

The Home Environments of Children in the United States Part I: Variations by Age, Ethnicity, and Poverty Status

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Although measures of the home environment have gained wide acceptance in the child development literature, what constitutes the “average” or “typical” home environment in the United States, and how this differs across ethnic groups and poverty status is not known. Item-level data from the National Longitudinal Survey of Youth on four age-related versions of the Home Observation for Measurement of the Environment–Short Form (HOME-SF) from five biennial assessments (1986–1994) were analyzed for the total sample and for four major ethnic groups: European Americans, Asian Americans, African Americans, and Hispanic Americans. The percentages of homes receiving credit on each item of all four versions of the HOME-SF are described. For the majority of items at all four age levels differences between poor and nonpoor families were noted. Differences were also obtained among African American, European American, and Hispanic American families, but the magnitude of the effect for poverty status was greater than for ethnicity, and usually absorbed most of the ethnic group effects on HOME-SF items. For every item at every age, the effects of poverty were proportional across European American, African American, and Hispanic American groups.

INTRODUCTION

Over the past 4 decades, the home environment has become a central focus of inquiry in human development. Debates have arisen concerning the extent to which children affect their environments (Bell & Chapman, 1986; Scarr & McCartney, 1983), whether experiences during any particular period of development (mostly earlier experiences) have a lasting effect on developmental course (Clarke & Clarke, 1976; Lewis, 1997), and whether the observed correlation between measures of the environment and measures of children’s development solely represent environmental effects or are partially mediated by genetic factors (Plomin & Bergeman, 1991). Despite these debates, there is near-universal agreement on the value of understanding the dynamic interplay between child and environment (Ford & Lerner, 1992; Magnusson, 1995; Wachs, 1992, 2000). Accordingly, there continues to be interest in constructing and using measures of the home environment for both research and applied purposes in human development. It has, indeed, become commonplace to include measures of the home environment as part of large-scale surveys (e.g., the Panel Study of Income Dynamics, the National Longitudinal Survey of Youth [NLSY], the National Household Education Survey, the Early Childhood Longitudinal Study), multisite naturalistic investigations (e.g., the National Institute of Child Health and Human Development Study of Early Child Care), and multisite intervention studies (e.g., evaluations of Early Head Start, the Job Opportunities and Basic Skills program, and the Infant Health and Development Program).

Despite the widespread use of both broad- and

narrow-gauge home environment measures, relatively little is known about how often children actually encounter the kinds of experiences reflected in such measures, be they particular caregiver behaviors, objects, or events. The information available (especially for members of minority groups) has typically been obtained from relatively small convenience samples at single geographic locations. As a result, researchers, policy makers, parents, and professionals who are interested in children’s well-being lack the kind of detailed framework needed to maximally interpret information about children and their environments. Knowing what is common—or not so common—in children’s experience can provide useful contextual information for research on the relation between environment and development. It can also aid in understanding the impact of interventions. For example, suppose a person is interested in whether early literacy experiences are related to reading comprehension in the third grade. If there is evidence that the vast majority of 4- and 5-year-old children have at least 50 books in the home and also have parents who read to them at least three times a week, then an interpretation of a modest correlation between these kinds of experiences and third-grade reading performance may be different than if the average number of books in the home is less than 15 and fewer than 30% of parents read to their children even once a week. Indeed, researchers’ approach to further study of the issue of early literacy experiences may be quite different under

the two scenarios. If the prevalence of a large number of books in the home is high (and likewise, the prevalence of parents reading to their children is multiple times a week), then the strategy may be to focus on finer-grained nuances of literacy experiences, such as whether parents actually spend time teaching their children sound-symbol associations and letter recognition. If the prevalence is low, then the strategy may be to look at other relatively gross indicators of home literacy experience (e.g., the amount of TV watched) or even literacy experiences that occur outside the home (e.g., whether the child has attended preschool). Likewise, under the two scenarios, approaches to early intervention with children who are at increased risk for reading failure may be different. Under the first scenario, the approach may be on activities aimed at improving specific reading skills. Under the second scenario, the approach may be more on simple exposure to printed materials. The purpose here is not to discuss the merits of particular approaches to developing reading competence or doing research on literacy, but to illustrate why detailed knowledge of children's experiences is valuable for framing the issues. Moreover, if, as Magnusson (1995) argues, the total process of environment-development relations cannot be understood by studying one aspect after another in isolation from other simultaneously operating elements, it will be useful to know the general frequency with which the full array of elements tends to occur. For example, when it comes to fourth-grade achievement in language arts, parents' reading to 3- and 4-year-olds may be less potent—or, alternatively, more salient—in the absence of enriching out-of-home experiences than in the presence of such experiences.

Knowing more about how frequently children encounter certain experiences is particularly important in making comparisons. García Coll and colleagues (García Coll et al., 1996; García Coll & Magnusson, 1999) have offered a compelling argument about the dangers of making group comparisons in the absence of a framework that links those differences to macro-level social, political, and economic factors. Observed group differences in patterns of correlations between measures of the environment and measures of development may reflect the fact that in one group certain experiences occur much more frequently than is the case for the second group. In effect, group differences in patterns of correlations may not reflect different underlying environmental processes at work, but rather the fact that in one group, particular processes rarely have a chance to operate (i.e., too few children actually have the experience and/or children are simultaneously experiencing inhibitory processes within the home or in the broader social environment). Group differences

could also reflect the fact that nearly everyone in a particular group has the experience (i.e., there is little variance, and the process transpires for almost everyone).

Having information on how frequently children in different groups (ethnic, social class) encounter particular actions, objects, and events can be especially helpful in mapping the relations between various dimensions of the environment and developmental processes across groups. Granting the complexity of environment-development relations (Bronfenbrenner, 1995; Wachs, 1992, 2000), most ecological-development theories stipulate the same basic relation between particular dimensions of the environment and the course of development for all groups (good examples include parental responsiveness and exposure to a variety of learning materials; see, e.g., Bornstein, 1989; Ford & Lerner, 1992; Kagan, 1984). Nonetheless, clarifying the relations often requires examining the details with which certain processes are enacted, including their frequency of occurrence, within each group (Bornstein et al., 1992).

The majority of studies that have examined particular dimensions of the home environment have not focused on individual indicators of those dimensions as part of the analysis. Rather the analyses have been performed on summary-type scores. Accordingly, very little is known about the prevalence of each indicator within most groups, and even less is known about group differences with respect to particular indicators of environmental dimensions. If such indicators represent the actual processes presumed to affect development, then more needs to be known about the frequency of occurrence of particular indicators in order to advance understanding about environmental "effects." According to Hui and Triandis (1985, p. 136), "the continuum of universality-cultural difference of a construct closely parallels the construct's level of abstraction." In other words, item-level analysis tends to be more precise in detecting group differences. For example, a review of uses of the Home Observation for Measurement of the Environment (HOME) Inventories (Caldwell & Bradley, 1984) outside the United States produced evidence of several items that did not seem appropriate in certain cultures (Bradley, Corwyn, & Whiteside-Mansell, 1997): "parent introduces interviewer to child," and "child has free access to musical instrument" were considered inappropriate for Caribbean households (Durbrow, Jones, Bozoky, & Adam, 1996), and African and Asian researchers questioned the validity of items used to assess socioemotional support because these cultures have characteristically different parenting styles (Aina, Agiobu-Kemmer, Etta, Zeitlin, & Setiloane, 1993; Nihira, Tomiyasu, & Oshio, 1987).

The value of having detailed information about particular indicators in specific groups becomes even

clearer when considering both the type and number of indicators that compose most measures of the home environment. To be more specific, home environment measures generally contain cause—not effect—indicators; that is, the indicators of particular environmental dimensions are selected not because they are assumed to reflect some specific underlying cause, but because they are presumed to produce a particular effect (for a discussion of this distinction, see Bollen & Lennox, 1991). Accordingly, since all the indicators of a particular environmental dimension—unlike trait characteristics in humans—are not presumed to derive from a single, underlying common cause, it is not appropriate to assume that they are essentially fungible. Whereas a relatively small number of indicators of a human trait may well be sufficient to represent the trait because all the indicators are presumed to derive from that trait, it is critical that environmental measures include a broad enough census of indicators of each dimension to assure adequate representation of the dimension (i.e., the actions, objects, or events that compose a dimension may emanate from a variety of different sources or for a variety of different reasons).

The purpose of the present study was twofold: (1) to provide detailed information on the frequency with which children in the United States experience the kinds of actions, objects, and events that are found in commonly used measures of the home environment (Part 1); and (2) to examine the relation between frequently studied dimensions of the environment and several aspects of children's well-being for different ethnic and income groups from infancy through adolescence (Part 2; Bradley, Corwyn, Burchinal, McAdoo, & García Coll, 2001). In both parts, Ethnic Group \times Poverty Status analyses were conducted, because in each ecological niche there are characteristic ways of adapting to the demands of the environment, a unique set of affordances, and traditional approaches to accomplishing the goals of childrearing (Harkness & Super, 1995; Masten, 1999). Thus, there is strong reason to believe that what children experience in their homes will vary across ecological niches. The research on economic status indicates that economic hardship (poverty) means less access to certain material goods and services, less access to potentially enhancing experiences, and greater exposure to potentially debilitating substances and experiences (Bradley & Whiteside-Mansell, 1997; Duncan & Brooks-Gunn, 1997; Huston, McLoyd, & García Coll, 1994). The difference in what poor children versus nonpoor children experience in their home environments is both a direct function of not having enough money to access goods and services and an indirect function of where children live and how their parents cope

with the stress connected with economic hardship (Luster & McAdoo, 1996; McLoyd, 1990). Ethnicity also provides a frame for what children experience at home. Childrearing goals and socialization practices also vary from culture to culture (García Coll, 1995; Greenfield, 1994; Hui & Triandis, 1985; Parke & Buriel, 1997). Ethnicity shapes what parents do, what children have, how children and adults spend their time, and the types of exchanges between family members. For even basic caregiving activities, such as soothing a baby, there are characteristic differences in the strategies used in different ethnic groups (Bornstein et al., 1992; McAdoo, 1997). For minority cultures living within a dominant majority culture, the childrearing goals and socialization practices can become even more complicated, particularly if the minority culture is subjected to discrimination (McLoyd, 1999). As Greenfield (1994, p. 25) argues, "Culture not only is context; it has context as well." For every culture, there is a cultural frame of reference that "refers to the correct or ideal way to behave within the culture" (Ogbu, 1994, p. 375). These ideals guide parenting practices. For example, Boykin and Toms (1985) specified that for African Americans, families must teach their children to deal with three different realms of experience: mainstream American, African American cultural heritage, and the oppressed experience of people of color. García Coll and colleagues (García Coll, Meyer, & Britten, 1995) identified issues of acculturation and racial socialization as major influences on parenting practices. These processes may contribute to individual differences among members of any particular ethnic group, as well as to differences across ethnic groups.

Our primary purpose in Part 1 of this study was to describe what occurs in the home environments of children in the United States with regard to the types of indicators found in widely used home environment measures. The relative effects of ethnicity and poverty status on children's home environments were also investigated. To accomplish this, we used data from the NLSY. Although families in the NLSY were not fully representative of the current U.S. population (U.S. Department of Commerce, 2001), the families more closely approximated the U.S. population than was the case for most other studies. The original NLSY sample included 6,283 women who were between the ages of 14 and 21 in 1979. The sample was selected to be nationally representative; however, there was deliberate oversampling of African Americans, Hispanic Americans, and poor European Americans to allow separate analyses of these three major cultural subgroups. Data from this sample has been collected every year. Beginning in 1986, the NLSY also included

a child supplement, which contained information both about the children and their environments.

