits of Children and Youth**

Independent reading is one necessary aspect of literacy development. The National Assessment of Educational Progress (NAEP) has documented the association between students who read for fun in their free time and reading achievement. Students ages 9, 13, and 17 who read more frequently for fun had consistently higher average reading proficiency scores than those students who read less often.<sup>35</sup>

Table EA 3.2 presents the percentage of students who read for fun on a daily basis for three age groups (9-, 13-, and 17-year-olds).

**Differences by Age.** In 1999, over half of 9-year-olds (54 percent) reported reading for fun on a daily basis, compared with about one-third of 13-year-olds (28 percent) and one-quarter of 17-year-olds (25 percent) (see Table EA 3.2).

**Differences by Gender.** Among children ages 9 and 13, larger proportions of girls than boys reported frequent reading in their spare time. For example, more than half (63 percent) of 9-year-old girls read for fun on a daily basis, compared with 45 percent of 9-year-old boys, in 1999. Among 17-year-olds, however, similar proportions of boys (26 percent) and girls (24 percent) reported reading on a daily basis in 1999 (see Figure EA 3.2).

**Differences by Race and Hispanic Origin.**<sup>36</sup> In 1999, the percentage of 9-, 13-, and 17-year-olds who reported reading for fun on a daily basis was similar for all racial/ethnic groups (see Table EA 3.2).

**Differences by Parents' Education Level.**<sup>37</sup> In 1999, 13-year-olds whose better-educated parent had some education after high school were more likely to read for fun than students whose parent(s) had no education beyond high school (see Table EA 3.2). A similar pattern is found among 17-year-olds; for example, in 1999, 32 percent of 17-year-olds whose better-educated parent had graduated from college read for fun on a daily basis. In contrast, 12 percent of 17-year-olds whose parent(s) had graduated from high school (but had no education beyond that) and 13 percent whose parent(s) had not finished high school reported reading for fun on a daily basis (see Table EA 3.2).

**Differences by Type of School.** Larger percentages of 13- and 17-year-olds who attended nonpublic schools read for fun on a daily basis than did their counterparts in public schools (see Table EA 3.2). Among 9-year-olds, a larger percentage of public school students reported reading for fun in 1992 and 1994, but this pattern reversed in 1996 and is now equal in 1999 (see Table EA 3.2).

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<sup>35</sup> Campbell, Voelkl, and Donahue. 1997, p. 141.

<sup>36</sup> Persons of Hispanic origin may be of any race.

<sup>37</sup> Parents' education level refers to the highest level of education completed by either parent.

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**Table EA 3.2**

Percentage of students ages 9, 13, and 17 in the United States who read for fun on a daily basis, by gender, race and Hispanic origin,<sup>a</sup> parents' education level,<sup>b</sup> and type of school: Selected years, 1992-1999

	Age 9				Age 13				Age 17			
	1992	1994	1996	1999	1992	1994	1996	1999	1992	1994	1996	1999
<b>Total</b>	56	58	54	54	37	32	32	28	27	30	23	25
<b>Gender</b>												
Male	48	49	51	45	30	25	27	23	23	29	22	26
Female	64	66	57	63	44	39	38	34	30	30	24	24
<b>Race and Hispanic origin<sup>a</sup></b>												
White, non-Hispanic	57	58	54	52	37	38	33	25	29	34	24	25
Black, non-Hispanic	54	58	51	57	35	18	29	22	14	16	21	22
Hispanic	54	58	56	55	44	15	28	28	25	17	21	28
<b>Parents' education level<sup>b</sup></b>												
Less than high school	—	—	—	—	16	24	29	31	23	15	14	13
High school	—	—	—	—	33	28	28	21	16	25	18	12
Some college	—	—	—	—	37	40	41	31	28	30	22	33
Graduated college	—	—	—	—	44	37	34	33	35	36	28	32
<b>Type of school</b>												
Public	57	57	54	55	36	31	33	28	26	29	21	24
Nonpublic	52	54	61	55	49	40	36	42	44	46	28	48

<sup>a</sup> Persons of Hispanic origin may be of any race.

