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Spending

INEQUALITY AT THE STARTING GATE

**Social Background Differences in
Achievement as Children Begin School**

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CHAPTER 2

Young children's social disadvantage and family activities

This chapter explores how children's social background, particularly race/ethnicity and SES, is associated with other features of their home lives. Chapter 1 examined how social background can substantially affect children's cognitive status as they start school. Black and Hispanic children, as well as children in the "other" racial/ethnic category, score considerably below their white and Asian counterparts on tests of academic achievement in math and reading at kindergarten entry. Moreover, family SES is also associated strongly with children's cognitive status. Our analyses here—which are also descriptive—are motivated by a large body of research that demonstrates that beyond race and social class differences, children's academic achievement is also influenced by many other features of their homes and families. In this chapter we consider how a wide range of family activities differ according to children's race, ethnicity, and SES.

Home demographics and family activities

Numerous studies have shown that a wide range of family demographic characteristics, attitudes, and activities, beyond race/ethnicity and socioeconomic status, are associated with children's cognitive performance. This chapter considers a large number of such factors that typify children's homes and families at the point they enter kindergarten. These factors can be arranged into five categories:

1. *Children's demographic background* (e.g., age, gender, whether they come from non-English speaking homes, whether they are repeating kindergarten);
2. *The demographics of their homes* (e.g., whether the household is headed by a single parent; the numbers of older and younger siblings; family residential mobility; the types of communities in which their homes are located);

3. *Expectations for them and their educational experiences* (e.g., what level of education their parents expect for them; the care or preschool experiences they had in the previous year—child care, Head Start, with relatives, in a child-care center, or at home with a parent);
4. *Activities in their homes* (e.g., time spent watching television; the number of books or other media in the home; whether the family has a computer at home; the frequency of play activities; the frequency of reading activities); and
5. *Activities outside their homes* (e.g., cultural visits, such as museums, a zoo, the library, or shows; participation in athletics or clubs; lessons, such as dance, music, drama, and arts and crafts).

The information about family demographics and activities in these five categories came from parents' reports in the ECLS-K surveys, most of which were collected at the beginning of the kindergarten year.⁸ Descriptive differences by racial/ethnic status and social class across this wide array of family demographics and home activities are shown in **Tables 2.1** and **2.2**. The results in Table 2.1 display subgroup means for each of the demographics and activities we consider separately for the five racial/ethnic groups; Table 2.2 results display subgroup means on the same demographics and activities for the SES quintiles.

Social background and demographic characteristics

Language status and kindergarten repetition. Of the many children's demographic characteristics we investigated, we highlight two: whether or not the child lives in a non-English speaking household (defined in terms of the principal language used in the home), and whether the child is repeating kindergarten. The proportions of ECLS-tested children who live in households where the *main language* spoken is other than English are displayed in **Figure 2.1**. Unsurprisingly, panel A, which displays racial/ethnic differences, shows that very few white or black children's parents speak languages other than English at home, whereas almost a third of Hispanic children's home language is not English (30.7%). In about half of the Asian children's homes English is the major language spoken. Only a small proportion of children in the "other" racial group (4.8%) live in non-English-speaking households. We suspect that these are mostly Native Americans.⁹

The trend by SES (panel B of Figure 2.1) is more striking: a higher percentage of children from low-SES backgrounds live in non-English

**TABLE 2.1 ECLS-K
(n=16,157 children)**

Unweighted sample size
Weighted percentages

Entering achievement:
Fall math achievement,
(SD)
Fall reading achievement
(SD)

*Social background
and child demographic:*
SES, mean
(SD)

Age in months, mean
(SD)

Female
Non-English household
Kindergarten repeaters

Home demographics:
Single parent household
With no younger sibling
With 1 younger sibling
With 2 or more younger siblings
With no older siblings
With 1 older sibling
With 2 older siblings
With 3 or more older siblings
With no siblings
Lived in one home since birth
Lived in two homes since birth
Lived in three homes since birth
Lived in four homes since birth
Lived in five/more homes since birth
Live in large city
Live in medium city
Live in suburban/urban
Live in rural/small town

Educational expectations:
primary pre-kindergarten
HS graduation or less
Some college or college
Masters, MD, or Ph.D.
Center-based care
Head Start
Parental care only
Non-parental, relative care
Non-relative care
Primary care varied

TABLE 2.1 ECLS-K starting gate: descriptives by race
(n=16,157 children)

	White	Black	Hispanic	Asian	Other
Unweighted sample size	9786	2536	2143	761	931
Weighted percentages	61.7	17.3	13.9	2.3	4.8
<i>Entering achievement:</i>					
Fall math achievement, mean	21.0	16.5	17.1	22.2	17.4
(SD)	(7.4)	(5.4)	(6.2)	(8.4)	(6.7)
Fall reading achievement, mean	23.2	19.9	19.5	25.7	19.9
(SD)	(8.5)	(6.9)	(7.4)	(10.9)	(8.2)
<i>Social background and child demographics:</i>					
SES, mean	0.22	-0.51	-0.36	0.48	-0.22
(SD)	(0.95)	(0.96)	(0.88)	(1.13)	(1.02)
Age in months, mean	66.4	65.9	65.7	65.2	65.9
(SD)	(4.4)	(4.4)	(4.3)	(4.1)	(4.6)
Female	48.3%	48.8%	49.0%	50.1%	48.2%
Non-English households	1.3%	0.9%	30.7%	50.5%	4.8%
Kindergarten repeaters	4.2%	5.4%	5.2%	3.5%	4.7%
<i>Home demographics:</i>					
Single parent households	15.0%	53.7%	26.9%	9.6%	29.2%
With no younger siblings	56.0	55.3	56.7	60.2	53.2
With 1 younger sibling	35.6	30.9	34.1	33.1	24.7
With 2 or more younger siblings	8.4	13.8	9.2	6.7	12.1
With no older siblings	42.1	35.9	40.5	44.6	41.8
With 1 older sibling	38.4	34.2	35.1	36.2	29.0
With 2 older siblings	15.0	18.5	16.8	13.6	16.0
With 3 or more older siblings	4.5	11.4	7.6	5.6	13.2
With no siblings	15.4	17.9	18.6	20.6	19.5
Lived in one home since birth	37.5	31.7	28.5	36.3	30.9
Lived in two homes since birth	32.1	35.8	36.3	36.5	34.8
Lived in three homes since birth	16.8	20.1	19.8	17.3	19.5
Lived in four homes since birth	7.4	7.5	9.0	7.4	7.8
Lived in five/more homes since birth	6.2%	45.9%	6.4%	2.6%	7.0%
Live in large city	8.2	29.2	29.2	28.0	12.6
Live in medium city	18.7	26.6	22.5	17.5	17.5
Live in suburban/urban fringe	46.8	33.0	37.6	44.8	27.5
Live in rural/small town	26.3	11.2	10.7	9.6	42.4
<i>Educational expectations and primary pre-kindergarten day care:</i>					
HS graduation or less	9.7%	13.0%	9.6%	1.8%	12.7%
Some college or college degree	68.8	53.9	53.2	50.6	60.0
Masters, MD, or Ph.D.	21.4	33.1	37.2	47.6	27.4
Center-based care	49.1	33.4	33.7	46.8	30.5
Head Start	5.5	22.8	13.4	6.6	18.7
Parental care only	16.9	12.9	21.8	19.8	18.8
Non-parental, relative care	11.2	18.4	18.0	18.6	18.7
Non-relative care	12.7	4.4	8.0	5.2	7.5
Primary care varied	4.6	8.1	5.1	3.1	6.0

(cont.)

TABLE 2.1 ECLS-K starting gate: descriptives by race
(n=16,157 children) (cont.)

	White	Black	Hispanic	Asian	Other
<i>At-home activities:</i>					
Hours TV weekly, mean	13.2	17.9	15.1	13.4	15.2
(SD)	(7.1)	(9.8)	(8.9)	(8.6)	(9.0)
Watching Sesame Street	53.7	80.3	69.2	70.1	65.8
Number of books, mean	93.1	39.6	52.5	55.8	62.6
(SD)	(59.1)	(39.9)	(48.7)	(53.3)	(55.3)
Number of records/ tapes/CDs, mean	17.6	10.6	12.2	17.0	13.1
(SD)	(18.4)	(14.5)	(17.2)	(18.7)	(16.5)
Own home computer	65.7	32.9	41.5	64.8	45.0
<i>Frequency of play activities</i> (% who report 3-6 times a week or everyday)					
Parent & child play games	63.6%	59.8%	58.3%	58.2%	63.7%
Parent & child build things	40.0	37.1	37.0	36.1	39.8
Child does sports	57.0	55.4	50.8	43.5	56.1
Parent teaches child about nature	34.9	24.9	27.2	24.0	34.7
Parent helps child make art	55.6	50.3	48.3	56.4	56.2
Parent tells child stories	57.7	50.5	54.4	56.6	61.2
Parent & child sing songs	72.8	75.1	69.8	56.9	71.2
Child does chores	81.8	78.4	73.9	66.2	79.4
Play composite					
Z-score, mean	0.04	-0.03	-0.14	0.22	0.09
(SD)	(0.95)	(1.06)	(1.04)	(1.01)	(1.01)
<i>Frequency of Reading Activities</i> (% who report 3-6 times a week or everyday)					
Child reads books					
outside of school	68.7%	73.8%	66.4%	71.8%	70.2%
Child reads picture books	85.9	75.1	75.3	75.7	81.1
Parent reads to child	86.6	67.5	74.8	77.8	78.0
Reading composite					
Z-score, mean	0.07	-0.13	-0.14	0.00	-0.04
(SD)	(0.95)	(1.03)	(1.01)	(1.01)	(1.02)
<i>Outside-home (non-school) activities:</i>					
Visit zoo/aquarium	39.4%	43.5%	44.9%	44.2%	33.8%
Visit museum	33.0	28.0	28.0	38.1	28.5
Visit library	56.0	48.8	48.5	67.8	46.3
Attend play/concert/show	39.9	38.3	36.4	41.2	34.4
Participate in athletic events	57.9	25.8	32.9	31.0	38.1
Attend sporting event	47.4	38.5	41.5	26.7	41.6
Participate in organized clubs	16.6	10.2	9.8	7.2	11.1
Participate in					
organized performing	15.5	20.4	8.7	8.3	10.7
Take dance lessons	20.2	10.0	13.8	16.3	14.3
Take music lessons	7.7	7.0	5.8	18.4	8.7
Take drama classes	1.9	1.4	1.2	1.9	1.3
Take art lessons	8.3	5.9	5.4	10.3	9.0
Take craft classes	13.3	7.3	8.5	8.8	11.1

Source: Authors' analysis of U.S. Department of Education ECLS-K data.