One advantage of the NLSY is that it includes a short form of the HOME Inventory (HOME-SF) as part of the child supplement. The HOME is one of the most widely used of the broad-scale measures of the home environment (Caldwell & Bradley, 1984). There are four versions of HOME: the Infant–Toddler HOME (IT-HOME) for children under age 3, the Early Childhood HOME (EC-HOME) for children ages 3 to 5, the Middle-Childhood HOME (MC-HOME) for children 6 to 9, and the Early Adolescent HOME (EA-HOME) for children 10 to 14. Each version of the HOME has undergone a rather extensive norming and standardization process and has acquired considerable validation as applied in a wide array of studies throughout the world (for reviews, see Bradley, 1994; Bradley, Corwyn, & Whiteside-Mansell, 1996). In general, the HOME inventories have shown patterns of relations with developmental, parental, and other environmental measures that are in line with theoretical expectations. For example, the inventories have consistently shown moderate associations with family demographic characteristics and with social and cognitive development in children. Research also indicates that the HOME is related to theoretically relevant parental characteristics like IQ, depression, and drug use, as well as children's health status (Bradley, 1994). Importantly, for our purposes, items on the HOME-SF are typical of the kinds of home environment indicators used in developmental research and program evaluation.

In sum, we hoped to reveal the "lay of the land" with regard to the kinds of indicators found in commonly used measures of the home environment, to create a kind of topography of children's experiences connected to their home life. Although our basic purpose was to describe children's experience within each group, we examined the size of the difference in performance on each HOME-SF among ethnic groups to provide an additional perspective on within-group findings. These comparative analyses were limited to three of the four major ethnic groups because there was insufficient information on Asian Americans to allow for meaningful comparisons. Likewise, we examined the size of the difference in performance on each item for families living in poverty and families living above the poverty line. It is well documented that persistent poverty and its co-factors induce stress, and that stress decreases the likelihood that parents will provide responsive and stimulating care (Bradley & Whiteside-Mansell, 1997; Conger, Conger, & Elder, 1997; Luster & McAdoo, 1996; McLoyd, 1990; Slaughter, 1988). It is also well documented that poverty is confounded with minority status (Huston, McLoyd, &

García Coll, 1994), that not all the relation between economic status and children's development is mediated through what parents do (Duncan & Brooks-Gunn, 1997; García Coll et al., 1996), and that relations between measures of the home environment and children's development vary as a function of socioeconomic status (Bradley et al., 1989). For example, family economic conditions determine the disciplinary practices of parents (Kelley, Power, & Wimbush, 1992; McLoyd, 1990): Spanking is one approach to discipline that has been cited as being more prevalent in poor and ethnic minority families in the United States (Day, Peterson, & McCracken, 1998; Giles-Sims, Straus, & Sugarman, 1995). Economic factors however, explain only a small percentage of the variance in spanking behaviors (Erlanger, 1974; Giles-Sims et al., 1995; Portes, Dunham, & Williams, 1986). The collective influence of these variations in discipline techniques has not been studied extensively.

METHODS

Sample

Data for this study came from five biennial NLSY child data files from 1986–1994 (see Center for Human Resource Research [CHRR], 1995, 1997b). The sample consisted of those women from the 6,283 originally recruited as part of the NLSY who had at least one child born prior to the 1994 biennial assessment. Beginning with the 1990 survey, however, data were no longer collected from most of the women ($N = 456$) who were either in the military or part of the oversampling of "poor" European Americans ($N = 901$). This left 4,944 of the original sample eligible to be interviewed in 1994. Ninety-one percent of those eligible were interviewed, and about 77% (3,464) were mothers. These women had 7,089 children in 1994, of which 6,109 were younger than 15 years of age and, therefore, eligible to receive HOME-SF assessments. Over 93% of eligible children (5,715) received HOME-SF scores in 1994. The number of children assessed in prior years was 4,971 in 1986, 6,266 in 1988, 5,803 in 1990, and 6,509 in 1992. The 29,264 child assessments, less those with missing values and questionable ethnic group membership, were analyzed in the present study. Because ethnicity was a key variable in this study, cross-tabulated validations of agreement between respondent's self-reported ethnicity and the interviewer's assessment of ethnicity were conducted for all five assessment periods. Cases with a discrepancy between the interviewer's and respondent's classification of ethnicity were dropped from the study. Three dummy variables were created for ethnic group

comparisons: Hispanic Americans versus other, European Americans versus other, and African Americans versus other. It should be noted, however, that the Hispanic sample is somewhat diverse. Although the majority of NLSY Hispanic women were either Mexican Americans (40.1%) or Mexicans (20.9%), a significant percentage identified themselves as having Puerto Rican (17.9%), Cuban (6.4%), other Hispanic (6.5%), and other Spanish (5.2%) origins. Those who were classified as Native Americans were left in the sample for analytic purposes (e.g., European American versus other), but the total number of Native Americans was too small to permit treating them as a unique ethnic group.

Table 1 displays a demographic breakdown of the samples analyzed for each of the four age periods. Because of the structure of the sampling process, the information on older children was somewhat less representative than was the information on younger children. That is, the original NLSY cohort of women was between 29 and 36 years of age in 1994, most of their children had been born, but proportionally fewer had reached the maximum age of children be-

ing investigated in the NLSY. Because age of mother at the birth of her first child is known to be associated with other demographic characteristics of the mother, the sample for older children was likely to be less representative than the sample for younger children. Indeed, Table 1 indicates that children in the older age groups were more likely to have younger mothers with less education, and were less likely to be living with their fathers.

Approach to Data Analysis

For a study that follows a single cohort longitudinally, such as the NLSY, data can be analyzed in two basic ways: (1) the data collected during each wave of data collection can be analyzed separately (i.e., as a cross-section from a particular year, such as 1988); or (2) data can be combined across waves of data collection, and analysis done on the combined data set. We chose the latter strategy because it takes fuller advantage of the original sampling in that it more fully and faithfully represents the lives of children born to

Table 1 Percent of Participants within Various Demographic Categories by Ethnicity and HOME Inventory

	European American				African American			
	0–2 Years	3–5 Years	6–9 Years	10–14 Years	0–2 Years	3–5 Years	6–9 Years	10–14 Years
Mother's education								
1–11 years	14.5	19.1	24.4	29.2	24.5	26.0	31.5	33.9
12–15 years	62.8	65.8	67.0	66.3	67.1	66.7	63.7	62.4
16 or more years	22.7	15.0	8.6	4.4	8.4	7.3	4.7	3.6
Father present	89.0	79.7	65.8	57.6	48.1	39.9	28.4	21.7
Age of mother at birth								
15–24 years	44.0	95.7	99.1	86.7	56.1	95.8	96.2	91.3
25–34 years	53.1	4.3	.9	13.3	41.6	4.2	3.8	8.7
35–44 years	2.9	—	—	—	2.2	—	—	—
Income below poverty	14.0	17.1	18.0	18.1	48.0	47.2	49.5	50.7
	Hispanic American				Asian American			
	0–2 Years	3–5 Years	6–9 Years	10–14 Years	0–2 Years	3–5 Years	6–9 Years	10–14 Years
Mother's education								
1–11 years	38.2	40.9	48.7	54.0	15.2	16.3	35.9	53.3
12–15 years	55.4	54.2	47.7	43.1	65.2	74.4	59.8	46.7
16 or more years	6.4	4.9	3.6	2.8	19.6	9.3	4.3	—
Father present	79.3	70.4	56.1	48.1	92.3	83.7	70.7	63.3
Age of mother at birth								
15–24 years	52.6	96.6	99.2	91.3	38.9	100.0 ^a	100.0 ^a	85.7 ^a
25–34 years	43.7	3.0	.8	8.7	55.6	—	—	14.3
35–44 years	3.8	.3	—	—	5.6	—	—	—
Income below poverty	35.2	33.4	35.4	33.8	11.9	17.1	8.4	11.5

Note: HOME = Home Observation for Measurement of the Environment.

^a 10 or fewer cases with nonmissing values.

the original cohort than would a cross-sectional analysis done from any particular wave of the data. To be more specific, to the extent that the original cohort of female participants in the NLSY is representative, then their children will also be representative, but only if all the children born to these women are included. Such a sample should include firstborns, secondborns, thirdborns, and so on in proportion to their representation in the population. Likewise, it should include singletons, twins, and so on in proper proportions; families of various sizes and age distributions in proper proportions; and so forth. The original cohort of women becomes a cohort of families, a cohort of extended families, and so forth. All things that emanate from the cohort will be representative to the same degree as the original cohort, but only over time after all members of a certain class have reached whatever criterion age point is the subject of investigation. In effect, what the NLSY sample can reveal about the home environments of 6-year-old children can be most accurately determined only after all the children that will ever be born to the initial cohort of women have reached age 6. Otherwise, 6-year-olds of women who give birth later in life, 6-year-olds who have multiple older siblings, and so forth will be underrepresented and the information about the home environments of 6-year-olds will be distorted to that degree. The findings will also underrepresent any demographic group that tends to start having children later in life. In fact, until all the children born to mothers in a cohort reach some criterion age, the sample will underrepresent families who have larger numbers of children. A secondary advantage of using the combined dataset is that it increases the numbers of persons available for analysis from small populations that are not oversampled (e.g., Asian Americans) and, thus, increases the accuracy of estimates from these samples. For example, the first wave of data (1986) consisted of 73 Asian children, only 14 of whom had scores on the IT-HOME-SF, whereas the combined file contained 45 Asian children with scores on that version. The combined data also provide a more representative look at the typical American family. It includes, for example, a more complete representation of those women who had a first child late in life and those who had multiple births. On the other hand, the dataset has shortcomings. It has been estimated that the NLSY data collected through 1994 represent only about two thirds of the childbearing years for mothers from the original cohort (CHRR, 1997b, p. 3). Thus, the data on older children are likely to be somewhat less representative than are the data on younger children. Moreover, as is

the case with any cohort, the findings are representative only of the period in history during which the data were collected.

Measures

HOME-SF. Experienced, specially trained interviewers assessed the quality of the home environments of children born to mothers participating in the NLSY. The home environment was measured using the HOME-SF. Like the original, full-length versions of the HOME (Caldwell & Bradley, 1984), the short form is a combination of observer ratings and mother's report on aspects of the environment. Unlike the HOME, however, which focuses on the child as a recipient of objects, events, and actions in the environment, two items in the HOME-SF ("How often does child read for enjoyment?", and "How many hours does child watch TV on a typical weekday?") were considered indicators of the child's behavior rather than the home environment, and were, therefore, not included in this study. In contrast, the question, "How many hours is the TV on during a typical weekday?" was considered an indicator of the environment and was, therefore, included in this study. Finally, even though most of the items were available for all five assessment points, a few were added after 1986. For example, "Does child see father (figure) daily?" was added to the 1990 survey, and both "taking away allowances" and "taking away privileges in response to child's tantrum" were added to the 1988 survey.

Although items on the original HOME Inventory were designed to be scored in a dichotomous fashion (yes or no), some of the items from the NLSY HOME-SF used three- or four-choice ordinal scoring (see Tables 2–5). The percentage of families who fell into each response category on each item is displayed in Tables 2 through 5. Before making comparisons between groups, however, the items were converted to the original scoring metric by collapsing the ordinal categories into the original dichotomous ones.

