# THE NLSY CHILDREN 1992

## DESCRIPTION AND EVALUATION

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## **OVERVIEW OF THE CHILD SAMPLE**

#### Introduction

The National Longitudinal Survey of Youth (NLSY) is a multipurpose survey of more than 12600 individuals in the United States who have been interviewed annually since 1979 when they were 14 to 22 years of age. Sponsored by the Bureau of Labor Statistics, U.S. Department of Labor, the NLSY contains extensive information about the employment, education, training, and family-related experiences of the respondents. Since 1982, through support from the National Institutes of Health, questions have been asked about the pregnancy, post-natal, fertility and child care experiences of the female respondents in the sample. In 1986, 1988, 1990, and 1992, a series of assessments was administered to measure the cognitive ability, temperament, motor and social development, behavior problems, perceived competence, and quality of the home environment of the children of these female respondents. This assessment information has been combined with data from the mothers' records to form a detailed data file for users interested in exploring the interrelationships between family and environmental factors, maternal behavior and child development. The Center for Human Resource Research (CHRR) at the Ohio State University and NORC at the University of Chicago are responsible for the design, collection, and dissemination of the NLS Youth and Child data.

This report describes the child assessment data collected in the 1992 (fourteenth) round of the NLSY. In addition, it undertakes a more detailed evaluation of the various assessments within a multivariate context, clarifying their utility for a variety of longitudinal analyses. This evaluation has two components. First, it explores the linkages between the various assessments and a broad range of preceding demographic and socio-economic factors. It then utilizes the longitudinal dimensions of the data set to examine associations between child assessment scores in 1986 and a selected number of assessment scores in 1992 where one could anticipate, on the basis of other empirical and theoretical premises, that associations might be found. These latter analyses, found in Chapter 3, provide insights into the validity of these assessments, particularly those administered to younger children in 1986.

These materials should be of interest not only to current and prospective users of the NLSY Child data, but also to researchers concerned about the utility of particular assessments. In this regard, it is useful to note that these assessments, those addressed to the mothers as well as to the children themselves, were not administered in a traditional testing environment, but in the children's homes, sometimes with other individuals present. Thus, the results presented can

be used for clarifying the extent to which these mainstream assessments can be effectively administered in other than a formal testing environment.

The information presented in this volume concerns the children of NLSY female respondents who were 27 to 34 years of age on January 1, 1992. Thus the results need to be interpreted cautiously when generalizing beyond this population group. The women in the NLSY sample as of this date have probably completed about 70 percent of their childbearing. Thus, any analytical results presented differ from those which would be reported if this cohort of women had completed their childbearing or if we had been examining a different birth cohort of women. This issue is considered in subsequent sections of this chapter.

While this report provides useful information about these children and their mothers as of 1992, users should be aware that this volume should be used in conjunction with several other documents. This volume, by itself, does not include all the information that is essential to use the NLSY Child data. First, potential users should carefully examine the 1992 Child Assessment Data Users Guide which details the assessments available for analysis in 1992 and provides a comprehensive history of the child sample and materials available for the 1986-1992 period. The Users Guide is essential for understanding how to access the child data. Users should also have on hand the current NLSY Child Handbook-Revised Edition, which not only describes in depth all of the assessments but also includes a detailed review of available research using the various assessments. Both publications detail a number of caveats relating to sampling constraints, the appropriate age variables to use with the assessments, and weighting issues. Users may also wish to examine the most recent issue of the NLS Handbook, which describes the NLSY data set in some detail, and the NLS Users' Guide, which details the content of the NLSY over the 1979-1992 period. The various handbooks and users guides described above are available at no cost from the NLS User Services of the Center for Human Resource Research, 921 Chatham Lane, Suite 200, Columbus, Ohio 43221-2418. Finally, before using these data, we strongly encourage researchers to access relevant NLSY interview schedules, both for respondents as well as for the children. Examination of the interview schedules not only defines the data elements most precisely, but also often provides important insights regarding the skip patterns that determine which children or respondents are answering which questions.

#### The NLSY Female and Maternal Sample

The original NLSY sample included 12686 men and women age 14 to 22 as of January 1, 1979. Approximately half (6283) were female. This included 456 women who were in the military at that time, almost all of whom were dropped from the sample following the 1984 interview round. Following the 1990 survey round, the economically disadvantaged white oversample, which included 901 women, was also dropped because of financial constraints. As

may be seen in Table 1.1, this left a sample of 4941 women eligible for interview in 1992. Of these 4941 women, 4535 were interviewed. This sample, when weighted, is a representative cross-section of women in the United States aged 27 to 34 as of January 1, 1992. Children born to the NLSY women thus typify all children who have been born to this cross-section of women. As noted earlier, we estimate that this childbearing represents perhaps about 70 percent of the children who will be born to this cohort of women. Clearly, the data set cannot be used for analyses of children who have been born to older women. However, the data set now includes substantial numbers and proportions of children who have been born to women in their twenties and early thirties. Thus, this should no longer be viewed as a data set useful only for analyses of the consequences of early childbearing.

As may be seen from Table 1.2, over 60 percent of the mothers in the sample (2107) have had their first birth by age twenty or later and about one third of the mothers have not had a child prior to age twenty-four. About half of the black and 60 percent of the Hispanic mothers did not begin childbearing until age 20 or later. As may also be noted from Table 1.2, over 70 percent of the overall sample has already had a child: about 69 percent for the non-Hispanic white women compared with 78 percent for black and 79 percent for Hispanic women.

Whereas the NLSY sample of women and mothers had once been significantly disadvantaged socio-economically, this is no longer true. The full sample is now well past the usual school attendance ages. Overall, about 87 percent of the unweighted sample has completed 12 years of school, with somewhat larger high school non-completion percentages for minority, particularly Hispanic women. This statistic approximates overall completion/non-completion statistics for prime age females in the United States. Table 1.2 also shows the remaining substantial difference in educational attainment between NLSY mothers and non-mothers. As of 1992, about 17 percent of the mothers in the sample have not completed 12 years of schooling compared with four percent for the remaining non-mothers. While the levels vary, the pattern holds for white, black and Hispanic women. It is clear that, for the most part, the women who will be attaining motherhood for the first time in the years ahead will selectively be drawn from the better-educated subset.

#### The NLSY Child Sample

As of 1992, a total of 9360 children have been identified as biological children of the original 6283 women. Obviously, an additional number of children have been born to women who are no longer being interviewed following their attrition from the sample. After removing children born to economically disadvantaged white or military women, we are left with 8113 children. After accounting for the additional children who have been born to other sample attriters by 1992, it may be seen in Table 1.1 that we are left with 7269 children born to mothers

interviewed in 1992. However, some of these children are no longer living in their mother's home and thus are not eligible to be assessed. The number of children actually identified as living in their mother's home and available to be assessed totals 6509. About 6100, or 94 percent, of this group have one or more completed assessment.

As we have emphasized above, the sample of mothers and children are becoming increasingly representative of a full cohort of mothers and their children. Tables 1.3 and 1.4 show how the NLSY child assessment sample now includes relatively large numbers of children at all ages through early adolescence. The tables also show how the children have been born to all but the oldest women of childbearing ages; beginning with mid-adolescence and currently terminating at age thirty-four. At present, it is possible to examine maternal and family antecedents for a variety of child assessments for children of pre-school and early elementary school age who have been born to women almost up to age thirty. Examination of the determinants of outcomes of older children, those age ten and older, is somewhat more constrained since many of the mothers of these children were still guite young when the children were born. About 42 percent of the approximately 2100 children age ten and over were born to women under the age of twenty compared with about nine percent for the children under the age of ten. Thus, researchers should use caution when generalizing from the 1992 adolescent child sample. On average, these children have been born to less educated mothers; as may be seen from Table 1.2, a very substantial proportion of the adolescent mothers have completed less then twelve years of school. Additionally, as may be determined from Table 1.5, the older children in the sample are disproportionately minority. About 65 percent of the children age ten and over are either black or Hispanic, compared with about 50 percent for the unweighted sample under the age often. The proportions which are less educated and minority are of course significantly less when we focus on weighted statistics, but the basic point regarding the difference between the sample of younger and older children remains valid.

Table 1.6, which synthesizes information about the age and racial/ethnic mix of the NLSY child sample for 1986-1992, shows how this sample of children has not only been aging but has changed in complexion over time. The number of children age ten and over has increased from 295 in 1986 to 2079 in 1992, even though the 1992 estimate excludes older economically disadvantaged white children who were no longer in the sample after 1988. Between 1986 and 1992, the percentage of children in the sample who are age ten and over increased from 6 to 32 percent. This aging largely reflects the declining number of births to women in the NLSY cohort in recent years.

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If we exclude the economically disadvantaged white sample, the percent of the sample that is black has been maintained at about 23 percent; however, the percent of children who are non-Hispanic and white has increased somewhat, whereas the Hispanic sample has declined. This largely reflects differential fertility between the two groups over the last few years. In general, the sample of children is becoming increasingly representative of all contemporary children as the cohort of mothers gradually completes its childbearing.

#### **Multiple Child Households**

Because the sample of children eligible for assessment includes <u>all</u> children born to the female respondents, the NLSY child sample now includes a large number of family units where two or more children have been repeatedly assessed. This of course opens up possibilities for a variety of within and cross-family analyses. As may be seen in Table 1.7, there are 3325 family units which include at least one child eligible to be assessed. About 950 of these units include only one child, 1315 include two children and 1063 units include three or more children. For those units with two children, there is considerable heterogeneity in terms of children's ages; there are many families where the two children are close in age, but also large numbers where the children's ages are quite disparate. The same is true for those families with three or more children. For example, well over 200 families have three children all of whom are over the age of fourteen. There are also more than 275 families where the oldest child is ten or over and the youngest under six. Given the large number of black, Hispanic and non-Hispanic white households, this sample offers important research opportunities for those interested in clarifying issues associated with racial-ethnic variations in within-family behaviors.

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## THE CHILD ASSESSMENTS

#### Introduction

In this chapter, we briefly describe the various assessments addressed to the mothers of the children and to the children themselves in 1992. A more detailed explanation of the assessments, as well as their strengths and limitations, may be found in the NLSY Child Handbook 1986-1990 - Child Edition (hereafter termed the "Child Handbook") which comprehensively describes the assessments and provides evaluative material as well as a literature review that synthesizes research using the various assessments. Individuals planning on using the assessments should familiarize themselves with the discussions specific to each assessment in that volume and should also examine the 1992 Child Data Users Guide. The Users Guide is geared specifically towards the prospective user and provides detailed information about how to access the child data. It outlines the strengths and weaknesses of the assessments, which age variable one should use, and appropriate weighting procedures. The Users Guide along with the Child Handbook provide detailed information about all aspects of the mother and child linked data collection. The primary objectives of this report are somewhat different and more constrained: to provide some brief descriptive material about the 1992 assessments for prospective users and, more importantly, to offer some insights regarding the potential validity of these child data (see Chapter 3).

#### Who Was Assessed in 1992?

Before describing each assessment, it is useful to provide an overview regarding which children were given which assessments in 1986, 1988, 1990 and 1992. Table 2.1 synthesizes the administration pattern across years. Some assessments are only completed once by a child (subject to the caveat in the next sentence), the first time he or she becomes age-eligible; others are repeatedly completed by all age-eligible children. Ten- and eleven-year olds complete <u>all</u> assessments for which they are age-eligible, regardless of whether or not they have previously completed the assessment(s). This procedure was designed to create an "index" group of children which offers users an increasingly large, more fully representative sample of early adolescent youth for analysis.

#### Assessment Completion Rates

Table 2.2 provides estimates of the number of children available to be administered each assessment in 1992 and the completion rate for each assessment. The number of children undertaking and completing each assessment is quite substantial, particularly the number of black, white and Hispanic children available for separate racial/ethnic analysis. This latter factor is of particular importance for those assessments where there are major differences in outcome by race or, more importantly, where the linkages between critical explanatory inputs and assessment outcomes vary by race/ethnicity. It may also be noted from Table 2.2 that, for the most part, the percent of children receiving valid scores is quite high, typically over 90 percent, and racial variations in completion rates are generally quite modest. Detailed analyses of potential biases linked to differential attrition for 1990 may be found in the *Child Handbook*.

#### The Assessments: A Brief Description

#### The HOME

The HOME (Home Observation for Measurement of the Environment) Inventory measures the nature and quality of the child's developmental environment. The overall scale was developed by Caldwell and Bradley (1984). The NLSY includes a subset of items which were selected by these authors from the overall scale of items. In addition to the overall score, two subscores measuring the cognitive stimulation and emotional support the child is receiving in the home environment are constructed. Because there are no appropriate national norms available for the overall HOME score or its components, we provide internally normed standard and percentile scores for the overall HOME scores as well as for the Cognitive Stimulation and Emotional Support subscores. A more detailed description of the component items in each score as well as an explanation of how the scales were constructed may be found in the *1992 Child Users Guide*.

As may be seen in Table 2.3, the HOME has a relatively high completion rate; overall HOME scores were attained for well over 90% of the eligible children. For the youngest children, those under age three, the completion rate dips below 90 percent because the interviewer observation items, which are included at the end of the Child Supplement, were sometimes inadvertently missed. Since none of the assessments in the Child Supplement are addressed to children under age three, interviewers were more likely to skip over the HOME observation items for this age group. Overall completion rates for the HOME are equally high for black, Hispanic, and non-Hispanic white children.

Tables 2.3 through 2.7 provide information about the number and characteristics of children for whom the HOME was completed in 1992 along with some detail regarding the distribution of the overall score and subscores by age, race and ethnicity. As may be seen in

Table 2.3, HOME scores are available for almost all of the children who were assessed in 1992, as the assessment is completed for children of all ages. Tables 2.4 and 2.5 show that non-Hispanic white children have the highest overall scores at all ages; their mean percentile score is about 57 compared with about 42 for Hispanic and 34 for black children. For both the Emotional Support and Cognitive Stimulation subscores, the non-Hispanic white/black differences are substantial (see Tables 2.6 and 2.7). For the Emotional Support subscore, the Hispanic and other white scores are very similar; however, in the Cognitive Stimulation subscore, black and Hispanic scores are virtually identical and well below the scores for the whites. These racial/ethnic distinctions were also in evidence in earlier survey rounds (see *Child Handbook*). It is also useful to note that while there is some age variability in the scores, it is not systematic. Even though the oldest children live in homes of somewhat lower socio-economic status, there is no systematic evidence that these older children live in homes which score lower on any of the HOME scales.

#### The Temperament Subscores

The Temperament items (also termed "How My Child Usually Acts") form a series of maternal-report scales measuring the behavioral styles of children under the age of seven. The assessment is based on items from Rothbart's Infant Behavior Questionnaire, Campos and Kagan's compliance scale, and other items from Joseph Campos. The Temperament scale is divided into three sections, according to the age of the child. Part A is addressed to infants under the age of one, Part B to toddlers age one, and Part C to children between the ages of two and six. A total of ten distinct scores tap various dimensions of temperament, but not all dimensions are appropriate for all age groups. A detailed listing of the items included in the various scales may be found in the *1992 Child Data Users Guide*. Because no appropriate norms are available for these subscores, the description which follows is based on weighted raw scores.

As may be seen in Table 2.2, completion rates for the Temperament scores are very high, typically over 95 percent. The age-specific question sequences are easy to follow and easy to complete. Tables 2.8 and 2.9 indicate the approximate number of sample cases, and Tables 2.10 through 2.19 include raw score percent distributions for the various Temperament scores which, as may be noted, encompass a number of temperament dimensions. For the most part, the scores show a reasonable distribution, although users should be cautious before assuming normality in all of the distributions. Some, such as Predictability and Positive Affect, are skewed toward higher scores, and some, such as fearfulness, are skewed in the opposite direction.

Racial/ethnic differences are modest, and any independent racial/ethnic effects will be clarified more appropriately in the multivariate analyses in Chapter 3. Additionally, a comparison of the 1990 and 1992 Temperament scores indicates that the distributions appear similar and that there is no evidence of any systematic change over time either by age or race/ethnicity.

#### Motor and Social Development

The Motor and Social Development Scale (MSD) was developed by Gail Poe of the National Center For Health Statistics and measures dimensions of the motor, social and cognitive development of young children. As with the other assessments, detailed information about the individual items included in this age-specific assessment and how the scale is scored and normed may be found in the *Child Handbook*. Associated with each raw score is an overall percentile and a standard score, both of which have been constructed at CHRR based on data from the nationally representative sample of children in the 1981 National Health Interview Survey.

As may be seen from Table 2.20, this assessment is completed by the mother for all children under the age of four. Scores have been derived for about 90 percent of the ageeligible children. Typically, completion rates are highest for the older children. As may be seen in Tables 2.21 and 2.22, overall scores and distributions are similar for black and non-Hispanic white children although their distributions by age differ somewhat; black infants and young toddlers typically score higher than their non-black counterparts, a pattern which has been in evidence over the 1986-1992 period. Hispanic children of all ages seem to have lower scores than those reported for other children. Precise interpretations of the meaning of these racial and ethnic variations in the overall MSD score are difficult to make because the scale measures several concepts which are only partially linked to each other. These various concepts are undoubtedly linked with physiological and socio-economic antecedents to differing degrees.

#### The Behavior Problems Index

This scale was created by Nicholas Zill and James Peterson, then of Child Trends Inc., Washington D.C., to measure the frequency, range and type of childhood behavior problems for children age four and over. Many items were derived from the Achenbach Behavior Problems Checklist and other child behavior scales The items translate into one overall score and six subscores that tap various dimensions of child adjustment. These subscores measure the following specific child behaviors: being antisocial, anxious/depressed, headstrong, hyperactive, dependent and being involved in peer conflict. A set of alternate raw and normed scores which do not recode the items, as well as "Internality" and "Externality" scores, have been prepared by CHRR and are available to public users. A detailed description of the history of these scales and their utilization in ongoing research may be found in the *Child Handbook*. Table 2.3 documents

the quite high completion rate for this assessment. There is little evidence of systematic noncompletion at any age or for blacks, Hispanics, or other whites. Also, because the assessment has been completed by mothers for all children age four or over, very large samples of children are available when utilizing the assessment as either an input or an outcome.

Racial and ethnic variations in Behavior Problems scores are relatively modest, although scores for blacks are slightly higher (less satisfactory) than those for the other two groups (Tables 2.24 and 2.25). It is also useful to note that older children, on average, score more poorly. This reflects their somewhat disadvantaged socio-economic position compared to younger children in our sample. This issue has been addressed in Chapter 1. For detailed tabular descriptions of the Behavior Problems subscores, the reader should examine the Behavior Problem tables included in the *Child Handbook*.

#### McCarthy Verbal Memory (A + B) Subtest

The Verbal Memory subscale of the McCarthy Scales of Children's Abilities assesses a child's short-term memory in response to auditory stimuli. The Verbal Memory subtest, selected for use in the NLSY, is only one of six scales that form the complete McCarthy assessment battery. Verbal Memory is administered by asking the child, age three years through six years, to repeat words or sentences said by the interviewer.

In the first half of the Verbal Memory assessment (Part A), the score the child receives is contingent on the child repeating a series of words, ideally in the same sequence in which they were uttered by the interviewer. In Part B of this test, the child is scored according to the number of key words that he or she repeats from a sentence read by the interviewer. The child's total score is based on the total correct responses in sections A and B.

The overall completion rate for this assessment is relatively low, slightly over 80 percent (see Table 2.26). The children completing the assessment are young, many being of pre-school age, and thus may not be comfortable or knowledgeable about a formal testing environment. There is also some ambiguity in interpreting "non-response"; there is a fine line between being shy and being unable to respond. These factors that may contribute to the high non-completion rate are evaluated further in Baker and Mott (1995).

Because this assessment is only administered in English, children whose language at home is not English may be disadvantaged, as may be seen in Tables 2.27 and 2.28. Hispanic children score substantially below others, having a mean percentile score of about 37 compared with 44 for black and 47 for non-Hispanic white children. How this is associated with subsequent cognitive "success" will be clarified in Chapter 3.

#### Self-Perception Profile for Children: ("What I Am Like")

This self-report magnitude estimation scale measures a child's perceived competence in the academic skill domain and the child's sense of general self-worth. The scales were designed to be administered to children age eight and over (Harter, Susan. "The Perceived Competence Scale for Children," *Child Development* 53 [1982: 87-97]). The twelve individual items in this assessment translate into two six-item subscores, a Global Self-Worth score and a Scholastic Competence score. There is no overall self-perception score. As may be seen in Tables 2.29 and 2.30, approximately 90 percent of the age-eligible children completed this assessment. This completion rate is slightly below the level reported in earlier survey rounds. Also, while completion rates for younger (8-9) children are similar to, indeed slightly higher, than the children age ten and over, it is likely that some younger children may have trouble understanding some of the individual items. For this reason, SPPC scores for younger children may perhaps be somewhat less valid. Overall, and by race, the weighted distribution of the raw scores in 1992 is very similar to the distributions for earlier years. However, racial differences are in evidence, with white children scoring somewhat higher on both the Scholastic Competence and Global Self-Worth scores (see Tables 2.31 and 2.32).

#### The Memory for Digit Span Assessment

The Memory for Digit Span assessment, a component of the Child Wechsler Intelligence Scales for Children (WISC-R), is a measure of short-term memory for children aged seven and over (Wechsler, 1974). The WISC-R is one of the best normed and most highly respected measures of child intelligence (although it should be noted that the Wechsler Digit Span component is one of the two parts of the Wechsler scale not used in establishing IQ tables).

There are two parts to the Memory for Digit Span assessment. First, the child listens to and repeats a sequence of numbers in the same order as spoken by the interviewer. In the second part, the child listens to a sequence of numbers and repeats them in reverse order. In both parts, the length of the sequence of numbers increases as the child responds correctly. Each correct response is assigned one point which yields a theoretical maximum of 14 for each subscore (forward and reverse) and 28 for the total score.

The overall completion rate for this assessment is about 88 percent with little racial/ethnic variation (see Table 2.33). This assessment is normed around a grand mean of 10 and a standard deviation of 3. As may be seen in Table 2.34, there is little age variation. Also, black and white children have similar scoring patterns. Hispanic children score a bit lower, even though a Spanish version of this assessment is available.

While there are racial and ethnic differences for the Forward and Backward Digit Span subscores, they are not particularly pronounced. In the Digits Forward scale, Hispanic children score somewhat lower than black and white children (see Tables 2.35 and 2.36). On the Digits

Backward scale, there is virtually no difference in the black, Hispanic and white distributions. The suggestion is made that this assessment may be less culturally biased than several of the other tests. As we will show in Chapter 3, it is also very useful as a predictor of subsequent cognitive outcomes.

#### The Peabody Assessments: Introduction

The remaining assessments described here are taken from the Peabody family of assessments. This battery is well-normed and standardized, and the instructions relatively straightforward. In interpreting the normed scores, the researcher may note that the PIAT achievement subtests used in the NLSY Child were normed more than 20 years ago. Thus, social changes affecting the reading behavior of small children in recent years may have altered the mean and dispersion of the reading distributions between 1970 and 1992. This is not an issue for the PPVT which was normed in the mid-1980s. For a precise statement of scoring decisions and norm derivations, the user should consult Dunn, L.M., and Dunn, L.M. (1981, 96-110) and Dunn, L.M. and Markwardt, F.C. (1970, 81-91).

#### **PIAT Mathematics**

The Peabody Individual Achievement Test (PIAT), which includes a mathematics test, is a wide-range measure of academic achievement for children age five and over that is widely known and used in research. It is among the most widely used brief assessments of academic achievement, having demonstrably high test-retest reliability and concurrent validity. As has been described in *The NLSY Child Handbook*, it is closely correlated and associated with other cognitive measures. As will be seen in Chapter 3, it is predicted by and predicts scores on a variety of other assessments. A strong analytical advantage gained from using this assessment, as well as the other PIATs, is that it has now been asked of all children age five and over at four points in time: 1986, 1988, 1990 and 1992.

Tables 2.39 through 2.41 synthesize the PIAT Mathematics results for 1992. The overall completion rate is about 91 percent, with little variation by race or ethnicity. Completion rates are slightly less satisfactory, about 88 percent, for the oldest children (those over age 11). Also, it appears that completion rates on this assessment may be declining slightly over time; overall completion rates were about 95 percent in 1988, 92 percent in 1990 and, as noted, 91 percent in 1992. Modest declines are evidenced at all ages and for all three racial/ethnic groups.

Substantial variations in scores on the Mathematics Achievement test between black, Hispanic and other white children may be seen. In Table 2.40, the mean white percentile score is about 56, compared with 42 for Hispanic and 38 for black children. Typically, younger children in the sample have higher scores than older children, because they tend to live in more adequate socio-economic environments. As will be shown in Chapter 3, large racial and ethnic differences in Mathematics scores remain even after controlling for socio-economic status and child age.

#### PIAT Reading Recognition

The PIAT Reading Recognition test measures word recognition and pronunciation ability for children age five and over. Many of the general comments made above for the PIAT Mathematics test and, more generally, the PIAT series, are equally valid for this assessment. Tables 2.42 through 2.44 briefly describe the 1992 PIAT Reading Recognition results. The Reading Recognition completion rate is slightly below that for the Mathematics assessment, with little difference between the racial/ethnic groups. Below average completion rates are found for the oldest children, as is the case with Mathematics. However, below average completion is also found for the youngest children, in particular, those age five. Also, as with the Mathematics assessment, there has been a gradual modest decline in completion rates over time.

The racial and ethnic disparities reported for Mathematics are also in evidence for the Reading Recognition assessment; non-Hispanic white children have a mean percentile score of 61, compared with 52 percent for Hispanic and 48 percent for black children. This racial/ethnic distinction is virtually identical to what was found in the earlier 1986-1990 survey rounds. As will be seen in Chapter 3, these variations by race and ethnicity remain after controlling for a wide range of maternal and family demographic and socio-economic background factors. Finally, as was also reported for the Mathematics test, older children have, on average, lower scores. This age pattern is most pronounced for black children.

#### PIAT Reading Comprehension

The PIAT Reading Comprehension test measures a child's ability to derive meaning from sentences that are read silently. This assessment is only completed by those children who score 19 or higher on the reading recognition test; thus, the sample completing this assessment is somewhat more homogenous than that entering Reading Recognition. However, children who had scores below 19 on Reading Recognition are given their Reading Recognition scores for a Comprehension score. For this reason, the ethnic and racial differentials on the Comprehension assessment are essentially identical to what was reported on Recognition (see Tables 2.46 and 2.47).

Overall completion rates on the Comprehension assessment are lower than for the other PIAT measures (Table 2.45). This reflects a number of factors such as less willingness by some children to continue or interviewers inadvertently skipping some children on this assessment. It is recommended that potential users of this assessment examine the caveats relating to its use detailed in the *Child Handbook*.

Scores on this assessment have remained completely stable over time. However, completion rates have been erratic, ranging from about 85 percent in 1986 and 1992, to a high of 91 percent in 1988.

#### The Peabody Picture Vocabulary Test (Child)

The final assessment completed by NLSY children is the Peabody Picture Vocabulary Test (PPVT). Only in 1986 and again in 1992 was this assessment administered to all ageeligible children (children age three and over). For this reason, we more carefully examine how children have performed on this assessment. We also explore here the predictive value of this assessment; that is, how 1986 PPVT scores correlate with "success" on other assessments in 1992. This assessment "measures an individual's receptive (hearing) vocabulary for standard American English and provides, at the same time, a quick estimate of verbal or scholastic aptitude" (Dunn and Dunn, 1981). For this reason, it may be expected that this assessment will correlate highly with other assessments which have significant aptitude and achievement components.

Overall, about 90 percent of age-eligible children completed the PPVT in 1992, somewhat above the 87 percent who completed this assessment in 1986 (see Table 2.48). Completion rates for 1992 are essentially similar for the various racial/ethnic groups and no systematic variations by age are in evidence.

As may be seen in Table 2.49, more than for any of the other assessments, substantial racial and ethnic variations appear, with the average non-Hispanic white child scoring at the 49th percentile compared to 30 percent for his or her Hispanic counterpart and 21 percent for his or her black counterpart. As will be seen in Chapter 3, substantial racial and ethnic variations remain even with demographic and socio-economic controls. These variations are prevalent for children of all ages.

Tables 2.51 and 2.52 confirm the strong associations between PPVT in 1986 and several other assessments in 1992 for all children who completed assessments at both points in time. Table 2.51 includes zero order correlations between PPVT in 1986 and several 1992 assessments and provides strong evidence regarding the validity of this assessment. Not surprisingly, scores in 1986 correlate highly with PPVT scores for these same children in 1992. PPVT also correlates especially well with the PIAT Mathematics and Reading assessments. Also consistent with expectations, the strongest correlations are found for the older children in 1986, for whom the assessment is considered more reliable. Finally, modest variations are found by race/ethnicity; correlations are slightly lower for blacks than for Hispanic or other white children.

Modest correlations may also be noted between PPVT in 1986 and the SPPC Scholastic Competence measure in 1992. This is consistent with the notion that strong achievement by children can reinforce their perception of their own competence (which presumably may subsequently further enhance a child's "success"). Finally, in Table 2.52, we use ordinary least square regressions to explore the extent to which 1986 PPVT scores are linked with 1992 outcomes, independent of a full array of maternal and family attributes and behaviors which might be anticipated to be linked with both the temporally earlier and later measures. These results provide very strong corroborative evidence that early success on the PPVT is an important independent predictor of not only PPVT scores years later but, more importantly, achievement in mathematics and reading and a child's scholastic self-confidence and global selfworth. It is apparent that PPVT is a strong predictor of subsequent achievement and perhaps motivation, independent of family environment.

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3

## VALIDITY OF THE CHILD ASSESSMENTS

#### Introduction

As part of our continuing program to evaluate the quality of the NLSY child assessments, we have examined in Chapter 2 a selected subset of the assessments in 1992 with several objectives in mind. For example, do they continue to show patterns by age and race/ethnicity consistent with what we have found in preceding surveys and consistent with evidence from other studies? This essentially has been an update of what we have done in the past.

We undertake here in Chapter 3 several evaluations which should shed light on the reliability and validity of the assessments. First, we systematically examine the relationships between the 1992 assessments and a variety of demographic and socio-economic priors which other research has suggested are important antecedents to at least some of our cognitive and socio-emotional batteries. This analysis should clarify the extent to which cognitive or socio-emotional tests have common antecedents and, additionally, whether they show linkages consistent with other research -- both important concomitants of assessment validity. This phase of the evaluation may also prove beneficial to researchers who are considering the use of these data for longitudinal or cross-sectional analyses.

The second, and primary, focus of this chapter is to examine the independent linkages between different assessments over time. We use the longitudinal dimensions of the data to explore the extent to which selected assessments in 1986 independently predict outcomes in 1992. The assessments we examine, including the ranges and mean scores, are listed in Appendix Tables 1 and 2. To date, much of our evaluation of these assessments, particularly those aimed at younger children, has been cross-sectional in nature, using either tabular or multivariate techniques to look at relationships between assessment scores or to examine linkages between background factors and child assessment scores. In this analysis we make use of the fact that we now have a substantial sample of children who have been assessed in both 1986 and 1992. A significant proportion of the sample who completed assessments aimed at younger children in 1986 have now completed the more reliable and known-to-be valid. assessments aimed at older children in 1992. To the extent that there are theoretical arguments for expecting linkages over time, we are now in a position to examine actual temporal connections. This will provide us with important insights for evaluating the quality and validity of assessments completed by the younger children, which has until now been more difficult to demonstrate.

Later in this section, we explore the extent to which child responses on selected assessments may be altered either by a child's own trait, in this case his or her tendency to be overly hyperactive, or by outside interference with the testing environment. First, we examine the extent to which a particular, essentially exogenous, child trait can affect a child's testing "success." In this instance, we make use of a child's score on one assessment to evaluate his or her score on other tests. Such an analysis not only clarifies interpretation of the full range of assessments, but additionally provides important validity information for a subscale of a particular assessment, in this instance the hyperactive subscale of the Behavior Problems Index.

Additionally, we incorporate into our multivariate analysis dichotomous (dummy) variables indicating whether or not other children or adults were present in the testing environment. As will be seen, the presence of other adults, in particular, does indeed affect the scores of children on some of the assessments. The recommendation based on this analysis is that a variable measuring the presence of others be incorporated into multivariate analyses in selected situations.

#### **Examining Antecedents to the Child Assessments**

In this section, we systematically examine the extent to which a fairly standard set of socio-economic and demographic maternal and family attributes and behaviors are associated with the full range of child outcomes. While we use a multivariate ordinary least squares regression format, it needs to be explicitly stated that this analysis is not meant to be interpreted causally in any definitive sense. There is a substantial multi-disciplinary literature which has examined these child outcomes within a variety of contexts, temporal and otherwise. What we strive to do here is to provide users with a mechanism for making inferences regarding the validity of these assessments by being able to consider how our assessments compare with the results of other studies in terms of being linked with standard socio-economic and demographic predictors. In this regard, there is a substantial literature which links cognitive outcomes with The literature linking socio-emotional outcomes with relevant socio-economic priors. antecedents is sparser, and thus we are here perhaps better able to make a unique intellectual contribution in this area. In this regard, researchers planning to use the NLSY Child data for examining predictors of socio-emotional outcomes will perhaps gain useful insights from this essentially "reduced form" analysis.

#### The Mother-Administered Assessments

We begin by examining the predictors of the various assessments included in the Mother Supplement of the 1992 survey round. All of these assessments are briefly described in Chapter 2 and more extensively in the *Child Handbook*. This discussion includes the assessments evaluated in Tables 3.1 through 3.4 and the synthesis provided in Table 3.5.

#### The HOME Scale

As may be seen in Table 3.1, the HOME assessment and its associated emotional support and cognitive stimulation subscores show robust links with a wide range of background factors. The overall score and the subscores are derived from a variety of individual items relating to several qualitative and quantitative dimensions of the child's home environment. This is one of the most widely used of the NLSY assessments because it is often a powerful predictor of subsequent child behaviors as well as an important outcome in its own light. It is also an assessment that is "well-explained" in a statistical sense, as may be seen by the adjusted R-squares reported in Table 3.1.

The overall HOME score is relatively well predicted by a wide range of inputs for children of all ages. Maternal education, family income, the presence of both biological parents and the number of children in the home are all significantly linked with the overall HOME score for children of all ages. Additionally, race and (for children under ten) ethnicity show systematic associations independent of all the other antecedents. Several of the geographic residential variables also frequently attain significance, suggesting regional variations in how children are being attended to, independent of class, race and ethnicity factors which are known to vary across different areas of the country. In general, it is fair to conclude that the results are consistent with a high predictive validity for the HOME assessment. A wide range of social and economic factors anticipated to be related to a child's intellectual and emotional environment are indeed linked with these factors.

Regressions predicting the separate cognitive and emotional support subscales lend further support to this conclusion. Both subscores show strong associations with a variety of priors, including race, maternal education, family income, paternal presence, the presence of children, child gender, and several geographic variables. However, the strength of the associations varies somewhat between the scales as, for example, maternal schooling is more strongly linked with cognition whereas paternal presence is more closely linked with emotional support (not surprising, given that father presence is directly embedded in the construction of the emotional support scale). It is of interest to note that Hispanic children evidence a cognitive but not an emotional disadvantage on this assessment. Typically, the relationships in evidence overall are also present for the various age groups, although some interesting age variations can be seen. For example, in the cognitive domain, children under the age of four tend to live in a less intellectually stimulating environment if their mother works extensively. In contrast, children age ten and over have a cognitive advantage if their mother works extensively. This is certainly consistent with the thought that younger children may gain cognitively from the presence of a mother whereas older school age children may gain from having a working mother who, perhaps because of her work, is able for economic and noneconomic reasons to enhance the cognitive environment of her child.