TABLE 2.2 ECLS

Unweighted sample
Weighted percentages
<i>Entering Achievement</i>
Fall math achievement
(SD)
Fall reading achievement
(SD)
<i>Social background</i>
White
Black
Hispanic
Asian
Other
Female
Non-English household
Kindergarten repeat
Age in months, mean
(SD)
<i>Home demographics</i>
Single parent household
With no younger siblings
With 1 younger sibling
With 2 or more younger siblings
With no older siblings
With 1 older sibling
With 2 older siblings
With 3 or more older siblings
With no siblings
Lived in one home
Lived in two homes
Lived in three homes
Lived in four homes
Lived in five or more homes
Live in large city
Live in medium city
Live in suburban/urban
Live in rural/small town
<i>Educational expectations</i>
HS graduation or less
Some college or college
Masters, MD, or PhD
Center-based care
Head Start
Parental care only
Non-parental, relative
Non-relative care
Primary care varied

TABLE 2.2 ECLS-K starting gate: descriptives by SES quintiles

	Low	Low middle	Middle	High middle	High
Unweighted sample size	2434	3115	3336	3516	3756
Weighted percentages	16.9	20.2	20.9	20.8	21.2
<i>Entering Achievement:</i>					
Fall math achievement, mean	15.1	17.5	19.1	21.0	24.1
(SD)	(5.1)	(5.9)	(6.3)	(6.8)	(8.1)
Fall reading achievement, mean	17.4	20.0	21.3	23.6	27.2
(SD)	(5.4)	(6.6)	(7.2)	(8.2)	(9.9)
<i>Social background and child demographics:</i>					
White	34.0%	56.6%	63.2%	69.3%	79.8%
Black	34.5	19.6	16.8	12.7	6.1
Hispanic	23.4	16.8	13.7	11.4	6.4
Asian	1.8	1.3	1.6	2.3	4.3
Other	6.3	5.7	4.7	4.4	3.3
Female	47.1	48.7	49.4	48.7	49.0
Non-English households	14.0	7.1	4.3	4.8	4.5
Kindergarten repeaters	8.1	4.7	4.4	3.2	3.1
Age in months, mean	66.5	66.2	66.1	66.1	66.0
(SD)	(4.7)	(4.4)	(4.3)	(4.2)	(4.3)
<i>Home demographics:</i>					
Single parent households	48.2%	29.3%	22.4%	14.7%	10.2%
With no younger siblings	49.9	57.0	58.6	58.4	54.2
With 1 younger sibling	34.2	33.6	33.5	34.6	36.8
With 2 or more younger siblings	15.9	9.4	7.9	7.0	9.0
With no older siblings	35.6	39.6	41.8	43.1	43.0
With 1 older sibling	33.5	35.9	36.4	39.2	38.0
With 2 older siblings	19.3	16.3	16.1	12.9	15.3
With 3/more older siblings	11.6	8.2	5.7	4.8	3.7
With no siblings	14.7	17.8	18.3	18.0	13.6
Lived in one home since birth	28.0	30.6	34.1	38.5	41.6
Lived in two homes since birth	32.4	31.9	33.4	34.1	35.5
Lived in three homes since birth	19.3	22.6	21.6	19.8	16.7
Lived in four homes since birth	20.0	24.2	21.4	17.5	16.9
Lived in five/more homes since birth	8.5	7.9	6.6	7.4	3.1
Live in large city	19.9	15.2	14.9	13.6	13.9
Live in medium city	23.2	20.5	20.5	19.8	19.8
Live in suburban/urban fringe	28.6	37.5	40.0	48.3	52.8
Live in rural/small town	28.3	26.7	24.6	18.1	13.5
<i>Educational expectations and primary pre-kindergarten day care:</i>					
HS graduation or less	28.1%	15.6%	7.8%	3.3%	1.1%
Some college or college degree	50.1	61.8	69.1	71.1	61.6
Masters, MD, or Ph.D.	21.7	22.6	23.2	25.7	37.3
Center-based care	20.1	31.2	41.7	52.2	65.0
Head Start	27.0	14.6	8.6	3.9	1.1
Parental care only	25.9	21.3	16.5	14.9	9.4
Non-parental, relative care	16.8	18.9	16.4	11.5	6.7
Non-relative care	4.7	8.3	11.1	11.9	13.9
Primary care varied	5.4	5.7	5.8	5.7	3.9

(cont.)

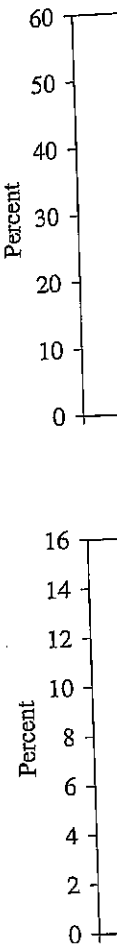
S-K data.

TABLE 2.2 ECLS-K starting gate: descriptives by SES quintiles (cont.)

	Low	Low middle	Middle	High middle	High
<i>At-home activities:</i>					
Hours TV weekly, mean	17.2	15.9	14.5	13.3	11.6
(SD)	(10.0)	(8.6)	(7.9)	(6.8)	(6.3)
Watching Sesame Street	72.8%	63.8%	61.3%	59.8%	51.7%
Number of books, mean	38.0	60.4	76.0	88.6	108.1
(SD)	(41.2)	(50.8)	(55.6)	(58.5)	(60.3)
Number of records/ tapes/CDs, mean	8.1	12.5	15.3	17.6	21.8
(SD)	(13.8)	(16.5)	(17.5)	(17.8)	(19.4)
Own home computer	19.9%	38.3%	54.7%	71.5%	84.7%
<i>Frequency of play activities</i> (% who report 3-6 times a week or everyday)					
Parent & child play games	56.1%	60.3%	60.3%	65.1%	67.3%
Parent & child build things	38.3	38.4	37.8	39.5	40.7
Child does sports	53.6	54.4	54.9	56.9	57.5
Parent teaches child about nature	24.1	27.9	31.5	33.9	40.0
Parent helps child make art	46.3	51.3	53.3	56.5	59.4
Parent tells child stories	46.7	54.5	54.8	59.0	63.8
Parent & child sing songs	67.0	70.4	72.6	74.8	75.8
Child does chores	73.5	78.7	81.0	81.4	82.3
Play composite Z-score, mean	-0.16	-0.06	-0.01	0.05	0.15
(SD)	(1.13)	(1.02)	(0.98)	(0.93)	(0.89)
<i>Frequency of reading activities</i> (% who report 3-6 times a week or everyday)					
Child reads books outside of school	65.1%	68.1%	69.3%	70.2%	73.0%
Child reads picture books	69.6	79.1	83.7	85.6	89.8
Parent reads to child	62.6	76.6	80.7	87.3	93.9
Reading composite Z-score, mean	-0.29	-0.11	-0.04	0.07	0.28
(SD)	(1.12)	(1.00)	(0.97)	(0.95)	(0.87)
<i>Outside-home (non-school) activities:</i>					
Visit zoo/aquarium	35.4%	39.0%	39.8%	43.0%	44.7%
Visit museum	20.2	24.7	28.3	34.7	45.6
Visit library	35.7	46.7	53.3	60.2	66.9
Attend play/concert/show	27.1	33.9	38.9	43.0	48.4
Participate in athletic events	20.1%	33.2%	45.7%	57.6%	72.6%
Attend sporting event	29.7	38.4	46.1	49.0	54.6
Participate in organized clubs	7.5	9.5	13.7	17.5	20.5
Participate in organized performing	8.7%	10.3%	13.7%	17.0%	23.3%
Take dance lessons	5.8	9.8	14.7	21.7	30.8
Take music lessons	2.6	3.6	5.5	8.0	16.6
Take drama classes	0.7	0.4	1.2	1.9	3.8
Take art lessons	3.9%	4.5%	5.9%	8.3%	14.0%
Take craft classes	5.4	7.4	10.6	13.0	18.8

Source: Authors' analysis of U.S. Department of Education ECLS-K data.