Caldwell and Bradley (1984) clustered items on the original HOME scales into subscales based on a review of research and theory. They used factor analysis as an aid to form empirically distinct, psychometrically sound, conceptual subscales. In an effort to organize the presentation of descriptive information on the HOME-SF and in preparation for examining key relations between components of the home environment and children's well-being (see Part 2), items from the HOME-SF were clustered with the aid of factor analysis. Item-level data from each of the four forms of the HOME-SF were subjected to factor analysis (maximum likelihood with varimax rotation). For the IT-HOME-SF,

Table 2 Percent Responses to HOME Items by Ethnic Group and Poverty Status: Homes of Children from Birth to 2 Years, 11 Months

HOME Items	Coding	European American		African American		Hispanic American		Asian American
		Nonpoor	Poor	Nonpoor	Poor	Nonpoor	Poor	
Observational items		<i>N</i> = 2,568	<i>N</i> = 431	<i>N</i> = 716	<i>N</i> = 663	<i>N</i> = 578	<i>N</i> = 309	<i>N</i> = 45
Parental responsiveness								
(Mother/Guardian) Spontaneously spoke to child twice or more (excluding scolding)	Yes	92.4	89.2	91.5	86.6	93.2	88.9	90.5
(Mother/Guardian) Responded verbally to child's speech	Yes	81.2 ^P	70.7 ^P	80.5 ^P	69.3 ^P	81.8	78.5	70.7
(Mother/Guardian) Caressed, kissed, or hugged child at least once	Yes	86.5 ^P	73.4 ^P	79.7 ^P	64.3 ^{P,e}	85.3 ^P	75.8 ^P	83.3
(Mother/Guardian) Provided toys or interesting activities for child	Yes	73.6 ^{P,e}	55.2 ^{P,e}	57.8 ^P	34.2 ^{P,e}	68.6 ^P	46.3 ^{P,e}	71.4
(Mother/Guardian) Kept child in view/could see child/looked at (him/her) often	Yes	89.6	81.0	85.3	78.2	84.7	82.9	80.5
Other								
(Mother/Guardian) Slapped or spanked child at least once	Yes	3.2	8.3	8.8 ^e	13.6	4.8	8.1	4.8
(Mother/Guardian) Interfered with child's actions or restricted child from exploring more than 3 times	Yes	16.9	19.4	25.6	27.2	18.6	19.9	12.2
Child's play environment is safe (no potentially dangerous health or structural hazards within a toddler's or infant's range)	Yes	91.0 ^P	80.7 ^P	89.0 ^P	79.8 ^P	91.9 ^P	79.0 ^P	88.4
Interview items		<i>N</i> = 2,707	<i>N</i> = 438	<i>N</i> = 774	<i>N</i> = 713	<i>N</i> = 594	<i>N</i> = 331	<i>N</i> = 45
Learning stimulation								
About how many children's books does your child have of his/her own?	None	10.4 ^{P,e}	24.7 ^{P,e}	21.4 ^{P,e}	35.7 ^P	23.1 ^{P,e}	41.1 ^{P,e}	24.4
	1 or 2 books	8.3	13.0	18.1	17.0	17.2	19.6	20.0
	3–9 books	18.2	20.5	27.5	27.7	23.2	23.3	15.6
	10 or > books	63.1	41.8	33.0	19.7	36.5	16.0	40.0
How often do you get a chance to read stories to your child?	Never—several/year	14.7 ^{P,e}	28.0 ^{P,e}	24.0 ^{P,e}	32.0 ^P	27.8 ^{P,e}	39.9 ^{P,e}	27.9
	Several/month—1/week	18.6	27.1	32.2	36.3	30.3	35.0	27.9
	3/week to daily	66.7	44.9	43.8	31.7	41.9	25.1	44.2
About how many, if any, cuddly, soft or role-playing toys (like a doll) does your child have (may be shared with sister or brother)?	0	.5 ^e	1.4 ^e	2.1 ^{P,e}	4.5 ^{P,e}	2.4 ^e	3.4	—
	1–4	6.7	10.9	16.0	24.6	12.2	19.4	11.1
	5 or 6	10.9	11.1	14.8	18.4	15.1	15.4	13.3
	7 or >	81.9	76.6	67.1	52.5	70.3	61.7	75.6
About how many, if any, push or pull toys does your child have (may be shared with sister or brother)?	None	10.0 ^e	12.0 ^e	15.0 ^e	18.6	13.2 ^P	19.7 ^P	18.2
	1 or 2	9.4	13.6	18.9	23.1	14.9	23.4	9.1
	3–6	41.3	35.6	38.8	35.9	39.5	33.2	40.9
	7–10	24.9	22.4	16.8	13.5	22.7	15.4	18.2
	11 or >	14.5	16.4	10.6	8.9	9.6	8.3	13.6
Spanking								
Sometimes kids mind pretty well and sometimes they don't. About how many times have you had to spank your child in the past week?	None	46.0 ^P	25.1 ^P	37.0	28.4	48.7	46.4 ^e	42.9
	1 or 2 times	29.6	32.9	32.6	33.8	31.2	30.5	35.7
	3 to 7 times	21.3	31.9	24.8	31.3	17.5	21.8	21.4
	8 or > times	3.1	10.1	5.7	6.5	2.5	1.3	—

(Continued)

Table 2 Continued

HOME Items	Coding	European American		African American		Hispanic American		Asian American
		Nonpoor	Poor	Nonpoor	Poor	Nonpoor	Poor	
Interview items, continued								
Other								
Some parents spend time teaching their children new skills while other parents believe children learn best on their own. Which of the following best describes your attitude?	Parent always teaches	44.2	55.0	65.7	69.9	59.4	59.2	45.5
	Parent usually teaches	48.9	39.6	28.9	26.2	34.6	33.6	50.0
	Usually learn on own	6.7	4.9	5.0	3.0	4.8	6.5	4.5
	Always learn on own	.2	.5	.4	.9	1.2	.6	—
Does your child see his/her father or father figure on a daily basis?	Yes	94.3 ^{P,e}	72.5 ^P	81.4 ^{P,e}	60.4 ^{P,e}	92.5 ^P	73.0 ^P	93.2
How often does your child eat a meal with both mother and father or father figure?	1/day or >	74.1	65.3 ^e	59.9 ^{P,e}	36.7 ^{P,E}	75.9	67.5 ^e	81.8
	Several/week	14.1	10.2	14.6	19.6	9.1	9.8	11.4
	1/week–1/month	4.5	6.8	12.3	16.4	4.4	7.5	2.3
	Never/no dad	7.3	17.8	13.2	27.3	10.7	15.3	4.5
Children seem to demand attention when their parents are busy, doing housework, for example.	Always talking	45.7 ^e	47.6 ^e	45.3 ^{P,e}	44.2 ^{P,e}	44.5 ^P	48.3 ^P	40.9
	Often talking	45.9	40.0	37.5	28.7	38.7	24.9	40.9
	Sometimes	7.2	11.0	14.7	21.1	13.6	18.8	15.9
How often do you talk to your child while you are working?	Rarely talk	.6	.7	2.0	3.3	1.0	3.4	—
	Never talk	.6	.7	.5	2.7	2.2	4.6	2.3
About how often does your child have a chance to get out of the house (either by himself/herself, or with an older person)?	1/month or <	6.3	8.7	6.6 ^P	10.0 ^P	11.8 ^{P,e}	20.9 ^{P,e}	11.1
	Few/month–few/week	17.8	22.6	18.5	26.7	27.0	28.8	17.8
	4 or > /week	75.9	68.7	74.9	63.3	61.1	50.3	71.1
About how often do you take your child to the grocery store?	2/week or >	30.9	37.1	35.2 ^P	37.8 ^{P,e}	37.8	51.4 ^e	37.8
	1/week	49.9	39.2	40.1	27.2	44.9	33.7	31.1
	1/month	10.7	14.7	13.8	21.5	7.8	7.3	17.8
	Hardly ever	8.5	9.0	10.8	13.6	9.5	7.6	13.3

Note: Asian Americans are combined nonpoor and poor because there were too few Asian Americans with incomes below poverty. HOME = Home Observation for Measurement of the Environment.

^e Ethnicity effect size above .20; ^E ethnicity effect size above .50; ^P poverty effect size above .20; ^P poverty effect size above .50.

five factors were retained, three of which were used for this report: learning stimulation (four items), parental responsiveness (five items), and spanking (one item). For the EC-HOME-SF, seven factors were retained, five of which were used for this report: learning stimulation (six items), parental responsiveness (four items), spanking (one item), teaching (four items), and physical environment (four items). For the MC-HOME-SF, seven factors were retained, four of which were used for this report: learning stimulation (six items), parental responsiveness (four items), spanking (one item), and physical environment (four items). For the EA-HOME-SF, seven factors were retained, three of which were used for this report: learning stimulation (seven items), parental responsiveness (two items), and spanking (one item). With one exception, factors were retained if they were conceptually meaningful (including the fact that they closely paralleled subscales on the original HOME) and technically sound. The exception

was spanking. Each version of the HOME-SF contained the item, "How often was child spanked in the past week." That item was considered meaningful on its own. Items not contained in these clusters are presented individually in the tables.

Poverty status. The determination of "family poverty status" (i.e., "in poverty" versus "not in poverty") was based on estimates made by the CHHR in 1986, and the official poverty income guidelines issued by the Department of Health and Human Services (DHHS) for the years 1988 through 1994 (CHRR, 1997a). Comparable to the DHHS guidelines, the CHHR estimates were determined by total family income, controlling for family size, farm/nonfarm residence, and state of residence. The designation of poverty status for a family for a given assessment period does not carry with it the assumption that the family is persistently poor. It only represents the family's economic well-being at the time of assessment.

Table 3 Percent Responses to HOME Items by Ethnic Group and Poverty Status: Homes of Children from 3 to 5 Years, 11 Months