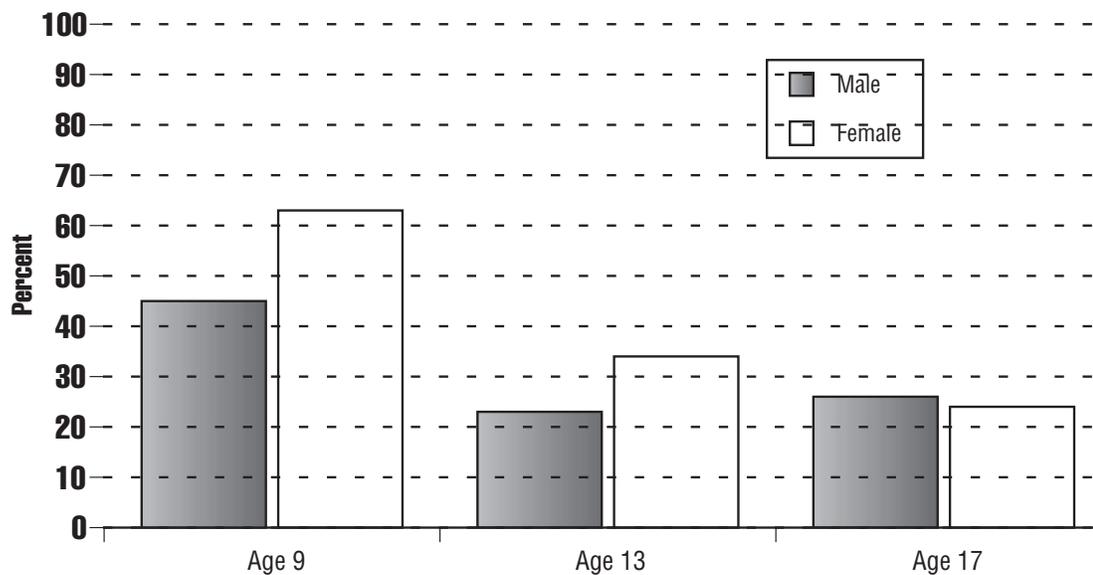
<sup>b</sup> Parents' education level refers to the highest level of education completed by either parent.

Source: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1996, and 1999 *Long-Term Trends*, Reading Assessment, unpublished data. Tabulated by U.S. Department of Education, National Center for Education Statistics.

## Related Behaviors and Characteristics

**Figure EA 3.2**

Percentage of students ages 9, 13, and 17 in the United States who read for fun on a daily basis, by gender: 1999



Source: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1996, and 1999 *Long-Term Trends*, Reading Assessment, unpublished data. Tabulated by U.S. Department of Education, National Center for Education Statistics.

***EDUCATION AND ACHIEVEMENT***

### **EA 3.3 Parental Involvement in Child's School**

Many educators consider parental involvement in school activities to have a beneficial effect on children's school performance. They associate higher levels of parental involvement with greater monitoring of school and classroom activities, a closer coordination of teacher and parent efforts, greater teacher attention to the child, and earlier identification of problems that might inhibit learning.<sup>38</sup> Parental involvement of both mothers and fathers in their child's school is significantly associated with an increased likelihood of 1st-through 12th-grade children earning mostly A's and with a reduced likelihood that these children will ever repeat a grade.<sup>39</sup> Possible parental activities included in the following data are (1) attending general school meetings, (2) going to a regularly scheduled parent/teacher conference, (3) attending a school or class event such as a play or sports event, and (4) volunteering at the school or serving on a school committee.<sup>40</sup>

**Differences by Grade.** The level of parental involvement in school activities decreases substantially as children get older. For example, 68 percent of children in grades 3 through 5 had parents who were classified as highly involved in their children's schools. However, by grades 9 through 12, 40 percent of children had highly involved parents.