FIGURE 2.1
households



Source: Au

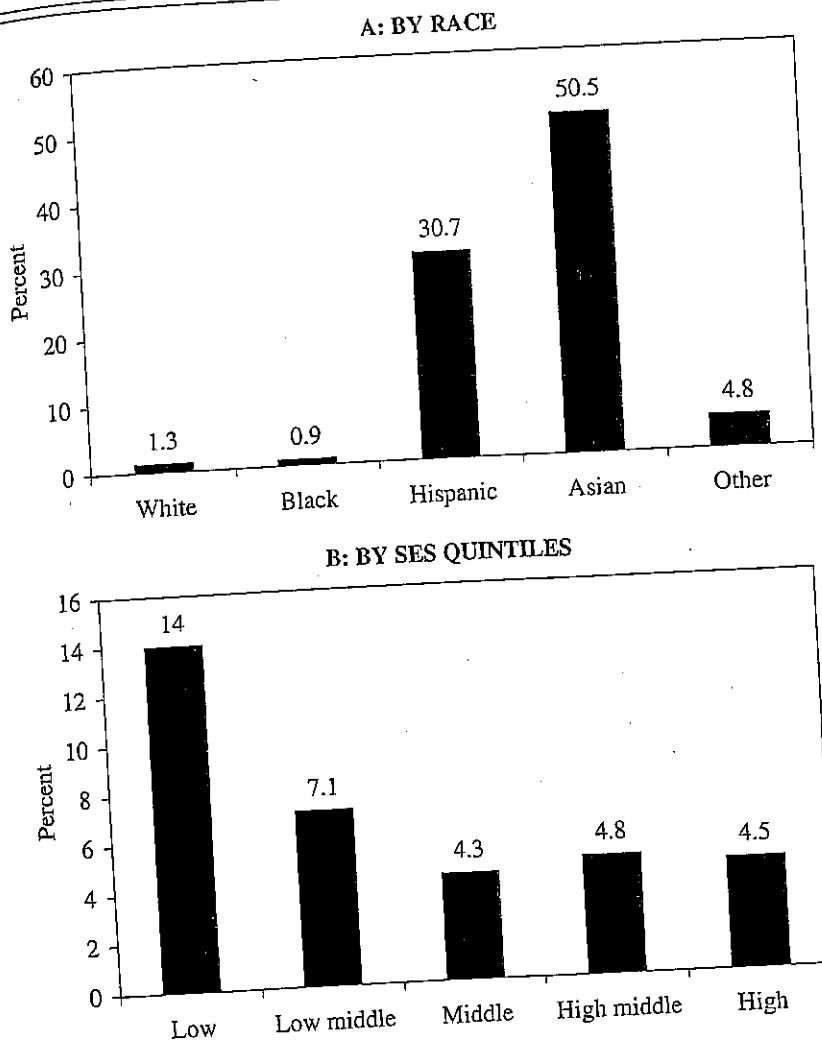
househol
der 5%).
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tions of
Figure :

by SES quintiles (cont.)

Low	High middle	High
4.5 (7.9)	13.3 (6.8)	11.6 (6.3)
1.3%	59.8%	51.7%
6.0 (5.6)	88.6 (58.5)	108.1 (60.3)
5.3 (7.5)	17.6 (17.8)	21.8 (19.4)
4.7%	71.5%	84.7%
0.3%	65.1%	67.3%
7.8	39.5	40.7
4.9	56.9	57.5
1.5	33.9	40.0
3.3	56.5	59.4
4.8	59.0	63.8
2.6	74.8	75.8
1.0	81.4	82.3
0.01 (0.98)	0.05 (0.93)	0.15 (0.89)
9.3%	70.2%	73.0%
3.7	85.6	89.8
10.7	87.3	93.9
-0.04 (0.97)	0.07 (0.95)	0.28 (0.87)
9.8%	43.0%	44.7%
8.3	34.7	45.6
3.3	60.2	66.9
8.9	43.0	48.4
5.7%	57.6%	72.6%
46.1	49.0	54.6
13.7	17.5	20.5
3.7%	17.0%	23.3%
14.7	21.7	30.8
5.5	8.0	16.6
1.2	1.9	3.8
5.9%	8.3%	14.0%
10.6	13.0	18.8

LS-K data.

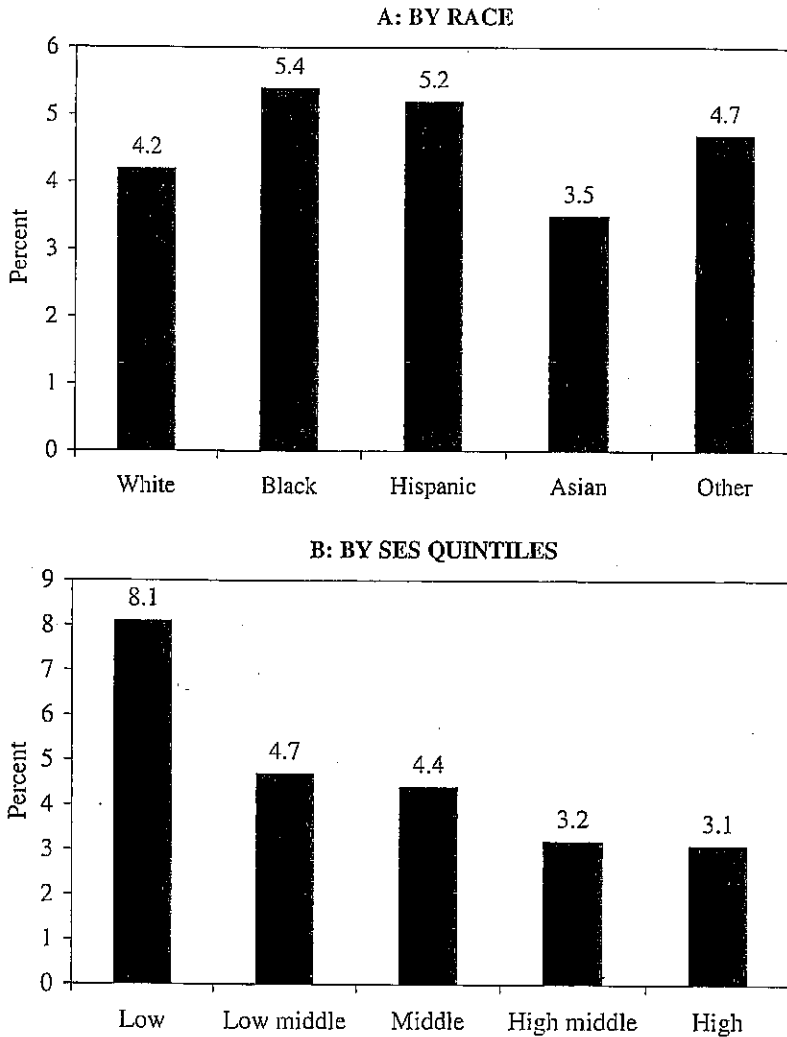
FIGURE 2.1 Percent of kindergartners in non-English-speaking households



Source: Authors' analysis of U.S. Department of Education ECLS-K data.

households (14%) than children from middle-SES to high-SES homes (under 5%). The families of children living in non-English households are mostly low SES, and they are quite likely Hispanic or Asian. The proportions of children repeating kindergarten is quite small (less than 5%—Figure 2.2).¹⁰ The proportions are quite similar across the racial/ethnic

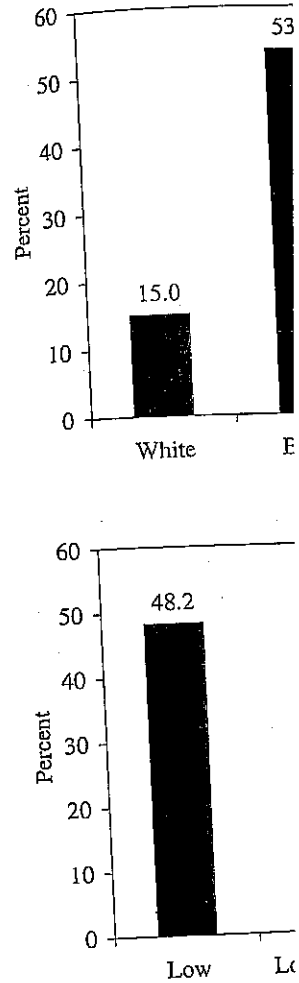
FIGURE 2.2 Percent of kindergartners who are repeating kindergarten



Source: Authors' analysis of U.S. Department of Education ECLS-K data.

groups (see panel A), with kindergarten repetition only slightly more likely for black and Hispanic children (5.4% and 5.2%, respectively) than for whites (4.2%). Considerably more striking is the trend between repeating kindergarten and SES (panel B of Figure 2.2). Low-SES children are almost twice as likely as the four other SES categories to repeat kindergarten.

