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ABSTRACT

This report presents summary analyses of descriptive and comparative data collected during the 1973 Home Start evaluation project. The data presented were collected at 6 of the 16 Home Start sites, from three experimental groups of families (those entering the Home Start and Head Start programs in fall 1973 and those identified to enter Home Start programs in fall 1974). The families were looked at in three ways: (1) descriptively, to identify characteristics that are important in relation to some standards or norms; (2) comparatively, to determine whether the Home Start and Head Start programs serve similar populations; and (3) comparatively, to judge the success of the randomization procedures used to assign families to Home Start or delayed-entry control groups. The overall results of these three analyses are summarized first, then the summaries of each instrument are presented. Ten measures were included in the battery: two children's tests, two child rating scales completed by adults, one mother rating scale completed by the community interviewer, three parent questionnaires, a parent-child interaction measure, and child height and weight. Data tables and appendixes (field procedures and coding manuals) comprise approximately one-half of the document. (ED)

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THE NATIONAL HOME START EVALUATION
INTERIM REPORT IV: SUMMATIVE EVALUATION RESULTS

June 14, 1974

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EXECUTIVE SUMMARY OF ENTERING SUMMATIVE FINDINGS

The main task of previous summative evaluation reports was to carefully examine all characteristics of the measurement battery, so problems could be identified and corrected before beginning the formal evaluation; characteristics of families had only secondary interest. In this report, analyzing the entering data on the full sample, the situation is reversed; the families are of central interest, and the instrument analyses secondary.

As stated in the introduction, the entering Home Start, control, and Head Start families were looked at in three ways:

- Descriptively, to identify characteristics that are important in relation to some standards or norms;
- Comparatively, to determine whether the Home Start and Head Start programs serve similar populations;
- Comparatively, to judge the success of the randomization procedures to assign families to Home Start or delayed-entry control groups.

The overall results of these three analyses are summarized first, then the summaries of each instrument are presented.

Selected descriptive findings

Many of the measures in the battery, such as the Preschool Inventory, the Denver, or the Schaefer Behavior Inventory, depend upon comparative data before they can be interpreted. Lack of available norms renders each of limited use until spring data become available. Other measures, such as demographic questions, height & weight, food intake, home environment, and parent interview questions, can be interpreted in a somewhat absolute way without reference to a comparison group. This latter group of measures presents disturbing information about the severity of circumstances the typical Home Start family finds itself in.

About 62% of the Home Start families live in a small town or city, although this (like many other characteristics) varies considerably from site to site. In general the parents represent a low socio-economic status, as reflected in occupational level (median of 7 on the 96 level Duncan index) and educational level (mean of 9.7 grades completed for the mother). Only about 28% of the mothers graduated from high school. In many families (41%) neither parent is employed, and in two extreme sites the unemployment rates are 83% and 56%. The mother's mean age in years was about 30, and she had an average of 3.6 children living at home. Most of the focal children had received essential immunizations (about 85%), but had not seen a doctor for almost 8 months, when they went because of sickness or injury (68%) rather than for checkups. About 45% of the families are using welfare assistance, and 40% are using food stamps.

Entering Home Start children were below average in height and weight for every age level. Their diets included, on the average, only half the required milk, about a quarter of the required vitamin A vegetables and citrus fruits. Although less serious, their diets were also below the required levels of meat, eggs, other (than vitamin A) vegetables, and breads and cereals.

About 40% of the entering Home Start families had three or fewer children's books in the home, but over 90% had crayons and paper that the children could play with. Forty-eight percent of the focal children watched television for two or more hours per day. Fewer than 30% of the children "helped" their mothers during the last month make cookies or stir food while it cooked.

Comparison of Home Start and control families. One of the most important questions guiding the whole score analyses was "Did the random assignment of Home Start and control families succeed?" Results of the analyses suggest that the random assignment succeeded beyond all expectations, particularly given the field problems that disrupted the original assignment of families. In no instance was there a significant difference between Home Start and control children on the whole scores. Not only does the randomization hold up overall, but for the most part it seems to hold up on a site by site basis as well. The big remaining question about the control families is whether they will remain part of the control sample long enough to complete the six-month and twelve-month data collections. If enough do, a very accurate test for Home Start program effects can be obtained.

Comparison of Home Start and Head Start families. The next important question was, "Do the Home Start and Head Start programs serve the same population of families?" The implications of these questions relate to the roles served by these two programs, that is, whether they are complementary programs or competing programs. The findings strongly indicate that the two programs serve very different populations of families: in general, Head Start families are less disadvantaged than Home Start families. Head Start families are smaller, more likely to come from urban areas, the parent's average occupational level tended to be higher, more mothers are employed, the mothers tended to be better educated, were more likely to be in the PTA, and had more likely heard of parent meetings; Head Start homes tended to have more children's books and playthings, and the mothers tended to teach more things to their children; Head Start children had seen a doctor more recently and were younger than Home Start children, but just as tall and equal in PSI performance, indicating greater developmental maturity. These findings seem to support a quote made in an earlier Home Start Evaluation Report, based on data from the information system, that "Home Start programs serve the poorest of the poor," the persons who most need outside assistance. It is not clear how well these findings will generalize beyond the four Home Start/Head Start sites included in the summative evaluation, but there is no evidence to suggest that these four sites are particularly "untypical" of the other sites.

The peripheral finding that the six sites were significantly different from each other has implications for the methods used to analyze program effects. This indicates that although Home Start families always tend to be more disadvantaged than Head Start children within each site, they still tend to be very different from Home Start families in other sites. Because of the many site differences, site will have to be used as a blocking factor for all ANOVA and ANCOVA tests for program effects to remove systematic variance and increase the power of tests.

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Summary of Findings from the Measurement Battery

Preschool Inventory. The item analysis from this fall's administration of the PSI continued to demonstrate good test reliability, and percent passing figures that increase with age. The percent passing is somewhat lower than figures obtained from the fall 1972 data, probably due to the younger mean age of the current sample. Comparison of the three program groups showed no significant difference between the scores of the Head Start, Home Start and control children, although the Head Start group had a lower verbal score than the other two groups. Analysis of Home Start and control group sibling data indicated that the siblings are similar to the focal children, when the fact that the siblings are six months older is taken into account. There were no significant differences between the Home Start and control children either in PSI score or in verbal score.

The only recommendation is for a change in scoring by eliminating items 1, 22 and 23 from the program effects analyses in the next report. These three items ranked among the lowest in item-total correlations in every testing session as well as in all three groups this fall. Descriptive data will continue to be presented for the 32-item version in order to facilitate comparisons with previous reports as well as with the findings of other studies using the 32-item PSI.

Denver Development Screening Test. The level of item difficulties on three of the four DDST scales was satisfactory, but the ease in passing the Personal-Social items limits its sensitivity to individual differences and lowers the internal consistency of the scale. The percent of children passing by age demonstrated the developmental nature of each of the four scales. Item intercorrelations provided evidence of the homogeneity of the four scales, but again pointed up the limitation of the Personal-Social scale which has relatively low item intercorrelations. A factor analysis of the DDST items with four roots rotated accounted for only 33.7% of the variance. The Motor items clustered on two factors, with the Personal-Social items and the Language items clustered on the third and fourth factors, revealing a motor-verbal separation of items. The internal consistency of three scales was comparable to the spring analysis. On the Language scale, increasing the number of items improved the internal consistency. Finally, analysis of covariance conducted on each of the four scales using age as a covariate revealed no significant differences among the Home Start, control and Head Start groups.

Child Food Intake Questionnaire. Generally lower food intake scores were obtained this fall in comparison to the spring 1973 data. Nevertheless, the distribution of intake across food categories looked similar in the fall and spring sample. Results of the fall 1973 data analysis support the assumption that Home Start and control children were selected from the same population--the only difference between these groups was that Home Start children were reported to have eaten more vitamin A vegetables. The Home Start/control sample, however, did differ from the Head Start sample on three categories--Head Start children were reported to have consumed more milk and citrus fruit and less bread and cereal. Since no differences were found between groups of children in total food intake, the differences among groups in these three food categories implies a different balance in the diets of the Head Start and Home Start/control children. These group differences may be due, in part, to the fact that children attending Head Start centers receive snacks and meals (which include milk, for example) as a part of their Head Start program. Diets of all children were inadequate in all seven food categories. Overall, the children's total nutritional intake was only 64% of the ideal recommended.

Height and Weight. The height and weight data support the contention that Home Start and control children represent the same population. Head Start children on the other hand were found to be both taller and heavier than Home Start and control group children when adjusted for age. These results substantiate previous findings which suggest that Home Start and control group children represent a homogeneous sample, whereas Head Start children appear to be from a quite different population. Of the total sample, 3-year-old girls were the only children who were of normal height, and they were below the norm for weight. All other children were below norms for both height and weight.

Schaefer Behavior Inventory. The three SBI scales have retained separate identities. The Extraversion-Introversion scale and the Task Orientation scale remain factorially pure. The Hostility-Tolerance scale, as in previous analyses, exhibited a separation into two distinct factors. The reliability of the scales has remained adequate. Removal of item 11 from the Extraversion scale increased its reliability from .56 to .66. No significant group differences were found using analysis of covariance with child's age as the covariate.

Pupil Observation Checklist. The fall 1973 data analysis replicates findings from 1st spring and fall 1972. The POCL contains two homogenous factors which are highly reliable. As before, high interitem and item-subtotal correlations exist both within and across scales. This [illegible] attributed to common method variance and a "halo" [illegible] effect by the testers, causing overlap between the Test Orientation and Sociability factors. Analysis of covariance using age as a covariate failed to find significant differences between groups on either scale.

High/Scope Home Environment Scale. For the total sample, the HES items generally had an even distribution of responses, which is desirable for fall-spring growth and inter-item correlations. However, there were some notable variations. While the mothers frequently discuss the child's feelings and activities and often join in games and art activities, they rarely play make-believe games with him. Almost every mother is attempting to teach her child nursery rhymes, colors and how to count. And, in most homes, crayons and magazines to cut-up are available to the child while relatively few have clay, paints or plants.

When comparing the responses of the three groups, nine items resulted in significant differences. On seven of these items the Head Start group was significantly higher than the other two. Since three of these items pertained to Scale II (Playthings) and two to Scale V (Books and reading) the Head Start group had significantly higher subtotal scores on these scales. In addition, the control group was significantly lower on Scale III (mother teaching child).

Mother Behavior Observation Scale. In the distinct majority of cases, neither the supportive nor punitive behaviors described in this instrument were observed at all. Very few were observed more than once or twice. The mothers very rarely interfered with testing by making negative comments or coaching the child. These results were true for the mothers in all three groups. Although there were some items that showed significant differences among the groups, these differences showed no patterns, and there were no differences among groups on the two scale scores.

Parent Interview. The Parent Interview provided interesting information on characteristics of Home Start, control and Head Start groups. Home Start and control group families were of approximately the same size, the mothers had completed about the same grade in school, and had about the same employment rate. Head Start families, on the other hand, were slightly smaller and the mothers had completed more grades in school. Head Start mothers were more likely to have a job than Home Start/control mothers, and when they were employed it was more likely to be full time.

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Medical and dental care received by Head Start children was better than that received by Home Start or control group children. The only significant differences in medical treatment between Home Start and the control group was in reference to the number of mothers who received help from outside the family when arranging their child's last doctor visit. It was expected that Home Start mothers would receive more help when arranging for medical treatment as an effect of the Home Start program. Head Start families received still more help from their program in arranging doctor and dental visits than did Home Start families. Head Start children had also visited doctors and dentists more recently than Home Start/control group children.

Although there were no differences between Home Start and the control group with respect to participation in community organizations, a greater percentage of Head Start families participated in PTA, church or social organizations and "other" organizations. Head Start mothers also went to more parent meetings and more program get-togethers than Home Start parents, perhaps since more Head Start families live in urban areas and have access to center facilities.

Results from questions on the use of community resources enabled comparisons of Home Start and Head Start children in that the effect of both programs was evident in their responses. In this instance it was the control group that stood apart from the other two groups in that they utilized fewer community resources than Home Start or Head Start parents, despite the fact that they were reportedly well aware of what was available in the community. Both Home Start and Head Start families received assistance from their respective program in using community resources.

Family reactions to the Home Start and Head Start programs suggested differences in the way parents view the programs. It appeared that Home Start parents placed more emphasis on educational aspects of the program, while responses by Head Start mothers appeared to focus on the social aspects of Head Start. More Home Start than Head Start mothers expressed a desire for the program to prepare their child for first grade.

8-Block Sort Task. Progress has been made in developing scales that summarize the mother-child interaction categories coded from the 8-Block audio tapes. Nine scales that can be reliably coded were scored and seven of them were found to have adequate internal consistency reliabilities and good levels of interitem correlations. The nine-category scoring system for each scale resulted in response distributions that were less skewed than the raw frequencies. When the mean scale scores

for the three groups were compared, significant differences were found on two of the scales, but the findings did not clearly favor one group over the others. Preliminary analysis using stepwise regression to predict the child's score on the 8-Block Task indicated that the mother's teaching behaviors account for only a small percentage of the variance in comparison with the importance of child characteristics measured by the PSI and the POCL. The score obtained by the child tended to increase with age, but there were no differences among Head Start, Home Start and control groups in the mean score.

I

INTRODUCTION

Purpose of the Summative Report

The data presented in this report were collected in six of the 16 Home Start sites operating in the fall of 1973. Data were obtained just as families in these sites were entering a local Home Start or Head Start project, except for some of the families designated as a delayed-entry control group who will enter the Home Start program in fall 1974. In other words, this report presents pretest results for these three groups of families, and will be followed by a report (in fall 1974) presenting the six-month posttest results, and another (in winter 1975) presenting the 12-month posttest results.

The overall purpose of the summative evaluation is to assess the impact of the Home Start Program on enrolled families, using the control and Head Start families as reference groups. The summative evaluation is one part of a three part evaluation; the other major parts are formative evaluation examining program services and costs, and an information system describing changes in the overall program staff, families, and services over cumulative three month intervals. Results of these evaluation efforts are presented in a separate volume of this report.

The summative report and the supporting statistical analyses have four specific purposes:

- To assess the fall 1973 measurement battery and field data collection procedures to see if the level of quality achieved in the spring 1973 data collection has been upheld.
- To assess the success of procedures used to randomly assign families to the Home Start and delayed-entry control groups.
- To find out if the Home Start and Head Start programs generally serve the same kinds of families in the four sites for which comparative information is available.
- To describe entering characteristics of the three groups of families on all summative measures.

The information obtained will be used in planning data analysis strategies for assessing the six- and 12-month program effects.

Fall 1973 Summative Evaluation

The fall 1973 summative design and procedures are summarized in this section, including the experimental design, family selection, measurement battery, data collection, data reduction and statistical analysis. Further information can be found in Interim Reports I, II and III: Section II of Interim Report I presents the rationale for the selection of the measures used in the fall 1972 data collection. Interim Report II presents the results from fall 1972 data. Interim Report III presents the results from spring 1973 as well as a detailed evaluation plan for the entire fall 1973 to fall 1974 period. A field procedure manual is presented in Appendix A of the present volume, bound separately.

Basic design. Outcome measures were administered to three separate groups of families, all having children the right age to be eligible for two years of Home Start. The experimental group consists of families entering Home Start in fall 1973. A delayed-entry control group consists of families entering Home Start in fall 1974, but identified for inclusion in the evaluation in fall 1973. Families from both groups were recruited at the same time and randomly assigned to one group or the other. A comparison group consists of families with children enrolled in Head Start programs located in the same sites as Home Start programs. Families were not randomly assigned to this group, but a subsample was randomly selected from naturally existing Head Start groups when there were enough families.

Sample. The battery of outcome measures were administered to families in six Home Start sites: Huntsville, Alabama; Dardanelle, Arkansas; Witchita, Kansas; Cleveland, Ohio; Houston, Texas; and Parkersburg, West Virginia. Decisions about sites to be included were based on judgments about their representativeness as well as on certain practical considerations. A nonrandom procedure was adopted at this stage because there were compelling reasons for not including certain sites, including site start-up delays, cultural incompatibility of the measures, family migration, and geographic isolation.

An attempt was made to include 40 families in each of the three treatment groups in sites that recruited a sufficient number of families. In most sites 40 was the maximum number of the Home Start openings available. All 40 were included in the fall 1973 measurement to ensure that a sufficient number would be available for measurement in the spring, after normal attrition occurs. No attempt will be made to replace families from any of the three groups leaving the evaluation during the year, since no entering measures will be available from replacement families to serve as a base for assessing change.

In order to be eligible for the evaluation Head Start children in any site were supposed to be the same age as the entering Home Start children from that site, come from the same geographical regions, and not have any prior preschool experience. However, it was not always possible to meet these criteria. For example, Home Start usually served more counties within a region than Head Start; Head Start children had to live near a road, within bussing distance of a center; and Head Start programs were three year programs in some sites and therefore started the children at a younger age than Home Start.

Random assignment of families to the experimental and control groups, and random selection of families where more than 40 were available for a group, were performed by staff at the High/Scope Foundation using family rosters submitted by the Home Start and Head Start projects. Families were stratified by home visitor before random selection to ensure a workable match between families and available openings in each project. Non-English speaking families and families with handicapped children were not included in the data collection.

Measurement battery. Ten measures were in the battery, including two children's tests, two child rating scales completed by adults, one mother rating scale completed by the community interviewer, three parent questionnaires, a parent-child interaction measure, and child height and weight. A list of the measures follows:

- Preschool Inventory
- Denver Developmental Screening Test
- Schaefer Behavior Inventory
- Pupil Observation Checklist
- High/Scope Home Environment Scale
- Mother Behavior Observation Scale
- Parent Interview
- Child Food Intake Questionnaire
- 8-Block Sort Task
- Height and Weight

Figure I-1 presents a matrix of measures indicating the general Home Start objectives they are designed to assess.

FIGURE I-1: MATRIX OF OBJECTIVES AND MEASURES[1]

Objectives	Measures								
	1 Height & Weight	2 Food Intake	3 Parent Interview	4 8-Block	5 Home Environment	6 PSI	7 DDST	8 Schaefer	9 POCL
Health									
Normal Growth	X								
Nutrition									
Balanced diet		X							
Psych-Soc. Services									
Awareness and use			X						
Education, Families									
Better "educators"				X					
Parenting skills			X	X					
Educational environment					X				
Education, Child									
Cognitive school readiness						X			
Number concepts									
Language				X			X		
Personal-Social social behavior							X		
Task orientation								X	X
Extraversion								X	X
Tolerance								X	
Motor, Gross and Fine							X		

[1]Updated from Interim Report I

The full battery was given to families in all three groups. Further descriptions of each of the measures are presented later in this report and in each of the previous reports.

Data collection. The battery of measures was administered to families by community interviewers, hired locally in each site and trained in Michigan for six days before the data collection began. There were four or five community interviewers in each site having a Head Start project, and three or four in each of the other two. In addition, each site had a locally hired and specially trained site coordinator who assisted in training, monitoring, and scheduling the community interviewers.

In all six sites, data collection started in the last week in September, immediately following the training workshops. Family appointments and assignments of families to community interviewers for the first two weeks were set up ahead of the workshop by the site coordinators. A site coordinator accompanied each community interviewer on her first administration of each measure, to ensure that the proper procedures were followed. When necessary, additional training was provided to community interviewers before they were permitted to visit another family. During the third and fourth week of data collection site monitors from High/Scope and Abt Associates accompanied each community interviewer on one visit to determine whether field procedures were being properly followed. Site coordinators accompanied community interviewers on visits each week that the monitors were not on site, visiting some Home Start families, some control families, and the Head Start centers in sites having them. No family was scheduled to have more than one visit by either a monitor or site coordinator.

Each community interviewer administered the battery in two parts, during two separate visits to each family. Additional visits were scheduled when necessary. Testing was done in the home for Home Start and control families, and in the Head Start centers for comparison children. Families were assigned to community interviewers randomly in urban sites, and by geographic region in rural sites to reduce costs. While special effort was made to see that each community interviewer had an equal number of Home Start, control, and Head Start families, families in many cases were not equally distributed.

Community interviewers forwarded all data collected each week to the site coordinators. The site coordinators logged all the completed measures and checked them for completeness and obvious scoring errors. Following this review, the site

coordinator met with community interviewers or called them as necessary to correct discrepancies. The site coordinators then forwarded data to Abt Associates each week for a more thorough quality review before they were sent to the High/Scope Foundation for coding and analysis.

Data reduction. The data were reduced to machine readable form by the High/Scope Foundation data processing staff, following a series of fixed steps. Site, family, and child identification numbers were assigned to each protocol that arrived from Abt Associates, and a log of all received materials was maintained. All protocols are being recorded on microfilm for permanent storage as backup to the computer files maintained on disks and tapes. Formats for entering each item from each test, rating scale, or questionnaire were developed and recorded in a coding manual.

The data were recorded on magnetic tape cassettes at High/Scope Foundation and then transmitted via telephone lines to disk files at the University of Michigan Computing Center. Software available on the Michigan Terminal System or developed by High/Scope Foundation staff was used for data entry, for verification of some data items and for creation of filler records for missing data. After transmission all the files were printed and manually verified, character by character, against the original protocols.

Next, working files compatible with available statistical programs were prepared. In the process of building files, all items from all measures had to be mechanically screened for wild punches, misplaced columns, missing data, short records, and various other problems that commonly occur in machine data processing. All items which were used in the preliminary analysis were transferred in a corrected form into the master working file. At this stage many items had not been scored "pass" or "fail", nor had subtotals or totals been computed for the various measures. Another file was created to contain the item pass/fail scores, subtotals, and totals, all computed from the first file. Decisions at this point were made about how many items had to be present in order to arrive at a valid score for each measure, and the data for certain families were recorded as missing when necessary so they would be excluded from the later statistical computations. One of several computer scoring procedures was then used to calculate the scores for valid cases.

Statistical analysis. As soon as data were transferred to the working files the statistical analyses began. Basically four categories of analyses were performed:

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- First, the number of families and children, missing data, conditions of testing, and other information related to data quality were compiled.

- Second, item analyses were performed for individual measures, such as item response distributions, item percent passing, internal consistency reliability (alpha), item intercorrelations, and principal components factor analyses.

- Third, analyses of whole scores were performed, such as total score means, total score standard deviations, correlations between total scores, and factor analyses of all total scores in the battery.

- Fourth, statistical tests such as analysis of variance and covariance were performed to identify differences between Home Start, control and Head Start children.

All statistical computations were performed via terminals connected to the IBM 360/67 computer at the University of Michigan. The basic statistical package used for most file manipulations and descriptive statistical calculations was the Michigan Interactive Data Analysis System (MIDAS) developed at the Statistical Research Laboratory of the University of Michigan and documented in MIDAS (Fox and Quire, 1973). Additional programs were used for specialized tasks such as computing ages, screening for certain cases or data codes not possible in MIDAS, test scoring and item analyses, and the various other computer operations that were needed. Most of these programs were written by High/Scope Foundation staff and consultants. Factor analyses were performed using program FACTOR, documented in Veldman (1967). This program computes a principal components analysis and image analysis with a varimax rotation, and allows for missing data through the use of a missing data intercorrelation subroutine. All factors whose roots exceed the eigenvalue cutoff of 1.0 are presented in the tables of factor loadings, unless reported otherwise.

II

STRATEGIES FOR DATA ANALYSIS

The goal of the summative evaluation is to identify the pattern of program effects, or changes in the children and parents resulting from services provided by the Home Start program. A closely allied problem is estimating the dollar cost of producing these changes. Hopefully, results will show that family services provided by the Home Start program produce measureably large changes in families, at a cost which is low enough to permit wide scale implementation of similar services within the allowable federal, state, and local budgets.

In order to arrive at a summary figure that reflects cost per unit outcome, two distinctly separate series of analyses are needed. One series examines program costs and relates them to kinds of services provided to families, so unit costs can be quantified for each kind of service; a preliminary analysis of this nature is presented in the companion volume in this report, and the approach will be expanded and refined in future reports. The second series of analyses, described here and in Appendix B, attempts to unambiguously identify the patterns of important program outcomes so a clear idea can be obtained of the impact of Home Start services on families. Many other analyses are also being conducted, some to check the validity of various steps in the two series mentioned above (such as the basic "shakedown" analysis of the summative measurement battery replicated in this volume for the third time), and others to answer important, but less central questions (such as identifying aspects of the home situation that seem to affect children's ability to acquire skills necessary for success in school).

This chapter describes the data collection plan and discusses the analyses used in this report to examine entering family characteristics. Appendix B presents

possible analysis strategies for six month program effects. A preliminary plan for the cost-effectiveness analysis is presented as a separate volume in this report.

Data Collection Plan

In order to be sure that measured family changes are the result of Home Start services, data must also be collected from comparable families not receiving Home Start services (control families). Then if Home Start families are seen to change in desirable ways, but control families either do not change at all or do not change as much, then it can be reasoned that the program services produce favorable changes in enrolled families.

Not only is it important to determine if the Home Start program produces any changes, it is also important to determine whether the changes are different in any meaningful way from those produced by alternative family service programs such as Head Start. If it happens, say, that both programs seem to produce the same changes in families, there may be administrative or cost advantages of one over the other that would clearly make one preferred, even in the face of identical program effects. In order to assess the possibility of similar program effects, data must also be collected from comparable families enrolled in the Head Start program.

In the formal summative evaluation phase of this project, beginning with the fall 1973 data reported in this volume, data from Home Start, control, and Head Start families will be examined in both ways. The control families will receive full Home Start services beginning in fall 1974, the close of the formal evaluation phase. Until that time both Home Start and Head Start families will be receiving full services from their respective programs. In all, then, program effects for twelve full months can be examined. Data will be collected after the first six months and then at the end of twelve months so data loss from families who leave the program before fall 1974 can be minimized. Data collected for each group of families at each collection time can be represented by a data matrix such as that in Table II-1.

Because results are needed as soon as possible, three separate analyses will be carried out as data become available from the three data collections. The data matrix for the analyses reported in this volume is in Table II-2, that for Interim Report V (fall 1974) in Table II-3, and that for Interim Report VI (winter 1975) in Table II-4. Suggested strategies for each of these three analyses are discussed in the next three subsections.

Table II-1

Data Matrix For Overall
Home Start Summative Evaluation

	Fall 73	Spring 74	Fall 74
Home Start Families			
Delayed Entry Control Families			
Head Start Families			

Analyses of Entering Family Characteristics

Comparisons of entering families occur before the programs could have had any effects, so they cannot be considered results in the usual sense. Nevertheless, two very important classes of questions can be examined: first, what kinds of families are being served by Home Start and Head Start; and second, are there any entering peculiarities that need to be considered in planning analyses for the comparison of six- and twelve-month program effects?

Families served by Home Start and Head Start. Ideally, families would be assigned to the three treatment groups in such a way as to eliminate the possibility of entering group differences. Normally some method of random assignment is recommended for this purpose, in which any family has an equal probability of being assigned to any one of the three groups. While this method may be feasible for controlled laboratory situations, it has seldom proved practicable in applied evaluations such as this. The critical importance of random assignment to groups, as well as the near impossibility of it in social action projects, has been articulated very forcefully in a series of articles about the Westinghouse-Ohio Head Start evaluation in Disadvantaged Child: Volume III (Campbell & Erlebacher, 1970; Evans, & Schiller, 1970; Cicirelli, 1970; and Campbell & Erlebacher, 1970). The Home Start evaluation attempts to break new ground for large-scale applied projects of this kind, since families were randomly assigned to the Home Start and control groups (although not to the Head Start group). The success or lack of success of random assignment in this evaluation could well have a major impact on future evaluation designs.

Table II-2

Data Matrix of Families[1] Available for Interim Report IV
(this volume)

	Fall 1973
Home Start Group	251 Families
Delayed Entry Control Group	162 Families
Head Start Group	143 Families

(Total = 556)

Possible Analyses:

Comparisons of entering family characteristics by group

Table II-3

Data Matrix Available for Interim Report V
(fall 1974)

	Fall 1973	Spring 1974
Home Start Group	251 Families	Approx. 209 Families[2]
Delayed Entry Control Group	162 Families	Approx. 135 Families[2]
Head Start Group	143 Families	Approx. 119 Families[2]

Possible Analyses:

Comparisons of 6 month program effects

Table II-4

Data Matrix Available for Interim Report VI
(winter 1975)

	Fall 1973	Spring 1974	Fall 1974
Home Start Group	251 Families	Approx. 209 Families[2]	Approx. 174 Families[2]
Delayed Entry Control Group	162 Families	Approx. 135 Families[2]	Approx. 112 Families[2]
Head Start Group	143 Families	Approx. 119 Families[2]	Approx. 99 Families[2,3]

Possible Analyses:

Comparisons of 12 month program effects

[1]Families from six Home Start/Control sites, of which four also have Head Starts.

[2]Based on 16.6% dropout rate every 6 months, estimated from the 1972-73 pilot data.

[3]Entry data will be collected on families in 2 additional Head Start programs, but are not included here because the data will be used in later analyses.

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Random assignment of families to the Home Start and control groups implies that these two groups can be expected to be nearly identical on all entering characteristics. Statistical comparisons of the two groups using the current data will provide a test of the randomization procedures, as discussed in the next section. Furthermore, since almost all available Home Start-eligible families were included in the evaluation sample for the six summative sites, it is possible to describe the kind of families being served by Home Start in these sites quite thoroughly.

Families were not randomly assigned to Head Start, which means it is possible to compare Home Start and Head Start families as though naturalistic survey data had been collected. This comparison will provide information about whether the two programs serve the same or different populations, which is, as it happens, a vital question for clarifying the roles of the two national programs.

The Home Start program has been presented by different people at different times in two different ways. On one hand it has been described as a program for children living in areas so distant from Head Start centers that a home-based program is the only kind of family service program possible. In this case the two programs serve non-overlapping populations and complement each other's services. On the other hand, Home Start has been described by some as a program that can deliver the same services as Head Start, but at less cost per family, so that more families can be reached for the same overall cost as Head Start. In addition, others have argued that home-based programs are likely to have more of an impact on the parents, and thus benefit all subsequent offspring in the family. Still others have made the point that the basic family structure is threatened by placing children in Head Start centers, but that the family structure is strengthened by supporting parents in their roles as primary caretakers of their own children through home-based services. Regardless of the reason given in this second cluster of descriptions, Home Start and Head Start are squared off as competing programs, vying for the same population of families.

The differences or lack of differences between Home Start and Head Start as determined from the current data can help show which view the actual facts tend to favor. If the two groups of families are quite different on a few important characteristics, then a complementary relationship would be suggested; if identical, a competing relationship is suggested. Of course, the findings can only be strictly valid for the four sites for which data on the two groups are available, but it might well prove indicative of relationships existing in many of the other 12 Home Start sites.

Success of the Home Start/control random assignment. When as large a number of families as those in the Home Start and control groups are randomly assigned, it is extremely unlikely that more than about five percent of the family characteristic comparisons will show statistically significant differences. This level is about the number expected by chance, and as such they do not reflect true group differences unless supported by some sort of external evidence. In other words, under truly random assignment, the statistical comparison of large groups on child and parent characteristics ought to be a mere exercise revealing no differences of consequence.

However, after the families were randomly assigned, events in the sites more or less seriously disrupted the original random assignment. The disruptions were primarily caused by families dropping out of the Home Start program in the first few weeks. A similar high turnover was experienced in the 1972-73 pilot data and therefore was fully expected this time, but an imbalance occurred when the empty slots were filled by control families according to the original "waiting list" concept of the control group. Then, newly identified eligible families tended to be placed in the control group at the end of the "waiting list". The transfer of families from the control group to the Home Start group became such a serious problem in some sites that an OCD decision was made to "freeze" the groups for the entire year according to their present membership. Under the new arrangement, when families drop from the Home Start group they are replaced by newly-recruited families, not control families. It should be stressed that all control families will receive full program services beginning fall 1974, so the maximum effect of this decision on any family was merely to postpone their entry into Home Start until the originally agreed upon time.

It is clear, then, that because of field problems the assignment of Home Start and control families did not end up strictly random. Nevertheless, there were no obvious reasons to expect systematic differences between the two groups, and they may well prove 'functionally" random. If so, no appreciable bias will be introduced into the evaluation's conclusions. Their functional randomness is investigated in this report by comparing the two groups on all possible measures from the fall battery; if few differences of consequence appear, the two groups can be assumed functionally random. Since analyses of program effects would at best be considerably complicated if the two groups were not functionally random, and at worst rendered impossible, the question of entering Home Start/control family differences assumes a vital importance.

Statistical methods to assess entering family characteristics. The issues above were reduced to two questions for statistical analysis:

- Are Home Start families significantly different from control families on any of the summative measures? (No differences are expected.)

- Are the Head Start families significantly different from the combined Home Start/control families? (It is reasonable to expect a few differences because of the selection process, but for most measures neither the magnitude nor the direction of difference can be clearly predicted.)

There are two exceptions regarding Head Start/Home Start predictions: it might be expected that Head Start families will live closer to towns, because of the need to bus children into centers; and more Head Start mothers might be employed, because of the child care aspect of Head Start and the Head Start regulations encouraging mothers to work.

Four classes of statistical analyses were used to answer the two questions about entering family characteristics:

- Simple descriptive methods, such as means, standard deviations, and frequency tabulations;

- Univariate tests involving one parent or child measure at a time, such as analysis of variance, analysis of covariance, and chi-square;

- Multivariate tests involving simultaneous clusters of parent or child measures, such as multivariate analysis of variance and stepwise multiple discriminant analysis;

- Empirical clustering techniques, such as principal components factor analysis and image analysis, followed by varimax rotations.

The four methods were used to compare scores for one group of families against those for another group. Since data were available for six Home Start/control sites but only four Head Start sites, data had to be grouped two different ways for use in these analyses. For the Chapter VI comparison of Home Start to control families, all six sites were included; for the comparison of Head Start to the combined Home Start/control families, the two sites with no Head Starts were omitted, leaving four sites. Tables II-5 and II-6 show how the three groups and six sites were combined for the two comparisons.

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Table II-5

Comparison #1: All Home Start Families Combined vs. all Control Families Combined (6 sites)

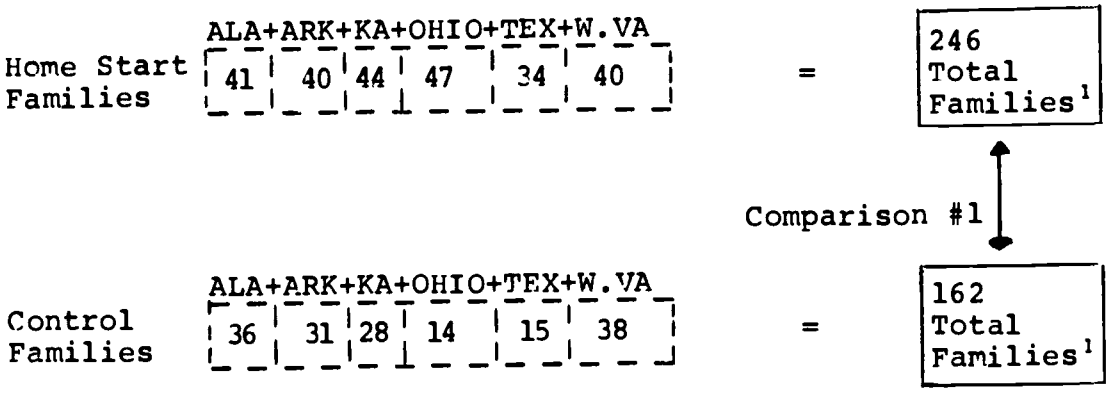
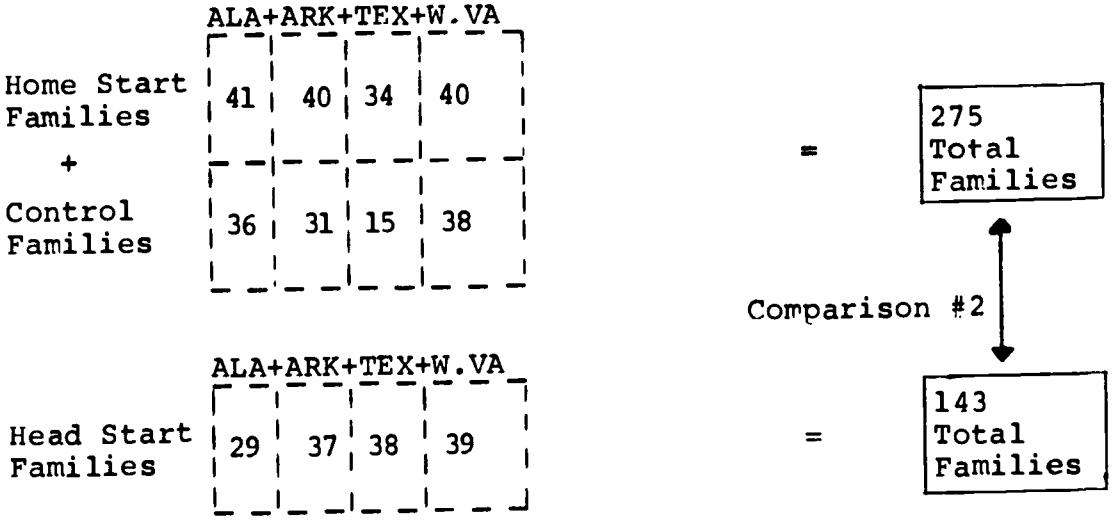


Table II-6

Comparison #2: All Home Start and Control Families Combined vs. all Head Start Families Combined (4 sites)



[1]In actual analyses the number of scores may be less because of missing data for some families.

The univariate analyses of variance (ANOVA) and covariance (ANCOVA) formed the fundamental methods for testing the differences between groups. For both methods the basic design was a one-way, three group comparison, involving either six or four sites according to the groups being compared. The specific comparisons illustrated in Tables II-5 and II-6 were tested using t tests on the proper cell combinations, from the figures calculated in the basic ANOVA or ANCOVA. Since the comparisons were planned a priori, t tests were used rather than the more conservative Scheffe test. A significance level of .05 was adopted throughout. Both ANOVA and ANCOVA tests were computed using the same data for some child measures, primarily for those that might be age related. One effect of ANCOVA using age as the covariate is to increase the sensitivity of the test if the measure being tested is systematically related to age. Another effect of ANCOVA is to statistically equate the three groups for age where there are pre-existing differences. In general the effect of using a covariate with Home Start data was very minor, so a decision was made to present ANCOVA tests of the adjusted group differences in the instrument characteristic writeups, when appropriate, but to use the simpler ANOVA method to assess actual group differences for presentation in the Whole Score Analysis Chapter. More is said below about the relationships between ANOVA and ANCOVA as they pertain to the analysis of six- and twelve-month program effects.

Means, frequencies, and other descriptive statistics are presented in tables for reference purposes but they were not used in the actual group comparisons except to the extent that they reflect underlying values for the univariate and multivariate tests.

Two multivariate methods were used to test for differences between groups, but no results are presented in the report. This decision was made due to suspected sample biases from the serious decreases in the number of families during the computations. This occurred because of the strict requirements of these methods for complete data on all cases, such that if one measure is missing for a child, all of the child's other measures are dropped. The least affected of the two, multivariate one-way analysis of variance (MANOVA) was computed for the same two comparisons tested by the univariate tests. First, all the child measures were tested simultaneously for the three groups, then all the parent and home environment measures were tested simultaneously for the three groups. Basically the outcomes supported the conclusions drawn from the univariate tests, except for a few exceptions which could not easily be attributed either to the sample reduction or to the difference between statistical methods.

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The second method was a forward selection multiple discriminant analysis to identify the measures which optimally separate the three groups, but the loss of cases was serious enough to sharply curtail the possible usefulness of results until the representativeness of the remaining cases can be assessed. An additional multivariate analysis was performed that was not related to program effects and it suffered from the same case loss as the others. This analysis was a canonical correlation between the child measures and parent measures to determine the best combination of parent characteristics that are systematically related to child characteristics. All three of these multivariate analyses will be examined further and possibly presented in a future report if the results seem useful enough.

The last method for examining differences between groups does not involve tests of score means like the others. This method uses either principal components factor analysis or image analysis with varimax rotations to examine the interrelationships of different measures for the Home Start, control, and Head Start families separately. It is expected that the interrelationships among parent and child measures will be very similar for the Home Start and control families, but possibly different for the Head Start families. No tests of factor similarity were attempted, but rather the results of the factor analyses were compared by inspection.

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III

DATA QUALITY

The first section of this chapter focuses primarily on modifications that were made to the spring 1973 field operations design. Although most changes are minor, the complexity of the overall field effort increased considerably with the addition of a control and comparison group to the evaluation. Furthermore, community interviewers were given responsibility for collecting data for the formative evaluation, by observing a limited number of home visits to families who were randomly selected. These two factors changed the nature of both the training provided for community interviewers and the field operations that were followed on site.

While each of the major components of the field operations is described briefly in subsequent sections of this chapter, major emphasis is placed on a discussion of design modifications and the effects they had on the overall field operations.

The second section (Quality of Summative Data) focuses on the following characteristics that might affect data collection:

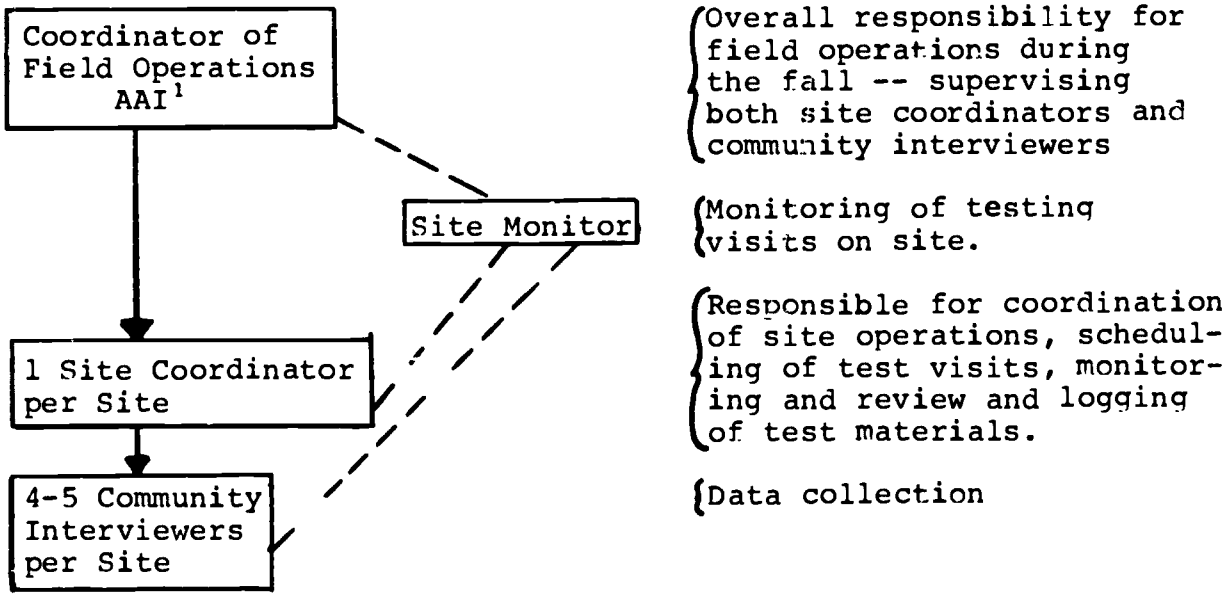
- Fidelity to random sample lists;
- Characteristics of families sampled;
- Measurement battery length;
- Conditions of testing;
- Incidence of missing data;
- Parental reactions to testing.

Each section compares this fall's data to previous data collections and also compares the data across the three groups.

Field Operations

Field Organization

The following chart shows the field organization established for data collection and coordination of testing visits for the six sites during the spring of 1973:



Recruitment

A more centralized approach was used for the recruitment of community interviewers to collect summative data for the Home Start evaluation, with one person responsible for on-site interviewing and hiring. Site coordinators in each of the six sites assisted in the recruiting effort by identifying and pre-screening applicants who responded to newspaper advertisements.

Fall plans called for the recruitment of five community interviewers for the four Head Start test sites (Alabama, Arkansas, Texas and West Virginia) and four in non-Head Start test sites (Kansas and Ohio). Recruiting goals were met in only three of the sites. In one site, the limited number of English-speaking families recruited for the evaluation did not warrant an expansion of the size of the field staff, while in the other two

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[1]AAI is abbreviation for Abt Associates Inc.

sites community interviewers dropped out prior to or during the training conference.

Attrition of community interviewers during testing was two in the spring and one in the fall. Attrition between the spring and the fall test times increased, however, from 33% to 36.8%.

Training

Three types of training were conducted during the fall at Camp High/Scope in Clinton, Michigan:

- One-day site coordinator training in field procedures and logistics as outlined in the Fall Field Procedures Manual (Appendix A);
- Three-day training of trainers (including the site coordinators who were involved as co-trainers). In addition to an in-depth review of the revised test battery and protocols, considerable time was spent training staff in monitoring and start-up procedures;
- Six-day community interviewer training in the revised test battery.

A training schedule similar to the one used for the spring was followed with only two modifications--the elimination of the Concept Development test and the addition of the Home Visit Observation Instrument, for which there was daily training.

Community interviewers were trained in the revised test battery, field procedures to be followed on site*, and the Home Visit Observation Instrument. Two home visits per community interviewer were arranged through the Clinton Nursery School for practice sessions on the PSI, DDST, 8-Block and the Parent Interview.

Simulated protocols were used as the principal training device for the two child measures (PSI and DDST). In addition,

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*Field procedures are outlined in detail in the Field Procedures Manual, Appendix A.

quizzes which were developed for the first Home Start training session were revised and used as another training mechanism.

Community interviewers for each of the six sites were trained in groups of two sites, with one trainer from Abt Associates or the High/Scope Educational Research Foundation and two co-trainers (site coordinators). This staffing pattern is effective for teambuilding purposes and to acquaint the site coordinator/monitor with the specific strengths and weaknesses of each of the community interviewers she would be working with on site. The design did not allow, however, grouping community interviewers by ability level or individualizing training to a greater extent. A change in the training design is being considered for spring 1974 in order to be more responsive to the specific training needs of community interviewers who have been involved in previous Home Start data collection efforts.

The community interviewers were trained on the Home Visit Observation Instrument using videotapes of two home visits from Gloucester, Massachusetts. In addition to the tapes, short scenarios for use in small training sessions were developed to demonstrate scoring and observation techniques. While this training method was successful, more time could have been spent practicing the instrument.

Site Start-Up and Preparation

Some start-up activities were conducted prior to the training conference to allow for immediate start-up following training. To acquaint families with evaluation activities and the measurement battery, a letter was sent to the entire sample (including Head Start) explaining procedures to be followed during the fall. Site coordinators were responsible for arranging preliminary testing schedules for all community interviewers for the first two weeks following training. This involved coordination with the home visitors and Home Start program directors. After the appointments had been arranged, site coordinators prepared testing schedules for use by the programs and mailed postcards to families to remind them of the time and date of the visit.

In all but one site, community interviewers were able to start testing immediately following training. This was not feasible in Kansas since a resampling of families was required. In other sites where the programs were still in the process of recruiting families and submitting names for sampling, only a limited number of start-up testing visits could be arranged.

Head Start testing got off to a late start. Although plans called for Head Start testing to begin two weeks after the training conference, few site coordinators had been in contact with local Head Start program directors at that time, since no rosters had been submitted. Thus, Head Start testing started three to four weeks later than Home Start and control group testing and this has implications for spring field operations. A concerted effort will be made to ensure that the time lapse between pre-test and six-month testing is equal for all children involved in the evaluation, requiring a specified testing time for individual families.

A random procedure was used for assigning families to community interviewers in urban areas. Families in rural areas were assigned on a geographic basis to reduce travel time and costs. An effort was made to distribute control group, Home Start and Head Start families equally among the community interviewers. In two sites (Ohio and Texas) the site coordinator had to assume some testing responsibilities. See Table III-1 for the number of children, by group within site, tested by each community interviewer and the two site coordinators.[1]

Order of Instrument Administration

Instrument administration for the two fall visits permitted mother and child involvement on both occasions. Community interviewers were instructed to follow the schedule below, although they were permitted to modify it if circumstances made it necessary.

First visit - Home Start and Control

- Preschool Inventory - Focal Child and Sibling
- Schaefer Behavior Inventory - Mother
- Food Intake Questionnaire - Mother
- High/Scope Home Environment Scale - Mother

Second visit - Home Start and Control

- Denver Developmental Screening Test - Focal Child
- Height and Weight - Focal Child and Sibling
- 8-Block - Focal Child and Mother
- Parent Interview - Mother

[1] Throughout this report smaller tables are usually included in the text; most full page tables are together in a section following the last chapter of the text.

The order of instrument administration was different for Head Start facilities since the testing was conducted in the center. All child activities were administered in one session with the child. The second testing session was conducted with the parent only involving the child in the 8-Block Sort Task.

Following visits:

- Tester Logs
- Mother Behavior Observation Scale
- Pupil Observation Checklist

In order to equalize the time required for the two visits in the spring, an expanded version of the parent interview will be split into two parts, one part given at each visit. In addition, the Height and Weight will be given to the focal child and siblings during the first visit.

Field Procedures

As outlined in the Field Procedures Manual, site coordinators were responsible for coordinating all testing visits to control group, Home Start and Head Start families. Since the field procedures used for control group/Home Start and Head Start are quite different, they are described in two separate sections.

Home Start and control group. While home visitors were requested to accompany the community interviewers on testing visits during the spring, the Home Start programs were given the option of having community interviewers conduct the testing on their own in order to minimize interference with regular program activities. A number of programs elected not to have home visitors accompany the community interviewers. A quote from a community interviewer following the evaluation best describes the effect this decision had on the entire field operations: "It soon became apparent that the cooperation of the home visitor was vital. Locating a family, setting up appointments, and establishing a good rapport in the home setting, especially in rural areas, was difficult if not impossible without the home visitor's support. Without that support, testing took twice the time and effort".

Data from the field support this statement. In West Virginia, where home visitors postponed regular visits to families in order to accompany the community interviewers on Home Start and control group test visits, the incidence of unsuccessful visits* was lowest (9) for all six sites. The number of unsuccessful visits was highest in Ohio (46) where community interviewers had minimal support from home visitors. A total of

*A visit is considered unsuccessful if the family is not home after an appointment has been made either through the home visitor or directly with the parent and a reminder notice has been sent to the family.

202 unsuccessful visits were made during the fall, or an average of 33.7 per site. Twelve families were dropped from the sample because three unsuccessful visits had been made to the home. About 67% of the families who were dropped because they did not keep appointments were control group families.

Site coordinators were responsible for scheduling the initial visits to control group and Home Start families. Second and/or third visits were arranged directly with the family by the community interviewer. The site coordinator was also responsible for preparing weekly testing schedules for use by the home visitors and the community interviewers.

Although plans called for testing control group and Home Start families in the home, a few families in Alabama were tested in an OEO community center because of severe neighborhood problems.

Problem areas. The young age and low achievement level of some of the children tested during the fall caused some morale problems among staff. On the Preschool Inventory specifically, community interviewers frequently encountered non-verbal children who would not respond to four questions in a row. Although the test should be stopped after four No Responses, Refusals or Don't Know's in a row, community interviewers often continued believing that they might be able to elicit a response on subsequent non-verbal items. The frequency of incorrect stopping on the PSI ceased after the field staff was informed that such non-responsive behavior is quite natural for 3- and 4-year-old children.

Head Start. Before any testing visits were made to local Head Start centers, site coordinators arranged to have community interviewers give a demonstration of the measurement battery at each of the centers involved in the evaluation.

Scheduling of testing visits was done by the site coordinators with the local Head Start program directors and generally, this procedure was effective. The only difficulty in scheduling that arose concerned working parents; 10.9% of the total number of Head Start visits were made to the family's home in order to complete the parent part of the battery. All other testing was conducted in the local Head Start centers.

Head Start program directors and center staff were very cooperative in helping to arrange testing visits with families. In West Virginia, some of the Head Start centers arranged to bus the parents and children to the center in the late afternoon or early evening so that the instruments could be administered. These evening visits to centers necessitated "team" testing,

rather than having one individual responsible for a particular center. This created some confusion in the early stages of Head Start testing. For example, one community interviewer would be testing the child, while another conducted interviews with the parent. Frequently, the team would fail to obtain data for Section IV of the DDST from the mother, requiring a follow-up telephone interview or visit.

Although most of the testing visits were conducted during the regular work week, a number of weekend visits were made in Arkansas. Most of the Head Start visits in West Virginia were evening visits.

Problem areas. Community interviewers had the following difficulties with Head Start field procedures outlined in the Field Procedures Manual:

- Establishing rapport with the Head Start child by visiting the classroom was challenging; young children were not always eager to talk or to leave the classroom for testing. More time and effort was required to get acquainted than with Home Start and control group families.

- The actual testing environment was often far from ideal. It was frequently extremely noisy, distracting both the child and the community interviewer.

- Timing of the testing visits to the center sometimes was a problem. Most of the centers follow strict routines, such as eating breakfast, napping, etc., which community interviewers were not aware of prior to going to the center for a testing visit. (In the spring, center schedules will be obtained prior to testing.)

- The Food Intake Questionnaire presented some problems for the field staff since many of the children ate both breakfast and lunch at the center. Head Start teachers who were asked to supply information regarding the children's diet for the previous day could specify what the child ate but not the quantity of food consumed. During the spring, center staff will be requested to observe and record the child's food intake carefully prior to a testing visit.