HOME Items	Coding	European American		African American		Hispanic American		Asian American
		Nonpoor	Poor	Nonpoor	Poor	Nonpoor	Poor	
Observational items		N = 2,472	N = 498	N = 865	N = 766	N = 704	N = 348	N = 41
Parental responsiveness								
(Mother/Guardian) Spontaneously spoke to child twice or more (excluding scolding)	Yes	94.9 ^P	86.3 ^P	91.4 ^P	80.0 ^P	92.6 ^P	83.1 ^P	97.5
(Mother/Guardian) Conversed with child at least twice (excluding scolding or suspicious comments)	Yes	94.2 ^P	87.0 ^P	90.3 ^P	80.6 ^P	90.0	84.7	97.4
(Mother/Guardian) Answered child's questions or requests verbally	Yes	92.4 ^P	82.5 ^P	85.9 ^P	77.0 ^P	88.7	83.2	94.9
(Mother/Guardian) Caressed, kissed, or hugged child at least once	Yes	63.2 ^{P,e}	48.7 ^{P,e}	46.2 ^{P,e}	31.7 ^{P,e}	59.3 ^P	41.8 ^P	57.9
Physical environment								
Child's play environment is safe (no potentially dangerous structural or health hazards within a preschooler's range)	Yes	95.7 ^P	84.0 ^P	94.0 ^P	87.3 ^P	94.0 ^P	87.6 ^P	90.2
Interior of the home is dark or perceptually monotonous	Yes	4.5 ^P	15.5 ^P	10.0 ^{P,e}	23.8 ^P	5.8 ^P	15.0 ^P	7.3
All visible rooms of house/apartment are reasonably clean	Yes	95.3 ^P	82.3 ^P	94.9 ^P	84.0 ^P	96.5 ^P	85.3 ^P	90.2
All visible rooms of house/apartment are minimally cluttered	Yes	83.8	77.2	86.2 ^P	78.3 ^P	87.6	81.9	82.5
Other								
(Mother/Guardian) Introduced interviewer to child by name	Yes	48.8 ^P	33.9 ^P	41.0 ^P	28.4 ^P	38.6 ^P	29.1 ^P	47.4
(Mother/Guardian) Physically restricted or (shook/grabbed) child	Yes	6.8	10.8	7.9	8.5	10.2	10.3	5.1
(Mother/Guardian) Slapped or spanked child at least once	Yes	3.5 ^P	8.7 ^P	5.7	5.8	3.1 ^P	8.6 ^P	2.6
Interview items		N = 2,531	N = 523	N = 918	N = 827	N = 743	N = 367	N = 44
Learning stimulation								
About how often do you read stories to your child?	Never-few/year	4.0 ^{P,e}	8.4 ^{P,e}	11.5 ^{P,e}	18.0 ^P	12.9 ^{P,e}	23.8 ^{P,e}	6.8
	Few/month-1/week	24.6	36.1	43.6	48.7	38.4	46.4	31.8
	3/week to daily	71.4	55.4	45.0	33.3	48.7	29.8	61.4
About how many children's books does your child have of his/her own?	None	.7 ^{P,E}	1.7 ^{P,E}	1.9 ^{P,e}	5.8 ^{P,e}	1.9 ^{P,e}	12.8 ^{P,e}	2.3
	1 or 2	.7	6.5	5.4	18.2	8.0	20.4	4.5
	3-9	5.3	17.2	24.9	36.1	22.1	28.9	31.8
	10 or >	93.4	74.6	67.8	39.9	68.1	37.9	61.4
Does your child have the use of a record player or tape recorder here at home and at least 5 children's records or tapes? (May be shared with sister or brother)	Yes	82.6 ^{P,e}	58.9 ^P	73.5 ^P	50.7 ^P	71.5 ^{P,e}	48.2 ^P	77.3
How often does any family member get a chance to take your child on any kind of outing (shopping, park, picnic, drive-in, and so on)?	Few/year or <	4.6 ^e	7.5 ^e	10.2 ^P	15.4 ^P	11.0 ^P	20.4 ^P	.0
	Once a month	6.9	10.8	11.0	15.7	10.5	10.2	15.9
	2-3/month	23.0	32.3	30.9	36.8	30.1	26.4	36.4
	Several/week	50.3	40.2	39.6	26.6	41.0	36.9	36.4
How often has any family member taken or arranged to take your child to any type of museum (children's, scientific, art, historical, etc.) within the past year?	Once a day	15.2	9.2	8.3	5.5	7.4	6.1	11.4
	Never	29.6 ^P	48.6 ^P	29.9 ^P	43.9 ^P	38.2 ^P	52.5 ^P	34.1
	1-several/year	62.1	45.4	56.6	45.4	53.0	39.3	59.1
	Monthly or >	8.3	6.0	13.5	10.8	8.8	8.5	6.8

(Continued)

Table 3 *Continued*

HOME Items	Coding	European American		African American		Hispanic American		Asian American
		Nonpoor	Poor	Nonpoor	Poor	Nonpoor	Poor	
Spanking								
Sometimes kids mind pretty well and sometimes they don't. About how many times have you had to spank your child in the past week?	None	33.5 ^P	20.0 ^P	24.1	16.8	32.1 ^P	22.7 ^P	41.2
	1 or 2	41.4	43.7	45.3	38.5	45.2	49.5	44.1
	3–7	21.9	30.3	26.8	39.6	21.0	25.1	14.7
	8 or >	3.2	6.0	3.8	5.2	1.6	2.7	.0
Teaching								
Circle the things that you (or another adult or older child) are helping or have helped your child to learn here at home. (Circle all that apply)	Numbers	95.9	93.5 ^e	92.9 ^P	86.7 ^P	93.1 ^P	86.7 ^P	95.5
	The alphabet	94.4 ^P	87.5 ^P	91.9	86.3 ^P	85.5 ^{P,e}	74.8 ^{P,e}	90.9
	Colors	96.8 ^e	92.9 ^e	91.1	85.4	92.1 ^P	84.4 ^P	88.4
	Shapes and sizes	87.9 ^{P,e}	78.7 ^{P,e}	77.0 ^P	63.0 ^P	73.2 ^{P,e}	57.9 ^{P,e}	83.7
Other								
About how many magazines does your family get regularly?	None	14.6 ^{P,e}	38.5 ^P	25.3 ^{P,e}	40.5 ^P	31.1 ^{P,e}	48.2 ^P	20.5
	1	17.9	21.7	21.4	16.7	19.7	16.2	25.0
	2 or 3	44.9	30.0	36.8	29.3	36.6	25.5	45.5
	4 or >	22.6	9.8	16.5	13.5	12.6	10.1	9.1
How much choice is your child allowed in deciding what foods he/she eats at breakfast and lunch?	Great deal	31.4 ^e	35.8 ^e	26.0 ^e	22.2 ^e	23.2 ^{P,e}	20.1 ^P	22.7
	Some	60.2	50.0	52.0	48.8	57.2	50.4	52.3
	Little or no	8.4	14.2	22.1	29.0	19.5	29.5	25.0
About how many hours is the TV on in your home each day?	None	2.3 ^P	1.4 ^P	3.0 ^{P,e}	2.5 ^{P,e}	2.7 ^P	3.7 ^{P,e}	4.7
	1 or 2 hr	19.3	11.3	9.6	6.7	14.7	9.0	11.6
	3–5 hr	45.1	35.8	40.5	26.6	49.9	39.4	58.1
	6–8 hr	21.7	25.7	26.7	29.9	23.4	29.6	18.6
	9–14 hr	11.6	25.9	20.2	34.1	9.3	18.3	7.0
Most children get angry at their parents from time to time. If your child got so angry that he/she hit you, what would you do? (Circle all that apply)	Hit him/her back	9.7 ^{P,e}	17.7 ^P	23.6 ^e	25.3 ^e	9.5	15.5	11.6
	Send him/her to his/her room	54.6 ^e	46.3 ^e	32.2 ^e	29.3 ^e	47.0	47.1 ^e	52.3
	Spank him/her	37.0 ^e	43.9 ^e	65.1 ^E	64.5 ^e	41.2	37.4 ^e	40.9
	Talk to him/her	74.1	67.5	67.4 ^P	56.4 ^{P,e}	75.8	73.1 ^e	84.1
	Ignore it	3.0	6.0	2.7	2.5	2.7	3.9	7.0
	Give him/her household chore	2.1	3.9	6.1	7.1	4.0	4.8	2.3
	Take away his/her allowance	12.2	7.8	8.3	5.3	11.3	10.9	18.2
	Hold child's hands until he/she was calm	1.2	2.3	4.9	5.1	3.2	4.2	.0
	Does your child see his/her father or father figure on a daily basis?	Yes	90.3 ^{P,e}	62.0 ^P	76.4 ^{P,e}	51.9 ^{P,e}	86.8 ^P	67.9 ^{P,e}
How often does your child eat a meal with both mother and father or father figure?	Once/day or >	74.6 ^P	57.7 ^P	55.2 ^{P,e}	37.0 ^{P,E}	78.7 ^{P,e}	66.9 ^{P,e}	73.2
	Several/week–1/week	20.0	14.4	23.6	24.0	13.1	12.8	19.5
	1/month or <	1.4	5.4	6.7	8.7	1.3	3.4	2.4
	Never	4.0	22.5	14.4	30.3	7.0	16.9	4.9

Note: Asian Americans are combined nonpoor and poor because there were too few Asian Americans with incomes below poverty. HOME = Home Observation for Measurement of the Environment.
^e Ethnicity effect size above .20; ^E ethnicity effect size above .50; ^P poverty effect size above .20; ^P poverty effect size above .50.

RESULTS

To provide data on the general frequency with which children were exposed to the various actions, objects, events, and conditions cataloged by the HOME-SF,

the percentage of households receiving credit for each item at each of the four age periods was computed (Tables 2–5). Among the European Americans, African Americans, and Hispanic Americans, separate percentages were computed for those not living in pov-

Table 4 Percent responses to HOME Items by Ethnic Group and Poverty Status: Homes of Children from 6 to 9 Years, 11 Months

HOME Items	Coding	European American		African American		Hispanic American		Asian American
		Nonpoor	Poor	Nonpoor	Poor	Nonpoor	Poor	
Observational items		N = 3,927	N = 881	N = 2,000	N = 1,973	N = 1,376	N = 758	N = 83
Parental responsiveness								
(Mother/Guardian) Encouraged child to contribute to the conversation	Yes	77.6 ^P	66.5 ^P	74.6 ^P	63.0 ^P	73.8	67.7	71.4
(Mother/Guardian) Answered child's questions or requests verbally	Yes	91.3 ^{P,e}	83.2 ^P	82.7 ^P	74.2 ^P	83.8	79.9	92.4
(Mother/Guardian)'s voice conveyed positive feeling about this child	Yes	94.9 ^{P,e}	86.7 ^P	89.0 ^P	80.2 ^P	90.2	85.5	90.4
(Mother/Guardian) Conversed with child excluding scolding or suspicious comments	Yes	81.2 ^P	67.5 ^P	76.4 ^P	65.2 ^P	75.2	69.2	75.0
Physical Environment								
Interior of the home is dark or perceptually monotonous	Yes	4.3 ^P	11.2 ^{P,e}	10.9 ^{P,e}	22.0 ^{P,e}	4.7 ^P	11.2 ^{P,e}	3.7
All visible rooms of the house/apartment are reasonably clean	Yes	95.2 ^P	85.7 ^P	93.4 ^P	86.0 ^P	95.8 ^P	85.2 ^P	89.2
All visible rooms of the house/apartment minimally cluttered	Yes	86.1	79.4	85.2	81.1	84.9	80.1	84.1
Building has no potentially dangerous structural or health hazards within a school-aged child's range	Yes	75.9	68.9	71.0	63.8	72.1	67.5	76.3
Other								
(Mother/Guardian) Introduced interviewer to child by name	Yes	54.0	54.9 ^e	51.5	42.5	50.5	42.9	50.0
Interview items		N = 2,599	N = 618	N = 1,198	N = 1,154	N = 844	N = 492	N = 58
Learning stimulation								
Is there a musical instrument (e.g., piano, drum, guitar, etc.) that your child can use here at home?	Yes	46.8 ^{P,e}	28.4 ^P	36.0 ^P	23.1 ^P	37.2 ^P	25.7 ^P	50.0
Does your family get a daily newspaper?	Yes	52.9 ^P	30.8 ^P	48.0 ^P	36.0 ^P	45.5 ^P	30.1 ^P	46.4
Do you or someone in the family encourage your child to start and keep doing hobbies?	Yes	92.5	88.3 ^e	88.2	82.0	85.4 ^P	75.7 ^{P,e}	94.6
Does your child get special lessons or belong to any organization that encourages activities such as sports, music, art, dance, drama, etc.?	Yes	61.0 ^{P,e}	36.5 ^P	44.7 ^{P,e}	34.6 ^P	43.2 ^{P,e}	23.9 ^{P,e}	46.4
How often has any family member taken or arranged to take your child to any type of museum (children's, scientific, art, historical, etc.) within the past year?	Never	19.5 ^P	33.8 ^P	23.0 ^P	38.7 ^P	26.3 ^P	43.9 ^P	26.8
	1–several/year	72.3	57.6	61.8	49.7	63.8	47.0	62.5
	1/month or >	8.2	8.6	15.1	11.6	9.8	9.0	10.7
How often has any family member taken or arranged to take your child to any type of musical or theatrical performance within the past year?	Never	38.4 ^P	50.4 ^P	37.7 ^P	50.7 ^P	48.4 ^P	60.9 ^P	50.9
	1–several/year	58.9	47.3	53.4	41.9	46.6	35.4	47.3
	1/month or >	2.7	2.3	8.9	7.3	5.0	3.7	1.8
About how many books does your child have?	None	.3	1.6 ^e	.6	5.0	.8	8.1	—
	1 or 2	.6	4.7	3.9	13.6	5.2	15.7	3.4
	3–9	4.4	13.4	20.2	33.6	18.1	32.5	27.6
	10 or >	94.7	80.3	75.3	47.8	75.8	43.7	69.0