#### The Motor and Social Development Scale

In contrast with the HOME assessment, the Motor and Social Development Scale, which is completed by the mother for all children under the age of four, shows a much more limited association with a standard package of explanatory variables. This may well reflect the expectation that motor development is partly physiologically based, an issue which will be considered separately. Whether this scale is useful for predicting subsequent behaviors or child characteristics is a separate question which will be addressed in the next section of this chapter. In fact, it can be argued that to the extent MSD is independent of observable priors but predictive of subsequent behaviors, it is perhaps a particularly important assessment to have available for temporally ordered longitudinal analyses.

As may be seen in Table 3.2, Motor and Social Development is linked with very few observable demographic or socio-economic priors. Girls aged one and over are rated by their mothers as more developmentally advanced than boys. This finding is consistent with other research on early motor development (i.e., Peterson and Moore, 1987). Being an Hispanic child is associated with slower development, but primarily for the oldest children being assessed. Mother's education is increasingly linked with better development as a child ages. This finding is undoubtedly related to the increasing ability of better-educated mothers to better train their children as they progress past infancy. Other than these limited findings, a child's motor and social development, at least as measured by this particular assessment, shows only limited and sporadic association with standard background measures.

#### The Temperament Scales

The 1986 through 1992 assessments include an extensive series of items addressed to the mother which can be used to create a set of Temperament scales for children between birth and age six. For children age four and over, the Temperament scales also include interviewer comments. These scales are based on measures from a variety of sources including Rothbart's Infant Behavior Questionnaire, Campos and Kagan's Compliance Scale, and other items selected by Campos (*Child Handbook*). As may be seen in Table 3.3, these items tap a number of early childhood personality traits, and the dimensions considered vary by the age of the child.

We explore here the extent to which various temperament outcomes are associated with our family antecedents. In particular, we consider whether the predictive value of the antecedents varies by child age and by the temperament dimension being tapped. In a following section, we will consider the extent to which these scales are linked with subsequent cognitive and emotional outcomes.

For the most part, the two infant scales reported on here show limited association with the background factors. As was speculated to be true for Motor and Social Development, these scales are hypothesized to be at least partly physiologically based, an issue to be considered in the discussion of the predictive value of these assessments to follow. Other than showing an understandable association with an essentially exogenous factor, child age, the only predictors attaining significance are presence of two parents for the "predictability" scale and one of the regional residence variables for the "activity" scale; both may well be random findings.

For the scales which are addressed to a wider range of children, we are able to attain somewhat greater predictive power. This undoubtedly at least partly reflects the fact that the behavior of older children is more predictable and certainly more recognizable. Table 3.3 includes regressions for five different scales which are available for all children under the age of two. The one factor which is systematically associated with all five outcomes is race; black children are rated by their mothers as more fearful, less friendly, more difficult, generally more negative and at the same time as having more positive affect.

Where the mother works more extensively, children are reported as being friendlier and as having less "negative hedonic tone," a composite scale combining fearfulness items with reversed items from positive affect and friendliness. Thus, to the extent that maternal employment appears to impact on the temperament of very young children, its effect is positive. In this regard, it is useful to note that maternal work also showed a modest positive effect on one-year-olds' Motor and Social Development, as may be seen in Table 3.2.

The one other factor showing some systematic association with temperament for this age group is the presence of siblings. Having a greater number of children in the home has several negative implications; toddlers in this situation are reported by their mothers to be more fearful and difficult to handle and to have a higher level of negative hedonic tone. Thus, at least for this age group, sibling presence appears to have some negative emotional consequences. It is also important to conclude that for all of the temperament scales reported on for children under the age of two, the two variables which usually are the most robust predictors in social science research, namely mother's education and family income, have no significant predictive value for any of the outcomes.

From a more traditional social science research perspective, the results for the older children, two to six year olds, are more consistent with expectations. That is, maternal education predicts greater levels of compliance, sociability, and security for these older children. Higher family income also predicts, perhaps not surprisingly, greater sociability and security. These linkages may be associated both with the children's greater age as well as with the possibility that these measures may, for theoretical reasons, be expected to link more closely with standard socio-economic indicators.

Other than these two systematic linkages, it may be seen that black children continue to show independent negative linkages with several of the scales, evidencing lower levels of compliance and greater insecurity. Additionally, living with two parents and having more siblings has a positive influence for these older children; both of these family attributes would be expected to be associated with greater security. In general, family and maternal antecedents show a stronger connection with child temperament in this age group than is true for the infants and younger toddlers.

#### **The Behavior Problems Index**

The final maternally completed assessment to be considered here is the Behavior Problems Index and its associated subscales. These scales, which are largely based on items from the Achenbach Behavior Problems Checklist are specified in Table 3.4. The individual items incorporated in the scale and the various subscales are detailed in the *Child Handbook* as well as in the *1992 Child Data Users Guide*. These items are completed by the mothers of all children age four and over.

The Behavior Problems Index is among the most frequently used of our child assessments, both as an outcome in its own right and as a robust predictor of a wide range of child attitudes and behaviors. The *Child Handbook* describes a number of these other research efforts in some detail.

Our primary objective here is to clarify the extent to which our package of explanatory inputs suggests useful generalizations regarding the association between family background and child behavior. What the information in table 3.4 suggests is that while the package of variables in total has only limited predictive power (as suggested by the low R squares in the equations), there is nonetheless considerable evidence of a strong association between a variety of the family inputs and the various Behavior Problem outcomes. Without exception, maternal education and family income show strong significant associations in the expected direction with every single Behavior Problem scale and subscale. It seems clear that maternal cognition and

family economic well-being are major independent deterrents to a full range of detrimental child behaviors ranging from excessive externalizing and being hyperactive to being antisocial and engaging excessively in peer conflict behaviors. As we will see in a subsequent section, hyperactive behavior has important implications for how well the child performs on a variety of the other assessments.

With modest exceptions, girls typically score more favorably on the various subscales of the Behavior Problems Index than do boys, consistent with what has been found by various other researchers (Achenbach, Howell, Quay, Conners, 1991). Maternal employment is associated with less internalizing and externalizing behavior, and the presence of two parents appears almost always to create a preferable child environment. As one additional generalization, living in an urban area is almost always harmful, at least according to the child scores on this behavioral assessment. The geographic residence variables also suggest that typically, children who live in the Northern states are reported by their mothers as having, on average, fewer behavior problems compared to children in the South. Whether this represents actual regional differences in child behavior or perhaps regional differences in how mothers interpret their children's behavior cannot be resolved with this evaluation. In summary, of all the various maternal reports, the Behavior Problems Index and subscales show the strongest patterns of association with a standard package of background socio-economic and demographic factors.

#### A Synthesis

Table 3.5 synthesizes the patterning of associations we have been highlighting across all four of the maternal assessments. We limit the temperament items in this table to the older children who were assessed. It is clear that several generalizations are possible. Strong commonalities are in evidence across the HOME and Behavior Problems Index scores. Also, the Insecure Attachment Temperament scale seems to have a strong socio-economic connection. On the other hand, the various background factors show much weaker links with Motor and Social Development and the other Temperament scales, although it should be noted that the importance of mother's education is ubiquitous. Finally, regional variations in these maternally reported scores are perhaps more generalizable than one might have anticipated; whether these differences may partly be an artifact of regional reporting differences cannot be resolved here. However, there is rather substantial evidence that children outside of the South encounter on average more favorable home environments and that children in the North have mothers reporting lower levels of behavior problems independent of all the other socio-economic and demographic predictors in the equations.

#### The Interviewer-Administered Assessments

The discussion that follows relates to those assessments in the NLSY which are directly administered to the child by the interviewer. This includes several cognitive batteries such as the Verbal Memory scale, the Wechsler Memory for Digit Span subscale, the several Peabody Individual Achievement Test (PIAT) assessments and the Peabody Picture Vocabulary Test (PPVT). We also examine one other non-cognitive battery, the Self-Perception Profile for Children, which measures a child's sense of general self-worth and competence in the academic skills domain. The twelve items in this assessment translate into two subscores, a global self-worth score and a scholastic competence score. We consider these assessments in the same order that they are completed by the children in the NLSY Child Supplement.

#### Verbal Memory

In Table 3.6 we examine the background predictors of the Verbal Memory and Digit Span assessments. The Verbal Memory A+B percentile score assesses a child's short-term memory in response to auditory stimuli. In the first part of this assessment, the child is required to repeat back to the interviewer a series of words; in the second part the child repeats key words in two sentences. This is perhaps the most difficult of all the assessments to administer because of the ambiguity involved in determining whether a child does not know an answer or is just shy (see Baker and Mott, 1995, for a discussion of this issue and its impact on the assessment). This is primarily an issue with younger children who have not previously been tested or have not been in a formal school environment. As may be seen in Table 3.6, very few of the background factors are significantly related to the Verbal Memory outcome. Girls score higher than boys -- as they do on a number of the cognitive measures assessing verbal skills. Other than that, there is evidence that for the three- and four-year-olds, children of better educated mothers score higher. Also, not surprisingly, Hispanic children are at some disadvantage in this verbal assessment where there has not been a Spanish language version.

#### Memory for Digit Span

The Memory for Digit Span assessment has two distinct components. First, the interviewer recites a sequence of numbers of increasing length and the child is requested to repeat the sequences back verbatim. This is followed by a reverse series during which the interviewer recites a sequence of numbers and the child is asked to repeat the numbers in reverse. The Reverse Digit Span is, not surprisingly, somewhat more difficult. Although the assessment itself is very easy to administer, it needs to be administered carefully; background noise or interference can affect reliability and, presumably, validity.
Notwithstanding the above caveats, within the context of this evaluation, the results are eminently reasonable. While the overall predictive power of the equations is modest, some expected linkages may be found. For the overall digit span equation, girls as well as children from better educated and wealthier homes score higher. Hispanic children, but not black children, are modestly disadvantaged on the overall score compared to other white children. Several other coefficients also attain significance, often for only older or younger children, but systematic patterns are not in evidence.

Being female and having a better educated mother are both associated with higher scores for both the Forward and Reverse Digit Span (raw) subscores. Higher income is a significant predictor, but only for the Forward Digit Span subscore. It is also useful to note that unlike many of the other assessments, minority youth are generally not disadvantaged on this assessment. After controlling for other background attributes and behaviors, the scores of neither black nor Hispanic children are significantly below those of their white-non-Hispanic counterparts. In fact, the overall Forward Digit Span coefficient for black children is positive and significant. All in all, the Digit Span assessment, a measure of short-term memory retention, appears to be relatively free of cultural bias. As we will see in a following section, it is also a very strong predictor of scores on several cognitive measures at a point six years later

#### Self-Perception Profile for Children

We now shift from the cognitive to the social domain, exploring in Table 3.7 the determinants of the two subscores of the Self-Perception Profile for Children (SPPC). This assessment was developed by Susan Harter and measures a child's sense of both general self-worth and competence in the domain of academic skills. As previous research with this same data set has shown, SPPC scores for younger children, those between the ages of eight and ten, show little association with demographic and socio-economic priors (Baker and Mott, 1989). It may be that younger children have difficulty understanding the concepts used in this assessment. For children age ten and over, there are strong associations between mother's education and family income and both the Scholastic Competence and the Global Self-Worth subscores. It may also be seen that having a greater number of children in the home is associated with lower scores on these assessments for older children and that girls, on average, score poorer on Global Self-Worth.

For younger children, as noted above, only limited effects may be found. Maternal employment is associated with lower scores on both subscales. Also, mother's education is associated with greater perceived scholastic competence, whereas a greater number of children in the home is linked only with lower Global Self-Worth. As with several of the other assessments, while linkages between SPPC scores and priors may be limited, this does not necessarily imply limited association between this assessment and subsequent cognitive or socio-emotional batteries. To the extent that this latter premise is supported, the suggestion is that the SPPC measures important traits not typically found to be associated with demographic or socio-economic priors.

#### The Peabody Assessments

We change our focus to the interviewer-administered assessments which are generally considered to be the most reliable and valid of all the assessments in the NLSY (Table 3.8). The four assessments examined are the Peabody Individual Achievement Tests in Mathematics, Reading Recognition and Reading Comprehension and the Peabody Picture Vocabulary Test (PPVT). The PPVT assessment is meant to measure an individual's receptive (hearing) vocabulary for standard American English and provides, at the same time, a quick estimate of verbal ability or scholastic aptitude (Dunn and Dunn, 1981, p. 2). Most available research, including previous work with the NLSY children, suggests strong associations between a wide range of socio-economic antecedents and scores on these assessments. As may be seen in Table 3.8, several generalizations are appropriate. First, without exception, higher scores on all the assessments for all age groups are associated with more maternal education and higher family incomes. Second, even after controlling for all factors, blacks score more poorly than their white-non-Hispanic counterparts. Hispanic children also often score lower on these assessments.

Additionally, other family effects are substantial. With only one exception, having a greater number of siblings is independently associated with lower scores, perhaps reflecting less personalized attention accruing to children in larger families. Also, on all of the reading assessments (but not in mathematics), the presence of two parents is beneficial, contrary to some theoretical expectations.<sup>1</sup>

Maternal employment typically is not a significant predictor of these assessments. However, it is useful to note that girls, on average, score higher on the two Piat Reading tests, but not on PIAT Math or on the PPVT. Finally, there are some important regional and other geographic differences. Generally, children living in the Northeast score higher on these assessments in comparison with their Southern counterparts. More often than not, the same is true for children in the North-Central census region. Children in all other areas of the U.S. score better on the PPVT than do children living in the South. These variations may be associated with regional differences in the quality of schooling as well as other unobserved differences between these regions. It may also be seen that on all of the reading assessments, older children in urban areas are disadvantaged. The fact that this effect does not show up for the younger children may be related to the fact that the older children in this sample are much more

<sup>&</sup>lt;sup>1</sup> See Mott (1994) for a discussion of this issue.

likely to live in economically disadvantaged households, and the effects of this disadvantage may not be fully measured by our set of explanatory variables. In any event, the results presented here are very consistent with the notion that these assessments are indeed quite reliable and valid as witnessed by their strong association with a wide range of expected social and economic antecedents.

### Summary

Tables 3.9 and 3.10 synthesize the significant findings we have presented for these interviewer-administered assessments. Table 3.9 profiles the patterning for all age-eligible children and parallels the synthesis reported in Table 3.5 for the mother-reported assessments. Table 3.10 synthesizes results for a wide range of the more broadly used child- and mother-completed assessments for children age ten and over. Across both tables, it may be seen that maternal education effects are universally positive for both the cognitive and socio-emotional domains. With limited exceptions, a higher family income has significantly positive independent cognitive and emotional payoffs for children.

It is of some importance to note that being a girl is associated with many positive cognitive outcomes as well as with a more positive home environment, better motor-social skills and fewer behavior problems of various kinds. However, in spite of this overwhelmingly positive female profile, girls are reported as less secure and as having lower global self-worth!

The racial differences are less systematic. Black children score lower on the Peabody assessments but not on the other cognitive assessments, a distinction warranting further investigation. They encounter poorer home environments, and, undoubtedly linked with this, are reported by their mothers as being less secure and more antisocial. However, on several other social-emotional scales, after controlling for other factors, black children do not differ significantly from their white counterparts.

Although the effects are not completely generalizable, one can conclude that the presence of two parents is beneficial intellectually (on the reading assessments) and emotionally (on the HOME scores and with regard to child behavior). More often than not, the presence of a greater number of siblings has the opposite effect. Having more siblings is associated with lower Peabody scores, a poorer home environment, lower self-worth and, in some instances, a higher level of behavior problems. However, having more siblings is also associated with greater security!

Independent maternal employment effects are typically modest; the only systematic evidence in this regard is a tendency for more extensively employed mothers to report below average levels of behavior problems for their children. Finally, to the extent that one might generalize, children living in the Northeast often score better on a number of the cognitive assessments, have preferable home environments (at least as measured by our HOME scale)

and, in some instances, are reported by their mother as having fewer behavior problems. Children in the North Central region are often similarly advantaged, with children in the Western U.S. less so. In all instances, the reference group is Southern children. Children in urban areas, overall, show no particular cognitive advantage or disadvantage, but are reported as evidencing above average levels of behavior problems.

When we restrict our examination to the older, more disadvantaged children in the sample, generally similar patterns may be found. Thus, even when sample heterogeneity is constrained somewhat to a sample of children who were mostly born to younger mothers, it may be seen that standard socio-economic and demographic antecedents are important predictors of a full range of cognitive and socio-emotional child outcomes.

#### The Predictive Value of the Assessments

With the availability of the 1992 child assessment data, we are now in a position to examine relatively long-term linkages between how a child performs on the various assessments. This is a particularly important issue with regard to the assessments that were administered to the relatively young children because their assessment scores tend to be less reliable and valid. Thus, for those associations where significant linkages can be theoretically expected, we will examine the extent to which several assessments administered to children in 1986 predict child outcomes six years later in 1992. We examine the gross, "uncontrolled" associations as well as "net" associations that remain after controlling for those background factors which can be hypothesized to be associated both with the assessment input as well as the child outcome of interest. In some instances, we include a birth weight predictor, which is meant to proxy for a possible physiological component in the prediction process. This appears appropriate for assessments such as Motor and Social Development or some of the Temperament subscales which are considered by many to be at least partly physiologically based. As in the analyses described above, we use standard ordinary least square techniques.

### Parts of the Body and Memory for Location

These two assessments, developed by Jerome Kagan, were administered to younger children only in 1986 and 1988. The Body Parts test measures infant and toddler receptive vocabulary knowledge of orally presented words as a means of estimating verbal intellectual development. This involved having the child point at and identify a series of body parts (e.g., nose, ear). The Memory for Location assessment measures a child's short-term memory by assessing a young child's (eight months to three years) ability to identify within a specified time

span, under which cup a small toy has been placed. Both of these assessments are described in more detail in the *Child Handbook*. One might reasonably hypothesize that these two tests should be linked with scores on temporally subsequent aptitude and achievement measures.

These two assessments were deleted from the NLSY child assessment package following the 1988 child data collection effort, partly because of funding constraints and partly because of the greater difficulty in administering them to children using lay interviewers in a home environment. For example, it was quite difficult to make an unambiguous determination as to whether a child was unable to respond or whether s/he was just shy. Additionally, it was sometimes difficult to be definitive regarding the direction in which a child was pointing, either toward a cup or a body part. Finally, our early evaluation of these two assessments in 1986 showed little in the way of significant linkages between a wide range of socio-economic antecedents and these two outcomes. As we will emphasize, this lack of association may or may not be a relevant criteria for evaluating validity. Indeed, one can speculate that an early child assessment which shows little association with priors but which significantly predicts temporally subsequent cognitive or socio-emotional outcomes is potentially very important analytically. It may be proxying for important antecedents which are otherwise unobserved. This is an important consideration when evaluating the predictive power of several of the assessments in the discussions which follow.

Table 3.10A includes uncontrolled and controlled coefficients measuring the effect of Body Parts and Memory for Location scores in 1986 on the Peabody assessments in 1992. Body Parts at all ages in 1986 and Memory for Location primarily for children under the age of two in 1986 are highly significant predictors of Peabody assessments in 1992 and, in several instances, the effects are substantively non-trivial. Higher 1986 Body Parts scores are strongly associated with higher PIAT Mathematics and Reading Recognition scores as well as with higher PPVT scores in 1992, even after controlling for a full range of social, economic and physiological factors in the family and child's background. For example, a one point increase (out of a possible 10) on a two-year-old's Body Parts score is associated with better than a four percentile point increase on that child's PPVT percentile score in 1992. Similarly, Memory for Location predicts well for children under the age of two. Thus, we find strong evidence that these two very early childhood assessments are useful predictors of standard aptitude and achievement measures six years later.

### The Temperament Scales

As discussed earlier, the Temperament scales were developed based on measures from a variety of sources, including Rothbart's Infant Behavior Questionnaire (Rothbart and Derryberry, 1984), Campos and Kagan's Compliance Scale, and other items selected by Campos. These items are described in greater detail in the *Child Handbook*. Based on both maternal and interviewer reports, they tap different dimensions of child temperament for children of different ages. Thus, we evaluate different scales for children at different ages between birth and age six.

A priori, we anticipate stronger connections over time between the various Temperament scales and subsequent social-emotional scales than with cognitive assessments, although this premise is certainly arguable. We also anticipate stronger associations for older children in 1986, based on our experience that assessments addressed to older children tend to be more reliable and probably more valid. It is reasonable to hypothesize that scoring infants would be more difficult, since interpretations of their behaviors would be subject to a greater level of uncertainty.

In Table 3.11, we present uncontrolled, zero-order correlations between selected 1986 Temperament subscales and several of the assessments which these same children completed in 1992. It should be recalled that higher scores on the Behavior Problems scales represent more negative behaviors and higher scores in the Temperament scales correspond with the direction implied by the scale's name (e.g., greater values on Fearfulness imply being more fearful). Focusing first on the Behavior Problems Index (BPI), it may be seen that, for the most part, the correlations are significant in the respective direction for all of the age groups under consideration. For infants, all except the Positive Affect subscale are significantly associated with not only the overall Behavior Problems and Externality scales but also, for the most part, with the six subscales. In almost all instances, the Temperament Friendliness subscale shows the strongest linkage with the various dimensions of the Behavior Problems Index. Also, it appears from the subscale correlations that the strongest correlations are with those 1992 subscales representing the most overt anti-social behaviors -- peer conflict and antisocial behavior.

For one-year-olds in 1986, strong correlations may also be noted, although the patterning is somewhat different. Fearfulness is no longer a predictor, but Positive Affect now is. The strongest correlations remain between friendliness and the Behavior Problems Index scale and subscales. As with the infants, the strongest correlations are with the antisocial items.

For the two- to six-year-olds, greater compliance and greater child security in 1986 are significantly correlated with all of the Behavior Problem Index scores when the children were eight years of age and over in 1992. However, sociability among children aged four to six in 1986 shows little behavioral association with their 1992 BPI scores.

While many of the above correlation coefficients are not substantively large, they do suggest that several dimensions of temperament at very early ages are indeed linked with child behavior several years later. Even the evidenced temperament of infants shows significant temporal associations. In Tables 3.12 and 3.13, we examine the extent to which associations still remain after controlling for a wide range of factors that could be hypothesized to be associated with both early childhood temperament and middle-childhood behavior problems.

Table 3.12 includes ordinary least square regression coefficients from a set of parallel equations which first include only the appropriate temperament explanatory variable, then include the full set of explanatory variables already delineated earlier, and finally include in addition a child birth weight variable to proxy for possible common physiological antecedents to both the temperament input and the behavioral outcome. As may be seen in Table 3.12, the addition of the demographic and socio-economic antecedents to the equations for Behavior Problems and Externalization more often than not has only limited effect on the various temperament coefficients. Additionally, adding birth weight only marginally changes any of the coefficients. Indeed, only for the Fearfulness coefficient for infants is there evidence of substantial change in the coefficients with the addition of the background controls.

When we examine the coefficients for the six Behavior Problems subscores in Table 3.13, essentially similar results may be noted. In the large majority of cases, adding all of the controls does not significantly alter the relationship between the Temperament subscore and the Behavior Problems subscore. The only situation where large changes systematically appear is, once again, for infants with regard to fearfulness-behavior problems linkages. The implication is, of course, that researchers examining the antecedents to child behavior problems can potentially enhance their interpretations substantially by incorporating these socio-emotional priors into their analyses. These results are certainly consistent with our earlier analysis which showed only limited independent association between many of the standard socio-economic antecedents and the various Temperament scales. It appears clear that there are important independent connections between early childhood temperament and later childhood behavior problems.

While the linkages are more erratic, there is also evidence of some substantial correlations between early temperament and later cognition, as measured by PIAT scores. The zero order correlations in Table 3.11 suggest systematic correlations between Temperament scores in 1986 and PIAT Reading Recognition and Mathematics in 1992 except, inexplicably, for the one-year-old group. For infants, almost all the correlations are significant. For two- to six-year-olds, both the Compliance and Insecure Attachment subscales are significantly correlated with both the PIAT scores and with the 1992 Digit Span score. Finally, for the four- to six-year-old group, the Sociability scale is significantly correlated with both of the PIAT scales.

Several of these Temperament subscales maintain their significant associations with the 1992 PIAT measures even after controlling for all of the background demographic and socio-economic factors. As may be seen in Table 3.12, PIAT Mathematics in 1992 is strongly predicted by all but one of the infant Temperament scales, by the Friendliness scale for one-year-olds (the Fearfulness scale predicts in the wrong direction!), by Compliance for the two- to six-year-olds, and additionally by Sociability for four- to six-year-olds. Thus, we find strong systematic associations between temperament dimensions and mathematics achievement several years later. The temperament-reading linkage is not quite as systematic for children under two, but is quite pronounced for children over that age. Thus, once again, it is fair to generalize that early childhood temperament appears to be an important predictor of intellectual activity several years later, independent of many socio-economic and physiological factors often assumed to be associated with both child temperament and intellectual development.

In a final clarification of the potential predictive importance of early childhood temperament, we now examine the association between Temperament in 1986 and Self-Perception Profile for Children (SPPC), both the Scholastic Competence and Global Self-Worth scales, in 1992. The bottom panel of Table 3.14 provides both controlled and uncontrolled associations between selected Temperament subscales and the SPPC outcomes. There is no association between one-year-old's Temperament scores and SPPC. However, for older children, we find that more compliant children are significantly more likely to indicate a higher level of Scholastic Competence and Global Self-Worth. Thus, a mother's indication of a child's greater compliance and security at one point in time predicts a child's report of greater self-confidence six years later, both before and after controlling for family environment.

### The Motor and Social Development Scale

The remaining early childhood maternally completed assessment is the Motor and Social Development (MSD) scale, which has been completed in 1986, 1988, 1990, and 1992 by all mothers of children under the age of four. In this analysis, we explore the association between MSD scores for children under the age of four in 1986 and their scores on a full range of socio-emotional and cognitive assessments in 1992 when they were at least six years old. As we have demonstrated earlier, this assessment, which is meant to tap both social and physiological components of a child's development, shows only limited association with social and economic priors. Thus, as with the temperament items, its utility from the perspective of this longitudinal data collection effort potentially rests on its ability to proxy for other non-observed child or family

traits. This is what we will try to partially clarify here. As was done in the preceding temperament examination, we will explore the association between MSD in 1986 and the various assessments in 1992 within a multivariate context both with and without the family, maternal and child controls.

Table 3.15 provides zero-order correlations between the 1986 MSD scores and selected 1992 outcomes. For the most part, for children under the age of two, there are only limited associations between MSD and the various Behavior Problems scores and subscores. The one exception of interest is the linkage between 1986 MSD and 1992 hyperactivity. This finding probably reflects the likelihood that both of these assessments are at least partly physiologically based.

For two- and three-year-olds as of 1986, more systematic results appear. Higher scores (i.e., more beneficial behavior) on the Motor and Social Development scale are associated with fewer behavior problems in general, and less externalizing behavior, as well as less antisocial behavior, less headstrong behavior and less dependency.

We now shift to Table 3.16 which helps to clarify the extent to which these limited statistically significant associations really reflect the impact of socio-economic or physiological priors. For children under age two, it may be seen that the effect of MSD on hyperactivity maintains its significance even with the controls in the equation. Also, several coefficients which are not significant without controls attain significance when the controls are added. For the older, two- to three-year-olds, we have systematic evidence of lower MSD scores being associated with almost all of the Behavior Problems Index scores and subscores, even with controls in the equations. Thus, we have compelling evidence that maternal MSD reports for three-year-old children in 1986 are typically significantly associated with the child's behavior problem profile when the children are nine or ten years old in 1992.

An examination of MSD-cognitive associations provides even stronger evidence of temporal associations. The zero-order correlations in Table 3.15 show strong associations between MSD and PIAT Mathematics and Wechsler Memory for Digit Span scores at all ages as well as linkages between MSD and Reading Recognition scores at almost all ages. Of greater importance, the MSD-cognitive connection over time is quite independent not only of the maternal/family environment but also of our birth weight measure (Table 3.16). This finding is of some importance as analyses we have presented earlier in this chapter showed very strong associations between socio-economic background factors and, in particular, PIAT scores. It is clear that both socio-economic and social/physiological priors independently have effects on reading and mathematics achievement in middle to later childhood.

### Verbal Memory and Digit Span

From a life-cycle perspective, the next assessments we consider are the Verbal Memory and Digit Span assessments, described in more detail earlier in this volume. Both of these assessments are administered directly by the interviewer to the child and measure shorter-term memory retention. These two tests cover the early, middle and later childhood period as Verbal Memory in 1986 was completed for all three- to six-year-olds and Digit Span was completed for children age seven and over. For this reason, when these assessments are used as inputs to explore their effects on outcomes in 1992, the reader should be sensitive to the fact that the 1992 outcomes are limited to (approximately) ages nine to thirteen for Verbal Memory and thirteen and over for Digit Span. This means, in particular for the 13 and over group, that the children being examined will largely have been born to economically disadvantaged mothers who were below the age of 22 at the time of birth.

What we are exploring here is the extent to which measures of short-term memory retention are useful independent predictors of mathematics achievement, reading achievement, and aptitude six years later. Our outcome measures are the PIAT Reading Recognition and Mathematics assessments and the Peabody Picture Vocabulary Test. In Table 3.17, we present the relevant uncontrolled and controlled regression coefficients that enable us to directly consider the 1986-1992 strengths of association.

As one may observe from Table 3.17, without exception, Verbal Memory and Digit Span are very strong predictors of all of the PIAT and PPVT measures. They are predictors without the controls and, when all of the antecedents are added to the equation, typically, there is little change in any of the coefficients. They continue to be significant at the p=.01 level in all instances, even for the older children who had taken the Digit Span, for whom the sample is fairly modest. The results suggest quite strongly that either all of these assessments have strong common non-observed antecedents or, perhaps more likely, that short-term memory ability is a fairly permanent trait with important implications for subsequent intellectual development. The relative size of the coefficients suggests that they may vary in how they are associated with the Peabody outcomes. Verbal Memory may be a slightly better predictor of the PPVT, an assessment with a larger aptitude component. In contrast, Digit Span seems to be more closely associated with the achievement-oriented PIAT battery. One exception to this is that for younger children the Reverse Digit Span assessment appears to be a better predictor of the PPVT.

It is of some importance to note that the Reverse Digit Span assessment may be seen to systematically do a better job of predicting 1992 Peabody scores then does the Forward Digit Span. This is true for the PIATs, which are more achievement-linked, as well as for the aptitude-linked PPVT assessment. In any event, it appears clear that both the Verbal Memory and Digit Span assessments do indeed proxy for child traits which are not being picked up by standard socio-economic priors.

### The Self-Perception Profile for Children (SPPC)

Our examination of this assessment is limited because of sample and assessment age constraints. The SPPC assessment is completed only by children age eight and over. Thus, as of 1992, we are limited to examining the predictive value of SPPC in 1986 on the Peabody scores in 1992 for a sample of between 350 to 450 children, all of whom are well into adolescence; all of the children must be at least 14 years of age. Also, because the children in 1986 are already at least age eight, and their SPPC scores at that point could be contaminated by contiguous testing, we include 1986 PIAT or PPVT scores as early controls. In these equations, the coefficients measure the effect of 1986 SPPC scores on changes in Peabody scores between 1986 and 1992. As in our earlier analysis, we examine the separate effects of the child's view of his or her global self-worth or perceived scholastic competence.

Examining Table 3.18, it may be seen that self-perception in 1986 has no effect on the child's PPVT score in 1992, a measure which is purported to have a significant aptitude component. In contrast, the link with the achievement-oriented PIAT batteries is quite different. Both SPPC scores are strong independent predictors of mathematics achievement. Also, Global Self-Worth is an independent predictor of Reading Recognition. In this regard, somewhat surprisingly, Scholastic Competence shows no significant association with PIAT Reading once the controls are in the equation.

It is of some importance to note (bottom panel of Table 3.18), that there is little change in the SPPC coefficients when the 1986 PIAT controls are added to the equations. This implies that 1986 SPPC predicts 1992 PIAT outcomes independent of what the child's PIAT score was in 1986! It suggests a powerful effect of children's self-esteem on later academic outcomes, independent of their current intellectual status.

### **Response Bias Issues: Environmental and Child-Linked Effects**

In this final analytical section, we briefly consider the impact of two distinctly different potential effects on the scores of children who took a wide range of assessments in 1992. We first consider whether a particular child trait, hyperactivity, as measured by our Behavior Problems scale has a detrimental effect on a child's test scores. As part of our maternally-administered Behavior Problems scale, we construct a subscale which measures a child's propensity to be hyperactive. We test the proposition that hyperactive children can be expected to perform more poorly, particularly on tests which require high levels of short-term concentration. We do this by incorporating a measure of the child's level of hyperactivity into the equations which examine the effect of a child's background on his or her score on such assessments as Verbal Memory and the Wechsler Memory for Digit Span which require intensive short-term concentration. This provides not only useful clarification for whether a child's score on the various tests is independently affected by level of hyperactivity but also important insights regarding the validity of the hyperactivity score. In this regard, it is useful to note that the hyperactivity score is derived from a mother report whereas the outcomes we examine are mostly interviewer administered. This limits the possibility of a "halo" effect being operative -- a child scoring better or worse on both hyperactivity and the outcome measure because of a common parent or interviewer bias.

We also explore the potential effect of having other adults or children present in the testing environment. By other adults, we mean the presence of any adult other then the child's parents. We use the information on the presence of another person during testing which has been collected for every assessment.

The results of this analysis are synthesized in Tables 3.19 and 3.20 and parallel exactly the multivariate approach we have been using in the preceding assessment validity evaluations. The procedure used involved adding (separately) variables measuring hyperactivity or the presence of adults or children to the equations which include our set of background explanatory measures. In other words, we wish to measure the independent ("net") effect of hyperactivity or of other persons being present after controlling for other factors which might well be independently linked with both the outcome being examined and either hyperactivity or the presence of other persons. Indeed, as we demonstrated earlier in Table 3.4, hyperactivity is independently linked with several socio-economic family and maternal attributes. In Table 3.19, we examine first the "total" or uncontrolled effects on selected assessment scores. In Table 3.20, we examine "net effects" -- the effect remaining after controlling for all the background factors.

### Hyperactivity Effects

We summarize findings for the effects of hyperactivity on a full range of child assessments, for those children age four and over in 1992. We specifically include two assessments, Verbal Memory and Digit Span, where one could speculate that hyperactivity effects could be substantial – those requiring high and continuous levels of short-term concentration. Table 3.19 indicates that, without exception, above average levels of hyperactivity in 1992 are associated with poorer scores on all of the assessments included in the table. Of greater importance, when all of the controls which might be associated with above average levels of hyperactivity are added to the equations, almost all the hyperactivity coefficients maintain their significance. From a substantive point of view, some of these statistically significant coefficients are modest in size, and others are substantively meaningful.