Monitoring Test Performance

Site coordinators were responsible for start-up and ongoing monitoring of the test performance of each community interviewer. Each community interviewer was accompanied by the site coordinator on her first administration of each measure to ensure that the proper procedures were followed. Additional training was provided on an "as-needed" basis before community interviewers were permitted to visit another family.

Ongoing monitoring was conducted on a weekly basis for each community interviewer until all testing was completed. During the third and fourth week of field operations, site monitors from Abt Associates and the High/Scope Educational Research Foundation spent from three to four days on site, monitoring community interviewer performance and identifying and correcting problem areas. Site coordinators and site monitors averaged eight testing visits per community interviewer during the fall as compared with an average of 5.2 in the spring.

To assist site coordinators and monitors in evaluating the community interviewers' performance and to determine whether necessary standards of administration were being met, monitoring and performance evaluation forms were developed using a rating system for administration errors. In addition to noting errors in the administration of the measures, site coordinators scored the responses of the child along with the community interviewer. Discrepancies in scoring between the site coordinator and community interviewer were then recorded on the monitoring form to be used to determine inter-judge reliability for all of the measures. (Copies of the monitoring and performance evaluation forms and procedures for monitoring are described in detail in Section V of the Site Coordinator Field Procedures Manual, Appendix A.)

Monitoring Data Collection

With an increase in the number of monitoring visits and through the use of the monitoring and performance evaluation forms, more data were gathered than in the spring to evaluate the quality of field operations data. Data are presented in this section on both inter-judge reliability of scoring and the accuracy of measurement administration

Inter-judge reliability of scoring. Inter-judge reliability of scoring between community interviewers and site coordinators/ monitors dropped slightly for the PSI, but increased for the DDST. Table III-2 shows a comparison of spring and fall inter-judge reliability figures.

Table III-2

Percent of Accuracy-Scoring*

Comparison of Spring and Fall
Inter-Judge Reliability

Measurement	Spring	Fall
PSI	97.9%	95.6%
DDST	89.0%	95.1%

Items on which inter-judge reliability was low are noted below for both of the instruments:

- Preschool Inventory (PSI) - no single item accounted for more than 6% of the total scoring discrepancies and are therefore not noted here. On the PSI, there are three distinct categories of scoring errors that can be made. Discrepancies were distributed among the three categories as follows:

  44.7% of the discrepancies were in scoring the child's response to an item;

  29.5% of the discrepancies were in terms of noting whether or not the child's response was verbal;

  25.7% of the discrepancies were in noting probes and/or the child's response in the margin.

- Denver Developmental Screening Test (DDST) - items accounting for more than 10% of the total discrepancies are noted below:

  Item 14: Balancing on One Foot, resulting from site

*The formula used for computing percentages is:

$$\frac{\text{TOTAL \# OF TEST ADMINISTRATIONS}^1 \times \text{TOTAL \# OF ITEMS/TEST} - \text{TOTAL \# OF ITEMS IN ERROR}}{\text{TOTAL \# OF TEST ADMINISTRATIONS}^1 \times \text{TOTAL \# OF ITEMS/TEST}} = \text{\% ACCURACY}$$

[1] Refers to total # of tests administered for which monitoring data is available.

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coordinators/monitors using wristwatches rather than stopwatches (17.2% of total discrepancies);

Item 18: Forward Heel-to-Toe Walk (13.8% of total discrepancies);

Item 19: Backward Heel-to-Toe Walk (11.1% of total discrepancies); and

Item 1: Building Tower (10% of total discrepancies).

- On the 8-Block Sort Task, discrepancies in inter-judge reliability averaged 4.5 placements per 8-Block administration. Some 58.8% of the scoring discrepancies were in the number of placements the child made on the board which can be extremely difficult to follow.

Measurement administration errors. In addition to analyzing inter-judge reliability of community interviewers and site coordinators/monitors, it is important to review the number of administration errors that were made on each of the measurements. The following table shows the average number of errors that were made in the administration of the entire test battery, excluding the Height and Weight, the Tester Log, and the Home Visit Observation Instrument. Also indicated on the table are the total number of administrations of each of the measures that were monitored.

Table III-3

Average Number of Administration Errors

Measurement	No. of Administrations Monitored	Average No. of Errors per Administration
PSI	106	2.2
DDST	97	2.1
8-Block	96	2.0
Food Intake	62	1.3
Parent Interview	60	1.1
Home Environment Scale	55	0.6
Schaefer Behavior Inventory	55	0.4

The type of administration errors made on each of the instruments can be further broken down by category of error. Noted in the following three tables are percentages of the total number of administration errors for each of the categories. The first table presents the percent of administration errors for the PSI and DDST, the second for the 8-Block, and the third for the four parent questionnaires. The "N" is the total number of administration errors made on each of the measurements. Areas of concern which need special attention during subsequent training sessions are underlined.

Table III-4

Percent of Administration Errors by Category
PSI and DDST

Error Category	PSI N=234	DDST N=202
Repeats (Cars and Boxes)	33.8%	N/A
Repeats Too Many or Too Few	2.6%	34.2%
Failing to Have Correct Materials for Test	2.1%	1.0%
Incorrect Placement of Materials	14.5%	6.4%
Incorrect Wording of the Item	9.4%	11.9%
Skipping an Item or Stopping Test Incorrectly	4.3%	9.4%
Probing Too Much or Too Little	22.6%	2.0%
Choosing Inappropriate Environment for Test Item	N/A	6.9%
Other	10.7%	28.2%

Table III-5

Percent of Administration Errors by Category
8-Block N = 194

Error Category	Percent
Inadequate Set-Up of Board	3.6%
Incorrect Wording of Questions	40.7%
Incorrect Placement of Blocks	4.6%
Failing to Ask for Verbal Response	9.8%
Failing to Ask for Placement	1.0%
Repeats Too Many or Too Few	15.5%
Skipping Section	3.6%
Failing to Ask Correct Question of the Child and Other	21.1%

Table III-6

Percent of Administration Errors by Category
Parent Interviews

Error Category	Food Intake	Parent Interv.	Home Environment	Schaefer
N	78	68	31	22
Incorrect Wording of Item	26.9%	25.0%	54.8%	4.5%
Probing Too Much or Too Little	43.6%	16.2%	12.9%	18.2%
Skipping Item	5.4%	32.4%	12.9%	4.5%
Commenting Too Much	6.4%	5.9%	--	13.6%
Other	16.7%	20.6%	19.4%	59.1%

Data Check-In and Field Coordination

Plans called for having site coordinators review and log each completed instrument before forwarding it to Abt Associates, Inc. Because of the many and varied duties of the site coordinators this fall, an in-depth review of the data was not always possible on site. Unchecked data were frequently forwarded to Abt Associates to check for scoring discrepancies. The site coordinator would then be informed by telephone of on-site scoring problems, enabling her to give community interviewers immediate feedback and technical assistance if needed.

Although the measurement battery has been refined for the last two data collection efforts, it became apparent that not all inconsistencies in scoring had been detected and corrected, especially on the PSI. The inconsistencies were corrected during the course of the field effort, but still caused some confusion for field staff.

In addition to reviewing the quality of data received from the six summative evaluation sites, the coordinator of field operations assisted in sampling from Home Start and Head Start family rosters. She also was in frequent touch with Home Start programs to ensure that the sample was being adhered to as much as possible. Not all programs followed sampling rosters consistently in terms of filling Home Start vacancies.

Fall Schedule

As was noted earlier, considerable delays were encountered during the course of the field effort, especially in terms of obtaining Head Start family rosters. This and other factors prolonged the field effort by approximately 1-1/2 months.

The time schedule for the fall field operations is noted below:

Aug. 8-16	- Recruiting of field staff
Sept. 3-11	- Site start-up and preparation
Sept. 12-22	- Training of site coordinators, trainers and field staff
Sept. 24-Oct. 5	- Start-up testing and review - Home Start
Oct. 7	- Start-up testing - control group
Oct. 23	- Start-up testing - Head Start
Nov. 23	- 90% of data collected*
Jan. 15	- All data (including observations) complete

*Planned completion date for all data collection activities.

Quality of Summative Data

Fidelity to Random Sample Lists

Home Start and control group families. Each of the six Home Start programs participating in the evaluation were required to recruit 80 new families during the summer, half of which were to be randomly assigned to enter Home Start in the fall of 1973, the other half to be placed on a waiting list for enrollment in the fall of 1974. Sampling was done on a geographic basis for each of the sites. Program directors specified the number of vacancies that needed to be filled to complete the caseloads of each of the home visitors.

Some programs had difficulty recruiting the required number of families. Two programs (Alabama and Texas) indicated that certain target areas had been depleted of eligible families and that transportation costs prohibited the program from reaching out to new target areas. Competition with Head Start and other preschool programs for eligible families was cited by only one program (Ohio) as a factor causing recruiting difficulties. On the basis of these data and the figures obtained on the Parent Interview (see Table III-7) it is apparent that other Home Start programs are serving families in target areas not covered by Head Start (rural programs) or that Head Start funding is minimal and does not meet the demand for preschool services (Kansas).

Table III-7

Geographic Location of Families

	Urban (small town or city)	Rural (farm or open country)
Home Start	62.1	37.9
Control Group	54.8	45.2
Head Start	80.6	19.4
Total Sample	64.5	35.5

It proved impossible to adhere to the original lists. Disruptions in the original random assignments were caused primarily by families dropping out of the program. The following table (III-8) shows the number of control group families by site who were transferred to Home Start during the course of the evaluation to fill vacancies created by test and non-test families leaving the program:

Table III-8

Control Families Transferred
To Home Start

Alabama	8 families
Arkansas	15 families
Kansas	12 families
Ohio	23 families
Texas	14 families
West Virginia	5 families
Total	77 families

Ohio had the highest incidence of turnover within Home Start, requiring the transfer of many control group families to Home Start. The control group was sufficiently depleted to warrant a decision by the Office of Child Development to freeze the control group and to require the six programs to recruit additional families to fill vacancies in the program.

In addition to the transfer of families from the control group to Home Start, a considerable number of families selected for the evaluation did not participate. The number of families selected in the random sample but not tested, and the reasons for non-participation are given in Table III-9. Families moving from the area was the most common reason for non-participation in the evaluation. West Virginia was the only site with a number of alternate families who did not participate in the evaluation (none of the other programs recruited enough families to provide alternates). An extensive number of families in Kansas did not participate in the evaluation because of unclarity regarding income guidelines for entering families. After ascertaining their eligibility, families were resampled. Ohio experienced

a high attrition of families caused by family mobility and competition with Head Start. In Texas, more than half of the families who were not involved in the evaluation were non-English-speaking. Arkansas experienced high family mobility as well. Also, as a result of the seasonal nature of the work of some families their income had increased by the time of enrollment and they were no longer eligible for the program.

Attrition of Home Start and control group families between the time of the evaluation and December 31, 1973 was sufficiently high to warrant concern. The overall attrition for the six programs was 7% (ranging from 2.7% in Kansas to 14.5% in Ohio). Caution should be used when interpreting the attrition figures since a number of Home Start programs have had limited or no involvement with control group families since the time of recruitment. It can be assumed that attrition is higher for control group families than the figures below indicate.

Table III-10
Attrition from Evaluation to Dec. 31, 1974

	Home Start	Control Group	% Attrition
Alabama	3	1	5.2%
Arkansas	2	0	2.8%
Kansas	1	1	2.7%
Ohio	7	2	14.5%
Texas	5	1	11.8%
West Virginia	4	0	5.1%
Total	22	5	7.0%

Head Start. Head Start directors in four of the evaluation sites (Alabama, Arkansas, Texas and West Virginia) were requested to submit the names of 40 children who would be entering the program in the fall of 1973 to serve as a comparison group for the evaluation. Due to unclear guidelines for preparing rosters, Arkansas and Texas computed rosters of Head Start children twice. The first rosters submitted

*Based on Quarterly Family Characteristics Reports for period ending December 31. 1973.

contained the names of children who had been enrolled in Head Start prior to the summer, making them ineligible for participation in the evaluation. (Some Head Start programs run for three years while all Home Start programs operate for two years; consequently some children enter Head Start at a younger age.) There was also considerable delay in obtaining rosters from Alabama, due to the temporary closing of some of the Head Start centers. As is evident from Table III-7, Head Start programs are serving different populations than Home Start programs; only 19% of the Head Start families live in rural areas as compared to 38% of the Home Start families. For some sites, this difference is deliberate (e.g., West Virginia) since they only recruited families who did not live close to a town or close to a Head Start bus route. Also, in some sites, no Head Start services are being provided in certain counties or areas. For example, the Alabama Home Start program serves five counties while Head Start serves one; in Texas the Home Start program covers several townships and Head Start serves only the Houston area.

The following table shows the number of Head Start families selected for the evaluation who did not participate.

Table III-11

Alabama*	30 families
Arkansas*	19 families
Texas*	21 families
West Virginia	11 families

Head Start programs were not requested to indicate reasons for non-participation of families.

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*The majority of families were ineligible for participation since they had been involved in Head Start prior to the summer.

Characteristics of Families Sampled

In order to examine the representativeness of the summative sample, Table III-12 presents the number, age and sex of focal children and their siblings involved in the evaluation for the total sample and the three groups by site. In addition, the table shows the average number of focal children and siblings per family.

This fall there were 556 focal children in the Home Start evaluation ranging in age from 31 months to 70 months. The mean age was 47.3 months; over one-half of these children were in the 3 1/2- to 4-year-old age bracket. Children from Alabama had the highest average age (51.6 months) and Ohio the lowest (41.3 months). Although there was a ten-month difference in average ages across sites, inter-group age differences averaged less than a month, with Home Start and Head Start children generally younger (47.0 and 47.1 months) than controls (47.9 months).

There were 87 siblings[1] in this fall's evaluation; 20 from the control group and 67 from Home Start. (Head Start siblings were not tested because testing sessions were generally held at the Head Start centers.) The siblings ranged in age from 33 to 70 months with a mean age of 52.0 months, which is approximately five months higher than the mean age for focal children. Across-site sibling age ranges were even larger than those for the focal children. Arkansas had a mean age of 39.5 months while Ohio had a mean age of 58.6 months. Again, the groups were virtually identical, with Home Start children having a mean age of 52.0 months and the control group, 51.0 months.

Sex distribution was even across all sites for the focal children. There was some imbalance in the sibling distribution, but this would be difficult to avoid, given the relatively small sample.

Although the majority of total sample families are from urban areas, a greater percent of Head Start families live in these areas. This difference is also reflected in the families' SES indices, education, and occupational levels (see Table III-13). Head Start as a group has a lower unemployment rate, a higher percentage of mothers employed and higher average levels for occupations and mother's education. Consequently the average SES index for Head Start families is higher. The difference in employment rates is at least partially attributable to the Head Start policy in some sites which requires a certain percentage of the families to have both parents employed.

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[1] If there was more than one eligible sibling in the family, only the youngest was included even if he or she had not quite reached age three yet.

Although the SES index[1] is similar across sites (ranging from 4.8 to 5.3) the occupation index of parents in various sites differs markedly. In Kansas and Ohio the mean index is 1 due to a high unemployment rate, in Arkansas and West Virginia it is 9 and in Alabama and Texas the mean level is 15.

Measurement Battery Length

A one hour maximum for child testing time had been specified in the RFP but the actual mean time for this fall's testing was 36.6 minutes. Table III-14 presents the mean testing time for each test as well as for the total sample and the three groups. Information was collected by the community interviewers who recorded the actual test administration time. Times did not include completion of observation rating scales or tester logs and did not cover time needed for establishing rapport with the families, preparing materials, and so forth.

The mean time for the child tests was considerably less than the 47 and 50 minutes averaged in previous data collections, partly because the Concept Development Test was not given this fall. The mean time for each test as well as the entire battery is presented in Table III-14 for the three groups and the total sample. The SBI, Food Intake and 8-Block tests took about the same amount of time to administer, but the Home Environment Scale and the Parent Interview dropped approximately six and four minutes respectively due to the shortening of the forms. There was a 15-minute decrease in total family involvement in testing and interviewing as compared to last spring.

When comparing this fall's group testing times, Home Start had the highest total family time, followed by the control group and then Head Start. The difference was more pronounced on the child measures (a difference of nine minutes) than on the parent questionnaires (six minutes).

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[1]The SES index is based on two factors: Mother's education (number of years of schooling completed) and the Duncan socioeconomic index of the family wage earner (if more than one family member was employed the higher status code was used). The Duncan index ranged from 1 to 84 for the test sample. Standard scores (mean of 0, SD of 1.0) were created for the two indices; SES is the sum of the two standard scores plus 5, resulting in an index with a mean of 5.0 and an SD of 1.5.

Conditions of Testing

Information gathered about testing conditions is summarized for the three groups and the total sample in Table III-15. The information was obtained through the use of tester logs which were completed after each visit. Because of the relatively small number of visits (33 out of 984 visits) logs for the second and third visits were combined.

Mothers were present during 89% of the visits; this is comparable to the 87% and 91% figures obtained last spring and fall. There were approximately 20% more Home Start and control group mothers present for the visit than Head Start mothers. (This is probably due to the fact that most of the Head Start testing took place at the centers rather than the homes.) Head Start also had a much lower percentage of teachers present as compared to Home Start's home visitors. This can be viewed as a reflection of the one-to-one nature of the home visitor's role as compared to the group responsibilities of the Head Start teacher. With mothers and teachers present a shorter period of time, and testing taking place outside of the home, it is not surprising that Head Start averaged four people present as compared to five for Home Start and the control group. The location of testing for Home Start and control groups varied from one family to the next, but most often it was conducted in the living room. The Head Start families were, for the most part, tested at the Head Start centers. In the centers, nearly half of the testing was done on child-sized tables, but in the homes large tables and the floor, as well as a combination of the two were more frequently used.

The percent of visits rated "noisy" was lower than previous data collections (27% as compared to 77% last fall and 36% last spring). The Head Start testing sessions were, on the average, more noisy than the other two groups, particulary on the first visit. In addition, during 25% of the total sample visits testers recorded some problems. This figure is comparable to past sessions. Home Start had the most problems noted, but the difference was minimal (5%). The major problem in all groups was the child refusing to cooperate. Home Start was the lowest of the three groups in this category, but rated highest on "interference" which was the second major cause of problems. Some of the other problems noted were the child's hyperactivity, sickness, and tester error.

Incidence of Missing Data

Table III-16 presents the incidence of missing data for each test. These figures are relatively high because, unlike previous reports, they represent all missing data -- missing items as well as missing tests. In fact, most of the incidents reported here refer to missing test items rather than complete tests.

Over one-third of the missing data comes from the PSI, perhaps because this is the first instrument administered and therefore rapport problems occur with greater frequency. In almost all of the cases of missing data on child measures (and the 8-Block) "child refusal" was cited as the cause. On the other hand, "tester error" was almost always the reason given for missing data on parent questionnaires.

Parental Reactions to Testing

Parental reactions to individual instruments were obtained on the Parent Interview. Their responses are presented in Table III-17. Overall, the parents reacted favorably but 6% responded unfavorably to the 8-Block Sort Task (as in the spring) and 3% to the PSI. The major complaint was that the tests were too difficult. Other responses included complaints that the tests took too much time, that they were too limited, or that they were too personal.

Summary

The factors examined to assess the quality of the summative data lead to the conclusion that this fall's data are of comparable, if not higher quality, than last spring's. However, continued care must be taken to maintain and improve this level of quality.

Examination of these data also points to a major difference that exists between Head Start and the Home Start/control groups. From the information about family locations, SES indices, education and occupation levels and unemployment rates, it is apparent that Head Start serves a different (more urban and slightly higher class) population than Home Start while from all indications the Home Start and control groups are identical in these characteristics.

IV

ANALYSES OF CHILD MEASURES

The internal characteristics and whole score characteristics of each child measure are examined in this chapter. The reason for examining internal characteristics is to identify strengths and weaknesses of individual items before combining them into total scores. If faulty items are used to construct a total score, there is good reason to expect the total score to be faulty. An item can be faulty because it fails to discriminate properly among persons, because it yields erratic scores over time, or simply because it is difficult to interpret. This report identifies items on several of the measures as having undesirable characteristics; changes in scoring or analysis procedures are then recommended. The findings reported here for measures administered in fall 1973 are also compared to the findings from fall 1972 and spring 1973 data in order to gain some insight into the stability of internal characteristics across time and persons.

The internal characteristics looked at for each instrument include:

- Response distributions across each item;
- Percent of persons passing each item;
- Intercorrelations among items and among subtotals or scales;
- Factor structure among items;
- Internal consistency reliability.

Descriptive statistics for whole scores are examined to identify the ability range and precision of each measure. Measures must be neither so difficult that all children score at the test "floor", nor so easy that they score at the test "ceiling"; rather, children's scores should be evenly spread over the lower middle range of the measure to insure enough unpassed items remaining to reliably record child growth occurring during the program year. Also, the standard deviations of whole scores should be small compared to expected increases due to program effects, to insure enough precision to detect

real intergroup differences with the available number of families in the evaluation. The descriptive statistics presented in this section for each of the child total and subtotal scores include:

- Means;
- Standard deviations;
- Standard errors of the means.

Relationships between totals and subtotals across different measures in the battery are examined below, in Chapter VI.

Analysis of variance, analysis of covariance and chi square are used to compare the Home Start, control and Head Start groups on all subtotal or scale scores, and in some cases, on individual items. The first concern in these analyses is the comparability of the Home Start and control groups, as a check on the assignment of families to group. When, as would be expected, no difference is found between these groups, they are combined in planned comparisons to test for possible differences between the Home Start/control population and Head Start.

Preschool Inventory (PSI)

The PSI is a general measure of children's achievement in areas that are often regarded as necessary for success in school. Children are asked questions of general knowledge (e.g., "What does a dentist do?") and basic concepts (e.g., "Put the blue car under the green box"). The same 32 item version used in the two previous Home Start data collections was again administered this fall. Since last spring there have been no major modifications in the administration or scoring of this test. The PSI items are given in Table IV-1, along with the numbers used to identify each item in the following tables. The PSI is one of two measures administered to siblings as well as to focal children. The analysis of the sibling data will be presented after the analysis of the data on focal children.

Focal Children

Of the 556 focal children, all but one took the test. Children were included in the analyses, however, only if they had a response recorded for at least 28 of the 32 items. The minimum number refers to the number of items which were administered and which received a valid score--i.e., any one of the five coding categories, correct (C), wrong (W), don't know (DK), refusal (R), or no response (NR). It is assumed that if a child completed the test, an R or NR may be just as indicative of "not knowing" an answer as a W would be. The fact that for children who completed the test R and NR were recorded for only a few items supports this assumption. The 119 children who did not complete the test were, on the average, four months younger than the other children.

If Rs and NRs occur frequently during a test, this may be indicative of shyness, uncooperativeness, or poor rapport with the tester. For this reason, community interviewers were instructed to stop administering the PSI if a child made any combination of DKs, Rs or NRs on four consecutive items. Because of tester error, however, there were 73 cases in which the test was continued and completed after four consecutive DKs, Rs or NRs. Rather than discard these cases, it was decided to include them in the analyses. Because the testers were in fact able to complete the tests it is assumed that the excessive Rs and NRs may be valid indicators of "not knowing" the correct response.

Since a higher proportion of these 73 cases were from the Home Start group, 11 cases were randomly excluded from the Home Start group to obtain equal proportions in each of the three groups. The 62 cases remaining in the analysis were younger than the rest of the children who completed the test (mean of 45.5 months vs. 48.4) and they had lower scores (mean of 6.5 vs. 10.6). Even though their mean age of 45.5 months is close to the upper limit of the 3 1/2-year-old group, these children scored below the 3 1/2-year mean of 7.4.

In summary, of the 556 focal children, 555 were administered the PSI and 437 completed the test. Seventy-three of these had four consecutive DKs, R or NRs but still completed at least 28 items; all but 11 of these cases were included in the analyses. Analyses of PSI data are based on a sample of 426 children who responded to at least 28 of the 32 items, except for the whole score analyses, for which the N is 425 (one child completed the test but made no correct responses).

Response distributions. The percentage of children who responded in each scoring category for each item is presented in Table IV-2. When compared with the previous data collections, the fall 1973 response distributions show lower percent correct responding, somewhat higher percent wrong and higher rates of DK, R and NR responses; these are reasonable findings considering the fact that the children averaged five months younger than those tested last fall. In addition, unlike fall 1972 when some children had started the program in the previous spring, none of the current participants had been in Home Start prior to September, 1973. A comparison of the mean percent of the total sample responding in each category for the three data collection times is presented in Table IV-3 below (these are the means of the percents for all 32 items):

Table IV-3
PSI--Mean Percent Responding

	N	C	W	DK	R	NR	Mean Age
Fall 1973	426	31.3	56.8	5.2	3.0	3.4	47 months
Spring 1973	171	47.5	50.5	2.2	0.2	0.7	56 months
Fall 1972	181	39.3	52.0	3.7	0.6	1.4	52 months

An examination of the fall 1973 response distributions within each group (Table IV-4, below) showed that Home Start and control groups had higher percentages of DK, R and NR than did Head Start. Head Start also had the least number of items for which NRs were recorded.

Table IV-4
PSI--Mean Percent Responding by Group

	N	C	W	DK	R	NR	Mean Age[1]
Home Start	179	30.2	56.4	6.4	3.8	3.2	48.0 months
Control	123	30.7	56.6	6.1	3.3	3.2	48.3 months
Head Start	123	33.6	57.6	4.0	2.2	2.6	47.6 months

[1]These ages refer only to children who had acceptable PSI tests, not the entire sample.

The items which evoked the most DK responses in all three groups were items 8 through 13, the most Rs occurred for items 10 through 13 and the most NRs for items 8 through 12 (items 8 through 13 included those items which required the most complex verbal responses).

Head Start children were the least verbal of the three groups. Although there was only a difference of a few percentage points on items that required a verbal answer, on those items which did not require a verbal response, the percent for Head Start was often 10 percentage points lower than the percents for the other two groups. To test the difference between groups, a total verbal score (the number of items on which a verbal response was given) was calculated. The mean scores for the Home Start, control and Head Start groups were 23.3, 23.6 and 20.2, respectively. An analysis of covariance with age as the covariate found a significant difference among the groups ($F = 10.5$; $df = 2, 422$; $p < .05$) although the strength of the association is low ($\omega^2 = .04$). Follow-up t tests showed the Head Start mean to be significantly lower than the other two.

When the response distributions within each age group were examined, the percents in the R and NR categories were found to decrease with age. The percent responding with DK remained fairly constant across ages and, of course, the percent passing each item generally increased with age.

Percent passing. The percent of children passing each item is presented by group in Table IV-5 and by age in Table IV-6. The figures were obtained by combining the W, DK, R and NR categories as "failing" and correct as "passing". For the total sample, the percents are generally lower than those from the previous fall, although the range is greater this fall (2.8 to 82.6, compared with 6.0 to 73.4 in fall 1972). The easiest and most difficult items remained consistent. The easiest were items 1 and 25 ("What is your first name?" and "Point to the one most like a tent"). Among the most difficult were items 7 ("Put two cars behind the box in the middle"), 10 ("If you wanted to find a lion where would you look?"), 17 ("How many toes do you have?"), 24 ("Which of these two groups has more?") and 27 ("Make one like this"--a triangle).

Among the three groups, Head Start had the highest percent passing on 15 of the items, Home Start on seven items and the control group on eight. The items which produced the greatest discrepancies among the three groups (greater than 15 percentage points) were items 8 ("If you were sick, who would you go to?"), 20 ("Point to the first one"), and 22 ("Point to the second one").

The percent passing each item generally increased with age (Table IV-6). On many items the biggest increase occurred between the 5 and 5 1/2-year groups. Since 90% of the total sample falls below the five year age range, there is still considerable room for growth on the PSI.

Correlations. An intercorrelation matrix of the 32 items and the item-total correlations (corrected for overlap) are presented in Table IV-7. The intercorrelations obtained this fall were generally lower than those obtained in the previous data collections. For the intercorrelation matrix based on the total sample, there were eight items which correlated less than .20 with the total (items 1, 10, 18, 20, 22, 23, 24, and 29). In the Head Start data there were six items with correlations less than .20; there were nine below .20 in the Home Start group and 14 in the control group. Across all data collections, three items have consistently been among the lowest in terms of item-total correlations--items 1 ("What is your first name?"), 22 ("Point to the second checker"), and 23 ("Which group of checkers has less?").

On the basis of these low item-total correlations, it was decided to delete these items before calculating scores for the analysis of group differences, thus making 29 the maximum PSI score possible. However, all other PSI analyses in this report, including the descriptive data, are based on a 32-item PSI for purposes of comparison with the previous reports. There were three items which, each time, showed the highest correlations with the total--item 5 ("Put the yellow car on the little box"), item 19 ("Point to the middle checker") and item 26 ("Make one like this"--square).

Factor analyses. As with the previous fall data, 12 factors with eigenvalues greater than 1.0 were extracted in the principal components factor analysis with varimax rotation. The rotated factor loadings and the items loading highest on each factor are presented in Tables IV-8 and IV-9. These 12 factors accounted for 57.0% of the total variance (whereas 63.9% of the variance was accounted for last fall). The Kaiser statistic (Kaiser, 1971) was .43, considerably lower than the .80 to .90 that Kaiser recommends in order to have good factor-analytic data. Since the Kaiser statistic is a function of the number of variables, the number of factors, the number of subjects and the general level of the intercorrelations, it would appear that the low Kaiser value here is due to a low intercorrelation matrix. In fact, the median squared multiple correlation between each item and the rest of the items was .20.

Although about the same number of factors were extracted this fall, the items loaded differently than they did before. Five pairs of items (5 and 6, 14 and 15, 26 and 27, 29 and 31, 30 and 32) consistently loaded together on the same factors in the analyses of all three data collections. However, no clusters larger than pairs were found to load consistently together.

When principal components analyses were computed separately for each group, the analysis of the Home Start group extracted 13 factors accounting for 65.7% of the total variance; for the control group 12 factors accounting for 63.6% of the variance were extracted; and for Head Start 13 factors accounted for 68.2% of the variance. Three pairs of items (4 and 5, 5 and 6, 17 and 19) loaded together in each of these analyses. In summary, these analyses confirm the previous findings that items from the PSI are factorially complex and not easily separated into distinct, interpretable factors.

Reliability. The total score on the PSI was computed by summing the number of correct responses for each child. The internal consistency reliability of the resulting scale is slightly lower than the alphas of .83 and .85 obtained in fall 1972 and spring 1973. In fall 1973 the alpha coefficients for the total sample, Home Start group, control group and for Head Start were .77, .77, .70, and .81, respectively.

Whole score descriptive data. The means, standard deviations and standard errors of the means for the 32-item PSI are presented for the total sample, by age groups and by sex, in Table IV- 47 . A comparison of the mean PSI score (based on 29 items) for each group is presented below:

Table IV-10
Fall 1973 PSI Scores[1]

Group	N	Mean	SD	SE
Home Start	179	8.4	4.6	.35
Control	123	8.5	4.1	.37
Head Start	123	9.1	5.0	.45
Total Sample	425	8.6	4.6	.22

Analysis of covariance: F = 2.06
df = 2, 421
n.s.

An analysis of covariance with age as the covariate was computed on the three group means. There was no significant difference between the three groups.

[1]Due to low item/total correlations, Items 1, 22 and 23 were deleted before calculating the scores for this analysis.

An examination of Table IV- 47 indicates a distinct increase in mean PSI score with age. The means for boys and girls in the total sample are identical (10.0); and differ by a maximum of only .7 points within any of the three groups. The mean score for each age group is generally lower than the means obtained in the previous fall and spring.

The PSI has been widely used in other research, but the only available data for the 32-item version comes from the Head Start Planned Variation evaluation. Walker, Bane and Bryk (1973) reported mean scores by three-month age intervals for children in that project during fall, 1971. Scores for the children in the Home Start evaluation were separated into the same age groups for comparison and means and standard deviations were calculated. The Home Start total sample and three group means are presented along with the Huron Institute data in Table IV-10.5. There is no pattern of difference which is readily apparent. T-tests were computed only on the groups between 42 and 59 months as the other Ns were too small. Generally speaking, the samples are comparable. The only significant difference between the two total samples (Huron-Head Start and the Home Start evaluation total sample) at the .05 level was in the 42-44 month bracket, (t=2.595, df=39) but lower at 54-56 months (t=2.397, df=45). Head Start children in the current sample scored higher than the Huron children in the 51-53 month group (t=2.535, df=12) and also higher than the Home Start/control group (t=2.571, df=43).

Siblings

The PSI was administered to 87 siblings between the ages of 2 1/2 and 5 1/2. Of these 87, 60 were siblings of Home Start children and 27 of control group children. Siblings in Head Start families were not tested because testing was done in the Head Start center. Since there were no control siblings in Arkansas and only one in Ohio, a decision was made to eliminate these sites from the analyses. Consequently, 14 Home Start siblings were also eliminated. Of the remaining 62 siblings, 11 did not have complete PSI tests (at least 28 items scored). Therefore, the following analyses are based on a sample of 51 siblings (33 Home Start and 18 control) from four sites. Analyses based on age are not reported in this section due to the small number of cases in each age group.

Response distributions. The percent of children who responded in each scoring category for each item is presented in Table IV-11. The greatest percent of the responses was in the W category, followed by C, DK, and NR, with R having the least percent. This pattern as well as the mean percent figures, are very similar to those obtained for the sample of focal children.

When comparing the two groups of siblings, the Home Start group generally had smaller percent correct and greater percents in all of the other categories. The biggest difference was in the DK category where Home Start had an average percent double that of the control group (7.8% vs. 3.4%). As found with the focal children, the two groups were very similar in verbal scores on items that require verbalization. But, on the items that don't, the Home Start siblings appeared to be more verbal than the controls. The difference in verbal scores, however, was not significant by an analysis of covariance with age as the covariate ($F < 1.0$; $df = 1, 47$; n.s.).

Percent passing. The percent of children passing each item is presented by group in Table IV-12. The range of the two groups was very similar, 3.0% to 78.8% for Home Start and 5.6% to 83.3% for the control group. Although the control group had a higher percent passing each item, there was no difference between groups on total PSI score (see below).

The items which produced the greatest difference between the two groups (greater than 15 percentage points) were items 2, 9, 11, 14, 22 and 29. With the exception of item 29 on which only the control group scored poorly, there were four items which proved the most difficult for both groups--7, 13, 17 and 24. As with the focal children, the easiest items for both groups were 1 and 25.

Correlations. An intercorrelation matrix of the 32 PSI items and the item-total correlations (corrected for overlap) were computed for the total sibling sample. The interitem correlations were generally higher than those found in the analyses of focal children. The median squared multiple correlation between each item and the rest of the items was .705. There were seven items which correlated less than .20 with the total (items 1, 14, 20, 22, 23, 24 and 29). The three items with the highest item-total correlations were items 3, 6 and 26. In general, these correspond to the items that had low and high item-total correlations in the focal child sample.

Factor analyses. As with the focal child sample, 12 factors with eigenvalues greater than .10 were extracted in the principal components factor analysis with varimax rotation. These factors accounted for 75.9% of the total variance, almost 20% more than accounted for in the factor analyses of the focal child PSI items. The Kaiser statistic was .96, indicating that in spite of the smaller N for this analysis an adequate sampling exists. This is undoubtedly due to the high level of the interitem correlations.

Reliability. The total PSI score was computed and the internal consistency reliability of the resulting scale calculated. The alpha of .84 was slightly higher than the .77 found for the focal child sample.

Whole score descriptive data. The means, standard deviations and standard errors of the means for the total sibling sample and the two groups are presented in Table IV-13 below. As in the focal child analyses, items 1, 22 and 23 (due to their low item-total correlations) were eliminated before calculating the scores for this analysis.

Table IV-13
Sibling PSI Scores[1]

Group	N[2]	Mean	SD	SE
Home Start	33	9.5	5.7	.99
Control Group	17	10.9	5.3	1.30
Total Sample	51	10.2	5.6	.79

Analysis of covariance: $F < 1.0$
$df = 1, 47$
n.s.

The difference between groups was tested by analysis of covariance with age as the covariate. No significant difference was found. The mean scores of siblings appeared higher than those of focal children, probably because siblings were, on the average, six months older than the focal children. When siblings and focal children of the same age were compared, the mean PSI scores were within .3 of each other.

[1]Based on 29 items.

[2]The Ns for the two groups do not sum to 51 because the analysis of covariance program only includes complete cases.

Summary and Recommendations

The item analysis from this fall's administration of the PSI continued to demonstrate good test reliability, and percent passing figures that increase with age. The percent passing is somewhat lower than figures obtained from the fall 1972 data, probably due to the younger mean age of the current sample. Comparison of the three program groups showed no significant difference between the scores of the Head Start, Home Start and control children, although the Head Start group had a lower verbal score than the other two groups. The items which provided the most DK, NR or R responses were items 8-13 which required the most complex verbal answers. The easiest items were consistently 1 and 25 ("What is your first name" and Point to the one most like a tent"). Analysis of Home Start and control group sibling data indicated that the siblings are similar to the focal children, when the fact that the siblings are six months older is taken into account. There were no significant differences between the Home Start and control children either in PSI score or in verbal score.

The only recommendation is for a change in scoring by eliminating items 1, 22 and 23 from the program effects analyses in the next report. These three items ranked among the lowest in item-total correlations in every testing session as well as in all three groups this fall. Descriptive data will continue to be presented for the 32-item version in order to facilitate comparisons with previous reports as well as with the findings of other studies using the 32-item PSI.

Denver Developmental Screening Test (DDST)

The DDST was designed to aid in the early discovery of developmental problems in four areas: Fine Motor Adaptive, Language, Gross Motor, and Personal-Social. It is primarily intended to be used as a diagnostic screening procedure with individual children to identify those who are developmentally delayed.

Since the DDST includes items that are applicable for children who range in age from two weeks to six years, items suitable for the Home Start age range had to be selected. This was done by examining the norms published in the DDST Manual and selecting items that would discriminate among children in the 3- to 6-year-old range. For the fall 1972 pilot testing, 32 items were selected that ranged in difficulty, according to the norms, from those that 90% of the 3-year-olds passed to those that no child in this age group would be expected to pass. A few DDST items falling in this range were not included since they duplicated PSI items. Three items found to be deficient in the spring evaluation were deleted in an attempt to make the instrument more stable and more sensitive to age changes. In addition, revisions were made in a few items, instructions to community interviewers in the test booklet were clarified, and the order of administering the subscales was revised so that Fine Motor items were administered first. Experience of the test's authors suggested that rapport with children in this age group might be better established if these items were given first.[1] As administered for this evaluation, answers to the Personal-Social scale items were provided by the mother. The other three scales were administered directly to the children. The test was not designed to yield scale scores, but for the purposes of the Home Start evaluation, scale scores were obtained by adding together items within each of the four separate areas of functioning.

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[1] Throughout the development of the DDST format used in the Home Start evaluation, Dr. William Frankenburg and Mrs. Alma Fandel have been extremely cooperative in helping to adapt their instrument.

Since each of the four DDST subtests is analyzed separately, a different criterion defining a valid test administration was developed for each of the four scales. Each criterion was designed to retain the maximum number of subjects for the evaluation, while removing cases with a significant amount of missing data. The Fine Motor Adaptive scale contains seven items, one of which has two responses scored. To be included in the evaluation, a child must have received a score for all eight responses. A total of 533 of the 553 children (96.4%) met this criterion and are included in the analysis. The Gross Motor scale contains seven items, one of which has three responses scored. To be a valid administration, at least eight of the 10 possible responses must have been scored. A total of 469 out of 553 children (84.8%) met this criterion. The Personal-Social scale contains seven items, two of which are combined into one score. To be included in the analysis, a child must have received a score on five or more items. This criterion was met by 550 children (99.5%).

The Language scale contains six items. One score is obtained for "understands singular and plural", but the other five items each consist of three or four responses (these are in the categories of vocabulary, prepositions, colors, opposites, and composition of objects). It was decided to treat questions within a category as separate items. This should have the effect of making the Language scale more sensitive to individual differences among children and increasing the internal consistency of the scale, thereby increasing the accuracy of measurement. Five items were thus separated into 17 independent items, increasing the number of items on the scale from six to 18 (including the plurals item). The criterion for a valid administration was set at 16 items. A total of 516 of the 553 children (93.3%) met this criterion and are included in the evaluation. These scoring procedures resulted in a total of 38 items on the DDST. In the previous data analyses a composite score was obtained for each category, so the present analysis will not be directly comparable for the Language scale.

In applying the criteria for valid scales, it is possible for a child to be excluded from one or more scales and still be included in other DDST scales. Thus, the Ns will not be the same for all scales. It is important to note, however, that there appeared to be no differences in the proportion of Home Start, control and Head Start children excluded from each scale.

Response distributions. The DDST item key is presented in Table IV-14. The first list of item numbers is associated with the item as it appears in the test booklet. For some

tables in the report the items will be numbered consecutively. These numbers are given in the second column, opposite the test booklet item they correspond to. When items are referred to in the text of the report, they will always refer to the order of presentation employed in the test booklet, unless specified otherwise.

The distribution of responses for each item is presented in Table IV-15. The child's responses on items 1-20 were scored in five categories--correct (C), wrong (W), refusal (R), don't know (DK), and no response (NR). Scoring items requiring multiple responses (items 1, 3, 8, 14, 18, 19, 20) by children necessitated the combination of the R, DK and NR categories. These combined category scores are reported in the "Sum" column of the table. Items 21-27 were scored yes or no.

The unweighted mean of the item difficulties (percent passing) for each of the four DDST scales is reported in Table IV-16 below, along with the spring 1973 and fall 1972 results. Only items used in all three test administrations were used in this table. The differences across testing times can probably be attributed to age differences.

Table IV-16

DDST-Mean Percent Passing

Scale	Fall 1973	Spring 1973	Fall 1972
Fine Motor	42.2	64.7	50.2
Language	45.1	55.7	54.9
Gross Motor	42.2	50.4	46.0
Personal-Social	77.7	83.6	79.1
Mean Age in Months	47	57	52

The relatively high percent passing on all items of the Personal-Social scale should be noted. For the fall 1973 analysis, the mean item difficulty was 77.7% and the range of the six items was from 58.2 to 95.2%. One requirement of a

good pychometric instrument is to have items with percents passing clustered as closely as possible to .5. When the percents on a scale deviate from .5, the utility of the scale is impaired in two ways. First, the sensitivity of the instrument to the individual differences decreases, resulting in a clustering of children within a smaller range on the scale. This limits the potential for discovering treatment differences. The restriction in the range of test performance also limits any attempt to correlate P-S scale scores with other behavioral measures. Since extreme percents passing also restrict item intercorrelations, the scale reliability is depressed. This is especially true when the number of items in a scale is relatively small, as in the case of the P-S scale. It might be expected, therefore, that the DDST Personal-Social scale may not be very useful as an evaluation instrument.

Percent passing. An examination of the percent passing by age group gives a picture of the developmental nature of the items. These data for the fall are presented in Table IV-17. For the most part, items show an increasing percent passing with increasing age. The notable exception is performance by the 5 1/2 year old group, which exhibits a consistent reduction in the percentage passing on most items. This apparent reduction may be attributable to the relatively small size of the 5 1/2 year old sample (N=9-11). Any attempt to make other inferences must await further testing with a larger sample.

Correlations. Certain items have been rescored to avoid the problem of non-independent items for the intercorrelation analysis, factor analysis, whole score descriptive data, and computation of coefficient alpha. Item 7 (draw a girl or boy), which is scored twice depending on the number of body parts drawn, and item 14 (balances on one foot), which is scored three times depending on the length of time that the child remains balanced, have been converted to single-item continuous variables. These replace the two scores for item 7 and the three scores for item 14 in subsequent analyses. The item intercorrelation matrix and the item-scale correlations are presented in Table IV-18. The item-subtotal correlations reported in the correlation matrix have been corrected for overlap.

An examination of the correlation matrix reveals item homogeneity on each of the four DDST scales. Of the 38 items in the matrix, only one, item 3 (picks longer line) correlates higher with a different scale score (Language) than it does with its own scale score (Fine Motor). Of the four scales on the DDST, the most homogeneous scale contains the Langauge items followed by the Fine Motor, the Gross Motor, and the Personal-Social scale. The within-scale item intercorrelations

follow the same pattern of acceptability with the Language items most satisfactory and the Personal-Social items least satisfactory. The Personal-Social scale continues to be the weakest of the four DDST scales with several within-scale item intercorrelations below .10. The six interscale correlations are high, indicating that common factors are being tapped by items on different scales.

Factor analyses. The first factor analysis conducted on the DDST requesting all roots with eigenvalues greater than 1.0 resulted in nine factors accounting for 50.7% of the total variance. This contrasts with last spring's analysis in which 10 factors were extracted accounting for 61% of the variance, and fall 1972 when 11 factors accounted for 64.6% of the variance. The test and scoring modifications mentioned above could have influenced these results. The Kaiser statistic was .59, considerably lower than the .80 to .90 that Kaiser recommends in order to have good factor analytic data. However, the Kaiser value is reasonable when considered in light of the median squared multiple correlation of .32.

In the nine root principal components solution, the items on the Fine Motor scale clustered together on Factor III which accounted for 7.2% of the variance. The only exception is item 3 (picks longer line) which loaded on Factor IV with items from the Language scale. Item 3 also loaded with the Language items in the spring analysis and is the only item this fall to correlate with another scale score to a greater degree than its own. The items on the Language scale loaded on four factors. Factor IV, with the largest number of Language items loading on it (10 items), accounted for 8.9% of the variance. Each of the other three factors loading with Language items correspond to the sets of language questions as they are ordered in the test booklet before being separated for analysis. Factor I, accounting for 6.5% of the variance, contained the four questions from item 11 (recognizes colors). Factor V, accounting for 6.5% of the variance, corresponded to the set of questions from item 13 (composition of ___). Factor IX, accounting for 4.7% of the variance, corresponded to the set of questions from item 10 (understands prepositions). The items on the Gross Motor scale separated on to two factors (VI & VII), one accounting for 5.0% of the variance and the second for 4.2%. The items from the Personal-Social scale loaded together on two other factors (II and VIII), accounting for a total of 7.7% of the variance.

In an attempt to evaluate the homogeneity of the four DDST scales, four roots were rotated using the varimax method. These four factors accounted for only 33.7% of the total variance. The factor loadings for each item are presented in Table IV-19 and the items loading highest on each factor

are presented in Table IV-20. The items on the Fine Motor and Gross Motor scale loaded together on Factors I and II. These were together with five of the six Personal-Social items clustering on Factor II and three Language items which loaded together on Factor I. The first factor accounted for 9.9% of the variance and the second for 6.7%. The two other significant outcomes of rotating four factors were the clustering of 15 of the 18 Language items on two factors (III and IV) and the clustering of the Personal-Social items together on Factor II with the Fine and Gross Motor items. Factor III accounted for 7.3% of the variance and Factor IV accounted for 9.8%. In summary, the factor analysis demonstrated that Fine and Gross Motor items tended to cluster on two factors along with the items on the Personal-Social scale, while the Language items clustered together on two different factors.

Reliability. The alpha coefficients of each scale have been calculated to determine the internal consistency of the items (see Table IV-21). Continuous, transformed variables were used to remove the dependencies in item 7 and item 14 before alphas were calculated.

Table IV-21

Coefficient Alpha by Scale

Scale	Fall 1973 Alpha	Spring 1973 Alpha
Fine Motor Adaptive	.71	.68
Language	.84	.74
Gross Motor	.65	.71
Personal-Social	.51	.42

The reliabilities for the fall 1973 data analysis remain comparable to those of the spring analysis despite the fact that three items were removed from the fall test booklet, one each from the Fine Motor, Language, and Personal-Social scales. To evaluate the effect of breaking up the grouped items on the Language scale, the alpha coefficient was calculated twice; once for the six items on the scale, and then for the 18 separate items. The alpha coefficient for the grouped items was .68. Alpha for the 18-item Language scale

was .84. Increasing the number of items on the scale by adding items with good item-total correlations increased the fall 1973 reliability by .16, an important increase in the internal consistency of the items. The increased reliability indicates that treating the questions on the Language scale separately instead of grouping them added valuable measurement accuracy to the scale.

Whole score descriptive data. The mean scale scores, standard deviations, and the standard errors of each treatment group are presented in Table IV-22 along with the results from a one-way analysis of covariance using child age as a covariate. No significant group differences were found.

The mean scale scores, standard deviations, and the standard errors for the total sample are presented by age and sex in Table IV-48. The mean scale scores on all four DDST subtests follow a developmental trend with performance increasing with age except for the 5 1/2 year old group. There appear to be no sex differences.

Summary and recommendations. The level of item difficulties on three of the four DDST scales was satisfactory, but the ease in passing the Personal-Social items limits its sensitivity to individual differences and lowers the internal consistency of the scale. The percent of children passing by age demonstrated the developmental nature of each of the four scales. Item intercorrelations provided evidence of the homogeneity of the four scales, but again pointed up the limitation of the Personal-Social scale which has relatively low item intercorrelations. A factor analysis of the DDST items with four rotated accounted for only 33.7% of the variance. The Motor items clustered on two factors, with the Personal-Social items and the Language items clustered on the third and fourth factors, revealing a motor-verbal separation of items. The internal consistency of three scales was comparable to the spring analysis. On the Language scale, increasing the number of items improved the internal consistency. Finally, analysis of covariance conducted on each of the four scales using age as a covariate revealed no significant differences among the Home Start, control and Head Start groups.

Child Food Intake Questionnaire

The Child Food Intake Questionnaire was developed in spring 1973 to obtain a quantitative and qualitative index of food consumption. It utilized a system of 24-hour recall whereby mothers were asked to report all foods eaten by their child on the preceding day. Specifically, the mother was asked what the focal child ate for breakfast, lunch and dinner, and any snacks in between. The interviewer probed for exact quantities of all foods. To help the mother estimate quantities of food more accurately and to help the tester reliably record the mother's responses, the tester used plastic, child-size beef patties (2 ounces), glasses (4 ounces and 8 ounces) and bowls (10 ounces) marked at one-fourth cup intervals, and tablespoons. The testers were instructed not to suggest "appropriate" amounts of food; rather, the mother was asked to point to markings on the glasses and bowls that indicated how much of a certain food the child had eaten. The tester mentioned particular foods only when probing for possible additions which might have been forgotten (such as milk on dry cereal or lettuce on sandwiches). An additional element was added to the Food Intake Questionnaire in fall 1973 by having community interviewers ask whether the child took vitamins.

Scoring procedures. The questionnaires were coded according to two sets of criteria. The first was based on the total number of "servings" eaten in each of seven food groups (milk, meat, eggs, vitamin-A vegetables, citrus fruits and vitamin C vegetables, other vegetables, breads, and cereals). A total Food Score was then derived by summing the number of servings across food groups. Quantities used in defining servings are listed in the coding instructions in Appendix C. The second set of criteria provided qualitative information by setting a maximum score for each of the seven food groups based on the nutritional requirements for that group. If the number of food servings was greater than the maximum Nutrition Score for a particular food group, the maximum score was coded. The scores for the seven groups were then summed to create a total Nutrition Score (maximum = 12.5) for each child. The maximum number of servings coded for each food group is as follows:

Food Group	Servings
Milk	2.5
Meat	1.4
Eggs	.6
Vitamin A vegetables	.6
Citrus fruits	1.0
Other fruits and vegetables	2.4
Bread and cereals	4.0
Total	12.5

Maximum servings were established after consultation with nutritional experts and were based upon the recommended daily allowance (RDA) of proteins, vitamins and minerals for 3- to 6-year-old children. When computing nutrition scores for individual groups, substitutions from one group to another were permitted for two categories: (1) if a child had more than the RDA of milk, the excess could, if needed, be added to the meat score; and (2) if there were excessive servings of Vitamin A rich vegetables or of citrus fruits, the excess could be added to "other fruits and vegetables". It was decided not to code foods of little nutritional content, such as potato chips, doughnuts, mayonnaise and the like, since analysis of caloric intake was not being conducted. These scoring procedures are essentially the same as those used in the spring.

Descriptive data. The Child Food Intake Questionnaire was administered to 555 focal parents. Of these, two score forms were incomplete, resulting in an N of 553. It should be mentioned that mothers of Head Start children were sometimes unaware of what their child ate for lunch the previous day because the child ate at the center. In such cases, the community interviewers were instructed to ask the Head Start teachers what the child ate the previous day for lunch. Teachers were very helpful in providing information on what the children had eaten the day before, but sometimes teachers were not sure of exactly how much of each food the child ate. The teachers were asked to approximate the amount of food a child ate.

Since the Food Intake Questionnaire was not used in its present form in fall 1972, the current results can be compared only to those obtained in spring 1973. Results show consistency from spring to fall in each area analyzed; Table IV-23 presents means and standard deviations of total Food and Nutrition Scores for spring 1973 and the total sample of fall 1973. Quantitative Food Scores for the fall sample showed slightly lower means in six of the seven food groups than did the spring sample, perhaps because of the younger average age this fall. The largest differences were in meat (about 1 1/3 servings) and bread and cereals (1 serving). In terms of total amount of food eaten, the fall mean was about 3 servings less than last spring's. The differences in Nutrition Scores are generally smaller than the Food Score differences. When Nutrition Scores were combined into scores for the four basic food groups (milk, meat and eggs, fruits and vegetables, and breads and cereals), the results obtained this fall were quite comparable to those obtained last spring. The total Nutrition Score was only about 1/2 serving less this fall. Using 12.5 as the maximum Nutrition Score based on RDAs, in the spring Home Start children received 68.1% of the recommended nutrituve intake whereas the three groups tested this fall obtained 64.2% of the recommended daily intake.