**Differences by Race and Hispanic Origin.**<sup>41</sup> Parents of White, non-Hispanic children were more likely than parents of Black, non-Hispanic or Hispanic children to be highly involved in their children's schools at each grade level (see Table EA 3.3).

**Differences by Poverty Status.** Children living in nonpoor *households* were much more likely to have highly involved parents than children living in poor households, at all grade levels. Children whose mothers had higher levels of education had more highly involved parents than children whose mothers had lower education levels, at all grades (see Table EA 3.3).

**Differences by Family Type.** Children in two-parent families were more likely than children in single-parent families to have parents who were highly involved in school activities. Furthermore, among children in two-parent families, mothers were more likely to be highly involved than fathers. For example, in 1999, about half of students in grades 6 through 8 had highly involved mothers, but only one-quarter had highly involved fathers. Furthermore, children in single-mother families were somewhat less likely to have highly involved mothers than comparable children in two-parent families. However, children in single-father families were more likely to have a highly involved father than comparable children in two-parent families.

**Differences by Mother's Employment Status.** Children in grades 3 through 8 whose mothers worked part-time had more highly involved parents than students whose mothers either worked full-time or who were not in the labor force. (see Table EA 3.3).

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<sup>38</sup> Zill, N., and Nord, C.W. 1994. *Running in Place: How American Families Are Faring in a Changing Economy and Individualistic Society*. Washington, DC.

<sup>39</sup> Nord, C.W., Brimhall, D., and West, J. 1997. *Fathers' Involvement in Their Children's Schools*. NCES 98-091. Washington, DC: National Center for Education Statistics.

<sup>40</sup> The level of involvement depends on the number of different activities reported by the parents, ranging from 0 or 1 (low involvement) to 2 (moderate involvement) to 3 or more activities (high involvement). Note that the total number of times that the parent has been involved in each activity was not measured.

<sup>41</sup> Persons of Hispanic origin may be of any race.

**Table EA 3.3**

**Percentage of children in the United States whose parents are involved in their schools, by level of involvement,<sup>a</sup> grade, and child and family characteristics: 1999**

	Low Involvement			Moderate Involvement			High Involvement		
	Grades 3 - 5	Grades 6 - 8	Grades 9 - 12	Grades 3 - 5	Grades 6 - 8	Grades 9 - 12	Grades 3 - 5	Grades 6 - 8	Grades 9 - 12
<b>Total</b>	13	21	35	19	26	26	68	54	40
<b>Gender</b>									
Male	14	21	36	19	26	25	67	54	39
Female	11	20	34	19	25	26	70	55	40
<b>Race and Hispanic origin<sup>b</sup></b>									
White, non-Hispanic	10	17	31	16	25	26	74	58	43
Black, non-Hispanic	19	27	40	24	28	26	58	45	34
Hispanic	20	31	49	23	26	24	57	43	27
<b>Poverty status</b>									
At or above poverty	10	17	32	17	25	26	73	59	43
Below poverty	21	35	48	27	29	25	53	36	26
<b>Family type<sup>c</sup></b>									
Two parents	10	17	31	17	24	25	73	59	45
Mother	14	21	36	18	27	24	68	52	41
Father	40	47	55	26	25	21	34	29	24
One or no parent	18	28	43	24	28	27	59	44	30
Mother-only	17	29	42	22	28	28	61	44	30
Father-only	18	22	38	25	28	25	57	50	37
Nonparent guardian(s)	24	26	51	32	31	28	44	44	21
<b>Mother's education level<sup>d</sup></b>									
Less than high school	27	38	58	30	28	26	44	34	16
High school	17	24	41	21	28	25	62	48	35
Some college	9	19	34	17	28	25	74	54	41
College graduate	6	11	20	13	18	27	81	71	53
<b>Mother's employment status<sup>d</sup></b>									
35 hours or more/week	12	19	34	22	26	27	66	55	39
Less than 35 hours /week	8	18	30	16	24	24	76	59	46
Not in labor force	16	26	40	15	25	23	69	49	36