### Other Person Effects

The "other person" effects are also substantial, albeit less systematic. We had anticipated significant effects of having another adult present on Verbal Memory scores. As may be seen in Tables 3.19 and 3.20, these effects were not found. The other short-term measure, Memory for Digit Span, produced results somewhat consistent with expectations; once controls are in the equations, significant "other adult" effects are found only for younger (ages seven to nine) children and, more importantly, only for the reverse digit segment of the assessment. This is certainly consistent with the reality that repeating a series of digits in reverse undoubtedly requires a higher level of concentration than does the forward digit span repetition sequence. Also, younger children may encounter greater difficulty in memory-type assessments when there is interference in the testing environment.

With controls, there are no apparent "other adult" effects for the PIAT Mathematics assessment. However, the relatively more complex PIAT Reading Comprehension test is affected, but only for the older children. It is useful to note that adding the socio-economic controls substantially reduces the magnitude of many of the coefficients, consistent with the notion that there are significant differences in family interaction patterns and perhaps household space availability between families at different socio-economic levels.

The results for the SPPC assessment are particularly interesting. It is apparent that younger and older children are responding quite differently to the presence of other adults in their testing environment. For younger children (ages eight to nine), the presence of another adult is associated with a substantially higher score (i.e., more favorable self-evaluation) on both the Scholastic Competence and Global Self-Worth measures. Somewhat speculatively, this may reflect the likelihood that the younger children are more likely to draw on the assistance of others who are present to clarify the meaning of some of the items. Additionally, younger children may feel a greater need to verbalize a positive self-image when others are present. None of the SPPC coefficients for children age 10 and over reach significance, but the other adult coefficients, while not significant, are now modestly negative!

For the most part, there are no apparent child presence effects. Once controlled, the only child effects are modest but significant positive effects for older children on Global Self-Worth (a "bragging" effect?) and a negative significant coefficient for older children on the Forward Digit Span measure. With regard to the significant effects we have found on the adult presence variable, one analytical suggestion we have is that researchers exploring the determinants of the various assessments consider the possibility of including an "other adult present" dummy variable in their analyses to remove this extraneous effect.

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# TABLES

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	1979	1986 <sup>b</sup>	1988 <sup>b</sup>	1990	1992	
NLSY Females						
Eligible for Interview	6283	5842	5842	4941	4941	
Interviewed	6283	5418	5312	4510	4535	
NLSY Mothers						
Interviewed		2910	3343	3088	3325	
Interviewed & Children Interviewed		2774	3196	2772	3056	
NLSY Children						
Born to Interviewed Mothers		5255	6543	6427	7269	
& Interviewed		4971	6266			
Living in Household of Eligible Mother				5949 °	6664 °	
& Interviewed				5803 <sup>d</sup>	6509 <sup>d</sup>	
Assessed, i.e., Interviewed with a Valid						
HOME Score		4786	5937	5359	6105	

### Table 1.1 - NLSY Mother and Child Samples: 1986 - 1992 Surveys

<sup>a</sup> Sample sizes for 1986 and 1988 exclude the 441 female members of the military subsample dropped from interviewing in 1985 and the children born to these women.

<sup>b</sup> Sample Sizes for 1986 and 1988 include female members of the civilian white economically disadvantaged subsample whose children were eligible for assessment during these child survey years.

<sup>c</sup> Based on the mother's report that her child's usual residence is the mother's household. This information is collected during administration of the "Fertility" section of the 1990 NLSY main questionnaire. The difference between 6,427 and 5949 for example is accounted for by children living in other residences or children who are deceased.

<sup>d</sup> Interviewers were able to directly assess a child or were able to obtain a maternal report of the child's background, health, or assessment information as recorded in either the Child Supplement or Mother Supplement.

.

The number of children with valid scores on individual assessments varies by instrument. The Home Observation for Measurement of the Environment (HOME) is the only assessment for which all children are eligible.

		AGE AT	FIRST BIR	TH		PAR	ENT STATU	JS
HIGHEST GRADE OF						Total	Non-	Total
SCHOOL COMPLETED	Under 15	15-16	17-19	20-23	24+	Mothers	Mothers	Women
Total	31	295	885	1000	1107	3318	1208	4526
Less than 12	13	127	236	115	56	547	53	600
12 Years	16	120	487	539	418	1580	394	1974
13 Years and Above	2	48	162	346	633	1191	761	1952
Percent who are H.S. dropouts	41.9	43.1	26.7	11.5	5.0	16.5	4.4	13.3
White	6	76	320	465	704	1571	719	2290
Less than 12	3	32	82	35	22	174	20	194
12 Years	3	33	194	279	277	786	231	1017
13 Years and Above	0	11	44	151	405	611	468	1079
Percent who are H.S. dropouts		42.1	25.6	7.5	3.1	11.1	2.8	8.5
Black	23	158	354	312	195	1042	301	1343
Less than 12	9	58	83	26	9	185	22	207
12 Years	13	67	188	156	64	488	97	585
13 Years and Above	1	33	83	130	122	369	182	551
Percent who are H.S. dropouts	39.1	36.7	23.4	8.3	4.6	17.8	7.3	15.4
Hispanic	2	61	211	223	208	705	188	893
Less than 12	1	37	71	54	25	188	11	199
12 Years	0	20	105	104	77	306	66	372
13 Years and Above	1	4	35	65	106	211	111	322
Percent who are H.S. dropouts		60.7	33.6	24.2	12.0	26.7	5.9	22.3

# Table 1.2 - Distribution of NLSY Women by Age at First Birth, Parent Status, Race/Ethnicity, and Highest Grade Completed by 1992 (Sample Cases)

Note: Sample includes all NLSY women interviewed in 1992 for whom information was available.

								М	laterna	al Age	at Birt	h of C	hild							
Age of Child in 1992	LE 14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs	19 Yrs	20 Yrs	21 Yrs	22 Yrs	23 Yrs	24 Yrs	25 Yrs	26 Yrs	27 Yrs	28 Yrs	29 Yrs	30 Yrs	31 Yrs	32 + Yrs	TOTAL
Mother not Interviewed in 1992				·····											******		1		1	2
Lt 1 YR													4	44	55	63	51	50	75	342
1 YR												1	54	69	73	51	52	51	70	421
2 Yrs												48	71	68	64	55	48	44	48	446
3 Yrs											45	58	68	66	71	45	42	39	9	443
4 Yrs									2	46	64	73	81	71	52	38	34	10		471
5 Yrs								2	37	78	63	52	57	57	54	47	7			454
6 Yrs							3	44	67	60	54	57	54	62	45	19				465
7 Yrs						2	40	78	62	77	63	57	61	46	18					504
8 Yrs					2	48	57	50	58	58	65	47	59	11						455
9 Yrs				3	33	55	59	67	54	49	55	56	8							439
10 Yrs				24	44	61	58	61	76	55	68	10								457
11 Yrs			13	34	52	66	68	47	47	58	10									395
12 Yrs		6	29	45	48	56	67	59	50	7										367
13 Yrs	2	8	23	28	43	40	46	59	15											264
14 Yrs	5	11	22	41	32	43	44	9												207
15 Yrs	3	8	24	30	38	39	9													151
16 Yrs +	7	36	72	67	35	9														226
Total	17	69	183	272	327	419	451	476	468	488	487	459	517	494	432	318	235	194	203	6509

# Table 1.3 - Age of Child in 1992 by Age of Mother at Birth of Child: Children Assessed in 1992<br/>(Sample Cases)

	-	Maternal Age at Birth of Child																			
Year of Birth of Child in 1992		LE 14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs	19 Yrs	20 Yrs	21 Yrs	22 Yrs	23 Yrs	24 Yrs	25 Yrs	26 Yrs	27 Yrs	28 Yrs	29 Yrs	30 Yrs	31 Yrs	32 + Yrs	TOTAL
	1970	1																			1
	1971																				
I	1972	1	2																		3
1	1973	2	6	5																	13
1	1974	1	7	16	11																35
1	1975	1	12	24	39	17															93
1	1976	2	10	37	26	40	21														136
1	1977	4	10	20	38	26	48	29													175
I	1978	3	11	25	34	35	36	39	33												216
1	1979	2	7	25	32	52	46	56	60	34											314
1	1980		4	27	48	48	62	65	51	48	29										382
1	1981			4	27	45	71	70	55	60	60	28									420
1	1982				17	49	56	56	65	66	52	73	32								466
1	1983					15	56	62	62	57	50	60	53	30							445
1	1984						23	52	60	55	69	61	47	64	29						460
i	1985							22	69	75	67	62	64	56	44	33					492
1	1986								21	56	73	56	53	49	67	50	35				460
1	1987									17	67	57	58	76	70	50	49	22			466
1	1988										21	67	71	73	56	52	34	37	22		433
1	989											23	64	76	80	82	62	43	48	22	500
1	990												17	71	64	62	53	47	39	57	410
1	991													22	61	76	41	59	49	76	384
1	992														23	27	44	27	36	48	205
Total		17	69	183	272	327	419	451	476	468	488	487	459	517	494	432	318	235	194	203	6509

# Table 1.4 - Year of Birth of Child by Age of Mother at Birth of Child: Children Assessed in 1992 (Sample Cases)

Date of Interview	Hispanic	Black	White	Total
LT 1 Year	76	84	178	338
1 Year	81	93	249	423
2 Years	84	124	238	446
3 Years	91	131	213	435
4 Years	117	136	226	479
5 Years	109	121	216	446
6 Years	111	145	211	467
7 Years	111	146	252	509
8 Years	108	149	194	451
9 Years	93	156	187	436
10 Years	136	153	174	463
11 Years	92	155	146	393
12 Years	86	140	143	369
13 Years	68	108	90	266
14 Years	47	95	67	209
15 Years	28	72	49	149
16+ Years	45	125	60	230
Total	1483	2133	2893	6509

# Table 1.5 - Race/Ethnicity of Children Assessed in 1992 by Single Year of Age

1986	1988	1990	1992
4971	6266	5803	6509
295	886	1295	2079
1	35	137	379
937	1158	1304	1483
1604	1895	1994	2133
816	1040		
1614	2173	2505	2893
2430	3213	2505	2893
6.0	14.1	22.3	31.9
	0.6	2.4	5.8
22.6	22.2	22.5	22.8
38.6	36.3	34.4	32.8
38.8	41.5	43.1	44.4
	1986 4971 295 1 937 1604 816 1614 2430 6.0  22.6 38.6 38.8	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

### Table 1.6 - Summary Child Interview Statistics: 1986 - 1992

<sup>a</sup>Poor white cases were deleted from the NLSY Child sample prior to the 1990 survey. <sup>b</sup>Race percent statistics exclude poor white cases.

		NUM	IBER OF HO	HOUSEHOLDS		
TYPE OF HOUSEHOLD (FEMALE)	AGE OF CHILDREN	Hispanic	Black	White	Total	
Females with No Children		188	302	720	1210	
Family Units 1 or More Child					3325	
Mothers with 1 Child	< 6 Years Old	92	104	311	507	
	6-9 Years Old	46	73	93	212	
	10-13 Years Old	25	59	64	148	
	14+ Years Old	12	44	24	80	
	Total	175	280	492	947	
Mothers with 2 Children	Both < 6 Years Old	46	47	181	274	
	Both 6-9 Years Old	17	28	51	96	
	Both 10-13 Years Old	8	15	18	41	
	Both 14+ Years Old	8	24	18	50	
	Older 6-9, Younger < 6	71	. 77	191	339	
	Older 10-13, Younger < 6	35	61	51	147	
	Older 14+, Younger < 6	46	54	97	197	
	Older 10-13, Younger 6-9	10	27	24	61	
	Older 14+, Younger 6-9	23	34	53	110	
	Total	264	367	684	1315	
Mothers with 3 or More Children	All < 6 Years Old		3	5	8	
	All 6-9 Years Old	3	1		4	
	All 10-13 Years Old	2	12	7	21	
	All 14+ Years Old	56	69	114	239	
	Oldest 6-9, Youngest < 6	77	76	104	257	
	Oldest 10-13, Youngest < 6	37	99	49	185	
	Oldest 10-13, Youngest 6-9	39	60	44	143	
	Oldest 14+, Youngest < 6	22	35	34	91	
	Oldest 14+, Youngest 6-9	19	34	17	70	
	Oldest 14+, Youngest 10-13	14	8	23	45	
	Total	269	397	397	1063	

### Table 1.7 - Distribution of NLSY Women by Number and Ages of Children, and Race/Ethnicity (Sample Cases)

Note: Females are classified on the basis of available child birth dates. Sample is limited to children eligible to be assessed in 1992 and excludes children born to economically disadvantaged whites.

	1986	1988	1990	1992
The HOME (MS) (all children)	*	*	*	*
Temperament (MS) (under age 7)	*	*	*	*
Motor & Social Development (MS) (under age 4)	*	*	*	*
Behavior Problems (MS) (ages 4 and over)	*	*	*	*
Body Parts (CS) (ages 1 and 2)	*	*		
Memory for Location (CS) (8 months through 3 years)	*	AE		
Verbal Memory (CS) (ages 3 through 6) <sup>a</sup>	*	AE	AE	AE
SPCC (CS) (ages 8 and over)	*	*	*	*
Digit Span (CS) (ages 7 and over)	*	AE/ INDEX	AE/ INDEX	AE/ INDEX
PIATs (CS) (ages 5 and over)	*	*	*	*
<b>PPVT-R</b> (CS) (ages 3 and over) <sup>b</sup>	*	AE/ INDEX	AE/ INDEX	*

### Table 2.1 - NLSY Child Assessments: Administration Pattern by Year of Fielding

MS = Mother Supplement

CS = Child Supplement

\* All age-eligible children

AE = All age-eligible children without a previous valid score.

INDEX = All children age 10 or 11 years
<sup>a</sup> In 1990 administered to ages 4 through 6. Part C dropped in 1992.
<sup>b</sup> In 1990 administered to ages 4 and over.

		Race/Ethnicity												
		AL	L CHILD	REN	I HI	SPANIC		ł	B	LACK			VHITE	
Assessment	Child Age	Total   Sample_	Valid Sample	Percent Valid	l Total <u>I Sample</u>	Valid Sample	Percent Valid		Total Sample	Valid Sample	Percent Valid	Total   Sample	Valid Sample	Percent Valid
The HOME	< 3 Years	   1206	1065	88.3	240	214	89.2	ł	301	271	90.0	665	580	87.2
	3-5 Years	1 1361	1254	92.1	1 318	292	91.8	i.	388	354	91.2	655	608	92.8
	6-9 Years	1864	1794	96.2	423	404	95.5	1	596	571	95.8	I 845	819	96.9
	10 Years & Older	1 2078	1993	95.9	502	483	96.2	1	848	821	96.8	728	689	94.6
Temperament	< 1 Year	1 338	331	97.9	1 76	75	98.7	1	83	80	96.4	1 179	176	98.3
•	1 Year	I 423	410	96.9	1 81	78	96.3	1	94	90	95.7	1 248	242	97.6
	2-6 Years	1806	1743	96.5	401	394	98.3	1	512	493	96.3	893	856	95.9
Motor and Social Development	Under 4 Years	1 1642	1492	90.9	331	299	90.3	1	432	380	88.0	I I 879	813	92.5
Behavior Problems	4 Years & Older	I I 4867	4689	96.3	   1152	1114	96.7		1701	1613	94.8	2014	1962	97.4
Verbal Memory Part A & B	3-6 Years	   1415 	1153	81.5	   338 	263	77.8	   	405	344	84.9	   672 	546	81.3
SPPC-Global	8 Years & Older	l I 2966	2688	90.6	l I 703	641	91.2	I I	1153	1047	90.8	I I 1110	1000	90.1
SPPC-Scholastic	8 Years & Older	l I 2966	2689	90.7	l I 703	641	91.2		1153	1048	90.9	1 1 1110	1000	90.1
Digit Span	7 Years & Older	I I 1870	1634	87.4	I 459	402	87.6		613	541	88.3	I I 798	691	86.6
PIAT Math	PPVT Age (5 Years + )	l 1 4403	3996	90.8	1 1043	935	89.6		1565	1430	91.4	1 1795	1631	90.9
PIAT Reading Recognition	PPVT Age (5 Years + )	1 4402	3936	89.4	1042	918	88.1		1565	1410	90.1	1 1795	1608	89.6
PIAT Reading Comprehension	PPVT Age (5 Years + )	4401	3772	85.7	1042	884	84.8	   	1564	1373	87.8	1795	1515	84.4
PPVT-R	PPVT Age (3 Years + )	5302	4758	89.7	l   1242	1103	88.8	ł	1832	1651	90.1	   2228	2004	89.9

### Table 2.2 - NLSY Child Assessment Completion Rates by Age and Race/Ethnicity, 1992: Sample Cases

Note: The 6509 children in this universe, of the 7255 born to mothers interviewed in 1992, are those known to be available (primarily in their mother's home) at the time of assessment. Temperament estimates are based on valid scores for the following scales: the Activity response rate for children under age one, the Fearful response rate for children age one, and the Compliance estimates for children age 2 to 6.

		0-9.9	10-12.9	13-15.9	16-18.9	19+	Invalid	Valid	Total	% Valid
Age of Child										
< 3 Years		50	192	492	331		141	1065	1206	88.3
3-5 Years		11	38	79	213	913	107	1254	1361	92.1
6-9 Years		21	64	186	348	1175	70	1794	1864	96.2
10 Years +		27	88	284	483	1111	85	1993	2078	95.9
Total		109	382	1041	1375	3199	403	6106	6509	93.8
Race of Child	Age of Child									
Hispanic	< 3 Years	12	49	99	54		26	214	240	89.2
-	3-5 Years	5	11	22	64	190	26	292	318	91.8
	6-9 Years	8	18	53	99	226	19	404	423	95.5
	10 Years +	10	21	59	129	264	19	483	502	96.2
	Total	35	99	233	346	680	90	1393	1483	93.9
Black	< 3 Years	30	80	121	40		30	271	301	90.0
	3-5 Years	5	22	48	102	177	34	354	388	91.2
	6-9 Years	11	41	93	136	290	25	571	596	95.8
	10 Years +	17	62	169	233	340	27	821	848	96.8
	Total	63	205	431	511	807	116	2017	2133	94.6
White	< 3 Years	8	63	272	237		85	580	665	87.2
	3-5 Years	1	5	9	47	546	47	608	655	92.8
	6-9 Years	2	5	40	113	659	26	819	845	96.9
	10 Years +		5	56	121	507	39	689	728	94.6
	Total	11	78	377	518	1712	197	2696	2893	93.2

## Table 2.3 - The HOME: Raw Scores by Child Age and Race/Ethnicity (Sample Cases)

		0	1-19	20-39	40-59	60-79	80-89	90-99	Total	Mean	Std. Dev.
		<u>`</u>									
Age of Child											
2.14		13	179	14.4	22.8	22.3	13.7	7.6	100.0	52.1	28.4
< 3 Years		23	14.5	15.8	22.9	25.1	15.7	3.5	100.0	52.9	27.8
3-5 Years		1.8	16.3	18.6	18.1	25.6	11.5	8.2	100.0	51.8	28.6
6-9 Years		1.0	19.7	14.8	18.1	20.6	15.3	10.4	100.0	51.7	29.4
10 Years +		1.2	17.7	16.1	20.0	23.3	14.0	7.7	100.0	52.1	28.7
Total		1.0	17.5	10.1	2010						
Race of Child	Age of Child										
Himonia	< 3 Veors	4 2	29.2	19.0	14.3	21.6	8.2	3.4	100.0	41.1	29.4
Hispanic	< 5 Teals	57	28.7	17.3	24.2	13.8	8.6	1.7	100.0	38.7	28.4
	5-5 Teals	3.4	32.0	21.1	15.8	17.0	6.3	4.4	100.0	38.4	29.1
	0-9 1 cais	26	24.1	19.0	14.3	20.6	12.4	7.0	100.0	45.8	29.7
	10 Itals +	37	28.0	19.3	16.8	18.3	9.3	4.7	100.0	41.6	29.4
	Total	5.7	20.0								
	A 2 Voora	60	41 8	15.2	20.2	7.2	6.2	3.4	100.0	31.8	28.4
Black	< 5 Teals	0.0 7 4	41.5	20.6	15.8	12.5	1.9	0.4	100.0	28.7	26.2
	5-5 Teals	7.4 5 0	32.7	21.6	17.4	13.0	5.2	4.1	100.0	35.1	28.5
	0-9 Teals	3.6	357	19.2	15.9	15.0	7.6	2.9	100.0	35.9	27.7
	10 Years +	5.0	367	19.6	16.9	13.0	5.8	2.8	100.0	33.8	27.9
	I Otal	J.2	50.7	17.0	1000						
	2 W	0.3	13 3	14.0	23.9	24.7	15.3	8.6	100.0	56.1	26.7
White	< 3 Years	0.5	82	14.8	24.1	28.5	19.0	4.3	100.0	58.8	25.0
	3-5 Years	1.1	11.2	17.6	18.5	29.2	13.4	9.4	100.0	56.8	26.7
	6-9 Years	0.7	11.2	12.6	10.5 10 <i>1</i>	22.5	18.4	13.5	100.0	58.0	27.7
	10 Years +	0.2	13.3	14.0	21.4	22.5	16.1	9.2	100.0	57.5	26.6
	Total	0.5	11.0	14.9	21.0	20.3	10.4		10000		

# Table 2.4 - The HOME: Percentile Scores by Child Age and Race/Ethnicity (Weighted Distribution)

		0-84	85-99	100-114	115+	Total	Mean	Std. Dev.
Age of Child								
< 3 Years		15.6	29.9	35.6	18.9	100.0	100.0	15.0
3-5 Years		15.1	27.5	44.4	13.0	100.0	100.0	15.0
6-9 Years		15.3	29.9	39.4	15.4	100.0	100.0	15.0
10 Years +		18.3	26.6	37.5	17.6	100.0	100.0	15.0
Total		16.2	28.3	39.2	16.2	100.0	100.0	15.0
Race of Child	Age of Child							
Hispanic	< 3 Years	27.1	32.9	29.4	10.6	100.0	94.1	16.0
	3-5 Years	33.1	29.1	31.1	6.7	100.0	92.3	17.1
	6-9 Years	30.0	35.4	26.3	8.4	100.0	92.7	16.5
	10 Years +	24.1	28.1	35.8	11.9	100.0	96.8	15.6
	Total	28.1	31.1	31.2	9.6	100.0	94.3	16.4
Black	< 3 Years	40.4	31.4	21.0	7.2	100.0	87.5	19.3
	3-5 Years	44.8	30.2	23.1	1.8	100.0	86.5	17.2
	6-9 Years	34.3	34.1	24.7	6.9	100.0	90.7	17.3
	10 Years +	35.5	32.0	26.4	6.1	100.0	91.6	15.5
	Total	37.5	32.2	24.6	5.7	100.0	89.9	17.0
White	< 3 Years	10.9	29.4	38.4	21.4	100.0	102.4	12.9
v v mite	3-5 Years	7.9	26.8	49.6	15.7	100.0	103.2	12.5
	6-9 Years	9.6	28.5	43.9	18.0	100.0	102.8	13.1
	10 Years +	11.5	24.5	41.6	22.4	100.0	103.4	13.4
	Total	10.0	27.1	43.5	19.4	100.0	103.0	13.0

## Table 2.5 - The HOME: Standard Scores by Child Age and Race/Ethnicity (Weighted Distribution)

		0	1-19	20-39	40-59	60-79	80-89	90-99	Total	Mean	Std. Dev.
Age of Child											
< 3 Years		1.2	13.9	26.7	4.0	35.8	3.4	15.0	100.0	51.8	28.1
3-5 Years		2.2	13.5	11.1	16.2	27.6	29.5	0.1	100.0	54.0	26.2
6-9 Years		1.2	19.5	13.4	19.0	25.6	14.5	6.9	100.0	51.9	29.2
10 Years +		0.7	23.9	12.5	16.2	28.7	12.4	5.6	100.0	51.5	29.3
Total		1.2	18.6	15.0	14.8	28.8	15.0	6.5	100.0	52.2	28.5
Race of Child	Age of Child										
Hispanic	< 3 Years	5.9	25.3	27.5	3.6	28.6	3.6	5.5	100.0	38.7	29.3
-	3-5 Years	7.1	30.6	18.0	11.5	15.6	16.9	0.3	100.0	36.8	29.4
	6-9 Years	4.0	35.7	15.9	18.0	15.0	8.2	3.2	100.0	36.9	29.0
	10 Years +	3.6	32.2	14.1	17.1	22.8	8.2	1.9	100.0	41.9	29.3
	Total	4.8	31.8	17.3	14.3	20.1	9.3	2.4	100.0	39.0	29.3
Black	< 3 Years	4.5	29.6	32.2	1.8	22.3	2.3	7.5	100.0	36.4	29.1
	3-5 Years	4.9	34.8	15.6	14.6	17.7	12.0	0.4	100.0	35.6	28.2
	6-9 Years	2.9	29.8	18.3	17.6	19.5	8.8	3.0	100.0	40.1	29.4
	10 Years +	1.1	37.6	15.1	14.3	25.5	4.9	1.5	100.0	39.4	28.6
	Total	2.7	33.9	18.3	13.6	22.0	6.9	2.5	100.0	38.6	28.9
White	< 3 Years	0.3	10.6	25.8	4.3	38.5	3.6	16.9	100.0	55.2	26.7
	3-5 Years	1.2	7.9	9.6	16.9	30.5	33.9		100.0	59.0	23.1
	6-9 Years	0.5	15.7	12.1	19.4	27.9	16.3	8.0	100.0	55.9	28.0
	10 Years +	0.2	18.0	11.4	16.8	30.6	15.5	7.5	100.0	56.9	27.9
	Total	0.5	13.7	14.0	15.1	31.3	17.5	7.9	100.0	56.7	26.8

 Table 2.6 - The HOME: Cognitive Stimulation Percentile Scores by Child Age and Race/Ethnicity (Weighted Distribution)

		0	1-19	20-39	40-59	60-79	80-89	90-99	Total	Mean	Std. Dev.
Age of Child											
< 3 Vears		14	18.3	23.1	0.5	32.3	24.4		100.0	52.5	28.7
2 5 Voora		1.5	15.4	13.6	18.8	23.2	20.8	6.7	100.0	52.3	28.5
5-5 Teals		2.1	14 1	20.3	8.3	34.3	9.4	11.5	100.0	52.6	28.9
10 Voora		1.5	13.7	26.2	16.4	16.2	16.4	9.5	100.0	51.1	29.3
Total		1.5	15.0	21.0	11.7	26.1	16.7	7.8	100.0	52.1	28.9
Total		1.7	15.0								
Race of Child	Age of Child										
Uicnonio	< 3 Vears	24	22.4	18.9	0.6	32.8	22.9		100.0	50.7	29.7
nispanic	< 5 Tears	17	19.3	15.8	19.3	21.8	15.7	6.4	100.0	48.2	29.0
	5-5 Teals	3.8	19.3	20.2	5.4	32.4	9.1	9.8	100.0	48.1	31.0
	$10 \text{ Vears } \perp$	0.6	13.3	26.9	16.5	15.4	19.1	8.3	100.0	52.2	28.5
	Total	2.0	17.6	21.4	11.7	24.2	16.0	7.2	100.0	49.9	29.6
	Total	2.0	1110								
Rlack	< 3 Years	7.6	35.2	25.4	0.3	22.0	9.4		100.0	34.3	28.8
DIACK	3-5 Years	5.9	37.3	19.2	18.3	12.6	6.1	0.7	100.0	29.6	26.2
	6-9 Years	7.5	27.1	25.7	8.4	24.5	4.3	2.5	100.0	35.2	28.5
	10 Years +	5.4	24.3	31.8	15.6	11.8	8.2	2.8	100.0	36.4	28.0
	Total	6.4	29.1	26.8	12.0	17.0	6.8	1.9	100.0	34.5	28.0
White	< 3 Years	0.4	15.4	23.1	0.6	33.8	26.8		100.0	55.4	27.5
	3-5 Years	0.7	11.2	12.4	18.8	25.2	23.9	7.7	100.0	56.7	26.9
	6-9 Years	0.9	11.0	19.2	8.6	36.4	10.5	13.4	100.0	56.6	27.4
	10 Years +	0.4	10.4	24.4	16.6	17.7	18.7	11.8	100.0	55.5	28.2
	Total	0.6	11.7	19.7	11.6	28.3	18.9	9.1	100.0	56.1	27.5

## Table 2.7 - The HOME: Emotional Support Percentile Scores by Child Age and Race/Ethnicity (Weighted Distribution)

.

••••••••••••••••••••••••••••••••••••••		1-4	5 - 9	10 - 14	15 - 19	
Age of Child						
Under 1 Year		13	43	172	95	
1 Year		2	14	234	162	
Total		15	57	406	257	
Race of Child	Age of Child					
Hispanic	Under 1 Year	3	7	41	23	
-	1 Year		3	49	27	
	Total	3	10	90	50	
Black	Under 1 Year	1	9	36	31	
	1 Year		5	42	43	
	Total	1	14	78	74	
White	Under 1 Year	9	27	95	41	
	1 Year	2	6	143	92	
	Total	11	33	238	133	

# Table 2.8 - Temperament: Positive Affect Raw Scores for Children Under Two Years of Age by Race/Ethnicity (Sample Cases)

	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	
	3	34	93	149	112	22	
	1	28	88	168	107	30	
	1	14	95	172	159	28	
	1	10	77	149	173	29	
	1	19	76	150	164	36	
	7	105	429	788	715	145	
Age of Child							
2 Years		5	20	26	25	4	
3 Years		7	14	40	19	10	
4 Years	1	5	31	40	31	8	
5 Years		3	25	36	41	3	
6 Years		6	22	38	31	13	
Total	1	26	112	180	147	38	
2 Years	2	15	30	42	24	5	
3 Years		13	29	49	28	6	
4 Years		2	34	51	36	8	
5 Years	1	4	26	37	43	8	
6 Years	1	7	33	45	44	6	
Total	4	41	152	224	175	33	
2 Years	1	14	43	81	63	13	
3 Years	1	8	45	79	60	14	
4 Years	_	7	30	81	92	12	
5 Years		3	26	76	89	18	
6 Years		6	21	67	89	17	
Total	2	38	165	384	393	74	
	Age of Child 2 Years 3 Years 4 Years 5 Years 6 Years Total 2 Years 3 Years 4 Years 5 Years 6 Years 7 Otal 2 Years 3 Years 4 Years 5 Years 7 Otal 2 Years 3 Years 4 Years 5 Years 7 Otal 2 Years 3 Years 7 Otal 2 Years 3 Years 7 Otal 2 Years 7 Yea	3         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         2         3         4         2         3         4         2         7         Age of Child         1         5         6         7         Age of Child         1         5         7         1         1         1         1         2         1         1         1         1         1         2         2	5.9         10-14           3         34           1         28           1         14           1         10           1         19           7         105           Age of Child         7           2 Years         5           3 Years         7           4 Years         5           5 Years         6           7 total         1           2 Years         2           5 Years         2           5 Years         2           5 Years         2           5 Years         1           2 Years         2           3 Years         13           4 Years         2           5 Years         1           4 Years         2           5 Years         1           4 Years         7           5 Years         1           1 Years         1           2 Years         1           3 Years         1           4 Years         7           5 Years         3           6 Years         7           5 Years         3 <td><math>5 \cdot 9</math><math>10 \cdot 14</math><math>15 \cdot 19</math>33493128881149511077119767105429Age of Child<math>7</math>2Years52Years715315Years62Years62Years62Total12Years23Years24Years23Years13214441152142Years14411521142Years32211444115211444115212Years32384Years7305Years3238165</td> <td><math>5 \cdot 9</math><math>10 \cdot 14</math><math>15 \cdot 19</math><math>20 \cdot 24</math>33493149128881681149517211077149119761507105429788Age of Child<math>2</math><math>2</math><math>2</math><math>2</math>2Years520263Years714404Years1531405Years62238Total1261121802Years21530423Years1329494Years234515Years1426376Years173345Total4411522242Years11443813Years1845794Years7308155Years326766Years62167Total238165384</td> <td>5.9<math>10-14</math><math>15-19</math><math>20-24</math><math>25-29</math>33493149112128881681071149517215911077149173119761501647105429788715Age of Child2Years52026253Years71440194Years153140315Years6223831Total1261121801472Years2153042243Years23451365Years142637436Years144115222477308192924Years1144381633Years1144381633Years162167896216789703816538439339338365384393</td> <td>5.9<math>10.14</math><math>15.19</math><math>20.24</math><math>25.29</math><math>30.34</math>334931491122212888168107301149517215928110771491732911976150164367105429788715145Age of Child2Years1531402 Years1531403185 Years6223831136 Years6223831137 tal126112180147382 Years21530422453 Years1426374386 Years1733454467 tal441152224175332 Years14438163133 Years168457960144 Years730819212125 Years62167891867891623816538439374</td>	$5 \cdot 9$ $10 \cdot 14$ $15 \cdot 19$ 33493128881149511077119767105429Age of Child $7$ 2Years52Years715315Years62Years62Years62Total12Years23Years24Years23Years13214441152142Years14411521142Years32211444115211444115212Years32384Years7305Years3238165	$5 \cdot 9$ $10 \cdot 14$ $15 \cdot 19$ $20 \cdot 24$ 33493149128881681149517211077149119761507105429788Age of Child $2$ $2$ $2$ $2$ 2Years520263Years714404Years1531405Years62238Total1261121802Years21530423Years1329494Years234515Years1426376Years173345Total4411522242Years11443813Years1845794Years7308155Years326766Years62167Total238165384	5.9 $10-14$ $15-19$ $20-24$ $25-29$ 33493149112128881681071149517215911077149173119761501647105429788715Age of Child2Years52026253Years71440194Years153140315Years6223831Total1261121801472Years2153042243Years23451365Years142637436Years144115222477308192924Years1144381633Years1144381633Years162167896216789703816538439339338365384393	5.9 $10.14$ $15.19$ $20.24$ $25.29$ $30.34$ 334931491122212888168107301149517215928110771491732911976150164367105429788715145Age of Child2Years1531402 Years1531403185 Years6223831136 Years6223831137 tal126112180147382 Years21530422453 Years1426374386 Years1733454467 tal441152224175332 Years14438163133 Years168457960144 Years730819212125 Years62167891867891623816538439374

Table 2.9 -	<b>Temperament:</b>	<b>Compliance Raw</b>	v Scores for Childre	n Ages Two through	n Six by Age and Rac	e/Ethnicity
			(Sample Cases	)		

1-4	5-9	10-14	15-19	Total	Mean	Std. Dev.
11.3 11.3	52.7 52.7	29.0 29.0	7.1 7.1	100.0 100.0	8.6 8.6	3.3 3.3
13.3	61.7	22.8	2.1	100.0	7.4	2.8
6.4	47.3	39.2	7.2	100.0	9.2	3.0
11.9	52.7	27.9	7.5	100.0	8.7	3.4
	11.3 11.3 13.3 6.4 11.9	11.3     52.7       11.3     52.7       13.3     61.7       6.4     47.3       11.9     52.7	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1.4 $5.9$ $10-14$ $15-19$ $100a$ $11.3$ $52.7$ $29.0$ $7.1$ $100.0$ $11.3$ $52.7$ $29.0$ $7.1$ $100.0$ $13.3$ $61.7$ $22.8$ $2.1$ $100.0$ $6.4$ $47.3$ $39.2$ $7.2$ $100.0$ $11.9$ $52.7$ $27.9$ $7.5$ $100.0$	1.4 $3.5$ $10-14$ $13-19$ $101a$ Mean $11.3$ $52.7$ $29.0$ $7.1$ $100.0$ $8.6$ $11.3$ $52.7$ $29.0$ $7.1$ $100.0$ $8.6$ $13.3$ $61.7$ $22.8$ $2.1$ $100.0$ $7.4$ $6.4$ $47.3$ $39.2$ $7.2$ $100.0$ $9.2$ $11.9$ $52.7$ $27.9$ $7.5$ $100.0$ $8.7$