In summary, the Child Food Intake Questionnaire yielded similar results in both spring 1973 and fall 1973. Intake was generally found to be slightly lower in the fall in the various food categories. The differences in total Nutrition Scores were smaller than the differences in total amounts of food eaten. The distribution of nutritional intake appeared similar in the two samples. These results suggest that the Food Intake Questionnaire provides a relatively reliable system for obtaining information on children's nutritional intake.

Comparisons among groups. Means and standard deviations of the Food and Nutrition Scores for each food group, total Food and Nutrition Scores, and the proportion that each score is of the total, are presented in Table IV-24. Comparisons between groups on the mean number of servings in each of the food groups show differences in both the quantitative (Food Score) and qualitative (Nutrition Score) indices.

Analyses of covariance with age and height as covariates yielded significant differences among groups in food scores for milk ($F = 6.54$; $df = 2, 548$; $p < .05$) and citrus fruits ($F = 3.51$; $df = 2, 548$; $p < .05$). In each case, follow-up t tests showed no reliable difference between the Home Start and control group means. Analysis of the planned comparison between the combined Home Start/control group and Head Start yielded a significant t for those two food groups. The Head Start group was found to be significantly higher in consumption of milk ($t = 3.60$; $df = 548$; $p < .05$) and in their intake of citrus fruits ($t = 2.54$; $df = 544$; $p < .05$).

Similar analyses of covariance were computed on Nutrition Scores, yielding results similar to those of the Food Score analysis. There were significant differences among groups on the milk ($F = 9.39$; $df = 2,548$; $p < .05$) and citrus fruit ($F = 7.63$; $df = 2,548$; $p < .05$) categories. Again, there were no Home Start vs. control group differences, but the Head Start Nutrition Score means were higher than the combined Home Start/control group mean on milk ($t = 4.17$; $df = 548$; $p < .05$) and citrus fruits ($t = 3.83$; $df = 548$; $p < .05$).

When actual Nutrition Scores are viewed as percentages of ideal scores, none of the three groups in the sample attained 100% of the recommended daily intake. Table IV-25 presents mean Nutrition Scores, standard deviations and the percent each mean is of the ideal score for the total sample and for each group. All three groups approached the ideal most closely in the meat category, with the control group having obtained 86.4% of the ideal intake, and Home Start and Head Start 87.1%. The three groups were furthest from the ideal in their intake of vitamin-A vegetables, ranging from 15% for the control group to 20% for Home Start. The Food and Nutrition Scores are presented for each site in Table IV-25.5.

Comparisons were also made on the ratios of Food and Nutrition Scores to their respective total scores (see Table IV-24 for food and nutrition proportions). For the total sample, ratios of Food Scores ranged from 2% in the Vitamin A vegetable category to 34% in the bread category. When calculated on the basis of Nutrition Scores, the vitamin A vegetable ratio was the lowest. The children's diets consisted of only about 1% vitamin-A vegetables, instead of the recommended 5%. The samples approached the ideal ratio most closely in the "other fruits and vegetables" category (ideal = 19%) and appeared to consume a greater proportion of meat than necessary. However, these proportions were based upon total nutrition intake which averaged only 64% of the ideal total (see Table IV-25).

Analyses of covariance of the proportion for each food group with age and height as covariates, showed significant differences in several Food and Nutrition categories:

Table IV-26

Comparison of Home Start, Control and Head Start on Food and Nutrition Proportions (Means are unadjusted means for each group; the F ratios are from analyses of covariance with child age and height entered as covariates)

Food Group	Mean Proportion				F
	Home Start (N=249)	Control (N=162)	Head Start (N=142)	Total Sample (N=553)	(df=2,548)
Food Proportions:					
Milk	.13	.12	.15	.13	4.54*
Meat	.20	.18	.18	.19	2.45
Eggs	.05	.05	.04	.05	1.68
Vitamin A vegetables	.03	.02	.02	.02	3.02*
Citrus fruits	.06	.07	.09	.07	3.44*
Other fruits & vegetables	.19	.20	.21	.20	.57
Breads & cereals	.34	.36	.32	.34	3.08*
Nutrition Proportions:					
Milk	.16	.14	.18	.15	6.17*
Meat	.16	.16	.15	.16	.56
Eggs	.03	.03	.03	.03	.60
Vitamin A vegetables	.02	.01	.01	.01	.91
Citrus fruits	.03	.03	.05	.04	5.35*
Other fruits & vegetables	.21	.22	.21	.21	.36
Bread & cereals	.39	.41	.37	.39	3.54*

*p <.05

The significant Fs were followed by t tests to compare Home Start and control groups (in all these tests, df=548).

In terms of Food Scores the only difference between the Home Start and control groups was in the vitamin A vegetable category, where the Home Start proportion was significantly greater than the control group's ($t = 2.11$, $p < .05$). There were no differences between Home Start and controls in any of the Nutrition proportions. Analysis of the combined Home Start/control group mean with Head Start resulted in the same findings for Food proportions and Nutrition proportions. The Home Start/control sample ate proportionately less milk and citrus fruits and proportionately more breads and cereals than did the Head Start group.[1]

The information collected on vitamin supplements is reported in terms of the number and percents of children taking supplements (see Table IV-27).

Table IV-27

Vitamin Supplement Intake

Group	N	Number	Percent
Home Start	227	74	32.6
Control Group	159	50	31.4
Head Start	139	82	59.0
Total Sample	525	206	39.2

The Head Start group had the highest percentage of children taking vitamins. Control group and Home Start children ranked about even, with approximately 39% of the sample having received vitamin supplements.

Whole score descriptive data. Total Food Scores and total Nutrition Scores were formed by summing the Food Scores and Nutrition Scores, respectively, across the seven food groups. Table IV-49 contains means, standard deviations and standard errors of these total scores for the total sample, by age and by sex. No consistent changes occurred with age for either

[1]The t ratios were as follows (df = 548 and $p < .05$): (1) Food Score proportions--milk ($t = 2.86$), citrus ($t = 2.47$), bread and cereal ($t = 2.29$); (2) Nutrition Score proportions--milk ($t = 3.19$), citrus ($t = 3.13$), bread and cereal ($t = 2.61$).

Food Scores or Nutrition Scores. In fact, the correlations between age and the food intake scores were not significantly different from zero. Means and standard deviations for the total sample and by group are presented below, together with the percentage of the ideal Nutrition Score calculated for each.

Table IV-28

		Food Score Total		Nutrition Score Total		
Group	N	Mean	SD	Mean	SD	Percent of Ideal[1]
Home Start	249	11.6	4.7	8.0	2.0	63.8
Control	162	11.9	5.8	7.8	1.9	62.7
Head Start	142	12.4	5.3	8.3	2.3	66.6
Total	553	11.9	5.2	8.0	2.1	64.2
		$F < 1.0$ $df = 2, 548$ n.s.		$F = 2.41$ $df = 2, 548$ n.s.		

Analysis of covariance, with age and height as covariates, was computed for each score. There were no significant differences among groups either in the total amount of food eaten (Food Score) or in Nutrition Scores.

Summary. Generally lower food intake scores were obtained this fall in comparison to the spring 1973 data. Nevertheless, the distribution of intake across food categories looked similar in the fall and spring sample. Results of the fall 1973 data analysis support the assumption that Home Start and control children were selected from the same population--the only difference between these groups was that Home Start children were reported to have eaten more vitamin A vegetables. The Home Start/control sample, however, did differ from the Head Start sample on three categories--Head Start children were reported to have consumed more milk and citrus fruit and less bread and cereal. Since no differences were found between groups of

[1] Ideal total Nutrition Score = 12.5 servings.

children in total food intake, the differences among groups in these three food categories implies a different balance in the diets of the Head Start and Home Start/control children. These group differences may be due, in part, to the fact that children attending Head Start centers receive snacks and meals (which include milk, for example) as a part of their Head Start program. Diets of all children were inadequate in all seven food categories. Overall, the children's total nutritional intake was only 64% of the ideal recommended.

Height and Weight

Information on the height and weight of children in the sample was collected to assess physical growth and to determine possible height and weight differences among groups. These are particularly important data for addressing the question of initial group differences as height and to a lesser extent, weight are general indicators of physical growth and large discrepancies from the norms may be related to nutritional status. Height and weight findings from the fall 1972 and spring 1973 Home Start samples indicated moderate to substantial correlations of both height and weight with some of the cognitive measures. Height and weight data were also collected on 85 siblings of Home Start and control group children. This section of the report presents descriptive data from the total sample and compares the groups on these two variables.

Focal Children

Descriptive data. Table IV-50 presents means, standard deviations and standard errors for the total sample by age and by sex. Height for the total sample increased as children's ages increased (although the mean height for 5 1/2-year-olds is less than that for 5-year-olds, it is probably not a stable estimate because of the small N). Boys were only slightly taller than girls (3 inches). Mean weight for the total sample increased consistently as age levels increased. Boys typically weighed about one pound more than did girls.

Table IV-29(a-h) presents comparative data from the fall 1973 sample with height and weight norms established by the University of Iowa's Department of Pediatrics. Means, standard deviations and standard errors for the total sample and for each group are shown by age for boys and for girls, with means for each plotted on graphs. See Table IV-29.5 for data by site.

Boys in the total sample were below the norms for both height and weight at all age levels. When examined by group it was found that Home Start and control group boys were below the norms at all ages. Head Start boys at 3 1/2-years of age equalled the norm for height and at 4 1/2-years were both taller and heavier than the established norms.

The average height for girls in the total sample approached the norm at age 3. At all other age levels they were below the norms in both height and weight. Examination of the three groups showed that Home Start girls were below the norms for both height and weight at all age levels. Control group girls were also below the norms except at the 5-year level. Head Start girls were equal to or above the

norms for both height and weight at ages 3, 5 and 5 1/2 years, and they were taller than normal height at 4 years. They weighed less than normal at age 4, and fell short of the norms in both height and weight at 3 1/2 and 4 1/2 years of age.

Comparisons among groups. Means, standard deviations and standard errors for height and weight for each group and for the total sample were as follows:

Table IV-30
Height and Weight by Group

Group	Height N	Height Mean	Height SD	Height SE	Weight N	Weight Mean	Weight SD	Weight SE
Home Start	245	39.3	2.76	.18	247	33.9	5.17	.33
Control Group	157	39.6	2.37	.19	159	34.2	4.83	.38
Head Start	142	40.1	2.55	.21	142	36.2	5.42	.45
Total Sample	544	39.6	2.62	.11	548	34.6	5.21	.22
Analysis of Covariance		$F = 6.84$ $df = 2, 540$ $p < .05$ $w^2 = .02$				$F = 12.28$ $df = 2, 544$ $p < .05$ $w^2 = .04$		

Analysis of covariance with age as the covariate showed a significant difference among groups in height. Follow-up t tests indicated no difference between Home Start and controls ($t = .54$; $df = 540$), but analysis of the planned comparison between the combined Home Start/control group and Head Start showed a significant difference ($t = 3.57$; $df = 540$; $p < .05$).

The analysis of weight also yielded a significant F in the analysis of covariance (with age as the covariate). There was no difference between the Home Start and control groups ($t = .05$; $df = 544$) but the contrast between the combined Home Start/control group and Head Start was significant ($t = 4.92$; $df = 544$; $p < .05$).

Siblings

Descriptive data. Table IV-31 presents means, standard deviations and standard errors for the total sibling sample by age and by sex. The mean for both height and weight for the total sample increased consistently as age levels increased. Examination of boys and girls separately by age produced Ns too low to be reliable, but both groups appeared to be below the height and weight norms established by the University of Iowa's Department of Pediatrics.

Comparison between groups. Unlike the focal children, there were no significant differences between groups on height and weight. Means, standard deviations and standard errors for height and weight for each group and for the total sample if siblings were as follows:

Table IV-31

Sibling Height and Weight

	Height				Weight			
	N	Mean	SD	SE	N	Mean	SD	SE
Home Start	59	40.5	3.53	.46	59	36.4	7.01	.91
Control	26	40.3	3.51	.69	26	36.2	4.38	.86
Total Sample	85	40.4	3.51	.38	85	36.3	6.30	.68

There was no significant difference between the groups in height ($F < 1.0$; $df = 1, 81$), or in weight ($F < 1.0$; $df = 1, 81$).

Summary. The height and weight data support the contention that Home Start and control children represent the same population. Head Start children on the other hand were found to be both taller and heavier than Home Start and control group children when adjusted for age. These results substantiate previous findings which suggest that Home Start and control group children represent a homogeneous sample, whereas Head Start children appear to be from a quite different population. Of the total sample, 3-year-old girls were the only children who were of normal height, and they were below the norm for weight. All other children were below norms for both height and weight.

Schaefer Behavior Inventory (SBI)

The SBI consists of 15 descriptive sta. ents of child behavior that are read to the child's parent. Two typical items are "Stays with a job until he finishes it" and "Likes to take part in activities with others". The mother indicates the degree to which the description fits the child by responding on a seven point scale from "never" to "always". The SBI contains three scales of five items each, labeled Task Orientation (TO), Extraversion-Introversion (EI), and Hostility-Tolerance (HT). The items are given in Table IV-32; the numbers will serve to identify each item in the following tables.

Response distributions. The distribution of child behavior ratings is shown in Table IV-33. A comparison of these data with fall 1972 and spring 1973 response distributions is highlighted by a marked similarity of responses on each of the 15 items. As in the spring, there was a tendency by parents to use socially desirable ratings in describing their children's behavior. The effect or this rating bias will be more clearly seen when the scale means and standard deviations are presented.

Correlations. The intercorrelation matrix is presented in Table IV-34. For each of the items, the corrected item-subtotal correlation was greater than .28 except for item 11 on EI. Every item correlated higher with its own scale than with the other scales except for item 10 on TO and item 11 on EI. Item 10 correlated .32 with the TO subtotal and -.34 with the HT subtotal. Item 11 correlated .11 with the EI subtotal and -.18 with the HT scale subtotal. Since a total test score would not be meaningful for the SBI, no item-total correlations are reported. Item 11 on EI ("Watches others, but doesn't join in with them") correlated .11 with its scale score and less than .11 with the other four items measuring extraversion. It is one of the two items on the SBI requiring a negative response ("never") to indicate desirable behavior. A bimodal response distribution indicates the wording of item 11 may be misunderstood by many parents. In the spring data analysis, item 11 fared better, correlating .21 with its scale score and between .13 and .17 with the other EI items. At that time it was considered marginally acceptable. Failure to maintain acceptable performance indicates that item 11 is not measuring the same characteristic as the other EI items. A principal components factor analysis supports this conclusion (see below). Based

on the available evidence, a decision was made to remove item 11 from further analyses. To highlight the effect of removing item 11, all subsequent analyses except those of whole score descriptive data are reported both with item 11 included and with item 11 excluded.

The correlations of the revised Extraversion-Introversion scale score with the 14 remaining SBI items and the other two scale scores is reported in Table IV-34. The revised EI scale score correlates higher with all of the items in EI after item 11 is removed.

Factor analysis. Two factor analyses were conducted on the SBI items, first with all 15 items, then with item 11 deleted. The first factor analysis conducted on the fall 1973 data resulted in the extraction of four factors with eigenvalues greater than 1.0. These accounted for 50.4% of the total variance. Factor I contained all of the Hostility-Tolerance items. Factor II contained items 2, 5, 8 and 14 from the Extraversion-Introversion scale and the five items from the Task Orientation scale loaded on Factor III. Item 11 from the EI scale loaded by itself on Factor IV. This finding contributed additional evidence that item 11 should be deleted.

A second factor analysis performed on the data without item 11 resulted in four factors accounting for 53.7% of the variance. The Kaiser statistic was .52, indicating that the data for the factor analysis are not very adequate. This is probably due to the generally low level of the item intercorrelations. The median squared multiple correlation between each item and the rest of the items was .21. The four remaining EI items loaded on Factor II, accounting for 14.7% of the variance. Factor III, accounting for 13.9% of the variance, contained the five items from the TO scale. The items contained in the HT scale separated into two factors. Factor I, containing items 3, 12, and 15, accounted for 15.5% of the variance and Factor IV, containing items 6 and 9, accounted for 9.6% of the variance. The loading of the Task Orientation and Extraversion-Introversion items on distinct factors and the breakdown of the Hostility-Tolerance scale into two separate factors replicates results obtained during the analysis of the fall 1972 and spring 1973 data.

Because the SBI was constructed to measure three dimensions, a varimax rotation of three factors was carried out. These three rotated factors accounted for 46.4% of the total variance, a drop of 7.3% from the four factor rotation. The item loadings for this factor analysis can be found in Table IV-35; Table IV-36 lists the items with high loadings on

each factor. All of the items on the HT scale now loaded on Factor I, accounting for 17.0% of the variance. The four items on the EI scale loaded on Factor II accounting for 15.0% of the variance. The items from the TO scale loaded on Factor III accounting for 14.4% of the variance. Only item 10 from the TO scale loaded on more than one factor. While this indicates that item 10 is not exclusively a measure of task orientation, its high correlation with the corrected Task Orientation scale score warrants its inclusion on the scale.

Reliability. The alpha coefficients of each scale were calculated to determine the internal consistency of the items:

Table IV-37
SBI Alpha Coefficient

Scale	Total Sample	Home Start	Control Group	Head Start
Task Orientation	.62	.59	.68	.59
Extraversion-Introversion (item 11 excluded)	.66	.61	.75	.60
Hostility-Tolerance	.67	.68	.68	.66

With item 11 included in the analysis of the total sample, the EI scale alpha was only .56. The alpha coefficients obtained for the fall 1973 data for the TO and HT scales were similar to those obtained from the spring and previous fall's data analysis. A comparison of the fall 1973 alpha coefficients calculated separately for each group demonstrated comparable reliability across groups, except for the higher alpha for the control group on the EI scale.

Whole score descriptive data. Scale scores were calculated by summing the ratings of the items in each scale. The mean scale scores, standard deviations, and standard errors for each group are presented in Table IV-38 below, along with the results from an analysis of covariance using child's age as the covariate. No significant group differences were obtained.

Table IV-39
SBI Scale Scores by Group

Group	N	Task Orientation Mean	SD	SE	Extraversion-Introversion Mean	SD	SE	Hostility-Tolerance Mean	SD	SE
Head Start	142	23.4	4.7	.40	23.5	3.5	.30	19.1	5.8	.48
Home Start	251	23.4	5.0	.32	22.8	4.0	.25	19.0	6.0	.38
Control	162	22.7	5.3	.42	22.7	4.6	.36	18.6	5.9	.47
Total Sample	555	23.2	5.0	.21	23.0	4.1	.17	19.0	5.9	.25
Analysis of Covariance		F = 1.35 df = 2, 551 n.s.			F = 1.91 df = 2, 551 n.s.			F = .32 df = 2, 551 n.s.		

Table IV-52 contains the mean scale scores, standard deviations, and the standard errors of each treatment group by age, by sex, and for the total sample. Note that item 11 was omitted from the EI scale. Individual scale means are closest to the socially desirable end of each dimension (a low score on the HT scale reflects "tolerance").

Summary and recommendations. The three SBI scales have retained separate identities. The Extraversion-Introversion scale and the Task Orientation scale remain factorially pure. The Hostility-Tolerance scale, as in previous analyses, exhibited a separation into two distinct factors. The reliability of the scales has remained adequate. Removal of item 11 from the Extraversion scale increased its reliability from .56 to .66. No significant group differences were found using analysis of covariance with child's age as the covariate.

Pupil Observation Checklist (POCL)

Upon completion of testing and interviewing, each community interviewer was asked to rate the child on a seven point scale consisting of 9 bipolar adjectives such as "resistive-cooperative" and "quiet-talkative".[1] The checklist has two scales: Test Orientation items pertaining to the child's behavior during the testing situation, and Sociability items pertaining to the child's general overall behavior as seen by the testers. The POCL items are listed according to scale in Table IV-40. On the community interviewers' rating form items 1, 2, 5, 7 and 8 have the sociably desirable adjective listed on the right-hand side of the rating scale. For the other items the positive rating is to the left. In scoring the POCL the positive end of each rating was assigned the value 7.

Response distributions. As in spring 1973 and fall 1972, the testers tended to use the positive ends of the bipolar items with a disproportionately high frequency (see Table IV-41). The effect of this positive response bias is evident in the high means for the two scales. The apparent reluctance of the community interviewers to assign an undesirable rating to a child may create a situation in which very little pre- to post-test change can occur. In this connection, it should be pointed out that the sensitivity of the POCL to group differences is reduced due to this artificial restriction in scale range.

Correlations. Table IV-42 shows the intercorrelations of the POCL items and the item-subtotal correlations. All within-scale interitem correlations are high and all correlations of items with their scale subtotal are greater than .71 (corrected for overlap). However, high item correlations across scales exist and the correlation between the Test Orientation scale score and the Sociability scale is .60. The median multiple R^2 between each item and the rest of the items was .73. Two factors may contribute to the high inter-scale correlations. First, the two scales are probably measuring common behavioral referents. That is, the child's

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[1] A tenth item ("calm-excited") was added to the rating form in fall 1973 to conform to the rating scale completed for the home observations, but is not included in the analysis of the POCL data.

test orientation overlaps with his sociability with the tester. Second, high intercorrelations may be attributed to common method variance since both scales request testers to complete a seven point rating.

Factor analysis. The factor analysis of the nine POCL items duplicated the two factors found in spring 1973 and fall 1972. This fall these two factors accounted for 78.3% of the total variance; the Kaiser statistic was .94. The first factor, Test Orientation, accounted for 44% of the total variance and had as items with highest loadings the five items that have previously scored together as a Test Orientation scale. The second factor accounted for 34% of the total variance and included the remaining four items scored together for a Sociability scale. The factor loadings for each item and a summary of the items loading highest on each factor are presented in Tables IV-43 and IV-44.

Reliability. The alpha coefficients of each scale were calculated to determine the internal consistency of the items. A comparison of the alpha coefficients by group demonstrated that the reliability of the items was high for all groups.

Table IV-45
POCL Alpha Coefficients

Scale	Total Sample	Home Start	Control Group	Head Start
Test Orientation	.92	.93	.93	.92
Sociability	.90	.92	.88	.92

Whole score descriptive data. Scale scores were calculated by summing the ratings of the items in each scale. The mean scale scores, standard deviations, and standard errors for each group are presented below, along with the results from an analysis of covariance using child's age as a covariate. No significant differences were obtained.

Table IV-46
POCL Scale Scores

Group	Test Orientation N	Mean	SD	SE	Sociability N	Mean	SD	SE
Head Start	141	23.4	7.8	.65	141	17.6	6.8	.57
Home Start	251	22.6	8.4	.53	251	17.2	7.1	.45
Control	160	22.6	8.3	.65	160	16.5	6.7	.53
Total sample	552	22.8	8.2	.35	552	17.1	6.9	.29
Analysis of Covariance		F = .67 df = 2, 548 n.s.				F = 1.20 df = 2, 548 n.s.		

Table IV-52 contains the mean scale scores, standard deviations, and standard errors for the total sample group by age, sex, and for the total group. Note that scores on both scales generally increase with age.

Summary and recommendations. The fall 1973 data analysis replicates findings from 1st spring and fall 1972. The POCL contains two homogenous factors which are highly reliable. As before, high interitem and item-subtotal correlations exist both within and across scales. This can be attributed to common method variance and a "halo" rating effect by the testers, causing overlap between the Test Orientation and Sociability factors. Analysis of covariance using age as a covariate failed to find significant differences between groups on either scale.

V

ANALYSES OF PARENT MEASURES

Data from the High/Scope Home Environment Scale, the Parent Interview, and the 8-Block Task are examined in separate sections of this chapter. Analyses for the High/Scope Home Environment Scale and the 8-Block Task are much the same as those conducted for the child measures:

- Response distributions across item categories;
- Intercorrelations among items;
- Factor structure among items;
- Comparison of groups on the measured characteristics.

The parent measures are, however, quite different from the child measures. Besides the fact that these measures more directly involve parents, the constructs these two measures seek to define are more diffuse and unspecified than those that are the focus of the child measures.

There is a real sense of exploration because no one really knows what to look for. Intuitively it seems apparent that many aspects of the mother-child relationship and the home environment must have a profound influence on the child's psychological and physical growth. Moreover, many people feel they know what the most important influences are. Yet, there does not exist a body of research that agrees on the most important aspects. Most of the influencing conditions considered important are so complex that the measurement technology falls far short of even putting the hypotheses to a fair test. The development of parent measures for the Home Start evaluation has also been exploratory for the reason that there have been relatively few field research applications of home environment and mother-child interaction measures, compared to the widespread field applications of child measures.

The problems faced in developing the High/Scope Home Environment Scale have been different from those for the 8-Block Task. For the former, the main problem was developing items that would obtain relevant information to analyze; for the latter, the problem was one of developing analytic methods for extracting useful information from the complex set of variables coded from tape recordings of mother-child interactions.

The Parent Interview, on the other hand, has not sought to define psychological constructs or complex environmental conditions; it is simply a device for gathering some basic family information in a convenient format. Its item response distributions speak directly about the families.

High/Scope Home Environment Scale (HES)

The Home Environment Scale is a parent questionnaire designed to obtain information on the child's home environment. The final form of the HES, as derived from last spring's testing, has 37 items (see Table V-1). Twenty-nine of these items are "yes-no" questions on three different checklists and the rest are single questions which present the mother with three responses from which to choose. Out of these 37 items, only 26 are used in the six scale analyses. Most of the extra items were included in the questionnaire as fillers, since they were likely to be answered favorably by the mothers and thus contribute to a more pleasant interviewing experience. The analyses are based on a sample of 555 parents; there was only one parent for whom the HES was not completed.

Response distributions. The percent of responses in each scoring category are presented for the whole sample, each group, each site, and for each group within site in Table V-1; the items are listed by scale on Table V-2. To test for differences among the three groups, an analysis of covariance (with child's age as the covariate) and follow-up t tests were calculated for each item and for each scale total. The findings will be summarized here, although all the F statistics will not be reported (with df = 2, 470 in the individual item analyses and df = 2,529 for the scale analysis, an F of 3.0 is significant at the .05 level).

On Scale I (warm mother involvement) there appeared to be an uneven response distribution in the total sample for all but one of the items (item 3). Items 4 (household tasks), 6 (join in play activities) and 8 (talk about feelings) showed a high propostion of positive responses (i.e., a high frequency reported for the activity). Item 10 (play make believe games) had a disproportionate number of responses in the "not that often" category. The only significant difference among groups on Scale I items was for item 3--Head Start mothers reported that they talked more to their child about pictures the child made, etc. than the other mothers did.

For Scale II items (Checklist of playthings), the total sample data showed a generally even response distribution; the percentages of "no" responses were quite high, however. In four out of six items in this scale there was a significant difference among the groups. On two items (tape and scissors) Home Start was significantly higher than the control group. Head Start was higher than the combined groups on the tape item as well as the clay and put-together toy items.

The distribution of scores in Scale III (Formal teaching by the mother) was not as even as in other scales; however, there was no discernible pattern. Half of the items had a relatively high proportion of "yes" answers, the other half had high proportions of "no". There was one item (teaches ABC's) in which Home Start and the control group were significantly different, and one item (recognize numbers in books) in which Head Start was higher than the combined comparison group.

In Scale IV (Child helps with household tasks) the results break the items into two categories. The children do not generally help with the preparation of food or shopping but they do help to put dishes and clothes away. There was no significant difference among the groups on these items.

Scale V (Books or reading) showed evenly distributed responses in the total group, but significantly higher scores on both items (reading time and number of books) for the Head Start mothers. In response to the question about television (Scale VI) there were no significant differences between the groups. About one-half of all the mothers said that their children watched television every day.

On seven out of the 11 extra items, at least 60% of the mothers gave favorable responses. Out of the remaining four, only one item (has plants of his own) had less than 40% favorable responses. However, a high percentage of positive responses was not anticipated on this item. The item was included rather to suggest to the mothers that good developmental playthings included more than inanimate, store-bought items.

Correlations. An intercorrelation matrix of the 26 items and the item-subtotal correlations are presented in Table V-3. The item-subtotal correlations were not generally high but only three items had correlations less than .20 (all in scale IV). Fifty-seven percent of the items were between .30 and .50. A comparison of the three groups showed the item-subtotal correlations for the Home Start and control group to be very similar while Head Start ranked somewhat lower.

Factor analyses. Table V-4 presents the item loadings that resulted from the principal components factor analyses when four factors were specified in a varimax rotation. The four factors accounted for 35.1% of the variance. The 23 items from Scales I through IV were included in this analysis. Scales I and III loaded on two separate factors while Scales II and IV were split between two factors (see Table V-5). The Kaiser statistic was .36, which is considered to be low. The median squared multiple correlation between each item and the other items was only .18.

When the analysis specified all eigenvalues greater then 1.0, 45.1% of the variance was accounted for by six factors. Items for Scales I and III were clustered again while II and IV were split.

Reliability. The subtotal scores were calculated by summing the numbers designated to the response for each group of items. The internal consistency reliability of the resulting totals for the five scales was .59, .51, .69, .45, and .52. The alpha coefficients are similar for Home Start and the control group, but lower for Head Start, especially on Scales I and III.

Whole score descriptive data. The means, standard deviations and standard errors of means are presented by scale for the total sample and three groups in Table V-6. The mean scores on all of the scales were very similar, each being approximately 66% of the total possible score. Although Head Start scored higher on every scale except IV, when an analysis of covariance with age as the covariate was computed followed by t tests, Head Start was shown to be significantly higher than the other two groups on only two of the scales (II and V). The t tests also showed the control group to be significantly lower than Home Start on Scale III.

Summary and recommendation. For the total sample, the items generally had an even distribution of responses, which is desirable for fall-spring growth and inter-item correlations. However, there were some notable variations. While the mothers frequently discuss the child's feelings and activities and often join in games and art activities, they rarely play make-believe games with him. Almost every mother is attempting to teach her child nursery rhymes, colors and how to count. And, in most homes crayons and magazine to cut-up are available to the child while relatively few have clay, paints or plants.

When comparing the responses of the three groups, nine items resulted in significant differences. On seven of these items the Head Start group was significantly higher than the other two. Since three of these items pertained to Scale II (Playthings) and two to Scale V (Books and reading) the Head Start group had significantly higher subtotal scores on these scales. In addition, the control group was significantly lower on Scale III (mother teaching child).

Mother Behavior Observation Scale (MBOS)

The Mother Behavior Observation Scale is a 10-item observation checklist filled out by the community interviewer following the last visit to a family. The items are listed in Table V-7. The checklist provides three possible responses corresponding to the frequency that the behavior was observed (never, once or twice, and three times or more). There are five items belonging to a "supportive" behavior scale and four to a "punitive" scale. One item (amount of child's artwork displayed in the home) refers to behavior not directly observed, and belongs to neither scale. This item also was not recorded for many of the Head Start families as testing generally took place at the Head Start center. The analyses omit this item and are based on the 547 completed observation forms.

Response distributions. The percent of responses in each scoring category for each item is presented in Table V-8 for the whole sample, each group, each site, and each group within site. On all items, both supportive and punitive, the behaviors were for the most part never observed. This pattern held true for the art item as well. In 87% of the homes the community interviewers did not observe any of the child's artwork displayed.

The punitive behaviors were observed less often than the supportive behaviors. On the average for the punitive behaviors, 'never" was checked for 77.9% of the mothers; "never" was checked 61.3% of the time for the supportive behaviors. Differences among groups were tested using analyses of covariance with age as the covariate. The four items below showed significant differences ($df = 2, 470$; $p < .05$) among the groups.

1	praised child	$F = 3.3$
3	held child on lap	$F = 4.3$
4	interfered by criticizing	$F = 3.1$
10	talked proudly	$F = 3.8$

Follow-up t tests showed Home Start to be significantly higher than the control group on item 3 and lower on item 10. However, these items did not create a difference on the supportive and punitive scale scores. Analysis of the combined Home Start/ control group and Head Start yielded a significant difference on two items (1 and 4), the first in which Head Start was lower, the second, higher. Again, however, this difference did not significantly influence the scale scores.

Correlations. An intercorrelation matrix of the nine items and the item-subtotal correlations are presented in Table V-9. The item-subtotal correlations were relatively high; although the correlation of item 3 (held child on lap) with its subtotal was only .26, all of the other item-subtotal correlations were between .41 and .51. Home Start generally had the lowest item-subtotal correlations, Head Start the highest. The control group tended to be closer to the Home Start correlations.

Factor analysis. Table V-10 presents the item loadings that resulted from the principal components factor analysis with varimax rotation. Two factors with eigenvalues greater than 1.0 were extracted, accounting for 48.8% of the total variance. The nine items from the two scales separated perfectly on to the two factors (see Table V-11). The Kaiser statistic was fairly low, .58. In separate analyses for each group, three factors were extracted from the Home Start and Head Start data. Scale II stayed intact, but Scale I was divided between two factors.

Reliability. The subtotal scores were calculated by summing the numbers designated to the response for items on each scale. The internal consistency reliabilities of the resulting totals for the two scales were .69 and .73. The alpha coefficients were similar for Home Start and the control group and slightly higher for Head Start.

Whole score descriptive data. The means, standard deviations, and standard errors of means are presented by scale for the total sample and the three groups in Table V-12. In both scales, the scores are just under 50% of the total possible subtotal scores. Analyses of covariance showed that the groups were not significantly different on either of the scales (see Table V-12).

Summary. In the distinct majority of cases, neither the supportive nor punitive behaviors described in this instrument were observed at all. Very few were observed more than once or twice. The mothers very rarely interfered with testing by making negative comments or coaching the child. These results were true for the mothers in all three groups. Although there were some items that showed significant differences among the groups, these differences showed no patterns, and there were no differences among groups on the two scale scores.

Parent Interview (PI)

The Home Start Parent Interview was originally developed to obtain information about the child's medical history, the parent's involvement in activities outside the home, and the parent's use of community resources. It was also used as a vehicle for obtaining feedback from the parents on their reactions to the testing and interviewing. The interview questions are listed in Table V-13.

This report of PI data is designed to present a summary picture of the Home Start families involved in the summative evaluation. For details of the item response distributions in terms of the percent of responses in each of the categories, see Table V-13. The findings are summarized here under five headings: Family and child characteristics, medical and dental care, parent participation, use of community resources, and reactions to the Home Start program. Findings on the parents' reactions to the testing were reported in Chapter III.

Family and Child Characteristics

The "average" family in the total sample had 3.4 children, including the focal child. Families in Home Start and the control group had approximately the same average number of children (Home Start: 3.6; control group: 3.4). Head Start families had slightly fewer children (3.1 per family). The focal child in all groups tested had an average of one younger and two older siblings. The number of siblings ranged up to 12 in the total sample. The range was the same for Home Start, and the control group and Head Start siblings ranged from one to ten. In 12% of the total sample the focal child was the only one in the family. The Home Start group had 11.5% families with one child, and the control group and Head Start each had 12.3% of families with one child only.

One of the questions in the Parent Interview referred to the preschool or Head Start experience of children in the sample. Testers were instructed to tell mothers that "preschool" meant programs other than Home Start, but there was nonetheless some confusion and a substantial number of Home Start mothers answered affirmatively to the preschool question when they meant Home Start. The programs were thus asked to reconfirm whether the children were in preschool programs other than Home Start. The corrected data showed that 28.2% of the total sample were in preschool programs at the time of the interview. The major portion was accounted for by Head Start children (reportedly 99.3% were in a "preschool or Head Start Program"). Home Start

mothers reported that 4.2% of their children were in another preschool program and the control group reported .6%.

At the time of testing Home Start mothers reported that the focal child had been in the program an average length of 1.4 months. Head Start mothers indicated that their children had been in the program 3.26 months. Analysis of variance showed a significant difference among groups in the length of time in each program ($F=22.48$; $df=1, 265$; $p < .05$). Eleven Head Start parents (8% of the Head Start sample) said that their child had been in the program for 8 months or longer. Closer examination of these children showed that their ages and PSI total scores were not out of line with the remainder of the sample (this raised questions as to whether some mothers reported the wrong year that the child entered Head Start).

Of the 511 mothers who responded to the Parent Interview, 29.9% graduaged from high school. Examination of individual groups showed that 24.5% of Home Start mothers, 31.5% of control group mothers and 37.9% of Head Start mothers completed high school. The average mother in the total sample completed the tenth grade. Home Start and control group mothers typically completed grade ten (the averages were 9.7 and 9.9, respectively) and Head Start mothers typically completed the eleventh grade. Analysis of variance showed significant differences among groups in the grade level completed ($F=9.82$; $df=2, 510$; $p < .05$). Follow-up t-tests resulted in no significant difference between Home Start and the control group ($t=.79$; $df=508$), but the planned contrast between Home Start/control group and Head Start resulted in a significant difference ($t=4.23$; $df=508$; $p < .05$). Two of the eight fathers interviewed completed high school. Two percent each of Home Start and control group mothers completed one year of college; 4.5% of Head Start mothers completed the first year. One Home Start mother and three Head Start mothers completed two years of college. Unlike any Home Start or control group mothers, one Head Start mother completed three years of college and five Head Start mothers graduated from college.

A small number of mothers in the sample were taking courses at the time of the interview (five from Home Start, one from the control group, and 11 from Head Start). Analysis of variance showed that the difference between the number taking courses (1 = no, 2 = yes) was significant ($F = 4.15$; $df = 2, 507$; $p < .05$). Follow-up t tests indicated no significant difference between Home Start and control group mothers who were taking courses ($t = .45$; $df = 507$), but the combined Home Start/control group mothers were less likely than Head Start mothers to be continuing their education ($t = 2.88$; $df = 507$; $p < .05$).

About 28% of the 511 mothers interviewed were working. The percent working in each group, together with whether they were working full time or part time was as follows:

Table V-14

Working Mothers

Group	N	Percent of mothers with jobs	Time mother worked			
			N	full time	regular part time	occasional part time
Home Start	233	16.3	37	54.1	24.3	21.6
Control Group	146	13.0	19	52.6	21.1	26.3
Head Start	132	65.9	87	73.6	14.9	11.5
Total Sample	511	28.2	143	65.7	18.2	16.1

Analysis of variance showed a significant difference among groups in the number of working mothers ($F=82.8$; $df=2, 508$; $p < .05$). Follow-up t tests indicated no difference between the number of Home Start and control group mothers who were working ($t=.80$; $df=508$). Analysis of the planned comparison between combined Home Start/control group and Head Start showed that Head Start mothers had a significantly higher employment rate ($t=12.9$; $df=508$). About 66% of the working mothers in the total sample had full time jobs. Analysis of variance again showed a significant difference in the extent to which mothers worked full time, regular part time, or occasional part time ($F=3.11$; $df=2, 140$; $p < .05$).[1] Follow-up t tests resulted in no significant difference between Home Start and control group mothers ($t=.29$; $df=140$), but the combined Home Start/control contrast with Head Start showed that a significantly greater number of Head Start mothers worked full time ($t=2.47$; $df=140$).

[1]Each case was assigned values from 1 to 3 (1 = full time; 2 = regular part time; 3 = occasional part time) and analysis of variance calculated on these scores.

Medical and Dental Care

Most of the children in the total sample had received DPT, polio and measles innoculations prior to testing. Examination by group showed that a greater percentage of Head Start children had received each innoculation. Chi square tests of the combined Home Start/control group vs. Head Start showed that the differences were significant; the chi squares (df = 4, $p < .05$) for DPT, polio and measles were 10.74, 9.83 and 12.06, respectively).

The length of time since children last saw a doctor was 6.6 months for the total sample. Home Start and control children had typically not seen a doctor for about 7 1/2 months. Head Start children had seen a doctor more recently: the average length of time since their last visit was 4.3 months. Analysis of variance resulted in a significant difference among groups ($F = 6.75$; $df = 2, 420$; $p < .05$). Subsequent t tests showed no significant difference between Home Start and the control group ($t = .15$; $df = 420$; n.s). Comparisons of the combined Home Start/control group showed a significant difference from Head Start ($t = 3.64$; $df = 420$; $p < .05$). Analysis of variance showed that the difference in reasons for the last visit (1 = check-up, 2 = for something wrong) was significant ($F = 15.1$; $df = 2,536$; $p < .05$). There was no significant difference between Home Start and the control group ($t = 1.60$; $df = 536$; $p < .05$), whereas Head Start children were more likely than the combined Home Start/control sample to have made this last visit for a check-up ($t = 5.4$; $df = 536$; $p < .05$).

The last time the typical child in the total sample saw a dentist was 7.2 months prior to testing. Examination among groups showed that it had been 7.2 months for Home Start children, 8.4 months for the control group and 4.7 months for Head Start children. There was no significant difference in the length of time among the groups ($F = 2.75$; $df = 2,102$). About 71% of the sample stated "check-up" as the reason for the last visit and analysis of variance on the reasons for going (1 = check-up, 2 = for something wrong) showed no significant differences among groups ($F = 2.15$; $df = 2,123$).

A substantial number of mothers said they received help from outside the family when arranging for doctor and dentist visits. About 7% of the control group, 15% of Home Start and 37% of Head Start mothers had outside help when arranging for doctor visits. Analysis of variance showed that these differences were significant ($F = 27.15$; $df = 2,523$; $p < .05$). Subsequent t tests resulted in significant differences among all three groups: Home Start parents had more outside help than the control group ($t = 1.98$; $df = 535$; $p < .05$) and Head

Start mothers had more help than the control group ($t = 7.05$; $df = 535$; $p < .05$) and more help than Home Start ($t = 5.80$; $df = 535$; $p < .05$). About 43% of the Home Start mothers and 87% of the Head Start mothers who had help said that they received it specifically from the Home Start or Head Start program. Analysis of variance showed that the difference in the number who received help from the program (1 = Home Start or Head Start, 2 = other) was significantly greater for Head Start ($F = 22.18$; $df = 1,85$; $p < .05$).

About 41% of the families who had visited the dentist received help from outside the family when arranging for the visit. Analysis of variance ($F = 19.39$; $df = 1,120$; $p < .05$) followed by t tests showed no difference between Home Start and control group mothers who received aid in arranging visits ($t = 1.17$; $df = 120$), but planned comparisons between Home Start/control and Head Start showed that significantly more Head Start mothers received help ($t = 6.23$; $df = 130$; $p < .05$). Analysis of variance further showed that significantly more Head Start than Home Start parents received help specifically from the program ($F = 16.45$; $df = 1,48$; $p < .05$). The fact that more Head Start mothers received help from the program could be accounted for by the longer average length of time that Head Start children were in the program.

Parent Participation

Parent participation in community organizations was examined for each group. Analyses of variance showed significant differences among groups in the number of mothers who participated (1 = no, 2 = yes) in three of the organizations: PTA ($F = 13.6$; $df = 2,549$; $p < .05$), church organizations or social clubs ($F = 6.1$; $df = 2,550$; $p < .05$), and "other" ($F = 11.2$; $df = 2,518$; $p < .05$). There were no significant differences in family participation in Boy Scouts, Girl Scouts, 4-H Club and other youth groups, or in political organizations. Follow-up t tests showed no significant differences among Home Start and control group families who participated in any of the organizations. The t tests of the planned contrast between Home Start/control and Head Start showed that Head Start families were more active in PTA ($t = 5.2$; $df = 549$, $p < .05$) church or social organizations ($t = 3.46$; $df = 550$; $p < .05$) and "other" organizations ($t = 4.68$; $df = 518$; $p < .05$).

Home Start and Head Start parents were also compared in relation to their knowledge of and participation in parent meetings and program get-togethers. Only 36% of the Home Start parents had heard of parent meetings as compared to 50% of Head Start parents. This difference might be accounted for by the fact that Head Start families had

been in the program an average of two months longer than Home Start families, and many Home Start families had yet to be visited on a regular basis by home visitors. Head Start attendance at parent meetings was greater than Home Start: 66% of Head Start parents said they had attended a parent meeting, while only 31% of Home Start parents had attended (Ns were 67 and 55, respectively). Analyses of variance on the number of mothers who knew of and attended meetings (1 = no, 2 = yes) and subsequent t tests showed that significantly more Head Start parents had both heard of ($t = 2.4$; $df = 238$; $p < .05$) and attended ($t = 4.0$; $df = 120$ $p < .05$) parent meetings.

A greater number of Head Start mothers (51%) than Home Start mothers (37%) reported that there had been program get-togethers for families. Analysis of variance on mothers who said there were get-togethers (1 = no, 2 = yes) showed a significant difference between Head Start and Home Start ($F = 5.05$; $df = 1,268$; $p < .05$). The same analysis on attendance at get-togethers (1 = no, 2 = yes) showed no significant difference between Head Start and Home Start ($F = 1.10$; $df = 1,119$; n.s.).

Use of Community Resources

Most parents in the total sample had a high level of awareness of community resources. Over 90% of parents who were interviewed knew of welfare, food stamps, public hospitals, public health clinics, and Head Start programs, day care programs, state employment offices and job training programs. Awareness of Food Commodities and Planned Parenthood were approximately 87% for the total sample, and greater than 70% of those interviewed knew of Medicaid, mental health clinics and the housing authority. Awareness of legal aid, family counseling agencies and recreational programs was lower than all other resources (about 60% to 68%). There was little variance among groups in awareness of available resources.

A lesser percentage of the population had "ever used" community resources. The most widely used facilities by every group in the sample were public hospitals and public health clinics. About 84% of Home Start families and 82% of Head Start families had used public hospitals in the past, while only 74% of control group families had ever used them. Control group families used public health clinics only slightly less than other groups--77% compared to 78% for Home Start and 80% for Head Start.

The least-used resource was the family counseling agency: only 5% of the total sample had ever used it. It was also the least used by each of the groups, with only

6% of Home Start parents, 4% of control parents and 5% of Head Start parents ever using the agency.

Public health clinics were in greatest use at the time of the interviews: 47% of the total sample said they were "now using" them. Public health clinics were the most widely used resource in each group. Current usage ranged from 38% for the control group to 47% for Home Start and 58% for Head Start parents.

There were five resources for which less than 5% of the total sample was reported as currently using. These were family counseling (.6%), mental health clinics (1.7%), job training programs (2.2%), legal aid (3.9%), and recreational programs (4.7%). Examination by individual groups showed that three of the resources were not being used at all by control families: job training, mental health clinics and family counseling agencies. Only 2% of control group families were using day care programs and less than 5% were using recreational programs. At least some percentage of Home Start families were using each of the resources mentioned in the questionnaire. Fewer than 5% of Home Start families were using the five resources listed above as less than 5% each for the total sample and only 2.5% of Home Start families were currently using day care centers. Head Start families reported that they were using no Food Commodities (total percent was 3.4) or mental health clinics. Less than 5% of Head Start families were using family counseling agencies, legal aid or job training programs.

Home Start and Head Start families were also asked if either the Home Start or Head Start program had assisted them in using any of the resources. The resource which Home Start used most frequently was public hospitals (30%). The Head Start program itself was listed as a resource in the questionnaire and, of course, 73% of the Head Start families said that Head Start had assisted them in using Head Start. (Other percents in reference to Head Start as a resource are misleading because the bulk of those responding affirmatively to the questions were participants in the Head Start program.) The next resource with which both Home Start and Head Start programs had greatly assisted was the public health clinic. About 17% of Head Start parents and 13% of Home Start parents had been assisted by the programs in using this resource. Home Start and Head Start programs assisted least in the use of family counseling, (.6%), legal aid (.6%), mental health clinics (.7%) and the housing authority (.9%). (Note: It was impossible to calculate tests of independence on the differences between groups because the response categories were not ordered.)

Reactions to Home Start and Head Start Programs

The Parent Interview contained five open-ended questions designed to find out what Home Start and Head Start parents and children liked and disliked about their respective programs and what future benefits they expected to derive from them.

The first of these questions asked what the focal child especially liked about Home Start or Head Start. There was an interesting dichotomy in the responses, as 54% of Home Start mothers reported that their child particularly liked the educational activities provided by Home Start and 18% reported that the focal child liked the social activities of the program. Head start responses were just the reverse: 18% reported that the focal child especially liked educational activities and 57% said that their child liked the social activities involved with Head Start. About 14% to 15% of the mothers from both programs reported nonspecific positive comments in reference to the programs, for example, "likes the center" and "likes puzzles and drawing".

The second of these questions referred to what the child did not like about Home Start or Head Start. Many of the Home Start mothers (38%) offered nonspecific negative comments, such as "doesn't like when instructor leaves and takes equipment with her". Only 14% of Head Start mothers fell into this category, with comments such as "he wants to do things other than what the teacher wants him to do". About 27% of the Home Start mothers said their children did not like the educational activities involved with Home Start, while no Head Start mothers suggested this. About 49% of the Head Start mothers said that their child would like to be with more children (9% of Home Start mothers mentioned this) and 21% of Head Start mothers reported that their child did not like to sit still (this was never mentioned by a Home Start mother).

The greatest percentage of Home Start and Head Start parents made only nonspecific comments about the program when asked what they thought the program should do for the focal child. Examples of these included "teach different things, a wide variety" and "keep child busy". About 26% of Home Start mothers and 17% of Head Start mothers expressed a desire for the program to prepare the focal child for first grade; 16% of Home Start and 12% of Head Start mothers made comments which referred to social adjustment and to teaching the child to get along with other people. "Other" comments, such as "help child to be less restless" and "looking forward to dental appointment and physical exam" accounted for 17% of Home Start mothers' comments and 15% of those of Head Start mothers.

Responses by 40% of the Home Start mothers as to what they were getting out of the programs indicated that they felt that they too benefitted from the educational activities of the program. Only 17% of Head Start mothers gave the same response. Most Head Start mothers (57%) made vague comments, such as, "gets a wide variety of experience" or "enjoys meeting at centers", which fell into the "other" category.

Two open-ended questions in reference to parent meetings were also asked of Home Start and Head Start parents. The first question asked what was discussed at parent meetings. About 60% of the Home Start mothers who responded said the main topic was program policy, such as election of officers. About 28% of the Head Start mothers who responded mentioned this. One third of Head Start mothers' responses were coded as "other"; examples of these were "how funds are spent", "things to do for center" and "what is needed for center". Only 6% of Home Start responses fell into this category, and examples included "reviewed applications" and "new directions for Home Start". Several nonspecific comments were made by mothers from both programs, such as "discuss when to hold meetings" and menus, dentist and health agent". The few mothers who suggested things to be discussed at future parent meetings made comments such as "would like to know more about dental and doctor's help", and "personal problems should be brought up". One Head Start mother suggested that they "should get money from participants at meetings to use for materials in program".

Summary

The Parent Interview provided interesting information on characteristics of Home Start, control and Head Start groups. Home Start and control group families were of approximately the same size, the mothers had completed about the same grade in school, and had about the same employment rate. Head Start families, on the other hand, were slightly smaller and the mothers had completed more grades in school. Head Start mothers were more likely to have a job than Home Start/control mothers, and when they were employed it was more likely to be full time.

Medical and dental care received by Head Start children was better than that received by Home Start or control group children. The only significant difference in medical treatment between Home Start and the control group was in reference to the number of mothers who received help from outside the family when arranging their child's last doctor visit. It was expected that Home Start mothers would

receive more help when arranging for medical treatment as an effect of the Home Start program. Head Start families received still more help from their program in arranging doctor and dental visits than did Home Start families. Head Start children had also visited doctors and dentists more recently than Home Start/control group children.

Although there were no differences between Home Start and the control group with respect to participation in community organizations, a greater percentage of Head Start families participated in PTA, church or social organizations and "other' organizations. Head Start mothers also went to more parent meetings and more program get-togethers than Home Start parents, perhaps since more Head Start families live in urban areas and have access to center facilities.

Results from questions on the use of community resources enabled comparisons of Home Start and Head Start children in that the effect of both programs was evident in their responses. In this instance it was the control group that stood apart from the other two groups in that they utilized fewer community resources than Home Start or Head Start parents, despite the fact that they were reportedly well aware of what was available in the community. Both Home Start and Head Start families received assistance from their respective program in using community resources.

Family reactions to the Home Start and Head Start programs suggested differences in the way parents view the programs. It appeared that Home Start parents placed more emphasis on educational aspects of the program, while responses by Head Start mothers appeared to focus on the social aspects of Head Start. More Home Start than Head Start mothers expressed a desire for the program to prepare their child for first grade.

8-Block Sort Task

One of the more widely used procedures for assessing mother-child interaction in a teaching context is the 8-Block Task developed by Hess and Shipman (1965) in their Chicago study of maternal teaching styles. The 8-Block has been used in the Planned Variation Head Start evaluation and in the ETS-Head Start Longitudinal Study, which was one of the reasons it was originally selected for use in the Home Start evaluation. In this section of the report the 8-Block Task is described, evidence on the reliability of coding from the tape recordings is reported, and the results of the fall 1973 data collection are presented. The steps involved in developing the procedures for analyzing the complex set of mother-child interaction variables are also discussed.

Administering the 8-Block Task

Although the situation created by the task is artificial it does provide the opportunity for direct observation of the mother's behavior that complements the verbal reports obtained from parents by the Home Environment Scale.

There are three stages in the 8-Block Task. The community interviewer guides the mother through the block sorting procedure in a standardized way, the mother is asked to teach the task to the child, and at the end the child is asked to demonstrate whether he has learned the principles according to which the blocks are sorted.