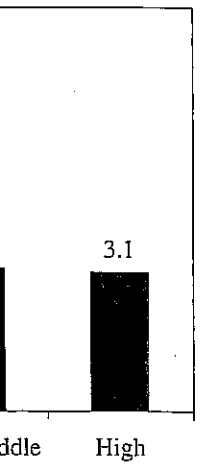
FIGURE 2.3 Percent of k



Source: Authors' analysis of

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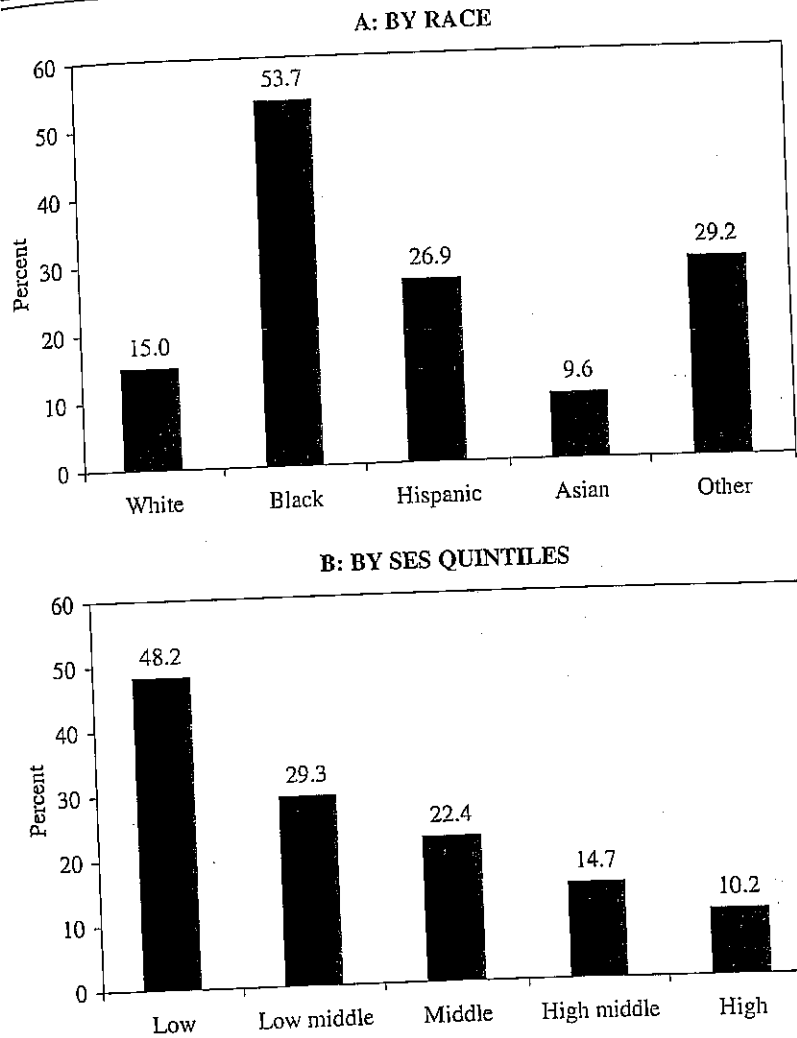
peating kindergarten



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 SES children are al-
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FIGURE 2.3 Percent of kindergartners from single-parent homes



Source: Authors' analysis of U.S. Department of Education ECLS-K data.

Single parents, family size, and residence. We give special focus to three of the 18 home demographic characteristics presented in Tables 2.1 and 2.2 that we consider especially important: single-parent households, family size, and residential location.

As shown in **Figure 2.3**, the proportion of young children living in single-parent households, a major indicator of family structure, is much

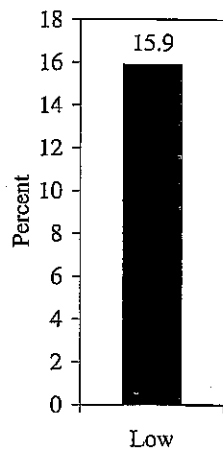
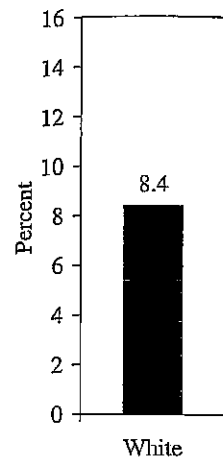
higher for socially disadvantaged children. Panel A shows that over half of black kindergartners in 1998 lived in single-parent households (53.7%), compared to slightly more than a fourth of Hispanic (26.9%) and "other" children (29.3%). Single-parent households are much less common for white (15%) and Asian children (9.6%). As striking as the racial differences in family structure are, so too are differences by SES (panel B of Figure 2.3). The relationship between SES and single-parent family structure is strong and close to linear—that is, as SES goes up, the proportion of young children in single-parent homes goes down. Almost half the kindergartners in the lowest SES quintile live in single-parent homes. Certainly, the causal order here is unknown.¹¹

The theory of resource diminution would suggest that parents' ability to provide their young children with time and attention is diminished by their need to care for other children in the household. We measured the number of siblings each child had in several ways, as well as whether the siblings were older or younger than the child. Figure 2.4 presents the proportion of America's kindergartners with two or more younger siblings, separately for race and SES. In Figure 2.5 we present the same categories for the proportions of children with three or more older siblings. For both types of large families (i.e., with younger and older siblings), the proportions for black and "other" racial groups are higher than for whites, Hispanics, and especially Asians (whose family sizes are lowest, shown in panel A of Figures 2.4 and 2.5). For example, 13.8% of young black children have at least two younger siblings, and 11.4% have at least three older siblings. This compares to 8.4% and 4.6% for younger and older siblings, respectively, for white children.

There is a clear pattern for family size by SES (panel B of Figures 2.4 and 2.5): less-advantaged children have more siblings. Higher proportions of children in the lowest SES quintile (15.9%) have many younger siblings, and 11.6% have many older siblings. As children's family SES increases, the proportion of children with three or more older siblings declines; only 3.7% of high-SES children have many older siblings. The trend is less linear for many younger siblings, where the high-middle SES group has the lowest proportion (7.0%). Clearly, large family size is associated with race and SES, with black children and low-SES children most likely to have many siblings either older or younger than themselves.

The types of communities in which children reside (city size, suburban or rural location) are also associated with their social background. Results in panel A of Figure 2.6 indicate that, although almost half of white (46.8%) and Asian (44.8%) children reside in suburban communities, only about a third of black (33%) and Hispanic (37.6%) children live

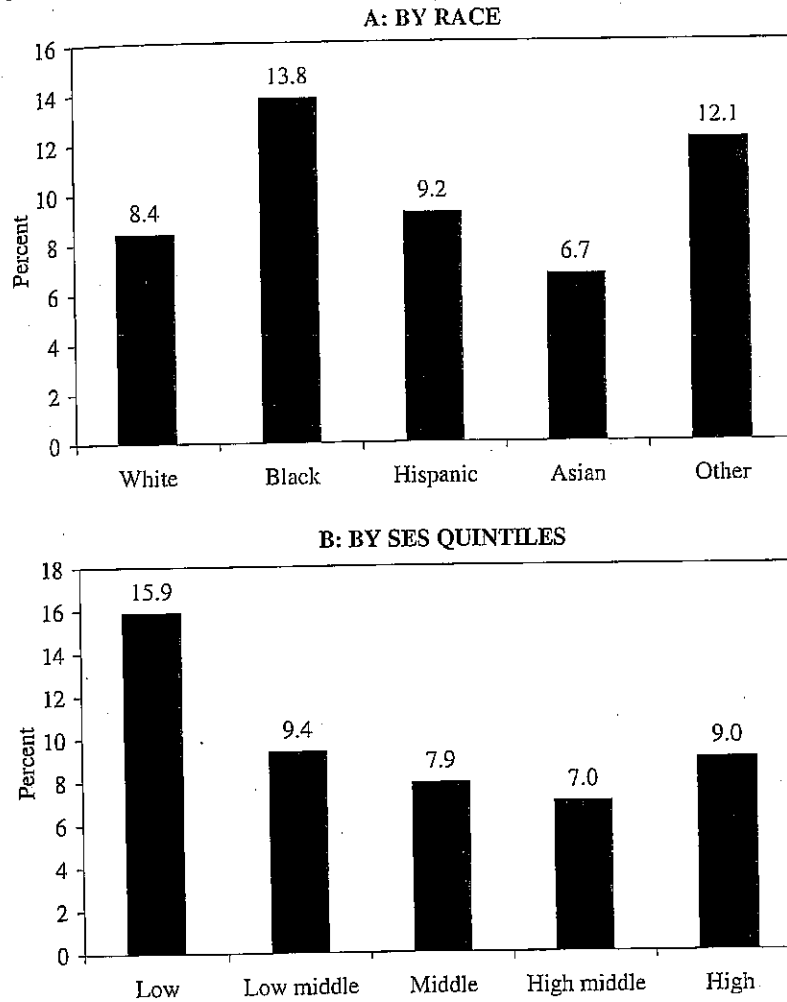
FIGURE 2.4 Percent younger siblings



Source: Authors' analysis

in the suburbs. Close to half of children in large cities, which (8.2%). More than half of children in suburbs or small towns (and Asians. Almost half of children reside in rural areas

FIGURE 2.4 Percent of kindergartners with two or more younger siblings



Source: Authors' analysis of U.S. Department of Education ECLS-K data.

A shows that over half of parent households (53.7%), Hispanic (26.9%) and "other" are much less common for living as the racial differences by SES (panel B of single-parent family structure goes up, the proportion of n. Almost half the kindergarten-parent homes. Certainly,