### Table 2.10 - Temperament: Activity Raw Scores for Children Under One Year Of Age (Weighted Distribution)

		1 - 4	5 - 9	10 - 14	15 - 19	Total	Mean	Std. Dev.	
Age of Child									
Under 1 Year		0.1	6.8	53.8	39.3	100.0	13.2	2.0	
Total		0.1	6.8	53.8	39.3	100.0	13.2	2.0	
Race of Child	Age of Child								
Hispanic	Under 1 Year		11.2	40.2	48.6	100.0	12.9	2.5	
	Total		11.2	40.2	48.6	100.0	12.9	2.5	
Black	Under 1 Year	0.9	10.0	55.2	33.9	100.0	12.8	2.4	
	Total	0.9	10.0	55.2	33.9	100.0	12.8	2.4	
White	Under 1 Year		5.9	54.9	39.3	. 100.0	13.3	1.9	
	Total		5.9	54.9	39.3	100.0	13.3	1.9	

### Table 2.11 - Temperament: Predictabiliy Raw Scores for Children Under One Year of Age (Weighted Distribution)

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		1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	Total	Mean	Std. Dev.
Age of Child									
Under 1 Year		26.8	52.3	15.0	5.9		100.0	7.1	3.4
1 Year		9.8	45.4	36.2	7.6	1.0	100.0	9.2	3.8
Total		15.2	47.7	29.4	7.0	0.7	100.0	8.6	3.8
Race of Child	Age of Child								
Hispanic	Under 1 Year	25.7	51.5	20.1	2.8		100.0	7.4	3.1
-	1 Year	7.2	43.4	37.9	11.5		100.0	9.5	3.6
	Total	14.1	46.4	31.2	8.2		100.0	8.7	3.6
Black	Under 1 Year	18.2	51.7	18.5	11.6		100.0	8.3	3.8
	1 Year	0.9	37.7	36.2	15.5	9.8	100.0	11.6	4.4
	Total	7.5	43.0	29.4	14.0	6.1	100.0	10.3	4.5
White	Under 1 Year	28.5	52.5	13.9	5.2		100.0	6.9	3.3
	1 Year	11.1	46.6	36.0	6.3		100.0	8.9	3.6
	Total	16.4	48.4	29.2	5.9		100.0	8.3	3.6

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### Table 2.12 - Temperament: Fearfulness Raw Scores for Children Under Two Years of Age (Weighted Distribution)

		1 - 4	5 - 9	10 - 14	15 - 19	Total	Mean	Std. Dev.
Age of Child								
Under 1 Year		4.6	14.3	54.0	27.2	100.0	12.0	3.2
1 Year		0.7	2.8	58.9	37.6	100.0	13.5	1.8
Total		2.0	6.5	57.3	34.3	100.0	13.0	2.5
Race of Child	Age of Child							
Hispanic	Under 1 Year	3.8	9.1	56.4	30.8	100.0	12.5	2.7
•	1 Year		3.5	62.7	33.9	100.0	13.6	1.5
	Total	1.4	5.6	60.3	32.7	100.0	13.2	2.1
Black	Under 1 Year	1.5	12.5	43.8	42.1	100.0	12.7	3.1
	1 Year		4.7	48.5	46.7	100.0	13.7	1.7
	Total	0.6	7.7	46.8	45.0	100.0	13.3	2.4
White	Under 1 Year	5.1	15.0	55.5	24.3	100.0	11.8	3.3
	1 Year	0.9	2.5	59.9	36.7	100.0	13.5	1.9
	Total	22	63	58.6	32.9	100.0	13.0	25

### Table 2.13 - Temperament: Positive Affect Raw Scores for Children Under Two Years of Age (Weighted Distribution)
		1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	Total	Mean	Std. Dev.
Age of Child									
Under 1 Year		0.3	0.5	22.8	71.6	4.8	100.0	16.1	2.4
1 Year		0.1	1.6	26.1	67.5	4.6	100.0	15.8	2.6
Total		0.2	1.3	25.1	68.8	4.7	100.0	15.9	2.5
Race of Child	Age of Child								
Hispanic	Under 1 Year			31.5	58.6	10.0	100.0	16.0	2.7
-	1 Year		1.5	33.3.	64.2	1.0	100.0	15.2	2.3
	Total		0.9	32.6	62.0	4.4	100.0	15.5	2.5
Black	Under 1 Year	2.4	3.5	31.6	57.3	5.2	100.0	15.0	3.2
	1 Year	1.2	8.1	52.3	34.6	3.9	100.0	13.7	3.3
	Total	1.7	6.3	44.3	43.3	4.4	100.0	14.2	3.4
White	Under 1 Year			20.5	75.3	4.2	100.0	16.3	2.1
	1 Year		0.8	22.3	71.9	4.9	100.0	16.1	2.4
	Total		06	217	73.0	47	100.0	16.2	23

#### Table 2.14 - Temperament: Friendliness Composite Raw Scores for Children Under Two Years of Age (Weighted Distribution)

		10 - 19	20 - 29	30 - 39	40 - 49	Total	Mean	Std. Dev.	
Age of Child									
Under 1 Year		17.8	53.8	24.2	4.1	100.0	26.2	6.7	
1 Year		33.5	54.2	11.6	0.7	100.0	22.7	6.0	
Total		26.7	54.0	17.1	2.2	100.0	24.2	6.6	
Race of Child	Age of Child								
Hispanic	Under 1 Year	16.4	57.5	23.3	2.7	100.0	26.2	6.1	
•	1 Year	28.6	61.0	10.4		100.0	22.6	5.3	
	Total	22.7	59.3	16.7	1.3	100.0	24.4	6.0	
Black	Under 1 Year	18.9	43.2	27.0	10.8	100.0	28.1	8.3	
	1 Year	13.3	61.1	23.3	2.2	100.0	26.4	6.2	
	Total	15.9	53.0	25.0	6.1	100.0	27.2	7.3	
White	Under 1 Year	18.0	56.9	23.4	1.8	100.0	25.3	6.1	
	1 Year	42.7	49.4	7.5	0.4	100.0	21.3	5.5	
	Total	32.5	52.5	14.0	1.0	100.0	22.9	6.1	

#### Table 2.15 - Temperament: Difficulty Composite Raw Scores for Children Under Two Years of Age (Weighted Distribution)

		10 - 14	15 - 19	20 - 24	25 - 29	30 +	Total	Mean	Std. Dev.	
Age of Child										
Under 1 Year		9.5	35.1	26.5	22.5	6.4	100.0	21.0	5.6	
1 Year		7.7	30.9	30.0	21.7	9.8	100.0	22.0	5.8	
Total		8.3	32.2	28.9	22.0	8.7	100.0	21.7	5.7	
Race of Child	Age of Child									
Hispanic	Under 1 Year	10.0	32.0	29.5	22.2	6.3	100.0	20.9	5.1	
-	1 Year	3.5	23.9	40.9	22.0	9.8	100.0	22.7	5.1	
	Total	6.0	26.9	36.6	22.1	8.4	100.0	22.0	5.2	
Black	Under 1 Year	8.9	29.8	18.9	25.6	16.7	100.0	22.9	7.1	
	1 Year	2.7	9.7	26.1	38.4	23.1	100.0	26.2	6.2	
	Total	5.0	17.2	23.4	33.6	20.7	100.0	25.0	6.7	
White	Under 1 Year	9.5	36.3	27.5	22.0	4.7	100.0	20.7	5.3	
	1 Year	8.7	34.1	29.7	19.5	8.1	100.0	21.4	5.5	
	Total	8.9	34.7	29.0	20.3	7.0	100.0	21.2	5.5	

 Table 2.16 - Temperament: Negative Hedonic Raw Scores for Children Under Two Years of Age (Weighted Distribution)

		5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Total	Mean	Std. Dev.
Age of Child							`			
2 Years		0.7	7.6	20.3	37.4	28.5	5.5	100.0	22.2	4.9
3 Years		0.3	4.9	21.6	38.6	27.5	7.2	100.0	22.4	4.7
4 Years		0.0	2.9	17.0	36.8	37.6	5.7	100.0	23.3	4.2
5 Years		0.1	1.7	14.2	36.5	39.4	8.1	100.0	23.8	4.2
6 Years		0.1	3.8	12.9	33.3	42.4	7.5	100.0	23.8	4.4
Total		0.2	4.1	17.2	36.5	35.1	6.8	100.0	23.1	4.5
Race of Child	Age of Child									
Hispanic	2 Years		5.0	26.2	. 34.0	29.8	5.0	100.0	22.1	4.7
•	3 Years		6.3	15.7	46.6	22.2	9.2	100.0	22.6	4.7
	4 Years	0.5	3.8	23.9	37.5	27.6	6.7	100.0	22.1	4.6
	5 Years		3.2	23.1	33.0	37.9	2.9	100.0	22.4	4.7
	6 Years		5.6	19.6	32.9	31.0	10.9	100.0	22.9	4.7
	Total	0.1	4.7	21.7	36.5	30.0	6.9	100.0	22.4	4.7
Black	2 Years	1.7	13.0	25.0	34.6	20.6	5.1	100.0	21.0	5.1
	3 Years		9.7	23.7	39.0	22.0	5.5	100.0	21.5	5.1
	4 Years		1.5	28.3	36.0	27.8	6.4	100.0	22.6	4.1
	5 Years	0.8	3.4	21.5	33.6	33.6	7.2	100.0	22.8	4.7
	6 Years	0.6	4.8	22.6	33.5	34.9	3.7	100.0	22.3	4.7
	Total	0.6	6.4	24.2	35.3	28.0	5.5	100.0	22.0	4.8
White	2 Years	0.5	6.9	19.0	38.2	29.7	5.6	100.0	22.4	4.8
	3 Years	0.4	3.8	21.6	37.8	29.0	7.3	100.0	22.5	4.7
	4 Years		3.0	14.2	36.8	40.5	5.4	100.0	23.6	4.2
	5 Years		1.2	11.9	37.5	40.6	8.8	100.0	24.1	4.0
	6 Years		3.3	10.1	33.3	45.3	7.9	100.0	24.3	4.2
	Total	0.2	3.7	15.4	36.8	37.0	7.0	100.0	23.4	4.4

 Table 2.17 - Temperament: Compliance Raw Scores for Children Between Two and Six Years of Age (Weighted Distribution)

		5 - 9	10 - 14	15 • 19	20 - 24	25 - 29	30 - 34	Total	Mean	Std. Dev.
Age of Child										
2 Years		1.4	10.1	41.3	33.7	10.6	3.0	100.0	19.6	4.6
3 Years		0.5	11.4	42.2	30.6	12.3	3.1	100.0	19.6	4.6
4 Years		0.6	15.4	43.6	31.2	7.3	1.9	100.0	18.7	4.4
5 Years		1.6	17.6	49.7	23.3	6.4	1.4	100.0	17.9	4.3
6 Years		0.9	24.2	43.4	23.5	6.9	1.1	100.0	17.7	4.5
Total		1.0	15.8	44.0	28.5	8.6	2.1	100.0	18.7	4.6
Race of Child	Age of Child									
Hispanic	2 Years	2.4	7.3	40.2	26.8	20.7	2.4	100.0	20.3	5.4
-	3 Years		5.6	43.3	32.2	17.8	1.1	100.0	20.2	4.6
	4 Years	1.7	14.5	40.2	28.2	12.0	3.4	100.0	19.3	5.1
	5 Years	2.8	13.9	37.0	35.2	8.3	2.8	100.0	18.9	4.9
	6 Years		16.2	48.6	21.9	11.4	1.9	100.0	18.7	4.7
	Total	1.4	12.0	41.8	28.9	13.5	2.4	100.0	19.4	4.9
Black	2 Years	1.6	9.8	35.2	35.2	11.5	6.6	100.0	20.3	5.0
	3 Years		12.9	31.5	36.3	12.1	7.3	100.0	20.5	5.2
	4 Years		13.1	36.2	39.2	8.5	3.1	100.0	19.4	4.7
	5 Years	1.7	15.3	44.9	27.1	9.3	1.7	100.0	18.5	4.5
	6 Years	1.5	15.3	33.6	36.5	10.9	2.2	100.0	19.2	4.9
	Total	1.0	13.3	36.1	35.0	10.5	4.1	100.0	19.6	4.9
White	2 Years	0.9	11.2	44.8	35.3	6.5	1.3	100.0	19.0	4.0
	3 Years	1.0	13.0	48.1	26.4	10.1	1.4	100.0	18.8	4.2
	4 Years	0.5	17.2	49.8	28.1	4.1	0.5	100.0	18.0	3.7
	5 Years	0.9	20.9	58.8	15.2	3.8	0.5	100.0	17.2	3.7
	6 Years	1.0	34.1	47.3	15.6	2.0		100.0	16.1	3.6
	Total	0.8	19.0	49.7	24.4	5.3	0.7	100.0	17.8	4.0

 Table 2.18
 Temperament: Insecure Attachment Raw Scores for Children Between Two and Six Years of Age (Weighted Distribution)

• • • • • • • • • • • • • • • • • • •		1 - 4	5 - 9	10 - 14	15 - 19	Total	Mean	Std. Dev.
Age of Child								
3 Years		3.7	36.3	38.2	21.8	100.0	10.8	3.3
4 Years		2.1	27.3	41.2	29.4	100.0	11.6	3.1
5 Years		2.0	20.4	44.7	32.9	100.0	12.2	2.9
6 Years		0.2	16.0	46.4	37.4	100.0	12.6	2.5
Total		2.0	24.7	42.7	30.6	100.0	11.8	3.0
Race of Child	Age of Child							
Hispanic	3 Years	5.1	34.2	39.2	21.5	100.0	10.7	3.4
-	4 Years	1.9	24.3	42.7	31.1	100.0	11.6	3.2
	5 Years	1.0	16.7	41.2	41.2	100.0	12.7	2.6
	6 Years	1.0	14.9	43.6	40.6	100.0	12.5	2.7
	Total	2.1	21.8	41.8	34.3	100.0	11.9	3.1
Black	3 Years	3.3	43.0	36.4	17.4	100.0	10.4	3.2
	4 Years	4.1	33.3	42.3	20.3	100.0	11.0	3.1
	5 Years	1.8	25.0	50.9	22.3	100.0	11.6	2.8
	6 Years		21.2	51.1	27.7	100.0	12.1	2.6
	Total	2.2	30.4	45.2	. 22.1	100.0	11.3	3.0
White	3 Years	3.3	32.8	38.9	25.0	100.0	11.0	3.4
	4 Years	1.0	25.0	39.8	34.2	100.0	12.0	3.0
	5 Years	2.6	19.7	43.0	34.7	100.0	12.2	3.0
	6 Years		12.8	44.4	42.8	100.0	12.9	2.3
	Total	1.7	22.5	41.5	34.3	100.0	12.0	3.0

#### Table 2.19 - Temperament: Sociability Raw Scores for Children Between Three and Six Years of Age (Weighted Distribution)

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	0-9.9	10-12.9	13-15.9	Invalid	Valid	Total	% Valid	
	172	92	41	32	305	337	90.5	
	207	116	32	66	355	421	84.3	
	166	163	90	26	419	445	94.2	
	35	105	270	26	410	436	94.0	
	580	476	433	150	1489	1639	90.8	
Age of Child								
Under 1 Year	43	14	10	9	67	76	88.2	
1 Year	45	19	4	12	68	80	85.0	
2 Years	43	18	15	7	76	83	91.6	
3 Years	12	35	40	4	87	91	95.6	
Total	143	86	69	32	298	330	90.3	
Under 1 Year	34	25	12	12	71	83	85.5	
1 Year	42	24	11	17	77	94	81.9	
2 Years	40	48	25	11	113	124	91.1	
3 Years	10	29	80	12	119	131	90.8	
Total	126	126	128	52	380	432	88.0	
Under 1 Year	95	53	19	11	167	178	93.8	
1 Year	120	73	17	37	210	247	85.0	
2 Years	83	97	50	8	230	238	96.6	
3 Years	13	41	150	10	204	214	95.3	
Total	311	264	236	66	811	877	92.5	
	Age of Child Under 1 Year 1 Year 2 Years 3 Years Total Under 1 Year 1 Year 2 Years 3 Years Total Under 1 Year 1 Year 2 Years 3 Years Total	0-9.9           172           207           166           35           580           Age of Child           Under 1 Year           43           1 Year           2 Years           3 Years           12           Total           143           Under 1 Year           43           Years           143           Under 1 Year           3 Years           10           Total           126           Under 1 Year           95           1 Year           120           2 Years           13           Years           13           Years           13	0-9.9         10-12.9           172         92           207         116           166         163           35         105           580         476           Age of Child         14           Under 1 Year         43         14           1 Year         45         19           2 Years         43         18           3 Years         12         35           Total         143         86           Under 1 Year         34         25           1 Year         42         24           2 Years         40         48           3 Years         10         29           Total         126         126           Under 1 Year         95         53           1 Year         120         73           2 Years         83         97           3 Years         13         41           Total         311         264	0-9.910-12.913-15.91729241207116321661639035105270580476433Age of Child1Under 1 Year43141 Year451942 Years123 Years123540143866910der 1 Year342 Years10298010280102980104126126126128Under 1 Year9553191 Year120172 Years8397503 Years1341150703 Years1341150Total311264236	0-9.9         10-12.9         13-15.9         Invalid           172         92         41         32           207         116         32         66           166         163         90         26           35         105         270         26           580         476         433         150           Age of Child         View         43         14         10         9           1 Year         43         14         10         9         1           1 Year         43         14         10         9         1           1 Year         43         14         10         9         1           2 Years         12         35         40         4           Total         143         86         69         32           Under 1 Year         34         25         12         12           1 Year         42         24         11         17           2 Years         40         48         25         11           3 Years         10         29         80         12           Total         126         126         128	0-9.9         10-12.9         13-15.9         Invalid         Valid           172         92         41         32         305           207         116         32         66         355           166         163         90         26         419           35         105         270         26         410           580         476         433         150         1489           Age of Child         Under 1 Year         43         14         10         9         67           1 Year         43         14         10         9         67         1 489           2 Years         43         18         15         7         76           3 Years         12         35         40         4         87           Total         143         86         69         32         298           Under 1 Year         34         25         12         12         71           1 Year         42         24         11         17         77           2 Years         40         48         25         11         113           3 Years         10         29	0-9.9         10-12.9         13-15.9         Invalid         Valid         Total           172         92         41         32         305         337           207         116         32         66         355         421           166         163         90         26         419         445           35         105         270         26         410         436           580         476         433         150         1489         1639           Age of Child           45         19         4         12         68         80           2 Years         43         18         15         7         76         83           3 Years         12         35         40         4         87         91           Total         143         86         69         32         298         330           Under 1 Year         34         25         12         12         71         83           1 Year         42         24         11         17         77         94           2 Years         40         48         25         11         113	0-9.9         10-12.9         13-15.9         Invalid         Valid         Total         % Valid           172         92         41         32         305         337         90.5           207         116         32         66         355         421         84.3           166         163         90         26         419         445         94.2           35         105         270         26         410         436         94.0           580         476         433         150         1489         1639         90.8           Age of Child         11         10         9         67         76         88.2           1 Year         43         14         10         9         67         76         88.2           1 Year         43         18         15         7         76         83         91.6           3 Years         12         35         40         4         87         91         95.6           Total         143         86         69         32         298         330         90.3           Under 1 Year         34         25         12         12

#### Table 2.20 - Motor and Social Development: Raw Scores by Child Age and Race/Ethnicity (Sample Cases)

		0-19	20-39	40-59	60-79	80-89	90-99	Total	Mean	Std Dev
AGE OF CHILD										
UNDER 1 YEAR		19.1	23.3	25.4	14.6	11.3	6.4	100.0	48.4	27.4
1 YEAR		17.8	17.6	17.3	25.0	14.2	8.0	100.0	52.8	28.8
2 YEARS		10.4	20.6	13.5	30.8	11.2	13.6	100.0	57.5	27.2
3 YEARS		17.2	20.7	23.8	17.0	17.8	3.5	100.0	50.0	28.0
Total		15.6	20.2	19.1	23.0	13.9	8.2	100.0	52.8	28.1
RACE OF CHILD	AGE OF CHILD									
HISPANIC	UNDER 1 YEAR	21.9	27.5	18.3	16.4	9.5	6.4	100.0	44.7	28.5
	1 YEAR	22.0	13.5	28.1	20.8	9.4	6.2	100.0	48.9	28.7
	2 YEARS	27.7	22.8	13.8	19.3	8.4	8.0	100.0	43.6	30.9
	3 YEARS	36.5	24.9	20.3	10.5	7.7		100.0	35.3	26.1
	Total	27.9	21.8	20.2	16.6	8.6	4.9	100.0	42.7	29.0
BLACK	UNDER 1 YEAR	9.3	22.6	25.0	14.4	10.4	18.4	100.0	57.0	28.7
	1 YEAR	13.9	12.7	30.8	13.8	13.9	15.0	100.0	56.4	29.3
	2 YEARS	15.0	22.2	8.7	35.2	7.7	11.2	100.0	54.4	28.1
	3 YEARS	21.9	21.0	27.4	22.2	7.5	•	100.0	42.7	25.1
	Total	16.2	19.7	22.1	23.2	9.4	9.4	100.0	51.4	28.2
WHITE	AGE OF CHILD									
	UNDER 1 YEAR	20.4	23.0	26.1	14.4	11.6	4.5	100.0	47.4	26.9
	1 YEAR	18.0	18.6	14.9	26.7	14.6	7.3	100.0	52.7	28.7
	2 YEARS	8.5	20.2	14.2	30.9	12.0	14.3	100.0	58.9	26.5
	3 YEARS	14.7	20.3	23.4	16.6	20.6	4.4	100.0	52.6	28.1
	Total	14.5	20.2	18.6	23.5	15.0	8.2	100.0	53.8	27.9
	*									

 Table 2.21 - Motor and Social Development: Percentile Scores by Child Age and Race/Ethnicity (Weighted Distribution)

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		0-84	85-99	100-114	115+	Total	Mean	Std. Dev.	
Age of Child									
Under 1 Year		14.1	37.1	36.5	12.3	100.0	99.3	13.6	
1 Year		14.2	29.6	40.3	15.9	100.0	101.1	14.5	
2 Years		6.5	31.1	41.7	20.6	100.0	103.8	13.5	
3 Years		13.5	32.6	32.6	21.3	100.0	99.6	13.7	
Total		11.7	32.0	38.0	18.3	100.0	101.3	14.0	
Race of Child	Age of Child								
Hisnanic	Under 1 Year	20.8	38.2	31.9	9.1	100.0	97.5	14.6	
mspanie	1 Year	12.4	34.9	40.8	11.8	100.0	99.5	15.6	
	2 Years	25.7	31.4	27.8	15.0	100.0	96.8	16.3	
	3 Years	23.5	46.0	22.7	7.7	100.0	92.7	13.2	
	Total	20.8	37.8	30.4	11.0	100.0	96.4	15.2	
Rlack	Under 1 Year	5.5	35.2	32.7	26.7	100.0	104.1	14.8	
Diack	1 Year	13.9	23.9	37.3	24.8	100.0	103.3	15.7	
	2 Years	10.5	32.8	40.2	16.5	100.0	102.2	13.7	
	3 Years	20.5	35.2	36.8	7.5	100.0	95.9	12.6	
	Total	13.8	32.0	37.4	16.9	100.0	100.7	14.4	
W/bito	Under 1 Year	14.9	37.3	37.5	10.3	100.0	98.7	13.2	
VV MILE	1 Year	14.4	29.9	40.6	15.1	100.0	100.9	14.2	
	2 Years	4.6	30.9	42.9	21.6	100.0	104.6	13.1	
	3 Years	11.4	31.0	32.6	25.0	100.0	100.9	13.6	
	Total	10.6	31.5	38.7	19.1	100.0	101.7	13.7	

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# Table 2.22 - Motor and Social Development: Standard Scores by Child Age and Race/Ethnicity (Weighted Distribution)

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		1-4	5-9	10-14	15-19	20-24	25-29	Invalid	Valid	Total	% Valid
Age of Child											
4-5 Years		203	299	226	100	33	11	15	872	887	98.3
6-7 Years		198	292	227	110	49	18	<b>40</b> <sup>-</sup>	894	934	95.7
8-9 Years		170	270	206	113	48	23	28	830	858	96.7
10+ Years		439	556	430	272	141	54	95	1892	1987	95.2
Total		1010	1417	1089	595	271	106	178	4488	4666	96.2
Race of Child	Age of Child										
Hispanic	4-5 Years	46	73	59	28	9	2	3	217	220	98.6
mspane	6-7 Years	56	59	53	19	12	5	9	204	213	95.8
	8-9 Years	37	55	46	31	15	6	2	190	192	99.0
	10+ Years	117	130	97	66	32	13	24	455	479	95.0
	Total	256	317	255	144	68	26	38	1066	1104	96.6
Black	4-5 Vears	59	91	48	24	14	6	7	242	249	97.2
Diach	6-7 Years	38	83	77	40	19	7	17	264	281	94.0
	8-9 Years	56	97	63	43	15	11	16	285	301	94.7
	10+ Years	168	230	164	111	64	28	48	765	813	94.1
	Total	321	501	352	218	112	52	88	1556	1644	94.6
White	4-5 Vears	98	135	119	48	10	3	5	413	418	98.8
white	6-7 Vears	104	150	97	51	18	6	14	426	440	96.8
	8-0 Veore	77	118	97	39	18	6	10	355	365	97.3
	0-9 1 Cals	154	196	169	95	45	13	23	672	695	96.7
	Total	433	599	482	233	91	28	52	1866	1918	97.3

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#### Table 2.23 Behavior Problems Index: Raw Scores by Child Age and Race/Ethnicity (Sample Cases)

		1-19	20-39	40-59	60-79	80-89	90 +	Total	Mean	Std. Dev.
Age of Child										
4-5 Years		12.9	15.7	25.6	22.3	10.2	13.3	100.0	55.5	27.8
6-7 Vears		9.6	17.2	20.0	25.1	11.9	16.2	100.0	58.9	27.5
8-9 Years		8.0	13.8	20.8	24.4	17.9	15.1	100.0	62.5	26.0
101 Vears		6.2	10.7	23.9	22.9	14.4	22.0	100.0	64.8	26.2
Total		8.6	13.6	22.9	23.5	13.7	17.8	100.0	61.3	27.0
Race of Child	Age of Child									
Hispanic	4-5 Years	9.8	15.6	25.0	23.8	10.9	15.0	100.0	58.5	26.6
mspane	6-7 Years	7.3	24.0	17.5	27.1	8.5	15.7	100.0	57.3	27.6
	8-9 Years	7.7	14.5	14.1	27.7	14.1	21.9	100.0	65.0	27.0
	10+ Years	6.1	13.7	23.9	20.8	13.8	21.7	100.0	63.1	26.7
	Total	7.3	16.1	21.2	23.7	12.3	19.4	100.0	61.5	27.1
Dlack	A-5 Vears	11.9	16.6	28.6	16.0	11.8	15.1	100.0	56.3	28.0
DIACK	6-7 Vears	59	10.4	19.7	28.4	13.5	22.1	100.0	65.9	25.7
	8-9 Years	3.4	14.1	22.6	25.1	16.2	18.6	100.0	65.2	24.2
	10+ Years	5.2	9.9	24.4	20.0	15.5	25.0	100.0	66.5	26.4
	Total	6.0	11.7	23.9	21.7	14.7	21.9	100.0	64.6	26.4
White	1.5 Vears	13.4	15 5	25.1	23.3	9.9	12.8	100.0	55.0	27.8
vv mile	-J I Cais 67 Veers	10.5	17.9	20.3	24.2	12.0	15.1	100.0	57.7	27.6
	0-/ Itals	0.1	13.6	21.2	23.9	18.7	13.5	100.0	61.6	26.3
	0-9 10als	5.1	10.6	23.7	24.1	14.1	21.0	100.0	64.5	26.0
	Total	9.3	13.8	22.8	23.9	13.6	16.6	100.0	60.4	27.1

 Table 2.24 - Behavior Problems Index: Total Percentile Scores by Child Age and Race/Ethnicity (Weighted Distributions)

		65-84	85-99	100-114	115 -129	130+	Total	Mean	Std. Dev.
Age of Child									
4-5 Years		10.4	30.1	39.5	15.0	5.0	100.0	103.2	14.6
6-7 Years		9.6	27.3	36.9	20.8	5.4	100.0	104.9	14.5
8-9 Years		6.2	23.0	42.8	20.7	7.3	100.0	106.7	14.4
10+ Years		4.1	27.8	35.5	25.2	7.4	100.0	108.1	14.3
Total		6.9	27.3	37.9	21.4	6.5	100.0	106.2	14.5
Race of Child	Age of Child								
Hispanic	4-5 Years	6.9	29.6	41.2	16.1	6.2	100.0	104.8	14.0
	6-7 Years	7.3	33.3	35.9	16.8	6.7	100.0	104.4	14.7
	8-9 Years	6.0	22.7	37.4	23.4	10.6	100.0	108.7	15.8
	10+ Years	3.7	29.9	35.1	25.2	6.0	100.0	107.4	14.5
	Total	5.4	29.2	36.9	21.6	6.9	100.0	106.6	14.8
Black	4-5 Years	8.6	31.1	36.3	15.9	8.1	100.0	104.2	15.4
2	6-7 Years	5.9	19.2	41.2	25.7	7.9	100.0	108.5	14.3
	8-9 Years	2.0	23.5	42.9	22.7	8.9	100.0	108.5	14.2
	10+ Years	4.2	25.8	32.8	27.0	10.3	100.0	109.5	15.2
	Total	4.7	25.1	36.5	24.3	9.3	100.0	108.3	15.0
White	4-5 Years	11.1	30.0	39.9	14.7	4.3	100.0	102.8	14.5
· · · · · · · · · · · · · · · · · · ·	6-7 Years	10.5	28.3	36.2	20.3	4.7	100.0	104.2	14.4
	8-9 Years	7.2	22.9	43.4	20.0	6.6	100.0	106.1	14.2
	10+ Years	4.2	28.2	36.4	24.6	6.6	100.0	107.8	13.9
	Total	7.6	27.6	38.4	20.7	5.7	100.0	105.6	14.3

# Table 2.25 - Behavior Problems Index: Total Standard Scores by Child Age and Race/Ethnicity (Weighted Distribution)

		0-4	5-9	10-14	15-19	20-24	25-29	30+	Invalid	Valid	Total	% Valid
Age of Child												
3-4 Years		41	102	167	201	138	68	4	166	721	887	81.3
5-6 Years		5	14	41	71	142	122	7	96	402	498	80.7
Total		46	116	208	272	280	190	11	262	1123	1385	81.1
Race of Child	Age of Child											
Hispanic	3-4 Years	11	27	44	39	18	14		48	153	201	76.1
-	5-6 Years	1	6	13	25	35	22		27	102	129	79.1
	Total	12	33	57	64	53	36		75	255	330	77.3
Black	3-4 Years	10	31	53	76	43	11	2	37	226	263	85.9
	5-6 Years	1	2	13	21	37	40		24	114	138	82.6
	Total	11	33	66	97	80	51	2	61	340	401	84.8
White	3-4 Years	20	44	70	86	77	43	2	81	342	423	80.9
	5-6 Years	3	б	15	25	70	60	7	45	186	231	80.5
	Total	23	50	85	111	147	103	9	126	528	654	80.7

#### Table 2.26 Verbal Memory: (Parts A & B) Raw Scores by Child Age and Race/Ethnicity (Sample Cases)

		0-19	20-39	40-59	60-79	80-89	90-99	100+	Total	Mean	Std. Dev.
Age of Child											
3-4 Years		22.9	20.1	19.1	21.4	10.7	5.6	0.3	100.0	46.7	28.6
5-6 Years		23.9	20.8	19.3	23.3	10.3	2.3		100.0	44.9	28.1
Total		23.3	20.4	19.2	22.0	10.6	4.5	0.2	100.0	46.1	28.4
Race of Child	Age of Child										
Hispanic	3-4 Years	36.4	23.0	13.2	13.7	8.8	4.9		100.0	38.5	29.2
mopune	5-6 Years	37.1	21.4	19.2	16.9	5.3			100.0	33.8	26.2
	Total	36.6	22.4	15.5	14.9	7.5	3.1		100.0	36.7	28.2
Black	3-4 Years	22.7	29.8	21.8	24.1	6.2	5.5		100.0	46.1	27.1
Diuch	5-6 Years	30.1	20.6	16.7	27.1	5.5			100.0	40.7	26.6
	Total	25.2	20.0	20.1	25.1	5.9	3.7		100.0	44.3	27.1
White	3-4 Years	21.7	29.9	19.1	21.5	11.8	5.7	0.3	100.0	47.6	28.7
vv mee	5-6 Years	21.3	20.8	19.8	23.3	11.8	3.0		100.0	46.9	28.2
	Total	21.5	20.2	19.3	22.1	11.8	4.8	0.2	100.0	47.4	28.5

#### Table 2.27 - Verbal Memory: (Parts A & B) Percentile Scores by Child Age and Race/Ethnicity (Weighted Distribution)

.