In the first stage, the community interviewer teaches the mother how to sort eight wooden blocks into four quadrants of a 12" x 12" board. The blocks vary on four dimensions--height (tall or short), mark (X or O on the ends of the blocks), color (red, yellow, green, or blue), and shape (rectangular or circular in cross-section). The relevant dimensions for sorting are height and mark. In the second section of the task, the mother teaches her child how to sort the blocks. Although the community interviewer proceeds through a series of discrete steps in a fixed order, the mother is told she can teach the child in any way she wants. The third stage of the task begins when the mother tells the community interviewer that she is finished with her "teaching". The community interviewer then gives the child two new blocks (one at a time) and asks him to place them on the board in the group where they "belong". The results of the child's placements and his explanations of the placements indicate whether the child has learned the sorting task and can generalize the sorting principle to new objects that vary on the same dimensions.

The complete task administration was tape recorded using battery-operated cassette tape recorders. The tapes were returned to the High/Scope Foundation for coding. Nonverbal behavior (mother moving blocks and punishing child and child moving blocks) was recorded by the ac interviewer on a score form.

Although the 8-Block Task was administered in the same way this fall, comparisons of the mother-child interaction variables with previous data can only be made in general terms because of some modifications in the coding procedure. Several scoring categories were deleted (e.g., subcategories of the correction categories) and definitions of some of the other categories were refined. The coding definitions can be found in Appendix C. The results reported here, therefore, are based primarily on the fall data, with the focus being the identification of groups of variables or "scales" that describe the mother-child interaction in a conceptually meaningful way. Following a discussion of the mother-child interaction analysis, the analysis of the child's task is presented.

Mother-Child Interaction

Coding reliability. Reliability of coding was established before proceeding with analysis of the data. The 517 8-Block tapes collected this fall were coded by four individuals. In order to obtain estimates of the extent to which the codings made by one coder would agree with those made by any of the others, a sample of 11 tapes were coded independently by all four coders. Although the coders knew that the tapes were being used for establishing reliability, they did not consult with each other about the coding.

The coding procedure was based on analyzing a continuous stream of events with no artificial divisions, such as time sampling. Thus, the number of events coded by each coder for a particular tape was not always the same. In order to calculate reliability on an event-by-event basis the four codings were aligned by inserting null events. This was done by comparing each of the four coding forms with the tape and inserting null events as required to equate the total number of events per tape.

The reliability method used was Cartwright's alpha. The procedure consists of comparing, event-by-event, the categories selected by pairs of coders. Tallies are kept of the number of times the pair was in agreement and the number of times the pair did not agree on the selection of the category. The reliability figure is calculated by dividing the total number of times the category was used by at least one of the coders into the number of times the coders agreed on the category selected, (agreements/agreements+disagreements). This method of reliability calculation

as selected rather than the overall percent agreement method (total frequency by observer 1/total frequency by observer 2) because the overall percent agreement does not insure that both coders ever code the same behavior at the same time. For example, if two coders observed ten events and each coded category "A" five times and category "B" five times, the overall percent agreement method results in a reliability estimate of 100% for both categories even though coder 1 could have coded the odd numbered events "A" and the even numbered events "B" while coder 2 did the opposite. The event-by-event procedure demands that both coders agree on the same event at the same point in the stream of events.

This procedure was followed for each pair of the four coders resulting in six reliability estimates for each of the 38 original categories. The arithmetic mean of these six estimates for each of the 38 categories was taken to be the reliability estimate and is reported in Table V-15. A lower limit was set at .50, and though 50% agreement might seem to be a low degree of agreement, it should be kept in mind that with a 38 category coding system the probability of chance agreement on the assignment of an event to a category is extremely low. Of the 38 categories, 19 showed reliability coefficients that were considered to be too low for inclusion in analyses of individual categories. Seven of the 19 categories, however, are probably not stable reliability estimates because the events being coded occurred so infrequently that one or two disagreements had a drastic effect on Cartwright's alpha. The low reliabilities of some categories was taken into consideration when deciding to combine categories to form scales (the complete rationale for the creation of "scales" of mother-child behavior is presented below). If disagreements between coders were to occur within certain sets of categories, then combining several categories to form one scale would result in a higher reliability for coding the scale. This happened in several cases (see Table V-16). Categories 1, 2, and 3 under Request Talking were unreliably coded, yet when combined with category 4 to form Scale 1 (Request Talking), the mean alpha was .76. The higher percent agreement is due to the fact that coders could agree that the mother was making a request for talking but not agree on the precise nature of that request. By combining categories into nine scales information contained in 32 categories can be used. Two additional scales were calculated which did not achieve at least 50% agreement. One of these combined categories 18, 19, and 20 and the other combined 24 and 25.

Three non-verbal 8-Block categories were recorded by the community interviewers during the task--mother moves blocks, mother punishes and child moves blocks. Since no reliability estimates were available for these categories, and since monitoring reports indicated difficulties in recording the child placements (see Chapter III), it was decided not to include these categories in the analyses.

Development of 8-Block scale scores. On the basis of the factor analysis of the 8-Block data in spring 1973, it has been suggested (Interim Report III) that information about which categories loaded together might be used to derive "scores" that could be used in assessing mother-child interaction. Because not all the factors were clearly interpretable, and because there are conceptual reasons for grouping categories, the scoring procedure decided upon is a joint product of empirical and theoretical considerations.

Empirically, factor analysis of the spring 1973 data identified four important groups of categories: "unclassified" or non-dimension-specific verbalizations tended to load together; complexity of mother and child verbalizations emerged as an important dimension, as requests and talking about specific dimensions of the task often loaded together; praise and acknowledge categories loaded together on what might be called a feedback factor; and task-irrelevancy (i.e., talking about dimensions that are irrelevant to what the child is to learn) loaded on a separate factor. A principal components analysis with varimax rotation on the fall 1973 data seemed generally to confirm these preliminary clusters of categories, although the specific factor loadings were somewhat different. Ten factors with eigenvalues greater than 1.0 were extracted, accounting for 59% of the variance (compared to 11 factors accounting for 70% of the variance last spring).

Conceptually, important dimensions of mother's teaching style include specificity in talking to the child about what he is to learn, providing the child with an opportunity to "practice" (as might be indicated by requests placements), helping the child to verbalize the dimensions of the task (by requesting talking or understanding), providing specific feedback (as opposed to feedback without reasons), and offering praise and encouragement.

Low frequencies for certain mother and child behaviors and poor coding reliabilities limited possible ways of forming scores, but for the most part, the dimensions that seem to be empirically and conceptually important could be combined into scales. The 38 categories listed in Table V-15 were combined into nine scales listed in Table V-16. The only conceptually important items that could not be included (because of low coding reliability or extremely low frequency of occurrence) were "Talk about future task" (i.e., mother orienting the child to the task) and "Task irrelevancy" (i.e., talking about block dimensions that are irrelevant to the sorting task).

After deciding on the items to make up each scale, a procedure for deriving scale scores was developed. Raw frequencies turned out to be too unwieldy. As reported for the spring data, response distributions were highly skewed with a large number of mothers or children producing a narrow range of responses.

By dividing each frequency by the amount of time the mother spent in teaching the child, the skewness was somewhat lessened. At the same time the number of events were equated for time, making the scores more comparable from one mother to another. Most behavior categories then scored less than 4 events per minute (the mean events/minute ranged from a low of .01 for "Bribe" to a high of 1.9 for "Child talk about--unclassified"). In order to even the distribution somewhat, the events/minute were transformed into response categories according to the following ranges:

Number of events/minute	Mother-child interaction "score"
0	1
.001 - 0.500	2
.501 - 1.000	3
1.001 - 1.500	4
1.501 - 2.000	5
2.001 - 2.501	6
2.501 - 3.500	7
3.501 - 4.500	8
4.501 - maximum	9

These scores have the added advantage that scale scores can be created and internal consistency reliabilities calculated with available computer programs. In all subsequent analyses the data are based on this 1 - 9 scoring procedure.

Response distributions. The distributions of responses across the nine scoring categories are presented in Table V-17. Although the response distributions remained skewed, the range of scores in each category is more balanced--on 24 of the 32 categories used in these analyses, scores ranged from 1 to 8 or 9.

Correlations. The item-scale correlations (corrected for overlap) and the interitem correlations are presented in Table V-18. The general level of the correlations is moderately high; the median multiple R^2 between each category and the rest of the categories was .31. On all scales except 6 (Feedback) and 7 (Correction) most items tended to correlate higher with their own scale total than with other scales.

Internal consistency reliability. The internal consistency alpha coefficients were calculated for each scale. For scales 1 - 9 the alphas were .56, .43, .45, .61, .52, .28, .31, .62, and .53. Scales 6 and 7 had the lowest internal consistency. At that level, they would not be very useful scales for assessing change in mother-child interaction patterns. It might be pointed out that of the six items on these two scales, four were not coded reliably from the tapes, even though coding agreement was achieved by combining them into these scales.

Whole score descriptive data. The mean scale scores for each group and for the total sample are presented in Table V-19. One-way analyses of covariance with child age as the covariate were used to test for group differences on each scale. For two scales the F ratio was significant. On Scale 9 (Child unclassified talk) follow-up t tests indicated that Home Start and controls were not different from each other but that the combined Home Start/control group was significantly higher than Head Start on this child variable ($t = 2.4$; $df = 513$; $p < .05$). Follow-up t tests of the significant F ratio for Scale 2 (Request understanding) revealed that Home Start was significantly higher than the control group ($t = 3.4$; $df = 513$) and Head Start was significantly higher than the control group ($t = 3.6$; $df = 513$), but that there was no significant difference between Home Start and Head Start. These findings do not suggest any strong, consistent differences among the three groups at the time of fall testing.

The mother-child interaction variables are particularly complex in that it is difficult to tease out the meaning of a particular finding. One procedure that might be used for investigating the relative importance of these scales would be to establish certain criteria (e.g., the child's performance on the task at the end of the teaching session) and use several regression models having different sets of independent variables to predict the criterion. One question of interest might be the extent to which mother teaching behaviors predict child 8-Block scores over and above what one would expect of the child on the basis of his age or ability as measured by the PSI. Another question might ask what mother-child interaction variables are most predictive of the child's performance on the task.

A preliminary analysis using the stepwise regression technique was carried out using the nine mother-child interaction scales to predict the child's task score. Three of the scales predicted a significant (.05 level) percent of the variance in child score and together predicted 10% of the variance. The most important predictor (7% of the variance) was Scale 8 score, an index of the overall amount of child talk that is not specifically related to the dimensions of the task. The second predictor from the stepwise procedure was Scale 6 score (predicting only an addition 1%); Scale 5 was the third predictor, predicting an additional, non-overlapping 2% of the variance in child task score.

Perhaps the most noteworthy finding from the above analysis is that mother and child interaction variables (as scored in this analysis) accounted for only 10% of the variance in the child's performance. To investigate what other variables might be accounting for the child's score, 18 of the whole scores from the testing battery were included in the regression model with age and the nine mother-child interaction scales. Seven variables predicted significant amounts of non-overlapping variance. Of the

38% of variance predicted by the seven scores, PSI score was the most important, predicting 24% of the variance in child score. The second ranked predictor was POCL--Test Orientation scale which added an additional 3.3% of the variance, followed by Scale 8 which added an additional 3%. These preliminary analyses suggest that it may be very difficult for the mother's behavior (as measured in the 8-Block) to predict much of the child's performance that isn't already accounted for by other measures. It might be important for the evaluation to assess the extent to which the Home Start program can modify these predictions by, perhaps, increasing the importance of the mother's teaching behavior.

Child Task

When asked to place each of the two blocks in the proper quadrant on the board and to explain his placement, the child's responses were scored as follows. For placing the block in the correct group, the child received 2 points; if the block matched the group on only one dimension, the child received 1 point; if the block placement was completely wrong, the children received no points. For the explanations, the child received a score of 2 if he explained his placement in terms of both dimensions, a score of 1 if his explanation referred to only one dimension, and a score of 0 for a completely incorrect explanation.

Response distribution. Tables V-20 and V-21 present the percent responses by age for placement and explanation of the short O block. Tables V-22 and V-23 present similar data for the tall X block. Fewer children made wholly incorrect responses to placing the blocks at age 4 1/2 and 5 than at age 3, but the decrease in incorrect responses with age was not completely uniform. A smaller percentage of the older children matched one dimension correctly than did younger children, but this was accounted for by the increased number of older children who matched both dimensions correctly.

Children did substantially worse in explaining why they had placed a block where they did. The "No correct verbalization" category did not decrease as age increased, but explanations in terms of one of the block dimensions increased as age increased. Verbalization of both dimensions was 0 for 3 year olds and increased only very slightly and quite erratically as age increased. The number of child refusals decreased consistently as age increased, thus contributing to the increases in correct or partially correct explanations.

Whole score descriptive data. Table IV-47 presents means, standard deviations and standard errors for the total sample, by age and by sex. Total 8-Block child task scores increased consistently across all age groups as children got older (from 2.7

at 3 years to 3.9 at age 5). The mean 8-Block score for the total sample was 3.3. There were minimal differences between the average total score for boys and the average for girls.

Comparison among groups showed the following scores for explanation, placement and 8-Block total:

Table V-24

8-Block Means by Group

	Home Start (N=215)		Control Group (N=123)		Head Start (N=117)		Total Sample (N=455)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Explanation (0-4)	.54	.93	.41	.77	.59	1.01	.52	.91
Placement (0-4)	2.83	1.02	2.76	.98	2.85	1.00	2.81	1.00
8-Block Total (0-8)	3.37	1.61	3.17	1.40	3.44	1.64	3.33	1.56

Analysis of covariance with age as the covariate resulted in no significant differences among groups in mean explanation score ($F = 1.90$; $df = 2, 451$), mean placement score ($F < 1$; $df = 2, 451$) or in 8-Block total score ($F = 1.55$; $df = 2, 451$).

Summary

Progress has been made in developing scales that summarize the mother-child interaction categories coded from the 8-Block audio tapes. Nine scales that can be reliably coded were scored and seven of them were found to have adequate internal consistency reliabilities and good levels of interitem correlations. The nine-category scoring system for each scale resulted in response distributions that were less skewed than the raw frequencies. When the mean scale scores for the three groups were compared, significant differences were found on two of the scales, but the findings did not clearly favor one group over the others. Preliminary analysis using stepwise regression to predict the child's score on the 8-Block Task indicated that the mother's teaching behaviors account for only a small percentage of the variance in comparison with the importance of child characteristics measured by the PSI and the POCL. The score obtained by the child tended to increase with age, but there were no differences among Head Start, Home Start and control groups in the mean score.

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VI

WHOLE SCORE RESULTS

Up to this point all analyses have examined one measure at a time, looking first at the internal characteristics and then briefly at the overall means. In this chapter the revised measures are investigated for their relationships with one another. The entire battery of measures is viewed almost as though it were itself a scale made up of items, except that no attempt is made to compute subscores by adding together selected whole scores.

In addition, all entering scores for the Home Start, control, and Head Start groups are compared within sites and across sites. A few of the results presented here overlap analyses presented in the individual instrument characteristics sections, but they are presented again because they help explain some inconsistencies between this report and the last in the whole score factor analysis results. In all group comparisons, the focus is on answering the two questions highlighted in Chapter II:

- Are the Home Start and control groups "functionally" random (that is, the same on all characteristics)?
- Do the Home Start and Head Start programs serve the same kinds of families?

Site differences are examined as well as group differences, in an effort to understand as thoroughly as possible the composition of entering families. This information is useful both for obtaining a clear picture of the kinds of families served by each site, and for identifying possible concomitant measures that might be needed in future analyses of program effects.

Beginning with this report, and continuing right through the analysis of twelve month program effects next year, the evaluation is in its most exciting phase. This section provides the first detailed look at real families living in six sites scattered across the United States; strong, clear entering differences emerge between groups and sites, underscoring the tremendous variety of people participating in a series of local projects collectively known either as Home Start or Head Start.

Analysis methods used in this chapter. Two aspects of the whole scores are examined: interrelationships among whole scores which are identified by principal components factor analyses and by image analyses, followed by varimax rotations; and differences between groups or sites, which are examined using one-way analyses of variance (ANOVA's). Two relevant aspects about the methods used in this chapter are briefly explained before going on to the results.

Image analysis is a factor analysis that uses multiple squared correlation coefficients instead of 1's in the diagonals of the correlation matrix. The multiple correlation coefficients are obtained by using all of the scores in the factor analysis to predict each score in turn. Essentially, then, only the variance that each measure has in common with all of the other measures is used in computing the factors, instead of using the total variance which contains considerable error variance. When reliability estimates are available for the items or scores used in an image analysis, the analysis takes on a new dimension: it allows the user to estimate the true (non-error) variance that is unique to each measure. This indicates, for example, the amount of unique information each measure contributes to the the overall summative battery. The percent of common variance that a particular measure shares with other measures is estimated by the commonalities (h^2 in Tables VI-2, VI-3, and VI-4); the percent of error variance accompanying each measure is estimated by the difference between alpha reliability and 1; the percent of unique, non-error variance of each measure is estimated by the difference between the reliability coefficient and the communality. Thus, each of these three kinds of variance, which together account for the total variance of measure, can be easily estimated from the figures given in the image analysis tables to permit a better understanding of the operation of each measure.

The comparisons between groups and sites in this chapter criss-cross the data every which way in order to clarify the kinds of differences that are present. Overlapping one-way analyses of variance are used to identify differences throughout. Since this is not normally considered a "proper" procedure, a justification is given here.

The problem with using multiple one-way ANOVA's instead of a single two-way ANOVA is that each of the one-way tests is not independent of the others. This means that if one test reaches statistical significance at the .05 level, an overlapping test is likely to reach significance by chance, say, ten times, out of a hundred rather than the usual five times indicated by the .05 probability level.

In the unbalanced design in this analysis, however, there is no way to achieve non-overlapping tests and still make the desired tests between groups, even with a multiple level ANOVA. Unbalances are caused in this data by unequal Home Start, control, and Head Start group sizes and, in cases of Kansas and Ohio, "missing" Head Start groups. Using "effects" coding procedures in multiple regression analyses (Cohen, 1968; Kerlinger and Pedhazur, 1973) it is possible to compute the desired ANOVA tests even with missing cells, but the unequal group sizes cause the normally independent tests to overlap.

Another problem encountered using complex ANOVA designs with this data is that the site variances are quite different, violating one of the assumptions underlying ANOVA tests. Violation of this assumption is particularly serious for unbalanced designs (Glass, Peckham, and Sanders, 1972). One-way ANOVA's within sites or groups minimize disparities in the size of variances.

Finally, in these analyses "liberal" tests will lead to "conservative" results, contrary to expectations, since the decision resulting from significant differences will be to apply stricter controls on systematic sources of variance when analysing the six and twelve month program effects. The use of the F test in this chapter is almost closer to a simple descriptive technique than an inferential technique.

Whole Score Factor Analysis

The purpose of the factor analysis of all test scores, rating scales and demographic variables was to summarize interrelationships between the diverse measures to see if any global parent or child characteristics were being measured. The only spring 1973 variables that were not included in the current (fall 1973) whole score factor analysis were the Concept Development Test and SES indexes. Concept Development has been dropped from the test battery. In the fall 1973 factor analysis, the two items in the spring 1973 index of SES were entered as separate scores rather than as a total score. In addition, an urban/rural index was added to the fall 1973 whole score factor analysis. Thus, a total of 28 whole scores were used in the factor studies in this report.

In the spring 1973 whole score image analysis, in which the squared multiple correlations were used as communality estimates, three factors emerged to account for 70.2 percent of the common variance. These factors represent the areas of 1) physical development, 2) cognitive development, and 3) personal development. By organizing the tests according to factor loading patterns across the three factors, six distinct groupings of test scores were apparent: 1) physical development, 2) personality, 3) cognitive development, 4) task orientation, 5) physical (manipulative) environment and 6) nurturant environment. It is within this framework that the fall 1973 whole score analyses has been approached.

The spring 1973 sample only included children who were currently participating in the Home Start program in the same six sites as were included in the fall 1973 testing. However, the fall 1973 sample included not only children who would participate in Home Start during the current year but also a delayed-entry Home Start control group and a Head Start comparison group. To the extent that these three groups constitute random samples from the same preschool population, it is expected that the whole score factor analysis should produce results similar to those from spring 1973.

As was done last spring, two factor analyses were completed for the total sample: 1) a principal components analysis, with unities in the diagonals, and 2) an image analysis with squared multiple correlations initially in the diagonals. The purpose of the principal components analysis was to empirically describe all major dimensions of the project variables. The image analysis served to describe the common variance.

Whole Score Principal Components Factor Analysis: Total Sample

Nine factors were extracted from the 28 variables. These nine factors accounted for 60.12 % of the total variance. The total sample principal components factor analysis can best be described as a "methods" solution:

1) The four scales from the DDST loaded highest on the first rotated factor, which accounted for 9.3% of the total variance.

2) FiveHES scales loaded highest on the second rotated factor, which accounted for 7.9% of the total variance.

3) Age, height and weight loaded highest on the third rotated factor, which accounted for 8.2% of the total variance.

4) PSI, 8-Block and the two POCL scales loaded highest on the fourth rotated factor, which accounted for 7.9% of the total variance. The tester interacted with the child in the administration of both the PSI and the 8-Block. The POCL was filled out by the tester after the second visit.

5) The three SES variables (occupation, mother's education, and urban/rural) loaded highest on the fifth rotated factor, which accounted for 5.2% of the total variance.

6) Sex and television loaded highest on the sixth rotated factor, which accounted for 4.9% of the total variance. Neither sex nor television were highly correlated with any variable. The correlation between these two variables themselves was only .08. HES-teaches had salient loadings on both factor six and factor two.

7) Nutrition and total food loaded highest on the seventh rotated factor, which accounted for 6.5% of the total variance.

8) The two MBOS observational scales, supportive and punitive, loaded highest on the eighth rotated factor, which accounted for 4.6% of the total variance.

9) The three SBI scales loaded highest on the ninth rotated factor, which accounted for 5.1% of the total variance.

Whole Score Image Analysis: Total Sample

Only 32.13% of the total variation was common. Two factors accounted for 56.88% of the common variance. As in the principal components analysis, "methods" factors best describe the rotated solution, but instead of representing similarity of measurement instruments, broadly defined, the methods division apparent in the principal factors solution was "source of data": child vs. parent/other adult:

1) Sex, age, DDST, height, weight, 8-Block, and PSI all loaded higher on the first rotated factor, which accounted for 11.0% of the total variance. In addition, POCL-TO (which also had a high loading on the second factor), occupation, and urban/rural loaded higher on this factor although the absolute values of the factor loadings for the last two SES variables were small. The first rotated factor is obviously a "child as data source" factor.

2) The three SBI scales, POCL-Soc, the two food scores, the five HE scales, the two MBOS observational scales, and mother's education loaded higher on the second rotated factor, which accounted for 7.2% of the total variance. The second rotated factor is obviously a "parent or other adult as data source" factor.

Three aspects of the fall 1973 sample need to be considered in view of the obvious deterioration of last spring's factor structure with the new sample. First, these children are younger than the spring 1973 sample. The factor structure for young children can be unstable. A second consideration is the restriction in age range. Not only are the children younger, but they were also within a narrower age range because of the evaluation selection process which included "two-year eligible" children only. The sample was designed to consist primarily of three or four year olds, compared with large numbers as four and five year olds last spring. A restriction of age may tend to lower correlations among developmental variables thus, weakening factors. It is hypothesized, however, that the effect of a restricted age range will lessen as the program progresses, because more variable performance is expected as the children grow older because of differential developmental growth rates. Thirdly, there are three different groups this time instead of one, and they may represent different populations having different factor structures.

The structuring of the whole score variables about methods of data collection regardless of which factor model was employed requires further exploration, especially since previous work with these same variables has resulted in conceptual factors with more descriptive power than "source of data." The first line of investigation to explain the response bias solution from the total sample of 556 children is the possibility that the subjects in the total sample may not

have been selected from the same population of preschool children. Several paragraphs will be used to discuss this possibility before returning to implications for the factor analysis outcomes.

Overall Entering Differences between Home Start, control, and Head Start Families

By design, the total sample consists of three groups: Home Start, control, and Head Start. To explore the question of whether these samples were drawn from the same population, in a statistical sense, a series of one-way analysis of variance were computed to test the significance of the differences among whole score means for the three groups.

Two sets of analyses were computed. The first was for the three samples in which all children and all sites were inlcuded. The second was for only those four sites which had a Head Start group. When all subjects were considered, eight of the 28 analyses of variance resulted in significant F ratios. Using only four sites, seven of the F ratios were significant. The significant variables in each set of analyses belonged to two different areas: physical development and socio-economic status.

Although no average age differences occurred in the total sample analysis, marked age differences occurred in the four-site analysis. The children in the Home Start and control groups in the two sites without a Head Start were, on the average, the youngest non-Head Start children in any site. Head Start children were also young. The discrepancy in mean age between Home Start and Head Start is very apparent when only those sites with Head Start programs are studied. When all children, including the younger Home Start children in the two sites without Head Start are compared on height, the Head Start children were seen to be significantly taller. In the analysis employing just the four Head Start sites, the significant difference in mean height disappears. The Head Start children are younger than the Home Start and control children but are not, on the average, shorter. In both the total sample and the four-site sample, the Head Start children weighed significantly more than the Home Start children.

Home Start children differed from Head Start children on several HES variables: "playthings" and "books" showed significant differences in both analyses, with the Head Start children having, on the average, more playthings and more books. When the entire sample was used, the Head Start and

Home Start groups were shown to differ with respect to "mother teaches", with the Head Start group receiving a larger mean number of things taught by the mother.

Regardless of which analysis is scanned, it was found that the Head Start group were more likely to come from an urban setting, average parent occupational level tended to be higher on the socio-economic scale, and Head Start mothers tended to have attained a higher level of education. It should be noted that both "books" and "playthings" were positively related to socioeconomic status.

It is therefore reasonable to assume that the Home Start and Head Start samples have been drawn from different statistical populations and therefore service different types of children. In general, the Head Start children are younger, more robust, and come from a less disadvantaged population than do the Home Start children. In no instance was there a significant difference between the Home Start and control groups, indicating the success of the randomization procedures.

Despite the discrepancy between age in the Home Start and Head Start groups, there were no significant differences between the groups with respect to the cognitive development scales. It would be expected that the older children would score higher on cognitive development scales, but this was not found. A confounding variable here, however, is SES. Mean performance tends to be higher among children from the higher SES group.

Whole Score Principal Components Factor Analysis: The Three Separate Samples

Because it was determined that Head Start and Home Start constitute samples from different populations, the factor analyses were recomputed for each sample separately. The rotated factor loadings are presented in Tables VI-3, VI-4, and VI-5. If heterogeneity of samples were an adequate hypothesis to explain the "methods" total sample factor solution, it would be expected that the factor solutions for the two Home Start samples should be more similar to each other than to the factor solution for the Head Start sample.

A different number of factors were extracted for each sample:

Home Start	9 factors accounting for 62.74% of the total variance

Control	10 factors accounting for 65.58% of the total variance
Head Start:	11 factors accounting for 70.99% of the total variance

The highest loadings for age, height, and weight appeared together on a factor in each of the samples. Thus, the physical development factor has been reproduced. In the Home Start and control samples, the PSI, Fine Motor, Language, and 8-Block scores loaded highest together on a factor. In the Head Start sample, Fine Motor and Language loaded together on a factor which also included high loadings from the Gross Motor scale. In the Head Start sample, the two POCL rating scales loaded highest on the same factor that included PSI. The 8-Block loaded highest with the Personal-social scale and sex. It should be noted that 8-Block and Personal-social loadings on that factor were of opposite sign. Contrary to the Home Start and control samples, there was no clear cognitive development factor included in the Head Start sample.

The clustering of the home environment scales was most clearly evident in the Home Start sample, followed by the Head Start sample. Total Food and Nutrition loaded highest together in each sample. Occupation and Mother's education loaded highest together in both the Head Start and the Home Start samples. In the control sample, Mother's education loaded most highly on the factor that also included the Task Orientation scale of the SBI. In the Head Start sample, the hostility scale from SBI also loaded highest on the socio-economic factor.

Whole Score Image Analysis: The Three Separate Samples

As was found last spring, far fewer factors were needed to account for the common variation than were needed to account for the total variation:

Home Start	3 factors accounting for 64.42% of the common variance
Control	2 factors accounting for 52.26% of the common variance
Head Start:	3 factors accounting for 51.84% of the common variance

Five of the six factor clusters defined on the basis of the spring 1973 principal factors solution were replicated in both the control and the Head Start samples. Three were replicated in the Home Start sample. In each sample, the cognitive development cluster, the physical (manipulative) environment cluster, and the nurturance cluster were replicated. In addition, physical development and personality score clusters were replicated in the Head Start and control samples.

Without resorting to factor matching procedures, it is impossible to say for sure if solutions derived from several samples are more alike than different, or vice versa. A mix of apparent similarities and differences have been pointed out on the basis of inspection of the factor matrices. The factor solutions for separate samples did, however, produce more substantially conceptual factors than the methods factors that emerged in the total sample analysis, paralleling the analysis of variance findings in supporting the notion that at least two different populations are represented by the three samples.

Entering Family Characteristics by Site

Basic differences between the Home Start/Control samples and the Head Start sample were discussed in relationship to the whole score factor analyses. Important differences were found between Home Start/Control and Head Start with respect to age, height, weight, playthings, books, occupation, mother's education, and urban/rural. In general, the Head Start children were younger, more robust, and less disadvantaged. Despite the difference in age between Home Start and Head Start, there were no significant differences on variables representing cognitive development, indicating that entering Head Start children are developmentally advanced for their age compared to entering Home Start and control children. It has also already been mentioned that the Home Start/control children in the two sites without Head Start were the youngest, on the average, from the Home Start samples. In view of the variation of age across site, the first descriptions of entering family characteristics will emphasize the similarities and differences among these six sites.

One-way analyses of variance were computed for the 29 whole score variables (SES has been included as an additional variable) in order to assess mean differences among the six sites. Of the 29 F ratios computed, 21 were signficant at or beyond the .05 level. Among the variables not differing by

site were: sex, the three SBI scales, the social scale from the POCL, and playthings, household tasks, and mother involvement from the HES. There were significant differences on all other variables between sites.

Entering Family Characteristics by Group within Sites

Means for the comparisons discussed here are presented in Table VI-5. F ratios are not reported in order to simplify the table; throughout this section the F values are used more in a descriptive than an inferential way.

Alabama. Four of the 29 F ratios were significant. The oldest children are overly represented in Alabama, which had the highest mean age of all sites; but within the site, the Head Start children were significantly younger, on the average, than the Home Start children. The Home Start control group had the highest average. The means on PSI, Denver Language, and POCL-TO also resulted in significant F ratios. On PSI and Denver Language the rank order of means for the three groups is the same as for age, which illustrates the hypothesized relationship between physical development and cognitive development. On POCL-TO, the lowest mean was obtained by the youngest group (Head Start), indicating a lesser degree of test orientation among these children. The means for the Home Start and control groups were reversed from the order expected from the knowing mean age of the groups.

One other variable discriminated among the three groups in Alabama. On urban/rural, the Head Start group was predominantly urban (68%), while the Home Start group was split nearly 50-50 (%2% urban), and the control group was predominantly rural (65%).

The variation among means on each of the remaining variables can be considered random.

Arkansas. Five of the 29 variables showed significant differences among groups in Arkansas. Four of these five variables dealt with SES. The Head Start group had the highest mean occupation, highest mean mother's education, the highest mean SES, and were 81% urban, as opposed to 14% for the Home Start group and 32% for the control group. The fifth variable was language. The highest mean language score was obtained by the Home Start group who were also the oldest, on the average, in Arkansas. Although the Head Start group was the youngest, on the average, this group received the second highest mean language score. The variation among means on each of the remaining variables can be considered random.

Kansas. There is no Head Start group in Kansas, and there were no significant differences between the Home Start and control samples, thus allowing the inference that these are indeed two random samples from the same population. Kansas represents the second youngest sample of all the sites. These children were predominantly from an urban setting (92-93%).

Ohio. Ohio also had no Head Start group. There were two significant differences between the Home Start and control samples: It was observed that the Home Start group had a significantly greater average number of things taught by the mother. The variation among means on each of the remaining variables can be considered random. Ohio, as well as Kansas, can be considered an example of a site for which two random samples exist. Ohio represents the youngest sample of all the sites as well as the least advantaged on the basis of average occupation and average SES. These children are classified as 100% urban.

Texas. There were significant differences among the three groups in Texas on the four indicators of socio-economic status. The Head Start group showed the strongest advantage with respect to occupation, mother's education, SES and location of residence (100% urban). The Home Start and control groups were also predominantly urban (83% for Home Start, 80% for control). Height was the one other variable showing a significant difference among the three groups. The Head Start group measured tallest, on the average. Although age was not a significant variable in Texas, it represents an instance where the Home Start group is younger than the Head Start group. Aside from an SES bias in favor of the Head Start group, the two samples seem to be adequately randomized.

West Virginia. Discrepancies between Home Start and Head Start samples in West Virginia are vast. Fourteen of the 29 F ratios were significant. The Home Start group is significantly older than the other two groups, for which the mean age was equal. Although the control group was, on the average, the same age as the Head Start group, the control group weighed significantly less than the Head Start group. The average weights for Head Start and Home Start groups were essentially identical even though the Home Start group was substantially older.

Total food and nutrition averages for the Head Start group were significantly greater than for the Home Start and control groups. The biggest gap occurs between the Head Start and the control groups.

Fine motor skills was the one cognitive development scale on which there were significant differences. On the basis of age, it would be expected that the Head Start and control group should average nearly equally on cognitive development. Instead, the largest mean fine motor score was obtained for the Head Start group and the lowest was obtained for the control group.

Several HE scales also showed significant differences among the means. The Head Start group had significantly more playthings, significantly more books, a significant difference with respect to mother involvement and number of things taught by the mother. In each case the advantage was for the Head Start group. The Head Start mothers were also seen as being less punitive, on the average. The three socio-economic indicators also showed significant differences. In each case, the Head Start group had the advantage: a higher mean occupational level, a greater mean educational level for the mother and a greater mean SES. In addition, 66% of the Head Start group came from an urban area, while 36% of the control group came from an urban area, and only 12% of the Home Start group came from an urban area.

Group differences within sites, summarized by measure. The above represented a summary of differences among groups within sites. The same data will now be discussed with the "measure" serving as the organizational principle.

Four of the six sites show significant differences on the urban/rural dichotomy. In each instance the Head Start sample obtained the highest percentage for urban areas. All but one of these four sites also showed significant differences on mother's education, occupation, and SES. In each instance the greater mean, indicating higher socio-economic status, was obtained by the Head Start group.

- Alabama showed only the urban/rural split.
- Arkansas, Texas, and West Virginia showed significant differences on all four scales.

In addition, West Virginia showed significant differences on HE scales that correlate with SES. These were "playthings" and "books". In each instance the Head Start group had the higher mean, indicative of greater advantage.

Alabama and West Virginia showed significant differences on age. In each instance the Head Start group had the lowest mean age.

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Alabama was the only site showing significant differences on two cognitive development scales (PSI and Language). In each scale the rank order of means was the same as for age, which is the expected rank order.

West Virginia also had significant differences on total food, nutrition, and weight. In each instance, the Head Start mean was greater than the Home Start group mean, which was also higher than the control group mean.

Summary of site differences within each group. The differences among mean scores between sites are well illustrated by a series of one-way analyses of variance in which the means for the six (four) sites within group were compared.

In the Home Start sample across sites, 18 of the 29 F ratios were significant. All physical development scales showed significant differences as did all cognitive development scales. Three of the socio-economic variables (mother's education, occupation, and urban/rural) were significant, as were playthings and books. Both POCL rating scales showed significant differences, but none of the SBI scales did. The punitive scale was significant, but the supportive scale was not. The remaining HE scales and the two scales were not significant.

The six Home Start site samples most emphatically do not represent random samples drawn from one population. Rather, "site" may be considered the basis for defining a population rather than a sample. If this definition is adopted, then the Home Start evaluation may be considered as a series of six experiments rather than one large experiment.

In the control group, comparing sites, the number of differences across sites diminished slightly, with 12 of 29 calculated F ratios reaching significance. The sites within the control group differed significantly with respect to age, height and weight; with respect to PSI, fine motor and language; on the personal/social skills scale; on playthings and mother teaches, and on the three socio-economic variables: mother's education, occupation, and urban/rural setting.

In the Head Start sample grouped according to site, 12 significant F ratios were found out of the 29 computed. Unlike either the Home Start or control samples, none of the physical development scales were significant. The Head Start sample is very homogenecus with respect to age. Household tasks was the only HE scale not to achieve significance. Language was the only cognitive development scale that did achieve significance. Both food scales discriminated among

the four Head Start sites. Occupation was the only SES variable that did not discriminate among the four sites.

It is apparent that in none of the three groups (Home Start, control, or Head Start) can the sites be regarded as equivalent with respect to the dimensions included among the project variables. This indicates that it will be necessary to use site as a blocking factor to remove systematic error due to site differences when ANOVA or ANCOVA tests are computed. While this will considerably complicate the analysis, it should greatly improve the power of the tests for detecting program effects.

Summary of Whole Score Findings

One of the most important questions guiding the whole score analyses was "Did the random assignment of Home Start and control families succeed?" Results of the analyses suggest that the random assignment succeeded beyond all expectations, particularly given the field problems that disrupted the original assignment of families. In no instance was there a significant difference between Home Start and control children on the whole scores. Not only does the randomization hold up overall, but for the most part it seems to hold up on a site by site basis as well. The big remaining question about the control families is whether they will remain part of the control sample long enough to complete the six-month and twelve-month data collections. If enough do, a very accurate test for Home Start program effects can be obtained.

The next important question was, "Do the Home Start and Head Start programs serve the same population of families?" The implications of these questions relate to the roles served by these two programs, that is, whether they are complementary programs or competing programs. The findings strongly indicate that the two programs serve very different populations of families: in general, Home Start families are far more disadvantaged than Head Start families. Head Start families are smaller, more likely to come from urban areas, the parent's average occupational level tended to be higher, more mothers are employed, the mothers tended to be better educated, were more likely to be in the PTA and had more likely heard of parent meetings; Head Start homes tended to have more children's books and playthings, and the mothers tended to teach more things to their children; Head Start children had seen a doctor more recently and were younger than Home Start children, but just as tall and equal in PSI performance, indicating greater developmental maturity. These findings seem to support a quote made in an earlier Home Start Evaluation Report,

based on data from the information system, that "Home Start programs serve the poorest of the poor", the persons who most need outside assistance. It is not clear how well these findings will generalize beyond the four Home Start/ Head Start sites included in the summative evaluation, but there is no evidence to suggest that these four sites are particularly "untypical" of the other sites.

The peripheral finding that the six sites were significantly different from each other has implications for the methods used to analyse program effects. This indicates that although Home Start families always tend to be more disadvantaged than Head Start children within each site, they still tend to be very different from Home Start families in other sites. Because of the many site differences, site will have to be used as a blocking factor for all ANOVA and ANCOVA tests for program effects to remove systematic variance and increase the power of tests.

The clear, logical, whole score groupings found in the spring 1973 whole score factor analysis have deteriorated markedly in the current sample; however, this appears to be due to the large Home Start/Head Start population differences, and to the younger, narrower range of children's ages, rather than to any measurement battery deficiencies.

VII

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Table III-1

ASSIGNMENT OF FOCAL CHILDREN TO SITE COORDINATORS AND COMMUNITY INTERVIEWERS

Site	Number of focal children per site	Site Coordinator No.	Site Coordinator %	Interviewer 1 No.	Interviewer 1 %	Interviewer 2 No.	Interviewer 2 %	Interviewer 3 No.	Interviewer 3 %	Interviewer 4 No.	Interviewer 4 %	Interviewer 5 No.	Interviewer 5 %
ALABAMA													
Home Start	41			7	17	8	20	7	17	11	27	8	20
Control	36			11	31	7	19	11	31	2	6	5	14
Head Start	29			0	0	1	3	10	35	12	41	6	21
Total Sample	106			18	17	16	15	28	26	25	24	19	18
ARKANSAS													
Home Start	40			9	23	9	23	8	20	7	18	7	18
Control	31			5	16	6	19	11	36	7	23	2	7
Head Start	37			8	22	11	30	6	16	6	16	6	16
Total Sample	108			22	20	26	24	25	23	20	19	15	14
KANSAS													
Home Start	45			13	29	8	18	10	22	14	31		
Control	28			6	21	6	21	9	32	7	25		
Total Sample	73			19	26	14	19	19	26	21	29		
OHIO													
Home Start	48	1	2	15	31	17	35	15	31				
Control	14	1	7	3	21	9	64	1	7				
Total Sample	62	2	3	18	29	26	42	16	26				
TEXAS													
Home Start	37	3	8	13	35	8	22	8	22	5	14		
Control	15	0	0	5	33	0	0	7	47	3	20		
Head Start	38	7	18	8	21	13	34	9	24	1	3		
Total Sample	90	10	11	26	29	21	23	24	27	9	10		
WEST VIRGINIA													
Home Start	40			9	23	10	25	10	25	11	28		
Control	38			9	24	9	24	11	29	9	24		
Head Start	38			15	40	16	42	6	16	1	3		
Total Sample	116			33	28	35	30	27	23	21	18		

Table III-9

FAMILIES SELECTED IN THE RANDOM SAMPLE BUT NOT TESTED

	Number of non-participating families	Family moved	Over income	Mother working	Lack of interest in program	Child in Head Start or other preschool program	Family could not be reached	Parent refused permission	Illness in family	Family problems	Other miscellaneous reasons	Handicapped	Non-English speaking	In Home Start but not in evaluation
ALABAMA														
Home Start	9	5	0	0	1	1	1	0	1	0	0	0	0	0
Control	5	0	0	0	2	0	2	0	1	0	0	0	0	0
ARKANSAS														
Home Start	13	5	3	4	0	0	0	0	1	0	0	0	0	0
Control	16	6	2	3	1	1	0	0	1	0	1	0	0	1
KANSAS														
Home Start	23	1	8	1	3	3	1	0	0	2	3	1	0	0
Control	44	2	8	0	2	5	4	0	0	1	11	0	0	11
OHIO														
Home Start	21	9	0	1	1	4	3	0	0	0	0	0	3	0
Control	23	5	0	0	1	7	4	1	0	0	0	0	5	0
TEXAS														
Home Start	22	4	0	0	1	3	1	0	0	0	0	0	13	0
Control	12	2	0	0	0	0	2	0	0	0	1	0	7	0
WEST VIRGINIA														
Home Start	12	3	1	0	0	2	1	2	0	1	1	0	0	1
Control	26	6	0	0	0	2	2	4	0	0	3	0	0	9
TOTAL														
Home Start	100	27	12	6	6	13	7	2	2	3	4	1	16	1
Control	126	21	10	3	6	15	14	5	2	1	16	0	12	21

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Table III-12

DEMOGRAPHIC CHARACTERISTICS

	Number of Families	FOCAL CHILDREN									SIBLINGS									TOTAL of Focal & Sibs	Average number of focal & sibs per family
		Number of focal children	Ages (years)[1] 3	3½	4	4½	5	5½	Sex M	F	Number of siblings	Ages (years)[1] 3	3½	4	4½	5	5½	Sex M	F		
Huntsville, Alabama																					
Head Start	41	41	0	0	20	18	3	0	23	18	10	3	3	0	0	0	4	5	5	51	1.24
Control	36	36	0	0	11	20	4	1	16	20	9	0	6	1	0	0	2	5	4	45	1.25
Head Start	29	29	3	8	7	8	3	0	12	17	--	-	-	-	-	-	-	-	-	29	1.00
Total Sample	106	106	3	8	38	46	10	1	51	55	19	3	9	1	0	0	6	10	9	125	1.18
Jonesville, Arkansas																					
Head Start	40	40	2	9	7	13	7	2	21	19	4	2	2	0	0	0	0	4	0	44	1.10
Control	31	31	1	5	13	7	3	1	19	12	0	0	0	0	0	0	0	0	0	31	1.00
Head Start	37	37	9	10	7	5	5	1	23	14	--	-	-	-	-	-	-	-	-	37	1.00
Total Sample[2]	108	108	12	24	27	25	15	4	63	45	4	2	2	0	0	0	0	4	0	112	1.04
Wichita, Kansas																					
Head Start	45	45	9	21	12	1	1	1	19	26	11	3	1	2	1	2	2	3	8	56	1.24
Control	28	28	7	8	11	2	0	0	15	13	3	0	0	1	1	0	1	2	1	31	1.11
Total Sample	73	73	16	29	23	3	1	1	34	39	14	3	1	3	2	2	3	5	9	87	1.19
Cleveland, Ohio																					
Head Start	48	48	16	26	6	0	0	0	21	27	12	0	0	2	2	6	2	6	6	60	1.25
Control	14	14	6	3	4	1	0	0	5	9	1	0	0	0	1	0	0	0	1	15	1.01
Total Sample	62	62	22	29	10	1	0	0	26	36	13	0	0	2	3	6	2	6	7	75	1.21
Houston, Texas																					
Head Start	37	37	11	10	7	6	1	2	21	16	12	1	1	0	3	5	2	3	9	49	1.32
Control	15	15	4	2	3	3	1	2	10	5	4[3]	0	0	0	1	1	1	1	3	19	1.36
Head Start	38	38	4	10	16	6	2	0	18	20	--	-	-	-	-	-	-	-	-	38	1.00
Total Sample	90	90	19	22	26	15	4	4	49	41	16	1	1	0	4	6	3	4	12	106	1.18
Parkersburg, West Virginia																					
Head Start	40	40	6	4	10	14	5	1	18	22	11	4	2	1	1	0	3	6	5	51	1.26
Control	38	38	4	15	11	8	0	0	23	15	10	4	1	0	1	4	0	4	6	48	1.26
Head Start	39	39	2	16	15	5	1	0	22	17	--	-	-	-	-	-	-	-	-	39	1.00
Total Sample	117	117	12	35	36	27	6	1	63	54	21	8	3	1	2	4	3	10	11	138	1.18
TOTAL																					
Head Start	251	251	44	70	62	52	17	6	123	128	60	13	9	5	7	13	13	27	33	311	1.24
Control	162	162	22	33	53	41	8	4	88	74	27	4	7	2	4	5	4	12	15	189	1.17
Head Start	143	143	18	44	45	24	11	1	75	68	--	-	-	-	-	-	-	-	-	143	1.00
Total Sample	556	556	84	147	160	117	36	11	286	270	87	17	16	7	11	18	17	39	48	643	1.16

[1]Intervals include 2 months before and 3 months after indicated date (except 3-year-old category which starts at 31 months and 5½-year-old category which includes 70 months).

[2]One child, 28 months old, is not included.

[3]One child missing, age unknown.

Table III-13 EMPLOYMENT AND EDUCATION PATTERNS

	N	Unemployment rate (no family members employed)	At least two family members employed	Mother Employed [1]	Mother is sole supporter[1]	Occupational Level[2] (median)	Mother's Education[1,3] (mean)	SES Index[4] (mean)
ALABAMA								
Home Start	41	14.6%	26.8%	35.9%	10.3%	15	9.9	5.1
Control	35	8.6	25.7	22.2	7.4	15	9.0	4.9
Head Start	29	31.0	24.1	50.0	25.0	10	9.6	4.9
Total Sample	105	17.1	25.7	36.1	13.8	15	9.5	5.0
ARKANSAS								
Home Start	40	15.0	12.5	19.5	5.6	7	9.5	4.4
Control		16.1	19.4	20.7	0.0	8	10.6	4.9
Head Start	37	5.4	43.2	75.7	33.3	25	11.3	6.3
Total Sample	108	12.0	25.0	38.8	13.3	9	10.4	5.2
KANSAS								
Home Start	45	55.6	4.4	17.9	12.8	1	10.4	5.0
Control	28	64.3	7.1	12.0	4.0	1	10.8	5.1
Total Sample	73	58.9	5.5	15.7	9.4	1	10.5	5.0
OHIO								
Home Start	48	83.3	2.1	4.4	2.2	1	10.3	4.5
Control	13	69.2	7.7	7.7	0.0	1	9.6	4.3
Total Sample	61	80.3	3.3	5.1	1.7	1	10.2	4.4
TEXAS								
Home Start	37	37.8	13.5	15.1	3.0	9	9.1	4.6
Control	15	26.7	13.3	13.3	0.0	7	10.0	5.0
Head Start	38	10.5	10.5	74.3	62.9	22	11.2	6.1
Total Sample	90	24.4	12.2	39.7	27.7	15	10.1	5.3
WEST VIRGINIA								
Home Start	40	30.0	2.5	7.5	5.0	7	9.0	4.5
Control	38	36.8	2.6	2.7	0.0	7	9.6	4.4
Head Start	38	13.2	34.2	61.1	25.0	16	10.8	5.7
Total Sample	116	26.7	12.9	23.0	9.7	9	9.8	4.8
TOTAL								
Home Start	251	41.0	10.0	16.3	6.4	7	9.7	4.7
Control	160	33.1	13.1	13.1	2.1	7	9.9	4.7
Head Start	142	14.1	28.2	65.9	37.1	17	10.7	5.8
Total Sample	553	31.8	15.6	28.2	13.1	9	10.1	5.0

[1]The N for items requiring the mother's response is somewhat less than the total number of respondents since, overall, 6.2% of the interviews were completed by someone other than the mother; the total number of mothers responding was 511.

[2]Occupational level of the highest status wage earner in family. Levels are based upon Duncan's socio-economic index (Reiss, Duncan, Hatt and North, 1961). Possible range of levels is 1 to 96. Examples: level 1 unemployed dyers and fruit packers; level 7, machinists, engravers, and construction workers; level 15, truck drivers, roofers and dry cleaners; level 25, auto mechanics, stonecutters and plasterers.

[3]Number of years completed.

[4]SES is based on mother's education and highest occupational level in household.

Table III-14

TESTING TIMES

Measures	N	Mean (minutes)	SD	Maximum
Child Measures				
PSI				
Home Start	243	13.8	6.32	40.0
Control	156	13.5	5.80	30.0
Head Start	142	12.0	4.37	30.0
Total Sample	541	13.3	5.75	40.0
DDST				
Home Start	249	21.7	9.30	88.0
Control	162	20.0	6.00	47.0
Head Start	140	16.9	5.12	36.0
Total Sample	551	20.0	7.75	88.0
HEIGHT AND WEIGHT				
Home Start	247	3.7	2.39	25.0
Control	153	3.3	2.07	20.0
Head Start	137	2.6	1.32	10.0
Total Sample	537	3.3	2.11	25.0
TOTAL CHILD TIME				
Home Start		40.2		
Control		36.8		
Head Start		30.5		
Total Sample		36.6		
Parent Questionnaires				
SBI				
Home Start	247	6.7	3.35	25.0
Control	160	6.4	3.11	15.0
Head Start	139	5.1	2.70	25.0
Total Sample	546	6.2	3.19	25.0
HES				
Home Start	246	8.1	4.28	40.0
Control	161	7.5	2.71	19.0
Head Start	140	6.3	2.13	15.0
Total Sample	547	7.5	3.48	40.0
PARENT INTERVIEW				
Home Start	246	14.6	5.39	40.0
Control	156	11.6	3.54	23.0
Head Start	139	14.5	6.24	45.0
Total Sample	541	13.7	5.34	45.0

(Continued)

Table III-14

TESTING TIMES
(Continued)

Measures	N	Mean (minutes)	SD	Maximum
Parent Questionnaires (continued)				
FOOD INTAKE				
Home Start	246	8.3	3.64	20.0
Control	1[illegible]	7.7	3.06	20.0
Head Start	13	6.5	3.11	20.0
Total Sample	543	7.7	3.42	20.0
TOTAL PARENT TIME				
Home Start		37.7		
Control		32.2		
Head Start		32.4		
Total Sample		35.1		
Parent-Child Interaction				
8-BLOCK				
Home Start	246	21.8	7.13	47.0
Control	159	21.0	7.03	40.0
Head Start	136	19.9	7.53	45.0
Total Sample	541	21.1	7.24	47.0
TOTAL BATTERY TIME				
Home Start		99.7		
Control		90.0		
Head Start		82.8		
Total Sample		92.8		

Table III-15

CONDITIONS OF TESTING SUMMARIZED OVER ALL MEASURES

	Group	Log 1	Logs 2 & 3	Mean
Percent of visits where mother was present	Home Start	92.0	96.1	94.0
	Control	91.3	93.9	92.4
	Head Start	71.5	69.2	71.0
	Total Sample	86.6	92.9	89.4
Percent of visits where Home Visitor or teacher were present	Home Start	63.0	51.6	57.2
	Control	52.5	47.3	50.2
	Head Start	12.3	10.3	11.9
	Total Sample	47.1	46.4	46.8
Mean number of people in the room	Home Start	5.2	5.1	5.1
	Control	4.8	5.1	4.9
	Head Start	4.3	3.4	4.1
	Total Sample	4.8	5.0	4.9
Percent of visits where house was rated noisy	Home Start	20.9	27.3	24.2
	Control	20.5	26.7	23.3
	Head Start	43.4	26.3	39.7
	Total Sample	26.4	27.1	26.7
Percent of visits where tester had difficulties	Home Start	27.6	27.6	27.6
	Control	21.8	22.3	22.0
	Head Start	26.3	12.8	23.3
	Total Sample	25.6	24.6	25.1
		Log 1	Logs 2 & 3	% of total
Frequency of testing done at:				
Center	Home Start	5	4	1.8
	Control	2	0	.7
	Head Start	126	29	88.6
	Total Sample	133	33	17.1
Home	Home Start	243	251	98.2
	Control	157	132	99.3
	Head Start	10	10	11.4
	Total Sample	410	393	82.9

(Continued)

Table III-15

CONDITIONS OF TESTING SUMMARIZED OVER ALL MEASURES
(Continued)

	Group	Log 1	Logs 2 & 3	% of total
Frequency of testing in each location:				
Living Room	Home Start	181	138	62.9
	Control	118	65	62.5
	Head Start	4	8	6.8
	Total Sample	303	211	52.7
Dining Room	Home Start	6	7	2.6
	Control	4	3	2.4
	Head Start	9	4	7.4
	Total Sample	19	14	3.4
Kitchen	Home Start	33	41	14.6
	Control	16	14	10.2
	Head Start	4	1	2.8
	Total Sample	53	56	11.1
Living Room plus another room	Home Start	20	65	16.8
	Control	14	45	20.1
	Head Start	2	0	1.1
	Total Sample	36	110	15.0
Other[1]	Home Start	9	7	3.2
	Control	9	5	4.8
	Head Start	118	26	81.8
	Total Sample	136	38	17.8
Frequency of testing done on:				
Large Table	Home Start	49	48	19.2
	Control	20	12	11.0
	Head Start	14	6	11.7
	Total Sample	83	66	15.4
Child-sized Table	Home Start	14	14	5.5
	Control	4	7	3.8
	Head Start	55	15	40.9
	Total Sample	73	36	11.3

(Continued)

Table III-15

CONDITIONS OF TESTING SUMMARIZED OVER ALL MEASURES
(Continued)

	Group	Log 1	Logs 2 & 3	% of total
Frequency of testing done on: (continued)				
Floor	Home Start	59	29	17.4
	Control	44	21	18.9
	Head Start	7	4	6.4
	Total Sample	110	54	16.9
Couch	Home Start	21	8	5.7
	Control	9	1	3.4
	Head Start	0	3	1.8
	Total Sample	30	12	4.3
Large table and floor	Home Start	17	69	17.0
	Control	14	46	20.6
	Head Start	13	0	7.6
	Total Sample	44	115	16.4
Child-sized table and floor	Home Start	5	17	4.3
	Control	11	6	5.8
	Head Start	24	8	18.7
	Total Sample	40	31	7.3
Floor and chair	Home Start	13	9	4.3
	Control	15	5	6.9
	Head Start	1	0	1.0
	Total Sample	29	14	4.4
Floor and couch	Home Start	47	14	12.1
	Control	31	6	12.7
	Head Start	1	0	1.0
	Total Sample	79	20	10.2
Small table and other[2]	Home Start	5	17	4.3
	Control	0	10	3.4
	Head Start	10	3	7.6
	Total Sample	15	30	4.6

Table III-15

CONDITIONS OF TESTING SUMMARIZED OVER ALL MEASURES
(Continued)

	Group	Log 1	Logs 2 & 3	% of total
Frequency of testing done on: (continued)				
Large table and other[2]	Home Start	7	21	5.5
	Control	4	11	5.1
	Head Start	4	0	2.3
	Total Sample	15	32	4.9
Other[3]	Home Start	11	12	4.5
	Control	8	6	3.4
	Head Start	3	0	1.8
	Total Sample	22	18	4.1

[1]Examples of "other" include hallway and a combination of dining room and kitchen.