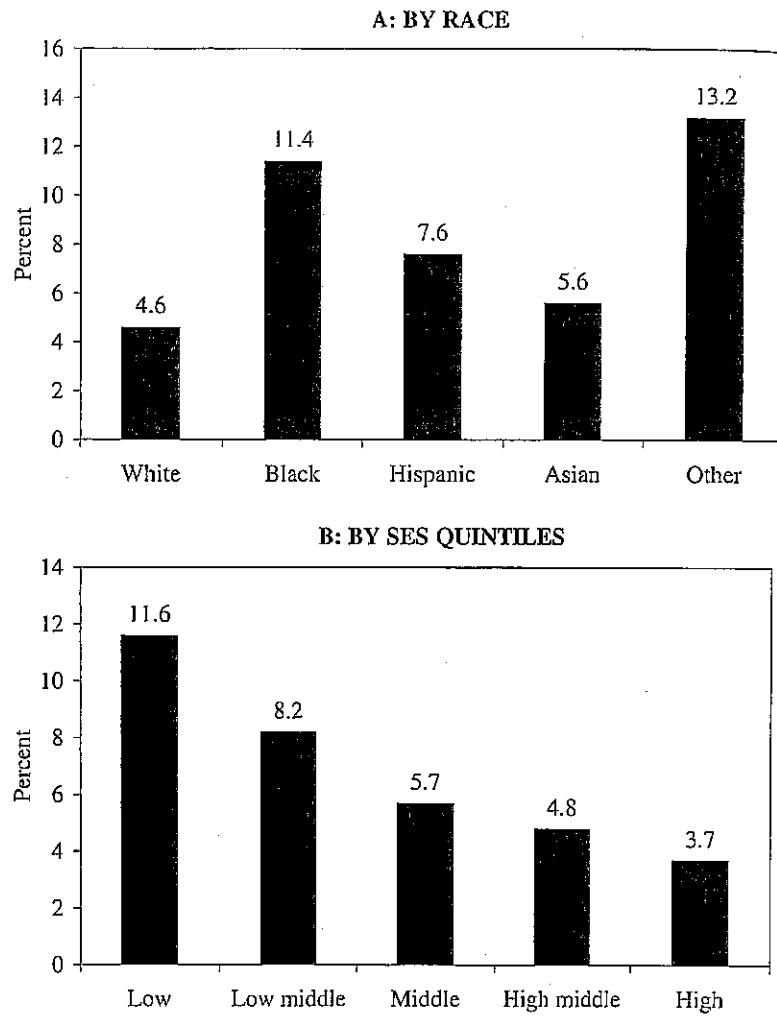
uggest that parents' ability attention is diminished by household. We measured the s, as well as whether the ure 2.4 presents the pro- more younger siblings, present the same categories older siblings. For both der siblings), the propor- ner than for whites, His- es are lowest, shown in 8% of young black chil- .4% have at least three for younger and older

s (panel B of Figures 2.4 ings. Higher proportions ave many younger sib- ildren's family SES in- ore older siblings de- older siblings. The trend high-middle SES group family size is associated ES children most likely themselves.

reside (city size, subur- eir social background. Although almost half of in suburban communi- c (37.6%) children live

in the suburbs. Close to 30% of black, Hispanic, and Asian children live in large cities, which is more than triple the proportion of white children (8.2%). More than twice the proportion of white children live in rural areas or small towns (26.3%), compared to about 10% of blacks, Hispanics, and Asians. Almost half the children in the "other" racial group (42.4%) reside in rural areas (mostly likely to be Native Americans). In terms of

FIGURE 2.5 Percent of kindergartners with three or more older siblings

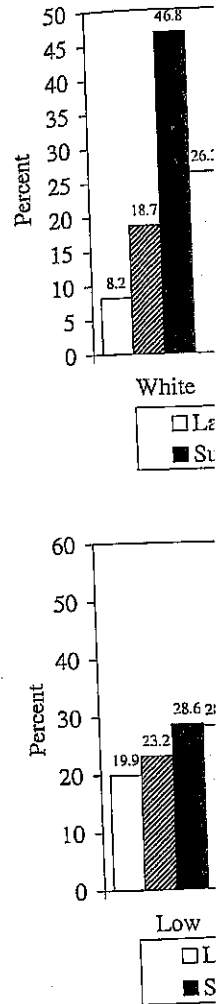


Source: Authors' analysis of U.S. Department of Education ECLS-K data.

residential location, Asian children more closely resemble other minorities than whites, as few live in rural areas and many in cities.

There are three clear residential location patterns by SES (panel B of Figure 2.6). As SES goes up, the proportion of children living in the suburbs also goes up. Correspondingly, as SES goes up, the proportion of children living in either larger cities or rural areas goes down. Almost double

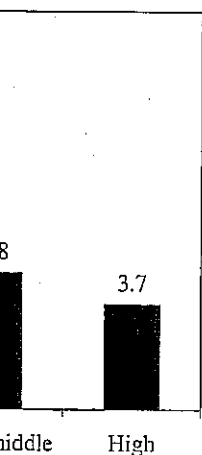
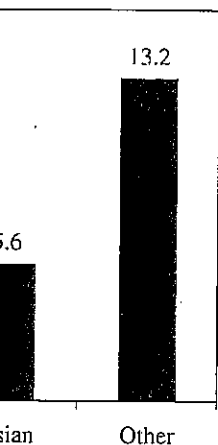
FIGURE 2.6 Percent of kindergartners living in cities, suburban/urban areas, or rural areas



Source: Authors' analysis of U.S. Department of Education ECLS-K data.

the proportion of children living in cities (8.2% vs. 28.6%), but the proportion living in rural areas is less sensitive to SES (46.8% vs. 28.6%) regardless of SES.

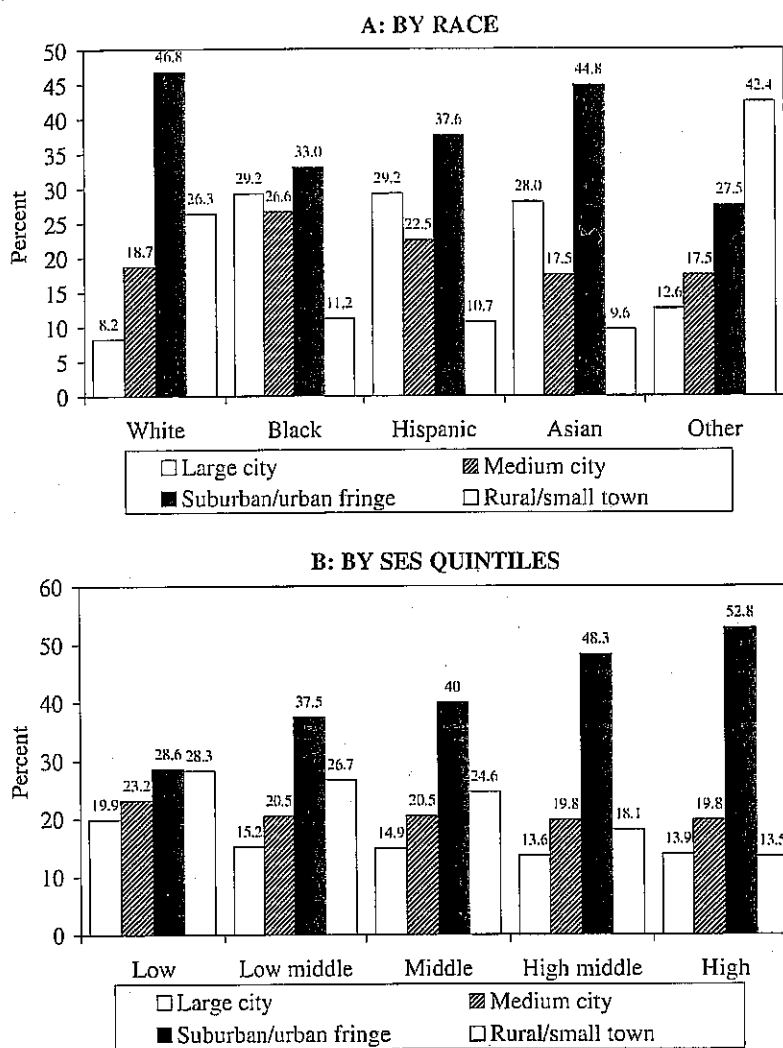
...e or more older siblings



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...resemble other minori-
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FIGURE 2.6 Percent of kindergartners who live in large cities, medium cities, suburban/urban fringe, or rural/small towns



Source: Authors' analysis of U.S. Department of Education ECLS-K data.

the proportion of high- as low-SES children live in suburban areas (52.8% vs. 28.6%), but comparisons among SES groups for other residential locations are less stark. Around 20% of children live in medium-sized cities, regardless of socioeconomic status.

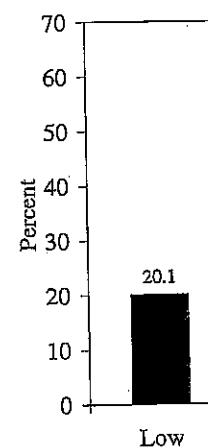
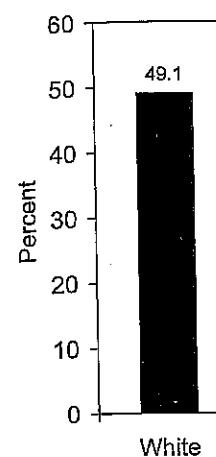
Social background and child care experiences. Although it is possible that children's experiences the year before kindergarten influence their subsequent academic performance, unfortunately we are unable to distinguish between experiences in child care (which may have no academic component) and/or preschool (which may have an academic component) with these ECLS-K data. We present information on two child care conditions here: center-based care (which may be akin to preschool—Figure 2.7) and Head Start, which is a federally funded preschool restricted to low-income children (Figure 2.8).¹² White and Asian children are most likely to have experienced center-based care (almost half of all children in those racial groups), whereas about one third of children in other racial/ethnic groups attended center-based care the year prior to kindergarten (panel A).

The proportional representation of children by SES in center-based care (panel B) is more revealing. As children's SES goes up, so does the proportion of them with center-based care experience. The proportion of high-SES children with center-based care is over three times as large as low-SES children (65.0% vs. 20.1%). The comparison between center-based care and Head Start experience (Figure 2.8) shows one to be almost a mirror image of the other. Many blacks and "other" racial group children are likely to have experienced Head Start (panel A, 22.8% and 18.7%, respectively), whereas much lower proportions of whites and Asians had this experience (5.5% and 6.6%). Hispanic children's experience with Head Start falls midway between whites' and blacks'. Understandably (because of eligibility requirements), a much greater proportion of poor children are served by Head Start programs than higher-SES children (panel B). The small percentages of middle-class and more affluent children who are served by Head Start may be because the program is also mandated to enroll handicapped children of preschool age.