<sup>a</sup> Low involvement = involvement in 0 or 1 activity. Moderate involvement = 2 activities. High involvement = 3 or more activities . Possible activities include (1) attending general school meetings, (2) going to a regularly scheduled parent-teacher conference, (3) attending a school or class event, and (4) volunteering at the school or serving on a school committee.

<sup>b</sup> Persons of Hispanic origin may be of any race.

<sup>c</sup> Parents include any combination of a biological, adoptive, step-, and foster mother and/or father. No parents in the household indicates that the child is living with nonparent guardians (e.g., grandparents). Estimates for single parent households may include involvement of other adults living in the household.

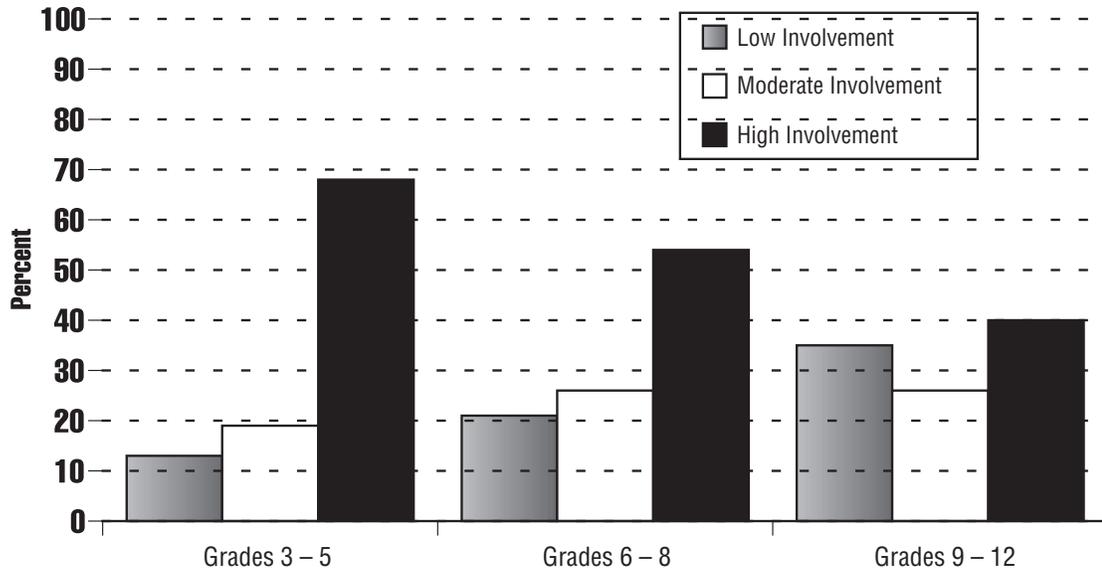
<sup>d</sup> Children without mothers in the home are not included in estimates of mother's education or mother's employment status. A mother is defined as a biological mother, adoptive mother, stepmother, foster mother, or female guardian (e.g., grandmother) who resides in the home with the child.

Source: U.S. Department of Education, National Center for Education Statistics, 1999 National Household Education Survey. Tabulated by U.S. Department of Education, National Center for Education Statistics (unpublished).

## Related Behaviors and Characteristics

**Figure EA 3.3**

Percentage of parental involvement<sup>a</sup> in child's school activities by grade level, in the United States: 1999



<sup>a</sup>Low involvement = involvement in 0 or 1 activity. Moderate involvement = involvement in 2 activities. High involvement = involvement in 3 or more activities. Possible activities include (1) attending general school meetings, (2) going to a regularly scheduled parent-teacher conference, (3) attending a school or class event, and (4) volunteering at the school or serving on a school committee.