	1-09	70-84	85-99	100-114	115+	Total	Mean	Std. Dev.
	3.4	15.9	31.5	37.4	11.8	100.0	97.5	15.3
	11.1	12.1	31.3	39.7	5.7	100.0	94.4	17.4
	6.1	14.6	31.4	38.2	9.7	100.0	96.4	16.1
Age of Child								
3-4 Years	3.7	25.7	33.2	29.3	8.0	100.0	93.7	15.1
5-6 Years	18.7	17.4	32.3	30.7	0.8	100.0	87.6	18.4
Total	9.5	22.5	32.9	29.9	5.2	100.0	91.3	16.7
3-4 Years	3.0	15.2	33.3	39.8	8.8	100.0	97.5	14.0
5-6 Years	9.9	14.5	34.5	40.1	1.0	100.0	92.7	15.8
Total	5.4	14.9	33.7	39.9	6.1	100.0	95.8	14.8
3-4 Years	3.4	15.1	30.9	37.7	12.8	100.0	97.9	15.5
5-6 Years	10.5	11.1	30.6	40.6	7.2	100.0	95.5	17.4
Total	5.9	13.7	30.8	38.7	10.8	100.0	97.0	16.2
	Age of Child 3-4 Years 5-6 Years Total 3-4 Years 5-6 Years Total 3-4 Years 5-6 Years Total	3.4         11.1         6.1         Age of Child         3-4 Years       3.7         5-6 Years       18.7         Total       9.5         3-4 Years       3.0         5-6 Years       9.9         Total       5.4         3-4 Years       3.0         5-6 Years       9.9         Total       5.4         3-4 Years       3.4         5-6 Years       10.5         Total       5.9	3.4       15.9         11.1       12.1         6.1       14.6         Age of Child       3.4         3-4 Years       3.7       25.7         5-6 Years       18.7       17.4         Total       9.5       22.5         3-4 Years       3.0       15.2         5-6 Years       9.9       14.5         Total       5.4       14.9         3-4 Years       3.4       15.1         5-6 Years       10.5       11.1         Total       5.9       13.7	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

#### Table 2.28 Verbal Memory: (Parts A & B) Standard Scores by Child Age and Race/Ethnicity (Weighted Distribution)

		5-9.9	10-14.9	15-19.9	20-24.9	Invalid	Valid	Total	% Valid
Age of Child									
8-9 Years		4	56	255	509	63	824	887	92.9
10+ Years		10	140	514	1200	215	1865	2079	89.7
Total		14	196	769	1709	278	2688	2966	90.6
Race of Child	Age of Child								
Hispanic	8-9 Years	1	14	60	113	13	188	201	93.5
-	10+ Years	2	37	149	265	49	453	502	90.2
	Total	3	51	209	378	62	641	703	91.2
Black	8-9 Years	1	20	102	156	26	279	305	91.5
	10+ Years	5	63	196	504	80	768	848	90.6
	Total	6	83	298	660	106	1047	1153	90.8
White	8-9 Years	2	22	93	240	24	357	381	93.7
	10+ Years	3	40	169	431	86	643	729	88.2
	Total	5	62	262	671	110	1000	1110	90.1

#### Table 2.29 SPPC: Global Self-Worth Raw Scores by Child Age and Race/Ethnicity (Sample Cases)

		5-9.9	10-14.9	15-19.9	20-24.9	Invalid	Valid	Total	% Valid	
Age of Child										
8-9 Years		43	209	330	242	63	824	887	92.9	
10+ Years		94	462	722	587	214	1865	2079	89.7	
Total		137	671	1052	829	277	2689	2966	90.7	
Race of Child	Age of Child									
Hispanic	8-9 Years	9	49	87	43	13	188	201	93.5	
-	10+ Years	34	123	165	131	49	453	502	90.2	
	Total	43	172	252	174	62	641	703	91.2	
Black	8-9 Years	16	70	113	80	26	279	305	91.5	
	10+ Years	39	185	314	231	79	769	848	90.7	
	Total	55	255	427	311	105	1048	1153	90.9	
White	8-9 Years	18	90	130	119	24	357	381	93.7	
	10+ Years	21	154	243	225	86	643	729	88.2	
	Total	39	244	373	344	110	1000	1110	90.1	

#### Table 2.30 - SPPC: Scholastic Competence Raw Scores by Child Age and Race/Ethnicity (Sample Cases)

		5-9.9	10-14.9	15-19.9	20-24.9	Total	Mean	Std. Dev.
Age of Child								
8-9 Years		0.4	6.5	28.1	64.9	100.0	20.1	3.4
10+ Years		0.5	7.2	26.9	65.4	100.0	20.3	3.5
Total		0.5	7.0	27.3	65.3	100.0	20.3	3.4
Race of Child	Age of Child							
Hispanic	8-9 Years	0.5	6.5	31.6	61.3	100.0	20.0	3.4
•	10+ Years	0.4	8.7	33.7	57.2	100.0	19.9	3.6
	Total	0.4	8.1	33.1	58.4	100.0	19.9	3.5
Black	8-9 Years	0.4	7.8	35.9	55.9	100.0	19.8	3.5
	10+ Years	0.8	8.1	25.5	65.5	100.0	20.2	3.6
	Total	0.7	8.0	28.2	63.0	100.0	20.1	3.6
White	8-9 Years	0.4	6.2	25.9	67.4	100.0	20.2	3.4
	10+ Years	0.5	6.6	26.3	66.6	100.0	20.5	3.4
	Total	0.4	6.5	26.2	66.9	100.0	20.4	3.4

### Table 2.31 - SPPC: Global Self-Worth Raw Scores by Child Age/Ethnicity (Weighted Distribution)

		5-9.9	10-14.9	15-19.9	20-24.9	Total	Mean	Std. Dev.
Age of Child								
8-9 Years		4.8	25.1	37.9	32.2	100.0	17.0	4.3
10+ Years		4.1	24.0	39.0	32.9	100.0	17.2	4.2
Total		4.3	24.3	38.6	32.7	100.0	17.1	4.3
Race of Child	Age of Child							
Hispanic	8-9 Years	4.9	24.0	48.3	22.8	100.0	16.4	3.9
-	10+ Years	7.4	26.1	36.6	29.8	100.0	16.5	4.4
	Total	6.7	25.5	39.9	27.9	100.0	16.5	4.3
Black	8-9 Years	5.5	24.6	39.3	30.6	100.0	17.0	4.4
	10+ Years	5.2	23.7	41.6	29.4	100.0	16.9	4.1
	Total	5.3	24.0	41.0	29.7	100.0	16.9	4.2
White	8-9 Years	4.6	25.4	36.4	33.6	100.0	17.0	4.3
	10+ Years	3.3	23.7	38.5	34.5	100.0	17.4	4.2
	Total	3.7	24.3	37.8	34.2	100.0	17.3	43

### Table 2.32 - SPPC: Scholastic Competence Raw Scores by Child Age/Ethnicity (Weighted Distribution)

		1-4	5-7	8-10	11-13	14-16	17-23	24	Invalid	Valid	Total	% Valid
Age of Child												
7-9 Years		30	236	343	176	47	12		131	844	975	86.6
10-11 Years		4	72	252	265	120	53	2	88	768	856	89.7
12+ Years				4	5	4	7		17	20	37	54.1
Total		34	308	599	446	171	72	2	236	1632	1868	87.4
Race of Child	Age of Child											
Hispanic	7-9 Years	10	68	72	26	7	1		32	184	216	85.2
	10-11 Years	1	28	85	59	21	11	1	22	206	228	90.4
	12+ Years			3	3	1	3		3	10	13	76.9
	Total	11	96	160	88	29	15	1	57	400	457	87.5
Black	7-9 Years	11	57	99	62	23	3		44	255	299	85.3
	10-11 Years	3	29	80	98	49	24		25	283	308	91.9
	12+ Years			1			2		3	3	6	50.0
	Total	14	86	180	160	72	29		72	541	613	88.3
White	7-9 Years	9	111	172	88	17	8		55	405	460	88.0
	10-11 Years		15	87	108	50	18	1	41	279	320	87.2
	12+ Years		-		2	3	2		11	7	18	38.9
	Total	9	126	259	198	70	28	1	107	691	798	86.6

 Table 2.33
 Digit Span: Total Raw Scores by Child Age and Race/Ethnicity (Sample Cases)

		1-4	5-7	8-10	11-13	14-16	17-23	Total	Mean	Std. Dev.
Age of Child										
Age of Cilliu										
7-0 Vears		2.6	16.9	40.7	27.2	9.9	2.7	100.0	9.9	3.0
10-11 Years		3.3	24.1	30.4	33.7	6.0	2.5	100.0	9.8	3.1
10-11 Tears			6.4	32.1	35.9	8.7	16.8	100.0	11.7	3.7
Total		2.9	19.9	36.1	30.2	8.2	2.8	100.0	9.9	3.1
Race of Child	Age of Child									
Hisnanic	7-9 Years	5.9	19.7	45.4	22.4	5.0	1.6	100.0	9.0	2.9
mspunie	10-11 Years	5.6	30.4	33.6	23.5	5.2	1.7	100.0	9.0	3.1
	12+ Years		24.0	25.7	25.9		24.4	100.0	11.3	4.7
	Total	5.6	25.3	38.8	23.1	5.0	2.3	100.0	9.1	3.1
Plack	7 0 Vears	44	14 0	37.2	29.4	12.2	2.8	100.0	10.1	3.2
DIACK	10-11 Vears	3.8	24.9	28.5	32.4	8.7	1.6	100.0	9.7	3.2
	10-11 Tears	5.0	18.8	2010	40.6		40.6	100.0	13.5	5.2
	Total	4.1	19.5	32.5	31.0	10.4	2.5	100.0	9.9	3.3
White	7-9 Years	1.9	17.2	40.9	27.3	9.9	2.8	100.0	10.0	2.9
	10-11 Years	2.8	23.0	30.4	35.5	5.3	2.9	100.0	9.9	3.0
	12+ Years			38.0	38.1	12.2	11.7	100.0	11.6	3.1
	Total	2.3	19.4	36.5	30.9	8.0	2.9	100.0	10.0	3.0

## Table 2.34 - Digit Span: Total Standard Scores by Child Age and Race/Ethnicity (Weighted Distribution)

		1-3	4	5	6	7	8	9-13	Invalid	Valid	Total	% Valid
Age of Child												
Age of Child												
7-9 Years		126	209	157	119	104	55	75	129	845	974	86.8
10-11 Years		39	115	109	136	131	94	144	85	768	853	90.0
10 II Icais 12± Years			2	1	2	1	3	11	17	20	37	54.1
Total		165	326	267	257	236	152	230	231	1633	1864	87.6
Total												
Race of Child	Age of Child											
Hisnanic	7-9 Years	45	52	31	28	13	7	8	32	184	216	85.2
mspunc	10-11 Years	18	38	39	35	26	15	35	21	206	227	90.7
	12+ Years		1	1	2		1	5	3	10	13	76.9
	Total	63	91	71	65	39	23	48	56	400	456	87.7
Black	7-9 Years	31	40	56	41	36	22	30	43	256	299	85.6
	10-11 Years	14	33	35	58	51	39	54	23	284	307	92.5
	12+ Years		1					2	3	3	6	50.0
	Total	45	74	91	99	87	61	86	69	543	612	88.7
White	7-9 Years	50	117	70	50	55	26	37	54	405	459	88.2
	10-11 Years	7	44	35	43	54	40	55	41	278	319	87.1
	12+ Years	-				1	2	4	11	7	18	38.9
	Total	57	161	105	93	110	68	96	106	690	796	86.7

#### Table 2.35 - Digit Span: Digits Forward - Raw Scores by Child Age and Race/Ethnicity (Sample Cases)

	1 - 3	4	5	6	7	8	9 - 13	Total	Mean	Std. Dev.
	12.6	26.4	17.9	14.0	13.3	6.7	9.1	100.0	5.5	2.0
	3.4	15.4	12.5	16.9	19.2	13.1	19.5	100.0	6.7	2.1
		3.3	1.6	3.6	11.3	23.8	56.5	100.0	9.1	2.2
	8.4	21.3	15.3	15.2	15.9	9.7	14.3	100.0	6.0	2.2
Age of Child										
7-9 Years	24.3	26.8	16.2	14.0	9.0	4.4	5.3	100.0	4.9	2.0
10-11 Years	7.5	18.0	17.4	17.5	12.8	7.6	19.2	100.0	6.2	2.3
12+ Years		7.7	8.1	18.2		6.5	59.4	100.0	8.4	2.5
Total	15.0	21.7	16.6	15.9	10.7	6.1	14.0	100.0	5.7	2.3
7-9 Years	11.5	14.7	21.7	16.4	15.1	8.5	12.1	100.0	5.8	2.1
10-11 Years	4.9	12.0	12.2	20.0	18.1	12.8	20.0	100.0	6.8	2.3
12+ Years		18.8					81.2	100.0	8.9	2.5
Total	8.1	13.4	16.8	18.1	16.5	10.6	16.6	100.0	6.3	2.2
7-9 Years	11.7	28.7	17.3	13.6	13.4	6.5	8.9	100.0	5.4	2.0
10-11 Years	2.4	15.9	11.8	16.0	20.5	14.0	19.4	100.0	6.7	2.1
12+ Years					15.9	31.7	52.4	100.0	9.3	2.1
Total	7.7	23.0	14.8	14.4	16.4	9.9	13.8	100.0	6.0	2.1
	Age of Child 7-9 Years 10-11 Years 12+ Years Total 7-9 Years 10-11 Years 12+ Years Total 7-9 Years 10-11 Years 12+ Years Total	1 - 3         12.6         3.4         8.4         Age of Child         7-9 Years       24.3         10-11 Years       7.5         12+ Years       7.5         Total       15.0         7-9 Years       11.5         10-11 Years       4.9         12+ Years       8.1         7-9 Years       11.7         10-11 Years       2.4         12+ Years       2.4         Total       8.1	1-3         4           12.6         26.4           3.4         15.4           3.3         8.4           21.3         8.4           Age of Child         24.3           7-9 Years         24.3           10-11 Years         7.5           12+ Years         7.7           Total         15.0           12+ Years         11.5           14.7         10-11 Years           12+ Years         18.8           Total         8.1           13.4         7-9 Years           11.7         28.7           10-11 Years         2.4           15.9         12+ Years           Total         7.7           10-11 Years         2.4           15.9         12+ Years           Total         7.7           10-11 Years         2.4           15.9         12+ Years           Total         7.7           10-11 Years         2.4           15.9         12+ Years           Total         7.7	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1-345612.626.417.914.03.415.412.516.93.31.63.68.421.315.315.2Age of Child7-9 Years24.326.816.214.010-11 Years7.518.017.417.512+ Years7.78.118.2Total15.021.716.615.97-9 Years11.514.721.716.410-11 Years4.912.012.220.012+ Years18.813.416.818.17-9 Years11.728.717.313.610-11 Years2.415.911.816.012+ Years7.723.014.814.4	1-34567 $12.6$ $26.4$ $17.9$ $14.0$ $13.3$ $3.4$ $15.4$ $12.5$ $16.9$ $19.2$ $3.3$ $1.6$ $3.6$ $11.3$ $8.4$ $21.3$ $15.3$ $15.2$ $15.9$ Age of Child7-9 Years $24.3$ $26.8$ $16.2$ $14.0$ $9.0$ $10-11$ Years $7.5$ $18.0$ $17.4$ $17.5$ $12.8$ $12+$ Years $7.7$ $8.1$ $18.2$ $10.7$ Total $15.0$ $21.7$ $16.6$ $15.9$ $10.7$ 7-9 Years $11.5$ $14.7$ $21.7$ $16.4$ $15.1$ $10-11$ Years $4.9$ $12.0$ $12.2$ $20.0$ $18.1$ $12+$ Years $18.8$ $13.4$ $16.8$ $18.1$ $16.5$ 7-9 Years $11.7$ $28.7$ $17.3$ $13.6$ $13.4$ $10-11$ Years $2.4$ $15.9$ $11.8$ $16.0$ $20.5$ $12+$ Years $7.7$ $23.0$ $14.8$ $14.4$ $16.4$	1-34567812.626.417.914.013.36.73.415.412.516.919.213.13.31.63.611.323.88.421.315.315.215.99.7Age of Child7-9 Years24.326.816.214.09.04.410-11 Years7.518.017.417.512.87.612+ Years7.78.118.26.56.5Total15.021.716.615.910.76.17-9 Years11.514.721.716.415.18.510-11 Years4.912.012.220.018.112.812+ Years18.813.416.818.116.510.67-9 Years11.728.717.313.613.46.510-11 Years2.415.911.816.020.514.012+ Years7.723.014.814.416.49.9	1-345678 $9-13$ $12.6$ $26.4$ $17.9$ $14.0$ $13.3$ $6.7$ $9.1$ $3.4$ $15.4$ $12.5$ $16.9$ $19.2$ $13.1$ $19.5$ $3.3$ $1.6$ $3.6$ $11.3$ $23.8$ $56.5$ $8.4$ $21.3$ $15.3$ $15.2$ $15.9$ $9.7$ $14.3$ Age of Child7-9 Years $24.3$ $26.8$ $16.2$ $14.0$ $9.0$ $4.4$ $5.3$ $10-11$ Years $7.5$ $18.0$ $17.4$ $17.5$ $12.8$ $7.6$ $19.2$ $12+$ Years $7.7$ $8.1$ $18.2$ $6.5$ $59.4$ Total $15.0$ $21.7$ $16.6$ $15.9$ $10.7$ $6.1$ $14.0$ 7-9 Years $11.5$ $14.7$ $21.7$ $16.4$ $15.1$ $8.5$ $12.1$ $10-11$ Years $4.9$ $12.0$ $12.2$ $20.0$ $18.1$ $12.8$ $20.0$ $12+$ Years $18.8$ $81.2$ $11.7$ $28.7$ $17.3$ $13.6$ $13.4$ $6.5$ $8.9$ $10-11$ Years $2.4$ $15.9$ $11.8$ $16.0$ $20.5$ $14.0$ $19.4$ $12+$ Years $11.7$ $28.7$ $17.3$ $13.6$ $13.4$ $6.5$ $8.9$ $10-11$ Years $2.4$ $15.9$ $11.8$ $16.0$ $20.5$ $14.0$ $19.4$ $12+$ Years $7.7$ $23.0$ $14.8$ $14.4$ $16.4$ $9.9$ $13.8$	1-345678 $9-13$ Total12.626.417.914.013.36.79.1100.03.415.412.516.919.213.119.5100.03.31.63.611.323.856.5100.08.421.315.315.215.99.714.3100.0Age of Child7.9 Years24.326.816.214.09.04.45.3100.010-11 Years7.518.017.417.512.87.619.2100.012+ Years7.78.118.26.559.4100.0Total15.021.716.615.910.76.114.0100.07-9 Years11.514.721.716.415.18.512.1100.010-11 Years4.912.012.220.018.112.820.0100.012+ Years18.88.116.510.616.6100.07-9 Years11.728.717.313.613.46.58.9100.010-11 Years2.415.911.816.020.514.019.4100.012+ Years7.723.014.814.416.49.913.8100.0	1 - 3         4         5         6         7         8         9 - 13         Total         Mean $12.6$ $26.4$ $17.9$ $14.0$ $13.3$ $6.7$ $9.1$ $100.0$ $5.5$ $3.4$ $15.4$ $12.5$ $16.9$ $19.2$ $13.1$ $19.5$ $100.0$ $6.7$ $3.3$ $1.6$ $3.6$ $11.3$ $23.8$ $56.5$ $100.0$ $6.7$ $8.4$ $21.3$ $15.3$ $15.2$ $15.9$ $9.7$ $14.3$ $100.0$ $6.0$ Age of Child         7.7 $8.1$ $18.2$ $6.5$ $59.4$ $100.0$ $6.2$ $10.11$ Years $7.5$ $18.0$ $17.4$ $17.5$ $12.8$ $7.6$ $19.2$ $100.0$ $6.4$ $10.11$ Years $7.5$ $18.0$ $17.4$ $17.5$ $12.8$ $7.6$ $19.2$ $100.0$ $6.4$ $10.11$ Years $7.7$ $8.1$ $18.2$ $6.5$ $59.4$ $100.0$

#### Table 2.36 - Digit Span: Digits Forward - Raw Scores by Child Age and Race/Ethnicity (Weighted Distribution)

		1-3	4	5	6	7	8	9-13	Invalid	Valid	Total	% Valid
Age of Child												
7-9 Years		402	230	114	53	20	7	5	129	833	960	86.8
10-11 Years		178	197	146	136	57	30	23	87	770	854	90.2
12+ Years		1	7	2	3	1	2	4	17	20	37	54.1
Total		581	434	262	192	78	39	32	233	1623	1851	87.7
Race of Child	Age of Child											
Hispanic	7-9 Years	95	46	20	13	6	1		31	181	212	85.4
-	10-11 Years	49	70	35	27	11	7	6	22	206	227	90.7
	12+ Years	1	4		2	1		2	3	10	13	76.9
	Total	145	120	55	42	18	8	8	56	397	452	87.8
	7-9 Years	125	65	36	11	7	3	3	43	251	293	85.7
	10-11 Years	72	65	53	53	22	12	5	25	284	307	92.5
	12+ Years		1				<sup>`</sup> 1	1	3	3	6	50.0
	Total	197	131	89	64	29	16	9	71	538	606	88.8
	7-9 Years	182	119	58	29	7	3	2	55	401	455	88.1
	10-11 Years	57	62	58	56	24	11	12	40	280	320	87.5
	12+ Years		2	2	1		1	1	11	7	18	38.9
	Total	239	183	118	86	31	15	15	106	688	793	86.8

#### Table 2.37 Digit Span: Digits Backward - Raw Scores by Child Age and Race/Ethnicity (Sample Cases)

		1 - 3	4	5	6	7	8	9 - 13	Total	Mean	Std. Dev.
Age of Child											
7-9 Years		46.2	29.1	14.6	6.7	2.1	0.8	0.6	100.0	3.8	1.4
10-11 Years		21.6	23.8	19.7	19.0	8.0	4.1	3.9	100.0	4.9	1.8
12+ Years		1.8	28.8	26.2	10.8	3.0	12.1	17.3	100.0	6.0	2.2
Total		34.7	26.8	17.0	12.2	4.7	2.4	2.2	100.0	4.3	1.7
Race of Child	Age of Child										
Hispanic	7-9 Years	49.1	26.7	12.3	7.8	3.6	0.5		100.0	3.7	1.4
-	10-11 Years	22.4	35.7	15.4	15.2	5.1	3.7	2.4	100.0	4.6	1.7
	12+ Years	9.1	30.5		20.7	15.3		24.4	100.0	6.5	2.8
	Total	34.2	31.4	13.6	12.0	4.7	2.1	1.9	100.0	4.2	1.7
Black	7-9 Years	50.0	26.5	14.6	3.3	3.1	1.2	1.3	100.0	3.7	1.5
	10-11 Years	24.7	25.0	17.9	17.8	8.3	4.5	1.9	100.0	4.8	1.7
	12+ Years		18.8				40.6	40.6	100.0	8.1	2.2
	Total	36.7	25.7	16.2	10.7	5.7	3.2	1.9	100.0	4.3	1.7
White	7-9 Years	45.2	29.9	14.8	7.3	1.7	0.7	0.5	100.0	3.8	1.3
	10-11 Years	20.6	21.8	20.9	19.8	8.3	4.0	4.6	100.0	5.0	1.8
	12+ Years		29.7	36.9	9.5		11.7	12.2	100.0	5.6	1.7
	Total	34.3	26.5	17.6	12.6	4.5	2.2	2.3	100.0	4.3	1.7

#### Table 2.38 - Digit Span: Digits Backward - Raw Scores by Child Age and Race/Ethnicity (Weighted Distribution)

,

		0-9	10-14	15-19	20-29	30-39	40-49	50 +	Invalid	Valid	Total	% Valid
Age of Child												
5 Years		99	196	75	26	3			40	399	439	90.9
6 Years		28	147	115	125	16	8	1	32	440	472	93.2
7 Years		5	45	69	204	104	37	1	48	465	513	90.6
8 Years			11	26	125	131	109	17	28	419	447	93.7
9 Years			5	9	54	120	181	38	35	407	442	92.1
10 Years		1	1	4	22	63	243	97	34	431	465	92.7
11+ Years		3	3	4	22	108	581	714	190	1435	1625	88.3
Total		136	408	302	578	545	1159	868	407	3996	4403	90.8
Race of Child	Age of Child											
Hispanic	5 Years	29	49	16	3	1			13	98	111	88.3
•	6 Years	4	49	23	25	2		1	10	104	114	91.2
	7 Years		13	15	51	16	2		15	97	112	86.6
	8 Years		2	9	36	31	16	2	6	96	102	94.1
	9 Years		2	1	13	28	42	4	8	90	98	91.8
	10 Years			1	9	25	73	19	10	127	137	92.7
	11+ Years	2	1	1	8	36	131	144	46	323	369	87.5
	Total	35	116	66	145	139	264	170	108	935	1043	89.6
Black	5 Years	38	56	10	2	1			7	107	114	93.9
	6 Years	18	52	34	29	3	3		9	139	148	93.9
	7 Years	4	15	23	58	25	6	1	16	132	148	89.2
	8 Years		7	13	51	34	25	3	11	133	144	92.4
	9 Years		2	6	29	49	56	6	12	148	160	92.5
	10 Years	1	1	1	12	22	83	25	10	145	155	93.5
	11+ Years	1	1	3	11	59	297	254	70	626	696	89.9
	Total	62	134	90	192	193	470	289	135	1430	1565	91.4
White	5 Years	32	91	49	21	1			20	194	214	90.7
	6 Years	6	46	58	71	11	5		13	197	210	93.8
	7 Years	1	17	31	95	63	29		17	236	253	93.3
	8 Years		2	4	38	66	68	12	11	190	201	94.5
	9 Years		1	2	12	43	83	28	15	169	184	91.8
	10 Years			2	1	16	87	53	14	159	173	91.9
	11+ Years		1		3	13	153	316	74	486	560	86.8
	Total	39	158	146	241	213	425	409	164	1631	1795	90.9

 Table 2.39 - PIAT Math: Raw Scores by Child Age and Race/Ethnicity (Sample Cases)

		0-19	20-39	40-59	60-79	80-89	90-99	Total	Mean	Std. Dev.
Age of Child										
5 Years		19.8	15.7	17.4	23.7	9.6	13.9	100.0	53.2	29.8
6 Years		13.5	20.0	25.1	22.4	12.3	6.8	100.0	52.9	25.6
7 Years		7.4	23.3	22.9	30.3	10.7	5.3	100.0	54.1	23.7
8 Years		11.5	16.0	25.6	21.1	13.5	12.3	100.0	55.9	26.6
9 Years		14.2	25.7	16.2	25.4	11.2	7.2	100.0	51.1	26.9
10 Years		11.6	22.0	26.8	22.9	7.4	9.4	100.0	52.4	25.7
11+ Years		17.8	22.9	26.6	18.1	9.2	5.4	100.0	47.2	26.0
Total		14.5	21.3	23.8	22.2	10.3	7.8	100.0	51.2	26.4
Race of Child	Age of Child									
Hispanic	5 Years	25.8	28.9	14.2	17.4	7.6	6.2	100.0	42.4	27.7
•	6 Years	18.3	30.7	23.1	17.9	8.2	1.9	100.0	44.5	24.4
	7 Years	13.2	24.5	29.1	30.4		2.8	100.0	45.9	21.0
	8 Years	16.9	28.5	25.4	15.7	6.8	6.7	100.0	44.7	24.8
	9 Years	24.6	24.7	20.2	26.7	2.2	1.6	100.0	41.4	24.8
	10 Years	24.7	25.9	22.1	17.1	5.6	4.6	100.0	41.7	25.5
	11+ Years	25.7	28.3	27.2	11.4	2.8	4.7	100.0	39.2	24.9
	Total	22.5	27.6	24.1	17.2	4.3	4.3	100.0	41.8	25.0
Black	5 Years	35.6	26.1	18.5	12.7	3.3	3.7	100.0	35.4	26.2
	6 Years	26.1	21.1	26.2	19.3	3.1	4.2	100.0	41.3	25.5
	7 Years	13.5	34.8	17.9	24.5	5.8	3.6	100.0	45.6	24.1
	8 Years	29.9	24.0	17.0	18.0	7.2	3.9	100.0	40.8	27.4
	9 Years	26.7	34.1	13.9	18.5	3.2	3.7	100.0	38.5	25.7
	10 Years	24.4	25.1	26.4	13.5	6.5	4.1	100.0	42.2	26.2
	11+ Years	31.3	30.4	22.2	11.3	2.5	2.3	100.0	34.7	23.8
	Total	28.2	28.8	21.0	15.0	3.8	3.2	100.0	38.1	25.3
White	5 Years	16.3	12.4	17.5	26.3	11.0	16.5	100.0	57.4	29.2
	6 Years	10.0	18.6	25.1	23.6	14.8	7.9	100.0	56.6	24.7
	7 Years	5.8	21.2	23.3	31.3	12.5	5.8	100.0	56.2	23.4
	8 Years	6.8	12.8	27.6	22.4	15.6	14.8	100.0	60.4	25.0
	9 Years	10.0	23.7	16.4	27.1	14.2	8.7	100.0	55.3	26.1
	10 Years	6.2	20.5	27.6	26.2	7.9	11.6	100.0	56.8	24.3
	11+ Years	11.8	19.5	28.1	21.4	12.5	6.6	100.0	52.8	25.0
	Total	10.0	18.6	24.6	24.7	12.7	9.4	100.0	55.7	25.5

Table 2.40 - PIAT Math: Percentile Scores by Child Age and Race/Ethnicity (Weighted Distribution)

		1-69	70-84	85-99	100-114	115-129	130+	Total	Mean	Std. Dev.
Age of Child										
5 Years		1.6	12.6	29.4	38.0	15.6	2.9	100.0	101.5	15.2
6 Years		2.3	6.9	32.3	43.5	13.1	1.9	100.0	101.3	13.0
7 Years		0.8	4.8	34.4	46.9	12.6	0.5	100.0	101.9	11.0
8 Years		1.0	7.2	32.8	38.5	18.4	2.2	100.0	103.0	13.4
9 Years		2.1	9.2	36.2	37.8	13.3	1.4	100.0	100.4	13.2
10 Years		1.9	5.8	39.8	38.2	13.7	0.6	100.0	101.1	12.7
11+ Years		2.5	10.2	39.5	35.9	11.2	0.7	100.0	98.5	12.9
Total		1.9	8.5	35.9	39.0	13.3	1.3	100.0	100.5	13.1
Race of Child	Age of Child									
Hispanic	5 Years	2.6	13.2	47.6	27.4	7.6	1.6	100.0	96.5	13.9
-	6 Years	0.6	14.5	40.1	42.3	1.4	1.1	100.0	97.4	11.7
	7 Years	2.1	5.1	48.1	42.0	2.8		100.0	98.0	9.8
	8 Years	0.6	10.5	49.9	28.3	9.7	0.9	100.0	97.7	12.4
	9 Years	2.3	19.2	38.3	36.4	3.8		100.0	95.5	12.2
	10 Years	4.3	13.7	44.0	32.5	5.1	0.5	100.0	95.8	12.9
	11+ Years	5.6	14.3	44.5	28.4	7.2		100.0	94.5	13.0
	Total	3.4	13.3	44.6	32.4	5.9	0.4	100.0	96.0	12.6
Black	5 Years	2.8	28.0	42.5	20.2	4.6	1.9	100.0	92.9	13.6
	6 Years	5.1	15.2	39.1	36.4	2.9	1.3	100.0	95.3	13.6
	7 Years	2.5	11.0	40.0	40.7	5.0	0.8	100.0	97.9	11.7
	8 Years	3.6	20.0	38.8	28.5	8.2	0.9	100.0	95.3	13.9
	9 Years	4.7	18.6	45.1	27.4	4.3		100.0	94.2	13.0
	10 Years	3.2	17.2	41.0	31.1	6.8	0.7	100.0	96.0	13.2
	11+ Years	4.6	20.5	47.8	23.3	3.3	0.6	100.0	92.4	12.4
	Total	4.1	19.1	44.0	27.6	4.4	0.7	100.0	94.0	13.0
White	5 Years	1.3	9.8	25.2	42.2	18.4	3.2	100.0	103.5	15.0
	6 Years	1.8	4.2	29.8	45.2	16.7	2.2	100.0	103.1	12.5
	7 Years	0.4	3.7	32.3	48.3	14.7	0.5	100.0	102.9	10.7
	8 Years	0.5	4.0	29.7	41.7	21.5	2.6	100.0	105.3	12.6
	9 Years	1.4	5.8	33.7	40.6	16.6	1.9	100.0	102.4	12.7
	10 Years	1.2	1.6	38.8	41.0	16.9	0.6	100.0	103.2	11.8
	11+ Years	1.4	5.9	35.8	41.4	14.6	0.9	100.0	101.3	12.1
	Total	1.2	5.2	32.8	42.8	16.5	1.5	100.0	102.7	12.5

Table 2.41 - PIAT Math: Standard Scores by Child Age and Race/Ethnicity (Weighted Distribution)

		0-9	10-14	15-19	20-29	30-39	40-49	50 +	Invalid	Valid	Total	% Valid
Age of Child			,									
5 Years		112	100	145	14	1		1	66	373	439	85.0
6 Years		24	25	223	121	20	9		50	422	472	89.4
7 Years		1	3	41	215	152	41	10	50	463	513	90.3
8 Years			1	12	112	137	107	47	31	416	447	93.1
9 Years			1	6	65	94	138	98	40	402	442	91.0
10 Years				1	26	75	146	185	32	433	465	93.1
11+ Years		1		2	55	128	262	979	197	1427	1624	87.9
Total		138	130	430	608	607	703	1320	466	3936	4402	89.4
Race of Child	Age of Child											
Hispanic	5 Years	33	32	26	1				19	92	111	82.9
-	6 Years	8	9	54	23	5	1		14	100	114	87.7
	7 Years		1	12	51	24	6	1	17	95	112	84.8
	8 Years		1	4	27	36	21	4	9	93	102	91.2
	9 Years		1	1	17	20	30	21	8	90	98	91.8
	10 Years				12	26	42	46	11	126	137	92.0
	11+ Years	1		1	12	25	60	223	46	322	368	87.5
	Total	42	44	98	143	136	160	295	124	918	1042	88.1
Black	5 Years	34	21	46	2	1			10	104	114	91.2
	6 Years	10	6	72	36	5	3		16	132	148	89.2
	7 Years		1	10	69	35	13	3	17	131	148	88.5
	8 Years			5	44	49	23	11	12	132	144	91.7
	9 Years			3	27	42	50	23	15	145	160	90.6
	10 Years				9	30	60	47	9	146	155	94.2
	11+ Years				35	76	128	381	76	620	696	89.1
	Total	44	28	136	222	238	277	465	155	1410	1565	90.1
White	5 Years	45	47	73	11			1	37	177	214	82.7
	6 Years	6	10	97	62	10	5		20	190	210	90.5
	7 Years	1	1	19	95	93	22	6	16	237	253	93.7
	8 Years			3	41	52	63	32	10	191	201	95.0
	9 Years			2	21	32	58	54	17	167	184	90.8
	10 Years			1	5	19	44	92	12	161	173	93.1
	11+ Years			1	8	27	74	375	75	485	560	86.6
	Total	52	58	196	243	233	266	560	187	1608	1795	89.6

Table 2.42 - PIAT Reading Recognition: Raw Scores by Child Age and Race/Ethnicity (Sample Cases)