[2]Examples of "other" include chairs and couches.

[3]Examples of "other" include bed, chair, and floor and bed.

Table III-16

REASONS FOR MISSING DATA

	Number of Completed Instruments	Number of instruments with missing data	Interviewer's Comments				
			Child Refusal	Tester Error	Uncontrollable Circumstances	Language Difficulties	Unknown Reasons
Child Measures							
PSI							
Home Start	251	69	67	0	0	2	0
Control	162	43	40	1	2	0	0
Head Start	143	21	21	0	0	0	0
Total Sample	556	133	128	1	2	2	0
DDST							
Home Start	251	30	27	2	1		0
Control	162	23	23	0	0		0
Head Start	141	16	14	0	0		2
Total Sample	554	69	64	2	1		2
HEIGHT AND WEIGHT							
Home Start	251	8	8	0			0
Control	160	5	2	1			2
Head Start	142	1	0	0			1
Total Sample	553	14	10	1			3
POCL							
Home Start	251	2					2
Control	160	4					4
Head Start	141	2					2
Total Sample	552	8					8
Parent Questionnaires							
SBI							
Home Start	251	2	0	2	0	0	0
Control	162	4	0	4	0	0	0
Head Start	142	4	0	3	0	0	1
Total Sample	555	10	0	9	0	0	1

(Continued)

Table III-16

REASONS FOR MISSING DATA
(Continued)

	Number of Completed Instruments	Number of instruments with missing data	Interviewer's Comments				
			Child Refusal	Tester Error	Uncontrollable Circumstances	Language Difficulties	Unknown Reasons
Parent Questionnaires (Continued)							
HES							
Home Start	251	0		0	0		0
Control	162	2		2	0		0
Head Start	142	8		5	2		1
Total Sample	555	10		7	2		1
PARENT INTERVIEW							
Home Start	251	29		29			0
Control	160	2		0			2
Head Start	142	4		3			1
Total Sample	553	35		32			3
FOOD INTAKE							
Home Start	251	2	1		1		0
Control	162	0	0		0		0
Head Start	142	1	0		0		1
Total Sample	555	3	1		1		1
Parent-Child Interaction							
8-BLOCK							
Home Start	251	26	22	2	2		0
Control	160	28	19	2	5		2
Head Start	142	24	17	4	2		1
Total Sample	553	68	58	8	9		3
TOTAL							
Home Start	2259	168	125	35	4	2	2
Control	1450	111	84	10	7	0	10
Head Start	1277	81	52	15	4	0	10
Total Sample	4986	348	261	60	15	2	22

Table III-17

PARENTAL REACTIONS TO TESTING

	N	Liked %	Didn't Like %	What parents didn't like: Nothing Specific	Too Difficult	Too Much Time	Other*
Child Measures							
DDST							
Home Start	187	97.9	2.1	1	3		
Control	132	97.7	2.3	1	2		
Head Start	60	95.0	5.0	0	3		
Total Sample	379	97.4	2.6	2	8		
PSI							
Home Start	185	96.8	3.2	1	6		
Control	128	96.9	3.1	0	5		
Head Start	58	98.3	1.7	0	1		
Total Sample	371	97.0	3.0	1	12		
HEIGHT AND WEIGHT							
Home Start	175	99.4	.6	1			
Control	125	100.0	.0	0			
Head Start	56	100.0	.0	0			
Total Sample	356	99.7	.3	1			
8-BLOCK							
Home Start	183	94.5	5.5	3	7	1	2
Control	133	97.7	2.3	1	1	1	1
Head Start	95	94.7	5.3	0	2	0	1
Total Sample	411	95.6	4.4	4	10	2	4
Parent Questionnaires							
SBI							
Home Start	150	98.7	1.3	1			1
Control	115	100.0	0.0	0			0
Head Start	94	98.9	1.1	0			1
Total Sample	359	99.2	0.8	1			2
FOOD INTAKE							
Home Start	149	99.3	0.7	0	1		
Control	115	100.0	0.0	0	0		
Head Start	94	96.8	3.2	2	0		
Total Sample	358	98.8	1.1	2	1		
HES							
Home Start	152	99.3	0.7				1
Control	114	100.0	0.0				0
Head Start	94	100.0	0.0				0
Total Sample	360	99.7	0.3				1
PARENT INTERVIEW							
Home Start	152	96.7	3.3	3			3
Control	116	99.1	0.9	0			1
Head Start	96	95.8	4.2	0			4
Total Sample	364	97.3	2.7	3			8

*Other includes responses such as "too personal" and "too limited".

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Table IV-1

PRESCHOOL INVENTORY ITEMS

1	What is your first name?
2	Show me your shoulder.
3	What is this (knee)?
4	What is this (elbow)?
5	Put the yellow car on the little box.
6	Put the blue car under the green box.
7	Put 2 cars behind the box in the middle.
8	If you were sick, who would you go to?
9	When do we eat breakfast?
10	If you wanted to find a lion where would you look?
11	What does a dentist do?
12	Which way does a phonograph record go?
13	Which way does a ferris wheel go?
14	How many hands do you have?
15	How many wheels does a bicycle have?
16	How many wheels does a car have?
17	How many toes do you have?
18	Which is slower, a car or a bicycle?
19	Point to the middle one.
20	Point to the first one.
21	Point to the last one.
22	Point to the second one.
23	Which of these 2 groups has less checkers in it?
24	Which of these 2 groups has more checkers in it?
25	Point to the one that is most like a tent.
26	Make one like this (square).
27	Make one like this (triangle).
28	Which one is the color of night?
29	Color the square.
30	Color the square purple.
31	Color the triangle.
32	Color the triangle orange.

Table IV-2

PRESCHOOL INVENTORY
PERCENT RESPONSES IN EACH SCORING CATEGORY

Item[2]	N	Response Category[1] C	W	DK	R	NR	V
1	425	82.6	7.4	4.9	2.6	2.5	93.4†
2	425	53.9	23.9	7.8	4.9	9.4	30.5
3	425	54.9	26.8	12.9	.5	6.1	90.4†
4	425	39.1	38.6	13.6	1.2	7.5	81.6
5	425	26.3	65.5	2.6	1.4	4.0	38.5
6	425	12.8	80.0	2.1	2.1	1.9	35.2
7	423	5.0	88.4	1.9	2.6	2.1	33.9††
8	425	38.4	41.2	8.9	3.5	8.0	89.7†
9	426	23.7	48.9	15.5	3.3	8.7	89.0
10	422	5.0	63.7	12.1	10.7	3.5	86.6††
11	423	26.7	24.9	22.5	19.0	8.0	87.8†
12	426	21.8	50.0	14.8	8.0	5.4	87.3
13	426	14.3	56.9	15.0	7.7	5.0	85.4
14	426	43.9	47.4	5.4	.9	2.3	94.8
15	426	43.2	43.4	4.2	2.1	1.4	96.5
16	426	17.6	72.8	4.5	3.8	1.4	96.7
17	426	2.3	86.2	5.2	3.1	2.8	93.2
18	424	50.2	40.1	4.2	2.1	3.3	94.9
19	425	30.1	65.9	.9	.2	2.1	32.9
20	426	36.9	60.6	.7	.9	.9	22.5
21	426	31.9	55.5	1.2	.9	.5	29.2
22	426	30.5	66.2	.7	1.9	.7	20.7
23	426	26.8	67.6	2.3	1.2	2.1	49.8
24	426	7.9	86.9	3.3	.9	1.9	45.5
25	426	64.6	31.5	1.6	1.4	.9	42.5
26	425	15.1	80.7	.9	2.1	1.2	31.1
27	425	8.9	89.5	.7	2.4	.5	32.2
28	426	48.9	47.3	1.6	.7	1.2	47.1
29	425	25.9	59.5	1.2	1.4	1.9	38.8
30	423	35.2	61.2	.7	.9	1.9	26.5
31	424	32.3	64.4	.5	1.4	1.4	31.6
32	423	45.4	51.3	.2	1.2	1.7	21.0

[1]Code: C = Correct, W = Wrong, DK = Don't Know, R = Refusal, NR = No Response, V = Verbal

[2]See key to items.

†Based on N of 426

††Based on N of 425

Table IV-5

PRESCHOOL INVENTORY: PERCENT PASSING BY GROUP

Item[1]	Group			Total Sample
	Home Start	Control	Head Start	
	N=178-179	N=123-124	N=120-123	N=421-426
1	80.4	83.9	84.4	82.6
2	52.0	55.3	55.3	53.9
3	49.4	54.8	62.6	54.8
4	35.4	36.3	47.2	39.1
5	21.2	25.8	34.1	26.3
6	16.2	10.5	13.8	13.8
7	6.2	4.8	3.3	5.0
8	35.2	29.8	51.6	38.4
9	26.3	21.0	22.8	23.7
10	4.5	5.6	5.0	5.0
11	23.5	22.8	35.5	26.7
12	19.0	24.2	23.6	21.8
13	13.4	16.1	15.4	14.8
14	41.3	44.4	47.2	43.9
15	40.2	49.2	43.9	43.9
16	19.0	16.1	17.1	17.6
17	3.9	.8	3.3	2.8
18	50.8	52.4	47.2	50.2
19	34.6	26.8	26.8	30.1
20	40.8	41.9	26.0	36.9
21	36.3	27.4	30.1	31.9
22	24.0	29.8	40.7	30.5
23	24.6	22.6	34.1	26.8
24	6.7	6.5	8.1	7.0
25	67.0	59.7	65.9	64.6
26	13.5	16.1	16.3	15.1
27	6.7	5.6	12.2	8.0
28	46.6	54.0	47.2	48.9
29	22.3	30.9	26.0	25.9
30	32.6	34.4	39.8	35.2
31	27.9	32.0	39.0	32.3
32	45.5	41.0	49.6	45.4

[1]See key to items.

Table IV-6

PRESCHOOL INVENTORY: PERCENT PASSING BY AGE

Item[2]	Age[1] 3† N=50	3-1/2 N=111-114	4 N=124-125	4-1/2 N=96-97	5 N=32-33	5-1/2†† N=7	All Ages N=423-426
1	78.0	80.7	87.9	81.4	78.8	85.7	82.6
2	30.0	52.2	55.2	60.8	60.6	100.0	53.9
3	46.0	43.0	55.2	62.9	75.0	100.0	54.8
4	32.0	29.8	36.0	47.9	57.6	85.7	39.1
5	14.0	16.7	27.2	39.2	30.3	57.1	26.3
6	6.0	6.1	12.8	23.7	24.2	28.6	13.8
7	0.0	4.4	3.3	9.3	6.1	14.3	5.0
8	26.5	36.0	39.2	40.2	48.5	71.4	38.4
9	8.0	17.5	20.8	30.9	48.5	71.4	23.7
10	6.0	2.7	6.5	6.2	3.0	0.0	5.0
11	18.4	22.1	21.0	37.1	39.4	57.1	26.7
12	12.0	15.8	20.8	32.0	30.3	28.6	21.8
13	6.0	6.1	16.0	23.7	24.2	28.6	14.8
14	34.0	28.9	44.8	54.6	69.7	71.4	43.9
15	20.0	31.6	44.8	62.9	60.6	57.1	43.9
16	4.0	10.5	21.6	22.7	24.2	57.1	17.6
17	4.0	2.6	0.0	3.1	6.1	28.6	2.8
18	50.0	46.9	52.8	52.1	39.4	85.7	50.2
19	16.0	16.8	29.6	39.2	57.6	100.0	30.1
20	40.0	36.0	32.8	38.1	45.5	42.9	36.9
21	40.0	24.6	28.0	35.1	39.4	85.7	31.9
22	28.0	28.1	28.8	27.8	51.5	57.1	30.5
23	20.0	22.8	24.8	36.1	33.3	14.3	26.8
24	2.0	6.1	9.6	8.2	3.0	14.3	7.0
25	52.0	59.6	62.4	75.3	78.8	57.1	64.6
26	4.0	5.3	14.4	21.6	39.4	57.1	15.1
27	0.0	6.2	3.2	14.4	18.2	42.9	8.0
28	34.0	42.5	54.4	51.5	57.6	85.7	48.9
29	24.0	24.6	24.8	27.1	24.2	71.4	25.9
30	30.0	31.0	33.9	39.6	45.5	57.1	35.2
31	26.0	25.7	31.2	30.2	60.6	100.0	32.3
32	32.0	38.4	44.8	51.0	69.7	71.4	45.4

[1]Intervals include two months before and three months after indicated age (e.g., the three-year-old category includes children from 34 months to 39 months, etc.). The N for each item varies because of missing data.

[2]See key to items.

†This group includes children from 31 months to 39 months.

††This group includes children from 64 months to 70 months.

Table IV-7

PRESCHOOL INVENTORY
INTERITEM AND ITEM-TOTAL CORRELATIONS
(Item Ns range from 423 to 426)

Item[1]	TOTAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1	09																															
2	32	13																														
3	41	12	28																													
4	39	06	15	35																												
5	46	03	15	23	26																											
6	39	05	07	20	26	39																										
7	23	01	03	07	10	08	15																									
8	29	09	13	21	15	19	13	04																								
9	36	06	11	16	12	11	11	13	26																							
10	15	04	03	09	19	13	06	04	03	00																						
11	-37	00	16	16	22	29	13	-01	17	16	11																					
12	32	01	07	14	07	21	15	08	12	17	09	22																				
13	36	08	16	19	18	23	25	05	09	15	05	24	21																			
14	36	03	14	18	19	24	22	12	09	15	03	19	13	15																		
15	27	-04	13	15	12	20	11	12	05	15	01	15	12	15	38																	
16	26	03	12	17	09	17	10	09	10	20	00	08	17	06	07	03																
17	20	04	01	09	09	12	09	02	09	10	02	12	15	04	00	-03	14															
18	12	-05	11	06	07	00	04	01	-02	04	01	02	08	07	07	05	00	05														
19	52	00	23	26	23	24	19	22	12	17	08	24	21	15	27	20	22	16	09													
20	-02	-09	-04	-06	-01	-14	04	05	-06	-01	-03	00	02	-01	01	03	00	10	07	18												
21	27	07	16	18	09	18	10	09	05	05	07	11	11	11	11	15	11	12	00	41	-12											
22	04	06	-03	09	03	05	-02	03	05	12	08	04	-01	05	01	-03	-05	-02	-07	02	-26	04										
23	10	-03	00	09	03	08	04	06	00	02	00	-01	04	04	08	02	05	00	08	05	03	06	00									
24	09	00	01	-02	07	06	02	06	02	01	11	06	07	06	05	05	01	-04	01	13	03	10	-04	08								
25	25	08	12	05	11	15	06	12	06	17	00	09	08	12	11	15	08	03	09	14	00	-01	08	04	03							
26	43	03	16	17	16	31	21	17	16	24	00	13	20	17	19	10	20	12	03	28	00	16	09	07	01	13						
27	32	02	09	11	17	11	13	05	12	18	-02	14	13	14	07	00	25	26	09	20	00	11	08	05	08	05	31					
28	23	07	08	04	13	13	15	01	-02	12	07	09	14	17	11	05	09	08	08	16	02	09	04	08	04	13	13	10				
29	19	07	06	11	13	08	12	13	11	03	08	02	00	10	00	-03	13	00	06	11	02	02	05	00	-05	04	15	12	-02			
30	32	-02	13	11	10	22	26	12	13	15	10	17	14	07	14	12	03	11	07	19	03	08	03	03	-01	08	13	09	11	08		
31	25	-05	14	09	12	07	08	07	20	15	02	20	04	15	04	02	06	03	05	11	09	09	-04	01	-01	05	20	12	02	28	07	
32	34	00	15	22	13	29	24	07	18	15	07	20	12	13	17	11	06	13	-02	21	-01	07	03	00	-01	09	17	13	-01	11	33	13

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Table IV-8

PRESCHOOL INVENTORY
ROTATED FACTOR LOADINGS[1]
TWELVE FACTORS EXTRACTED

(Item Ns range from 423 to 426)

Item[2]	FI	FII	FIII	FIV	FV	FVI	FVII	FVIII	FIX	FX	FXI	FXIII	h^2
1	-26	-00	-02	06	-07	18	31	02	-08	58	-04	40	73
2	22	05	09	-00	06	00	07	60	16	63	-10	-12	54
3	16	-16	16	-23	10	04	-08	03	10	60	1	-13	56
4	07	-10	05	-20	23	30	-04	23	01	33	0.	-22	44
5	24	-19	16	-43	03	44	-11	03	06	09	15	11	58
6	09	09	08	-51	17	48	-02	-06	-15	07	18	14	65
7	23	05	15	-19	34	-15	39	20	-24	-08	12	22	59
8	-06	-04	10	-24	10	-02	11	-00	61	22	12	17	58
9	11	-09	29	-10	-00	02	43	-04	42	03	02	00	55
10	-13	-16	-16	-20	09	12	-00	67	-03	06	-08	-12	62
11	21	-03	09	-15	-01	37	-10	21	47	01	-23	-12	57
12	11	08	31	-13	-18	34	10	14	19	-06	-02	00	36
13	14	-01	05	04	16	65	06	01	15	10	-00	01	53
14	02	-01	02	-18	-02	18	10	-02	01	10	10	-03	50
15	73	02	-05	-07	-06	08	13	-00	06	05	-03	-02	59
16	02	04	57	02	07	04	03	-07	02	14	09	06	39
17	-23	14	54	-29	-21	04	-01	04	00	05	-20	-13	58
18	04	12	04	01	03	03	14	-00	-05	13	13	-71	60
19	41	15	46	-16	11	00	07	36	-05	20	-09	-02	65
20	-00	74	04	-04	10	-03	12	06	-04	-14	-06	-14	64
21	34	-10	42	04	-00	-03	-22	35	-11	26	-07	18	62
22	-03	-76	06	-02	04	-04	23	11	-00	-08	-08	-02	67
23	02	00	09	-01	-05	00	00	05	-01	02	81	-16	70
24	06	15	02	17	-10	07	04	01	19	-08	34	16	65
25	13	-04	-00	-03	01	14	65	-00	03	06	-01	-11	49
26	19	-12	51	-11	27	21	13	-10	06	-02	10	08	51
27	-10	-03	04	-03	09	13	02	-00	13	-02	06	-16	52
28	-00	00	19	05	-12	51	29	12	-22	02	-03	-17	50
29	-12	-03	08	-10	76	03	04	01	-04	10	-02	-01	63
30	08	03	04	-69	-02	-01	17	11	03	-01	-04	-11	55
31	05	13	10	03	01	09	-02	02	43	-01	-07	-03	63
32	11	-01	07	-06	05	00	-00	-01	22	10	-05	05	54
PCT. V	5.6	4.4	6.6	5.9	4.5	5.3	4.0	4.1	4.2	4.8	3.4	3.5	

Twelve factors accounted for 57.0% of the total variance.

[1]Principal components factor analysis followed by a varimax rotation.

[2]See key to items.

Table IV-9

PRESCHOOL INVENTORY
ITEMS LOADING HIGHEST ON EACH FACTOR

(Item Ns range from 423 to 426)

		Loading
FACTOR I	(5.6%)	
15.	How many wheels does a bicycle have?----------	.73
14.	How many hands do you have?----------	.62
19.	Point to the middle one.----------	.41*
21.	Point to the last one.----------	.34*
FACTOR II	(4.4%)	
22.	Point to the second one.----------	-.76
20.	Point to the first one.----------	.74
FACTOR III	(6.6%)	
27.	Make one like this (triangle).----------	.64
16.	How many wheels does a car have?----------	.57
17.	How many toes do you have?----------	.54
26.	Make one like this (square).----------	.51
19.	Point to the middle one.----------	.46*
21.	Point to the last one.----------	.42*
12.	Which way does a phonograph record go?--------	.31*
FACTOR IV	(5.9%)	
30.	Color the square purple.----------	.69
32.	Color the triangle orange.----------	.66
6.	Put the blue car under the green box.---------	.51*
5.	Put the yellow car on the little box.---------	.43*
FACTOR V	(4.5%)	
29.	Color the square.----------	.76
31.	Color the triangle.----------	.61
7.	Put two cars behind the box in the middle.----	.34*
FACTOR VI	(5.3%)	
13.	Which way does a ferris wheel go?----------	.65
28.	Which one is the color of night?----------	.51
6.	Put the blue car under the green box.---------	.48*
5.	Put the yellow car on the little box.---------	.44*
11.	What does a dentist do?----------	.37*
12.	Which way does a phonograph record go?--------	.34*
4.	What is this (elbow)?----------	.30*

(Continued)

Table IV-9

PRESCHOOL INVENTORY
ITEMS LOADING HIGHEST ON EACH FACTOR
(Continued)

		Loading
FACTOR VII	(4.0%)	
25.	Point to the one that is most like a tent.----	.65
9.	When do we eat breakfast?----------	.49*
7.	Put two cars behind the box in the middle.----	.39*
1.	What is your first name?----------	.31*
FACTOR VIII	(4.1%)	
10.	If you wanted to find a lion where would you look?----------	.67
24.	Which of these two groups has more checkers in it?----------	.61*
19.	Point to the middle one.----------	.36*
21.	Point to the last one.----------	.35*
FACTOR IX	(4.2%)	
8.	If you were sick who would you go to?---------	.61
11.	What does a dentist do?----------	.47*
9.	When do we eat breakfast?----------	42*
FACTOR X	(4.8%)	
2.	Show me your shoulder.----------	.63
3.	What is this (knee)?----------	.60
1.	What is your first name?----------	.58*
4.	What is this (elbow)?----------	.33*
FACTOR XI	(3.4%)	
23.	Which of these two groups has less checkers in it?----------	.81
24.	Which of these two groups has more checkers in it?----------	.34*
FACTOR XII	(3.5%)	
18.	Which is slower, a car or a bicycle?----------	.71
1.	What is your first name?----------	.40*

Twelve factors accounted for 57.0% of the total variance

*Item also shows substantial loading on another factor.

Table IV-10.5

Comparison of Home Start Data and Head Start Planned Variation Data
PSI Means by Age

Age (months)	Huron Institute* Head Start Sample- no previous preschool experience			Home Start			Control Group			Head Start			Total Sample		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
36-38	4	7.8	4.8	14	6.3	2.6	7	5.4	2.3	4	9.0	4.0	25	6.6	2.9
39-41	4	6.8	1.5	26	6.7	3.4	8	7.3	2.5	19	9.3	3.9	53	7.7	3.6
42-44	16	7.6	3.8	25	8.3	3.1	15	9.9	3.0	17	7.5	3.1	57	8.5	3.2
45-47	63	10.2	4.6	18	10.0	5.8	15	9.7	3.2	[illegible]	9.1	4.0	60	9.6	4.4
48-50	207	10.6	4.5	23	9.2	3.8	28	10.5	3.6	18	10.4	5.8	69	10.1	4.3
51-53	374	11.2	4.9	20	10.7	4.0	12	11.8	4.5	13	14.8	4.9	45	12.1	4.7
54-56	397	12.5	5.0	26	11.3	5.2	20	10.1	4.1	11	13.6	5.5	57	11.3	5.0
57-59	368	13.4	5.1	17	12.9	5.1	7	9.6	2.9	11	13.1	5.0	35	12.3	4.8
60-62	257	15.9	5.6	1	17.0	0	3	13.7	2.3	2	19.0	9.9	6	16.0	5.4
63-65	162	17.0	5.4	2	18.5	4.9	0	0	0	0	0	0	2	18.5	4.9
66-68	165	17.4	5.6	2	17.0	7.1	1	18.0	0	1	21.0	0	4	18.3	4.5
69-71	119	19.9	5.5	1	18.0	0	1	26.0	0	0	0	0	2	22.0	5.7

*Huron Institute data from Fall, 1971, Head Start Planned Variation Sample, Published August, 1973 (Walker, Bane & Bryk, 1973).

Table IV-11

PRESCHOOL INVENTORY
PERCENT RESPONSES IN EACH SCORING CATEGORY

SIBLINGS

Item[2]	N	Response Category[1] C	W	DK	R	NR	V
1	51	80.4	9.8	3.9	2.0	3.9	94.1
2	51	58.8	21.6	9.8	2.0	7.8	35.3
	51	58.8	21.6	9.8	2.0	7.8	90.2
	51	54.9	27.5	9.8	0.0	7.8	94.1
	51	29.4	64.7	2.0	0.0	3.9	35.3
6	51	17.6	72.5	5.9	2.0	2.0	37.3
7	51	5.9	82.4	5.9	2.0	3.9	27.5
8	51	31.4	43.1	9.8	3.9	11.8	33.3
9	51	35.3	31.4	15.7	3.9	13.7	80.4
10	51	11.8	54.9	13.7	9.8	9.8	17.6
11	51	35.3	25.5	23.5	9.8	5.9	88.2
12	51	31.4	39.2	19.6	7.8	2.0	82.4
13	51	9.8	58.8	23.5	7.8	0.0	86.3
14	51	51.0	45.1	0.0	2.0	2.0	98.0
15	51	52.9	37.3	7.8	0.0	2.0	98.0
16	51	21.6	68.6	3.9	2.0	3.9	96.1
17	51	7.8	78.4	7.8	2.0	3.9	90.2
18	51	51.0	39.2	3.9	2.0	3.9	98.0
19	50	40.0	56.0	2.0	0.0	2.0	17.6
20	51	37.3	58.8	2.0	0.0	2.0	21.6
21	50	42.0	52.0	2.0	2.0	2.0	19.6
22	50	32.0	62.0	2.0	2.0	2.0	20.0
23	51	19.6	78.4	2.0	0.0	0.0	39.2
24	51	3.9	92.2	2.0	0.0	2.0	35.3
25	50	70.0	26.0	2.0	0.0	2.0	34.0
26	51	35.3	60.8	2.0	2.0	0.0	21.6
27	51	19.6	74.5	3.9	2.0	0.0	31.4
28	51	60.8	31.4	0.0	0.0	7.8	37.3
29	50	22.0	76.0	0.0	0.0	2.0	34.0
30	50	48.0	50.0	0.0	0.0	2.0	20.0
31	50	28.0	72.0	0.0	0.0	0.0	38.0
32	50	50.0	50.0	0.0	0.0	0.0	30.0

[1]Code: C = Correct, W = Wrong, DK = Don't Know, R = Refusal, NR = No Response, V = Verbal

[2]See key to items.

Table IV-12

PRESCHOOL INVENTORY: PERCENT PASSING BY GROUP

SIBLINGS

Item[1]	Group: Home Start N=23-33	Group: Control N=18	Total Sample N=50-51
1	78.8	83.3	80.4
2	51.5	72.2	58.8
3	57.6	61.1	58.8
4	54.5	55.6	54.9
5	30.3	27.8	29.4
6	18.2	16.7	17.6
7	3.0	11.1	5.9
8	30.3	33.3	31.4
9	24.2	55.6	35.3
10	12.1	11.1	11.8
11	24.2	55.6	35.3
12	30.3	33.3	31.4
13	9.1	11.1	9.8
14	45.5	61.1	51.0
15	51.5	55.6	52.9
16	18.2	27.8	21.6
17	9.1	5.6	7.8
18	45.5	61.1	51.0
19	37.5	44.4	40.0
20	36.4	38.9	37.3
21	37.5	50.0	42.0
22	40.6	16.7	32.0
23	15.2	27.8	19.6
24	3.0	5.6	3.9
25	71.9	66.7	70.0
26	30.3	44.4	35.3
27	15.2	27.8	19.6
28	63.6	55.6	60.8
29	31.3	5.6	22.0
30	46.9	50.0	48.0
31	28.1	27.8	28.0
32	46.9	55.6	50.0

[1]See key to items.

Table IV-14

KEY TO
DENVER DEVELOPMENTAL SCREENING TEST

Test Booklet Item Numbers	Data Analysis Item Numbers	
Fine Motor Items		
1	1	Builds tower of 8 blocks
2	2	Imitates bridge
3	3	Picks longer line
4	4	Draws vertical line
5	5	Copies circle
6	6	Copies cross
7 (3)	-	Draws girl or boy - 3 parts
7 (6)	-	Draws girl or boy - 6 parts
-	7*	Draw a girl or boy in which 1 = failure 2 = pass on 7 (3), but not 7 (6) 3 = pass on 7 (6)
Language Items		
8	8	Uses plural
9	9	Comprehends hungry
9	10	Comprehends cold
9	11	Comprehends tired
10	12	Comprehends prepositions (on)
10	13	Comprehends prepositions (under)
10	14	Comprehends prepositions (behind)
10	15	Comprehends prepositions (in front)
11	16	Recognizes colors (red)
11	17	Recognizes colors (green)
11	18	Recognizes colors (yellow)
11	19	Recognizes colors (blue)
12	20	Opposite analogies (fire)
12	21	Opposite analogies (horse)
12	22	Opposite analogies (mother)
13	23	Composition of (door)
13	24	Composition of (spoon)
13	25	Composition of (shoe)
Gross Motor Items		
14-1	--	Balances on one foot 1 second
14-5	--	Balances on one foot 5 seconds
14-10	--	Balances on one foot 10 seconds

*Items 7 and 26 are continuous items employed to remove item dependencies Items 7 (3) and 7 (6) and Item 14-1, 5 and 10.

Table IV-14

(continued)

Test Booklet Item Numbers	Data Analysis Item Number	
14-1, 5 & 10	26*	Score for balance item in which 1 = failure 2 = pass for 1 second 3 = pass for 5 seconds 4 = pass for 10 seconds
15	27	Jumps in place
16	28	Broad jump
17	29	Hops on one foot
18	30	Heel-to-toe walk
19	31	Backward heel-to-toe
20	32	Catches bounced ball
Personal-Social Items		
21	33	Plays interactive games
22	34	Separates from mother easily
23	35	Puts on clothing
24	36	Buttons up
25	37	Dresses with supervision
26	38	Dresses without supervision

*Items 7 and 26 are continuous items employed to remove item dependencies Items 7 (3) and 7 (6) and Item 14-1 , 5 and 10.

Table IV-15

DENVER DEVELOPMENTAL SCREENING TEST
PERCENT RESPONSES IN EACH SCORING CATEGORY

Item[2]	N	Response Category[1] C	W	DK	R	NR	Sum of DK, R, NR
Fine Motor							
1	533	80.7	18.6				.8
2	533	69.4	28.1	1.3	.4	.8	
3	533	38.6	50.7				10.7
4	533	59.7	38.5	1.1	.0	.8	
5	533	36.6	60.8	1.7	.2	.8	
6	533	28.5	68.7	1.9	.2	.8	
7 (3)	533	20.5	76.5	2.3	.4	.4	
7 (6)	533	3.8	93.2	2.3	.4	.4	
Language							
8	516	37.4	55.2				7.4
9 Hungry	514	62.3	17.9	2.5	6.0	11.3	
9 Cold	515	48.0	33.0	2.7	6.4	9.9	
9 Tired	513	54.2	27.5	2.9	5.5	9.9	
10 On	516	95.7	3.3	.8	.0	.2	
10 Under	515	81.7	16.9	.6	.2	.6	
10 Behind	516	57.6	38.2	1.6	.6	2.1	
10 Front	515	56.5	39.2	1.6	.4	2.3	
11 Red	516	51.4	46.3	.8	.4	1.2	
11 Green	512	49.4	47.5	1.0	.4	1.8	
11 Yellow	515	49.3	46.8	1.4	.6	1.9	
11 Blue	514	49.0	47.7	1.4	.6	1.4	
12 Fire	515	33.8	35.7	7.8	5.4	17.3	
12 Horse	514	36.2	37.9	6.4	5.1	14.4	
12 Mother	513	15.2	57.7	4.7	5.3	17.2	
13 Door	515	15.5	58.4	7.0	7.8	11.3	
13 Spoon	511	10.8	61.8	9.0	8.8	9.6	
13 Shoe	510	8.4	61.8	8.8	10.6	10.4	
Gross Motor							
14 (1)	469	93.4	2.3				4.3
14 (5)	469	23.2	72.5				4.3
14 (10)	469	6.6	89.1				4.3
15	469	88.5	4.7	3.6	.2	3.0	
16	469	74.6	21.5	2.3	.0	1.5	
17	469	58.4	33.5	4.5	.9	2.8	
18	469	11.5	79.3				9.2
19	467	4.3	83.9				11.8
20	451	27.9	71.0				1.1
		YES (1)	NO (2)				
Personal-Social							
21	548	82.8	17.2				
22	546	85.2	14.8				
23	550	95.3	4.7				
24	547	58.3	41.7				
25 & 26	550	65.8	34.2				
27	547	66.4	33.6				

[1]Code: C = Correct, W = Wrong, DK = Don't Know, R = Refusal, NR = No Response

[2]See key to items.

Table IV-17

DENVER DEVELOPMENTAL SCREENING TEST: PERCENT PASSING BY AGE

Item[2]	Age[1] 3 N=59-81	3-1/2 N=118-143	4 N=132-153	4-1/2 N=101-116	5 N=32-35	5-1/2 N=9-11	All Ages N=467-537
Fine Motor							
1	66.7	79.3	84.2	82.8	94.1	90.0	80.7
2	54.3	67.1	67.1	78.4	85.3	100.0	69.4
3	24.7	27.9	40.8	50.0	64.7	50.0	38.6
4	43.2	60.0	63.2	62.1	73.5	60.0	59.7
5	19.8	23.6	36.8	50.0	82.4	40.0	36.6
6	11.1	17.9	27.0	42.2	70.6	40.0	28.5
7 (3)	8.6	10.7	17.8	36.2	41.2	40.0	20.5
7 (6)	0.0	1.4	2.6	6.9	14.7	10.0	3.8
Language							
8	33.3	27.1	45.0	35.4	61.8	33.3	37.4
9 Hungry	56.4	61.7	63.5	62.8	72.7	55.6	62.3
9 Cold	34.6	40.6	46.6	55.8	88.2	44.4	48.0
9 Tired	37.7	42.1	58.8	65.2	82.4	55.6	54.2
10 On	93.6	94.0	96.6	97.3	97.1	100.0	95.7
10 Under	62.8	78.9	89.2	84.1	97.1	77.8	81.7
10 Behind	33.3	51.1	61.1	67.3	88.2	66.7	57.6
10 Front	37.7	48.9	57.0	65.5	94.1	66.7	56.5
11 Red	43.6	40.6	52.3	61.9	70.6	55.6	51.4
11 Green	50.0	38.6	50.3	55.4	64.7	55.6	49.4
11 Yellow	39.7	42.4	57.0	46.9	67.6	66.7	49.3
11 Blue	42.9	45.5	47.0	51.3	73.5	66.7	49.0
12 Fire	20.5	21.8	38.9	39.3	61.8	66.7	33.8
12 Horse	20.8	33.8	38.3	38.4	58.8	55.6	36.2
12 Mother	7.7	11.3	14.9	18.9	26.5	55.6	15.2
13 Door	1.3	6.8	16.9	22.1	44.1	55.6	15.5
13 Spoon	1.3	2.3	11.5	14.3	38.2	55.6	10.8
13 Shoe	0.0	3.0	6.8	11.7	32.4	55.6	8.4
Gross Motor							
14 (1)	84.6	93.5	95.6	93.3	100.0	100.0	93.4
14 (5)	20.0	14.6	25.0	26.9	43.8	22.2	23.2
14 (10	9.2	2.4	6.6	4.8	21.9	11.1	6.6
15	87.7	86.2	89.0	89.4	93.8	88.9	88.5
16	63.1	76.4	79.4	74.0	75.0	66.7	74.6
17	40.0	54.5	59.6	64.4	84.4	66.7	58.4
18	4.6	6.5	11.0	18.3	25.0	11.1	11.5
19	1.5	1.6	1.5	7.8	18.8	11.1	4.3
20	27.1	12.7	25.0	42.6	50.0	33.3	27.9
Personal-Social							
21	80.2	76.7	87.3	87.2	77.1	90.9	82.8
22	84.3	84.8	81.8	88.0	94.3	81.8	85.1
23	94.0	93.2	96.8	95.7	97.1	100.0	95.3
24	43.2	48.6	60.9	70.9	74.3	81.8	58.4
25 & 26	56.6	60.3	70.1	67.5	82.9	81.8	65.9
27	62.7	59.0	66.2	74.1	74.3	81.8	66.3

[1]The N for each item varies because of missing data.

[2]See key to items.

Table IV-18

DENVER DEVELOPMENTAL SCREENING TEST
INTERITEM AND ITEM-SUBTOTAL CORRELATIONS

(Ns range from 451 to 550)

	FINE MOTOR								LANGUAGE																		GROSS MOTOR								PERSONAL-SOCIAL						
	1	2	3	4	5	6	7	Sub-total	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Sub-total	26	27	28	29	30	31	32	Sub-total	33	34	35	36	37	38
FINE MOTOR																																									
1																																									
2	25																																								
3	13	15																																							
4	13	18	12																																						
5	20	32	27	32																																					
6	22	22	32	34	52																																				
7	16	23	23	19	39	45																																			
Subtotal	29	36	33	34	57	60	46																																		
LANGUAGE																																									
8	14	00	26	06	14	15	17	23																																	
9	12	13	26	14	24	23	14	31	21																																
10	14	17	38	17	28	30	23	41	21	39																															
11	18	22	34	15	33	29	26	43	27	47	50																														
12	02	14	11	00	06	03	08	11	06	05	04	10																													
13	23	15	26	07	17	18	14	29	21	26	23	28	22																												
14	19	21	30	18	20	25	24	38	21	22	28	32	12	34																											
15	16	19	23	06	17	21	21	30	21	15	30	32	12	32	44																										
16	14	16	23	12	19	22	23	32	15	19	21	27	10	11	26	26																									
17	15	07	13	02	13	17	21	22	20	11	12	24	10	14	18	22	39																								
18	13	18	15	08	20	23	23	29	09	09	17	26	05	14	29	27	31	44																							
19	09	11	23	15	18	22	23	30	11	11	19	18	02	14	21	20	35	39	45																						
20	12	21	29	12	25	33	28	39	26	30	35	38	04	24	29	33	22	17	23	17																					
21	16	21	29	23	25	25	26	41	21	24	36	34	05	23	26	21	27	21	26	22	37																				
22	08	09	18	07	15	18	13	22	14	13	22	16	03	10	17	16	17	06	13	20	17	17																			
23	13	14	32	13	30	37	30	41	09	14	35	28	06	14	26	22	21	18	22	22	25	34	19																		
24	11	13	28	09	23	27	25	33	14	15	29	25	07	13	20	22	18	22	21	20	25	27	11	59																	
25	10	13	28	09	27	23	20	32	11	13	27	19	06	12	18	19	11	15	16	15	21	20	10	56	62																
Subtotal	27	29	49	23	41	45	42	61	34	40	53	58	15	39	50	49	45	42	45	42	50	50	29	48	45	38															
GROSS MOTOR																																									
26	16	09	21	19	24	25	18	32	19	25	23	24	04	12	17	16	13	18	17	10	20	16	12	19	19	16	34														
27	12	06	09	04	09	10	08	14	02	21	14	20	08	06	11	12	15	10	09	08	13	18	08	08	06	03	23	22													
28	22	16	07	08	09	12	16	22	07	19	10	11	-02	07	12	06	07	07	14	10	08	17	09	08	05	02	20	18	28												
29	12	19	28	22	25	26	22	38	11	17	20	25	-01	11	18	17	14	12	17	10	17	22	09	22	17	18	32	35	25	35											
30	10	13	16	17	31	37	32	38	09	13	26	18	00	08	15	10	10	09	08	13	24	12	05	22	16	12	26	27	06	10	22										
31	09	10	14	14	19	21	25	28	08	10	16	11	03	06	14	14	04	-01	00	02	09	14	-03	25	33	24	20	21	04	05	15	45									
32	15	17	17	21	21	28	26	35	04	11	09	16	00	02	14	09	11	06	12	12	06	08	-02	13	13	07	18	17	01	08	28	14	22								
Subtotal	25	25	31	28	37	39	36	52	18	31	31	34	03	14	27	23	20	19	24	18	25	29	12	30	27	21	45	41	30	31	51	33	31	26							
PERSONAL-SOCIAL																																									
33	17	11	09	06	09	09	09	17	05	16	10	13	01	04	06	00	07	02	09	-02	07	05	03	10	08	05	12	15	18	14	10	02	03	05	19						
34	03	03	02	01	-02	11	00	04	00	03	02	01	-02	-01	05	-05	-03	00	01	-02	-02	-01	00	02	03	04	00	04	08	03	04	04	05	01	07	03					
35	03	08	07	05	06	01	01	07	05	06	00	04	11	09	04	03	01	02	06	-01	03	04	00	00	03	-01	06	06	-03	01	04	-03	-01	04	03	14	-02				
36	11	16	13	11	19	19	12	24	09	16	12	21	02	10	12	13	14	13	12	17	15	11	07	02	09	00	23	13	11	08	03	13	08	16	18	03	10	12			
37	13	13	12	13	12	14	11	21	08	12	07	11	11	17	12	04	10	08	07	06	13	16	05	06	06	01	19	15	16	05	10	03	02	12	18	19	07	27	32		
38	24	18	16	14	10	16	11	26	04	16	16	20	05	22	15	14	11	06	14	14	16	15	12	07	17	13	26	06	13	12	11	08	08	09	16	16	08	03	21	27	
Subtotal	26	21	20	17	19	25	16	33	10	22	16	25	10	13	19	12	14	12	18	12	19	18	09	10	17	09	30	19	22	15	15	12	09	16	27	19	11	19	29	43	32

Table IV-19

DENVER DEVELOPMENTAL SCREENING TEST
ROTATED FACTOR LOADINGS[1]
FOUR FACTORS EXTRACTED
(Item Ns range from 467 to 550)

Item[2]	FI	FII	FIII	FIV	h^2
Fine Motor					
1	13	39	-13	-18	22
2	23	39	-17	-12	26
3	31	06	-19	-46	35
4	35	35	02	-09	25
5	52	27	-11	-22	41
6	57	29	-14	-23	48
7 (3 + 6)	50	21	-23	-16	37
Language					
8	03	-02	-12	-50	26
9	09	20	06	-63	45
10	31	-02	-09	-63	50
11	19	15	-18	-65	52
12	-06	08	-24	-11	08
13	-03	14	-23	-48	30
14	16	12	-32	-45	35
15	11	-01	-37	-45	36
16	08	13	-53	-25	37
17	04	07	-66	-12	46
18	11	16	-65	-12	48
19	14	08	-63	-10	43
20	22	05	-20	-55	39
21	24	10	-27	-45	34
22	05	-01	-19	-34	16
23	64	-14	-33	-18	58
24	62	-13	-37	-11	55
25	60	-21	-29	-10	50
Gross Motor					
26	32	28	05	-33	29
27	-02	31	04	-34	22
28	07	36	09	-26	21
29	37	30	07	-29	32
30	56	1[illegible]	12	-16	37
31	63	05	12	-03	41
32	40	36	-03	06	29
Personal-Social					
33	04	40	08	-11	17
34	09	19	06	06	05
35	-09	37	-14	06	17
36	04	48	-20	-07	28
37	-03	61	-17	-03	40
38	06	42	-20	-13	24
PCT. V	9.9	6.7	7.3	9.8	

Four factors accounted for 33.7% of the total variance.

[1]Principal components factor analysis followed by a varimax rotation.

[2]See key to items.

Table IV-20

DENVER DEVELOPMENTAL SCREENING TEST
ITEMS LOADING HIGHEST ON EACH FACTOR

(Item Ns range from 467-550)

		Loading
FACTOR I	(9.9%)	
23.	Composition of door	.64*
31.	Backward heel-to-toe	.63
24.	Composition of door	.62
25.	Composition of spoon	.60
6.	Copies cross	.57
30.	Heel-to-toe walk	.56
5.	Copies circle	.52
7.	Draw girl or boy (3 and 6)	.50
32.	Catches bounced ball	.40
29.	Hops on one foot	.37
4.	Draws vertical line	.35*
26.	Balances on one foot	.32
3.	Picks longer line	.31
FACTOR II	(6.7%)	
37.	Dresses with supervision	.61
36.	Buttons up	.48
38.	Dresses without supervision	.42
33.	Plays interactive games	.40
1.	Builds a tower of eight blocks	.39
2.	Imitates bridge	.39
32.	Catches bounced ball	.37
35.	Puts on clothing	.37
28.	Broad jump	.36
4.	Draws vertical line	.34*
27.	Jumps in place	.31
29.	Hops on one foot	.30

*Item also has substantial loading on another factor.

(Continued)

Table IV-20

DENVER DEVELOPMENTAL SCREENING TEST
ITEMS LOADING HIGHEST ON EACH FACTOR

(Item Ns range from 467 to 550)

(Continued)

		Loading
FACTOR III	(7.3%)	
17	Recognizes colors (Green----------	-.66
18.	Recognizes colors (Yellow)----------	-.65
19.	Recognizes colors (Blue)----------	-.63
16.	Recognizes colors (Red)----------	-.53
15.	Comprehends prepositions (in front)--	-.37*
23.	Composition of (Door)----------	-.33*
14.	Comprehends prepositions (behind)----	-.32*
21.	Opposite analogies (horse)----------	-.27*
FACTOR IV	(9.8%)	
11.	Comprehends tired----------	-.65
9.	Comprehends hungry----------	-.63
10.	Comprehends cold----------	-.62
20.	Opposite analogies (fire)----------	-.55
8.	Uses plural----------	-.50
13.	Comprehends prepositions (under)-----	-.48
15.	Comprehends prepositions (in front)--	-.45*
14.	Comprehends prepositions (behind)----	-.45*
21.	Opposite analogies (horse)----------	-.45*
22.	Opposite analogies (mother)----------	-.34

Four factors accounted for 33.7% of the total variance

*Item also has substantial loading on another factor.

Table IV-22

DDST SCALE MEANS BY GROUP

Treatment Group	FINE MOTOR				LANGUAGE				GROSS MOTOR				PERSONAL-SOCIAL			
	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
Home Start	238	10.3	2.1	.14	229	26.0	4.3	.28	210	10.8	1.8	.12	248	10.4	1.3	.08
Control	157	10.3	1.9	.15	154	25.7	4.0	.32	136	10.7	1.6	.14	162	10.5	1.3	.11
Head Start	138	10.6	1.8	.15	133	26.5	4.2	.36	123	11.0	1.8	.16	140	10.6	1.4	.12
Total Sample	533	10.3	2.0	.09	516	26.0	4.2	.18	469	10.8	1.7	.08	550	10.5	1.35	.06
Analysis of Covariance	F = 2.28 df = 2, 529 n.s.				F = 1.96 df = 2, 512 n.s.				F = 1.59 df = 2, 465 n.s.				F = .95 df = 2, 547 n.s.			