(Continued)

Table 4 *Continued*

HOME Items	Coding	European American		African American		Hispanic American		Asian American	
		Nonpoor	Poor	Nonpoor	Poor	Nonpoor	Poor		
About how often did/do you read stories to your child?	Several/year or <	15.2 ^e	19.6 ^e	19.1 ^e	24.1	20.3	31.3	21.4	
	Several/month–1/week	39.6	44.7	50.6	48.0	45.2	47.8	33.9	
	3/week–every day	45.2	35.7	30.3	28.0	34.5	20.9	44.6	
Spanking									
Sometimes kids mind pretty well and sometimes they don't. About how many times have you had to spank your child in the past week?	Never	61.8	45.8	49.8	38.0	57.4	53.7	68.8	
	1–2 times	26.7	32.5	35.3	38.1	31.4	31.5	18.8	
	3–7 times	10.4	18.0	13.1	20.7	9.7	14.5	12.5	
	8 or > times	1.0	3.7	1.8	3.3	1.5	.3	—	
Other									
How often is your child expected to make his/her own bed?	> half the time	67.4	66.3	74.1	72.4	69.2	61.1	76.8	
How often is your child expected to clean his/her own room?	> half the time	88.8	85.3	86.8	81.5	82.0	72.1	89.3	
How often is your child expected to clean up after spills?	> half the time	89.2	87.5	94.3	91.0	90.9	85.7	92.9	
How often is your child expected to bathe himself/herself?	> half the time	95.5	94.5	96.7	94.8	95.0	93.5	98.2	
How often is your child expected to pick up after himself/herself?	> half the time	96.9	91.9	96.0	93.5	93.2	88.2	94.6	
About how often does your whole family get together with relatives or friends?	1/year or <	2.5	5.7	8.3	9.0	3.8	9.9	10.7	
	Few/year–1/month	32.2	35.0	35.1	33.7	30.8	36.3	25.0	
	2–3/month or >	65.3	59.3	56.6	57.3	65.4	53.8	64.3	
Does your child ever see his or her father or father figure?	Yes	98.1 ^{P,e}	86.3 ^{P,e}	91.7 ^{P,e}	74.8 ^{P,e}	93.2 ^P	83.5 ^P	96.4	
About how often does your child spend time with his/her father or father figure?	1/day or >	77.9 ^{P,e}	51.4 ^{P,e}	57.0 ^{P,e}	30.2 ^{P,e}	71.8 ^P	55.7 ^{P,e}	76.8	
	1/week–1/day	16.4	24.8	24.6	32.7	17.2	22.4	16.1	
	Few/year–1/month	4.7	18.1	14.0	26.8	7.9	14.7	5.4	
	DK or no dad	1.0	5.6	4.4	10.3	3.1	7.2	1.8	
About how often does your child spend time with his/her father or father figure in outdoor activities?	1/day or >	23.7 ^P	23.9 ^P	23.1 ^e	14.8	29.3	32.5 ^e	21.4	
	1/week–1/day	62.1	37.4	43.8	32.9	51.7	37.3	53.6	
	Few/year–1/month	11.2	28.7	23.6	29.1	12.7	19.1	23.2	
	DK or no dad	3.1	9.9	9.5	23.2	6.3	11.1	1.8	
How often does your child eat a meal with both mother and father or father figure?	1/day or >	68.6 ^P	51.9 ^{P,e}	49.7 ^{P,e}	28.0 ^{P,E}	69.2 ^P	58.0 ^{P,e}	59.6	
	1/week–several/week	21.5	11.6	23.4	23.1	17.7	11.5	28.1	
	1/month or <	2.0	6.0	6.6	8.7	2.3	5.3	3.5	
	1/month or no dad	7.9	30.5	20.3	40.2	10.7	25.2	8.8	
When your family watches TV together, do you or your child's father or father figure discuss TV programs with him/her?	Yes	89.6 ^{P,e}	79.1 ^{P,e}	79.0 ^{P,e}	61.7 ^{P,e}	81.5 ^P	69.6 ^P	87.7	
Sometimes children get so angry at their parents that they say things like, "I hate you," or swear in a temper tantrum. Please check which actions you would take if this happened. (Circle all that apply)	Grounding	30.7 ^P	42.7 ^P	38.8	38.5	33.8	39.8	33.3	
	Spanking	27.2 ^e	35.7	48.5 ^e	50.0 ^e	26.5	26.4 ^e	24.6	
	Talk with child	85.5	79.9 ^e	74.9 ^e	67.3 ^e	83.5 ^P	73.6 ^P	87.7	
	Give him/her household chore	9.1	11.1	13.7	15.8	11.1	16.9	15.8	
	Ignore it	10.1	9.4 ^e	4.2 ^e	2.8 ^e	6.0	6.4	14.0	
	Send to room for more than 1 hr	19.9	27.9	27.8	28.6	29.0	35.1	21.1	
	Take away his/her allowance	4.3	6.0	9.8	10.9	6.4	9.0	1.8	
	Take away TV or other privileges	30.8	29.5	34.2	30.3	34.8	37.9	31.6	

Note: Asian Americans are combined nonpoor and poor because there were too few Asian Americans with incomes below poverty. HOME = Home Observation for Measurement of the Environment; Ok = don't know.

^e Ethnicity effect size above .20; ^E ethnicity effect size above .50; ^P poverty effect size above .20; ^P poverty effect size above .50.

Table 5 Percent Responses to HOME Items by Ethnic Group and Poverty Status: Homes of Children from 10 to 14 Years, 11 Months

HOME Items	Coding	European American		African American		Hispanic American		Asian American
		Nonpoor	Poor	Nonpoor	Poor	Nonpoor	Poor	
Observational items		N = 1,453	N = 318	N = 938	N = 963	N = 632	N = 322	N = 41
Learning stimulation								
About how many books does your child have of his/her own?	None	.3 ^{P,E}	3.5 ^{P,E}	2.6 ^{P,e}	9.2 ^{P,e}	2.2 ^{P,e}	10.2 ^{P,e}	—
	1 or 2	8.8	23.3	32.3	43.6	27.1	46.3	43.3
	3–9	17.3	22.3	23.6	21.1	23.7	23.3	6.7
	10 or >	73.5	50.9	41.6	26.1	47.0	20.2	50.0
Is there a musical instrument (e.g., piano, drum, guitar, etc.) that your child can use here at home?	Yes	55.3 ^{P,e}	41.8 ^{P,e}	39.1 ^{P,e}	24.8 ^P	38.1 ^{P,e}	23.1 ^P	46.7
Does your family get a daily newspaper?	Yes	52.6 ^P	32.6 ^P	44.4	35.3	44.8 ^P	26.7 ^P	50.0
Do you or someone in your family encourage your child to start and keep doing hobbies?	Yes	95.1 ^P	88.6 ^P	91.2	86.0	91.5 ^P	77.5 ^{P,e}	96.7
Does your child get special lessons or belong to any organization that encourages activities such as sports, music, art, dance, drama, etc.?	Yes	68.7 ^{P,e}	54.4 ^{P,e}	60.3 ^P	48.6 ^P	54.5 ^{P,e}	31.6 ^{P,e}	56.7
How often has any family member taken or arranged to take your child to any type of museum (children’s, scientific, art, historical, etc.) within the past year?	Never	20.0 ^P	32.0 ^{P,e}	23.4 ^P	42.4 ^P	28.6 ^P	46.7 ^P	23.3
	Several/year or < 1/month or >	74.8	61.1	66.2	46.9	65.5	44.2	73.3
		5.2	7.0	10.4	10.7	5.9	9.0	3.3
How often has a family member taken or arranged to take your child to any type of musical theatrical performance within the past year?	Never	41.4	46.4	35.5 ^P	50.5 ^P	44.0 ^P	61.4 ^{P,e}	63.3
	Several/year or < 1/month or >	56.4	50.2	57.5	41.1	52.4	32.1	33.3
		2.1	3.5	7.0	8.4	3.7	6.5	3.3
Other								
How often is your child expected to make his/her own bed?	> half the time	84.4 ^e	87.0	93.3 ^e	88.9	91.3 ^P	83.1 ^P	100.0
How often is your child expected to clean his/her own room?	> half the time	94.1	92.1	95.2	90.5	93.2 ^P	86.4 ^P	100.0
How often is your child expected to pick up after himself/herself?	> half the time	96.1	94.6	96.4	92.5	95.9 ^P	88.6 ^P	100.0
How often is your child expected to help keep shared living areas clean and straight?	> half the time	90.9	92.4	92.3	89.4	93.6	89.0	96.7
How often is your child expected to do routine chores such as mow the lawn, help with dinner, wash dishes, etc?	> half the time	86.3	83.3	85.0	84.4	87.0 ^P	77.5 ^P	80.0
How often is your child expected to help manage his/her own time (get up on time, be ready for school, etc.)?	> half the time	90.3	85.1	89.5	89.4	95.4 ^{P,e}	89.0 ^P	93.3
About how often does your whole family get together with relatives or friends?	1/year or <	4.6	8.9	7.7	8.0	4.9	9.1	13.3
	1/month–few/year	37.2	36.4	39.7	35.5	33.7	36.0	36.7
	2–3/month or >	58.2	54.7	52.6	56.5	61.4	54.9	50.0
Does your child ever see his or her father or father figure?	Yes	96.8 ^{P,e}	87.9 ^{P,e}	89.7 ^{P,e}	72.5 ^{P,e}	92.5 ^P	83.5 ^P	97.6

(Continued)