Social background and family activities. Among the large number of at-home activities shown in Tables 2.1 and 2.2, we focus on five that have been shown to have special relevance to learning: parents' reports of the amount of time their children spend watching television, the number of children's books in the home, the time parents report reading to their children, whether there is a computer in the home, and use of the library.

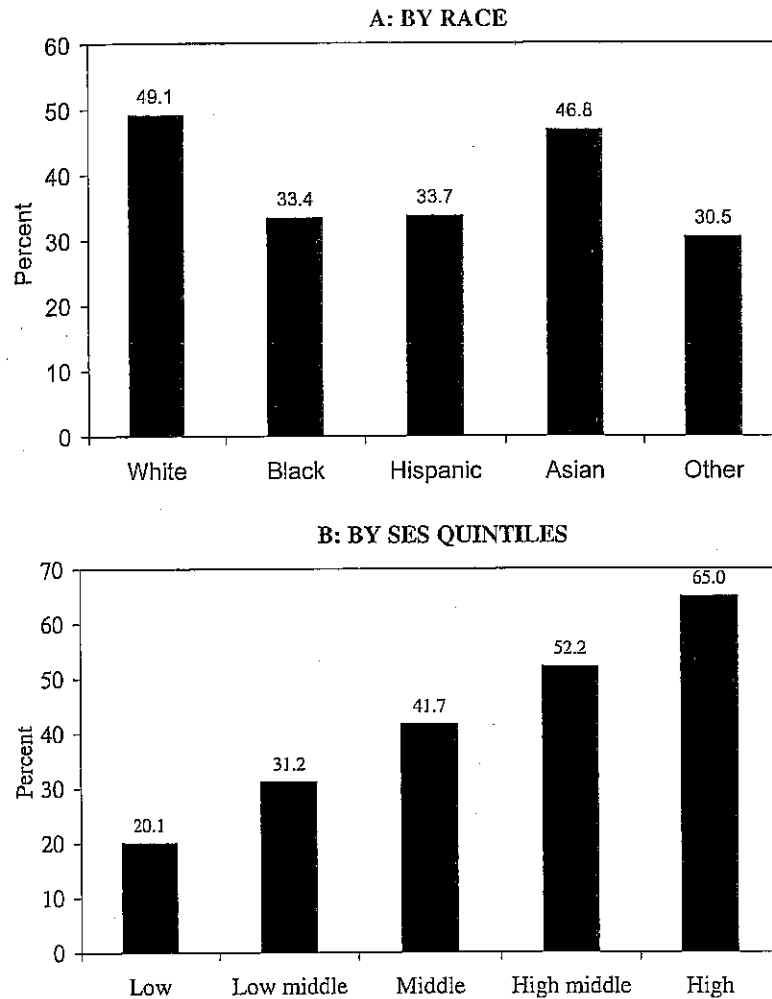
The number of hours per week that young children's parents report that they watch television (reported in the spring of the kindergarten year) is displayed in Figure 2.9 (also see endnote 8). Although there are racial/ethnic differences, they are not large (e.g., black children spend 17.9 hours/week watching TV, compared to 13.2 hours for whites). However, the trend for SES, although not as strong as other home activities considered

FIGURE 2.7 Percent preschool



Source: Authors' analysis

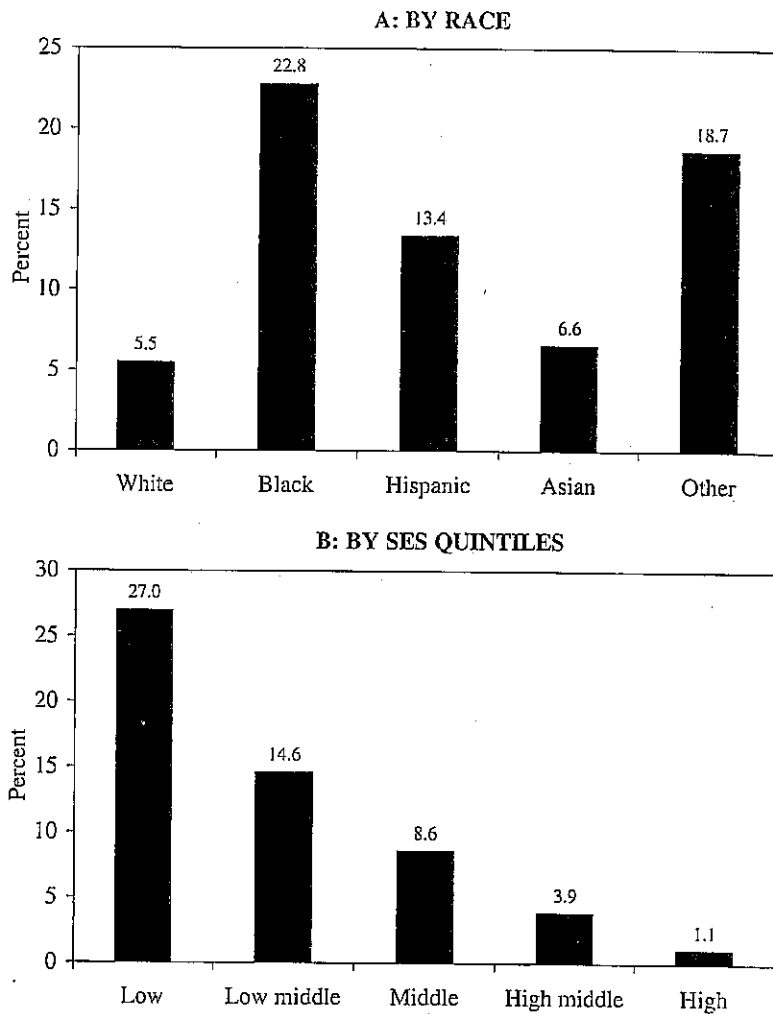
in this report, is 1 TV goes down. TV vs. low-SES) is, for ethnicity, kindergarten every day in from

FIGURE 2.7 Percent of kindergartners who attended center-based preschool

Source: Authors' analysis of U.S. Department of Education ECLS-K data.

in this report, is linear. That is, as SES goes up, the hours children watch TV goes down. The difference between even the extreme SES groups (high- vs. low-SES) is, however, less than 5 hours/week. Regardless of SES, race, or ethnicity, kindergarten-aged children spend an average of two hours every day in front of their families' television sets.

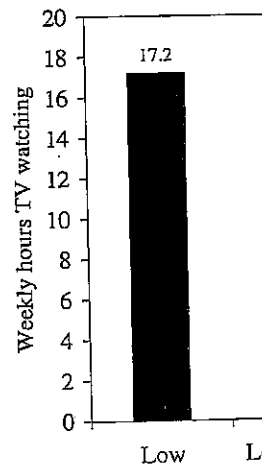
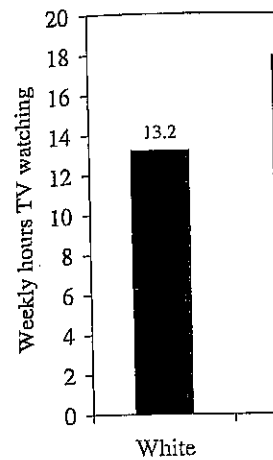
FIGURE 2.8 Percent of kindergartners who attended Head Start



Source: Authors' analysis of U.S. Department of Education ECLS-K data.

We considered several family activities that are related to literacy in Tables 2.1 and 2.2. **Figure 2.10** displays race/ethnicity and SES differences in the numbers of children's books parents report owning. On average, white children own over twice as many books as black children (93 vs. 40 books), with Hispanic and Asian children quite similar (about 50 books—panel A). There is a clear trend of children's book ownership by

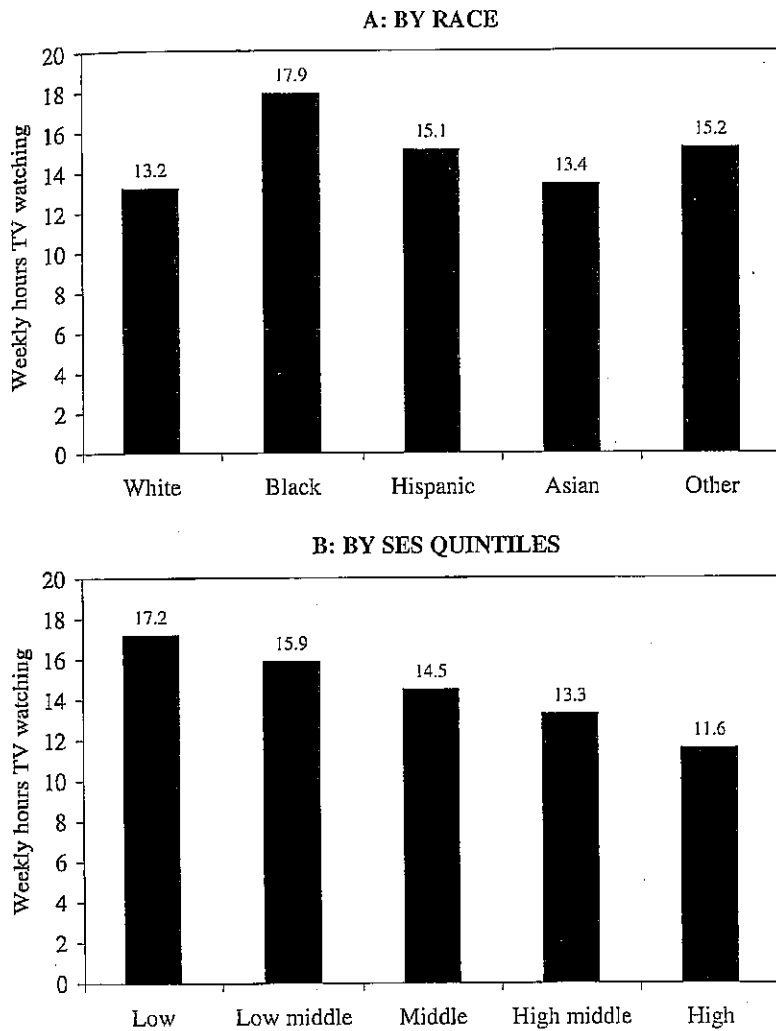
FIGURE 2.9 Kindergartners' weekly hours of TV watching



Source: Authors' analysis of

SES, not surprising given that children own about the same number of books as their parents from both the SES categories for their children from both parents own.