Table IV-23

FOOD INTAKE QUESTIONNAIRE
MEAN NUMBER OF SERVINGS FOR EACH FOOD GROUP
AND PROPORTIONS OF DAILY TOTAL - FOOD SCORES AND NUTRITION SCORES
Spring 1973 and Fall 1973 Comparisons

	Spring (N=177) Number of Servings		Fall (N=553) Number of Servings	
Food Group	Mean	SD	Mean	SD
Food Scores				
Milk	1.79	1.47	1.50	1.25
Meat	3.53	2.65	2.17	1.37
Eggs	.60	.85	.59	2.24
Vitamin-A vegetables	.22	.74	.28	.80
Citrus fruits	1.05	2.03	.93	1.69
Other fruits and vegetables	2.87	3.43	2.47	2.37
Bread and cereal	4.95	2.70	3.95	2.26
FOOD TOTAL	15.01	6.93	11.90	5.20
Nutrition Scores				
Milk	1.44	.90	1.29	.84
Meat	1.31	.25	1.22	.37
Eggs	.25	.29	.23	.29
Vitamin-A vegetables	.08	.20	.11	.22
Citrus fruits	.32	.45	.32	.46
Other fruits and vegetables	1.66	.94	1.75	.90
Bread and cereal	3.45	.90	3.11	1.11
NUTRITIONAL TOTAL	8.51	1.93	8.03	2.08
Nutrition Score for Combined Food Groups				
Milk	1.44	.90	1.29	.84
Meat and eggs	1.56	.37	1.44	.48
All fruits and vegetables	2.06	1.23	2.18	1.18
Breads and cereals	3.45	1.93	3.11	1.11
TOTAL	8.51	1.93	8.03	2.08

Table IV-24

FOOD INTAKE QUESTIONNAIRE
MEAN NUMBER OF SERVINGS FOR EACH FOOD GROUP AND
PROPORTIONS OF TOTAL FOOD SCORES AND NUTRITION SCORES

Food Group	HOME START (N=249)				CONTROL (N=162)				HEAD START (N=142)				TOTAL SAMPLE (N=553)			
	Servings		Proportion		Servings		Proportion		Servings		Proportion		Servings		Proportion	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
FOOD SCORES																
Milk	1.42	1.18	.13	.01	1.34	1.26	.12	.10	1.82	1.31	.15	.01	1.50	1.25	.13	.10
Meat	2.27	1.45	.20	.10	2.07	1.31	.18	.11	2.10	1.27	.18	.11	2.17	1.37	.19	.16
Eggs	.53	.75	.05	.07	.81	3.99	.05	.10	.42	.67	.04	.06	.59	2.24	.05	.08
Vitamin A Vegetables	.35	.98	.03	.08	.20	.55	.02	.03	.23	.65	.02	.05	.28	.80	.02	.06
Citrus fruits	.79	1.65	.06	.11	.87	1.69	.07	.12	1.25	1.71	.09	.12	.93	1.69	.07	.12
Other fruits and vegetables	2.38	2.28	.19	.16	2.36	2.17	.20	.16	2.75	2.71	.21	.17	2.47	2.37	.20	.16
Breads and cereals	3.87	2.08	.34	.15	4.22	2.47	.36	.17	3.78	2.29	.32	.17	3.95	2.26	.34	.16
FOOD TOTAL	11.62	4.67	1.00	---	11.88	5.78	1.00	---	12.36	5.28	1.00	---	11.89	5.17	1.00	1.00
NUTRITION SCORES																
Milk	1.26	.84	.16	.11	1.13	.81	.14	.10	1.53	.84	.18	.09	1.29	.84	.15	.10
Meat	1.22	.37	.16	.07	1.21	.38	.16	.07	1.22	.36	.15	.07	1.22	.37	.16	.07
Eggs	.25	.29	.03	.05	.22	.29	.03	.04	.21	.28	.03	.04	.23	.29	.03	.04
Vitamin A Vegetables	.12	.24	.02	.03	.10	.21	.01	.03	.10	.21	.01	.03	.11	.22	.01	.03
Citrus fruits	.27	.44	.03	.05	.29	.45	.03	.05	.45	.49	.05	.05	.32	.46	.04	.05
Other fruits and vegetables	1.71	.92	.21	.12	1.74	.86	.22	.11	1.82	.89	.21	.12	1.75	.90	.21	.12
Breads and cereals	3.14	1.11	.39	.13	3.15	1.11	.41	.14	3.00	1.12	.37	.14	3.11	1.11	.39	.14
NUTRITION TOTAL	7.89	2.04	1.00	---	7.84	1.93	1.00	---	8.33	2.29	1.00	---	8.03	2.08	1.00	1.00
NUTRITION SCORES FOR COMBINED FOOD GROUPS																
Milk	1.26	.83	.16	.11	1.13	.81	.14	.10	1.53	.84	.18	.09	1.29	.84	.15	.10
Meat and Eggs	1.47	.48	.19	.08	1.43	.48	.19	.08	1.43	2.29	.18	.09	1.44	.48	.19	.08
All Fruits and Vegetables	2.11	1.20	.26	.14	2.13	1.12	.27	.14	2.37	1.20	.27	.13	2.18	1.18	.26	.14
Breads and Cereals	3.14	1.11	.39	.13	3.15	1.11	.41	.14	3.00	1.11	.37	.14	3.11	1.11	.39	.14
TOTAL	7.98	2.04	1.00	---	7.84	1.93	1.00	---	8.33	2.29	1.00	---	8.03	2.08	1.00	1.00

Table IV-25

NUTRITIONAL INTAKE BY FOOD GROUP AND PERCENTAGE OF IDEAL INTAKE

Food Group	Ideal Score	Home Start N=249			Control N=162			Head Start N=142			Total Sample N=553		
		Mean	SD	% of Ideal	Mean	SD	% of Ideal	Mean	SD	% of Ideal	Mean	SD	% of Ideal
Milk	2.50	1.26	.84	50.4	1.13	.81	45.2	1.53	.84	61.2	1.29	.84	51.6
Meat	1.40	1.22	.37	87.1	1.21	.38	86.4	1.22	.36	87.1	1.22	.37	87.1
Eggs	.60	.25	.29	41.7	.22	.29	36.6	.21	.28	35.0	.23	.29	38.3
Vitamin A vegetables	.60	.12	.24	20.0	.09	.21	15.0	.10	.21	16.7	.11	.22	18.3
Citrus fruits	1.00	.27	.44	21.0	.29	.45	29.0	.45	.49	45.0	.32	.46	32.0
Other fruits and vegetables	2.40	1.71	.92	71.3	1.74	.86	72.5	1.82	.89	75.8	1.75	.90	72.9
Breads and cereals	4.00	3.14	1.11	78.5	3.15	1.11	78.8	3.00	1.12	75.0	3.11	1.11	77.8
TOTAL	12.50	7.98	2.04	63.8	7.84	1.93	62.7	8.33	2.30	66.6	8.03	2.08	64.2

Table IV-25.5

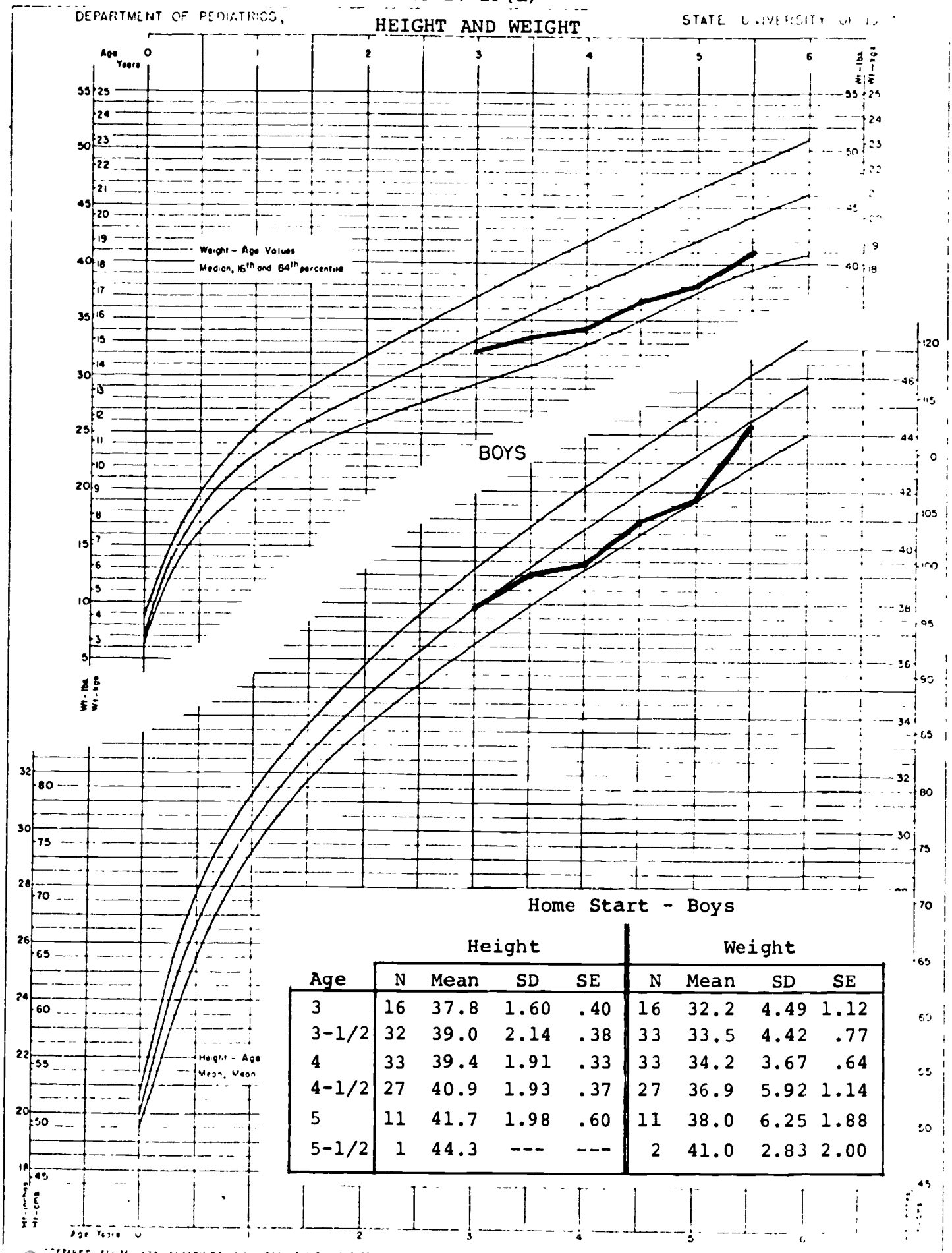
Food Intake Questionnaire
Mean Number of Servings for Each Food Group and
Food Total and Nutrition Total for Each Group by Site

	ALABAMA						ARKANSAS						KANSAS			
	Home Start N=40		Control N=36		Head Start N=29		Home Start N=40		Control N=31		Head Start N=37		Home Start N=45		Control N=28	
Food Group	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Food Scores																
Milk	1.25	.95	.97	.8[illegible]	35	1.36	1.51	1.10	1.33	1.10	1.36	1.01	1.44	1.29	1.28	1.53
Meat	2.31	1.66	2.36	1.35	.52	1.21	2.37	1.20	1.78	1.07	2.27	1.41	2.22	1.27	2.34	1.21
Eggs	.40	.55	.61	.96	.32	.64	.56	.89	.40	.66	.65	.73	.45	.70	2.36	9.43
Vitamin A vegetables	.76	1.22	.30	.51	.35	.83	.13	.38	.07	.36	.09	.36	.24	.96	.14	.38
Citrus fruits	1.24	1.96	1.02	1.69	1.09	1.97	.17	.95	.50	1.02	.91	1.73	1.08	2.10	1.24	1.76
Other fruits & vegetables	2.16	1.97	2.12	2.40	1.69	1.85	2.72	2.51	2.82	2.49	3.49	3.56	2.36	2.25	2.73	2.40
Breads and cereals	3.70	1.59	3.29	1.78	4.38	2.79	3.61	2.33	4.05	2.46	3.34	1.99	4.11	2.07	4.48	2.46
FOOD TOTAL	11.83	4.04	10.66	4.31	12.20	4.84	11.06	4.71	10.94	4.36	12.11	5.60	11.89	4.91	14.59	9.64
Nutrition Scores																
Milk	1.18	.78	.89	.64	1.52	.84	1.37	.82	1.20	.83	1.26	.81	1.22	.87	1.01	.91
Meat	1.19	.36	1.27	.31	1.27	.33	1.31	.19	1.20	.38	1.23	.32	1.27	.33	1.28	.31
Eggs	.22	.29	.27	.30	.17	.25	.24	.29	.20	.28	.31	.30	.22	.29	.21	.29
Vitamin A vegetables	.28	.29	.18	.26	.16	.25	.07	.18	.03	.12	.04	.14	.07	.19	.08	.21
Citrus fruits	.44	.48	.32	.46	.36	.48	.04	.18	.24	.42	.30	.46	.32	.47	.42	.49
Other fruits & vegetables	1.88	.82	1.66	.88	1.46	1.02	1.60	.97	1.85	.83	1.73	.95	1.75	.92	1.83	.84
Breads and cereals	3.24	.99	2.88	1.20	3.28	1.02	2.92	1.22	3.02	1.29	2.76	1.21	3.22	1.11	3.22	1.09
NUTRITION TOTAL	8.42	2.03	7.47	1.97	8.23	2.10	7.55	2.13	7.70	2.15	7.63	2.40	8.06	1.94	8.07	1.61

Table IV-25.5

Food Group	OHIO Home Start N=48 Mean	OHIO Home Start N=48 SD	OHIO Control N=14 Mean	OHIO Control N=14 SD	TEXAS Home Start N=37 Mean	TEXAS Home Start N=37 SD	TEXAS Control N=15 Mean	TEXAS Control N=15 SD	TEXAS Head Start N=38 Mean	TEXAS Head Start N=38 SD	WEST VIRGINIA Home Start N=39 Mean	WEST VIRGINIA Home Start N=39 SD	WEST VIRGINIA Control N=38 Mean	WEST VIRGINIA Control N=38 SD	WEST VIRGINIA Head Start N=38 Mean	WEST VIRGINIA Head Start N=38 SD
Food Scores																
Milk	1.32	1.06	1.45	1.38	1.02	.79	1.02	1.12	1.48	1.31	2.00	1.57	1.81	1.40	2.58	1.24
Meat	2.35	1.38	1.70	.87	2.40	1.39	2.14	1.06	1.75	1.21	1.96	1.81	1.95	1.65	1.96	1.14
Eggs	.41	.56	.21	.43	.73	.93	.47	.74	.30	.51	.71	.80	.55	.82	.42	.75
Vitamin A vegetables	.33	.75	.29	.83	.32	.96	.47	1.06	.26	.78	.33	1.31	.13	.39	.26	.54
Citrus fruits	.61	1.18	2.34	3.22	1.15	2.02	.73	1.53	1.14	1.59	.53	1.12	.29	.83	1.82	1.53
Other fruits & vegetables	2.19	2.09	2.57	2.31	1.74	1.69	1.53	1.17	2.14	2.03	3.12	2.87	2.21	1.64	3.46	2.56
Breads and cereals	3.94	1.95	4.34	2.83	3.63	2.16	5.88	3.48	3.21	2.08	4.19	2.38	4.39	2.19	4.31	2.20
FOOD TOTAL	11.15	4.02	12.90	4.90	10.99	3.58	12.14	6.02	10.27	4.03	12.85	6.30	11.34	3.72	14.80	5.57
Nutrition Scores																
Milk	1.21	.80	1.20	.84	1.01	.79	.90	.73	1.25	.89	1.57	.89	1.47	.82	2.07	.55
Meat	1.24	.35	1.20	.42	1.25	.40	1.25	.37	1.16	.44	1.07	.49	1.11	.45	1.25	.31
Eggs	.22	.29	.13	.26	.29	.30	.20	.29	.17	.27	.30	.30	.22	.29	.18	.27
Vitamin A vegetables	.14	.25	.09	.22	.12	.23	.16	.27	.09	.20	.08	.20	.07	.19	.13	.24
Citrus fruits	.26	.44	.57	.51	.34	.47	.20	.41	.41	.49	.24	.43	.13	.34	.70	.46
Other fruits & vegetables	1.63	.96	1.98	.77	1.65	.97	1.51	1.09	1.80	.91	1.77	.91	1.67	.85	2.20	.48
Breads and cereals	3.21	1.22	3.20	.97	3.00	1.15	3.60	.76	2.71	1.24	3.27	.96	3.28	1.01	3.30	.85
NUTRITION TOTAL	7.91	1.94	8.36	1.90	7.65	1.94	7.82	2.56	7.59	2.31	8.29	2.27	7.95	1.68	9.83	1.55

Table IV-29(a)

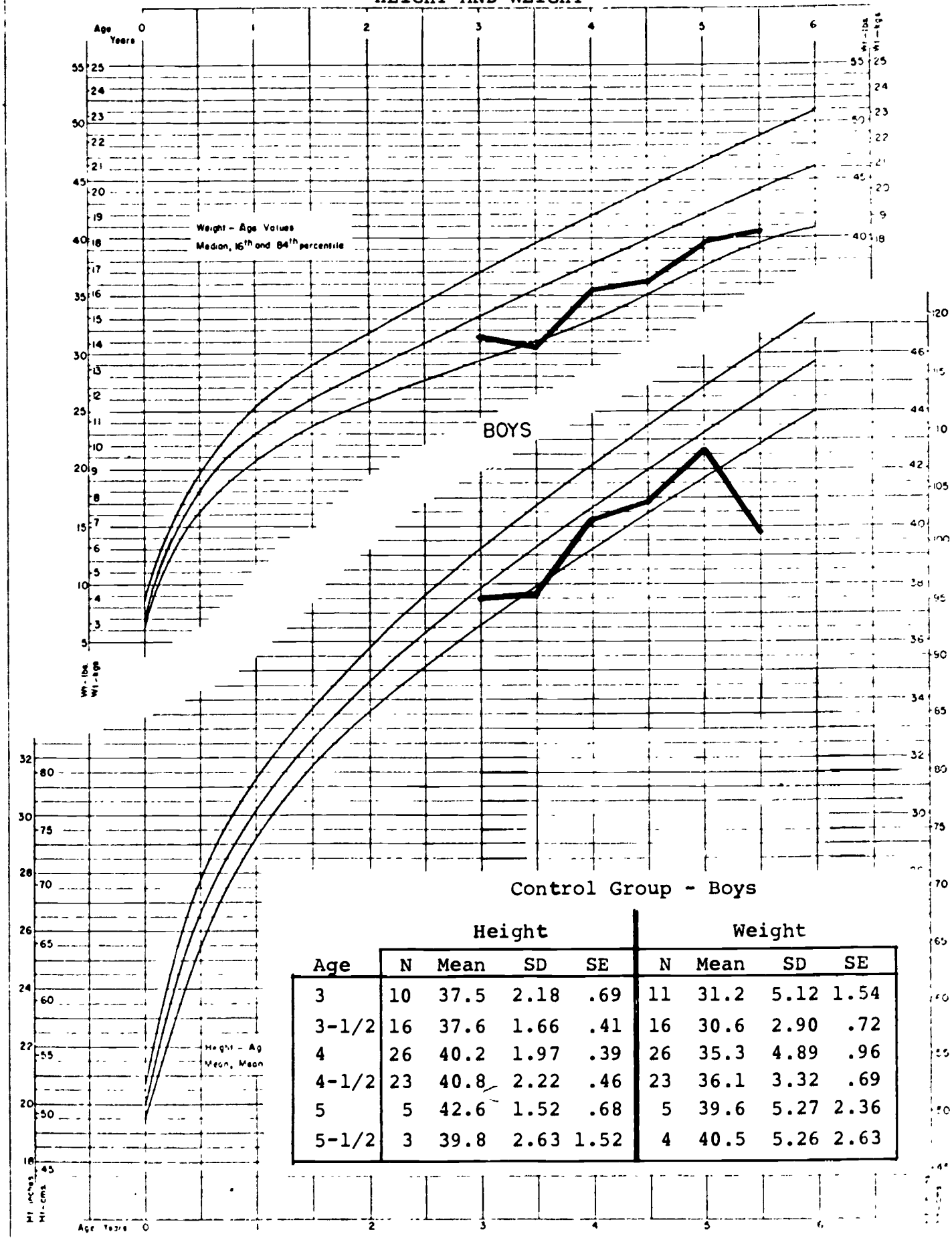


Home Start - Boys

	Height				Weight			
Age	N	Mean	SD	SE	N	Mean	SD	SE
3	16	37.8	1.60	.40	16	32.2	4.49	1.12
3-1/2	32	39.0	2.14	.38	33	33.5	4.42	.77
4	33	39.4	1.91	.33	33	34.2	3.67	.64
4-1/2	27	40.9	1.93	.37	27	36.9	5.92	1.14
5	11	41.7	1.98	.60	11	38.0	6.25	1.88
5-1/2	1	44.3	---	---	2	41.0	2.83	2.00

Table IV-29(b)

HEIGHT AND WEIGHT



Control Group - Boys

Age	Height N	Height Mean	Height SD	Height SE	Weight N	Weight Mean	Weight SD	Weight SE
3	10	37.5	2.18	.69	11	31.2	5.12	1.54
3-1/2	16	37.6	1.66	.41	16	30.6	2.90	.72
4	26	40.2	1.97	.39	26	35.3	4.89	.96
4-1/2	23	40.8	2.22	.46	23	36.1	3.32	.69
5	5	42.6	1.52	.68	5	39.6	5.27	2.36
5-1/2	3	39.8	2.63	1.52	4	40.5	5.26	2.63

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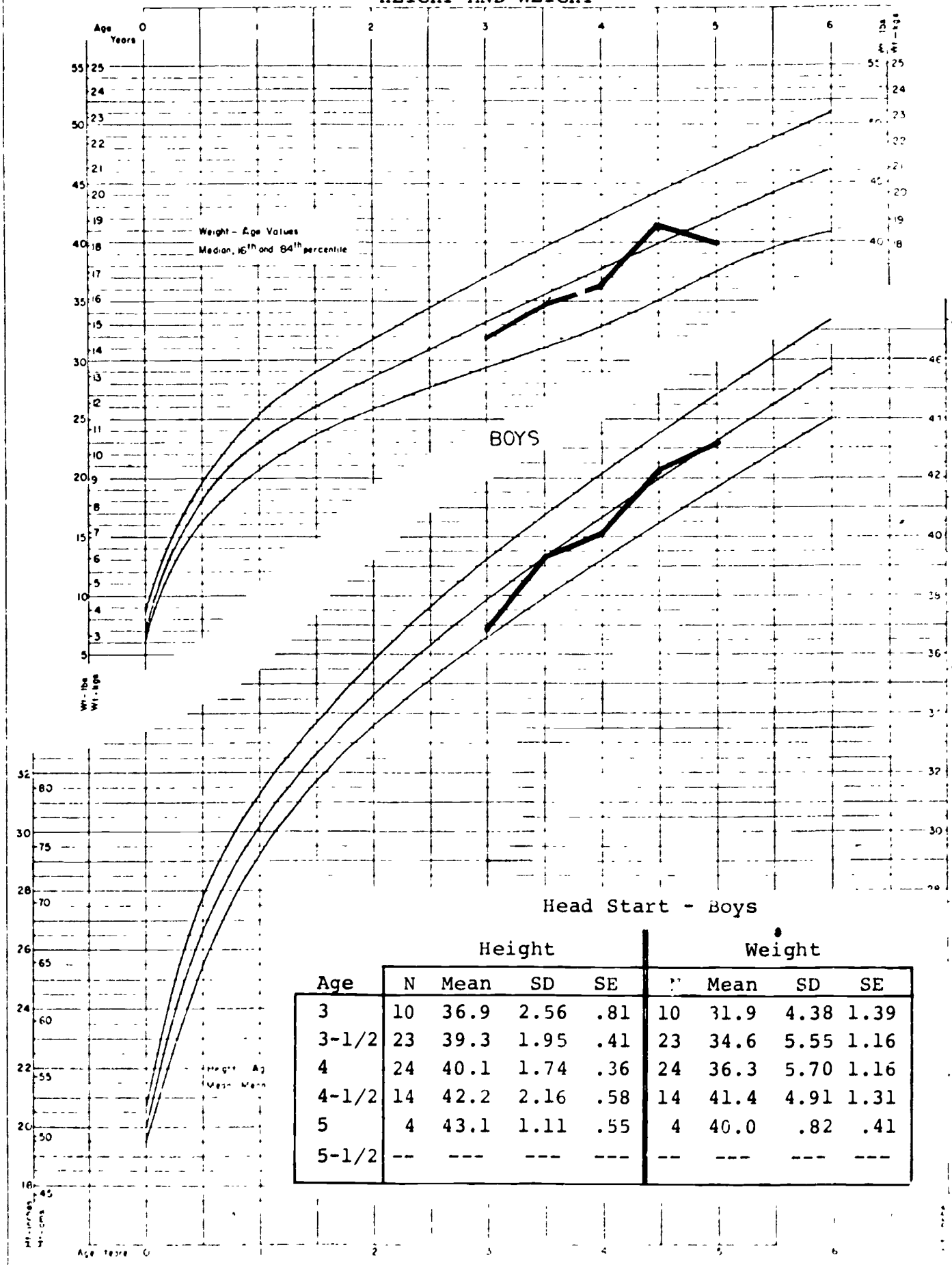
Table IV-29(c)

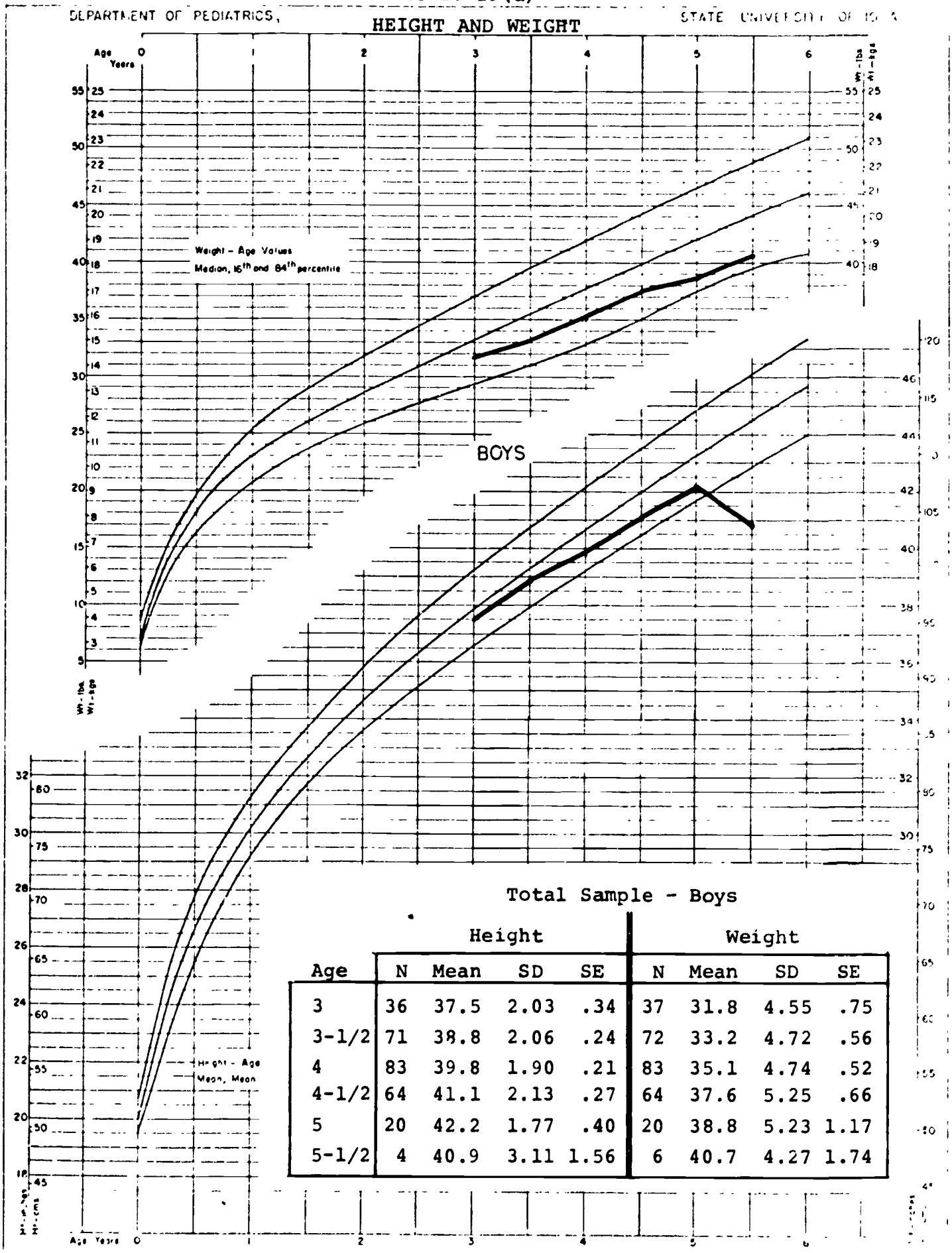
HEIGHT AND WEIGHT



Head Start - Boys

	Height				Weight			
Age	N	Mean	SD	SE	N	Mean	SD	SE
3	10	36.9	2.56	.81	10	31.9	4.38	1.39
3-1/2	23	39.3	1.95	.41	23	34.6	5.55	1.16
4	24	40.1	1.74	.36	24	36.3	5.70	1.16
4-1/2	14	42.2	2.16	.58	14	41.4	4.91	1.31
5	4	43.1	1.11	.55	4	40.0	.82	.41
5-1/2	--	---	---	---	--	---	---	---

Table IV-29(d)

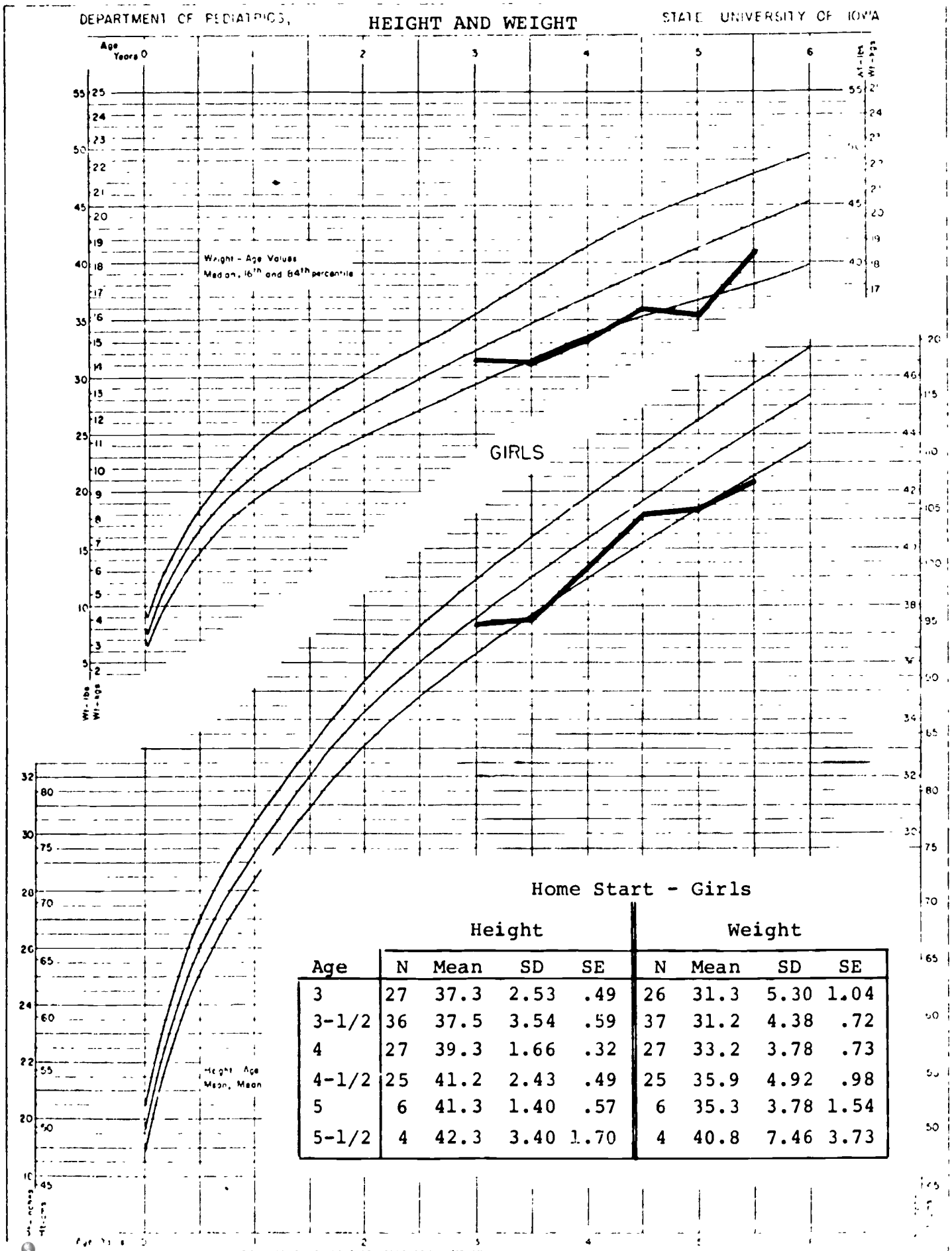


Total Sample - Boys

	Height				Weight			
Age	N	Mean	SD	SE	N	Mean	SD	SE
3	36	37.5	2.03	.34	37	31.8	4.55	.75
3-1/2	71	38.8	2.06	.24	72	33.2	4.72	.56
4	83	39.8	1.90	.21	83	35.1	4.74	.52
4-1/2	64	41.1	2.13	.27	64	37.6	5.25	.66
5	20	42.2	1.77	.40	20	38.8	5.23	1.17
5-1/2	4	40.9	3.11	1.56	6	40.7	4.27	1.74

Form [illegible] by Ross Laboratories [illegible]

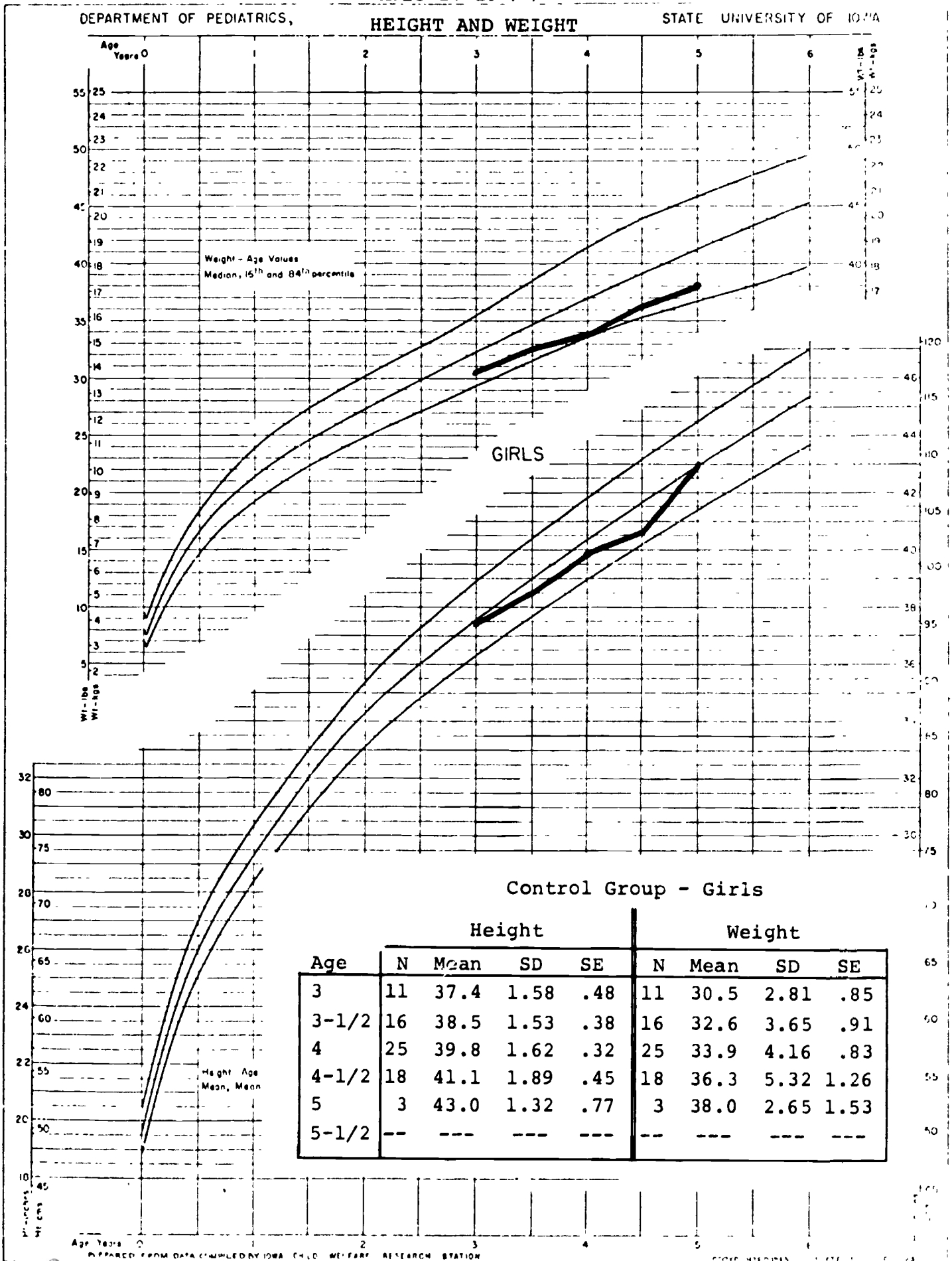
Table IV-29(e)



Home Start - Girls

	Height				Weight			
Age	N	Mean	SD	SE	N	Mean	SD	SE
3	27	37.3	2.53	.49	26	31.3	5.30	1.04
3-1/2	36	37.5	3.54	.59	37	31.2	4.38	.72
4	27	39.3	1.66	.32	27	33.2	3.78	.73
4-1/2	25	41.2	2.43	.49	25	35.9	4.92	.98
5	6	41.3	1.40	.57	6	35.3	3.78	1.54
5-1/2	4	42.3	3.40	1.70	4	40.8	7.46	3.73

Table IV-29 (f)



Control Group - Girls

Age	Height N	Height Mean	Height SD	Height SE	Weight N	Weight Mean	Weight SD	Weight SE
3	11	37.4	1.58	.48	11	30.5	2.81	.85
3-1/2	16	38.5	1.53	.38	16	32.6	3.65	.91
4	25	39.8	1.62	.32	25	33.9	4.16	.83
4-1/2	18	41.1	1.89	.45	18	36.3	5.32	1.26
5	3	43.0	1.32	.77	3	38.0	2.65	1.53
5-1/2	--	---	---	---	--	---	---	---

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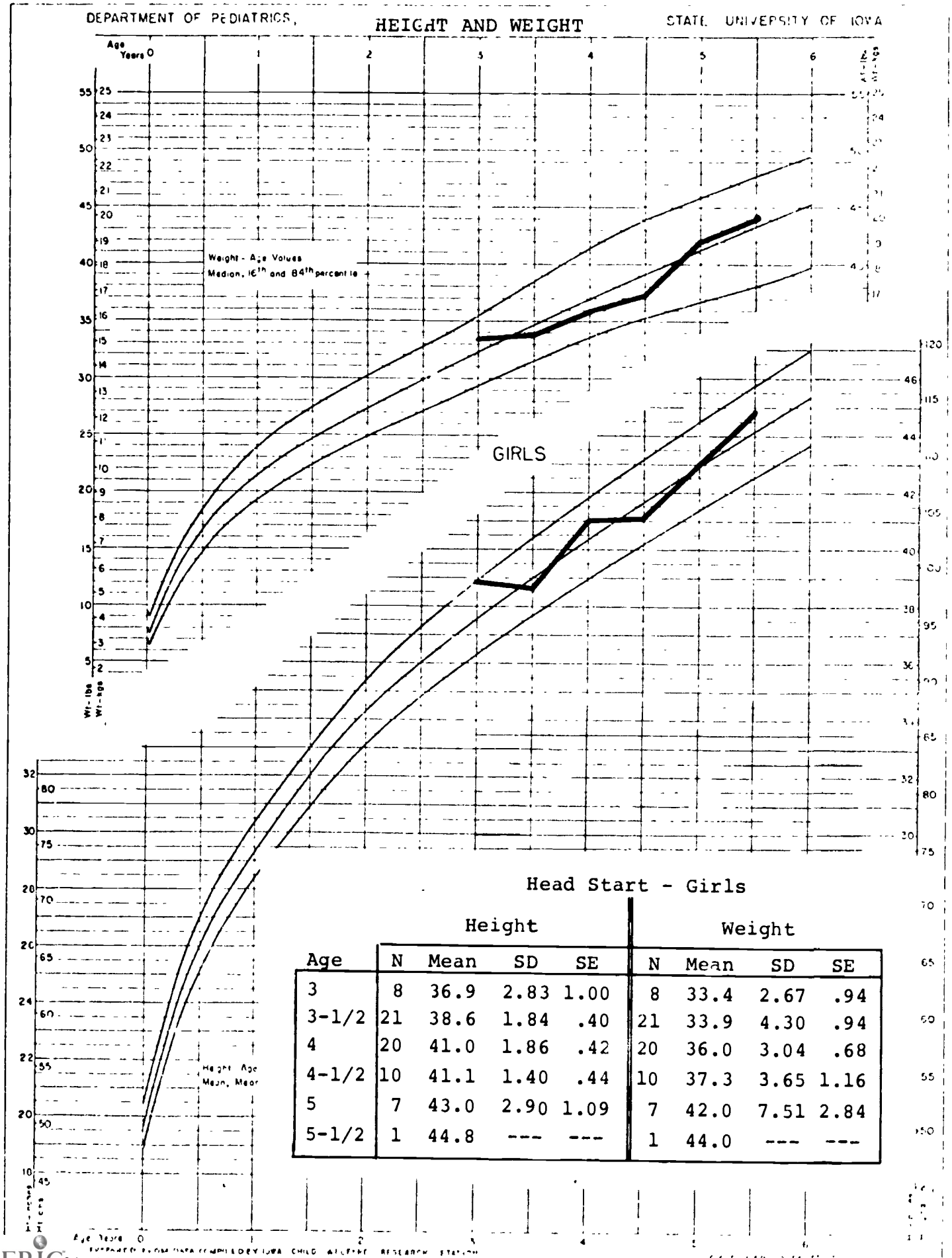
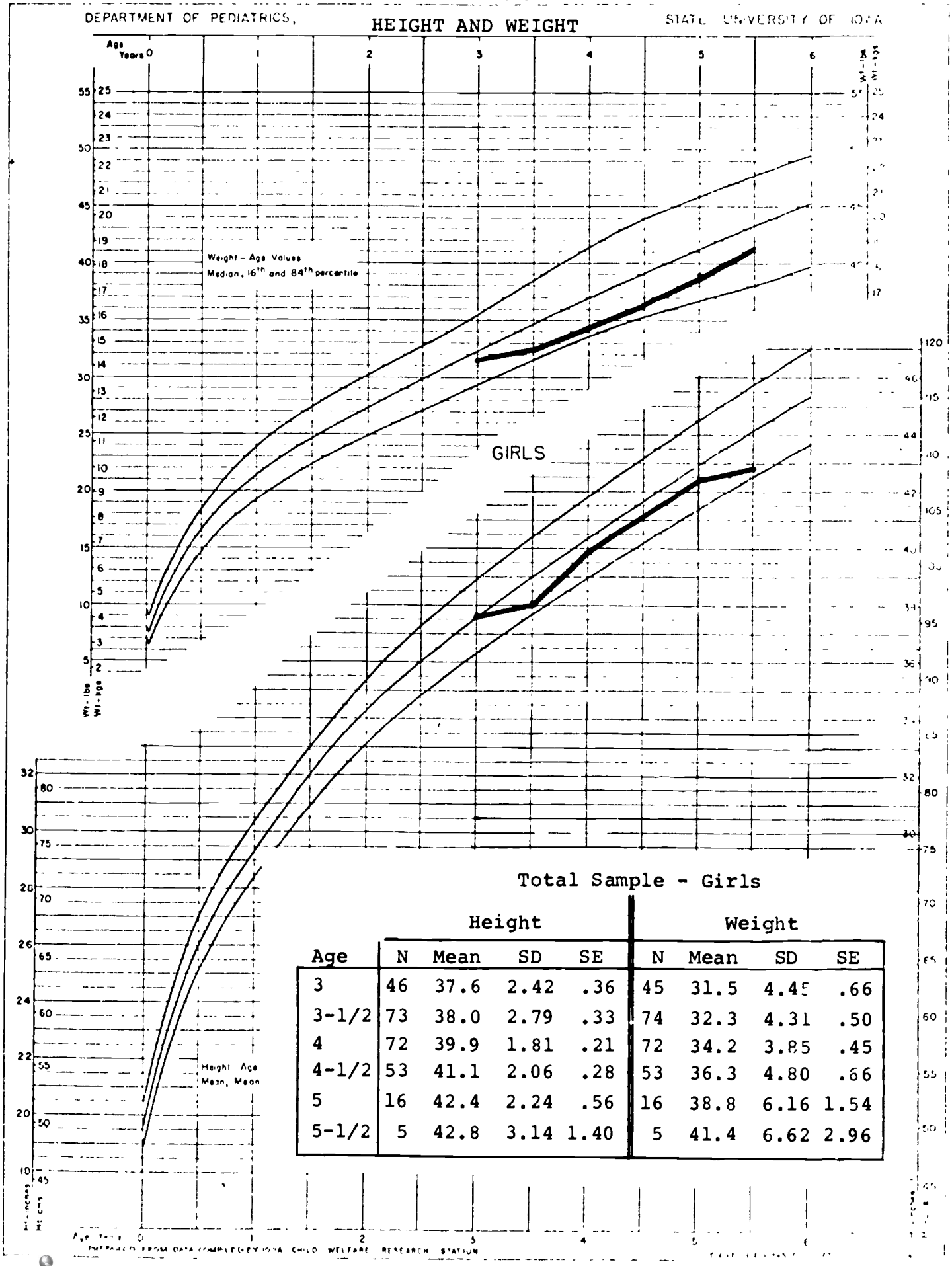
Table IV-29 (g)



Head Start - Girls

	Height				Weight			
Age	N	Mean	SD	SE	N	Mean	SD	SE
3	8	36.9	2.83	1.00	8	33.4	2.67	.94
3-1/2	21	38.6	1.84	.40	21	33.9	4.30	.94
4	20	41.0	1.86	.42	20	36.0	3.04	.68
4-1/2	10	41.1	1.40	.44	10	37.3	3.65	1.16
5	7	43.0	2.90	1.09	7	42.0	7.51	2.84
5-1/2	1	44.8	---	---	1	44.0	---	---

Table IV-29(h)



Total Sample - Girls

Age	Height				Weight			
	N	Mean	SD	SE	N	Mean	SD	SE
3	46	37.6	2.42	.36	45	31.5	4.45	.66
3-1/2	73	38.0	2.79	.33	74	32.3	4.31	.50
4	72	39.9	1.81	.21	72	34.2	3.85	.45
4-1/2	53	41.1	2.06	.28	53	36.3	4.80	.66
5	16	42.4	2.24	.56	16	38.8	6.16	1.54
5-1/2	5	42.8	3.14	1.40	5	41.4	6.62	2.96

Table IV - 29.5

ENTERING CHILD HEIGHT AND WEIGHT, BY GROUP WITHIN SITE

Alabama

Height

	Home Start				Control				Head Start			
Age	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
3									3	40.1	3.64	2.10
3 1/2									8	38.	1.75	.62
4	20	40.5	1.41	.31	11	41.0	2.86	.86	7	40.3	1.45	.55
4 1/2	18	41.5	2.47	.58	20	41.3	1.95	.44	8	41.7	1.57	.55
5	3	40.1	1.13	.65	4	42.6	1.39	.70	3	43.8	3.25	1.88
5 1/2												
Total	41	40.9	1.97	.31	35	41.4	2.21	.37	29	40.6	2.52	.47

Weight

	Home Start				Control				Head Start			
Age	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
3									3	34.7	2.08	1.20
3 1/2									8	31.7	5.13	1.81
4	20	35.1	4.02	.90	11	36.2	6.19	1.87	7	37.1	4.95	1.87
4 1/2	18	35.9	2.63	.62	20	37.2	4.93	1.10	8	39.6	4.60	1.63
5	3	35.3	3.51	2.03	4	38.0	2.16	1.08	3	43.7	9.30	5.36
5 1/2					1	45.0						
Total	41	35.4	3.38	.53	36	37.2	5.16	.86	29	36.7	6.25	1.16

Table IV - 29.5 (Cont'd.)

ENTERING CHILD HEIGHT AND WEIGHT, BY GROUP WITHIN SITE

Arkansas

Height

	Home Start				Control				Head Start			
Age	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
3	2	37.8	2.47	1.75	1	35.0			9	37.0	2.79	.93
3 1/2	8	38.7	1.70	.60	5	38.2	1.30	.58	10	38.3	1.62	.51
4	7	39.8	.94	.35	13	40.0	1.17	.33	7	40.8	1.39	.52
4 1/2	13	40.1	1.17	.32	7	40.4	2.10	.79	5	40.7	1.00	.44
5	7	41.6	1.18	.45	3	42.9	1.9[illegible]	1.10	5	43.1	2.63	1.18
5 1/2	2	45.3	1.41	1.00	1	42.3			1	44.8		
Total	39	40.2	2.01	.32	30	40.0	2.10	.38	37	39.6	2.95	.49

Weight

	Home Start				Control				Head Start			
Age	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
3	2	33.5	4.95	3.50	1	22.0			9	31.6	4.33	1.44
3 1/2	9	31.2	2.73	.90	5	33.0	2.12	.95	10	34.2	4.32	1.36
4	7	33.1	1.77	.67	13	34.7	3.40	.94	7	38.0	3.65	1.38
4 1/2	13	33.0	2.74	.76	7	35.3	4.89	1.85	5	37.4	6.19	2.77
5	7	36.1	5.34	2.02	3	38.3	6.11	3.53	5	41.0	6.04	2.70
5 1/2	2	42.5	.71	.50	1	37.0			1	44.0		
Total	40	33.7	4.00	.63	30	34.6	4.54	.83	37	35.9	5.61	.92

Table IV - 29.5 (Cont'd.)

ENTERING CHILD HEIGHT AND WEIGHT, BY GROUP WITHIN SITE

Kansas

Height

	Home Start				Control				Head Start			
Age	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
3	9	38.1	1.66	.55	6	37.0	1.27	.52				
3 1/2	21	37.9	3.88	.85	8	39.0	1.80	.63				
4	12	38.8	1.84	.53	11	40.1	1.55	.47				
4 1/2	1	44.0			2	41.1	.18	.13				
5	1	40.3										
5 1/2	1	40.0										
Total	45	38.4	3.03	.45	27	39.2	1.96	.38				

Weight

	Home Start				Control				Head Start			
Age	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
3	9	31.7	5.32	1.77	7	30.4	3.41	1.29				
3 1/2	21	31.6	5.47	1.19	8	33.3	4.20	1.49				
4	12	33.6	4.58	1.32	11	34.5	4.72	1.42				
4 1/2	1	48.0			2	36.5	2.12	1.50				
5	1	35.0										
5 1/2	1	32.0										
Total	45	32.6	5.51	.82	28	33.3	4.36	.82				

Table IV - 29.5 (Cont'd.)

ENTERING CHILD HEIGHT AND WEIGHT, BY GROUP WITHIN SITE

Ohio

Height

	Home Start				Control				Head Start			
Age	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
3	15	37.2	3.11	.80	6	37.6	2.50	1.02				
3 1/2	26	37.8	3.01	.59	3	37.9	2.10	1.21				
4	6	38.5	1.78	.73	3	39.1	.76	.44				
4 1/2					1	45.8						
5												
5 1/2												
Total	47	37.7	2.90	.42	13	38.6	2.90	.80				

Weight

	Home Start				Control				Head Start			
Age	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
3	15	32.1	3.73	.96	6	30.7	4.84	1.98				
3 1/2	26	32.9	4.30	.84	3	31.7	3.21	1.86				
4	5	32.0	2.97	1.21	3	35.0	1.00	.58				
4 1/2					1	39.0						
5												
5 1/2												
Total	47	32.5	3.93	.57	13	32.5	3.93	.57				

Table IV - 29.5 (Cont'd.)

ENTERING CHILD HEIGHT AND WEIGHT, BY GROUP WITHIN SITE

Texas

Height

	Home Start				Control				Head Start			
Age	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
3	11	37.6	1.84	.56	4	38.1	.85	.43	4	38.4	2.29	1.14
3 1/2	9	40.1	1.60	.53	2	38.8	.35	.25	10	40.0	1.54	.49
4	7	38.3	.98	.37	3	39.3	.35	.25	15	41.1	1.94	.50
4 1/2	6	40.5	2.58	1.05	3	40.6	1.46	.85	6	42.5	2.70	1.10
5	1	43.0			1	43.0			2	42.8	1.06	.75
5 1/2	1	44.0			2	38.5	2.12	1.50				
Total	35	39.2	2.31	.39	14	39.3	1.70	.45	37	40.8	2.27	.37

Weight

	Home Start				Control				Head Start			
Age	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
3	11	32.5	6.50	1.96	4	31.5	2.38	1.19	4	33.3	4.03	2.02
3 1/2	10	34.5	3.78	1.19	2	31.5	3.54	2.50	10	35.7	5.31	1.68
4	7	31.9	2.91	1.10	2	39.5	.71	.50	15	35.8	4.63	1.20
4 1/2	6	37.3	7.00	2.86	3	34.7	2.52	1.45	6	39.7	4.72	1.93
5	1	40.0			1	45.0			2	39.0	1.41	1.00
5 1/2	2	39.0			2	40.0	7.07	5.00				
Total	37	34.3	5.41	.90	14	35.5	5.21	1.40	37	36.3	4.84	.80

Table IV - 29.5 (Cont'd.)

ENTERING CHILD HEIGHT AND WEIGHT, BY GROUP WITHIN SITE

West Virginia

Height

	Home Start				Control				Head Start			
Age	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
3	6	36.9	.72	.30	4	37.8	2.37	1.19	2	37.0	1.41	1.00
3 1/2	4	36.9	1.32	.66	14	37.4	1.58	.42	16	39.0	2.21	.55
4	8	38.6	2.40	.85	11	39.1	1.27	.38	15	39.7	1.89	.49
4 1/2	14	41.3	2.15	.57	8	39.8	2.04	.72	5	42.0	2.06	.92
5	5	42.3	2.56	1.15					1	41.5		
5 1/2	1	39.0										
Total	38	39.6	2.80	.45	37	38.5	1.91	.31	39	39.6	2.26	.36

Weight

	Home Start				Control				Head Start			
Age	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
3	5	27.6	3.29	1.47	4	33.3	3.40	1.70	2	32.5	.70	.50
3 1/2	4	28.5	2.38	1.20	14	30.1	3.03	.81	16	34.7	4.96	1.24
4	8	34.1	3.40	1.20	11	32.2	3.87	1.17	15	35.1	5.00	1.30
4 1/2	14	39.0	7.16	1.91	8	34.8	2.55	.90	5	42.2	3.96	1.77
5	5	39.2	7.79	3.48					1	40.0		
5 1/2	1	50.0										
Total	37	35.6	7.49	1.23	37	32.1	3.59	.59	39	35.8	5.26	.84

Table IV-32

KEY TO

SCHAEFER BEHAVIOR INVENTORY ITEMS

TASK ORIENTATION SUBTEST

1. Pays attention to what he (she) is doing when other things are going on around him (her).
4. Stays with a job until he (she) finishes it.
7. Becomes very involved in what he (she) is doing.
10. Goes from one thing to another; quickly loses interest in things.
13. Watches carefully when a home visitor is showing how to do something.

EXTRAVERSION-INTROVERSION SUBTEST

2. Tries to be with another person or group of people.
5. Likes to take part in activities with others.
8. Enjoys being with others.
11. Watches others, but doesn't join with them.
14. Does not wait for others to approach him (her), but makes the first friendly move.

HOSTILITY-TOLERANCE SUBTEST

3. Gets impatient or unpleasant if he (she) can't get what he (she) wants when he (she) wants it.
6. Slow to forgive when offended.
9. Stays angry for a long time after an argument.
12. Complains or whines if he (she) can't get his (her) own way.
15. Gets angry when he (she) has to wait his (her) turn or share with others.

Table IV-33

SCHAEFER BEHAVIOR INVENTORY
PERCENT RESPONSES IN EACH SCORING CATEGORY

Item[1]	N	Rating						
		1	2	3	4	5	6	7
1	554	2.2	4.3	17.1	35.7	8.1	24.2	8.3
2	555	1.1	2.9	5.2	9.4	8.8	37.3	35.3
3	552	2.2	4.9	18.3	16.8	13.2	22.5	22.1
4	555	0.5	0.7	15.7	30.0	7.6	18.4	8.5
5	553		.7	4.9	8.9	6.0	32.9	46.7
6	554	24.0	20.8	14.8	13.0	6.0	10.0	0.7
7	555	1.4	2.7	8.1	17.3	11.4	36.6	22.5
8	555	.7	.5	2.3	4.0	3.2	22.3	65.0
9	554	35.0	33.0	12.3	8.5	3.1	4.3	3.8
10	554	9.0	10.8	7.6	21.5	24.7	17.5	8.9
11	554	8.3	5.8	4.9	10.1	16.6	29.2	25.1
12	555	4.0	7.4	20.0	16.2	13.3	16.0	22.9
13	550	2.9	2.5	11.3	22.0	9.8	30.4	21.1
14	550	6.5	8.7	13.5	14.0	8.2	24.7	24.4
15	554	11.2	18.1	22.4	13.7	9.7	14.9	10.1

[1]See key to items.