		0.19	20-39	40-59	60-79	80-89	90-99	Total	Mean	Std. Dev.
Age of Child										
5 Years		11.2	13.6	14.9	15.8	18.6	25.9	100.0	63.7	28.9
6 Years		4.5	18.6	32.9	30.3	5.9	7.8	100.0	55.9	20.6
7 Years		6.6	16.7	15.8	30.8	17.5	12.7	100.0	61.8	24.6
8 Years		10.9	12.0	17.9	26.5	17.3	15.4	100.0	61.5	27.6
9 Years		14.9	15.0	17.9	22.9	13.8	15.4	100.0	57.2	29.4
10 Years		9.4	18.6	18.4	21.3	18.4	13.9	100.0	59.3	27.0
11+ Years		18.2	16.2	17.9	23.7	10.6	13.3	100.0	53.9	29.8
Total		12.5	15.9	19.0	24.5	13.6	14.4	100.0	57.8	27.9
Race of Child	Age of Child									
Hispanic	5 Years	9.1	21.8	25.7	18.7	15.0	9.8	100.0	55.5	25.7
	6 Years	10.9	16.2	37.2	25.7	5.0	4.9	100.0	51.1	21.5
	7 Years	10.7	26.8	<b>19.3</b>	19.0	16.7	7.5	100.0	53.5	26.0
	8 Years	21.1	15.7	19.4	25.1	12.2	6.6	100.0	50.7	28.1
	9 Years	22.1	15.2	13.8	25.8	6.7	16.4	100.0	52.0	31.8
	10 Years	14.3	27.7	18.0	14.9	13.1	12.0	100.0	51.1	28.3
	11+ Years	19.0	17.2	17.8	22.1	9.5	14.4	100.0	52.5	30.2
	Total	16.3	19.5	20.5	21.5	10.8	11.4	100.0	52.3	28.3
Black	5 Years	13.6	15.4	12.9	14.3	17.9	26.0	100.0	62.5	29.6
	6 Years	6.8	20.5	33.4	27.6	5.3	6.4	100.0	53.3	21.1
	7 Years	8.7	19.4	19.4	29.6	14.7	8.2	100.0	57.6	24.4
	8 Years	22.3	10.7	17.0	35.2	5.4	9.4	100.0	51.0	29.2
	9 Years	20.7	16.4	26.6	19.8	10.0	6.4	100.0	47.9	27.6
	10 Years	15.2	26.2	25.4	12.0	15.0	6.2	100.0	48.5	26.2
	11+ Years	29.6	21.1	20.3	15.9	6.5	6.6	100.0	41.5	28.9
	Total	21.2	19.5	21.8	20.1	9.1	8.4	100.0	48.0	28.4
White	5 Years	11.0	12.5	14.1	15.7	19.1	27.5	100.0	64.8	28.9
	6 Years	3.3	18.4	32.3	31.4	6.1	8.5	100.0	57.0	20.2
	7 Years	5.9	15.4	14.8	32.0	18.1	13.9	100.0	63.2	24.3
	8 Years	7.4	11.9	17.9	24.8	20.4	17.7	100.0	64.9	26.3
	9 Years	12.7	14.7	16.1	23.4	15.5	17.6	100.0	60.2	29.0
	10 Years	7.2	15.2	16.7	24.7	20.1	16.1	100.0	63.3	26.0
	11+ Years	14.0	14.3	17.1	26.8	12.2	15.6	100.0	58.5	28.7
	Total	9.8	14.6	18.1	26.0	15.2	16.3	100.0	61.1	27.0

Table 2.43 • PIAT Reading Recognition: Percentile Scores by Child Age and Race/Ethnicity (Weighted Distribution)

		1-69	70-84	85-99	100-114	115-129	130+	Total	Mean	Std. Dev.
Age of Child										
5 Years		0.1	8.1	23.2	31.7	28.2	8.6	100.0	107.6	15.2
6 Years		0.7	3.7	33.9	50.1	9.0	2.6	100.0	102.9	10.4
7 Years		0.3	2.9	26.5	47.6	21.1	1.6	100.0	105.5	11.7
8 Years		1.2	7.0	21.5	45.3	21.9	3.2	100.0	105.5	14.2
9 Years		3.2	9.1	24.2	40.3	20.1	3.2	100.0	103.4	15.0
10 Years		1.3	6.7	26.5	40.6	23.0	2.0	100.0	104.4	13.4
11+ Years		3.0	12.5	26.0	38.1	16.1	4.3	100.0	101.9	15.7
Total	-	1.7	8.3	26.0	41.3	18.9	3.7	100.0	103.9	14.4
Race of Child	Age of Child									
Hispanic	5 Years		7.4	35.7	39.3	12.9	4.7	100.0	103.1	12.9
	6 Years		10.0	32.8	48.8	7.6	0.7	100.0	100.5	10.3
	7 Years		5.2	37.2	43.1	14.4		100.0	101.9	11.9
	8 Years	3.6	7.7	29.7	47.6	9.8	1.7	100.0	100.0	14.1
	9 Years	7.8	11.7	23.8	37.0	17.1	2.6	100.0	100.3	17.3
	10 Years	1.2	11.0	42.7	24.9	18.8	1.5	100.0	100.7	13.9
	11+ Years	4.4	10.7	31.9	31.8	18.9	2.4	100.0	101.0	15.9
	Total	2.9	9.6	33.3	36.5	15.6	2.0	100.0	101.0	14.5
Black	5 Years	0.6	10.2	21.6	33.1	26.8	7.8	100.0	107.0	15.5
	6 Years		6.1	36.0	48.4	8.4	1.1	100.0	101.6	10.1
	7 Years		5.7	32.9	44.8	14.8	1.7	100.0	103.6	11.6
	8 Years	3.3	13.6	24.6	45.5	12.5	0.4	100.0	100.0	15.1
	9 Years	4.0	12.5	32.4	40.9	7.6	2.6	100.0	98.8	14.6
	10 Years	1.6	9.3	41.5	34.5	13.1		100.0	99.2	12.6
	11+ Years	6.2	19.9	33.1	30.4	8.8	1.5	100.0	95.4	15.3
	Total	3.7	14.1	32.4	36.6	11.4	1.8	100.0	98.8	14.7
White	5 Years		7.8	22.2	30.7	30.1	9.2	100.0	108.2	15.3
	6 Years	0.9	2.4	33.5	50.7	9.3	3.2	100.0	103.4	10.4
	7 Years	0.4	2.2	24.5	48.5	22.7	1.7	100.0	106.2	11.6
	8 Years	0.4	5.5	20.0	44.9	25.2	3.9	100.0	107.3	13.5
	9 Years	2.4	8.0	22.1	40.4	23.6	3.4	100.0	104.9	15.3
	10 Years	1.2	5.3	20.1	44.6	26.2	2.6	100.0	106.3	13.1
	11+ Years	1.6	10.1	22.7	41.8	18.3	5.5	100.0	104.4	15.2
	Total	1.1	6.7	23.5	43.0	21.3	4.4	100.0	105.5	14.0

 Table 2.44 • PIAT Reading Recognition: Standard Scores by Child Age and Race/Ethnicity (Weighted Distribution)

		0.9	10-14	15-19	20-29	30-39	40-49	50 +	Invalid	Valid	Total	% Valid
Age of Child												
5 Years		112	100	144	1	2			80	359	439	81.8
6 Years		24	25	232	59	15	6		111	361	472	76.5
7 Years		1	3	57	224	78	49	7	94	419	513	81.7
8 Years			1	20	129	99	123	24	51	396	447	88.6
9 Years			1	13	85	79	169	50	45	397	442	89.8
10 Years				1	42	73	189	123	37	428	465	92.0
11+ Years		1		5	71	133	434	768	211	1412	1623	87.0
Total		138	130	472	611	479	970	972	629	3772	4401	85.7
Race of Child	Age of Child											
Hispanic	5 Years	33	32	26					20	91	111	82.0
	6 Years	8	9	60	12	4	1		20	94	114	82.5
	7 Years		1	16	46	11	6	3	29	83	112	74.1
	8 Years		1	6	35	20	28	1	11	91	102	89.2
	9 Years		1	4	16	22	28	15	12	86	98	87.8
	10 Years				22	24	44	35	12	125	137	91.2
	11+ Years	1		1	21	24	91	176	54	314	368	85.3
	Total	42	44	113	152	105	198	230	158	884	1042	84.8
Black	5 Years	34	21	46		1			12	102	114	89.5
	6 Years	10	6	72	26	4	2		28	120	148	81.1
	7 Years		1	17	70	23	9	1	27	121	148	81.8
	8 Years			9	52	34	25	3	21	123	144	85.4
	9 Years			4	46	34	53	10	13	147	160	91.9
	10 Years				13	28	78	25	11	144	155	92.9
	11+ Years			3	37	85	221	270	79	616	695	88.6
	Total	44	28	151	244	209	388	309	191	1373	1564	87.8
White	5 Years	45	47	72	1	1			48	166	214	77.6
	6 Years	6	10	100	21	7	3		63	147	210	70.0
	7 Years	1	1	24	108	44	34	3	38	215	253	85.0
	8 Years			5	42	45	70	20	19	182	201	90.5
	9 Years			5	23	23	88	25	20	164	184	89.1
	10 Years			1	7	21	67	63	14	159	173	91.9
	11+ Years			1	13	24	122	322	78	482	560	86.1
	Total	52	58	208	215	165	384	433	280	1515	1795	84.4

Table 2.45 - PIAT Reading Comprehension: Raw Scores by Child Age and Race/Ethnicity (Sample Cases)

		0-19	20-39	40-59	60-79	80-89	90-99	Total	Mean	Std. Dev.
Age of Child										
5 Years						36.8	63.2	100.0	89.8	5.8
6 Years			11.6	33.2	38.0	6.9	10.3	100.0	63.6	17.1
7 Years		3.1	15.7	19.1	35.7	13.3	13.1	100.0	63.4	22.3
8 Years		9.3	15.6	12.1	25.9	18.3	18.8	100.0	63.0	27.5
9 Years		16.9	11.2	20.5	27.2	15.7	8.4	100.0	55.6	28.0
10 Years		9.8	22.7	19.5	22.8	14.7	10.3	100.0	55.8	26.3
11+ Years		21.0	22.6	18.4	22.8	8.4	6.9	100.0	46.8	27.8
Total		13.4	18.2	18.7	26.0	12.4	11.2	100.0	55.3	27.5
Race of Child	Age of Child									
Hispanic	5 Years					76.5	23.5	100.0	86.2	5.3
	6 Years		16.7	38.0	29.4	12.8	3.1	100.0	61.4	16.8
	7 Years	3.6	30.0	19.5	27.7	7.5	11.6	100.0	56.6	24.5
	8 Years	14.8	28.4	14.6	15.0	14.9	12.3	100.0	51.2	29.5
	9 Years	18.8	19.0	18.5	18.6	13.0	12.2	100.0	52.1	31.0
	10 Years	22.0	26.2	18.5	11.7	12.3	9.3	100.0	46.2	29.4
	11+ Years	23.2	22.6	21.8	19.4	8.4	4.5	100.0	44.0	27.4
	Total	17.6	23.5	20.8	18.9	11.4	7.9	100.0	49.1	28.2
Black	5 Years					41.6	58.4	100.0	89.2	6.2
	6 Years		9.6	33.2	41.7	7.4	8.1	100.0	63.3	15.7
	7 Years	6.6	15.2	26.5	32.9	14.4	4.3	100.0	58.7	21.9
	8 Years	17.0	17.7	26.1	19.6	9.6	10.0	100.0	50.6	28.3
	9 Years	25.9	19.7	26.8	13.3	9.5	4.8	100.0	43.9	27.7
	10 Years	14.3	28.0	26.8	18.9	7.6	4.3	100.0	46.4	24.3
	11+ Years	36.3	27.9	15.7	13.6	3.8	2.7	100.0	33.7	25.4
	Total	24.7	23.0	21.3	18.4	7.3	5.3	100.0	43.4	27.4
White	5 Years					33.4	66.6	100.0	90.1	5.6
	6 Years		11.6	32.5	38.1	6.0	11.7	100.0	64.0	17.6
	7 Years	2.4	14.7	17.8	36.8	13.5	14.7	100.0	64.7	22.0
	8 Years	7.0	13.7	8.9	28.4	20.6	21.4	100.0	66.9	26.0
	9 Years	14.4	8.2	19.1	31.6	17.6	9.0	100.0	59.0	26.9
	10 Years	6.7	20.8	17.9	25.6	17.0	12.0	100.0	59.8	25.2
	11+ Years	15.3	20.7	18.8	26.5	10.0	8.7	100.0	51.8	27.1
	Total	9.7	16.2	17.8	29.0	14.0	13.3	100.0	59.3	26.2

 Table 2.46
 PIAT Reading Comprehension: Percentile Scores by Child Age and Race/Ethnicity (Weighted Distribution)

		1-69	70-84	85-99	100-114	115-129	130+	Total	Mean	Std. Dev.
Age of Child										
5 Years					33.1	63.7	3.2	100.0	120.3	5.2
6 Years				27.9	57.4	10.9	3.8	100.0	106.4	9.2
7 Years			3.1	20.3	55.4	18.4	2.7	100.0	106.4	10.9
8 Years		0.5	6.4	22.7	39.0	28.7	2.7	100.0	106.5	14.0
9 Years		3.7	10.4	21.6	49.8	12.2	2.3	100.0	102.2	14.4
10 Years		1.0	6.8	31.4	42.7	17.2	1.0	100.0	102.6	12.7
11+ Years		3.2	13.4	36.9	34.6	11.7	0.3	100.0	98.1	13.8
Total		1.9	8.7	29.0	42.3	16.5	1.6	100.0	102.4	13.8
Race of Child	Age of Child									
Hispanic	5 Years				54.1	45.9		100.0	117.3	4.5
-	6 Years			26.1	58.0	12.8	3.1	100.0	105.2	8.5
	7 Years		3.6	34.1	46.4	9.6	6.3	100.0	103.8	12.3
	8 Years	2.1	9.6	38.0	30.1	19.1	1.1	100.0	100.6	14.6
	9 Years	8.6	7.2	26.9	37.8	16.8	2.6	100.0	100.2	17.0
	10 Years	3.3	15.8	36.5	25.6	18.9		100.0	97.9	14.7
	11+ Years	4.4	14.3	39.6	32.5	9.2		100.0	96.7	14.0
	Total	3.6	10.9	35.5	35.2	13.5	1.2	100.0	99.3	14.4
Black	5 Years				41.6	54.9	3.5	100.0	119.9	5.5
	6 Years			21.2	67.8	8.2	2.7	100.0	106.1	8.5
	7 Years		6.6	24.7	53.8	14.0	0.9	100.0	103.9	10.1
	8 Years	2.0	13.2	32.5	35.1	15.8	1.4	100.0	100.0	14.3
	9 Years	4.2	17.7	32.0	38.2	6.9	1.0	100.0	96.7	14.1
	10 Years	1.1	10.5	45.3	33.0	10.0		100.0	98.2	11.7
	11+ Years	6.8	22.5	43.5	22.1	4.9	0.1	100.0	91.6	13.3
	Total	4.1	16.2	37.2	33.0	8.7	0.7	100.0	96.4	14.0
White	5 Years				30.2	66.5	3.4	100.0	120.5	5.1
	6 Years			30.0	54.4	11.4	4.2	100.0	106.7	9.4
	7 Years		2.4	18.5	56.4	19.9	2.8	100.0	107.1	10.8
	8 Years		4.7	18.9	40.8	32.5	3.1	100.0	108.5	13.3
	9 Years	3.0	8.9	18.3	54.0	13.1	2.7	100.0	103.8	13.8
	10 Years	0.6	4.5	27.0	47.8	18.7	1.4	100.0	104.5	12.2
	11+ Years	1.7	10.0	34.1	39.3	14.4	0.4	100.0	100.6	13.2
	Total	1.1	6.4	25.9	45.7	19.0	1.9	100.0	104.4	13.1

 Table 2.47 • PIAT Reading Comprehension: Standard Scores by Child Age and Race/Ethnicity (Weighted Distribution)

		1-19	20-39	40-59	60-79	80-89	90-99	100+	Valid	Total	% Valid
Age of Child											
3-6 Years		228	365	583	305	72	47	204	1617	1804	89.6
7-9 Years			2	81	323	277	276	443	1275	1402	90.9
10+ Years		1	2	8	73	102	190	1720	1866	2096	89.0
Total		229	369	672	701	451	513	2367	4758	5302	89.7
Race of Child	Age of Child										
Hispanic	3-6 Years	70	90	142	51	10	8	53	372	424	87.7
-	7-9 Years			31	77	65	57	82	278	312	89.1
	10+ Years	1	2	2	33	28	58	382	453	506	89.5
	Total	71	92	175	161	103	123	517	1103	1242	88.8
Black	3-6 Years	114	141	148	61	9	3	50	478	526	90.9
	7-9 Years		2	37	167	86	60	100	407	452	90.0
	10+ Years			5	35	64	101	649	766	854	89.7
	Total	114	143	190	263	159	164	799	1651	1832	90.1
White	3-6 Years	44	134	293	193	53	36	101	767	854	89.8
	7-9 Years			13	79	126	159	261	590	638	92.5
	10+ Years			1	5	10	31	689	647	736	87.9
	Total	44	134	307	277	189	226	1051	2004	2228	89.9

## Table 2.48 - PPVT: Raw Scores by Child Age and Race/Ethnicity (Sample Cases)

	1-19	20-39	40-59	60-79	80-89	90-99	Total	Mean	Std. Dev.
	17.7	20.8	19.0	17.2	16.4	8.9	100.0	43.4	30.2
	15.2	20.7	18.4	19.8	18.8	7.1	100.0	44.8	29.0
	18.3	23.9	21.0	16.8	12.7	7.3	100.0	39.8	29.0
	17.2	21.9	19.6	17.8	15.7	7.8	100.0	42.4	29.5
Age of Child									
3-6 Years	32.4	28.3	19.0	8.1	8.9	3.3	100.0	28.3	26.5
7-9 Years	29.3	21.3	17.4	17.1	10.4	4.4	100.0	33.7	28.2
10+ Years	26.8	29.7	22.3	8.5	7.5	5.1	100.0	29.9	26.4
Total	29.2	27.2	20.1	10.5	8.7	4.4	100.0	30.4	26.9
3-6 Years	46.8	28.9	10.8	8.3	4.2	1.0	100.0	19.8	21.9
7-9 Years	42.1	27.6	12.8	6.9	8.2	2.4	100.0	24.2	26.0
10+ Years	42.1	32.7	12.4	7.7	3.5	1.6	100.0	20.9	22.0
Total	43.4	30.4	12.0	7.7	4.8	1.6	100.0	21.4	23.1
3-6 Years	11.1	18.7	20.4	19.7	19.3	10.8	100.0	49.0	29.2
7-9 Years	8.7	19.3	19.6	22.5	21.6	8.2	100.0	49.8	27.5
10+ Years	9.6	20.3	23.7	20.9	16.3	9.4	100.0	47.1	28.2
Total	9.9	19.4	21.3	20.9	18.9	9.6	100.0	48.6	28.4
	Age of Child 3-6 Years 7-9 Years 10+ Years Total 3-6 Years 7-9 Years 10+ Years Total 3-6 Years 7-9 Years 10+ Years 10+ Years Total	17.7         15.2         18.3         17.2         Age of Child         3-6 Years       32.4         7-9 Years       29.3         10+ Years       26.8         Total       29.2         3-6 Years       46.8         7-9 Years       42.1         10+ Years       42.1         10+ Years       42.1         Total       43.4         3-6 Years       8.7         10+ Years       8.7         10+ Years       9.6         Total       9.9	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	17.7       20.8       19.0       17.2       16.4       8.9       100.0       43.4         15.2       20.7       18.4       19.8       18.8       7.1       100.0       44.8         18.3       23.9       21.0       16.8       12.7       7.3       100.0       42.4 <b>Age of Child</b> 3-6 Years       32.4       28.3       19.0       8.1       8.9       3.3       100.0       28.3         7-9 Years       29.3       21.3       17.4       17.1       10.4       4.4       100.0       33.7         10+ Years       26.8       29.7       22.3       8.5       7.5       5.1       100.0       29.9         Total       29.2       27.2       20.1       10.5       8.7       4.4       100.0       30.4         3-6 Years       46.8       28.9       10.8       8.3       4.2       1.0       100.0       19.8         7-9 Years       42.1       27.6       12.8       6.9       8.2       2.4       100.0       24.2         10+ Years       42.1       30.4       12.0       7.7       4.8       1.6       100.0       21.4

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#### Table 2.49 PPVT: Percentile Scores by Child Age and Race/Ethnicity (Weighted Distribution)
••••••••••••••••••••••••••••••••••••••		1-69	70-84	85-99	100-114	115-129	130+	Total	Mean	Std. Dev.
Age of Child										
3-6 Years		7.5	18.5	32.7	28.3	11.4	1.7	100.0	95.3	17.4
7-9 Years		5.5	18.0	31.9	33.8	9.6	1.3	100.0	96.1	16.3
10+ Years		8.3	20.2	35.6	24.4	8.9	2.5	100.0	93.8	17.2
Total		7.2	19.0	33.6	28.4	9.9	1.9	100.0	95.0	17.1
Race of Child	Age of Child									
Hispanic	3-6 Years	18.7	30.8	31.9	13.7	4.6	0.3	100.0	84.8	17.8
•	7-9 Years	13.2	27.7	28.9	23.9	4.2	2.1	100.0	88.8	18.7
	10+ Years	14.1	27.9	37.9	14.0	4.8	1.3	100.0	87.8	17.1
	Total	15.4	28.8	33.8	16.3	4.6	1.1	100.0	87.1	17.8
Black	3-6 Years	23.3	38.0	26.3	10.5	1.6	0.2	100.0	80.6	15.5
	7-9 Years	18.5	40.0	25.5	12.0	3.1	0.9	100.0	83.3	17.2
	10+ Years	19.9	38.9	29.2	9.4	2.0	0.6	100.0	82.1	15.0
	Total	20.5	38.9	27.5	10.4	2.1	0.5	100.0	82.0	15.7
White	3-6 Years	3.3	13.5	34.0	33.3	13.9	2.1	100.0	99.2	15.7
	7-9 Years	2.0	12.4	33.6	39.3	11.5	1.3	100.0	99.5	14.1
	10+ Years	3.5	12.7	37.5	31.1	11.8	3.4	100.0	98.6	15.6
	Total	3.0	12.9	35.1	34.3	12.5	2.3	100.0	99.1	15.2

### Table 2.50 - PPVT: Standard Scores by Child Age and Race/Ethnicity (Weighted Distribution)

			1992	Assessment <sup>c</sup>			
			PIAT	PIAT	SPPC	SPPC	
		PIAT	Reading	Reading	Scholastic	Global	
Age/Race/Ethnicity in 1986	PPVT	Math	Recognition	Comprehension	Competence	Self Worth	
Total	0.66 *	0.42 ª	0.45 °	0.46 ª	0.26 °	0.14 ª	
Ages 3 - 6	0.63 ª	0.38 *	0.40 ª	0.42 ª	0.25 ª	0.15 ª	
Ages 7 - 9	0.73 <sup>a</sup>	0.52 <sup>*</sup>	0.51 ª	0.53 *	0.30 ª	0.06	
Ages 10 & Over	0.69 *	0.51 <sup>a</sup>	0.66 ª	0.63 ª	0.22 <sup>b</sup>	0.24	
Hispanic	0.57 ª						
Black	0.50 *						
Non-Hispanic White	0.60 ª						

#### Table 2.51 - Zero Order Correlations Between 1986 PPVT (Percentile) Score and Selected 1992 Assessment Scores

a = coefficient significant at p < 0.001; b = coefficient significant at p < 0.01

c = SPPC scores are raw scores; Peabody scores are percentile scores.

# Table 2.52 - Predictive Power of PPVT: Associations Between 1986 PPVT (Percentile) Score and Selected 1992 Assessment Scores<sup>d</sup> (Weighted Ordinary Least Square Coefficients<sup>1</sup>)

1992 Assessment												
		PIAT	PIAT	SPPC	SPPC							
	PIAT	Reading	Reading	Scholastic	Global							
PPVT	Math	Recognition	Comprehension	Competence	Self Worth	<u>N</u>						
0.55 *	0.28 ª	0.33 ª	0.35 ª	0.35 ª	0.16 ª	1747						
0.50 ª	0.24 ª	0.27 ª	0.30 ª	0.31 ª	0.15 ª	1236						
0.70 ª	0.38 ª	0.43 ª	0.44 ª	0.47 ª	0.09	396						
0.69 *	0.39 ª	0.76 ª	0.65 ª	0.27	0.30 °	113						
-	0.55 * 0.50 * 0.70 * 0.69 *	PIAT           PPVT         Math           0.55 a         0.28 a           0.50 a         0.24 a           0.70 a         0.38 a           0.69 a         0.39 a	PIAT         PIAT         Reading           PPVT         Math         Recognition           0.55 a         0.28 a         0.33 a           0.50 a         0.24 a         0.27 a           0.70 a         0.38 a         0.43 a           0.69 a         0.39 a         0.76 a	PIAT         PIAT         PIAT           PPVT         PIAT         Reading Recognition         Reading Comprehension           0.55 a         0.28 a         0.33 a         0.35 a           0.50 a         0.24 a         0.27 a         0.30 a           0.70 a         0.38 a         0.43 a         0.44 a           0.69 a         0.39 a         0.76 a         0.65 a	PIAT         PIAT         SPPC           PIAT         Reading Math         Reading Recognition         Reading Comprehension         Scholastic Competence           0.55 a         0.28 a         0.33 a         0.35 a         0.35 a           0.55 a         0.24 a         0.27 a         0.30 a         0.31 a           0.70 a         0.38 a         0.43 a         0.44 a         0.47 a           0.69 a         0.39 a         0.76 a         0.65 a         0.27	$\begin{array}{c c c c c c c c c c c c c c c c c c c $						

<sup>1</sup> Coefficients are from equations which include 1986 P.P.V.T. scores and additionally, all the explanatory variables included in the equations in Table 3.1

a = coefficient significant at p < 0.001; c = coefficient significant at p < 0.05

d = SPPC scores are raw scores; Peabody scores are percentile scores.

		HOME SCORE				GNITIVE STIN	IULATION SUB	SCORE	E	EMOTIONAL SUPPORT SUBSCORE			
	ALL AGES	UNDER AGE 4	AGES 4-9	AGES 10+	ALL AGES	UNDER AGE 4	AGES 4-9	AGES 10+	ALL AGES	UNDER AGE 4	AGES 4-9	AGES 10+	
Intercept	-2.45	15.44°	-7.45 <b>°</b>	22.05ª	0.92	29.59ª	-9.12	22.76ª	18.23 <sup>a</sup>	21.76°	18.65	33.65ª	
Child is Girl	2.74ª	6.16 <sup>a</sup>	1.49	1.77	2.83ª	2.76°	2.33°	3.48 <sup>b</sup>	1.65 <sup>c</sup>	6.96 <b>°</b>	0.29	-0.88	
Child is Black <sup>1</sup>	-11.05*	-11.29ª	-12.25ª	-8.07ª	-10.28ª	-9.76 <b>*</b>	-10.25ª	-8.85*	-7.79 <b>*</b>	-9.55°	-10.28*	-3.63 <sup>c</sup>	
Child is Hispanic <sup>1</sup>	-7.43*	-8.96 <sup>b</sup>	-10.03ª	-2.55	-9.59ª	-11.47ª	-11.13ª	-5.59 <sup>b</sup>	-0.32	-2.40	-1.52	2.40	
Child Age (Months)	0.07 <sup>a</sup>	0.16°	0.06 <sup>c</sup>	-0.13ª	0.05ª	0.18ª	0.04	-0.14ª	0.03ª	0.06	0.05	-0.08 <sup>b</sup>	
Mother Years of Schooling	2.45ª	1.50 <sup>a</sup>	2.96ª	2.73ª	2.81*	1.59 <b>°</b>	3.50ª	3.13ª	0.78ª	0.58	0.92 <sup>b</sup>	0.80 <sup>c</sup>	
Mother Weeks Worked Past Year	0.02 <sup>c</sup>	-0.07 <sup>b</sup>	0.02 <sup>c</sup>	0.05°	0.02	-0.11ª	0.04	0.06°	0.02	-0.01	-0.00	0.06	
Family Income 1991	0.0002ª	0.0002ª	0.0002ª	0.0003ª	0.0002ª	0.0001 <sup>b</sup>	0.0002ª	0.0003ª	0.0002ª	0.0002ª	0.0002ª	0.0002 <sup>a</sup>	
Income NA Dummy (=1)	1.47	2.56 <sup>b</sup>	2.93°	-1.52	0.32	3.17	1.69	-3.54 <sup>c</sup>	2.70 <sup>c</sup>	1.06	3.21	2.92	
Two Parents in Home	17.87ª	14.39 <b>°</b>	16.55°	20.32ª	8.70 <sup>a</sup>	8.58ª	7.38ª	8.89 <sup>a</sup>	21.04 <sup>a</sup>	12.33ª	21.05ª	25.34ª	
Number of Children in Home	-1.68*	-3.21°	-1.47 <b>°</b>	-1.53°	-1.48*	-3.85ª	-1.09 <sup>b</sup>	-1.24 <sup>b</sup>	-1.17ª	-1.63°	-0.99 <sup>c</sup>	-1.31 <sup>b</sup>	
Region of Residence - Northeast <sup>1</sup>	5.70 <sup>a</sup>	7.75°	7.17 <b>°</b>	1.86	4.88ª	5.75 <sup>b</sup>	7.27*	0.41	4.53ª	6.42 <sup>b</sup>	3.45°	4.56°	
Region of Residence - North Central <sup>1</sup>	3.85ª	4.26 <sup>c</sup>	4.13ª	3.23°	2.35 <sup>b</sup>	2.21	3.11°	1.02	4.12°	3.41	3.17 <sup>c</sup>	6.81ª	
Region of Residence - West <sup>1</sup>	4.68ª	7.59 <b>°</b>	3.87⁵	3.15	1.68	4.43°	1.80	-1.22	6.31ª	8.34ª	4.10 <sup>b</sup>	8.03 <sup>a</sup>	
Urban-Rural Residence	0.15	-2.33	1.25	-0.83	1.66 <sup>c</sup>	0.00	2.36 <sup>c</sup>	0.35	-0.96	-2.36	-0.49	-0.80	
R <sup>2</sup> (ADJ)	0.27	0.20	0.30	0.33	0.19	0.14	0.24	0.25	0.20	0.13	0.20	0.26	
F Ratio	154	27	78	69	97	17	55	45	89	16	41	40	
Sample Size	5876	1440	2506	1928	5683	1407	2381	1893	5136	1290	2268	1576	

#### Table 3.1 - Determinants of Selected Child Assessment (Percentile) Scores: The HOME (Weighted Ordinary Least Square Estimates)

1 = Race Reference Group is Non Black-Non Hispanic, Region Reference is South
 a = coefficient significant at p < .001; b = coefficient significant at p < .01; c = coefficient significant at p < .05.</li>

	MOTOR AND	SOCIAL DEVI	BLOPMENT	
ALL	UNDER	AGE	AGE TWO	AGE THREE
			1	
200.5 <sup>b</sup>	383.6 <sup>c</sup>	194.4	644.2ª	182.3
94.3 <b>°</b>	-0.9	138.4*	129.0ª	64.4 <sup>c</sup>
-0.5	74.8	38.8	23.9	-63.6
-85.7 <sup>b</sup>	-67.8	-26.7	-80.5	-150.7 <sup>b</sup>
0.6	12.8 <sup>b</sup>	8.3°	-15.9ª	-2.6
12.8ª	-0.8	9.0	13.2 <sup>e</sup>	19.3 <b>°</b>
0.5	-0.2	1.6°	-0.3	0.7
0.0	-0.0	-0.0	0.0	0.0
48.9 <sup>c</sup>	-7.4	138.5 <sup>b</sup>	7.3	62.5
18.7	44.0	-48.2	47.1	34.5
-12.2°	-0.8	-28.4 <sup>c</sup>	-8.3	-4.7
-10.7	-3.9	-36.2	-17.8	25.8
2.3	-95.7°	-30.8	27.5	37.0
13.9	-42.8	9.5	-20.9	68.8
15.8	91.7°	-1.1	9.3	8.0
0.05 <sup>a</sup>	0.03 <sup>c</sup>	0.09 <sup>a</sup>	0.13ª	0.08ª
6.87	1.75	3.55	5.30	3.59
1472	303	350	412	404
	ALL AGES 200.5 <sup>b</sup> 94.3 <sup>a</sup> -0.5 -85.7 <sup>b</sup> 0.6 12.8 <sup>a</sup> 0.5 0.0 48.9 <sup>c</sup> 18.7 -12.2 <sup>c</sup> -10.7 2.3 13.9 15.8 0.05 <sup>a</sup> 6.87 1472	MOTOR AND           ALL AGES         UNDER 1 YEAR           200.5 <sup>b</sup> 383.6 <sup>c</sup> 94.3 <sup>a</sup> -0.9           -0.5         74.8           -85.7 <sup>b</sup> -67.8           0.6         12.8 <sup>b</sup> 12.8 <sup>a</sup> -0.8           0.5         -0.2           0.0         -0.0           48.9 <sup>c</sup> -7.4           18.7         44.0           -12.2 <sup>c</sup> -0.8           -10.7         -3.9           2.3         -95.7 <sup>c</sup> 13.9         -42.8           15.8         91.7 <sup>c</sup> 0.05 <sup>a</sup> 0.03 <sup>c</sup> 6.87         1.75           1472         303	MOTOR AND SOCIAL DEVI AGES         AGE I YEAR         AGE ONE           200.5 <sup>b</sup> 383.6 <sup>c</sup> 194.4           94.3 <sup>a</sup> -0.9         138.4 <sup>a</sup> -0.5         74.8         38.8           -85.7 <sup>b</sup> -67.8         -26.7           0.6         12.8 <sup>b</sup> 8.3 <sup>c</sup> 12.8 <sup>a</sup> -0.8         9.0           0.5         -0.2         1.6 <sup>c</sup> 0.0         -0.0         -0.0           48.9 <sup>c</sup> -7.4         138.5 <sup>b</sup> 18.7         44.0         -48.2           -12.2 <sup>c</sup> -0.8         -28.4 <sup>c</sup> -10.7         -3.9         -36.2           2.3         -95.7 <sup>c</sup> -30.8           13.9         -42.8         9.5           15.8         91.7 <sup>c</sup> -1.1           0.05 <sup>a</sup> 0.03 <sup>c</sup> 0.09 <sup>a</sup> 6.87         1.75         3.55           1472         303         350	MOTOR AND SOCIAL DEVELOPMENT           ALL AGES         UNDER I YEAR         AGE ONE         AGE TWO           200.5 <sup>b</sup> 383.6 <sup>c</sup> 194.4         644.2 <sup>a</sup> 94.3 <sup>a</sup> -0.9         138.4 <sup>a</sup> 129.0 <sup>a</sup> -0.5         74.8         38.8         23.9           -85.7 <sup>b</sup> -67.8         -26.7         -80.5           0.6         12.8 <sup>b</sup> 8.3 <sup>c</sup> -15.9 <sup>a</sup> 12.8 <sup>a</sup> -0.8         9.0         13.2 <sup>c</sup> 0.5         -0.2         1.6 <sup>c</sup> -0.3           0.0         -0.0         -0.0         0.0           48.9 <sup>c</sup> -7.4         138.5 <sup>b</sup> 7.3           18.7         44.0         -48.2         47.1           -12.2 <sup>c</sup> -0.8         -28.4 <sup>c</sup> -8.3           -10.7         -3.9         -36.2         -17.8           2.3         -95.7 <sup>c</sup> -30.8         27.5           13.9         -42.8         9.5         -20.9           15.8         91.7 <sup>c</sup> -1.1         9.3           0.05 <sup>a</sup> 0.03 <sup>c</sup> 0.09 <sup>a</sup> 0.13 <sup>a</sup> 6.87         1.75         <

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#### Table 3.2 - Determinants of Selected Child Assessment (Percentile) Scores: Motor And Social Development (Weighted Ordinary Least Square Estimates)

1 = Race Reference Group is Non Black-Non Hispanic, Region Reference is South a = coefficient significant at p < .001; b = coefficient significant at p < .01; c = coefficient significant at p < .05.