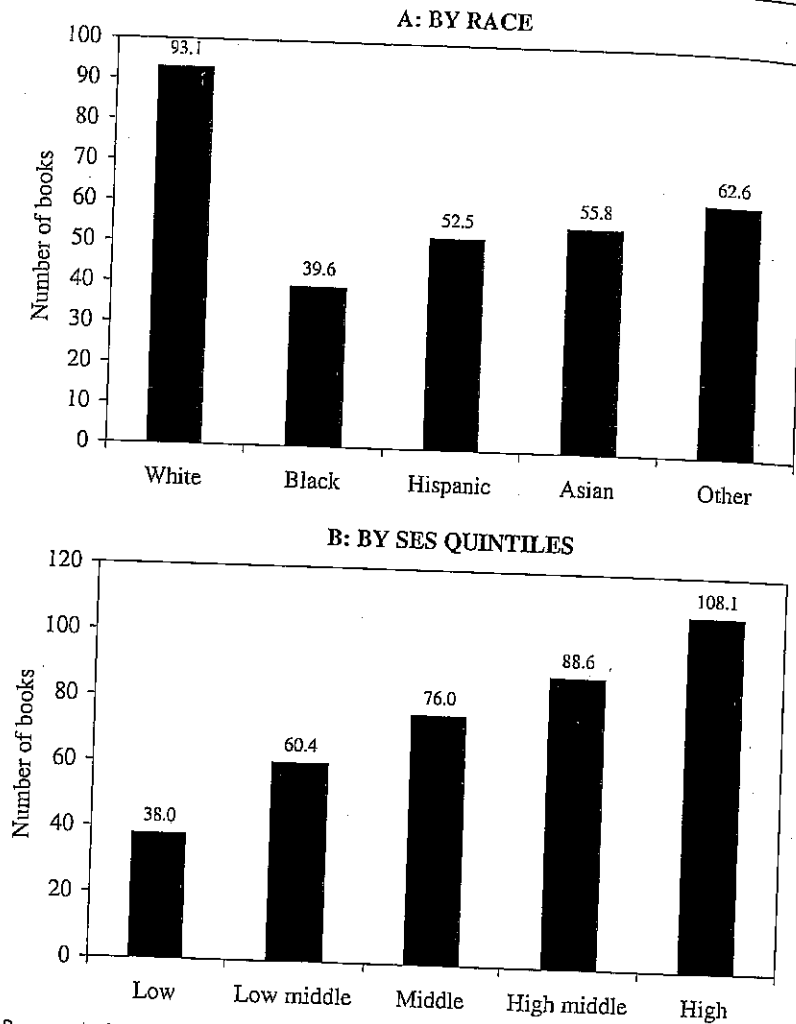
FIGURE 2.9 Kindergartners' weekly TV watching



Source: Authors' analysis of U.S. Department of Education ECLS-K data.

SES, not surprising given that families must buy these books. High-SES children own about three times as many books as low-SES children, with the SES categories forming a linear trend. Of course, parents could read to their children from books borrowed from the library as well as books they own.

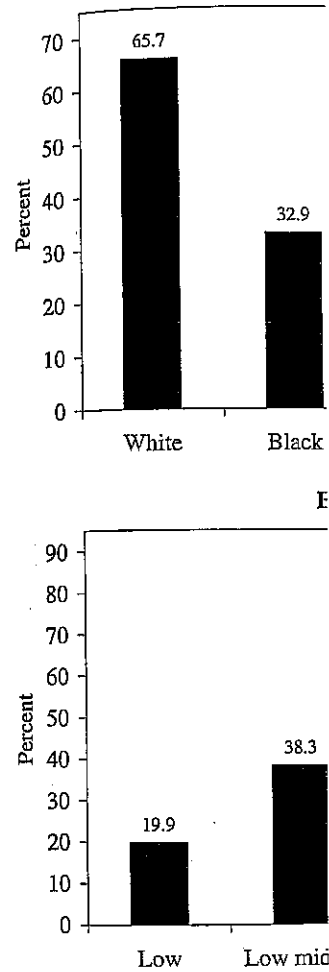
FIGURE 2.10 Number of books kindergartner owns



Source: Authors' analysis of U.S. Department of Education ECLS-K data.

A costly household item that may influence learning—a computer—shows clear relationships with race/ethnicity and SES (Figure 2.11). About two-thirds of white and Asian children's homes contain a computer, which is about twice the proportion of black children with computers in their homes (32.9%). Given the high cost of a home computer, it is not surprising that family SES is strongly related to computer ownership. Almost all

FIGURE 2.11 Percent of kindergartners with a computer at home

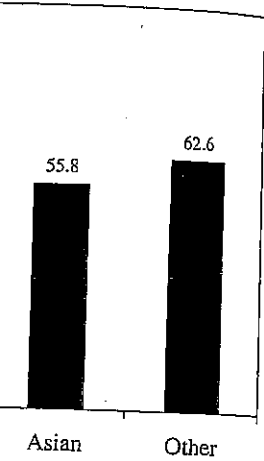


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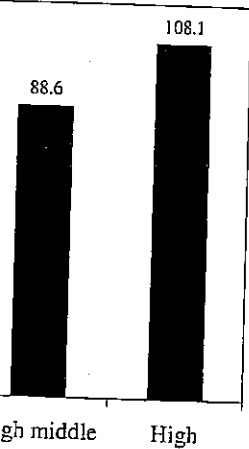
high-SES children's homes. The proportion as low-SES home computer ownership may also differ from the workplace and parents' own reading habits and choices about resource allocation.

FIGURE 2.11 Percent of kindergartners with a computer in the home

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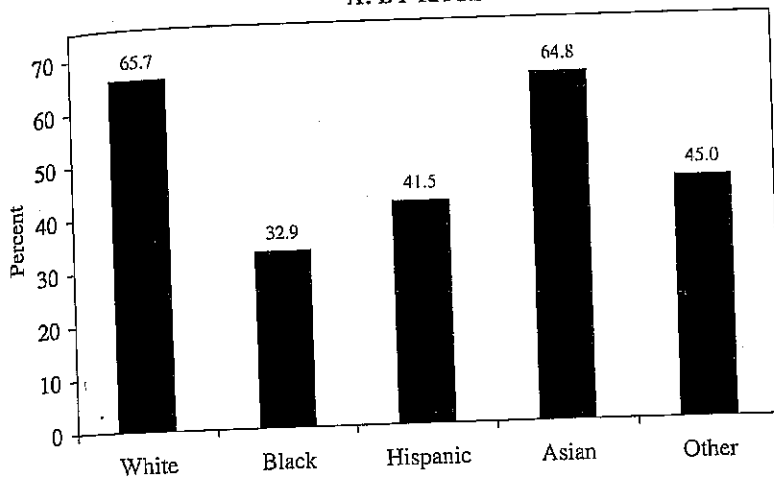


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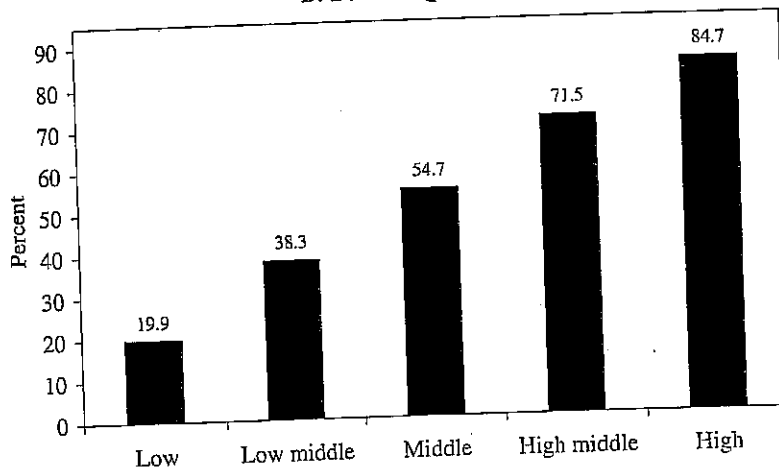


ECLS-K data.

A: BY RACE



B: BY SES QUINTILES



Source: Authors' analysis of U.S. Department of Education ECLS-K data.

e learning—a computer—
SES (Figure 2.11). About
contain a computer, which
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computer, it is not surpris-
ter ownership. Almost all

high-SES children's homes have a computer (84.7%), over four times the proportion as low-SES homes with computers (19.9%). Although computer ownership may also be linked with parents' familiarity with computers from the workplace and children's book buying associated with parents' own reading habits and skills, these findings also represent important choices about resource allocation—book and especially computer owner-

ship are strongly associated with both race/ethnicity and SES. No such relationship is evident concerning a television set—virtually all U.S. families own TVs, and indeed many have multiple sets. Nonetheless, computer ownership is no longer a rare event, even for relatively low-SES families.