Table IV-34

SCHAEFER BEHAVIOR INVENTORY
INTERITEM AND ITEM-SUBTOTAL CORRELATIONS
(Item Ns range from 553 to 555)

Item[1]	Task Orientation						Extraversion-Introversion							Hostility-Tolerance				
	1	4	7	10[3]	13	Sub-total	2	5	8	11[3]	14	Sub-total	Sub-total[2]	3	6	9	12	15
Task Orientation																		
1																		
4	22																	
7	24	32																
10	19	26	22															
13	24	26	29	18														
Subtotal	33	40	41	32	36													
Extraversion-Introversion																		
2	01	07	13	05	09	12												
5	13	08	12	11	10	17	34											
8	-02	06	13	-02	10	08	48	42										
11	-04	00	01	15	03	05	11	07	07									
14	07	06	07	-07	12	08	26	23	30	10								
Subtotal	05	08	15	08	14	17	43	38	47	11	33							
Subtotal[2]	07	10	16	02	14	17	46	42	53	—	35							
Hostility-Tolerance																		
3	-01	-15	-06	-25	-02	-17	03	-03	03	-05	07	02	04					
6	08	04	00	-13	-02	-02	-08	-05	-08	-08	-07	-12	-11	17				
9	03	-02	-02	-16	-05	-08	-07	-15	-10	-14	-06	-16	-12	17	32			
12	-11	-19	-11	-28	-07	-25	-03	-09	-06	-18	02	-12	-05	58	18	25		
15	-13	-19	-11	-33	-11	-29	-07	-11	-07	-15	05	-10	-05	38	15	25	47	
Subtotal	-05	-15	-08	-34	-08	-24	-06	-12	-09	-18	01	-14	-08	49	28	36	55	46

[1] See key to items

[2] Revised Extraversion-Introversion Scale score. Item 11 omitted.

[3] Items 10 and 11 are reversed to be consistent with the implicit meaning of their scales. This changes the sign of all of the correlations of these items.

Table IV-35

SCHAEFER BEHAVIOR INVENTORY
ROTATED FACTOR LOADINGS[1]
THREE FACTORS EXTRACTED

(Item Ns range from 553 to 555)

Item[2]	FI	FII	FIII	h^2
1	-04	00	64	41
2	04	73	06	54
3	-73	14	-10	56
4	13	02	66	45
5	12	66	14	48
6	-50	-19	23	34
7	02	16	65	45
8	06	79	01	63
9	-56	-21	13	37
10	44	-05	46	41
12	-77	03	-18	62
13	00	15	60	38
14	-08	59	05	36
15	-68	00	-24	51
PCT. V	17.0	15.0	14.4	

Three factors accounted for 46.4% of the total variance.

---

[1]Principal components factor analysis followed by a varimax rotation.

[2]See key to items.

Table IV-36

SCHAEFER BEHAVIOR INVENTORY
ITEMS LOADING HIGHEST ON EACH FACTOR

(Item Ns range from 553 to 555)

		Loading
FACTOR I	(17.0%) Hostility-Tolerance	
12.	Complains or whines if he (she) can't get his (her) own way	-.77
3.	Gets impatient or unpleasant if he (she) can't get what he (she) wants when he (she) wants it	-.73
15.	Gets angry when he (she) has to wait his (her) turn or share with others	-.68
9.	Stays angry for a long time after an argument	-.56
6.	Slow to forgive when offended	-.50
10.	Goes from one thing to another; quickly loses interest in things	-.45*
FACTOR II	(15.0%) Extraversion-Introversion	
8.	Enjoys being with others	.79
2.	Tries to be with another person or group of people-	.73
5.	Likes to take part in activities with others	.66
14.	Does not wait for others to approach him (her), but makes the first friendly move	.59
FACTOR III	(14.4%) Task Orientation	
4.	Stays with a job until he (she) finishes it	.66
7.	Becomes very involved in what he (she) is doing	.65
1.	Pays attention to what he (she) is doing when other things are going on around him (her)	.64
13.	Watches carefully when a home visitor is showing how to do something	.59
10.	Goes from one thing to another; quickly loses interest in things	.46*

Three factors accounted for 46.4% of the total variance.

*Item 10 loads on two factors.

Table IV-41

HIGH/SCOPE PUPIL OBSERVATION CHECKLIST
PERCENT RESPONSES IN EACH SCORING CATEGORY

Item	N	Rating						
		1	2	3	4	5	6	7
Cooperative	551	10.9	8.9	9.8	9.3	15.8	24.5	20.9
Sociable	551	13.4	15.6	10.9	11.6	12.9	18.9	16.7
Outgoing	551	7.3	13.8	13.6	16.9	16.2	18.7	13.6
Involved	550	7.6	8.7	10.4	15.8	20.2	23.5	13.8
Agreeable	552	6.5	8.9	7.4	13.9	18.8	26.4	17.9
Active	550	7.1	8.0	6.9	14.0	17.3	25.6	21.1
Keeps Trying	551	11.6	12.5	11.1	15.8	16.2	18.9	14.0
Talkative	550	20.0	13.6	13.5	13.3	13.3	14.2	12.2
Attentive	552	8.3	9.1	10.0	16.3	18.8	24.1	13.4

Table IV-42

HIGH/SCOPE PUPIL OBSERVATION CHECKLIST
INTERITEM AND ITEM-SUBTOTAL CORRELATIONS

(Item Ns range from 550 to 552)

	Test Orientation Subtotal	Sociability Subtotal	Test Orientation					Sociability		
			Coop	Invol	Agree	Trying	Atten	Soc	Outgo	Active
Sociability Subtotal	60									
Cooperative	84	56								
Involved	83	59	76							
Agreeable	85	50	85	78						
Keeps Trying	76	53	72	68	70					
Attentive	72	44	63	71	65	64				
Sociable	64	81	64	61	55	56	48			
Outgoing	62	83	58	60	55	53	49	84		
Active	42	71	39	45	34	34	29	62	65	
Talkative	41	78	38	43	33	38	30	70	71	68

Table IV-43

HIGH/SCOPE PUPIL OBSERVATION CHECKLIST
ROTATED FACTOR LOADINGS[1]

(Item Ns range from 550 to 552)

Item	FI	FII	h^2
Cooperative	86	29	82
Sociable	46	78	81
Outgoing	43	80	82
Involved	83	34	80
Agreeable	89	21	84
Active	17	84	73
Keeps Trying	80	28	71
Talkative	15	89	82
Attentive	81	17	69
PCT. V	43.9	34.4	

Two factors accounted for 78.3% of the total variance.

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[1]Principal components factor analysis followed by a varimax rotation.

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Table IV-44

HIGH/SCOPE PUPIL OBSERVATION CHECKLIST
ITEMS LOADING HIGHEST ON EACH FACTOR

(Item Ns range from 550 to 552)

		Loading
FACTOR I	(43.9%)	
5.	Defensive - agreeable	.89
1.	Resistive - cooperative	.86
4.	Involved - indifferent	.83
9.	Attentive - inattentive	.81
7.	Gives up - keeps trying	.80
FACTOR II	(34.4%)	
8.	Quiet - talkative	.89
6.	Active - passive	.84
3.	Outgoing - withdrawn	.80
2.	Shy - sociable	.78

Two factors accounted for 78.3% of the total variance.

Table IV-47

DESCRIPTIVE DATA

	PRESCHOOL INVENTORY[1] (possible range=1-32)				8-BLOCK SCORE[2] (possible range=0-8)			
	N	Mean	SD	SE	N	Mean	SD	SE
AGE:								
3	50	7.4	3.6	.51	62	2.7	1.2	.15
3½	113	8.3	3.6	.34	114	3.1	1.3	.12
4	125	9.9	4.3	.38	135	3.2	1.5	.13
4½	97	11.8	4.9	.50	103	3.8	1.7	.17
5	33	13.5	5.0	.88	32	3.9	1.6	.29
5½	7	18.9	4.6	1.75	8	5.3	2.0	.70
SEX:								
M	217	10.0	4.8	.33	236	3.4	1.6	.10
F	208	10.0	4.7	.33	219	3.3	1.6	.11
TOTAL:	425	10.0	4.7	.23	455	3.3	1.6	.07

[1]A total score based on 32-item PSI was excluded from this analysis if the child had 27 or fewer valid responses out of the 32 total.

[2]Only children will all four responses were included in this table. Age group Ns do not sum to 455 because no age was available for one child.

Table IV-48

DESCRIPTIVE DATA

	DENVER DEVELOPMENTAL SCREENING TEST															
	FINE MOTOR (possible range=7-15)				LANGUAGE (possible range=16-36)				GROSS MOTOR (possible range=6-16)				PERSONAL-SOCIAL (possible range=6-12)			
	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
AGE:																
3	81	9.3	1.7	.19	78	24.0	3.9	.44	65	10.3	1.9	.24	83	10.1	1.5	.16
3½	140	9.9	1.7	.15	133	24.9	3.6	.31	123	10.4	1.4	.13	146	10.2	1.4	.11
4	152	10.4	1.9	.15	149	26.4	4.1	.34	136	10.9	1.5	.13	157	10.6	1.3	.10
4½	116	11.1	2.1	.19	113	26.8	3.9	.37	104	11.2	1.8	.18	117	10.8	1.3	.12
5	34	12.3	1.7	.29	34	30.1	2.8	.48	32	12.1	1.9	.34	35	11.0	1.2	.20
5½	10	11.3	2.0	.63	9	28.9	6.8	2.38	9	11.1	1.4	.45	11	11.2	1.1	.33
SEX:																
M	271	10.1	1.8	.11	262	25.8	4.1	.25	235	10.6	1.6	.10	280	10.4	1.4	.08
F	262	10.6	2.1	.13	254	26.3	4.2	.27	234	11.0	1.8	.12	270	10.6	1.3	.08
TOTAL:	533	10.4	2.0	.09	516	26.0	4.2	.18	469	10.8	1.7	.08	550	11.0	1.4	.06

Table IV-49

DESCRIPTIVE DATA

	CHILD FOOD INTAKE QUESTIONNAIRE							
	FOOD TOTAL				NUTRITION TOTAL			
	N	Mean	SD	SE	N	Mean	SD	SE
AGE:								
3	84	12.0	7.0	.76	84	7.7	2.2	.24
3½	147	12.1	4.5	.37	147	8.3	1.9	.16
4	159	11.9	4.9	.39	159	8.1	2.1	.17
4½	115	11.4	4.8	.45	115	7.9	2.0	.19
5	36	11.7	4.9	.81	36	7.7	2.2	.36
5½	11	14.4	5.3	1.61	11	8.7	1.7	.51
SEX:								
M	285	12.2	5.5	.33	285	8.3	1.9	.12
F	268	11.5	4.7	.29	268	7.8	2.2	.13
TOTAL:	553	11.9	5.2	.22	553	8.0	2.1	.08

Table IV-50

DESCRIPTIVE DATA

	HEIGHT				WEIGHT			
	N	Mean	SD	SE	N	Mean	SD	SE
AGE:								
3	82	37.5	2.24	.25	82	31.6	4.47	.49
3½	144	38.4	2.48	.21	146	32.7	4.53	.37
4	155	39.9	1.85	.15	155	34.7	4.36	.35
4½	117	41.1	2.09	.19	117	37.0	5.07	.47
5	36	42.3	1.96	.33	36	38.8	5.58	.93
5½	9	41.9	3.10	1.03	11	41.0	5.18	1.56
SEX:								
M	279	39.7	2.44	.15	283	35.1	5.35	.32
F	265	39.4	2.80	.17	265	34.0	5.02	.31
TOTAL:	544	39.6	2.62	.11	548	34.6	5.21	.22

Table IV- 51

DESCRIPTIVE DATA
Siblings

	HEIGHT				WEIGHT			
	N	Mean	SD	SE	N	Mean	SD	SE
AGE:								
3	17	37.0	2.66	.65	17	31.1	5.01	1.22
3 1/2	15	37.7	2.48	.64	15	32.6	3.83	.99
4	7	39.6	2.88	1.09	7	36.1	9.15	3.46
4 1/2	10	41.9	2.60	.82	10	38.9	4.77	1.51
5	18	42.9	2.06	.49	18	39.0	5.08	1.20
5 1/2	17	42.8	2.26	.55	17	40.4	5.18	1.26
SEX:								
M	37	40.2	3.29	.54	37	36.4	6.26	1.03
F	48	40.6	3.69	.53	48	36.3	6.39	.92
TOTAL:	85	40.4	3.51	.38	85	36.3	6.30	.68

Table IV-52

DESCRIPTIVE DATA

	SCHAEFER BEHAVIOR INVENTORY												PUPIL OBSERVATION CHECKLIST							
	TASK ORIENTATION (possible range=5-35)				EXTRAVERSION-INTROVERSION (possible range=5-35)				HOSTILITY-TOLERANCE (possible range=4-28)				TEST ORIENTATION (possible range=5-35)				SOCIABILITY (possible range=4-28)			
	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE	N	Mean	SD	SE
AGE:																				
3	84	22.1	5.4	.59	84	22.3	4.0	.44	84	19.8	5.7	.62	84	18.8	8.4	.91	84	15.7	6.8	.74
3-1/2	147	22.7	4.6	.38	147	22.6	4.1	.34	147	18.8	5.5	.45	146	21.3	8.0	.66	146	16.2	6.9	.57
4	159	23.9	5.4	.42	159	23.3	4.1	.33	159	18.6	5.8	.46	157	22.9	8.0	.64	157	17.1	7.0	.56
4-1/2	117	23.2	4.9	.45	117	23.3	3.8	.35	117	19.2	6.6	.61	117	26.2	7.3	.67	117	18.9	6.6	.60
5	36	24.6	4.4	.73	36	22.8	4.4	.73	36	18.1	5.5	.92	36	26.4	6.3	1.00	36	18.8	5.7	.95
5-1/2	11	25.8	4.1	1.24	11	24.1	2.8	.86	11	18.6	6.3	1.89	11	24.1	9.4	2.85	11	15.7	8.2	2.46
SEX:																				
M	285	23.1	5.0	.30	285	22.9	4.1	.24	285	19.0	6.0	.35	285	22.0	8.1	.48	285	17.2	6.5	.39
F	270	23.3	5.0	.31	270	23.0	4.0	.25	270	18.9	5.8	.35	267	23.6	8.3	.50	267	17.0	7.3	.45
TOTAL:	555	23.2	5.0	.21	555	23.0	4.1	.17	555	19.0	5.9	.25	552	22.8	8.2	.35	552	17.1	6.9	.29

Table V-1

HIGH/SCOPE HOME ENVIRONMENT SCALE
PERCENT RESPONSES

I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE ACTIVITIES THAT _____ DOES FROM DAY TO DAY. SOME QUESTIONS ARE ABOUT THINGS HE (SHE) PLAYS WITH, AND SOME ARE ABOUT THINGS THAT YOU DO TOGETHER. THE QUESTIONS WILL HELP US TO UNDERSTAND MORE ABOUT WHAT CONDITIONS ARE BEST FOR A YOUNG CHILD AS HE (SHE) GROWS.

1. HOW MANY CHILDREN'S BOOKS ARE IN YOUR HOME THAT _____ CAN LOOK AT?

		Hm	C	Hd
Would you say:	28.7 fifteen or more	26.0	25.3	37.3
or:	35.4 several, but not fifteen	33.6	33.3	40.8
or:	35.9 three or fewer	40.4	41.4	21.8

2. HOW OFTEN WOULD YOU SAY SOMEONE READS STORIES TO _____?

		Hm	C	Hd
Would you say:	29.0 almost every day	27.5	26.5	34.5
or:	28.5 several times a week	25.5	30.9	31.0
or:	42.5 not that often?	47.0	42.6	34.5

3. HOW OFTEN DO YOU AND _____ TALK ABOUT THE PICTURES HE (SHE) MAKES, WHAT HE (SHE) DOES DURING THE DAY, HIS (HER) FRIENDS, AND SO ON?

		Hm	C	Hd
Would you say:	31.2 for about a half-hour or more every day	34.7	27.2	29.6
or:	43.2 for a few minutes every day	33.5	43.8	59.9
or:	25.6 several times a week or less?	31.9	29.0	10.6

4. HOW OFTEN DO YOU LET _____ HELP YOU WHILE YOU ARE COOKING, CLEANING THE HOUSE, WASHING DISHES, OR DOING OTHER HOUSEHOLD TASKS?

		Hm	C	Hd
Would you say:	55.0 almost every day	53.0	61.7	50.7
or:	19.6 several times a week	19.9	11.7	28.2
or:	25.4 not that often?	27.1	26.5	21.1

(Continued)

Table V-1
HIGH/SCOPE HOME ENVIRONMENT SCALE
PERCENT RESPONSES
(Continued)

5. I'M GOING TO READ A LIST OF HOUSEHOLD TASKS THAT CHILDREN SOMETIMES HELP WITH. PLEASE TELL ME WHICH OF THEM _____ HAS HELPED YOU WITH IN THE LAST MONTH.

Yes	No			Hm	C	Hd
26.0	74.0	clean or peal food for a meal	YES -	28.3	25.3	22.7
			NO -	71.7	74.7	77.3
29.6	70.4	mix or bake things like cookies		31.1	24.1	33.3
				68.9	75.9	66.7
26.2	73.8	stir things while they cook, like soup, pudding, or jello		25.9	23.5	29.8
				74.1	76.5	70.2
76.0	24.0	find food on shelves at the grocery store for you		76.5	74.7	76.6
				23.5	25.3	23.4
68.2	31.8	take off the dishes after meals		71.3	64.8	66.7
				28.7	35.2	33.3
75.8	24.2	put clean clothes into the right drawers or shelves		74.4	74.7	79.4
				25.6	25.3	20.6

6. HOW OFTEN DO YOU JOIN IN THE PLAY ACTIVITIES THAT _____ IS INVOLVED IN, SUCH AS PLAYING GAMES, DRAWING PICTURES, OR SINGING?

		Hm	C	Hd
Would you say: 52.3	almost every day	54.8	48.8	52.1
or: 26.4	once a week or so	22.8	25.3	33.8
or: 21.3	not that often?	22.4	25.9	14.1

7. HOW MUCH TIME DOES _____ WATCH TELEVISION?

		Hm	C	Hd
Would you say: 48.1	about 2 hours a day or more	48.0	55.5	40.3
or: 34.6	every day but not for two hours	34.0	24.5	46.8
or: 17.3	several times a week or less?	18.0	20.0	12.9

8. HOW OFTEN DO YOU TALK WITH _____ ABOUT HIS (HER) FEELINGS TOWARDS THINGS, SUCH AS HIS (HER) FEARS, PEOPLE OR THINGS HE (SHE) ESPECIALLY LIKES, OR PEOPLE OR THINGS HE (SHE) ESPECIALLY DOESN'T LIKE?

		Hm	C	Hd
Would you say: 49.1	almost every day	51.4	45.3	49.3
or: 29.4	several times a week	24.7	33.5	33.1
or: 21.5	not that often?	23.9	21.1	17.6

(Continued)

Table V-1
HIGH/SCOPE HOME ENVIRONMENT SCALE
PERCENT RESPONSES
(Continued)

9. I AM GOING TO READ TO YOU A LIST OF THINGS CHILDREN CAN PLAY WITH. PLEASE TELL ME WHICH ONES _____ HAS A CHANCE TO PLAY WITH AT HOME.

Yes	No			Hm	C	Hd
90.8	9.2	crayons and paper	YES -	90.0	88.9	94.4
			NO -	10.0	11.1	5.6
48.5	51.5	scissors		55.8	35.2	50.7
				44.2	64.8	49.3
48.2	51.8	scotch tape, paste, or stapler		49.2	37.0	59.2
				50.8	63.0	40.8
47.1	52.9	jigsaw puzzles		43.4	48.1	52.5
				56.6	51.9	47.5
81.6	18.4	old picture catalogs to read, and cut up, like Sears, Wards, or others		78.9	80.2	88.0
				21.1	19.8	12.0
33.7	66.3	paint or magic markers		33.5	29.0	39.4
				66.5	71.0	60.6
38.3	61.7	clay or playdough		32.8	37.0	49.3
				67.2	63.0	50.7
49.5	50.5	"put-together" toys like tinkertoys, Legos, pegboards, or beads for stringing		43.6	49.4	59.9
				56.4	50.6	40.1
48.0	52.0	hammer and nails with some wood scraps		49.0	50.6	43.3
				51.0	49.4	56.7
42.7	57.3	yarn, thread, and cloth scraps for knitting or sewing		35.5	45.7	52.1
				64.5	54.3	47.9
61.4	38.6	make-believe toys out of milk cartons, tin cans, or egg cartons		60.2	63.6	61.3
				39.8	36.4	38.7
19.8	80.2	plants of his (her) own in a pot or garden		20.7	19.8	18.3
				79.3	80.2	81.7

10. HOW OFTEN DO YOU PLAY "HOUSE", "STORE", "DOCTOR", OR OTHER MAKE-BELIEVE GAMES WITH _____?

		Hm	C	Hd
Would you say: 11.8	almost every day	12.1	11.8	11.3
or: 23.7	several times a week	23.1	21.6	27.0
or: 64.5	not that often?	64.8	66.7	61.7

(Continued)

Table V-1
HIGH/SCOPE HOME ENVIRONMENT SCALE
PERCENT RESPONSES
(Continued)

11. NOW I'M GOING TO READ A LIST OF THINGS CHILDREN START TO LEARN AS THEY GROW TO BE SCHOOL AGE. PLEASE TELL ME WHICH OF THEM YOU HAVE TRIED TO TEACH _____ IN THE PAST MONTH.

Yes	No			Hm	C	Hd
81.8	18.2	nursery rhymes, prayers, or songs	YES -	81.3	75.2	90.1
			NO -	18.7	24.8	9.9
81.8	18.2	colors		79.3	82.1	85.9
				20.7	17.9	14.1
44.7	55.3	shapes, such as circles, squares, or triangles		42.6	40.7	52.8
				57.4	59.3	47.2
56.1	43.9	to write his (her) name		55.6	55.6	57.7
				44.4	44.4	42.3
37.7	62.3	to remember his (her) address and telephone number		37.5	32.1	44.4
				62.5	67.9	55.6
94.8	5.2	to count things		94.8	93.2	96.5
				5.2	6.8	3.5
54.1	45.9	to recognize numbers in books		52.6	45.1	66.9
				47.4	54.9	33.1
74.1	25.9	to say the "abc's"		76.5	66.0	78.9
				23.5	34.0	21.1
45.3	54.7	to recognize letters in books		44.4	42.6	50.0
				55.6	57.4	50.0
35.4	64.6	to read words on signs or in books		35.5	31.1	40.1
				64.5	68.9	59.9
59.2	40.8	ideas like "big-little", "up-down", "before-after", and so on		58.4	32.5	68.3
				41.6	47.5	31.7

Table V-2

HIGH/SCOPE HOME ENVIRONMENT SCALE
ITEMS SCORED FOR EACH SCALE

HES #1 - Warm mother and child involvement

3. Mother and child talk about child's activities
4. Child helps with household tasks
6. Mother joins child's play activities
8. Mother talks with child about child's feelings
10. Mother plays make-believe games with child

HES #2 - Playthings

9a. Child can play with scissors
9b. Child can play with scotch tape, paste, or stapler
9c. Child can play with jigsaw puzzles
9d. Child can play with paint or magic markers
9e. Child can play with clay or play-dough
9f. Child can play with "put-together" toys

HES #3 - Mother teaches child

11a. Mother teaches child to write name
11b. Mother teaches child to remember address
11c. Mother teaches child to recognize numbers
11d. Mother teaches child to say the "ABC's"
11e. Mother teaches child to recognize letters
11f. Mother teaches child to read words

HES #4 - Child does household tasks

5a. Child helps mother clean and peel food
5b. Child helps mother mix and bake things
5c. Child helps mother stir foods
5d. Child helps mother find food on shelves in store
5e. Child helps mother take off dishes after meal
5f. Child helps mother by putting clean clothes in drawers.

HES #5 - Books and time reads

1. Number of children's books at home
2. Someone reads stories to child

HES #6 - Television in home

12. Child watches television

Table V-3
HIGH/SCOPE HOME ENVIRONMENT SCALE
ITEM CORRELATIONS
(Item Ns range from 538 to 555)

	Warm Mother Involvement						Playthings							Mother Teaching							Child Does Household Tasks							Books and Reading		
	3	4	6	8	10	Sub-total	9a	9b	9c	9d	9e	9f	Sub-total	11a	11b	11c	11d	11e	11f	Sub-total	5a	5b	5c	5d	5e	5f	Sub-total	1	2	Sub-total
Warm Mother Involvement																														
3																														
4	12																													
6	25	23																												
8	24	21	25																											
10	18	24	24	24																										
Subtotal	31	31	37	36	36																									
Playthings																														
9a	05	06	10	00	02	09																								
9b	13	10	20	06	14	20	37																							
9c	05	09	10	10	11	16	00	05																						
9d	00	03	01	03	09	05	12	18	09																					
9e	12	10	08	08	08	16	11	19	20	11																				
9f	10	11	20	10	12	22	07	11	20	15	16																			
Subtotal	15	16	22	12	19	27	24	33	20	24	29	26																		
Mother Teaching																														
11a	07	11	04	02	07	11	06	11	02	05	04	01	10																	
11b	11	09	11	17	16	12	01	05	11	07	13	04	14	21																
11c	10	03	07	11	12	15	11	13	02	06	06	07	16	23	20															
11d	08	02	10	09	06	13	10	11	06	08	09	02	15	18	27	32														
11e	11	05	12	14	12	18	07	12	04	05	12	10	17	21	23	48	30													
11f	18	09	09	12	12	20	08	14	11	10	14	15	23	25	24	33	23	36												
Subtotal	18	11	15	18	19	26	12	18	11	11	16	11	25	32	35	50	41	50	45											
House Tasks																														
5a	00	19	09	07	12	16	11	13	00	11	03	06	16	08	12	12	08	09	12	17										
5b	10	14	17	01	10	18	18	13	02	02	08	04	16	05	07	00	-01	00	03	05	15									
5c	09	21	06	12	12	20	14	14	02	10	02	00	15	09	13	10	12	14	14	20	19	17								
5d	06	13	13	13	10	19	13	03	09	00	12	02	14	13	12	08	08	11	10	18	10	08	05							
5e	07	22	09	12	10	20	02	-02	02	00	08	13	08	05	11	01	12	08	06	13	15	00	11	01						
5f	01	19	03	08	10	15	13	10	04	04	05	00	12	06	13	11	11	14	11	19	09	03	09	12	11					
Subtotal	13	34	20	19	20	35	24	18	08	09	14	10	25	17	24	12	18	20	19	29	30	19	27	17	19	20				
Books&Reading																														
1	15	16	18	06	12	21	21	22	15	15	15	19	33	00	12	07	01	05	13	11	04	13	06	10	00	07	12			
2	17	27	34	13	22	37	15	21	22	11	12	16	32	08	14	12	08	15	12	19	09	19	10	14	05	12	24	35		
Subtotal	19	27	31	11	19	35	22	25	23	16	17	22	39	05	16	12	05	13	16	18	08	19	10	14	04	12	23	35	35	
Television																														
12	10	11	04-05	03	11		02	03	08-02	12	09	10		09	10	12	13	07	11	17	04-05	07	07	05-02	05			10	07	10

Table V-4

HIGH/SCOPE HOME ENVIRONMENT SCALE
ROTATED FACTOR LOADINGS[1]
FOUR FACTORS SPECIFIED

(Item Ns range from 541 to 555)

Item[2]	FI	FII	FIII	FIV	h^2
3	43	-11	00	20	24
4	61	02	25	-02	45
5a	23	-13	43	-12	28
5b	21	11	50	00	32
5c	25	-18	44	-17	33
5d	25	-16	15	02	12
5e	42	-08	01	-05	19
5f	19	-21	24	-10	16
6	53	00	14	25	37
8	60	-12	-08	10	40
9a	-12	-07	68	17	53
9b	-04	-12	60	35	51
9c	17	-03	-13	56	37
9d	-13	-10	28	40	28
9e	07	-11	11	56	35
9f	18	-01	-01	61	42
10	53	-08	09	15	33
11a	04	-49	13	-05	27
11b	27	-48	00	04	31
11c	00	-72	05	04	53
11d	04	-61	04	03	39
11e	08	-71	01	07	53
11f	11	-60	04	20	43
PCT. V	9.4	10.9	7.9	7.0	

Four factors accounted for 35.1% of the total variance.

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[1]Principal components factor analysis followed by a varimax rotation.

[2]See Table V-2 for key to items.

Table V-5

HOME ENVIRONMENT SCALE
ITEMS LOADING HIGHEST ON EACH FACTOR
FOUR FACTORS SPECIFIED

(Item Ns ranged from 553 to 555)

		Loading
FACTOR I	(9.3%)	
4.	Child helps with household tasks	.61
8.	Mother talks with child about child's feelings	.60
10.	Mother plays make-believe games with child	.53
6.	Mother joins child's play activities	.53
3.	Mother and child talk about child's activities	.43
5e.	Child helps mother take off dishes after meal	.42
FACTOR II	(6.9%)	
9f.	Child can play with "put-together" toys	.61
9c.	Child can play with jigsaw puzzles	.56
9e.	Child can play with clay or play-dough	.56
9d.	Child can play with paint or magic markers	.40
FACTOR III	(10.8%)	
11c.	Mother teaches child to recognize numbers	.72
11e.	Mother teaches child to recognize letters	.71
11d.	Mother teaches child to say the "ABC's"	.61
11f.	Mother teaches child to read words	.60
11a.	Mother teaches child to write name	.49
11b.	Mother teaches child to remember address	.48
FACTOR IV	(7.9%)	
9a.	Child can play with scissors	.68
9b.	Child can play with scotch tape, paste, or stapler	.60
5b.	Child helps mother mix and bake things	.50
5c.	Child helps mother stir foods	.44
5a.	Child helps mother clean and peel food	.43

Four factors accounted for 35.1% of the total variance.

Table V-6

DESCRIPTIVE DATA

	HOME ENVIRONMENT SCALE																			
	Scale I[1] WARM MOTHER INVOLVEMENT (possible range=5-15)				Scale II[2] PLAYTHINGS (possible range=6-12)				Scale III[3] FORMAL TEACHING (possible range=6-12)				Scale IV[4] CHILD DOES HOUSEHOLD TASKS (possible range=6-12)				Scale V[5] BOOKS AND READING (possible range=2-6)				Scale VI[6] TELEVISION (possible range=1-3)			
	N*	Mean	SD	SE	N*	Mean	SD	SE	N*	Mean	SD	SE	N*	Mean	SD	SE	N*	Mean	SD	SE	N*	Mean	SD	SE
HOME START	246	10.4	2.5	.16	248	8.9	1.6	.10	249	9.0	1.9	.18	250	9.1	1.3	.09	250	3.7	1.3	.09	244	2.3	.76	.05
CONTROL	152	10.3	2.5	.20	162	8.4	1.5	.12	161	8.7	1.9	.15	162	8.9	1.4	.11	162	3.7	1.3	.10	155	2.4	.80	.06
HEAD START	141	10.7	2.0	.17	141	9.1	1.5	.13	142	9.4	1.6	.14	141	9.1	1.3	.11	142	4.2	1.3	.11	139	2.3	.68	.06
SEX:																								
M	276	10.4	2.5	.15	282	8.7	1.5	.09	282	8.9	1.8	.11	283	8.9	1.3	.08	284	3.8	1.4	.08	275	2.3	.76	.05
F	263	10.5	2.3	.14	269	8.7	1.6	.10	270	9.2	1.9	.11	270	9.2	1.4	.08	270	3.8	1.3	.08	263	2.4	.73	.05
TOTAL:	539	10.4	2.4	.10	551	8.7	1.6	.07	552	9.0	1.8	.08	553	9.0	1.3	.06	554	3.8	1.3	.06	538	2.3	.79	.03
	F_{group}= 2.6 df = 2,525 p = N.S.				F_{group}= 10.8 df = 2,525 p < .01				F_{group}= 6.2 df = 2,525 p < .01				F_{group}= 2.2 df = 2,525 p = N.S.				F_{group}= 8.7 df = 2,525 p < .01				F_{group}< 1 df = 2,525 p = N.S.			

*Includes only cases where all items in the scale are complete.

[1]Items include 3, 4, 6, 8, and 10.

[2]Items include 9a, 9b, 9c, 9d, 9e, and 9f.

[3]Items include 11a, 11b, 11c, 11d, 11e, and 11f.

[4]Items include 5a, 5b, 5c, 5d, 5e, and 5f.

[5]Items include 1 and 2.

[6]Includes item 12.

Table V-7

MOTHER BEHAVIOR OBSERVATION SCALE
ITEMS SCORED FOR EACH SCALE

HES - Observations: Supportive

1. Mother praised child during visits
3. Mother held child in lap during testing
6. Mother encouraged child during testing
8. Mother asked about child's progress during visits
10. Mother talked proudly about child

HES - Observations: Punitive

2. Mother scolded child during visits
4. Mother criticized child during testing
5. Mother coached child during testing
9. Mother threatened child during visits

Table V-8

MOTHER BEHAVIOR OBSERVATION SCALE
PERCENT RESPONSES IN EACH SCORING CATEGORY

(Item Ns range from 540 to 547)

	Total Sample Percents						
	1	2	3				
	Never observed	Observed once or twice	Observed three or more times		1	2	3
1. Mother praised the child for something he (she) did.	54.3	38.9	6.8	Hm	54.0	39.6	6.4
				C	59.4	36.3	4.4
				Hd	48.9	40.7	10.4
2. Mother scolded child.	68.6	23.5	7.9	Hm	69.8	21.8	8.5
				C	69.4	21.9	8.8
				Hd	65.4	28.7	5.9
3. Mother held child in her lap.	74.3	21.3	4.4	Hm	78.1	19.4	2.4
				C	70.3	23.4	6.3
				Hd	71.9	22.2	5.9
4. Mother interfered with testing by making negative or critical comments to the child or to the tester (e.g., "why can't you do that?")	84.4	12.4	3.1	Hm	81.4	14.6	4.0
				C	83.6	13.2	3.1
				Hd	91.0	7.5	1.5
5. Mother interfered with testing by coaching the child or by giving answers to the child.	71.9	23.5	4.6	Hm	66.8	27.5	5.7
				C	76.3	20.6	3.1
				Hd	76.1	19.4	4.5
6. Mother made encouraging comments to the child during testing.	59.1	36.0	4.9	Hm	61.0	34.1	4.9
				C	58.2	38.0	3.8
				Hd	56.8	37.1	6.1
7. Examples of the child's art work were displayed in the home.	87.1	11.7	1.2	Hm	85.3	13.5	1.2
				C	85.4	12.7	1.9
				Hd	*	*	*
8. Mother expressed interest in the child's performance or general development (e.g., by asking how the child is doing).	62.0	30.8	7.2	Hm	58.5	33.1	8.5
				C	65.2	28.6	6.2
				Hd	64.7	29.4	5.9
9. Mother threatened child with later punishment.	86.6	10.1	3.3	Hm	88.8	7.2	4.0
				C	80.6	15.6	3.8
				Hd	89.7	8.8	1.5
10. Mother talked proudly about the child's accomplishments.	56.7	33.8	9.5	Hm	48.8	40.4	10.8
				C	65.8	26.1	8.1
				Hd	60.3	30.9	8.8

*Head Start eliminated from this item.

Table V-9

MOTHER BEHAVIOR OBSERVATION SCALE
ITEM INTERCORRELATIONS

(Item Ns range from 540 to 547)

	Supportive						Punitive			
Item[1]	1	3	6	8	10	Sub-total	2	4	5	9
Supportive										
1										
3	13									
6	34	26								
8	33	13	23							
10	52	08	24	43						
Subtotal	56	26	42	47	54					
Punitive										
2	09	12	14	06	01	19				
4	06	06	03	03	08	17	40			
5	08	09	13	13	00	21	29	34		
9	04	14	08	09	00	21	60	38	22	
Subtotal	17	20	26	20	13	16	82	73	68	76

[1]See key to items.

Table V-10

MOTHER BEHAVIOR OBSERVATION SCALE
ROTATED FACTOR LOADINGS[1]

(Item Ns range from 540 to 547)

Item[2]	FI	FII	h^2
1	77	01	60
2	02	81	66
3	31	22	15
4	02	71	52
5	22	54	35
6	58	23	40
8	68	03	47
9	00	78	62
10	79	09	64
PCT. V	24.2	24.5	

Two factors accounted for 48.8% of the total variance.

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[1]Principal components factor analysis followed by a varimax rotation.

[2]See key to items.

Table V-11

MOTHER BEHAVIOR OBSERVATION SCALE
ITEMS LOADING HIGHEST ON EACH FACTOR

(Item Ns range from 540 to 547)

		Loading
FACTOR I	(24.2%) Supportive	
10.	Mother talked proudly about child	.79
1.	Mother praised child during visits	.77
8.	Mother asked about child's progress during visits	.68
6.	Mother encouraged child during testing	.53
3.	Mother held child in lap during testing	.31
FACTOR II	(24.5%) Punitive	
2.	Mother scolded child during visits	.81
9.	Mother threatened child during visits	.78
4.	Mother criticized child during testing	.71
5.	Mother coached child during testing	.54

Two factors accounted for 48.8% of the total variance.

Table V-12

DESCRIPTIVE DATA

	MOTHER BEHAVIOR OBSERVATION SCALE							
	Scale 1 SUPPORTIVE (possible range=5-15)				Scale 2 PUNITIVE (possible range=4-12)			
	N	Mean	SD	SE	N	Mean	SD	SE
HOME START	242	7.3	1.9	.12	244	5.2	1.6	.10
CONTROL	154	7.1	2.0	.16	157	5.1	1.5	.12
HEAD START	130	7.4	2.2	.19	133	4.9	1.5	.13
SEX:								
M	270	7.3	2.0	.12	274	5.1	1.4	.08
F	256	7.2	2.0	.12	260	5.1	1.7	.10
TOTAL:	526	7.3	2.0	.09	534	5.1	1.5	.07

$F_{group} = 1.5$
df = 2,525
p = N.S.

$F_{group} = <1$
df = 2,525
p = N.S.

Table V-13

PARENT INTERVIEW
RESPONSE DISTRIBUTIONS[1]

	Home Start	Control	Head Start	Total Sample
Total Number of Interviews	251	160	142	553
Location of family's residence	(N=243)	(N=155)	(N=129)	(N=527)
On a farm or in the country	37.9%	45.2%	19.4%	35.5%
In a small town or in a city	62.1	54.3	80.6	64.5
Sex of Child	(N=251)	(N=160)	(N=142)	(N=553)
Male	47.4	53.1	52.1	50.3
Female	52.6	46.9	47.9	49.7

If in Home Start, was home visitor present during the interview?

Yes (N=273)	No
59.0%	41.0%

1. I'D LIKE TO ASK YOU SOME QUESTIONS ABOUT YOU AND YOUR FAMILY. THE FIRST QUESTIONS ARE ABOUT YOUR CHILDREN.

Is _____ in a preschool or Head Start program now?

	Home Start (N=238)	Control (N=157)	Head Start (N=141)	Total Sample (N=536)
No	95.8%	99.4%	.7%[2]	71.8%
Yes	4.2	.6	99.3	28.2
If no, has _____ ever been in a Head Start or preschool program?	(N=217)	(N=127)	(N= 2)	(N=346)
No	95.9	92.9	100.0	94.8
Yes	4.1	7.1	0.0	5.2

2. WHAT SHOTS HAS _____ HAD?		(N=249-251)	(N=159-160)	(N=142)	(N=550-553)
DPT:	Yes	89.6	86.3	97.2	90.6
	No	5.6	8.8	2.8	5.8
	Don't Know	4.8	5.0	0.0	3.6
POLIO:	Yes	86.4	83.8	95.1	87.9
	No	8.8	11.3	4.2	8.3
	Don't Know	4.8	5.0	0.7	3.8
MEASLES:	Yes	78.7	69.2	88.7	78.5
	No	15.3	25.2	7.7	16.2
	Don't Know	6.0	5.7	3.5	5.3

(Continued)

[1]See text for more complete explanation of interview responses.

[2]One parent probably misunderstood the question.

	Home Start (N=184)	Control (N=124)	Head Start (N=115)	Total Sample (N=423)
3. WHEN WAS THE LAST TIME _____ SAW A DOCTOR?				
Time in months:	7.6	7.4	4.3	6.6
4. WAS THIS LAST VISIT FOR A CHECK-UP, OR FOR SOMETHING WRONG?	(N=240)	(N=157)	(N=142)	(N=539)
Check-up	32.5%	24.8%	53.5%	35.8%
Something Wrong	67.5	75.2	46.5	64.2
5. WHEN ARRANGING FOR THIS VISIT TO THE DOCTOR, OR WHEN MAKING IT, DID YOU HAVE HELP FROM ANYONE OUTSIDE YOUR FAMILY?	(N=240)	(N=156)	(N=142)	(N=538)
No	85.4	92.9	62.7	81.6
Yes	14.6	7.1	37.3	18.4
6. IF YES, WHO HELPED YOU?	(N= 35)	(N= 11)	(N= 53)	(N= 99)
Home Start or Head Start person	42.9	18.2	86.8	63.6
Other	54.3	81.8	13.2	35.4
7. (If tester is not sure if person is from Home Start or Head Start, ask:) IS HE (SHE) FROM HEAD START OR HOME START?	(N= 31)	(N= 10)	(N= 52)	(N= 93)
No	51.6	80.0	9.6	31.2
Yes	48.4	20.0	90.4	68.8
8. WHEN WAS THE LAST TIME _____ WENT TO THE DENTIST?	(N= 37)	(N= 19)	(N= 49)	(N=105)
Time in months:	7.2	8.4	4.6	6.2
9. WAS THIS LAST VISIT FOR A CHECK-UP OR FOR SOMETHING WRONG?	(N= 41)	(N= 22)	(N= 63)	(N=126)
Check-up	61.0%	68.2%	79.4%	71.4%
Something wrong	39.0	31.8	20.6	28.6
10. WHEN ARRANGING FOR THIS VISIT, OR WHEN MAKING IT, DID YOU HAVE HELP FROM ANYONE OUTSIDE YOUR FAMILY?	(N= 40)	(N= 22)	(N= 61)	(N=123)
No	77.5	90.9	34.4	58.5
Yes	22.5	9.1	65.6	41.5
11. IF YES, WHO HELPED YOU?	(N= 9)	(N= 2)	(N= 41)	(N= 52)
Home Start or Head Start person	33.3	100.0	87.8	78.8
Other	66.7	0.0	12.2	21.2
12. (If tester is not sure if person is from Home Start or Head Start, ask:) IS HE (SHE) FROM HEAD START OR HOME START?	(N= 9)	(N= 2)	(N= 39)	(N= 50)
No	55.6	0.0	7.7	16.0
Yes	44.4	100.0	92.3	84.0

13. HOW MANY BROTHERS AND SISTERS DOES _____ HAVE AT HOME? (See text, p. 83)

14. I'D LIKE TO KNOW THEIR AGES. PLEASE START WITH YOUR YOUNGEST CHILD AND TELL ME HOW OLD EACH BROTHER OR SISTER IS. (See text, p. 83)

(Continued)

		Home Start	Control	Head Start	Total Sample
15.	ARE YOU _____'S:	(N=249)	(N=158)	(N=138)	(N=545)
	MOTHER?	93.6%	92.4%	95.7%	93.8%
	FATHER?	1.2	1.3	2.2	1.5
	OLDER SISTER (OR BROTHER)?	.4	1.3	0.0	.6
	GRANDMOTHER, AUNT, OR OTHER RELATIVE?	4.8	4.4	2.2	4.0
	BABYSITER, NEIGHBOR, OR FRIEND?	0.0	.6	0.0	.2
16.	WHEN WERE YOU BORN?	(N=139)	(N=158)	(N=128)	(N=548)
	Mean age (years):	29.5	29.4	30.0	29.6
17.	DO YOU NOW HAVE A PAYING JOB?	(N=251)	(N=160)	(N=142)	(N=553)
	No	82.9	85.0	34.5	71.1
	Yes	17.1	15.0	65.5	28.9
18.	IF YES, IS IT FULL TIME, REGULAR PART TIME, OR OCCATIONAL PART TIME?	(N= 42)	(N= 24)	(N= 93)	(N=159)
	Full Time	54.8	58.3	73.1	66.0
	Regular part time	26.2	20.8	15.1	18.9
	Occasional part time	19.0	20.8	11.8	15.1
19.	WHAT KIND OF WORK DO YOU DO? See Chapter III, p. 36,for information on occupations.				
20.	WHAT IS THE HIGHEST GRADE YOU COMPLETED IN SCHOOL?	(N=250)	(N=160)	(N=142)	(N=552)
	Grade: 1-4	2.4%	4.4%	2.1%	2.9%
	5-7	10.8	9.4	7.7	9.6
	8	16.8	11.9	7.0	12.9
	9	12.0	10.6	12.0	11.6
	10	14.8	18.1	9.9	14.5
	11	14.8	11.9	14.1	13.8
	12	25.6	31.3	35.2	29.7
	13	2.0	2.5	4.2	2.7
	14-16	.8	0.0	7.7	.8
21.	DOES ANYONE ELSE IN YOUR FAMILY EARN AN INCOME THAT IS USED TO SUPPORT THE FAMILY?	(N=251)	(N=160)	(N=142)	(N=553)
	No	48.2	35.0	51.4	45.2
	Yes	51.8	65.0	48.6	54.8
22.	WHO? WHO CONTRIBUTES THE MOST? I WOULD LIKE TO ASK A COUPLE OF QUESTIONS ABOUT HIM (HER).				
23.	IS HIS (HER) JOB FULL TIME, REGULAR PART TIME, OR OCCASIONAL PART TIME?	(N=125)	(N= 97)	(N= 67)	(N=289)
	Full time	80.8	85.6	85.1	83.4
	Regular part time	12.8	8.2	11.9	11.1
	Occasional part time	6.4	6.2	3.0	5.5
24.	WHAT KIND OF WORK DOES HE (SHE) DO? See Chapter III, p. 36,for information on occupations.				

(Continued)

			Home Start	Control	Head Start	Total Sample
25.	WHAT IS THE HIGHEST GRADE HE (SHE) HAS COMPLETED IN SCHOOL?		(N=126)	(N=101)	(N= 71)	(N=298)
	Grade:	1-4	11.9%	5.0%	2.8%	7.4%
		5-7	14.3	15.8	7.0	13.1
		8	15.1	19.8	14.1	16.4
		9	14.3	12.9	7.0	12.1
		10	11.9	10.9	15.5	12.4
		11	7.1	5.0	11.3	7.4
		12	20.6	22.8	31.0	23.8
		13-16	4.8	7.9	11.3	7.4
26.	NOW I AM GOING TO READ A LIST OF COMMUNITY GROUPS AND ORGANIZATIONS. TELL ME IF YOU OR ANYONE ELSE IN YOUR FAMILY IS ACTIVE IN ANY OF THEM.		(N=234-251)	(N=147-160)	(N=140-142)	(N=521-552)
	PARENT-TEACHERS ASSOCIATION?	Yes	13.9	12.5	32.6	
	BOY SCOUTS, GIRL SCOUTS, 4-H CLUB, OR OTHER YOUTH GROUPS?	Yes	15.5	10.6	18.3	14.8
	CHURCH ORGANIZATIONS OR SOCIAL CLUBS?	Yes	34.3	34.4	50.7	38.5
	ANY POLITICAL ORGANIZATION?	Yes	2.0	1.9	2.1	2.0
	OTHER?	Yes	6.4	2.7	17.1	8.3
	Number of groups checked:		(N=127)	(N= 69)	(N=96)	(N=292)
		1	70.1	71.0	50.0	63.7
		2	20.5	15.9	28.1	21.0
		3	7.9	11.6	16.7	11.6
		4	.8	1.4	4.2	2.1
		5	.8	0.0	1.0	.7
27.	ARE YOU TAKING ANY COURSES OR GOING TO SCHOOL?		(N=250)	(N=159)	(N=142)	(N=551)
	No		97.2	96.9	92.3	95.8
	Yes		2.8	3.1	7.7	4.2
28.	IF YES, WHAT LEVEL OF EDUCATION?		(N= 5)	(N= 3)	(N= 11)	(N= 19)
	ADULT EDUCATION?		40.0	66.7	27.3	36.8
	HIGH SCHOOL?		0.0	0.0	9.1	5.3
	COLLEGE COURSES?		60.0	33.3	63.6	57.9

(Continued)

29. NOW I AM GOING TO READ A LIST OF PLACES AND SERVICES THAT YOU MIGHT HAVE HEARD OF. FOR EACH ONE, I WANT YOU TO TELL ME IF YOU EVER USED IT AND IF YOU ARE USING IT NOW? DID HEAD START OR HOME START ASSIST YOU IN USING IT?

	Home Start	Control	Head Start	Total Sample
WELFARE DEPARTMENT	(N=244)	(N=153)	(N=141)	(N=538)
Heard of it	100.0 %	98.6 %	100.0 %	99.7 %
Ever used it	70.5	55.5	51.8	61.4
Now using it	45.9	37.9	27.7	38.9
Assistance from Home Start or Head Start	4.1	3.9	7.1	4.9
FOOD STAMPS	(N=240)	(N=152)	(N=142)	(N=534)
Heard of it	96.2	97.4	100.0	97.6
Ever used it	60.0	52.6	68.3	60.1
Now using it	39.6	32.3	38.0	37.1
Assistance from Home Start or Head Start	5.4	3.3	4.9	4.6
MEDICAID	(N=243)	(N=156)	(N=141)	(N=540)
Heard of it	79.8	76.2	80.8	79.2
Ever used it	36.6	26.2	31.9	32.5
Now using it	28.0	19.8	22.7	24.3
Assistance from Home Start or Head Start	2.1	1.2	2.8	2.1
FOOD COMMODITIES	(N=237)	(N=156)	(N=141)	(N=534)
Heard of it	83.5	88.4	88.6	86.3
Ever used it	39.6	38.4	23.4	35.0
Now using it	11.4	36.5	0.0	8.4
Assistance from Home Start or Head Start	1.2	13.4	.7	1.3
PUBLIC HOSPITAL	(N=228)	(N=142)	(N=135)	(N=505)
Heard of it	95.2	95.1	97.0	95.6
Ever used it	83.8	74.0	82.2	80.6
Now using it	28.1	14.1	20.0	22.0
Assistance from Home Start or Head Start	29.9	1.4	3.7	2.4
PUBLIC HEALTH CLINIC	(N=233)	(N=149)	(N=139)	(N=521)
Heard of it	95.7	95.3	97.1	96.0
Ever used it	78.1	77.2	79.8	78.3
Now using it	46.8	38.2	57.5	47.2
Assistance from Home Start or Head Start	13.3	7.4	17.2	12.6
MENTAL HEALTH CLINIC	(N=248)	(N=158)	(N=149)	(N=547)
Heard of it	69.8	69.0	78.7	71.9
Ever used it	10.1	4.4	9.2	7.0
Now using it	2.8	0.0	0.0	1.7
Assistance from Home Start or Head Start	.8	.6	.7	.7
FAMILY COUNSELING AGENCIES	(N=247)	(N=159)	(N=140)	(N=546)
Heard of it	62.0	59.0	67.9	62.7
Ever used it	6.1	3.7	5.0	5.2
Now using it	.8	0.0	.7	.6
Assistance from Home Start or Head Start	0.0	.6	1.4	.6
PLANNED PARENTHOOD	(N=244)	(N=149)	(N=136)	(N=529)
Heard of it	86.9	89.8	90.5	88.7
Ever used it	38.9	30.1	45.6	38.2
Now using it	20.9	17.4	23.5	20.6
Assistance from Home Start or Head Start	4.9	2.6	5.1	4.3
HEAD START PROGRAM	(N=236)	(N=155)	(N=138)	(N=529)
Heard of it	95.4	96.7	100.0	96.9
Ever used it	26.3	19.3	96.4	42.5
Now using it	5.5	1.3	95.7	27.8
Assistance from Home Start or Head Start	11.9	10.3	72.5	27.2

(Continued)

	Home Start	Control	Head Start	Total Sample
DAY CARE OR CHILD CARE PROGRAM	(N=245)	(N=157)	(N=140)	(N=542)
Heard of it	91.3 %	89.9 %	89.3 %	90.4 %
Ever used it	10.1	9.6	55.7	21.8
Now using it	2.4	1.3	45.7	13.3
Assistance from Home Start or Head Start	1.6	1.3	39.3	11.3
RECREATIONAL PROGRAMS	(N=249)	(N=157)	(N=192)	(N=548)
Heard of it	64.6	55.4	62.6	61.5
Ever used it	13.2	4.4	14.7	11.1
Now using it	4.4	1.9	8.4	4.7
Assistance from Home Start or Head Start	.8	0.0	3.5	1.3
LEGAL AID	(N=245)	(N=157)	(N=140)	(N=542)
Heard of it	67.3	65.5	72.2	68.1
Ever used it	20.0	13.9	19.3	18.1
Now using it	.8	2.5	3.6	3.9
Assistance from Home Start or Head Start	.4	.6	.7	.6
HOUSING AUTHORITY	(N=245)	(N=151)	(N=141)	(N=537)
Heard of it	70.2	67.6	78.6	71.6
Ever used it	20.4	16.6	29.0	21.5
Now using it	23.5	10.6	18.4	15.2
Assistance from Home Start or Head Start	.8	0.0	2.1	.9
STATE EMPLOYMENT OFFICE	(N=235)	(N=152)	(N=139)	(N=526)
Heard of it	95.0	98.4	95.8	95.2
Ever used it	46.5	50.7	67.7	53.2
Now using it	6.9	6.6	9.4	7.4
Assistance from Home Start or Head Start	1.8	0.0	2.9	1.5
JOB TRAINING PROGRAMS	(N=246)	(N=156)	(N=142)	(N=544)
Heard of it	95.6	87.9	90.8	89.9
Ever used it	17.0	10.3	19.7	15.8
Now using it	2.4	0.0	4.2	2.2
Assistance from Home Start or Head Start	1.2	1.3	2.8	1.6

30. NOW I WOULD LIKE TO FIND OUT WHAT YOUTHOUGHT ABOUT THE THINGS I DID WITH _____. TELL ME WHICH ONES YOU LIKED AND WHICH ONES YOU DIDN'T LIKE.