Source: U.S. Department of Education, National Center for Education Statistics, 1999 National Household Education Survey. Tabulated by U.S. Department of Education, National Center for Education Statistics (unpublished).

***EDUCATION AND ACHIEVEMENT***

### **EA 3.4 Difficulty Speaking English**

Difficulty speaking English may limit children's educational progress and their future employment prospects. Children may also need special instruction in school to improve their English. Difficulty speaking English is most common among immigrant children and U.S.-born children of immigrants. In the past three decades, the great majority of immigrants to the United States have come from Asia, Latin America, and the Caribbean.

In 1999, of the 8.8 million children ages 5 through 17 in the United States who spoke a language other than English at home, 2.6 million had difficulty speaking English. While the proportion of all children experiencing difficulty speaking English doubled between 1979 and 1999, this group constituted only 5 percent of the total population of children ages 5 through 17 in 1999 (see Table EA 3.4).

**Differences by Race and Hispanic Origin.**<sup>42</sup> Children of Hispanic or "other" ethnic origin are more likely than Black, non-Hispanic or White, non-Hispanic children to have difficulty speaking English. These differences are due in part to the fact that Hispanic and Asian children are more likely than Whites or Blacks to speak another language in the home. For example, 3.9 percent of White, non-Hispanic children ages 5-17 speak another language in the home, compared to 70.9 percent of Hispanic children (see Table EA 3.4).

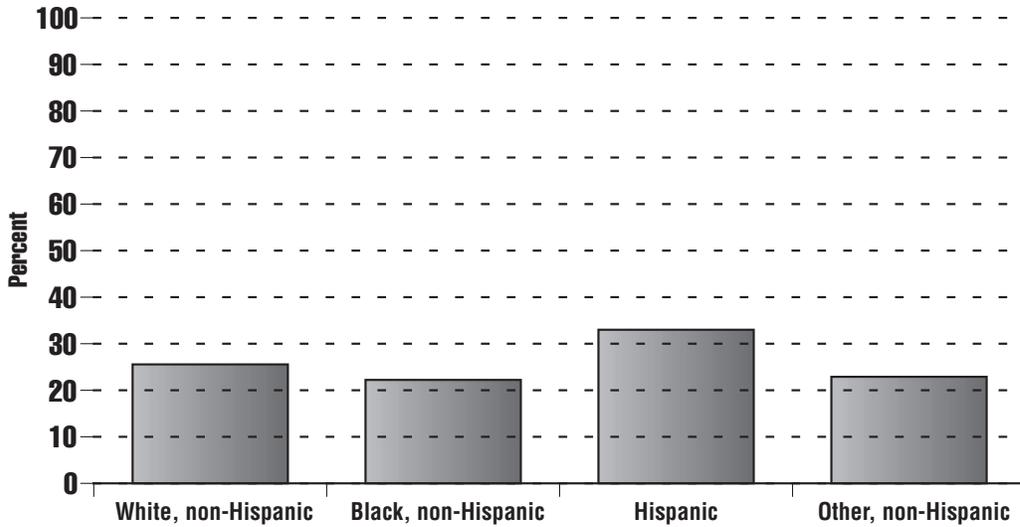
**Differences by Region.** The percentage of children who speak another language at home varies substantially by geographic region, ranging from 7.5 percent in the Midwest to 28.8 percent in the West in 1999. Further, in the West, more than 10 percent of children have difficulty speaking English, compared to 2 percent in the Midwest.

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<sup>42</sup> Persons of Hispanic origin may be of any race.

**Figure EA 3.4**

Percentage of children ages 5 through 17 in the United States who speak a language other than English at home and who are reported to have difficulty speaking English,<sup>a</sup> by race and Hispanic origin:<sup>b</sup> 1999



<sup>a</sup> Parents were asked if their child spoke a language other than English at home and how well the child could speak English. Categories used for reporting were “Very well,” “Well,” “Not well,” and “Not at all.” All children who were reported to speak below the level of “Very well” were considered to have difficulty speaking English.