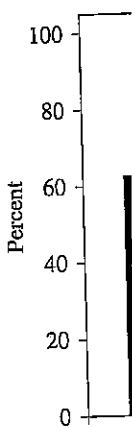
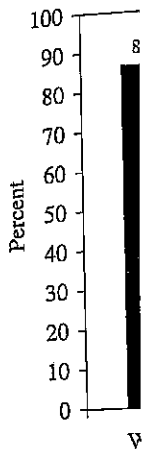
Most parents indicate that they read to their children between 3 and 6 times per week (or more), as shown in **Figure 2.12** (as reported at the beginning of the kindergarten year). However, these high proportions vary by race (panel A) and SES (panel B). Considerably higher proportions of white children's parents report reading often to their children compared to black children's parents (86.6% vs. 67.5%), with the proportions for Hispanic and Asian children's parents in between. The link between reading often to children and SES is also linear, with more high-SES than low-SES parents reporting reading to their children 3-6 times a week (93.9% as compared to 62.6%). Of course, this could be explained by lack of books or lack of reading skill among low-SES parents, especially those with weak English language skills. Beyond the information about the frequency of reading, we have no information about the duration or content of the reading.

An outside-the-home family activity, visiting the public library, is part of parents' literacy activity with their children (see **Figure 2.13**). Although owning books costs money, borrowing books from the public library is usually free. Access to libraries is probably more common in urban and suburban areas than in rural areas, and this also varies among urban and suburban areas of different resource bases. Moreover, access to (and the cost of) transportation is a resource-based issue for library use. These considerations surely help to explain the linear relationship between library use during the kindergarten year and SES (panel B); as SES goes up, so does the probability of children visiting the library with a parent. However, racial patterns are somewhat different than we have observed for other family activities. Asian parents report visiting the library with their children more often than white parents (67.8% vs. 56%); about half of Hispanic and black parents report visiting the library with their children. There is no information in ECLS-K about the frequency or duration of library visits.

Summary

Among the broad set of child and family demographics and activities considered in this chapter, we chose a few to discuss and display graphically. Patterns by social background are quite consistent. Demographic factors that are generally seen as rendering children at risk of school failure—such as single-parent family structure, lack of English usage in the house-

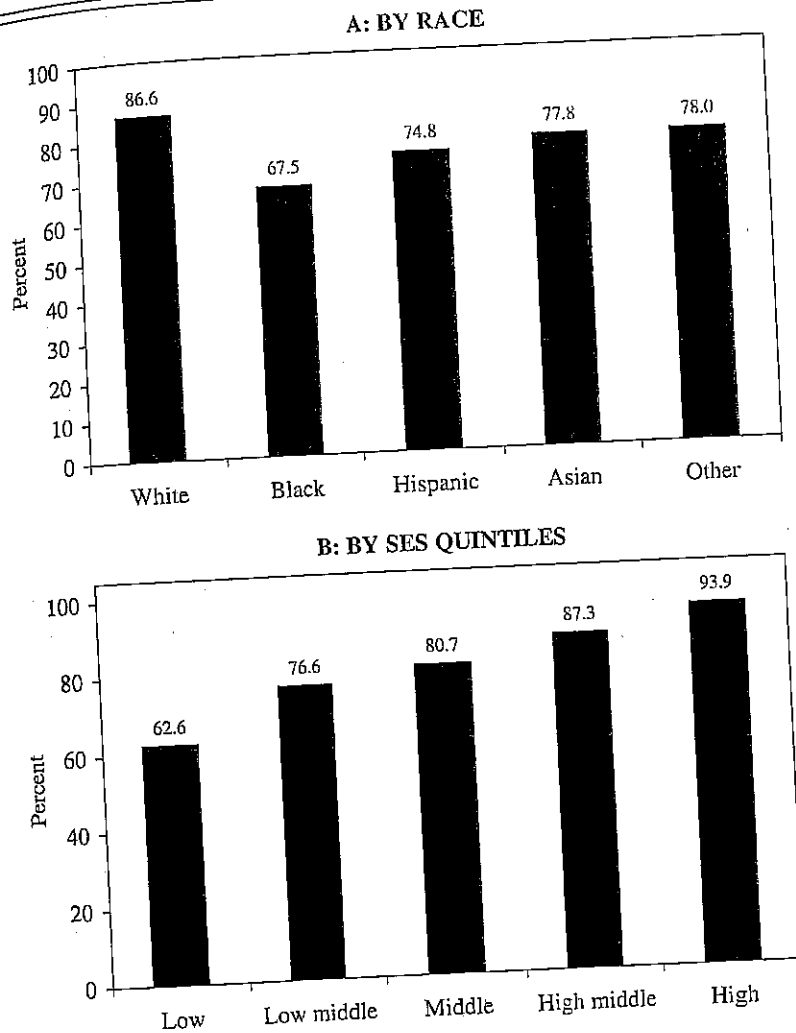
FIGURE 2.12
three to six ti



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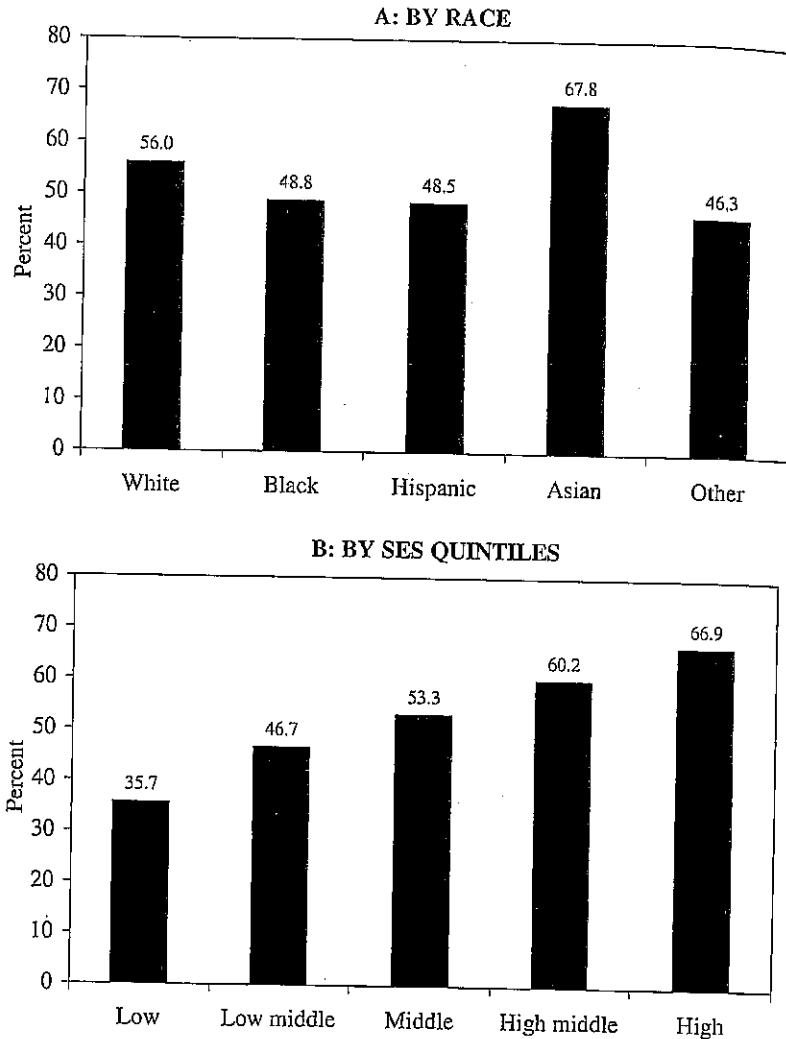
hold, large common a frequencies o economic geous for

FIGURE 2.12 Percent of kindergartners whose parents read to them three to six times per week or every day



Source: Authors' analysis of U.S. Department of Education ECLS-K data.

hold, large family size, residing in a large city or a rural area—are more common among black and Hispanic children and their families; the frequencies of these risk factors are also negatively related to family socioeconomic status. On the other hand, factors generally seen as advantageous for children's school progress—suburban residence, center-based

FIGURE 2.13 Percent of kindergartners who visit the public library

Source: Authors' analysis of U.S. Department of Education ECLS-K data.

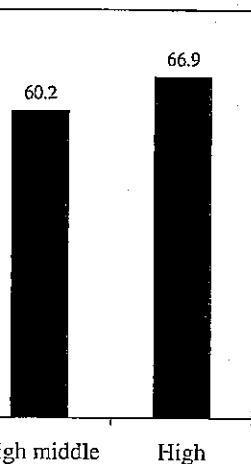
child care experience, owning children's books, being read to frequently, owning an in-home computer, and visiting the public library—are more common among white and Asian children and those from higher-SES families. That Head Start enrollees are mostly low-SES children suggests that the program has been successful in enrolling its target population.

In Chapter 1 we is associated with of results in this ch characteristics are know whether (and nitive performance the next chapter: (graphics is associa in a multivariate : children's race, et begin kindergarter

visit the public library



SES



in ECLS-K data.

s, being read to frequently, the public library—are more those from higher-SES families. This finding suggests that these children are a target population.

In Chapter 1 we learned that kindergarten children's social background is associated with their cognitive status. The presentation and discussion of results in this chapter indicate that families' activities and demographic characteristics are also socially differentiated. However, we still do not know whether (and how) these factors are associated with children's cognitive performance. We investigate two issues relevant to this question in the next chapter: (1) how this large array of family activities and demographics is associated with achievement, and (2) whether including them in a multivariate analysis reduces the magnitude of the links between children's race, ethnicity, SES, and their cognitive performance as they begin kindergarten.