Table 5 Continued

HOME Items	Coding	European American		African American		Hispanic American		Asian American
		Nonpoor	Poor	Nonpoor	Poor	Nonpoor	Poor	
Interview items		<i>N</i> = 1,422	<i>N</i> = 316	<i>N</i> = 922	<i>N</i> = 938	<i>N</i> = 626	<i>N</i> = 317	<i>N</i> = 41
Parental responsiveness								
Sometimes kids mind pretty well and sometimes they don't. Sometimes they do things that make you feel good. How many times in the past week have you shown your child physical affection (kiss, hug, stroke hair, etc.)?	None	3.0 ^{P,e}	5.1 ^{P,E}	12.2 ^E	15.1 ^e	6.6 ^P	17.7 ^P	7.1
	1 or 2	5.7	6.6	16.2	19.3	9.2	11.6	
	3–6 times	16.5	30.1	30.5	30.5	30.4	31.7	
	7–13 times	38.6	31.6	26.9	27.2	32.3	25.3	53.6
Sometimes kids mind pretty well and sometimes they don't. Sometimes they do things that make you feel good. How many times in the past week have you praised your child for doing something worthwhile?	> than 13 times	36.2	26.6	14.2	7.8	21.5	13.7	17.9
	None	3.4 ^e	6.7 ^e	11.7 ^e	18.5 ^e	13.2	22.4	—
	1 or 2 times	17.6	19.2	30.6	27.3	25.3	31.6	35.7
	3–7 times	42.8	42.8	39.3	35.3	40.1	26.5	32.1
Spanking	> than 6 times	31.3	31.3	18.4	18.9	21.4	19.4	32.1
	None	89.1 ^P	81.4 ^P	82.1 ^P	73.6 ^P	89.6 ^P	76.1 ^P	89.7
Sometimes kids mind pretty well and sometimes they don't. Sometimes they do things that make you feel good. How many times in the past week have you had to spank your child?	1–2 times	9.8	11.9	15.3	18.2	8.3	17.5	10.3
	3–7 times	1.0	4.8	2.1	6.2	1.8	5.7	—
	8 or more times	.1	1.9	.6	2.0	.3	.7	—
	DK or no dad							
Other								
About how often does your child spend time with his/her father or father figure?	1/day or more	69.4 ^{P,e}	45.9 ^{P,e}	44.7 ^{P,e}	24.0 ^{P,e}	62.9 ^P	41.3 ^{P,e}	80.0
	1–7 times/week	19.8	28.4	26.0	30.4	20.5	29.0	10.0
	Few/year–1/month	8.3	21.5	20.4	23.3	10.5	18.2	3.3
	DK or no dad	2.5	4.3	9.0	22.3	6.2	11.5	6.6
About how often does your child spend time with his/her father or father figure in outdoor activities?	1/day or more	17.7 ^{P,e}	18.0 ^P	14.8 ^e	12.3 ^e	21.5 ^P	25.6 ^P	10.0
	1–7 times/wk	58.6	39.0	36.2	28.7	49.7	31.1	70.0
	Few/year–1/month	18.3	29.8	31.3	24.6	20.4	24.6	13.3
	DK or no dad	5.4	13.2	17.7	34.4	8.4	18.7	6.6
How often does your child eat a meal with both mother and father or father figure?	1/day or more	64.2 ^{P,e}	51.0 ^{P,e}	37.4 ^{P,E}	25.7 ^{P,E}	69.9 ^{P,e}	48.2 ^{P,e}	40.0
	1–7 times/week	23.1	11.8	25.6	19.9	13.1	14.0	53.3
	Few/year–1/month	1.2	5.6	7.7	6.0	1.8	6.5	—
	DK or no dad	11.5	31.6	29.3	48.4	15.2	31.3	6.7
When your family watches TV together, do you or your child's father or father figure discuss TV programs with him/her?								
Sometimes children get so angry at their parents that they say things like, "I hate you," or swear in a temper tantrum. Please check which actions you would take if this happened. (Circle all that apply)	Yes	89.0 ^{P,e}	78.9 ^{P,e}	72.3 ^{P,e}	58.5 ^{P,e}	77.0 ^P	62.8 ^P	96.7
	Grounding	49.9	49.7	52.2	54.4	48.2	48.7	36.7
	Spanking	17.1 ^e	21.5 ^e	35.8 ^e	36.5 ^e	12.0 ^{P,e}	22.9 ^{P,e}	16.7
	Talk with child	86.2 ^e	85.2 ^e	73.5 ^e	72.3 ^e	81.2	76.7	96.7
	Give him/her household chore	16.5	18.7	18.6	25.9	15.2	20.5	10.0
	Ignore it	8.8	8.6	4.3	5.6	5.8	3.3	3.3
	Send to room for more than 1 hr	24.3	32.6	24.4	30.7	28.9	34.1	23.3
	Take away his/her allowance	7.9 ^e	11.3 ^e	20.6 ^e	26.4 ^e	12.0	15.4	13.3
	Take away TV, phone, or other privileges	47.0	37.7 ^e	47.4	48.7	44.4	49.2	30.0

(Continued)

Table 5 Continued

HOME Items	Coding	European American		African American		Hispanic American		Asian American
		Nonpoor	Poor	Nonpoor	Poor	Nonpoor	Poor	
Sometimes kids mind pretty well and sometimes they don't.	Never	79.6	71.4 ^e	72.4 ^P	57.0 ^P	75.6 ^P	62.6 ^P	82.8
	Once	15.4	15.2	17.4	17.6	16.9	13.1	13.8
	2 or 3 times	4.4	7.9	7.5	17.4	5.7	16.5	3.4
	> than 3 times	.6	5.4	2.8	8.1	1.8	7.7	—
Sometimes kids mind pretty well and sometimes they don't. Sometimes they do things that make you feel good. How many times in the past week have you grounded your child?	Never	79.3	74.4	77.5	69.3	76.5 ^P	67.0 ^P	92.9
	Once	14.9	13.9	13.3	12.8	13.1	13.8	7.1
	2 or 3 times	4.9	7.6	6.5	12.3	8.0	12.5	—
	> than 3 times	.9	4.1	2.7	5.6	2.3	6.7	—
Sometimes kids mind pretty well and sometimes they don't. Sometimes they do things that make you feel good. How many times in the past week have you taken away your child's privileges?	Never	64.3	56.1	69.5	61.2	65.2	59.7	58.6
	Once	18.7	16.2	15.7	16.5	16.2	14.0	17.2
	2 or 3 times	12.2	17.8	11.3	14.8	13.4	15.7	10.3
	> than 3 times	4.8	9.9	3.5	7.4	5.3	10.6	13.8
Sometimes kids mind pretty well and sometimes they don't. Sometimes they do things that make you feel good. How many times in the past week have you sent your child to his/her room?	Never	97.0 ^P	91.0 ^{P,e}	92.0 ^P	82.2 ^P	92.9 ^P	87.0 ^P	100.0
	Once	2.0	4.8	4.0	7.5	4.2	6.1	—
	2 or 3 times	1.0	4.2	3.9	10.3	3.0	6.8	—

Note: Asian Americans are combined nonpoor and poor because there were too few Asian Americans with incomes below poverty. HOME = Home Observation for Measurements of the Environment; Ok = don't know.

^e Ethnicity effect size above .20; ^E ethnicity effect size above .50; ^P poverty effect size above .20; ^P poverty effect size above .50.

erty and those living in poverty. Because relatively few Asian American families were living in poverty, only percentages for the total group of Asian Americans are provided. Although analyses were done on the total NLSY sample and on the combined poverty and nonpoverty subsamples within each ethnic group (except Asian Americans), the tables only report results for the subsamples due to space limitations (results from the total sample and each ethnic group sample can be obtained from the authors). Results are described for each of the HOME-SF item clusters described in the Methods section; specifically, learning stimulation, parental responsiveness, spanking, teaching, and physical environment. Results are also described for father involvement, although father involvement was not one of the home environment factors identified using factor analysis.

In an effort to provide a more comprehensive framework for understanding children's experiences at home, Cohen's *h* effect sizes were also computed (Cohen, 1987) for poverty and ethnicity. Specifically, for each of the six ethnic/poverty status groups (Asian Americans were not analyzed due to limited sample

size and diversity) two effect sizes were calculated (tables containing the effect size for each ethnic/poverty status group on all HOME-SF items can be obtained from the first author): (1) a standardized difference between the proportion of families from the target group receiving credit on a HOME-SF item and the proportion of all families from the same income group but not the same ethnic group that received credit on the item (an ethnic group effect size for the target group), and (2) a standardized difference between the proportion of families from the target group that received credit on a HOME-SF item and the proportion of all families from the same ethnic group, but not the same income group, that received credit on the item (a poverty status effect size for the target group). Tables 2 through 5 display the six subgroups in which there was a small effect, $.20 < h < .50$, or a moderate effect, $h \geq .50$; the values for *h* correspond to the criteria for small and medium effects established by Cohen (1987). For poor families with children under 3 years of age, effect sizes for ethnicity ranged from nonsignificant to moderate, $h = .51$, with a mean of .17; for nonpoor families, effect sizes ranged from nonsignificant

to small, $h = .45$, with a mean of $.16$. For poor families with children ages 3 to 5, effect sizes for ethnicity ranged from nonsignificant to moderate, $h = .70$, with a mean of $.16$; for nonpoor families, the effect sizes ranged from nonsignificant to moderate, $h = .64$, with a mean of $.17$. For poor families with children ages 6 to 9, effect sizes for ethnicity ranged from nonsignificant to moderate, $h = .55$, with a mean of $.12$; for nonpoor families effect sizes ranged from nonsignificant to small, $h = .42$, with a mean of $.12$. For poor families with children ages 10 to 14, effect sizes for ethnicity ranged from nonsignificant to moderate, $h = .52$, with a mean of $.16$; for nonpoor families, effect sizes ranged from nonsignificant to moderate, $h = .56$. The average effect sizes for poverty were greater than for ethnicity. Among European American, African American, and Hispanic American families these were (1) $.24$, $h \leq .62$; $.23$, $h \leq .47$; and $.21$, $h \leq .54$, respectively, for children less than 3; (2) $.29$, $h \leq .69$; $.23$, $h \leq .57$; and $.24$, $h \leq .61$, respectively, for children 3 to 5; (3) $.21$, $h \leq .56$; $.18$, $h \leq .55$; and $.18$, $h \leq .41$, respectively, for children 6 to 9; and (4) $.19$, $h \leq .48$; $.18$, $h \leq .45$; and $.25$, $h \leq .55$, respectively, for children 10 and over.

Although we did not have an a priori hypothesis that the effect of poverty would be proportional across ethnic groups, additional analyses were conducted to test the interaction between ethnic group status and poverty status for each item separately. After making Bonferroni adjustments in α levels for the total number of statistical tests performed, no interaction effects were found for any item at any age period. That is, although significant differences among ethnic groups emerged on most HOME-SF items, the effect of poverty on the odds of receiving credit for an item was relatively proportional for European American, African American, and Hispanic American children.

Learning Stimulation

There were marked differences in the types of learning materials American children had access to in their home places. Likewise, there were marked age-related differences in the types of materials children had to play with and learn from. Infants and adolescents had fewer books than children in early and middle childhood. Although over 90% of children in the two middle-age groups had three or more of their own books, fewer than 70% of infants and adolescents had several books. Infants were more likely to have five or more cuddly or role-playing toys (85.8%) than to have three or more push toys (72.6%). Moreover, 3- to 5-year-old children were more likely to have access to a tape or record player (70.9%) than children ages 6 to 9 (36.2%) or 10 to 14 (39.8%) were to have access to a musical instrument.

There were also ethnic group and poverty status differences in children's access to learning materials. In all four age categories, a higher percentage of African American and Hispanic American children had no books, and a lower percentage had 10 or more books (Tables 2–5). Also, during middle childhood and adolescence, these two ethnic groups were over 10% less likely to have access to a musical instrument than European Americans or Asian Americans (Tables 4–5). However, poverty status had a greater impact on access to learning materials than did ethnicity. In general, nonpoor children were far more likely than poor children to have three or more children's books in infancy (mean effect size = $.37$), early childhood (mean effect size = $.57$), middle childhood (mean effect size = $.25$), and adolescence (mean effect size = $.47$). As a rule, nonpoor European American children were substantially more likely to have large numbers of books in the home. Likewise, European American children were substantially more likely than other children to have access to other language and learning materials (e.g., record or tape players). Conversely, both poor Hispanic Americans and poor African Americans were substantially less likely to own things such as tape players.

The majority of NLSY parents provided their children with a variety of enriching out-of-home experiences. Over 70% of infants got out of the house four or more times a week, and over 75% were taken to the grocery store at least once a week. The only age comparisons that were possible indicate that 3- to 5-year-olds were not taken to the museum as much (63.8%) as either 6- to 9-year-olds (72.3%) or 10- to 14-year-olds (70.1%). In addition, the percentages of children in middle childhood and adolescence who were taken to the theater were about the same (54.2% and 54.4%, respectively).

The percentage of infants who got out of the house and who were taken to the grocery store was not much different across ethnic groups, except for Hispanic Americans, who seldom got out of the house and were least likely to get out of the house frequently (Table 2). The reverse was true of Hispanic Americans with regard to taking their children to the grocery store. A relatively high percentage of Hispanic American infants were taken to the grocery store frequently. Few ethnic differences were observed with regard to how often children were taken to a museum and the theater, except that African American children were most likely to frequently go to a museum and theater in all age groups (effect sizes for ethnicity were always $< .20$).