<sup>b</sup> Persons of Hispanic origin may be of any race.

Source: U.S. Department of Education, National Center for Education Statistics. Tabulations based on October 1992, 1995, and 1999 and November 1979 and 1989 Current Population Surveys, U.S. Bureau of the Census. As published in *America’s Children: Key National Indicators of Well-Being, 2001*. Washington, DC: U.S. Government Printing Office, (Table POP4).

## Related Behaviors and Characteristics

**Table EA 3.4**

Children ages 5 to 17 who speak a language other than English at home, and who have difficulty speaking English,<sup>a</sup> by race and Hispanic origin and by region: Selected years, 1979-1999

	1979	1989	1992	1995 <sup>b</sup>	1999
<b>Number of children who speak another language at home (in millions)</b>	<b>3.8</b>	<b>5.3</b>	<b>6.4</b>	<b>6.7</b>	<b>8.8</b>
Percentage of children ages 5-17	8.5	12.6	14.2	14.1	16.7
Race and Hispanic origin <sup>c</sup>					
White, non-Hispanic	3.2	3.5	3.7	3.6	3.9
Black, non-Hispanic	1.3	2.4	4.2	3.0	4.5
Hispanic	75.1	71.2	76.6	73.9	70.9
Other, non-Hispanic	44.1	53.4	58.3	45.5	51.0
Region <sup>d</sup>					
Northeast	10.5	13.5	16.2	15.1	17.7
Midwest	3.7	4.9	5.6	5.9	7.5
South	6.8	10.7	11.1	11.7	14.3
West	17.0	24.2	27.2	26.4	28.8
<b>Number of children who have difficulty speaking English (in millions)</b>	<b>1.3</b>	<b>1.9</b>	<b>2.2</b>	<b>2.4</b>	<b>2.6</b>
Percentage of children ages 5-17	2.8	4.4	4.9	5.1	5.0
Race and Hispanic origin <sup>c</sup>					
White, non-Hispanic	0.5	0.8	0.6	0.7	1.0
Black, non-Hispanic	0.3	0.5	1.3	0.9	1.0
Hispanic	28.7	27.4	29.9	31.0	23.4
Other, non-Hispanic	19.8	20.4	21.0	14.1	11.7
Region <sup>d</sup>					
Northeast	2.9	4.8	5.3	5.0	4.4
Midwest	1.1	1.3	1.6	2.3	2.0
South	2.2	3.8	3.5	3.4	3.6
West	6.5	8.8	10.4	11.4	10.6
<b>Percentage of children speaking another language at home who have difficulty speaking English</b>	<b>32.7%</b>	<b>35.0%</b>	<b>34.2%</b>	<b>36.5%</b>	<b>29.5%</b>
Race and Hispanic origin <sup>c</sup>					
White, non-Hispanic	15.6	22.9	16.2	19.4	25.6
Black, non-Hispanic	23.1	20.8	31.0	30.0	22.2
Hispanic	38.2	38.5	39.0	41.9	33.0
Other, non-Hispanic	44.9	38.2	36.0	31.0	22.9

**Table EA 3.4 continued**

**Children ages 5 to 17 who speak a language other than English at home, and who have difficulty speaking English,<sup>a</sup> by race and Hispanic origin and by region: Selected years, 1979-1999**

	1979	1989	1992	1995 <sup>b</sup>	1999
Region <sup>d</sup>					
Northeast	27.6	35.6	32.7	33.1	24.8
Midwest	29.7	26.5	28.6	38.9	26.7
South	32.3	35.5	31.5	29.1	25.2
West	38.2	36.4	38.2	43.2	36.5

<sup>a</sup> Respondents were asked if the children in the household spoke a language other than English at home and how well they could speak English. Categories used for reporting were "Very well," "Well," "Not well," and "Not at all." All those reported to speak English less than "Very well" were considered to have difficulty speaking English.