	Activity	Predict- ability	Fearfulness	Positive Affect	Friendliness Comp.	Difficulty Comp.	Negative Hedonic Tone	Compliance	Sociability	Insecure Attachment
AGE:	< 1 Yr.	< 1 Yr.	< 2 Yr.	< 2 Yr.	< 2 Yr.	< 2 Yr.	< 2 Yr.	2-6 Yrs.	3-6 Yrs.	2-6 Yrs.
Intercept	8.14 <sup>*</sup>	11.28ª	6.62ª	11. <b>22</b> *	15.74 <sup>•</sup>	27.32ª	21.62ª	18.38°	6.76ª	25.57°
Child is Girl	-0.11	0.13	0.41	0.20	-0.34	0.45	0.65	0.17	0.18	0.92*
Child is Black <sup>1</sup>	0.87	-0.18	1.62*	0.65°	-1.71*	<b>2.98</b> *	2.68 <sup>*</sup>	-0.94 <sup>b</sup>	-0.33	1.24*
Child is Hispanic <sup>1</sup>	-0.80	-0.20	0.28	0.22	-0.62	1.00	0.56	-0.70	0.02	1.47 <sup>*</sup>
Child Age (Months)	0.19 <sup>*</sup>	0.11*	0.16ª	0.14ª	-0.01	-0.25*	0.03	0.05*	0.05*	-0.06*
Mother Years of Schooling	-0.06	0.04	-0.10	-0.03	0.05	-0.13	-0.13	0.20ª	0.0 <b>7</b> °	-0.24*
Mother Weeks Worked Past Year	0.000	-0.007	-0.008	0.004	0.014 <sup>⊾</sup>	-0.020	-0.0 <b>2</b> 6°	0.002	-0.001	-0.005
Family Income 1991	0.000	0.000	-0.000	-0.000	0.000	-0.000	-0.000	0.000	0.00001 <sup>ь</sup>	0.00009°
Income NA Dummy (=1)	-0.40	0.55	0.28	0.46	0.49	-0.95	-0.87	0.58°	0.50°	0.69 <sup>b</sup>
Two Parents in Home	-0.09	0.86°	-0.49	0.48	0.10	-1.06	-1.18	0.41	0.35	-0.94*
Number of Children in Home	0.01	-0.07	0.33 <sup>b</sup>	-0.11	-0.09	0. <b>52</b> °	0.58 <sup>b</sup>	0.08	-0.06	-0.50°
Region of Residence - Northeast <sup>1</sup>	-0.06	0.31	0.74°	0.04	0.47	0.07	0.06	0.17	0.48°	0.41
Region of Residence - North Central	0.98°	0.23	0.21	-0.23	-0.12	0.56	0.43	0.56	0.23	-0.45
Region of Residence - West <sup>1</sup>	-0.36	0.02	-0.56	0.18	0.42	-0.97	-1.18	0.52	0.38	-0.6 <b>2</b> °
Urban-Rural Residence	-0.55	0.12	-0.28	-0.06	-0.07	-0.17	-0.12	0.33	0.15	0.31
R² (ADJ)	0.05 <sup>ь</sup>	0.04 <sup>b</sup>	0.14 <sup>ª</sup>	0.14 <b>°</b>	0.09 <sup>*</sup>	0.14ª	0.08ª	0.05*	0.08	0.14 <sup>ª</sup>
F Ratio	2.32 <sup>⊾</sup>	2.08	9.42	9.26	6.00	9.27	5.70	9.48	10.76	25.28
Sample Size	327	326	723	726	728	711	712	2149	1612	2170

### Table 3.3 - Determinants of Selected Child Assessment (Raw) Scores: Temperament Subscores (Weighted Ordinary Least Square Estimates)

1 = Race Reference Group is Non Black-Non Hispanic, Region Reference is South a = coefficient significant at p < .001; b = coefficient significant at <math>p < .01; c = coefficient significant at <math>p < .05.

	Behavior Problems	Behavior Problems (Revised)	Intemal- izing Behavior	Extemal- izing Behavior	Antisocial Subscore	Anxious/ Depressed Subscore	Headstrong Subscore	Hyperactivity Subscore	Dependency Subscore	Peer Conflict Subscore
Intercept	824.8ª	814.4°	725.0°	801.8ª	782.1ª	605.1ª	711.3ª	943.0°	788.1ª	717.0
Child is Girl	-31.4ª	-31.9ª	12.9	-46.8ª	-57.0ª	11.3	-23.7 <sup>b</sup>	-70.0*	28.9 <sup>a</sup>	-14.0 <sup>c</sup>
Child is Black <sup>1</sup>	-8.5	-13.7	-9.1	-17.1	32.2 <sup>b</sup>	-25.9 <sup>c</sup>	-52.3ª	16.2	38.0 <sup>b</sup>	4.9
Child is Hispanic <sup>1</sup>	-37.5°	-36.6°	5.1	-42.2 <sup>b</sup>	-33.4 <sup>c</sup>	-4.5	-60.3ª	-17.5	10.1	-20.5
Child Age (Months)	0.4ª	0.5 <b>°</b>	-0.1	0.7 <b>°</b>	0.3 <sup>b</sup>	0.6ª	0.6 <b>*</b>	-0.1	-0.3 <sup>b</sup>	-0.0
Mother Years of Schooling	-12.3ª	-14.1ª	-9.8ª	-13.9ª	-9.6ª	-5.3 <sup>b</sup>	-8.6ª	-15.1ª	-12.2ª	-6.7ª
Mother Weeks Worked Past Year	-0.1	0.6ª	-0.6 <sup>b</sup>	-0.6 <sup>b</sup>	-0.0	-0.5ª	-0.2	0.0	-0.1	-0.2
Family Income 1991	-0.0015ª	-0.0016°	-0.0013ª	-0.0016ª	-0.0017ª	-0.0012ª	-0.0011ª	-0.0010ª	-0.0008ª	-0.0008ª
Income NA Dummy (=1)	4.0	5.7	19.8	5.1	-10.0	1.7	4.5	13.3	26.7	1.9
Two Parents in Home	-35.3ª	-28.7 <sup>b</sup>	-27.3 <sup>b</sup>	-27.5 <sup>b</sup>	-35.8*	-26.9 <sup>b</sup>	-19.0	-19.5	-41.1°	-25.2 <sup>b</sup>
Number of Children in Home	3.0	2.9	-3.5	2.4	13.9a	0.1	2.8	-2.4	-3.1	6.5 <sup>c</sup>
Region of Residence - Northeast <sup>1</sup>	-27.0 <sup>c</sup>	-20.9	-25.6°	-21.0	-41.3ª	-24.4 <sup>c</sup>	-5.3	-26.2 <sup>c</sup>	-19.8	-40.7ª
Region of Residence - North Central <sup>1</sup>	-25.0 <sup>b</sup>	-33.3*	-26.4 <sup>b</sup>	-31.4 <sup>b</sup>	-15.8	-15.3	-22.7°	-27.8 <sup>b</sup>	-19.0	-12.8
Region of Residence - West <sup>1</sup>	-4.0	-1.9	-26.2 <sup>c</sup>	2.0	22.2	-10.3	8.1	-10.1	-14.4	6.7
Urban-Rural Residence	27.5 <sup>⊾</sup>	34.5ª	40.2 <sup>a</sup>	31.8*	33.0°	32.0ª	21.8 <sup>c</sup>	7.9	23.3°	3.9
R <sup>2</sup> (ADJ)	0.055ª	0.068	0.036ª	0.076	0.069ª	0.034ª	0.034ª	0.047*	0.038*	0.024
F Ratio	20.1	24.3	13.5	27.5	25.2	12.9	12.9	17.6	11.7	9.2
Sample Size	4613	4507	4697	4521	4570	4709	4708	4705	3767	4708

### Table 3.4 - Determinants of Selected Child Assessment (Percentile) Scores: Behavior Problem Scores and Subscores<sup>2</sup> (Weighted Ordinary Least Square Estimates)

1 = Race Reference Group is Non Black-Non Hispanic, Region Reference is South

2 = Outcomes are measured in Percentile Scores x 10.

a = coefficient significant at p < .001; b = coefficient significant at p < .01; c = coefficient significant at p < .05.

	HOME Score	HOME Cognitive Stimulation	HOME Emotional Support	Motor/ Social Development	TEMP Compliance	TEMP Sociability	TEMP Insecure Attachment	B.P Revised	B.P Intemal	B.P Extemal	B.P Antisocial	B.P Peer Conflict
Child is Girl	+ a	+ c	+ a	+ a			+ a	- a		- a	- a	- c
Child is Black <sup>1</sup>	- a	- a	- a		- b		+ a				+ b	
Child is Hispanic <sup>1</sup>	- a		- a	- b			+ a	- c		- b	- c	
Mother Years of School	+ a	+ a	+ a	+ a	+ a	+ c	- a	- a	- a	- a	- a	- a
Mother Weeks Worked Past Year	+ c							- a	- b	- b		
Family Income 1991	+ a	+ a	+ a			+ b	+ c	- a	- a	- a	- a	- a
Two Parents in Home	+ a	+ a	+ a				- a	- b	- b	- b	- a	- b
Number of Children in Home	- a	- a	- a	- c			- a				+ a	+ c
Region of Residence - Northeast <sup>1</sup>	+ a	+ a	+ a			+ c			- c		- a	- a
Region on Residence - North Central <sup>1</sup>	+ a	+ a	+ b		+ c		- c	- a	- b	- b		
Region of Residence - West <sup>1</sup>	+ a	+ a					- c		- c			
Urban-Rural Residence			+ b					+ a	+ a	+ a	+ a	
N	5876	5136	5683	1472	2149	1612	2170	4507	4697	4521	4709	4708

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#### Table 3.5 Patterning of Association Between Background Factors and Child Assessments: Mother Reports on Child/Home Attributes and Behaviors

1 = Race Reference Group is Non Black-Non Hispanic, Region Reference is South

NOTE:

1.) a = significance at p < 0.001, b = significance at p < 0.01, c = significance at p < 0.052.) '+' = positive association between input and child outcome; '-' = negative association between input and child outcome. 3.) Equations additionally controlled for child age (in months) and whether or not family income was imputed.

	VERBA	AL MEMORY (	PERCENTILE)	DIGIT SI	PAN (ST AN DARI	D SCORE)	FORWARD	DIGIT SPAN (RA	W SCORE)	REVERSE	DIGIT SPAN (R	AW SCORE)
	AGES 3-6	AGES 3-4	AGES 5-6	AGES 7-11	AGES 7-9	AGES 10- 11	AGES 7-11	AGES 7-9	AGES 10-11	AGES 7-11	AGES 7-9	AGES 10-11
Intercept	15.69	15.98	7.66	6.75 <b>°</b>	10.29 <sup>a</sup>	0.03	0.24	1.19	-2.45	-0.80	-0.64	-1.37
Child is Girl	10.54 <b>°</b>	11.36ª	8.85 <sup>b</sup>	0.68 <sup>a</sup>	0.71 <b>°</b>	0.70 <sup>b</sup>	0.31 <sup>b</sup>	0.38 <sup>b</sup>	0.25	0.27 <sup>a</sup>	0.17	0.42ª
Child is Black <sup>1</sup>	-1.24	2.31	-7.33	0.21	0.25	0.16	0.38°	0.44 <sup>c</sup>	0.33	-0.14	-0.19	-0.11
Child is Hispanic <sup>1</sup>	-5.73	-2.18	-11.37°	-0.60 <sup>c</sup>	-0.74	-0.36	-0.31	-0.43	-0.11	-0.15	-0.15	-0.13
Child Age (Months)	-0.11	-0.36°	0.30	-0.00	-0.03°	0.04 <sup>b</sup>	0.04ª	0.03 <sup>b</sup>	0.05 <sup>a</sup>	0.03ª	0.04ª	0.03ª
Mother Years of Schooling	1.58*	2.28ª	0.14	0.16 <sup>a</sup>	0.16 <sup>b</sup>	0.18 <sup>b</sup>	0.09 <sup>a</sup>	0.11 <sup>b</sup>	0.07	0.07 <sup>b</sup>	0.03	0.12 <sup>a</sup>
Mother Weeks Worked Past Year	0.02	0.03	0.01	-0.00	-0.01 <sup>c</sup>	0.01 <sup>c</sup>	-0.00	-0.01 <sup>c</sup>	0.01	0.00	-0.00	0.00
Family Income 1991	0.00006	0.00003	0.00013	0.000013 <sup>b</sup>	0.000014 <sup>b</sup>	0.000011	0.000010 <sup>a</sup>	0.000011 <sup>b</sup>	0.000009	0.000002	0.000002	0.000004
Income NA Dummy (=1)	1.99	3.76	-2.17	-0.22	0.03	-0.55	-0.20	0.11	-0.63 <sup>c</sup>	-0.04	-0.20	0.01
Two Parents in Home	0.44	2.11	-2.61	-0.18	-0.55°	0.13	-0.19	-0.39 <sup>c</sup>	-0.04	-0.03	-0.20	0.13
Number of Children in Home	-0.29	-0.74	0.74	-0.02	0.05	-0.07	-0.01	-0.01	0.02	-0.00	0.09 <sup>c</sup>	-0.08
Region of Residence - Northeast <sup>1</sup>	1.99	1.67	4.14	0.48 <sup>c</sup>	0.60	0.35	0.50 <sup>b</sup>	0.54 <sup>b</sup>	0.46 <sup>c</sup>	0.01	0.05	-0.10
Region of Residence - North Central <sup>1</sup>	1.13	3.63	-3.08	0.24	-0.14	0.74 <sup>b</sup>	0.29 <sup>c</sup>	0.01	0.66ª	0.00	-0.12	0.13
Region of Residence - West <sup>1</sup>	-5.66 <sup>c</sup>	-3.52	-8.40 <sup>c</sup>	0.24	0.22	0.29	0.17	0.16	0.16	0.02	-0.01	0.01
Urban-Rural Residence	-0.93	-1.26	1.18	-0.11	-0.32	0.22	-0.11	-0.24	0.06	-0.06	-0.17	0.13
R <sup>2</sup> (ADJ)	0.07ª	0.09ª	0.04 <sup>b</sup>	0.04ª	0.05°	0.06ª	0.11*	0.05ª	0.06 <sup>a</sup>	0.15°	0.05ª	0.05
F Ratio	6.77	6.09	2.12	5.90	4.18	4.58	16.69	4.42	4.63	21.3	3.84	3.95
Sample Size	1116	733	382	1594	837	756	1593	836	756	1578	822	755

#### Table 3.6 - Determinants of Selected Child Assessment Scores: Verbal Memory and Digit Span (Ordinary Least Square Estimates)

1 = Race Reference Group is Non Black-Non Hispanic, Region Reference is South a = coefficient significant at p < .001; b = coefficient significant at p < .01; c = coefficient significant at p < .05.

	SCHOLASTIC COMPETENCE (RAW SCORE)		GLOBAL SEL	F-WORTH (RAV	V SCORE)	
	AGES 8 & Over	AGES	AGES	AGES 8 & Over	AGES 8-9	AGES 10+
		<u> </u>	101			
Intercept	125.21°	164.40 <b>°</b>	123.49°	199.56 <b>°</b>	221.50 <sup>a</sup>	209.30 <sup>a</sup>
- Child is Girl	1.99	-0.57	2.96	-4.17 <sup>b</sup>	-0.14	-6.20ª
Child is Black <sup>1</sup>	-2.16	0.61	-3.27	-0.26	-2.41	0.52
Child is Hispanic <sup>1</sup>	-2.46	-6.15	-1.18	-1.35	-6.66	-1.84
Child Age (Months)	0.06 <sup>c</sup>	-0.16	0.02	-0.01	-0.17	-0.08 <sup>c</sup>
Mother Years of Schooling	3.39ª	1.68 <sup>c</sup>	4.12 <sup>a</sup>	1.25ª	0.78	1.43ª
Mother Weeks Worked Past Year	-0.09°	-0.19 <sup>c</sup>	-0.05	-0.02	-0.15°	0.03
Family Income 1991	0.00018*	0.00007	0.00023°	0.00018ª	0.00018 <sup>c</sup>	0.00018°
Income NA Dummy (=1)	6.77 <sup>b</sup>	2.02	8.61 <sup>b</sup>	0.53	-1.90	1.83
Two Parents in Home	-0.90	3.11	-3.09	1.23	0.92	0.98
Number of Children in Home	-1.21°	0.13	-1.57°	-1.74ª	-2.54 <sup>b</sup>	-1.29 <sup>c</sup>
Region of Residence - Northeast <sup>1</sup>	0.75	2.53	0.19	-3.55	-1.06	-4.21
Region of Residence - North Central <sup>1</sup>	0.03	0.49	0.06	-2.14	-1.79	-1.82
Region of Residence - West <sup>1</sup>	0.62	3.30	-0.69	0.30	3.29	-1.28
Urban-Rural Residence	-2.72	3.99	-5.79°	-1.58	-0.55	-2.26
R <sup>2</sup> (ADJ)	0.04ª	0.01	0.06 <sup>a</sup>	0.02*	0.01 <sup>c</sup>	0.04
F Ratio	8.02	1.39	9.11	5.80	1.81	6.02 <sup>a</sup>
Sample Size	2657	815	1841	2656	815	1840

### Table 3.7 - Determinants of Selected Child Assessment Scores, 1992: SPPC (Weighted Ordinary Least Square Estimates)

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1 = Race Reference Group is Non Black-Non Hispanic, Region Reference is South a = coefficient significant at p < .001; b = coefficient significant at p < .01; c = coefficient significant at p < .05.

•

	PIAT Mathematics			PIAT F	PIAT Reading Recognition			eading Comp	rehension	PEABODY Picture Vocabulary Test			
	All Ages	Ages 5-9	Ages 10	All Ages	Ages 5-9	Ages 10	All Ages	Ages 5-9	Ages 10	All Ages	Ages 3-6	Ages 7-9	Ages 10
			& Over			& Over			& Over				& Over
Intercept	25.56 <sup>ª</sup>	18.25 <sup>ª</sup>	38.12 <sup>a</sup>	19.92 <sup>a</sup>	20.55 <sup>ª</sup>	26.06 <sup>a</sup>	40.08 <sup>a</sup>	54.70 <sup>a</sup>	35.45 <sup>ª</sup>	4.50	6.62	8.73	13.50 <sup>c</sup>
Child is Girl	-0.62	-0.11	-1.60	5.91 <sup>ª</sup>	5.56 <sup>ª</sup>	5.85 <sup>a</sup>	4.46 <sup>ª</sup>	5.36 <sup>a</sup>	3.36 <sup>b</sup>	0.64	-0.05	0.14	1.32
Child is Black <sup>1</sup>	-14.27 <sup>a</sup>	-13.49 <sup>a</sup>	-14.64 <sup>a</sup>	-7.17 <sup>ª</sup>	-3,60 <sup>c</sup>	-10.19 <sup>a</sup>	-9.71 <sup>ª</sup>	-7.53 <sup>a</sup>	-11.48 <sup>a</sup>	-20.80 <sup>ª</sup>	-21.83 <sup>a</sup>	-19.85 <sup>ª</sup>	-19.24 <sup>ª</sup>
Child is Hispanic <sup>1</sup>	-9.10 <sup>ª</sup>	-9.37 <sup>a</sup>	-8.48 <sup>ª</sup>	-1.98	-4.97 <sup>c</sup>	1.18	-3.12	-5.06 <sup>c</sup>	-1.65	-11.83 <sup>ª</sup>	-14.11 <sup>ª</sup>	-11.14 <sup>a</sup>	-10.01 <sup>a</sup>
Child Age (Months)	-0.02 <sup>c</sup>	0.05	-0.10 <sup>a</sup>	-0.02 <sup>c</sup>	0.00	-0.09 <sup>a</sup>	-0.17 <sup>a</sup>	-0.27 <sup>a</sup>	-0.17 <sup>a</sup>	0.03 <sup>b</sup>	0.11 <sup>c</sup>	0.05	-0.08 <sup>a</sup>
Mother Years of School	2.33 <sup>a</sup>	2.32 <sup>a</sup>	2.42 <sup>ª</sup>	2.74 <sup>a</sup>	2.44 <sup>a</sup>	3.25 <sup>a</sup>	2.51 <sup>a</sup>	1.98 <sup>a</sup>	2.99 <sup>a</sup>	2.97 <sup>a</sup>	2.72 <sup>ª</sup>	2.81 <sup>a</sup>	3.27 <sup>a</sup>
Mother Weeks Worked Past Year	0.05 <sup>c</sup>	0.04	0.04	0.00	-0.02	0.01	0.04	0.01	0.06	0.02	0.03	-0.05	0.06 <sup>c</sup>
Family Income 1991	0.00011 <sup>a</sup>	0.00010 <sup>b</sup>	0.00014 <sup>a</sup>	0.00020 <sup>a</sup>	0.00016 <sup>a</sup>	0.00026 <sup>a</sup>	0.00013 <sup>a</sup>	0.00011 <sup>b</sup>	0.00016 <sup>a</sup>	0.00014 <sup>a</sup>	0.00015 <sup>a</sup>	0.00017 <sup>a</sup>	0.00015 <sup>a</sup>
Income NA Dummy (=1)	4.10 <sup>a</sup>	3.91 <sup>°</sup>	4.52 <sup>b</sup>	3.41 <sup>b</sup>	0.48	6.56 <sup>a</sup>	3.41 <sup>b</sup>	0.42	5.65 <sup>b</sup>	3.75 <sup>b</sup>	10.20 <sup>a</sup>	-4.25	3.24
Two Parents in Home	1.96	2.72	0.83	3.23 <sup>b</sup>	3.92 <sup>b</sup>	1.77	4.19 <sup>a</sup>	4.31 <sup>b</sup>	3.50 <sup>c</sup>	4.42 <sup>ª</sup>	4.44 <sup>c</sup>	2.77	5.34 <sup>a</sup>
Number of Children in Home	-1.07 <sup>a</sup>	-1.69 <sup>a</sup>	-0.40	-2.22 <sup>a</sup>	-2.18 <sup>a</sup>	-2.25 <sup>a</sup>	-1.49 <sup>a</sup>	-1.49 <sup>b</sup>	-1.41 <sup>a</sup>	-2.45 <sup>ª</sup>	-3.97 <sup>a</sup>	-2.06 <sup>b</sup>	-1.55 <sup>a</sup>
Region of Residence - Northeast <sup>1</sup>	4.05 <sup>a</sup>	5.12 <sup>b</sup>	2.79	6.13 <sup>a</sup>	5.47 <sup>a</sup>	6.81 <sup>a</sup>	5.30 <sup>a</sup>	5.69 <sup>b</sup>	4.78 <sup>°</sup>	8.14 <sup>a</sup>	7.14 <sup>a</sup>	7.62 <sup>a</sup>	10.32 <sup>a</sup>
Region on Residence - North Central <sup>1</sup>	2.00 <sup>c</sup>	2.32	1.45	2.51 <sup>c</sup>	0.55	4.58 <sup>a</sup>	1.29	-1.60	3.91 <sup>b</sup>	6.33 <sup>a</sup>	8.45 <sup>a</sup>	3.52	6.09 <sup>a</sup>
Region of Residence - West <sup>1</sup>	0.21	1.20	-1.57	1.65	0.59	2.34	-1.10	-4.03 <sup>c</sup>	1.25	6.23 <sup>a</sup>	4.78 <sup>c</sup>	8.41 <sup>a</sup>	5.11 <sup>b</sup>
Urban-Rural Residence	1.44	3.75 <sup>b</sup>	-1.78	-1.92	1.87	-6.52 <sup>a</sup>	-1.18	3.18 <sup>c</sup>	-4.72 <sup>ª</sup>	-1.84 <sup>c</sup>	0.12	-1.31	-4.99 <sup>a</sup>
D <sup>2</sup>	<b>.</b> .	<b>6</b> 8	6	<b>.</b>	<b>6</b>	â	8		1	9	0.24		
ĸ	0.15	0.14	0.16	0.15	0.12	0.20-	0.22	0.15	0.20-	0.23-	0.24	0.19	0.27-
F	51.22	27.73	26.55	50.97	21.19	32.06	67.75	20.26	33.09	97.24	35.45	21.28	47.26
N	3936	2112	1823	3881	2059	1821	3286	1483	1802	4458	1505	1205	1746

#### Table 3.8 - Determinants of Selected Child Assessment (Percentile) Scores, 1992: The Peabody Assessments (Weighted Ordinary Least Square Estimates)

1 Race Reference Group is Non-Black / Non-Hispanic, Region Reference is South. a = significance at p < 0.01; b = significance at p < 0.05; c = significance at p < 0.10

					SPI	PC				
	Verbal Mem.	Digit Span	Digit Span	Digit Span	Scholastic	Global	PIAT	PIAT	PIAT	PPVT
	A+B	Total	Forward	Reverse	Competence	Self-Worth	Mathematics	Read Rec.	Read Comp.	
	(Percentile)	(Stnd Score)	(Raw)	(Raw)	(Raw)	(Raw)	(Percentile)	(Percentile)	(Percentile)	
			. <b>1</b>			1				
	+ a	+ a	+ b	+ a		- b		+ a	+ a	
Child is Black <sup>1</sup>			+ c				- a	- a	- a	- a
Child is Hispanic <sup>1</sup>		- c					- a			- a
Mother Years of School	+ a	+ a	+ a	+ b	+ a	+ a	+ a	+ a	+ b	+ a
Mother Weeks Worked Past Year					- c		+ c			
Family Income 1991		+ b	+ a		+ a	+ a	+ a	+ a	+ a	+ a
Two Parents in Home								+ b	+ a	+ a
Number of Children in Home					- c	- a	- a	- a	- a	- a
Region of Residence - Northeast <sup>1</sup>		+ c	+ b				+ a	+ a	+ a	+ a
Region on Residence - North Central <sup>1</sup>			+ c				+ a	+ b		+ a
Region of Residence - West <sup>1</sup>		- c								+ a
Urban-Rural Residence										- c

Table 3.9 - Patterning of Association Between Background Factors and Child Assessments: Child Self Reports

1 = Race Reference Group is Non Black-Non Hispanic, Region Reference is South a = coefficient significant at p < .001; b = coefficient significant at p < .01; c = coefficient significant at p < .05; '+' = positive association between input and child outcome; '-' = negative association between outcome.

							SP	РС	-					
	HOME	HOME	HOME	Digit	Digit	Digit	Scholastic	Global	Behavior	Externalizing	PIAT	PIAT	PIAT	PPVT
	Score	Cognitive	Emotional	Span <sup>2</sup>	Span	Span	Competence	Self-Worth	Problems	Behavior	Math	Read	Read	
		Stimulation	Support		Forward	Reverse						Rec.	Comp.	
Child is Girl		+ b		+ b	+ a		- a	- a		- b		+ a	+ b	
Child is Black <sup>1</sup>	- a	- a	- c				-		- c	- C	- a	- a	- a	- a
Child is Hispanic <sup>1</sup>		- b							- c	- a	- a			- a
Mother Years of School	+ a	+ a	+ c	+ b	+ a	+ a	+ a	+ a	- a	- a	+ a	+ a	+ a	+ a
Mother Weeks Worked Past Year	+ c	+ c		+ c					- c	- c				+ c
Family Income 1991	+ a	+ c	+ a			+ a	+ a	+ a		- a	+ a	+ a	+ a	+ a
Two Parents in Home	+ a	+ a	+ a										+ c	+ a
Number of Children in Home	- a	- b	- b			- c	- c	- c	+ c	+ c		- a	- a	- a
Region of Residence - Northeast <sup>1</sup>			+ c		+ c							а	с	а
Region on Residence - North Central <sup>1</sup>	+ c		+ a	+ b	+ a				- b	<b>-</b> b		а	b	а
Region of Residence - West <sup>1</sup>			+ a											b
Urban-Rural Residence						- c			+ a	+ a		- a	- a	- a

Table 3.10 - Patterning of Determinants of Selected Child Assessment (Percentile) Scores: Children 10 and Over in 1992

1 Race Reference Group is Non-Black / Non-Hispanic, Region Reference is South.

2 Ages 10 and 11.

a = coefficient significant at p < .001; b = coefficient significant at p < .01; c = coefficient significant at p < .05; '+' = positive association between input and child outcome; '-' = negative association between outcome.

	PIAT Mathematics				PIAT Reading Recognition				PPVT			
	No	All Except	All	Sample	No	All Except	All	Sample	No	All Except	All	Sample
	Controls	Birth wt.	Controls	Size	Controls	Birth wt.	Controls	Size	Controls	Birth wt.	Controls	Size
Body Parts (Raw Score)												
All Ages	1.56 ª	2.18 <sup>a</sup>	2.10 ª	678	1.77 ª	2.23 <sup>a</sup>	2.26 ª	664	2.11 ª	2.50 ª	2.44 ª	685
One Year of Age	2.39 ª	2.01 ª	1.87 ª	307	2.34 ª	2.13 ª	2.19 ª	306	2.54 ª	2.38 ª	2.25 ª	321
Two Years of Age	4.44 <sup>a</sup>	3.03 <sup>a</sup>	2.99 ª	371	4.50 ª	3.00 <sup>a</sup>	2.89 <sup>a</sup>	357	6.54 ª	4.25 ª	4.53 ª	364
Memory for Location (Percenti	ile)											
All Ages	0.10 *	0.06 <sup>b</sup>	0.05 <sup>b</sup>	1144	0.11 ª	0.06 <sup>b</sup>	0.06 <sup>c</sup>	1139	0.15 ª	0.08 ª	0.07 <sup>b</sup>	1131
Under Two Years of Age	0.11 <sup>a</sup>	0.07 °	0.06	448	0.17 ª	0.12 <sup>a</sup>	0.11 ª	446	0.21 ª	0.11 <sup>a</sup>	0.10 <sup>b</sup>	447
2 or 3 Years of Age	0.09 <sup>b</sup>	0.05	0.05	696	0.05	-0.00	0.00	693	0.10 <sup>b</sup>	0.03	0.03	684

### Table 3.10A - Body Parts and Memory For Location Assessments in 1986 as Predictors of the Peabody Assessments in 1992 (Weighted Ordinary Least Square Estimates)

a = coefficient significant at P < 0.01; b = significant at P < 0.05; c = significant at P < 0.10

1- includes all variables in Table 1 and additionally a birth-weight control

					1992	Outcomes					
	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	PIAT	PIAT	Digit
	Total	Extemal	Antisocial	Anx/Dep	Headstrong	Hyper	Depend.	Peer Conflict	Reading Rec.	Math	Span
<u>Under 1 Year of Age (1986)</u>											
Temp. (Fearfulness)	0.11 <sup>b</sup>	0.11 <sup>b</sup>	0.10 <sup>b</sup>	0.13 <sup>b</sup>	0.07	0.04	0.09	0.10 <sup>b</sup>	0.00	-0.12 <sup>b</sup>	0.00
Temp. (Pos. Affect)	-0.02	0.03	-0.03	0.00	-0.03	-0.09	0.05	-0.02	0.22ª	0.10 <sup>b</sup>	0.13
Temp. (Friendliness)	-0.20ª	-0.18ª	-0.21ª	-0.14ª	-0.16ª	-0.15ª	-0.12 <sup>b</sup>	-0.19ª	0.13ª	0.19ª	-0.03
Temp. (Neg. Hedonic Tone)	0.17ª	0.14ª	0.18ª	0.14ª	0.13 <sup>b</sup>	0.15ª	0.08	0.16 <sup>a</sup>	-0.18ª	-0.23ª	-0.02
<u>One Year Old (1986)</u>					_						
Temp. (Fearfulness)	0.04	0.12 <sup>b</sup>	-0.03	0.05	0.04	0.00	0.09	0.05	0.08	0.00	0.08
Temp. (Pos. Affect)	-0.11 <sup>b</sup>	-0.13ª	-0.12ª	-0.08	-0.05	-0.04	-0.11 <sup>b</sup>	-0.20ª	0.04	0.05	0.09
Temp. (Friendliness)	-0.18ª	-0.21ª	-0.14ª	-0.13	-0.14ª	-0.12ª	-0.16ª	-0.12 <sup>b</sup>	0.09	0.20ª	0.06
Temp. (Neg. Hedonic Tone)	0.13ª	0.20ª	0.08	0.11 <sup>b</sup>	0.10	0.06	0.16 <sup>a</sup>	0.14ª	-0.00	-0.10 <sup>b</sup>	-0.00
<u>2-6 Years Old (1986)</u>											
Temp. (Compliance)	-0.12ª	-0.11ª	-0.10ª	-0.08ª	-0.12ª	-0.07 <sup>b</sup>	-0.09ª	-0.07ª	0.09ª	0.08ª	0.13ª
Temp. (Insecure Attach.)	0.12ª	0.15ª	0.07°	0.10ª	0.06 <sup>b</sup>	0.12ª	0.15ª	0.05 <sup>b</sup>	-0.07ª	-0.09ª	-0.09ª
<u>4-6 Years Old (1986)</u>											
Temp. (Sociability)	-0.05	-0.06	-0.01	-0.00	0.00	-0.11ª	-0.09 <sup>b</sup>	-0.05	0.19ª	0.19ª	

### Table 3.11 - Selected Zero Order Correlations: Temperament (1986) with Selected 1992 Behavior Problems and PIAT Outcomes (Weighted)

a = coefficient significant at p < .001; b = coefficient significant at p < .01; c = coefficient significant at p < .05.