Poverty status had a relatively greater effect on the variety of potentially enriching places and events that children experienced. These differences were found in

all ethnic groups and at all age periods. For all ethnic groups, nonpoor children were much more likely to be taken to the museum as poor children (mean effect size = .35). Nonpoor children were also more likely to be taken to the theater than poor children during middle childhood and late adolescence.

Parental Responsiveness

Most mothers in the NLSY sample spoke to their children during the interview and encouraged their children to talk. For children birth to 2 and 3 to 5 years old, approximately 90% of mothers spoke to their children during the home visit at least twice. Somewhat fewer mothers of 6- to 9-year-olds were observed talking to their child twice or more (74.4%). In response to the child's demands for attention, more mothers responded verbally to 3- to 5-year-olds (87.1%) than was the case for infants (78.3%) or 6- to 9-year olds (83.9%). In effect, whereas mothers of infants were more likely to spontaneously speak to the infants than to respond to them verbally (78.3%), the pattern was reversed for mothers of 6- to 9-year-olds. Few ethnic group differences emerged except that mothers of African American and Hispanic American 6- to 9-year-olds responded to their children relatively less often (Table 4). Across all ethnic groups, nonpoor mothers were more likely than poor mothers to speak to their children twice or more or to respond to their children verbally during the visit.

Approximately 90% of mothers with children in early childhood and middle childhood showed positive feelings when talking about their children. Fewer 3- to 5-year-olds were caressed, hugged, or kissed (52.7%) than infants (80.6%). In infancy and early childhood, African American children were less likely to receive physical affection from their mothers. The difference among ethnic groups was greatest among 3- to 5-year-olds. Across all ethnic groups and age groups, more affluent mothers were more likely to show both verbal and physical affection toward their children. The added effects of poverty and ethnicity meant that some subgroups of children were far more likely than other subgroups to receive demonstrations of affection. For example, more affluent Hispanic American and European American mothers were about twice as likely to show positive feelings and to caress, kiss, or hug their 3- to 5-year-olds than were poor African American mothers (Table 3).

Spanking

Observed spanking decreased as children grew older. Although mothers reported that approximately 29%

of infants and children 3- to 5-years of age had been spanked three or more times in the past week, only 15% of 6- to 9-year olds, and 4% of 10- to 14-year-olds were reported to have received this amount of spanking. The decrease was also seen in the percentage of mothers who physically restricted their children during the interview. Over 20% of infants were physically restricted, and just over 8% of 3- to 5-year-olds were physically restricted. For all four age periods, African Americans had the lowest percentage in the no spanking category. In the two middle categories of spanking frequency, there was little evidence of ethnic group difference once poverty status was taken into account. No Asian Americans reported spanking their children eight or more times a week, whereas all other ethnic groups reported some occurrences of high-frequency spanking at all age levels. Parents living below the poverty line were more likely to spank their children across all age levels, and across all ethnic groups. Although a higher percentage of African American parents reported using spanking as a means of discipline, it was poor European Americans who most often reported spanking their children eight or more times per week. The added effects of ethnic group status and poverty status were most pronounced among families with children 10- to 14-years of age. For example, a higher percentage of poor African American parents (26.4%) and poor Hispanic American parents (23.1%) reported spanking their children three or more times a week than other parents.

Teaching

Although just over one half of all mothers read to their infants (51.6%), and 3- to 5-year-olds (55.0%) at least three times a week, the percentage dropped when the children were between 6 and 9 years of age (35.6%). The pattern of increase from infancy to early childhood was followed by a decrease in middle childhood for all ethnic groups. However, from infancy to early childhood, the percentage of Asian Americans who read to their child three or more times a week increased considerably (17%) compared with Hispanic Americans (7%), European Americans (5%), and African Americans (2%). Whereas European Americans were much more likely to frequently read to infants (63.7%) than were Asian Americans (44.2%), African Americans (37.9%), and Hispanic Americans (34.9%), the dramatic increase among Asian Americans closed the gap by the time children went to school. At all three age levels, both African Americans and Hispanic Americans were significantly less likely to read to their children than European Americans and Asian Americans (Tables 2–4).

There were clear ethnic group and poverty status

differences in the percentage of mothers who read to their children, especially prior to school entry when effect sizes were typically in the .30 to .50 range. During infancy and early childhood, and for each ethnic group separately, nonpoor mothers were twice as likely to read to their children three or more times a week than were poor mothers. In middle childhood, although nonpoor mothers were still more likely to read to their children than were poor mothers, the impact of poverty status subsided somewhat in middle childhood. Furthermore, the added effects of ethnicity and poverty status were more pronounced than either demographic variable alone. For example, nonpoor European Americans were more than twice as likely to read to their children at least three times a week during infancy and early childhood (about 70%) compared with poor African Americans and Hispanic Americans ($<1/3$).

Approximately nine out of ten 3- to 5-year-olds were helped by a family member to learn numbers, colors, and the alphabet. Just over 75% were helped to learn shapes and sizes. Although there were not large differences among ethnic groups, $h < .30$, a lower percentage of Hispanic American children were helped with the alphabet, and lower percentages of both Hispanic American and African American children were helped with shapes and sizes (Table 3). Once again, for all ethnic groups, and for each type of help from family members, those not in poverty were more likely to spend time helping their children learn.

For children in middle childhood and adolescence, mothers were asked if their child was encouraged to have hobbies, if their child was provided special lessons, and whether parents discussed TV programs with their child. For each age period, and for each ethnic group, nonpoor families were roughly twice as likely as poor families to provide these extras. A higher percentage of children 10 years of age and older were provided with special lessons (56.6%) than were children ages 6 to 9 (46.1%). Approximately three quarters of the parents discussed TV programs at both age levels, and approximately 90% of the children were encouraged to have hobbies at both age levels. At both age periods a higher percentage of European Americans and Asian Americans was credited for all three of these questions than were either African Americans or Hispanic Americans (most effect sizes were $< .30$). Nonpoor European American families were more likely than all other groups to discuss TV programs at both age levels.

Physical Environment

A smaller percentage of 6- to 9-year-olds had a safe play environment (71.0%) than did children in early

childhood (92.1%) and infancy (87.0%). There were no meaningful ethnic group differences in safety hazards observed in the homes of children under age 6. Although not substantial, there were small ethnic group differences among homes of 6- to 9-year-olds, $h < .30$, with African American homes the least likely to be safe (67.3%), and a higher percentage of Asian American and European American homes judged to be safe by the interviewer (76.3% and 74.4%, respectively). Poverty status appeared to have a greater effect on home safety than did ethnic group. Across all ethnic groups and across all three age groups assessed, those not in poverty were more likely to have a safe home environment than were those who were poor (mean effect size $> .30$). The effect of poverty status on home safety was stronger during infancy and early childhood than during middle childhood.

There were no meaningful differences in the aesthetics of children's home environments from early childhood to middle childhood: homes were essentially the same with regard to dark and monotonous interiors (10.1% and 10.3%, respectively), clean interiors (91.6% and 91.3%, respectively), and minimally cluttered interiors (82.2% and 83.7%, respectively). There were also no noticeable ethnic group differences in cleanliness and clutter for either age period. At both age periods, however, a considerably higher percentage of African American homes were rated dark and monotonous (approximately 16.0%) than any other ethnic group (Tables 3 and 4). However, the homes of poor families were judged to be dark and monotonous and unclean more often than the homes of nonpoor families (effect sizes ranged from .24-.43). They were also judged as having more clutter (effect sizes ranged from .11-.21). Although greater than 80% of poor homes in every ethnic group were judged to be reasonably clean, more than 90% of nonpoor homes were judged to be clean. Nonpoor homes were also three to four times less likely to be judged dark and monotonous than poor homes.

Father Involvement

Because there were variations in the HOME-SF items that dealt with father involvement at each of the four age periods assessed, the same items did not consistently emerge as a separate factor in the factor analyses done on HOME-SF items. Nonetheless, because of the presumed importance of paternal involvement in children's lives, we decided to describe findings pertaining to the two questions asked concerning fathers at all four age periods: (1) Does child ever see father? and (2) How often does child eat with both mother and father? A lower percentage of children saw their

father during the first two age periods (84.4% and 78.2%, respectively) than the second two age periods (90.3% and 88.0%, respectively). Likewise, regardless of ethnic group, a smaller percentage of children ate with both their mother and father at least once a day as they grew older (birth–age 2 = 66.6%, age 3–5 years = 65.3%, age 6–9 years = 57.5%, age 10–14 years = 49.9%). Given the well-documented absence of many African American fathers, it was not surprising that a much smaller percentage of African American children had both forms of contact at all age periods. However, the difference was due primarily to the fact that such a high percentage of African American families lived in poverty. Nonpoor African American children were 1.2 to 1.4 times as likely to see their father daily as compared with all other subgroups of children combined. Nonpoor children of all ethnic groups were four to five times as likely to see their father daily during the first three age periods, and three times more likely in adolescence to see their father daily than were their poor counterparts. Effect sizes for poverty were generally greater than .40. Of all groups examined, poor African American children were most likely to be isolated from their fathers; that is, a higher percentage of poor African American children either never had contact with their fathers or had contact less than once a month. The differences among ethnic groups however, were not as great for spending time with father at least once a week as they were for seeing father daily.

Although the percentage of children spending time with father at least once a week was higher in adolescence (48.5%) than early childhood (37.1%), the percentage of children who spent time with fathers outdoors decreased slightly from middle childhood to adolescence (90.8% and 84.3%, respectively). Notably, there were no ethnic group or poverty status differences in how often children saw family and friends.

DISCUSSION

Data from the NLSY made it possible to describe what children in the United States experience in their home environments with regard to marker indicators of environmental quality most often used in developmental studies. The population of the United States is very diverse—and growing more so (U.S. Department of Commerce, 2001). That diversity makes it difficult to draw generalizations about what children in the United States experience and how their experiences connect to the course of development. Thus, the NLSY offers a frame of reference that developmentalists can use to interpret findings from smaller studies on home environments. The NLSY sample, although

not completely representative of the U.S. population, is valuable in that the original cohort (women between the ages of 14 and 21) was selected in such a way as to be a generally representative cohort of the U.S. population in 1979. Nonetheless, it is important to note that the oldest mothers were 36 at the time of the 1994 data collections. For the 14-year-old children, mothers' age at the time of the child's birth ranged only from 15 to 23. Thus, the sample is less representative of the home environments of children in early adolescence than is the case for children at younger ages. By the same token, one of the advantages of the NLSY sample is the oversampling of poor African Americans and Hispanic Americans. The oversampling made it possible to derive more reliable estimates of children's experiences in these two large demographic groups. Few, if any, studies have examined the number ($N = 124$) and breadth of home environment indicators for such a diverse sample from infancy through midadolescence.

The large number of home environment indicators included in the four versions of the HOME-SF, coupled with the large number of analyses performed on these data, makes it difficult to summarize the findings briefly. So, we begin by discussing findings as they relate to age, poverty, and ethnicity.

One of the clearest—and least surprising—findings from this study is that the frequency with which children are exposed to particular actions, objects, events, and conditions in their homes changes markedly from infancy through adolescence. For example, during the visit when HOME-SF data were collected, mothers were somewhat more likely to talk to children under the age of 6 than to children ages 6 to 9. They were more likely to respond to bids for attention from 3- to 5-year-olds than at any other age. Infants were more likely to be kissed or caressed than were older children. The amount of spanking also declined with age, as did the percentage of children who had safe play areas. Infants and adolescents had fewer books designed just for them than did children from intermediate age groups; reading to children peaked during early childhood and declined thereafter. Not surprisingly, the types of toys and learning materials available in the home changed with age. Likewise, children in middle childhood and adolescence were also more likely to be taken to places such as museums than were younger children. As children got older, they were increasingly less likely to eat a meal every day with both their mother and father. Finally, children in early adolescence were expected to take more responsibility for household maintenance than were children in middle childhood. These age-related trends are consistent with reports on less representative samples in other studies; and, in the aggregate, make it

clear how daily life experiences for children change as they mature. There is a reasonable degree of consensus among developmentalists that there is a dynamic interplay between children and their environments, but there is some divergence of opinion regarding the degree to which children's experiences affect the course of development and the degree to which children determine the experiences they get. (For a discussion of these various points of view, see Lewis, 1997; Scarr & McCartney, 1983; Wachs, 2000.) Part 2 (Bradley et al., 2001) of this study examined relations among aspects of the home environment and various components of development from infancy through adolescence.)