<sup>b</sup> Numbers in this year may reflect changes in the Current Population Survey because of newly instituted computer-assisted interviewing techniques and/or because of the change in the population controls to the 1990 Census-based estimates, with adjustments.

<sup>c</sup> Persons of Hispanic origin may be of any race.

<sup>d</sup> Regions: Northeast includes CT, ME, MA, NH, NJ, NY, PA, RI, and VT. Midwest includes IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, and WI. South includes AL, AR, DE, DC FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, and WV. West includes AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, and WY.

Source: U.S. Department of Education, National Center for Education Statistics. Tabulations based on October 1992, 1995, and 1999 and November 1979 and 1989 Current Population Surveys, U.S. Bureau of the Census. As published in *America's Children: Key Indicators of Well-Being 2001*, Washington, DC: U.S. Government Printing Office. (Table POP4).

## **EA 3.5 Student Computer Use**

*Computer literacy* has become increasingly important for success in the workplace. Computers have become an essential tool for retrieving and manipulating information, for producing reports, and for communicating with colleagues. The extent to which children have access to computers, and the uses children make of computers, may be an indicator of how well prepared students will be to enter an increasingly technological workplace.

The percentage of 4th, 8th, and 12th graders who reported using a computer for schoolwork 1-2 times a week increased substantially between 1992 and 1998 (see Table EA 3.5.A). For example, 14 percent of 12th graders reported using a computer at school 1-2 times a week in 1992, compared with 28 percent in 1998.

**Differences by Grade.** Computer usage for schoolwork appears to increase as students enter the higher grades. For example, in 1998, 8 percent of 4th graders reported using a computer every day for schoolwork, while 21 percent of 12th graders reported the same.

**Differences by Family Income.**<sup>43</sup> Data from the Current Population Survey indicate that students from high-income families were more likely than students from middle- and *low-income* families to report using a computer at home or at school (see Table EA 3.5.B). However, family income appears to have a stronger impact on children's exposure to computers at home than at school. For example, in 1997, the rate of computer usage at home was 15 percent for students in grades 7-12 from low-income families, compared with 79 percent for students from high-income families in the same grades. The corresponding computer usage rates at school were 68 percent and 75 percent for students in grades 7-12 from low-income and high-income families, respectively (see Table EA 3.5.B).

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<sup>43</sup> Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between.

**EDUCATION AND ACHIEVEMENT**

**Table EA 3.5.A**

Percentage of students who reported using a computer for schoolwork, by grade and frequency of use: Selected years, 1992-2000

Frequency of use	Grade 4				Grade 8			Grade 12		
	1992	1994	1998	2000	1992	1994	1998	1992	1994	1998
Never	67	60	54	57	58	51	32	45	37	22
Ever	33	40	46	43	42	49	68	55	63	78
1-2 times/week	17	21	20	17	14	16	25	14	18	28
1-2 times/month	10	11	18	17	20	23	29	22	26	30
Every day	6	9	8	8	8	10	15	18	18	21

Source: U.S. Department of Education, National Center for Education Statistics, 1999. National Assessment of Educational Progress. Washington, DC: U.S. Government Printing Office.