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PIAT Mathematics			PIAT Reading Recognition			Behavior	Prob. (Total	Score)	Behavior Prob. (Extern. Score)			
No	All Except	All	No	All Except	All	No	All Except	All	No	All Except	All	
ontrols	Birth wt. <sup>1</sup>	Controls <sup>1</sup>	Controls	Birth wt. <sup>1</sup>	Controls <sup>1</sup>	Controls	Birth wt. <sup>1</sup>	Controls <sup>1</sup>	Controls	Birth wt. <sup>1</sup>	Controls <sup>1</sup>	
0.82 <sup>b</sup>	1.04 <sup>b</sup>	1.09 ª	1.83 ª	1.88 ª	1.88 ª	-1.82	-6.87	-6.42	3.75	-2.99	-2.63	
1.50 ª	0.88 °	0.77	0.70	0.24	0.09	-20.67 ª	-16.70 <b>°</b>	-15.86 *	-19.52 ª	-14.18 ª	-13.92 <sup>b</sup>	
-0.40	0.24	0.19	0.39	<sup>°</sup> 0.68	0.63	۶ 7.80 °	2.98	3.91	10.42 <sup>b</sup>	3.30	4.10	
-0.81 ª	-0.52 <sup>b</sup>	-0.52 <sup>b</sup>	-0.65 ª	-0.40 °	-0.39 °	8.22 ª	7.10 ª	7.23 ª	7.02 ª	5.75 <sup>b</sup>	5.83 <sup>b</sup>	
-0.21	-0.24	-0.31	0.28	0.54	0.43	-21.13 <sup>b</sup>	-25.14 *	-24.50 ª	-25.29 ª	-28.99 °	-29.17 ª	
1.66 ª	0.97 <sup>b</sup>	0.83 °	0.43	-0.22	-0.35	-12.28 <sup>b</sup>	-8.01	-7.21	-15.83 ª	-13.20 <sup>b</sup>	-12.72 <sup>b</sup>	
0.39	0.76 <sup>b</sup>	0.69 <sup>b</sup>	0.87 <sup>b</sup>	1.17 ª	1.17 ª	1.56	0.40	0.60	8.33 <sup>b</sup>	7.28 <sup>b</sup>	7.52 <sup>b</sup>	
-0.12	0.18	0.18	0.27	0.53 <sup>b</sup>	0.53 <sup>b</sup>	4.39 °	3.55	3.39	8.36 ª	7.84 ª	7.76 ª	
0.63 ª	0.40 ª	0.40 ª	0.74 ª	0.44 ª	0.45 ª	-6.28 ª	-6.38 ª	-6.20 ª	-4.62 ª	-3.67 <sup>b</sup>	-3.74 ª	
-0.62 ª	-0.19	-0.16	-0.73 ª	-0.36 <sup>b</sup>	-0.36 <sup>b</sup>	6.46 ª	5.86 ª	5.80 ª	7.93 ª	6.49 ª	6.41 ª	
1.67 °	1.62 ª	1.64 *	2.02 ª	1.61 ª	1.66 ª	-5.17 °	-3.18	-4.20	-6.62 <sup>b</sup>	-5.08	-5.75 °	
	No <u>ntrols</u> 0.82 <sup>b</sup> 1.50 <sup>a</sup> -0.40 -0.81 <sup>a</sup> -0.21 1.66 <sup>a</sup> 0.39 -0.12 0.63 <sup>a</sup> -0.62 <sup>a</sup> 1.67 <sup>a</sup>	No         All Except Birth wt. <sup>1</sup> 0.82 b         1.04 b           1.50 a         0.88 c           -0.40         0.24           -0.81 a         -0.52 b           -0.21         -0.24           1.66 a         0.97 b           -0.12         0.18           0.63 a         0.40 a           -0.62 a         -0.19           1.67 a         1.62 a	No         All Except         All           ntrols         Birth wt. <sup>1</sup> Controls <sup>1</sup> 0.82 <sup>b</sup> 1.04 <sup>b</sup> 1.09 <sup>a</sup> 1.50 <sup>a</sup> 0.88 <sup>c</sup> 0.77           -0.40         0.24         0.19           -0.81 <sup>a</sup> -0.52 <sup>b</sup> -0.52 <sup>b</sup> -0.21         -0.24         -0.31           1.66 <sup>a</sup> 0.97 <sup>b</sup> 0.83 <sup>c</sup> 0.39         0.76 <sup>b</sup> 0.69 <sup>b</sup> -0.12         0.18         0.18           0.63 <sup>a</sup> 0.40 <sup>a</sup> 0.40 <sup>a</sup> -0.62 <sup>a</sup> -0.19         -0.16           1.67 <sup>a</sup> 1.62 <sup>a</sup> 1.64 <sup>a</sup>	No         All Except         All         No           ntrols         Birth wt. <sup>1</sup> Controls <sup>1</sup> Controls $0.82^{b}$ $1.04^{b}$ $1.09^{a}$ $1.83^{a}$ $1.50^{a}$ $0.88^{c}$ $0.77$ $0.70$ $-0.40$ $0.24$ $0.19$ $0.39$ $-0.81^{a}$ $-0.52^{b}$ $-0.52^{b}$ $-0.65^{a}$ $-0.21$ $-0.24$ $-0.31$ $0.28$ $1.66^{a}$ $0.97^{b}$ $0.83^{c}$ $0.43$ $0.39$ $0.76^{b}$ $0.69^{b}$ $0.87^{b}$ $-0.12$ $0.18$ $0.18$ $0.27$ $0.63^{a}$ $0.40^{a}$ $0.40^{a}$ $0.74^{a}$ $-0.62^{a}$ $-0.19^{a}$ $-0.16^{a}$ $-0.73^{a}$ $1.67^{a}$ $1.62^{a}$ $1.64^{a}$ $2.02^{a}$	No         All Except         All         No         All Except           ntrols         Birth wt. <sup>1</sup> Controls         I         Controls         Birth wt. <sup>1</sup> 0.82 b         1.04 b         1.09 a         1.83 a         1.88 a           1.50 a         0.88 c         0.77         0.70         0.24           -0.40         0.24         0.19         0.39         0.68 c           -0.81 a         -0.52 b         -0.52 b         -0.65 a         -0.40 c           -0.21         -0.24         -0.31         0.28         0.54           1.66 a         0.97 b         0.83 c         0.43         -0.22           0.39         0.76 b         0.69 b         0.87 b         1.17 a           -0.12         0.18         0.18         0.27         0.53 b           0.63 a         0.40 a         0.40 a         0.74 a         0.44 a           -0.62 a         -0.19         -0.16         -0.73 a         -0.36 b           1.67 a         1.62 a         1.64 a         2.02 a         1.61 a	NoAll ExceptAllNoAll ExceptAllntrolsBirth wt. <sup>1</sup> Controls <sup>1</sup> ControlsBirth wt. <sup>1</sup> Controls <sup>1</sup> $0.82^{b}$ $1.04^{b}$ $1.09^{a}$ $1.83^{a}$ $1.88^{a}$ $1.88^{a}$ $1.88^{a}$ $1.50^{a}$ $0.88^{c}$ $0.77$ $0.70$ $0.24$ $0.09$ $-0.40$ $0.24$ $0.19$ $0.39$ $0.68^{c}$ $0.63$ $-0.81^{a}$ $-0.52^{b}$ $-0.52^{b}$ $-0.65^{a}$ $-0.40^{c}$ $-0.39^{c}$ $-0.21$ $-0.24$ $-0.31$ $0.28$ $0.54$ $0.43$ $1.66^{a}$ $0.97^{b}$ $0.83^{c}$ $0.43$ $-0.22$ $-0.35$ $0.39$ $0.76^{b}$ $0.69^{b}$ $0.87^{b}$ $1.17^{a}$ $1.17^{a}$ $-0.12$ $0.18$ $0.18$ $0.27$ $0.53^{b}$ $0.53^{b}$ $0.63^{a}$ $0.40^{a}$ $0.40^{a}$ $0.74^{a}$ $0.44^{a}$ $0.45^{a}$ $-0.62^{a}$ $-0.19$ $-0.16$ $-0.73^{a}$ $-0.36^{b}$ $-0.36^{b}$	NoAll ExceptAllNoAll ExceptAllNontrolsBirth wt. <sup>1</sup> Controls <sup>1</sup> Controls <sup>1</sup> Controls <sup>1</sup> Controls <sup>1</sup> Controls <sup>1</sup> $0.82^{b}$ $1.04^{b}$ $1.09^{a}$ $1.83^{a}$ $1.88^{a}$ $1.88^{a}$ $1.88^{a}$ $-1.82$ $1.50^{a}$ $0.88^{c}$ $0.77$ $0.70$ $0.24$ $0.09$ $-20.67^{a}$ $-0.40$ $0.24$ $0.19$ $0.39$ $0.68^{c}$ $0.63$ $7.80^{c}$ $-0.81^{a}$ $-0.52^{b}$ $-0.52^{b}$ $-0.65^{a}$ $-0.40^{c}$ $-0.39^{c}$ $8.22^{a}$ $-0.21$ $-0.24$ $-0.31$ $0.28$ $0.54$ $0.43$ $-21.13^{b}$ $1.66^{a}$ $0.97^{b}$ $0.83^{c}$ $0.43$ $-0.22$ $-0.35$ $-12.28^{b}$ $0.39$ $0.76^{b}$ $0.69^{b}$ $0.87^{b}$ $1.17^{a}$ $1.17^{a}$ $1.56$ $0.12$ $0.18$ $0.18$ $0.27$ $0.53^{b}$ $0.53^{b}$ $4.39^{c}$ $0.63^{a}$ $0.40^{a}$ $0.74^{a}$ $0.44^{a}$ $0.45^{a}$ $-6.28^{a}$ $0.62^{a}$ $-0.19^{a}$ $-0.16^{c}$ $-0.73^{a}$ $-0.36^{b}$ $-0.36^{b}$ $1.67^{a}$ $1.62^{a}$ $1.64^{a}$ $2.02^{a}$ $1.61^{a}$ $1.66^{a}$ $-5.17^{c}$	NoAll ExceptAllNoAll ExceptAllNoAll ExceptntrolsBirth wt. <sup>1</sup> Controls <sup>1</sup> Controls <sup>1</sup> ControlsBirth wt. <sup>1</sup> ControlsBirth wt. <sup>1</sup> $0.82^{b}$ $1.04^{b}$ $1.09^{a}$ $1.83^{a}$ $1.88^{a}$ $1.88^{a}$ $1.88^{a}$ $-1.82$ $-6.87$ $1.50^{a}$ $0.88^{c}$ $0.77$ $0.70$ $0.24$ $0.09$ $-20.67^{a}$ $-16.70^{a}$ $-0.40$ $0.24$ $0.19$ $0.39$ $0.68^{c}$ $0.63$ $7.80^{c}$ $2.98$ $-0.81^{a}$ $-0.52^{b}$ $-0.52^{b}$ $-0.65^{a}$ $-0.40^{c}$ $-0.39^{c}$ $8.22^{a}$ $7.10^{a}$ $-0.21$ $-0.24$ $-0.31$ $0.28$ $0.54$ $0.43$ $-21.13^{b}$ $-25.14^{a}$ $1.66^{a}$ $0.97^{b}$ $0.83^{c}$ $0.43$ $-0.22$ $-0.35^{c}$ $-12.28^{b}$ $-8.01$ $0.39$ $0.76^{b}$ $0.69^{b}$ $0.87^{b}$ $1.17^{a}$ $1.17^{a}$ $1.56^{c}$ $0.40^{c}$ $-0.12$ $0.18$ $0.18$ $0.27$ $0.53^{b}$ $0.53^{b}$ $4.39^{c}$ $3.55^{c}$ $0.63^{a}$ $0.40^{a}$ $0.74^{a}$ $0.44^{a}$ $0.45^{a}$ $-6.28^{a}$ $-6.38^{a}$ $-0.62^{a}$ $-0.19^{c}$ $-0.16^{c}$ $-0.73^{a}$ $-0.36^{b}$ $-6.46^{c}$ $5.86^{c}$ $1.67^{a}$ $1.64^{a}$ $2.02^{a}$ $1.61^{a}$ $1.66^{a}$ $-5.17^{c}$ $-3.18^{c}$	NoAll ExceptAllNoAll ExceptAllNoAll ExceptAll $ntrols$ Birth wt. <sup>1</sup> ControlsControlsBirth wt. <sup>1</sup> ControlsControlsBirth wt. <sup>1</sup> Controls $0.82^{b}$ $1.04^{b}$ $1.09^{a}$ $1.83^{a}$ $1.88^{a}$ $1.88^{a}$ $1.82^{a}$ $-6.87$ $-6.42$ $1.50^{a}$ $0.88^{c}$ $0.77$ $0.70$ $0.24$ $0.09$ $-20.67^{a}$ $-16.70^{a}$ $-15.86^{a}$ $-0.40$ $0.24$ $0.19$ $0.39$ $0.68^{c}$ $0.63$ $7.80^{c}$ $2.98$ $3.91$ $-0.81^{a}$ $-0.52^{b}$ $-0.52^{b}$ $-0.65^{a}$ $-0.40^{c}$ $-0.39^{c}$ $8.22^{a}$ $7.10^{a}$ $7.23^{a}$ $-0.21$ $-0.24$ $-0.31$ $0.28$ $0.54$ $0.43$ $-21.13^{b}$ $-25.14^{a}$ $-24.50^{a}$ $1.66^{a}$ $0.97^{b}$ $0.83^{c}$ $0.43$ $-0.22$ $-0.35$ $-12.28^{b}$ $-8.01$ $-7.21$ $0.39$ $0.76^{b}$ $0.69^{b}$ $0.87^{b}$ $1.17^{a}$ $1.17^{a}$ $1.56$ $0.40$ $0.60$ $0.12$ $0.18$ $0.18$ $0.27$ $0.53^{b}$ $0.43^{c}$ $-6.28^{a}$ $-6.38^{a}$ $-6.20^{a}$ $0.63^{a}$ $0.40^{a}$ $0.74^{a}$ $0.44^{a}$ $0.45^{a}$ $-6.28^{a}$ $-6.38^{a}$ $-6.20^{a}$ $0.62^{a}$ $-0.19^{a}$ $-0.16^{c}$ $-0.73^{a}$ $-0.36^{b}$ $-6.46^{c}$ $5.86^{c}$ $5.80^{a}$ $1.67^{a}$ $1.64^{a}$ $2.02^{$	NoAll ExceptAllNoAll ExceptAllNoAll ExceptAllNontrolsBirth wt. <sup>1</sup> ControlsBirth wt. <sup>1</sup> ControlsBirth wt. <sup>1</sup> ControlsCon	No         All Except Introls         All         No         All Except Birth wt. <sup>1</sup> On         All Except Controls         All         No         All Except Birth wt. <sup>1</sup> Controls         Controls         Controls         Birth wt. <sup>1</sup> Controls	

### Table 3.12 - Selected Temperament (Raw) Subscores in 1986 as Predictors of Selected 1992 Child Assessment (Percentile) Scores by Age in 1986 (Weighted Ordinary Least Square Estimates)

a = coefficient significant at p < 0.01; b = significant at p < 0.05; c = significant at p < 0.10

1- includes all variables in Table 1 and additionally a birth-weight control

	Anti-S	ocial	Anxious-D	epressed	Heads	trong	Hypera	active	Depen	dent	Peer Co	onflict
	No	All	No	All	No	All	No	All	No	All	No	All
	Controls	Controls <sup>1</sup>	Controls	Controls <sup>1</sup>	Controls	Controls <sup>1</sup>	Controls	Controls <sup>1</sup>	Controls	Controls <sup>1</sup>	Controls	Controls <sup>1</sup>
Under One Year												
Positive Affect	-2.94	-4.04	1.14	-3.53	-0.11	-5.71	-8.70 <sup>b</sup>	-10.62 <sup>b</sup>	4.74	1.35	-1.13	-2.58
Friendliness	-20.88 ª	-15.88 ª	-14.36 ª	-10.92 °	-15.91 *	-14.87 ª	3.80	4.02	-11.41 <sup>b</sup>	-6.58	-15.89 °	-11.74 <sup>b</sup>
Fearfulness	5.46	1.40	7.93 °	4.58	7.38 °	5.48	-16.55 *	-12.17 <sup>b</sup>	8.15 °	3.89	7.88 <sup>b</sup>	4.99
Negative Hedonic Tone	7.64 ª	5.21 °	5.61 <sup>b</sup>	5.51 °	6.37 <sup>b</sup>	7.36 ª	8.47	8.15	4.03	2.56	6.75 ª	5.36 <sup>b</sup>
One Year Old												
Positive Affect	-23.29 ª	-23.27 ª	-19.20 <sup>b</sup>	-21.13 <sup>b</sup>	-8.34	-11.86	-9.78	-12.21	-20.88 <sup>b</sup>	-26.30 ª	-31.91 ª	-31.78 ª
Friendliness	-5.95	2.64	-8.42	-7.38	-7.87	-7.08	-10.53 °	-5.59	-13.36 <sup>b</sup>	-9.60 °	-5.92	-3.99
Fearfulness	-2.74	-6.52 °	4.12	3.57	-0.98	-0.80	1.58	1.12	6.37 °	6.67 °	1.91	-0.10
Negative Hedonic Tone	1.49	-1.55	4.55 °	4.36 °	1.72	1.93	3.09	2.17	6.85 ª	6.65 ª	4.20 <sup>b</sup>	3.13
Two Years and Over												
Compliance	-6.01 ª	-5.17 *	-4.35 *	-5.49 ª	-6.22 ª	-7.19 *	-4.29 <sup>a</sup>	-3.37 <sup>b</sup>	-3.62 <sup>b</sup>	-2.50	-3.11 <sup>b</sup>	-2.86 <sup>b</sup>
Insecure Attachment	2.76 °	1.50	6.01 <sup>a</sup>	6.20 <sup>a</sup>	3.10 <sup>b</sup>	3.45 <sup>b</sup>	6.68 <sup>a</sup>	6.34 ª	9.03 ª	6.19 ª	1.80	0.61
Four to Six Years												
Sociability	0.46	3.25	-0.27	-1.46	-1.01	-0.02	-12.35 ª	-11.28 ª	-8.41 <sup>b</sup>	0.51	-4.14	-4.52

Table 3.13 - Selected Temperament (Raw) Subscores in	n 1986 as Predictors of Selected	<b>1992 Behavior Problem</b>	(Percentile) Subscores
(Weighted )	Ordinary Least Square Estimate	es)	

a = coefficient significant at p < 0.01; b = significant at p < 0.05; c = significant at p < 0.10

1- includes all variables in Table 1 and additionally a birth-weight control

## Table 3.14 - Selected Temperament (Raw) Subscores and Motor and Social Development (Percentile) Score in 1986 as Predictors of 1992 SPPC (Raw) Scores (Weighted Ordinary Least Square Estimates)

	S	cholastic C	ompetence		Global Self-Worth					
	No	All	Ctrls &	Sample	No	All	Ctrls &	Sample		
	Controls	Controls <sup>1</sup>	Birth Wt.	Size	Controls	Controls <sup>1</sup>	Birth Wt.	Size		
Motor and Social Development										
All Ages (1-3)	0.020 *	• 0.021 <sup>•</sup>	0.020 ª	879	0.011 *	0.011 <sup>t</sup>	0.009 <sup>b</sup>	879		
Age = 1  or  2	0.018 *	۰ 0.014 <sup>۱</sup>	0.012 °	497	0.015 *	0.011 °	0.009	497		
Age = 3	0.023 *	a 0.030 f	• 0.029 ª	382	0.008	0.012 °	0.009	382		
Temperament Subscores										
Friendliness (Age = 1)	1.61	0.74	0.69	138	-1.02	-1.32	-1.50	138		
Fearfulness (Age = 1)	0.63	0.63	0.88	139	0.70	0.78	0.73	139		
Negative Hedonic Tone (Age = 1)	-0.05	-0.04	0.06	137	0.51	0.58	0.58	137		
Compliance (Age = 2-6)	1.16 *	• 0.95 <sup>•</sup>	0.97 °	1727	0.51 *	0.33 °	0.31	1727		
Insecure Attachment (Age = 2-6)	-0.31	0.01	0.02	1756	-0.77 *	-0.54 *	-0.53 ª	1755		

a = coefficient significant at p < 0.01; b = significant at p < 0.05; c = significant at p < 0.10

1- includes all variables in Table 1

	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	Piat	Piat	Digit
	Total Score	External	Antisocial	Anx-Dep	Headstrong	Hyperactive	Dependent	Peer Conflict	Read. Rec.	Math	Span
1986 MSD (Percentil	e)										
Under 1 Year	-0.07	-0.01	-0.05	-0.02	-0.06	-0.12 <sup>a</sup>	-0.01	-0.07	0.16 <sup>a</sup>	0.17 <sup>a</sup>	0.10
1 Year	-0.06	-0.10 <sup>b</sup>	-0.06	-0.06	-0.06	-0.04	-0.07	-0.02	0.08	0.12 <sup>b</sup>	0.21 *
2 or 3 Years	-0.13 *	-0.12 <sup>a</sup>	-0.13 <sup>a</sup>	-0.04	-0.09 <sup>b</sup>	-0.15 <sup>a</sup>	-0.10	-0.08 <sup>b</sup>	0.25 <sup>a</sup>	0.24 <sup>a</sup>	0.20 *

### Table 3.15 - Selected Zero Order Correlations: Motor and Social Development (Percentile) Score (1986) and Selected 1992 Assessment Scores (Percentile Scores, Weighted)

a = coefficient significant at p < 0.01; b = significant at p < 0.05; c = significant at p < 0.10

	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	Piat	Piat	Digit
	Total Score	External	Antisocial	Anx-Dep	Headstrong	Hyperactive	Dependent	Peer Conf	Read. Rec.	Math	Span
Under 1 Year											
No Controls	-0.08	-0.01	-0.07	-0.02	-0.08 °	-0.14 ª	-0.01	-0.05	0.014 ª	0.013 ª	
All Controls Except Birth Wt.	-0.09 °	-0.02	-0.07	-0.03	-0.11 <sup>b</sup>	-0.12 <sup>b</sup>	-0.02	-0.04	0.012 ª	0.013 ª	
All Controls with Birth Wt.	-0.09 °	-0.01	-0.07	-0.03	-0.11 <sup>b</sup>	-0.12 <sup>b</sup>	-0.01	-0.04	0.012 *	0.012 ª	
1 Year Old											
No Controls	-0.08	-0.09	-0.04	-0.08	-0.07	-0.02	-0.09 °	0.02	0.005	0.007	0.002 ª
All Controls Except Birth Wt.	-0.08	-0.10 °	-0.04	-0.07	-0.05	-0.02	-0.12 <sup>b</sup>	0.02	0.004	0.007	0.002 ª
All Controls with Birth Wt.	-0.07	-0.10	-0.02	-0.07	-0.04	-0.02	-0.11 <sup>b</sup>	0.02	0.003	0.006	0.002 ª
Two or Three Years Old											
No Controls	-0.13 ª	-0.14 ª	-0.12 ª	-0.05	-0.07 <sup>b</sup>	-0.18 ª	-0.12 ª	-0.09 ª	0.022 <sup>a</sup>	0.018 ª	0.002 ª
All Controls Except Birth Wt.	-0.09 ª	-0.12 ª	-0.03	-0.04	-0.06 °	-0.12 ª	-0.10 ª	-0.08 <sup>b</sup>	0.016 ª	0.016 ª	0.002 ª
All Controls with Birth Wt.	-0.09 ª	-0.11 ª	-0.03	-0.03	-0.07 °	-0.12 *	-0.10 ª	-0.07 <sup>b</sup>	0.016 <sup>a</sup>	0.016 <sup>a</sup>	0.002 ª

### Table 3.16 - Motor and Social Development (Percentile) Scores in 1986 as Predictors of Selected 1992 Child Assessment (Percentile) Scores by Age in 1986 (Weighted Ordinary Least Square Estimates)

a = coefficient significant at p < 0.01; b = significant at p < 0.05; c = significant at p < 0.10

1 - includes all variables in the equations in Table 1

#### Table 3.17 - Verbal Memory (Percentile) Score and Digit Span Scores in 1986 as Predictors of 1992 PIAT Mathematics, Reading Recognition, and PPVT (Percentile) Scores (Weighted Ordinary Least Square Estimates)

Sample
(1,470)
(806)
(650)
(633)
(363)
(261)
(640)
(371)
(269)
(636)
(363)
(273)

a = coefficient significant at p < 0.01; b = significant at p < 0.05; c = significant at p < 0.10

1 - includes all variables in the equations in Table 1

		PIAT Ma	thematics		PIA	T Reading	g Recognitio	n	PPVT			
	No	All	Ctrls &	Sample	No	All	Ctrls &	Sample	No	All	Ctrls &	Sample
	Controls	Controls <sup>1</sup>	Birth Wt. <sup>1</sup>	Size	Controls	Controls <sup>1</sup>	Birth Wt. <sup>1</sup>	Size	Controls	Controls <sup>1</sup>	Birth Wt. <sup>1</sup>	Size
Without Base Year Peabody Control												
Scholastic Competence	0.11	a 0.08	<sup>a</sup> 0.09 <sup>a</sup>	368	0.08	° 0.05	0.06	369	0.03	-0.03	-0.02	452
Global Self-Worth	0.09	<sup>b</sup> 0.07	<sup>b</sup> 0.08 <sup>b</sup>	368	0.16	0.12	<sup>a</sup> 0.14 <sup>a</sup>	369	0.07	0.05	0.06	452
With Base Year Peabody Control												
Scholastic Competence			0.07 ª				0.05 <sup>b</sup>					
Global Self-Worth			0.08 <sup>b</sup>				0.11 ª					

### Table 3.18 - SPPC (Raw) Scores in 1986 as Predictors of 1992 Peabody (Percentile) Scores with and without 1986 Peabody Control: All Children Age Eight and Over in 1986 (Weighted Ordinary Least Square Estimates)

a = coefficient significant at p < 0.01; b = significant at p < 0.05; c = significant at p < 0.10

1 - includes all variables in the equations in Table 1

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		Adult Pres	ence Effect	Child Prese	nce Effect	Hyperacti	vity Effect
Verbal Mem	ory (A+B) Percentile Score						
	All Ages	4.06	(5.24)	-1.53	(1.96)	-0.008	(0.003) <sup>a</sup>
	Ages 3-4	4.62	(6.08)	-0.04	(2.43)	0.000	(0.004)
	Ages 5-6	3.93	(10.55)	-3.23	(3.41)	-0.016	(0.005) <sup>a</sup>
<u>SPPC ; Raw</u>	Scores (Weighted)						
Schola	istic Comp.						
	All Ages	-0.23	(5.00)	2.13	(2.20)	-0.034	(0.003) <sup>a</sup>
	Ages 8-9	17.41	(8.81) <sup>b</sup>	-0.93	(3.83)	-0.028	(0.006) <sup>a</sup>
	Ages 10 & Over	-10.03	(6.07) <sup>b</sup>	3.41	(2.68)	-0.039	(0.004) <sup>a</sup>
Global	Self-Worth						
	All Ages	3.05	(4.14)	2.91	(1.81) <sup>c</sup>	-0.015	(0.002) <sup>a</sup>
	Ages 8-9	12.88	(7.00) <sup>b</sup>	2.42	(3.04)	-0.015	(0.005) <sup>a</sup>
	Ages 10 & Over	-2.21	(5.15)	3.23	(2.27) <sup>c</sup>	-0.016	(0.003) <sup>a</sup>
Memory for	<u>Digit Span</u>						
	Total (Standard)	-0.64	(0.42)	-0.14	(0.20)	-0.001	(0.0003) <sup>a</sup>
	Ages 7-9	-1.01	(0.55) <sup>b</sup>	0.06	(0.25)	-0.001	(0.0004) <sup>a</sup>
	Ages 10 & Over	0.10	(0.66)	0.41	(0.31)	-0.001	(0.0004) <sup>b</sup>
	Reverse (Raw, Weighted)	-0.57	(0.21) <sup>a</sup>	0.08	(0.10)	-0.0004	(0.0001) <sup>a</sup>
	Ages 7-9	-0.64	(0.25) <sup>a</sup>	0.12	(0.12)	-0.0005	(0.0002) <sup>a</sup>
	Ages 10 & Over	-0.51	(0.37)	0.04	(0.18)	-0.0003	(0.0002)
	Forward (Raw, Weighted)	-0.10	(0.29)	-0.26	(0.13) <sup>b</sup>	-0.0004	(0.0002) <sup>b</sup>
	Ages 7-9	-0.22	(0.37)	-0.11	(0.17)	-0.0005	(0.0003) <sup>b</sup>
	Ages 10 & Over	0.19	(0.45)	-0.46	(0.21) <sup>b</sup>	-0.0003	(0.0003)
PIAT Mathe	matics Percentile Score						
	All Ages	-0.04	(2.16)	-0.11	(0.99)	-0.014	(0.001) <sup>a</sup>
	Ages 5-9	0.37	(3.08)	1.29	(1.31)	-0.011	(0.002) <sup>a</sup>
	Ages 10 & Over	-0.03	(3.01)	-2.24	(1.53)	-0.018	(0.002) <sup>a</sup>
PIAT Readir	ng Comprehension Percentile Score						
	All Ages	-4.36	(2.63) <sup>b</sup>	-0.15	(1.17)	-0.015	(0.002) <sup>a</sup>
	Ages 5-9	-4.03	(4.06)	-0.96	(1.60)	-0.016	(0.002) <sup>a</sup>
	Ages 10 & Over	-5.12	(3.47) <sup>c</sup>	0.98	(1.68)	-0.013	(0.002) <sup>a</sup>

#### Table 3.19 - "Total" Effect of Adult or Child Presence in Testing Environment and Child Hyperactivity on Selected Assessment Scores (Weighted Ordinary Least Square Estimates)

NOTE: 1. ) SPPC and Mathematics significance statistics are 2 tailed. Verbal Memory and Memory for Digit Span significance statistics are 1 tailed. All Hyperactivity Statistics are 1 tailed,

a = significance at p < 0.01;</li>
 b = significance at p < 0.05; c = significance at p < 0.02;</li>
 Net Effects are net of Race/Ethnicity, Mother's Education, Child Age, Mother Work History, Family Economic Well-being, Two Parent/Guardian Presence, Number of Children in Household, Region of Residence and Urban/Rural Residence.

		Adult Presence Effect		Child Presence Effect		Hyperactivity Effect	
Verbal Memory (	A+B) Percentile Score						
All A	Ages	-0.55	(5.21)	-1.89	(1.96)	-0.011	(0.002) <sup>a</sup>
Ages	s 3-4	-0.94	(6.03)	-0.95	(2.44)	-0.009	(0.003) <sup>a</sup>
Ages	s 5-6	-0.31	(10.46)	-3.21	(3.30)	-0.018	(0.005) <sup>a</sup>
SPPC ; Raw Score	es (Weighted)						
Scholastic C	Comp.						
A IIA	Ages	-3.14	(5.00)	0.36	(2.17)	-0.036	(0.003) <sup>a</sup>
Ages	s 8-9	12.61	(8.59) <sup>c</sup>	-0.69	(3.73)	-0.028	(0.005) <sup>a</sup>
Ages	s 10 & Over	-12.06	(6.15) <sup>b</sup>	1.56	(2.68)	-0.041	(0.004) <sup>a</sup>
Global Self-Worth							
All A	Ages	0.81	(4.14)	1.31	(1.80)	-0.016	(0.002) <sup>a</sup>
Ages	s 8-9	9.66	(6.85) <sup>c</sup>	1.65	(2.97)	-0.016	(0.004) <sup>a</sup>
Ages	s 10 & Over	-4.26	(5.20)	1.51	(2.26)	-0.016	(0.003) <sup>a</sup>
Memory for Digit	<u>t Span</u>						
Tota	l (Standard)	-0.76	(0.42) <sup>b</sup>	-0.17	(0.20)	-0.0015	(0.0003) <sup>a</sup>
Ages	s 7-9	-1.06	(0.55) <sup>b</sup>	0.04	(0.25)	-0.0016	(0.0004) <sup>a</sup>
Ages	s 10 & Over	-0.25	(0.67)	-0.52	(0.31) <sup>b</sup>	-0.0013	(0.0004) <sup>a</sup>
Reve	erse (Raw, Weighted)	-0.58	(0.23) <sup>a</sup>	-0.05	(0.10)	-0.0005	(0.0002) <sup>b</sup>
Ages	s 7-9	-0.46	(0.25) <sup>b</sup>	0.10	(0.11)	-0.0005	(0.0002) <sup>a</sup>
Ages	s 10 & Over	-0.69	(0.37) <sup>b</sup>	-0.05	(0.18)	-0.0006	(0.0002) <sup>a</sup>
Forv	ward (Raw, Weighted)	-0.13	(0.30)	-0.38	(0.14) <sup>a</sup>	-0.0007	(0.0002) <sup>a</sup>
Ages	s 7-9	-0.17	(0.37)	-0.15	(0.17)	-0.0008	(0.0002) <sup>a</sup>
Ages	s 10 & Over	0.03	(0.46)	-0.51	(0.21) <sup>a</sup>	-0.0006	(0.0003) <sup>b</sup>
PIAT Mathematic	<u>cs Percentile Score</u>						
All A	Ages	-3.91	(2.29) <sup>c</sup>	-0.49	(1.06)	-0.019	(0.0015) <sup>a</sup>
Ages	s 5-9	-3.99	(3.22)	-0.69	(1.37)	-0.017	(0.002) <sup>a</sup>
Ages	s 10 & Over	-2.83	(3.24)	-3.61	(1.62) <sup>b</sup>	-0.019	(0.002) <sup>a</sup>
PIAT Reading Co	omprehension Percentile Score				<i>/</i>		-
All A	Ages	-8.52	(2.91) <sup>a</sup>	-1.08	(1.29)	-0.021	(0.002) <sup>a</sup>
Ages	s 5-9	-8.60	(4.29) <sup>b</sup>	-2.54	(1.69) <sup>c</sup>	-0.022	(0.002) <sup>a</sup>
Ages	s 10 & Over	-6.42	(3.78) <sup>b</sup>	-0.82	(1.83)	-0.017	(0.002) <sup>a</sup>

#### Table 3.20 - "Net" Effect of Adult or Child Presence in Testing Environment and Child Hyperactivity on Selected Assessment Scores (Weighted Ordinary Least Square Estimates)

1.) SPPC and Mathematics significance statistics are 2 tailed. Verbal Memory and Memory for Digit Span significance statistics are 1 tailed. All Hyperactivity NOTE: Statistics are 1 tailed, 2.) a = significance at p < 0.01; b = significance at p < 0.05; c = significance at p < 0.10;

	Type of Score	Live Range	Mean Score
The HOME (1992)	Percentile	0-98	52.1
HOME: Cognitive Stimulation (1992)	Percentile	0-99	52.2
HOME: Emotional Support (1992)	Percentile	0-95	52.1
Motor and Social Development (1992)	Percentile x 10	0-998	528.0
Temperament: Activity (1992)	Raw	3-15	8.6
Temperament: Predictability (1992)	Raw	4-15	13.0
Temperament: Fearfulness (1992)	Raw	4-20	8.6
Temperament: Positive Affect (1992)	Raw	3-15	13.0
Temperament: Friendliness Comp. (1992)	Raw	4-20	15.9
Temperament: Difficulty Comp. (1992)	Raw	11-47	23.2
Temperament: Negative Hedonic Tone Comp. (1992)	Raw	11-43	21.7
Temperament: Compliance (1992)	Raw	6-30	23.1
Temperament: Sociability (1992)	Raw	3-15	11.9
Temperament: Insecure Attachment (1992)	Raw	7-35	18.2
Behavior Problems: Total (1992)	Percentile x 10	30-1000	612.8
Behavior Problems: External (1992)	Percentile x 10	172-1000	530.5
Behavior Problems: Anti-Social Sub. (1992)	Percentile x 10	217-999	612.8
Behavior Problems: Anxious-Depressed Sub. (1992)	Percentile x 10	169-999	563.4
Behavior Problems: Headstrong Sub. (1992)	Percentile x 10	114-999	582.5
Behavior Problems: Hyperactivity Sub. (1992)	Percentile x 10	167-999	577.7
Behavior Problems: Dependency Sub. (1992)	Percentile x 10	186-999	588.2
Behavior Problems: Peer Conflict Sub. (1992)	Percentile x 10	235-999	578.9

#### Appendix Table 1 - Assessment Inputs and Outcomes: Mother Supplement

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Note: Where only 1992 (or 1986) information is reported and 1986 (or 1992) Assessment is included in equations,

the type of score and live range for the non-reported year is the same as for the reported year.

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	Type of Score	Live Range	Mean Score
Body Parts (1986)	Raw	0-10	6.4
Memory For Location (1986)	Percentile	0-99	53.2
Verbal Memory (1986)	Percentile	0-100	43.5
Digit Span (1986)	Standard	1-19	10.0
Digit Span: Forward (1986)	Raw	0-14	6.1
Digit Span: Reverse (1986)	Raw	0-11	4.1
S.P.P.C.: Scholastic Comp. (1986)	Raw x 10	60-240	169.8
S.P.P.C.: Global Self Worth (1986)	Raw x 10	60-240	194.4
Piat Mathematics (1992)	Percentile	1-99	51.2
Piat Mathematics (1986)	Percentile	1-99	50.5
Piat Reading Recognition (1992)	Percentile	1-99	57.8
Piat Reading Recognition (1986)	Percentile	1-99	60.1
Piat Reading Comprehension (1992)	Percentile	1-99	55.3
Piat Reading Comprehension (1986)	Percentile	1-99	62.1
P.P.V.T. (1992)	Percentile	0-99	41.3
P.P.V.T. (1986)	Percentile	0-99	38.0

### Appendix Table 2 - Assessment Inputs and Outcomes: Child Supplement

Note: Where only 1992 (or 1986) information is reported and 1986 (or 1992) Assessment is included in equations,

the type of score and live range for the non-reported year is the same as for the reported year.