Results with respect to poverty status and ethnicity made two things abundantly clear: (1) there were differences in the likelihood that children would be exposed to particular experiences in the home environment as a function of both their ethnicity and their family's economic circumstances, and (2) there was variability on each indicator examined in every major economic and ethnic group. Diversity was greater on some indicators than others (e.g., almost all children between 10 and 14 were expected to pick up after themselves more than one half of the time; whereas the percentages of children expected to make their own beds over one half of the time ranged from 84% for European American children to 100% for Asian American families). However, variability was present for all indicators. Taken as a whole, this variability corroborates the assertion of García Coll and colleagues (1995, 1999) that measures of central tendency often belie the diversity present within demographic groups.

There are several ecological–developmental models that link economic hardship to the quality of parenting children receive (Brody & Flor, 1998; Conger et al., 1997; McLoyd, 1990, 1999). According to these models, parents who experience the stresses connected to economic hardship often display less responsiveness to their children and more harsh punishment. Results from this study both confirm and expand on these propositions. For example, poor mothers were less likely than nonpoor mothers to communicate effectively with their children and less likely to show both verbal and physical affection toward their children. Nonpoor mothers tended to choose forms of discipline such as talking and ignoring, and were less likely to ground or spank their children, give them a chore, send them to their room, or take away their allowance. At all age levels, and across all ethnic groups, parents living below the poverty level were more likely to spank their children and less likely to monitor them. Nonpoor mothers were also more likely to expect their children to perform a number of chores around the house. Importantly, nonpoor children were

substantially more likely to have meaningful contact with their fathers than were poor children. The absence of fathers in the lives of poor children is noteworthy, both because of its generally negative consequences for child well-being and the fact that the impact of poverty on well-being is exacerbated in single-parent homes (Cabrera, Tamis-LeMonda, Bradley, Hofferth, & Lamb, 2000; Hanson, McLanahan, & Thomson, 1997; Lamb, 1997). On the positive side, there were no poverty status differences in how often children saw family and friends, except that more poor European Americans reported being severely isolated (i.e., seeing family and friends less than once a year) than did nonpoor European Americans (5.7% versus 2.5%). A similar pattern emerged for Hispanics (9.9% versus 3.8%), but no such pattern emerged for African Americans.

There is a long history of research indicating that economic hardship equates to less access to material goods and services, fewer opportunities for stimulating experiences, and a greater likelihood of exposure to potentially damaging conditions (Bradley & Whiteside-Mansell, 1997; Huston et al., 1994). This study, like others before, shows that poverty decreases the likelihood that children will be exposed to developmentally enriching materials and experiences, both inside and outside of the home. Across all ethnic groups, nonpoor children were much more likely to have 10 or more developmentally appropriate books than their poor counterparts. They were also much more likely to have a family member read to them, teach them school-related concepts, and provide them with special lessons to increase their skills. Likewise, for all ethnic groups, nonpoor children were approximately twice as likely to be taken to the museum as poor children, and 1½ times as likely to be taken to the theater. Such findings are consistent with recent intensive investigations on differences in the daily experiences of children living in different socioeconomic strata (Hart & Risley, 1995).

Results from this study show that being poor affects nearly every aspect of children's home lives. Poverty effects were prevalent in all six environmental domains examined: from parental responsiveness to parental teaching, from the quality of the physical environment to the level of stimulation for learning present, and from the likelihood of being spanked to the likelihood of having significant contact with one's father. Indeed, of the 124 HOME-SF items examined, nonsignificant poverty effects were noted on only 15 (or 12% of the total), even when adjusting α levels for the number of statistical tests conducted. Moreover, poverty status made a difference irrespective of whether the mother reported on what happened at home or whether the home visitor obtained informa-

tion via direct observation. The mean effect size for poverty status across all ethnic groups and all age periods was small, $h = .22$, but on about one fourth of the indicators, the effect size was greater than .30. It was also proportional across ethnic groups for every item. Taken as a whole, these findings confirm, in a far more detailed way, how different the daily lives of poor children tend to be than the daily lives of children who are more affluent (Bradley & Whiteside-Mansell, 1997; Duncan & Brooks-Gunn, 1997; Huston et al., 1994).

Current theories about ethnic and racial differences in how parents parent and how the home environments of one group differ from those of another suggest quite complex relations (Gjerde, 2000; Masten, 1999). When predicting the impact of ethnicity on the likelihood a child will be exposed to a particular action, object, event, or condition, one is confronted not only with differences that emerge from culture, but also with the fact that members of American minority groups are playing out their cultural beliefs and traditions against a dominant majority culture, and ethnicity is confounded with socioeconomic status and (for some) issues connected with recency of immigration (García Coll et al., 1996, 1999). Results from this study show both similarities and differences across ethnic groups in terms of the percentage of children who were exposed to various acts, events, objects, and conditions within their home environments. For example, about 90% of all mothers (regardless of group) spoke to their infants during the time of the visit; and the immediate play environments of about 85% to 90% of infants (regardless of group) appeared safe. In addition, relatively few mothers (5% to 11%) restricted their preschoolers during the visit, between 90% and 95% reported helping their children learn numbers, about 70% of elementary school-age children (regardless of group) were encouraged to talk during the visit, and most homes (90%) in all groups were judged to be reasonably clean. For children in early adolescence, there were few reported differences in the frequency with which children were sent to their rooms for breaking a family rule.

For most indicators, however, there was evidence of ethnic group differences. There were indicators on which every group had a high percentage of families receiving "credit" for the item, yet some groups were even higher than others (e.g., at least 70% of all families of elementary school-age children reported discussing TV programs with their child, but nearly 88% of European Americans and Asian Americans reported this activity). There were other indicators for which the majority of families in every group did not receive "credit," yet some groups were even lower than others

(e.g., 32% of poor Hispanic families reported that fathers spent time outdoors with elementary school-age children every day, whereas <24% of families in the other ethnic groups made this claim). Overall, European American families and Asian American families more often received credit on HOME-SF items than did African American and Hispanic American families, within both poor and nonpoor groups. Sometimes the differences were great; more often they were small (the mean effect for ethnicity was <.20 for all age periods). For the most part, the differences observed among ethnic groups reproduced differences reported in other studies. For example, African American mothers displayed overt physical affection during the visit less often and reported using physical punishment more often (Kelley et al., 1992). European American and Asian American households contained materials for learning and recreation more often. European American mothers also tended to read to their children more often, albeit the percentage of Asian American mothers who read to their children was equal to European Americans after infancy. Fathers were present in the homes of African American children less frequently than for the other three ethnic groups. Group differences were less however, for seeing father at least once a week than for seeing father daily.

One of the distinct advantages of the NLSY dataset was that it made possible the examination of variability within ethnic groups and increased the likelihood of separating effects due to ethnicity from effects due to other demographic factors. The results with respect to spanking were interesting in this regard—in effect, they ran somewhat counter to the prevailing assumption that African American children are spanked more frequently than children from other ethnic groups. Although a higher percentage of African American mothers reported spanking their children than was the case for the other ethnic groups, for children ages 3 to 5, poor African American mothers were actually observed hitting or restricting their children less often (5.8% and 8.5%, for children ages 3 to 5 and 6 to 9, respectively) than poor European American (8.7% and 10.8%, for children ages 3 to 5 and 6 to 9, respectively) or poor Hispanic American mothers (8.6% and 10.3%, for children ages 3 to 5 and 6 to 9, respectively). This finding is significant in light of research showing negative consequences of harsh punishment by European American parents but not by African American parents (Deater-Deckard, Dodge, Bates, & Pettit, 1996). Although it is true that African American families, regardless of income, were more likely to use spanking as a means of discipline, they were no more likely than European American families to spank their

infants three or more times per week; and poor European American families were the most likely to spank children eight or more times per week. The pattern for frequent spanking was similar, although not as robust, for children ages 3 to 5. These results highlight the advantage of using more precise estimates of spanking frequency than simple yes or no options (Day et al., 1998).

Although in certain instances it can be useful to note differences among cultural (ethnic) groups, those differences may be “secondary to accounting for the relevance of the variables within a particular group” (Cocking, 1994, p. 402)—in effect, understanding the meaning within context. It is important to bear in mind that the indicators on the HOME-SF, although carefully drawn because of their presumed importance for children’s development, have emerged in an historical/ethnic context that is dominated by modern Western thought (see discussions by Berry, Poortina, Segall, & Dasen, 1992; García Coll et al., 1995, 1999). Moreover, a number of factors likely contribute to the differences observed between ethnic groups on the HOME-SF items, including differences in goals, beliefs, and practices that are part of ethnic legacy and differences in macro-level social and political forces facing certain groups, such as racism and other elements of social stratification (García Coll et al., 1996).

For people of color, coping with discrimination and oppression from the dominant culture may also contribute to differences in parenting practices and environmental conditions within the home (McAdoo, 1993; Ogbu, 1994). Part of the ethnic group differences observed on the HOME-SF probably reflects family income and neighborhood of residence as well. Even though poverty status was controlled in the analyses examining ethnic differences, poverty was entered into the analyses as a two-level variable (poor versus nonpoor). Within both the poor and the nonpoor levels, the average family income of African Americans and Hispanic Americans was lower than that of European American families, leaving open the possibility that some additional small effects of income could be connected to the observed ethnic group differences. Furthermore, greater percentages of these two groups lived in impoverished urban settings, a factor that has a negative impact on parenting (Bradley & Whiteside-Mansell, 1997; Duncan & Brooks-Gunn, 1997; Huston et al., 1994).

The primary purpose of this study was to provide information on how frequently children in the United States are exposed to the kinds of acts, objects, events, and conditions cataloged on widely used measures of the home environment. The results showed substantial diversity across families within every major eth-

nic and income group. There were both similarities and differences across ethnic groups, differences that we conceptualize as reflective of both historic ethnic legacies and current macro-level contextual conditions. The most pervasive differences were those related to poverty. The findings, although generally in line with findings from previous studies, are valuable for their breadth and for the fact that they are based on thousands of cases, carefully drawn to represent the U.S. population. There are, however, limitations in the sample, given the sampling frame for the NLSY and the fact that children of mothers who began giving birth later in life had not yet reached age 14. Finally, as useful as information from the NLSY is in describing the family experiences of children in the United States, the HOME-SF contains only a limited census of indicators on the child’s total range of experiences in the home. For example, relatively little attention is paid to experiences with siblings and extended family—experiences known to be associated with the course of development (Dunn & Plomin, 1990). The census of indicators contained in the HOME-SF Inventories may be more meaningful for some groups of families and less meaningful for others (Bradley et al., 1997). Correspondingly, it may be more predictive of children’s development for some groups than others (Bradley et al., 1989; Dubrow et al., 1996). Alternatively, as stipulated by Wachs (2000), there may be great variability in child outcomes for children who experience similar environments. These issues were examined in Part 2 (Bradley et al., 2001) of this study. Hopefully, the information provided by the HOME-SF is a useful first step in mapping the topography of children’s experiences in the home. A more complete understanding of the child’s home environment will require an even more detailed mapping of those exchanges and conditions.

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