**Table EA 3.5.B**

Percentage of students who reported using a computer at school or at home, by grade level and family income: Selected years, 1984-1997

Location of Computer	Income Level <sup>a</sup>															
	Total				Low				Middle				High			
	1984	1989	1993	1997	1984	1989	1993	1997	1984	1989	1993	1997	1984	1989	1993	1997
<b>Grades 1-6</b>																
Home	11.8	16.1	23.0	41.3	2.5	3.2	3.9	12.4	9.7	13.1	18.0	36.4	24.4	33.6	48.5	74.6
School	30.5	52.4	66.6	79.1	18.5	39.4	57.4	70.9	29.5	52.3	66.2	78.6	42.2	62.5	74.0	86.5
Home or school	36.2	56.9	70.7	83.8	20.0	40.5	58.1	71.9	34.5	56.3	69.5	82.8	53.0	70.9	82.4	95.0
<b>Grades 7-12</b>																
Home	13.4	21.1	27.7	49.2	3.3	5.7	5.6	14.9	10.1	17.0	22.2	44.2	24.8	38.3	51.2	78.6
School	28.9	43.0	57.0	73.5	20.0	36.7	49.0	67.6	28.4	42.6	57.3	74.1	34.1	47.2	60.7	75.4
Home or school	36.2	52.1	65.6	84.3	22.2	39.0	50.4	70.7	33.6	49.9	64.1	83.5	48.1	63.9	77.0	93.3

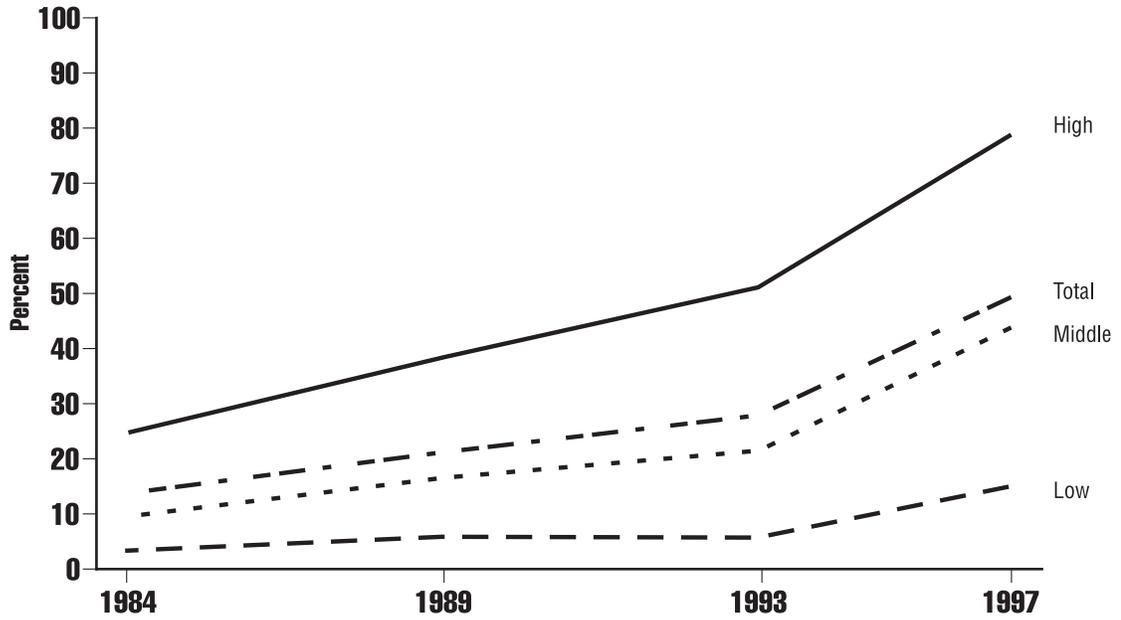
<sup>a</sup> Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between.

Source: U.S. Department of Education, National Center for Education Statistics. 2000. *The Condition of Education 1999*, Washington, DC: U.S. Government Printing Office.

## Related Behaviors and Characteristics

**Figure EA 3.5.A**

Percentage of students in grades 7-12 who reported using a computer at home,<sup>a</sup> 1984, 1989, 1993, and 1997



<sup>a</sup> Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between.

Source: U.S. Department of Education, National Center for Education Statistics. 2000. *The Condition of Education 1999*, Washington, DC: U.S. Government Printing Office.