DDST				
N	(187)	(132)	(60)	(379)
Liked	97.9 %	97.7 %	95.0 %	97.4 %
Didn't	2.1	2.3	5.0	2.6
PSI				
N	(185)	(128)	(58)	(371)
Liked	96.8	96.9	98.3	97.0
Didn't Like	3.2	3.1	1.7	3.0
HEIGHT AND WEIGHT				
N	(175)	(125)	(56)	(356)
Liked	99.4	100.0	100.0	99.7
Didn't Like	.6	0.0	0.0	.3
8-BLOCK				
N	(183)	(133)	(95)	(411)
Liked	94.5	97.7	94.7	95.6
Didn't Likw	5.5	2.3	5.3	4.4

(Continued)

31. NOW I'D LIKE TO FIND OUT HOW YOU FEEL ABOUT THE THINGS I ASKED YOU ABOUT. TELL ME WHICH THINGS YOU LIKED AND WHICH ONES YOU DIDN'T LIKE	Home Start	Control	Head Start	Total Sample
SCHAEFER				
N	(150)	(115)	(94)	(359)
Liked	98.7 %	100.0 %	98.9 %	99.2 %
Didn't Like	1.3	0.0	1.1	.8
FOOD INTAKE				
N	(149	(114)	(94)	(358)
Liked	99.3	100.0	96.8	98.9
Didn't Like	.7	0.0	3.2	1.1
HOME ENVIRONMENT SCALE				
N	(152)	(114)	(94)	(360)
Liked	99.3	100.0	100.0	99.7
Didn't Like	.7	0.0	0.0	.3
PARENT INTERVIEW				
N	(152)	(116)	(96)	(364)
Liked	96.7	99.1	95.8	97.3
Didn't Like	3.3	.9	4.2	2.7

32. WHEN DID _____ FIRST ENTER THE HEAD START OR THE HOME START PROGRAM?	Home Start (N=139)	Head Start (N=128)	Total Sample
Months	1.41	3.27	

33. WHAT ARE SOME OF THE THINGS THAT _____ ESPECIALLY LIKES ABOUT HEAD START OR HOME START?	(N=140)	(N=131)	(N=271)
Nonspecific, positive comment	13.6 %	15.3 %	14.4 %
Educational activities or educational play	54.3	18.3	36.9
Socializing or social activities	17.9	57.3	36.9
Field trips	2.9	3.1	3.0
Group meetings or activities	.7	0.0	.4
The home visitor	8.6	3.1	5.9
Health or medical activities, check-ups			
Other	2.1	3.1	2.6

34. WHAT ARE SOME OF THE THINGS THAT _____ DOESN'T LIKE ABOUT HEAD START OR HOME START?	(N= 34)	(N= 43)	(N= 77)
Nonspecific negative comment	38.2	14.0	24.7
Educational activities or educational play	26.5	0.0	11.7
Socializing or social activities	17.6	7.0	11.7
Nutritional activities, medical (doesn't like to go to dentist)	0.0	9.3	5.2
Parent gave positive comment (HV doesn't come often enough	5.9	0.0	2.6
Doesn't like to sit still	0.0	20.9	11.7
Would like to be with more kids	8.8	48.8	31.2
Swimming	2.9	0.0	1.3

(Continued)

	Home Start	Head Start	Total Sample
35. WHAT OTHER THINGS DO YOU THINK THE PROGRAM SHOULD DO FOR _____.	(N= 76)	(N= 60)	(N=136)
Nonspecific positive (do well, learn different things)	32.9 %	56.7 %	43.4 %
School readiness (academic) e.g., get him ready for first grade	26.3	16.7	22.1
School adjustment (learns not to be afraid of teachers)	5.3	0.0	2.9
Gains outside experience (as from field trips)	1.3	0.0	.7
Social adjustment (learn how to act around other people)	15.8	11.7	14.0
Improve parent teaching skills	1.3	0.0	.7
Other	17.1	15.0	16.2
36. WHAT ARE SOME OF THE THINGS YOU ARE GETTING OUT OF THE PROGRAM?	(N=124)	(N=127)	(N=251)
Nonspecific positive comment (all of them, learning)	20.2	15.0	17.5
Educational activities	40.3	16.5	28.3
Socializing with Home Visitor (gives me someone to talk to)	4.0	1.6	2.8
Field trips and picnics	5.6	0.0	2.8
Center activities (group meetings, workshops, etc.)	5.6	6.3	6.0
Nutrition help or referral	.8	1.6	1.2
Health or medical help or referrals	0.0	2.4	1.2
Arts and crafts activities	.8	0.0	.4
Other	22.6	56.7	39.8
37. WHAT ARE SOME OF THE OTHER THINGS YOU THINK THE PROGRAM SHOULD DO FOR YOU?	(N= 47)	(N= 27)	(N= 74)
Nonspecific positive comment	29.7	33.3	31.1
Educational	10.6	3.7	8.1
Personal-social gains, self-image	2.1	0.0	1.4
Medical referrals	6.4	0.0	4.1
Benefit to child	2.1	0.0	1.4
Nutritional	0.0	3.7	1.4
Benefit to other siblings	0.0	3.7	1.4
Improved parent teaching skills	10.6	3.7	8.1
Parent-child interaction	6.4	3.7	5.4
Other	31.9	48.1	37.8
38. HAVE YOU HEARD OF A GROUP CALLED THE PARENT POLICY COUNCIL OR COMMITTEE? IT MAY ALSO BE CALLED A PARENT POLICY BOARD, PARENT ADVISORY COMMITTEE, PAC OR PC.	(N=152)	(N=138)	(N=290)
No	63.8	50.0	57.2
Yes	36.2	50.0	42.8

(Continued)

		Head Start	Home Start	Total Sample
39.	IF YES, HAVE YOU EVER BEEN TO ONE OF THEIR MEETINGS?	(N= 55)	(N= 67)	(N=122)
	No	69.1 %	34.3 %	50.0 %
	Yes	30.9	65.7	50.0
40.	IF YES, WHAT KINDS OF THINGS ARE DISCUSSED AT THE MEETINGS?	(N= 17)	(N= 46)	(N= 63)
	Nonspecific comments	11.8	4.3	6.3
	Educational activities	5.9	6.5	6.3
	Policies of program, electing officers	58.8	28.3	36.5
	Health	0.0	2.2	1.6
	Child rearing	0.0	10.9	7.9
	Planning group activities	17.6	17.4	17.5
	Other	5.9	30.4	23.8
41.	ARE THERE THINGS YOU THINK SHOULD BE BROUGHT UP AT THESE MEETINGS THAT HAVE NOT BEEN DISCUSSED?	(N= 14)	(N= 44)	(N= 58)
	No	71.4	95.5	89.7
	Yes	28.6	4.5	10.3
42.	IF YES, WHAT?	(N= 3)	(N= 2)	(N= 5)
	Other	100.0	100.0	100.0
43.	HAVE THERE BEEN GET-TOGETHERS FOR EITHER HEAD START OR HOME START FAMILIES, SUCH AS SOCIAL HOURS, PICNICS, OR OTHER GATHERINGS?	(N=145)	(N=125)	(N=270)
	No	63.4	48.8	56.7
	Yes	36.6	51.2	43.3
44.	IF YES, DID YOU ATTEND?	(N= 55)	(N= 66)	(N=121)
	No	21.8	30.3	26.4
	Yes	78.2	69.7	73.6

Table V-15

RELIABILITY OF CODING 8-BLOCK AUDIO TAPES
(INDIVIDUAL CATEGORIES)

8-Block Categories	Number of Events Coded				Pairwise Reliabilities (Cartwright's Alpha)		
	Coder 1	Coder 2	Coder 3	Coder 4	Mean	Minimum	Maximum
MOTHER CATEGORIES							
Request Talking							
1. Height	4	17	16	19	.41*	.10	.74
2. Mark	9	8	12	19	.48*	.35	.70
3. Height & Mark	0	6	9	0	.11*	.00	.67
4. Unclassified	86	81	67	83	.71	.65	.78
Request Understanding							
5. Height	66	49	50	47	.63	.59	.71
6. Mark	104	107	112	111	.79	.75	.84
7. Height & Mark	11	26	24	22	.53	.37	.70
8. Unclassified	159	170	170	168	.59	.54	.64
Request Placement							
9. Height	35	30	37	35	.71	.67	.76
10. Mark	39	29	35	35	.74	.66	.80
11. Height & Mark	25	17	19	23	.50	.31	.75
12. Unclassified	207	195	217	216	.77	.74	.78
Talk About							
13. Height	26	36	29	37	.52	.44	.70
14. Mark	59	63	53	62	.70	.67	.79
15. Height & Mark	20	18	15	16	.57	.46	.71
16. Unclassified	127	116	106	116	.47*	.41	.54
17. Future Task	1	0	1	0	.00*	.00	.00
18. Direct Request	149	128	114	109	.46*	.39	.56
19. Comments	18	36	48	52	.29*	.17	.39
20. Task Irrelevancy	1	1	0	0	.17*	.00	1.00
21. Praise	16	9	8	5	.37*	.30	.47
22. Acknowledge	45	50	62	45	.49*	.39	.58
23. Encourage	30	35	42	27	.47*	.38	.58
24. Threaten, Demean	1	0	2	0	.00*	.00	.00
25. Bribe	8	6	1	1	.14*	.00	.40
26. Correction/Alone	55	59	62	54	.51	.43	.61
27. Correction/Reason	33	28	34	27	.62	.46	.77
28. Correction/Question	28	25	22	29	.48*	.42	.64
CHILD CATEGORIES							
Talk About							
29. Height	43	45	39	41	.70	.63	.80
30. Mark	60	58	65	62	.71	.68	.74
31. Height & Mark	6	5	4	4	.52	.38	.80
32. Unclassified	315	326	323	324	.73	.71	.77
33. Direct Request	7	12	10	9	.19*	.06	.29
34. Comments	13	34	18	16	.23*	.18	.32
35. Task Irrelevancy	1	3	3	1	.42*	.20	1.00
36. Acknowledge	43	24	26	44	.34*	.22	.50
37. I Don't Know	25	30	26	26	.60	.55	.76
38. Refuse, Reject	13	11	11	7	.44*	.25	.69

*Reliability considered too low for using this category as an individual item.

Table V-16

RELIABILITY OF CODING 8-BLOCK AUDIO TAPES
(SCALE SCORES)

Scale[1]		Number of Events Coded				Pairwise Reliabilities (Cartwright's Alpha)		
		Coder 1	Coder 2	Coder 3	Coder 4	Mean	Minimum	Maximum
1. Request Talking	(1-4)	99	112	104	121	.76	.71	.84
2. Request Understanding	(5-7)	181	182	186	180	.74	.68	.81
3. Request Placement	(9-11)	99	76	91	93	.75	.71	.80
4. Talk About	(13-15)	105	117	97	115	.65	.56	.75
5. Unclassified	(8,12,16)	493	481	493	500	.73	.72	.76
6. Feedback	(21-23,25)	146	153	174	131	.52	.46	.60
7. Correction	(27,28)	61	53	56	56	.62	.54	.73
8. Child Talk	(29-31)	109	108	108	107	.73	.71	.76
9. Child Unclassified	(32-38)	417	440	417	427	.78	.77	.82

[1]Numbers in parentheses indicate items belonging to each scale.

Table V-17

8-BLOCK TASK
MEANS, SD's AND RESPONSE DISTRIBUTIONS (PERCENTS) OF
MOTHER-CHILD INTERACTION VARIABLES

(N = 517)

	Mean[1]	SD	Scoring Category[2] 1	2	3	4	5	6	7	8	9
MOTHER CATEGORIES											
Request Talking											
Height	1.64	1.03	59.0	28.6	7.4	1.9	1.9	.4	.6	.2	0
Mark	1.87	1.03	42.4	39.3	11.4	3.9	2.3	.2	.6	0	0
Height & Mark	1.19	.47	83.6	14.1	1.9	.4	0	0	0	0	0
Unclassified	3.05	1.97	22.2	29.2	17.2	11.2	8.5	2.3	4.8	2.9	1.5
Request Understanding											
Height	2.54	1.32	17.2	43.7	22.6	7.9	3.7	3.3	.8	.8	0
Mark	3.04	1.48	12.2	28.4	30.2	12.8	9.1	4.6	1.9	.6	.2
Height & Mark	2.07	1.22	36.6	38.9	14.9	4.4	3.5	.8	.4	.2	.4
Unclassified	4.08	1.96	5.2	19.0	24.8	15.3	13.2	8.5	7.7	4.3	2.1
Request Placement											
Height	1.97	1.06	36.8	42.2	13.7	4.4	1.9	.2	.6	0	.2
Mark	1.93	1.03	36.2	44.5	14.9	2.3	1.2	.2	.2	0	.6
Height & Mark	1.96	1.22	44.5	33.3	12.6	5.2	2.1	1.4	.4	.6	0
Unclassified	4.71	2.15	5.8	9.5	18.0	17.6	14.3	10.8	12.4	6.0	5.6
Talk About											
Height	2.53	1.30	18.2	41.6	23.4	9.1	4.3	1.9	1.0	.2	.4
Mark	2.78	1.33	12.4	35.8	30.0	11.6	7.0	1.5	.6	.8	.4
Height & Mark	2.17	1.29	34.6	35.2	18.6	6.6	2.5	1.0	1.0	0	.6
Unclassified	3.32	1.49	7.2	25.5	29.2	17.4	13.2	3.5	3.3	.4	.4
Praise	1.43	.80	67.7	26.5	3.7	1.2	.4	.2	0	.4	0
Acknowledge	2.03	.95	28.0	49.7	16.2	3.9	1.7	0	.2	0	.2
Encourage	1.55	.87	58.2	34.4	4.6	1.2	.6	.4	.4	.2	0
Correction/Alone	2.92	1.50	11.6	36.0	27.1	11.5	6.8	2.5	3.1	.8	.4
Correction/Reason	1.85	.72	33.1	51.1	13.9	1.9	0	0	0	0	0
Correction/Question	1.75	.68	36.8	53.2	8.7	1.0	.4	0	0	0	0
CHILD CATEGORIES											
Talk About											
Height	2.43	1.54	32.1	31.3	18.0	2.4	6.6	2.3	1.2	.4	.8
Mark	2.94	1.89	26.3	25.3	17.6	10.4	8.9	4.8	4.4	1.0	1.2
Height & Mark	1.30	.60	75.8	20.3	2.7	.8	.4	0	0	0	0
Unclassified	4.66	2.56	10.3	17.0	12.4	12.0	11.4	7.0	12.2	7.7	10.1
Direct Request	1.46	.67	61.9	31.9	5.0	.6	.6	0	0	0	0
Comments	1.89	1.26	45.3	38.3	8.9	4.1	1.0	.4	1.0	.6	.6
Task Irrelevancy	1.38	.82	72.1	22.6	3.1	1.2	.2	.2	.2	.2	.2
Acknowledge	1.34	.62	71.4	24.4	3.1	.8	.4	0	0	0	0
I Don't Know	1.29	.56	75.0	22.2	1.5	1.0	.2	0	0	0	0
Refuse, Reject	1.41	.[illegible]	72.7	21.1	3.9	.8	.2	.2	.2	.6	.4

[1] The mean proportion can be interpreted as the mean number of events per minute.

[2] Scoring categories were derived by transforming the frequency of each event to a proportion of the teaching time and cutting the proportional frequencies into nine categories (see text).

Table V-18

8-BLOCK TASK
INTERITEM AND ITEM-SUBTOTAL CORRELATIONS

(N=517)

		REQUEST MAKING					REQUEST UNDERSTANDING				REQUEST PLACEMENT				TALK ABOUT				UNCLASSIFIED				FEEDBACK				CORRECTION			CHILD TALK				CHILD UNCLASSIFIED							
		1	2	3	4	Sub-total	5	6	7	Sub-total	8	9	10	Sub-total	11	12	13	Sub-total	14	15	16	Sub-total	17	18	19	20	Sub-total	21	22	Sub-total	23	24	25	Sub-total	26	27	28	29	30	31	32
REQUEST MAKING	2	45																																							
	3	18	09																																						
	4	31	38	24																																					
	Subtotal	43	48	24	44																																					
REQUEST UNDERSTANDING	5	10	19	-05	04	10																																			
	6	-07	08	-03	-01	01	21																																		
	7	05	07	10	03	07	15	23																																	
	Subtotal	03	16	00	02	08	23	29	25																																	
REQUEST PLACEMENT	8	-05	-09	-05	-16	-15	29	13	-07	18																															
	9	-08	-06	-05	-07	-10	00	37	01	20	33																														
	10	-03	-02	13	-01	00	-01	16	39	26	11	23																													
	Subtotal	-07	-08	03	-11	-11	13	31	18	31	26	37	20																													
TALK ABOUT	11	21	05	11	15	19	26	10	12	23	12	-07	06	05																											
	12	04	19	06	19	20	11	33	18	30	06	15	18	19	**41**	.																									
	13	-01	-07	24	04	03	-05	04	36	16	-12	-03	34	11	**34**	**28**																									
	Subtotal	10	08	18	17	19	14	21	29	31	02	02	26	16	**47**	**43**	**37**																									
UNCLASSIFIED	14	05	09	-04	00	04	23	24	14	31	-03	-10	-09	-10	**11**	10	07	12																							
	15	-01	00	00	-10	-06	-09	12	-06	00	-01	00	-12	-07	-06	-04	00	-05	28																						
	16	-04	-05	01	-02	-04	03	10	06	10	-01	-02	06	02	21	18	20	26	31	**24**																					
	Subtotal	00	02	-02	-06	-03	08	22	06	18	-03	-05	-08	-08	10	09	10	13	37	32	34																				
FEEDBACK	17	06	02	00	04	-05	09	10	10	14	03	01	03	03	08	07	00	07	07	00	13	08																			
	18	04	10	-05	05	07	06	13	12	15	03	09	21	17	12	19	10	18	06	04	27	15	12																		
	19	06	-07	00	-06	-04	00	-02	-02	-02	02	-03	-04	-02	00	-06	-03	-04	00	03	05	04	01	-03																	
	20	06	03	07	-02	03	01	12	07	10	12	07	00	09	09	10	06	12	10	30	23	30	06	21	12																
	Subtotal	09	04	03	00	04	06	15	12	16	11	07	08	13	13	14	06	15	**11**	21	32	29	09	19	08	22															
CORRECTION	21	07	14	-03	-04	11	19	20	27	32	15	09	19	21	22	24	15	27	**11**	04	08	11	11	11	-05	24	21														
	22	05	08	01	01	13	11	14	11	17	04	03	01	04	10	13	02	11	**19**	**12**	19	22	11	13	05	25	27	18													
	Subtotal	08	15	-02	14	15	19	22	25	32	12	08	14	17	21	25	11	26	19	10	18	21	14	15	00	32	31	18	18												
CHILD TALK	23	60	43	18	57	69	11	-05	00	03	-04	-11	-01	-08	33	20	00	24	04	-06	00	-01	07	17	-09	06	09	11	12	15											
	24	31	53	18	61	66	04	07	13	11	-10	-01	15	03	24	41	14	35	04	-15	06	-04	08	22	-12	00	07	22	16	24	58									
	25	10	02	33	19	20	-08	06	25	10	-07	-03	25	09	17	21	40	35	-02	-02	07	00	04	09	-05	06	07	10	05	10	21	31									
	Subtotal	48	51	24	66	74	06	02	12	10	-10	-06	13	00	33	37	15	38	04	-12	05	-03	09	22	-12	04	10	20	16	23	57	61	30								
CHILD UNCLASSIFIED	26	02	10	03	14	12	10	13	08	16	07	-01	14	10	14	19	10	19	20	16	31	30	00	33	-04	27	28	22	27	31	22	26	18	29							
	27	04	02	05	04	05	-06	-05	03	-04	09	-02	14	11	04	09	14	12	-09	-03	11	-02	-03	18	02	19	18	10	10	13	07	17	14	16	29						
	28	00	00	00	-07	-04	04	-05	03	00	07	01	05	07	01	04	04	04	-04	03	23	08	06	20	07	19	25	01	13	09	06	05	06	06	36	35					
	29	03	06	00	11	10	00	-05	-07	-06	-04	-02	-02	-04	-01	04	-05	-01	-01	-10	01	-05	00	08	-03	02	03	06	02	05	11	13	06	14	14	07	13				
	30	00	02	-09	00	-01	-01	06	05	05	01	-02	05	02	14	13	06	15	10	06	23	16	08	23	02	14	21	17	16	21	09	12	10	13	37	28	20	12			
	31	15	18	04	14	19	07	-01	11	08	-06	-02	05	-01	03	01	02	03	12	03	10	11	02	08	04	10	12	04	05	06	12	15	14	17	20	11	14	06	12		
	32	-05	-07	-07	-06	-08	-02	-06	-02	-06	-01	-04	-03	-04	00	00	02	01	05	03	10	08	-05	-02	26	05	10	-07	02	-03	-11	-06	-04	-10	12	14	25	05	04	02	
	Subtotal	03	08	00	09	09	06	04	06	08	05	-02	12	08	11	16	10	17	13	10	33	23	01	32	05	28	33	17	24	26	17	24	17	25	45	38	46	17	37	21	19

Table V- 19

8-BLOCK TASK
MEAN MOTHER-CHILD INTERACTION SCALE SCORES BY GROUP

Scale	Group			Total Sample (N=517)	F^1 (df=2, 513)	p
	Home Start (N=238)	Control (N=145)	Head Start (N=134)			
1. Request Talking						
Mean	7.66	7.79	7.86	7.75	< 1	n.s.
SD	3.44	3.31	2.96	3.28		
SE	.22	.28	.26	.14		
2. Request Understanding						
Mean	7.90	6.86	8.05	7.64	7.89	<.05
SD	2.85	2.58	2.62	2.76		
SE	.18	.21	.23	.12		
3. Request Placement						
Mean	5.95	5.71	5.83	5.85	< 1	n.s.
SD	2.42	2.25	2.09	2.29		
SE	.16	.19	.18	.10		
4. Talk About						
Mean	7.57	7.17	7.66	7.48	< 1	n.s.
SD	3.01	3.09	2.67	2.95		
SE	.20	.26	.23	.13		
5. Unclassified						
Mean	11.69	12.12	12.63	12.05	2.41	n.s.
SD	4.04	4.22	3.86	4.06		
SE	.26	.35	.33	.18		
6. Feedback						
Mean	8.01	7.75	8.00	7.93	< 1	n.s.
SD	2.53	2.40	2.14	2.40		
SE	.16	.20	.19	.05		
7. Correction						
Mean	3.59	3.46	3.76	3.60	2.63	n.s.
SD	1.00	1.16	1.13	1.08		
SE	.06	.96	.10	.05		
8. Child Talk						
Mean	6.68	6.63	6.71	6.67	< 1	n.s.
SD	3.43	3.28	3.03	3.28		
SE	.22	.27	.26	.14		
9. Child Unclassified						
Mean	14.03	13.23	12.58	13.43	4.59	<.05
SD	4.79	4.18	4.09	4.48		
SE	.31	.35	.35	.20		

[1] From analysis of covariance with child's age as the covariate.

Table V-20

8-BLOCK TASK
PERCENT OF RESPONSES BY AGE
FINAL PLACEMENT OF SHORT O

Age (years)	N	Incorrect	One Dimension Matched	Correct
3	68	8.8	47.1	44.1
3½	127	5.5	36.2	58.3
4	145	10.3	37.0	52.7
4½	111	4.5	32.4	63.1
5	34	5.8	29.4	64.7
5½	9	0.0	22.2	77.8
TOTAL	495	7.1	36.4	56.6

Table V-21

8-BLOCK TASK
PERCENT OF RESPONSES BY AGE
EXPLANATION OF SHORT O PLACEMENT

Age (years)	N	No Correct Verbalization	One Dimension Verbalized	Both Dimensions Verbalized	Child Refusal
3	65	47.7	13.8	0.0	38.5
3½	127	52.8	11.0	0.8	35.4
4	145	55.2	17.9	2.8	24.1
4½	104	54.8	21.2	8.7	15.4
5	34	50.0	32.4	5.9	11.8
5½	8	0.0	62.5	25.0	12.5
TOTAL	483	52.2	18.0	3.7	26.1

Table V-22

8-BLOCK TASK
PERCENT OF RESPONSES BY AGE
FINAL PLACEMENT OF TALL X

Age (years)	N	Incorrect	One Dimension Matched	Correct
3	65	20.0	55.4	24.6
3½	123	12.2	48.0	39.8
4	145	14.5	40.0	45.5
4½	111	9.9	34.2	55.9
5	34	14.7	29.4	55.9
5½	9	11.1	44.4	44.4
TOTAL	487	13.5	42.1	44.4

Table V-23

8-BLOCK TASK
PERCENT OF RESPONSES BY AGE
EXPLANATION OF TALL X PLACEMENT

Age (years)	N	No Correct Verbalization	One Dimension Verbalized	Both Dimensions Verbalized	Child Refusal
3	63	55.6	7.9	0.0	36.5
3½	122	45.9	18.9	1.6	33.6
4	138	60.8	19.6	1.4	18.1
4½	104	54.8	22.1	7.7	15.4
5	33	54.5	33.3	0.0	12.1
5½	8	25.0	50.0	25.0	0.0
TOTAL	468	53.8	19.9	3.0	23.3

Table VI-1

WHOLE SCORE FACTOR ANALYSIS ITEMS

1	Mother's education
2	Age (in months)
3	Height
4	Weight
5	Sex (Boy = 1, Girl = 2)
6	Food intake nutrition score
7	Food intake total food score
8	SBI - Task Orientation (Items 1, 4, 7, 10, 13)
9	SBI - Extraversion-Introversion (Items 2, 5, 8, 14)
10	SBI - Hostility-Tolerance (Items 3, 6, 9, 12, 18)
11	POCL - Test Orientation (Items 2, 4, 5, 7, 9)
12	POCL - Sociability (Items 2, 3, 6, 8)
13	HES #1 - Mother involvement (Items 3, 4, 6, 8, 10)
14	HES #2 - Play things (Items 9a through 9f)
15	HES #3 - Mother teaches (Items 11a through 11f)
16	HES #4 - Household tasks (Items 5a through 5f)
17	HES #5 - Books and time reads (Items 1 and 2)
18	HES #6 - Television in home (Item 12)
19	MBOS - Mother behavior observation scale, Supportive Interactions (Items 1, 3, 6, 8, 10)
20	MBOS - P1, Punitive Interventions (Items 2, 4, 5, 9)
21	PSI Total
22	DDST language (Items 8 through 25)
23	DDST fine motor (Items 1 through 7)
24	DDST gross motor (Items 26 through 32)
25	DDST personal-social (Items 33 through 38)
26	8-Block child score
27	Urban-rural (urban = 2; rural = 1)
28	Occupation Index

Table VI-2

CORRELATIONS[1] BETWEEN SELECTED WHOLE SCORES

(Whole score Ns range from 363 to 556)

	Score[2]	SES 1	Age 2	H 3	W 4	SEX 5	Food Intake 6	7	SBI 8	9	10	POCL 11	12	HES 13	14	15	16	17	18	HES Obs 19	20	PSI 21	DDST 22	23	24	25	8-B 26
Age	2	-04																									
Height	3	05	57																								
Weight	4	04	46	70																							
Sex	5	-06	-06	-05	-10																						
Food Intake	6	05	02	01	06	-11																					
	7	03	-01	-01	11	-06	70																				
SBI	8	00	11	09	04	01	06	05																			
	9	07	09	06	08	01	02	05	17																		
	10	-16	-06	-04	-03	00	-07	00	-24	-08																	
POCL	11	13	32	23	15	09	03	00	14	16	-22																
	12	18	16	15	12	-01	08	10	04	26	-15	59															
HES	13	15	-04	00	01	03	24	26	22	15	-13	14	11														
	14	22	08	08	11	00	10	13	14	06	-05	15	11	26													
	15	07	11	08	04	09	14	09	19	07	-06	13	09	26	24												
	16	03	07	07	10	12	19	18	18	11	-14	19	17	36	24	29											
	17	05	13	14	03	07	06	03	02	10	01	13	09	13	10	16	05										
	18	21	00	04	02	01	19	20	15	09	-15	17	11	36	39	17	23	10									
MBOS	19	09	00	-01	00	-01	01	00	12	04	-17	08	01	10	04	03	10	-06	18								
Observations	20	-11	-03	03	04	00	-04	00	-07	-12	05	-22	-12	-06	-06	02	01	01	-13	19							
PSI	21	06	44	33	18	00	-03	-05	19	00	-12	44	23	01	19	08	11	01	15	08	-15						
DDST	22	06	35	28	14	06	00	-05	13	04	-15	30	22	02	17	05	11	07	13	08	-09	45					
	23	07	36	26	19	13	-04	-08	09	01	-12	22	09	-07	09	07	05	04	02	07	-04	35	61				
	24	10	24	23	17	12	00	-03	05	04	-04	22	13	00	17	18	07	12	04	02	-04	24	45	52			
	25	05	22	18	14	05	07	04	10	07	-13	15	10	03	11	14	06	03	02	06	02	17	30	33	27		
8-Block	26	14	28	23	16	-04	06	04	10	07	-17	34	23	04	11	02	12	06	09	12	-05	46	35	25	24	13	
Urban/Rural	27	11	-23	-14	-10	01	-03	00	-07	02	00	-09	03	-03	05	06	-03	-04	-02	00	12	-21	-25	-17	-04	-12	-07

[1]A missing data intercorrelation computer program was used.

[2]See key to variable scores. (Table VI-1)

Table VI-3

WHOLE SCORE MEA FOR HOME START, CONTROL, AND HEAD START CHILDREN BY SITE[1]

	ALABAMA				ARKANSAS				KANSAS			OHIO			TEXAS				WEST VIRGINIA			
	N[1]=41	N=36	N=29	N=106	N=40	N=31	N=37	N=108	N=44	N=28	N=72	N=47	N=14	N=61	N=34	N=15	N=38	N=87	N=40	N=38	N=39	N=117
	HMS Mean	CONT Mean	HDS Mean	SITE Mean	HMS Mean	CONT Mean	HDS Mean	SITE Mean	HMS Mean	CONT Mean	SITE Mean	HMS Mean	CONT Mean	SITE Mean	HMS Mean	CONT Mean	HDS Mean	SITE Mean	HMS Mean	CONT Mean	HDS Mean	SITE Mean
Age	52.2	53.7	48.1	51.6	50.8	49.3	47.4	49.2	43.9	43.6	43.8	41.0	42.0	41.2	45.4	48.6	47.1	46.6	49.5	46.1	46.1	47.3
Gross Motor	11.4	11.1	11.0	11.2	11.2	10.6	11.2	11.0	10.4	10.6	10.5	10.3	10.5	10.3	10.7	11.2	10.9	10.9	10.4	10.0	10.7	10.4
Height	40.8	41.3	40.5	40.9	40.1	39.7	39.5	39.8	38.3	39.1	38.6	31.7	38.6	37.9	39.2	39.3	40.8	39.9	39.6	38.4	39.5	39.2
Weight	35.4	37.1	36.7	36.3	36.6	34.4	35.8	34.6	32.6	33.2	32.8	32.5	32.5	32.5	34.2	35.5	36.2	35.3	35.5	32.0	35.8	34.5
Television	2.6	2.6	2.4	2.5	2.3	2.4	2.0	2.2	2.2	2.1	2.2	2.2	2.0	2.1	2.3	2.6	2.4	2.3	2.0	2.2	2.2	2.1
SBI-M I	17.7	17.3	20.5	18.3	17.7	19.3	17.5	18.1	18.5	18.0	18.3	19.3	17.2	18.8	20.3	21.8	18.3	19.7	20.8	18.9	20.3	20.0
Dos-punitive	5.3	5.1	5.4	5.2	4.3	4.6	4.7	4.5	5.1	5.0	5.1	5.2	5.6	5.3	5.8	6.0	5.4	5.7	5.0	4.8	4.2	4.7
SBI-E I	22.7	23.7	23.1	23.1	23.6	22.8	24.2	23.6	22.0	22.6	22.2	22.8	20.6	22.3	23.0	24.0	23.1	23.2	22.5	21.7	23.3	22.5
PSI	8.7	10.4	7.3	8.9	10.7	8.7	10.4	10.1	7.4	7.3	7.4	6.1	6.7	6.2	6.7	6.4	8.1	7.4	9.6	8.3	10.1	9.4
Fine Motor	11.1	11.7	10.6	11.2	11.4	10.7	11.0	11.1	10.0	9.6	9.9	8.9	9.2	9.0	9.8	10.4	10.3	10.1	10.2	9.4	10.5	10.0
Language	27.3	28:0	25.4	27.0	29.4	26.8	28.4	28.3	25.5	24.9	25.3	23.3	23.3	23.3	23.1	23.7	25.2	24.1	26.7	24.8	26.6	26.0
S-Block	3.6	3.6	3.3	3.5	4.2	3.3	3.8	3.8	3.1	2.7	3.0	2.7	3.1	2.8	3.0	3.0	3.0	3.0	3.3	2.8	3.4	3.2
SBI-TC	23.8	24.0	23.2	23.7	24.8	23.4	23.5	23.9	22.9	23.3	23.0	23.0	22.2	22.8	23.0	20.4	23.4	22.7	22.9	21.4	23.4	22.6
POCL-TC	25.6	24.8	20.6	24.0	25.6	23.5	23.7	24.3	20.0	21.3	20.5	21.6	21.7	21.6	21.7	23.2	24.2	23.0	21.4	20.7	24.2	22.1
Pers/Soc	10.7	11.0	10.6	10.8	10.6	10.6	10.6	10.6	10.3	10.0	10.1	10.1	10.1	10.1	10.3	10.9	10.4	10.5	10.2	10.2	10.8	10.4
POCL-Soc	17.9	17.0	14.8	16.7	19.1	17.9	18.2	18.4	17.6	16.7	17.2	16.1	13.8	15.6	18.1	15.7	18.3	17.8	14.3	16.0	18.2	16.1
Playthings	9.1	8.8	8.5	8.8	8.8	8.2	9.0	8.7	8.5	8.4	8.5	8.7	7.2	8.4	8.2	8.8	8.6	8.5	7.9	8.1	10.0	8.7
Household tasks	9.0	9.0	9.1	9.0	9.2	8.7	9.0	9.0	9.1	8.7	8.9	9.1	8.8	9.0	9.0	9.0	8.9	9.0	8.7	8.8	9.2	8.9
Books	3.8	3.4	3.8	3.7	4.2	4.0	4.4	4.2	3.8	3.9	3.8	3.3	3.0	3.3	3.1	3.4	3.7	3.4	3.5	3.7	4.4	2.5
Mother Involved	10.4	9.5	10.6	10.2	10.8	10.3	10.2	10.5	10.3	10.7	10.4	10.3	11.0	10.5	10.1	10.6	10.3	10.3	10.0	10.2	11.4	10.5
Nutrition	8.4	7.4	8.2	8.0	7.5	7.7	7.6	7.6	8.06	8.06	8.0	7.9	8.3	8.0	7.6	7.8	7.5	7.6	8.2	7.9	9.8	8.6
Total Food	11.8	10.6	12.1	11.5	11.0	10.9	12.1	11.3	11.8	14.5	12.9	11.1	12.8	11.5	10.9	12.1	10.2	10.8	12.8	11.3	14.7	12.9
Dos-supportive	7.7	7.3	7.6	7.5	7.3	7.2	7.3	7.3	6.6	6.5	6.5	7.5	7.7	7.6	7.2	7.8	8.5	7.8	7.1	6.8	6.2	6.7
Mother teaches	9.6	9.4	10.2	9.7	8.8	8.9	8.6	8.8	9.0	8.3	8.7	8.9	7.5	8.6	9.4	9.3	9.5	9.4	8.1	8.4	9.3	8.6
Mother's Educ.	4.9	4.5	4.7	4.7	4.7	5.2	5.5	5.1	5.1	5.3	5.2	5.1	4.7	5.0	4.5	4.9	5.5	5.0	4.5	4.7	5.3	4.8
Occupation	5.1	5.3	5.1	5.2	4.6	4.6	5.8	5.0	4.8	4.7	4.7	4.3	4.4	4.4	5.0	4.9	5.6	5.3	4.9	4.5	5.3	4.9
Percent Urban	52%	35%	68%	50%	14%	32%	81%	42%	93%	92%	93%	100%	100%	100%	83%	80%	100%	90%	12%	36%	66%	36%
Percent Girls	43%	55%	58%	50%	47%	38%	37%	41%	57%	46%	53%	56%	64%	58%	43%	33%	52%	45%	55%	39%	43%	46%
SES	5.1	4.8	4.9	5.0	4.3	4.8	6.3	5.1	4.9	5.0	5.0	4.4	4.2	4.4	4.6	4.9	6.0	5.3	4.5	4.3	5.6	4.8

[1]The Ns for each site indicate the total group size; the N for any measure will usually be somewhat smaller due to missing data.

Table VI-3
(continued)

WHOLE SCORE MEANS FOR HOME START, CONTROL, AND HEAD START CHILDREN

	SIX-SITE TOTALS[1]			
	N=251	N=162	N=143	N=556
	HMS Mean	CONT Mean	HDS Mean	Total Sample Mean
Age	47.0	47.9	47.1	47.3
Gross Motor	10.8	10.7	[illegible]	10.8
Height	39.3	39.6	[illegible]	39.6
Weight	33.9	34.2	36.2	34.6
Television	2.3	2.4	2.3	2.3
SBI-H/T	19.1	18.6	19.1	19.0
Obs-punitive	5.2	5.1	4.9	5.1
SBI-E/I	22.8	22.7	23.5	22.9
PSI	8.4	8.5	9.1	8.6
Fine Motor	10.3	10.3	10.6	10.4
Language	26.0	25.7	26.5	26.0
8-Block	3.4	3.2	3.4	3.3
SBI-TO	23.4	22.7	23.4	23.2
POCL-TO	22.6	22.6	23.4	22.8
Pers/Soc	10.4	10.5	10.6	10.5
POCL-SOC	17.2	16.5	17.6	17.1
Playthings	8.6	8.4	9.1	9.0
Household tasks	9.1	8.9	9.1	9.0
Books	3.7	3.7	4.2	3.8
Mother Involved	10.4	10.3	10.7	10.4
Nutrition	8.0	7.8	8.3	8.0
Total Food	11.6	11.9	12.4	11.9
Obs-supportive	7.3	7.1	7.4	7.3
Mother teaches	9.0	8.7	9.4	9.0
Mother's Educ.	4.9	4.9	5.3	5.0
Occupation	4.8	4.8	5.5	5.0
Percent Urban	62%	55%	80%	65%
Percent Girls	51%	46%	48%	49%
SES	4.7	4.7	5.8	5.0

[1] The N for any measure will usually be somewhat smaller than the group N due to missing data.

Table VI-4

WHOLE SCORE FACTOR ANALYSES[1]
ROTATED FACTOR LOADINGS[2,3]

	HOME START FAMILIES															
	Principal Components Analysis (unities in diagonals) (Ns range from 179 to 251)										Image Analysis (SMC[4] in diagonals) (Ns range from 179 to 251)					
Scores	FI	FII	FIII	FIV	FV	FVI	FVII	FVIII	FIX	h^2	FI	FII	FIII	h^2	SMC	Alpha reliability
Age	47	-02	-61	08	13	00	09	-05	06	64.6	50	00	-45	46.3	52.2	
Gross Motor	61	-07	07	49	00	-08	00	-02	-07	65.1	52	02	07	27.7	43.0	67
Height	25	11	-81	09	09	-06	02	93	-01	77.0	40	01	-54	45.3	59.0	
Weight	04	06	-82	-02	05	02	-02	00	04	69.2	16	02	-58	37.4	53.0	
Television	01	09	-16	55	18	06	03	18	-10	43.6	12	14	-04	3.8	15.4	
SBI-H/T	-16	-25	-05	16	-32	03	29	46	03	52.4	-25	-30	-05	15.9	26.8	68
Obs-punitive	-15	-22	-06	22	-14	08	-70	07	05	66.7	-17	-06	00	3.4	19.2	70
SBI-E/I	-11	-01	00	-01	51	15	17	-36	-23	52.0	06	24	-02	6.5	19.6	61
PSI	71	15	-21	-15	22	-04	05	-02	10	66.7	62	09	-21	44.6	54.2	77
Fine Motor	77	00	-01	20	-02	-03	-07	-09	-14	69.0	64	06	-03	41.5	54.6	75
Language	81	10	-08	05	08	00	-02	-08	-13	71.3	69	14	-09	51.0	63.0	85
8-Block	51	11	-18	-13	34	00	-09	02	-05	46.6	47	14	-16	27.7	34.4	
SBI-TO	06	19	-06	00	03	-01	01	-77	10	65.5	16	25	00	9.2	22.8	59
POCL-TO	42	14	-15	06	68	-06	05	-03	17	73.2	53	23	-12	36.3	57.7	93
Pers/scc	34	-01	-01	42	00	10	05	-43	-27	57.6	34	20	00	16.0	26.9	47
POCL-scc	13	01	-08	13	83	02	-05	00	-09	74.7	35	26	-03	19.7	48.8	92
Playthings	00	60	-11	27	-07	-13	-11	-14	-15	53.8	14	31	07	12.6	27.0	52
Household tasks	13	57	09	00	26	18	-07	-04	26	54.3	14	45	02	22.8	31.5	41
Books	10	72	-08	-04	-02	12	03	-01	-13	58.1	13	42	-02	20.2	32.5	49
Mother Involved	-03	65	-02	08	08	26	10	-22	-10	58.8	05	54	00	30.1	40.4	62
Nutrition	-04	13	00	03	04	89	-05	-04	00	83.7	-25	56	-26	45.8	63.1	
Total Food	-02	16	-03	01	03	88	-03	00	04	82.0	-25	55	-29	46.2	62.5	
Obs-supportive	23	23	00	-27	09	05	-65	-10	-14	65.3	17	21	00	7.9	22.7	61
Mother teaches	07	34	07	58	00	08	-09	-30	24	64.1	13	35	12	16.2	32.1	70
Mother's Educ.	-10	34	14	14	24	03	-01	19	-57	60.4	01	26	14	9.3	22.4	
Occupation	22	05	-02	-02	00	-08	-06	-03	-63	47.1	21	06	00	5.1	14.7	
Urban/rural	-50	06	28	29	17	-21	-36	14	02	64.6	-30	01	33	20.3	35.2	
Sex	22	26	43	09	05	-22	20	13	23	47.9	14	02	28	10.1	20.3	
PCT. V	12.6	8.2	7.9	5.5	7.0	6.8	4.6	5.2	4.5		11.8	7.6	4.8			
Nine factors accounted for 62.7% of the total variance											Three factors accounted for 51.8% of the common variance.					

[1]Ns vary because a missing data intercorrelation computer program was used to generate the correlation matrix used by the factor analysis program.

[2]Principal components factor analysis followed by a varimax rotation.

[3]Image factor analysis followed by a varimax rotation.

[4]SMC = Squared Multiple Correlation Coefficient, calculated by using all other measures to predict remaining variable.

Table VI-5
WHOLE SCORE FACTOR ANALYSES[1]
ROTATED FACTOR LOADINGS[2,3]

	CONTROL FAMILIES														
	Principal Components Analysis (unities in diagonals) (Ns range from 120 to 162)											Image Analysis (SMC[4] in diagonals) (Ns range from 120 to 162)				Alpha reli-
Score	FI	FII	FIII	FIV	FV	FVI	FVII	FVIII	FIX	X	h^2	FI	FII	h^2	SMC	ability
Age	79	03	-10	-16	-06	00	-09	-09	04	-03	68.9	64	03	41.9	55.2	
Gross Motor	46	-03	02	12	-14	-03	26	-15	-17	-49	62.4	54	13	31.6	45.8	58
Height	87	02	-04	08	-01	-02	01	-02	00	-04	78.1	70	01	50.1	74.4	
Weight	83	10	-01	00	00	08	-01	06	-02	01	72.2	63	05	41.1	68.2	
Television	21	06	-13	-19	00	28	15	-18	58	-29	67.6	16	29	11.5	25.2	
SBI-H/T	-08	05	19	03	13	-31	-03	01	58	26	57.7	-18	-25	10.1	22.6	68
Obs-punitive	11	20	60	20	32	-04	21	24	10	12	71.0	-10	-16	3.9	33.6	67
SBI-E/I	12	19	-47	-36	-24	-05	20	19	24	-04	62.4	15	18	5.9	29.6	75
PSI	49	-11	-16	01	20	-24	-24	-07	-16	-47	70.4	61	09	39.1	62.2	70
Fine Motor	49	-22	-03	-23	01	-22	38	-19	-28	-21	72.3	61	-12	39.5	59.9	68
Language	38	-09	-24	-17	16	-25	21	-27	-26	-28	60.3	60	03	36.7	50.8	81
8-Block	35	-16	-26	34	31	-01	-03	-04	05	-29	53.9	38	16	17.3	36.4	
SBI-TO	15	27	-20	-49	00	08	-14	17	-22	-35	61.8	26	31	16.5	36.5	68
POCL-TO	18	08	-74	10	23	01	08	-11	-02	-26	74.2	40	43	35.2	58.8	92
Pers/soc	32	13	-02	-21	17	-02	16	-08	-47	03	46.5	33	04	11.6	21.1	51
POCL-soc	16	17	-78	24	00	05	04	07	-06	04	74.7	23	38	20.5	51.2	88
Playthings	12	30	01	08	-02	-01	04	-08	07	-65	56.7	24	38	20.9	36.0	49
Household tasks	04	80	-07	00	09	10	05	-16	-05	01	71.6	01	43	18.7	39.3	45
Books	-13	15	-17	00	19	24	-09	02	00	-69	66.7	07	51	27.1	43.2	52
Mother Involved	-19	57	00	06	00	40	-03	-11	-07	-25	62.3	-17	54	32.4	42.5	62
Nutrition	04	03	-05	-03	13	84	-03	-04	-02	00	74.1	-11	43	20.0	44.3	
Total Food	-06	07	00	06	-04	80	03	19	03	-04	70.6	-26	41	24.3	48.4	
Obs-supportive	-08	08	02	-10	83	08	05	-03	-02	-08	74.6	00	17	3.1	29.6	68
Mother Teaches	14	65	-04	-01	-04	-12	11	12	12	-24	57.6	14	31	12.0	30.4	73
Mother's Educ.	00	15	-23	64	-13	11	02	03	-02	-16	55.8	02	26	6.8	22.5	
Occupation	02	00	-01	21	-08	-06	13	-67	13	-16	57.5	16	05	2.8	17.1	
Urban/rural	-17	-18	10	24	-18	02	13	65	12	-05	63.4	-27	-08	8.2	22.9	
Sex	-09	11	-01	03	03	00	81	00	00	01	69.4	01	05	.2	21.2	
PCT. V	12.4	6.9	7.6	4.9	4.6	7.2	4.4	4.7	4.7	7.7		13.2	7.8			
	Ten factors accounted for 65.6% of the total variance											Two factors accounted for 52.3% of the common variance.				

[1]Ns vary because a missing data intercorrelation computer program was used to generate the correlation matrix used by the factor analysis program.

[2]Principal components factor analysis followed by a varimax rotation.

[3]Image factor analysis followed by a varimax rotation.

[4]SMC = Squared Multiple Correlation Coefficient, calculated by using all other measures to predict remaining variable.

Table VI-6
WHOLE SCORE FACTOR ANALYSES[1]
ROTATED FACTOR LOADINGS[2,3]

	HEAD START FAMILIES																
	Principal Components Analysis (unities in diagonals) (Ns range from 114 to 143)												Image Analysis (SMC[4] in diagonals) (Ns range from 114 to 143)					
Score	FI	FII	FIII	FIV	FV	FVI	FVII	FVIII	FIX	FX	FXI	h^2	FI	FII	FIII	h^2	SMC	Alpha reliability
Age	27	-03	-12	03	-21	-73	03	08	07	-05	-07	70.9	68	04	-05	48.0	59.0	
Gross Motor	75	01	06	12	-04	-17	00	-07	01	31	04	72.4	52	02	05	27.8	57.0	68
Height	07	03	-01	08	-09	-87	-01	00	-13	00	-07	81.1	61	05	-18	41.8	65.3	
Weight	08	11	04	02	05	-86	-08	00	-03	07	09	79.8	54	11	-23	36.2	64.0	
Television	03	-24	04	62	-03	00	30	-25	08	-04	23	67.4	01	00	-05	.3	22.4	
SBI-H/T	-07	01	-50	-01	15	-13	00	-31	22	00	34	57.1	01	13	-26	8.7	28.4	66
Obs-punitive	-04	-10	-15	23	13	-19	00	69	-12	-08	07	66.2	11	-16	-20	8.1	33.3	83
SBI-E/I	-18	-02	-13	-13	-23	-13	20	-08	15	68	-12	69.5	02	03	14	2.1	23.5	60
PSI	21	-14	-11	-16	-56	-25	-21	03	30	-25	-22	75.1	45	04	37	35.0	56	81
Fine Motor	86	01	-03	-01	-04	-10	09	03	-05	-04	02	77.9	56	-05	-02	32.2	58.3	65
Language	79	05	-02	-01	-14	-08	-02	-02	08	-15	-06	69.9	54	06	09	31.1	55.1	84
8-Block	30	00	-13	-05	-34	-20	-58	14	08	03	-06	65.3	41	08	24	24.0	40.9	
SBI-TO	07	-02	12	06	02	-02	02	03	08	01	-87	79.4	03	03	21	4.9	26.7	59
POCL-TO	14	-03	02	05	-85	-07	02	-08	07	04	-05	78.2	38	06	48	39.0	59.1	92
Pers/soc	31	22	06	-18	-19	-26	45	36	01	-13	28	72.8	37	03	-06	14.9	32.4	57
POCL-soc	00	12	15	09	-85	-03	-04	-02	-01	14	13	81.5	27	16	49	34.6	59.3	92
Playthings	16	17	03	00	-09	00	-12	-11	76	-10	02	69.3	09	42	27	26.2	42.1	45
Household tasks	17	19	-13	48	00	-14	-15	14	33	23	-23	61.2	22	31	09	16.2	36.4	50
Books	-07	10	19	10	-05	15	-01	06	74	05	-02	66.5	-12	33	34	24.7	36.1	53
Mother Involved	-24	12	-18	26	-19	07	08	-05	47	19	-23	55.6	-09	30	21	15.0	34.8	44
Nutrition	07	90	02	11	-03	00	-08	-10	06	-03	00	86.0	05	74	-06	56.4	69.7	
Total Food	00	88	-03	03	-03	-10	00	-05	22	00	01	85.3	07	76	-08	59.4	71.8	
Obs-supportive	-04	-15	10	-11	01	12	-01	75	07	24	-12	72.3	-06	-21	18	8.1	38.6	80
Mother Teaches	-03	17	-01	71	-08	-08	-03	11	04	-08	-12	59.3	09	21	00	5.7	28.4	58
Mother's Educ.	-04	16	68	-12	-15	11	-28	01	18	-01	-10	68.0	11	16	44	23.7	50.3	
Occupation	-03	-11	82	00	02	-11	06	-14	12	11	02	77.0	-04	-02	28	8.2	45.4	
Urban/rural	11	-02	20	03	01	06	-20	19	-08	64	07	57.6	01	-05	15	2.8	16.8	
Sex	21	-10	-26	05	-04	03	69	06	-05	00	-13	63.6	14	-15	-15	6.7	25.8	
PCT. V	9.0	7.0	6.3	5.1	7.8	8.8	5.0	5.5	6.6	4.7	4.6		10.5	6.7	5.7			
Eleven factors accounted for 71.0% of the total variance.													Three factors accounted for 51.8% of the common variance.					

[1]Ns vary because a missing data intercorrelation computer program was used to generate the correlation matrix used by the factor analysis program.

[2]Principal components factor analysis followed by a varimax rotation.

[3]Image factor analysis followed by a varimax rotation.

[4]SMC = Squared Multiple Correlation Coefficient, calculated by using all other measures to predict remaining variable.

APPENDIX A

HOME START FIELD PROCEDURES MANUAL
Fall 1973

THE NATIONAL HOME START EVALUATION
INTERIM REPORT IV: SUMMATIVE EVALUATION RESULTS

June 14, 1974

Prepared by Abt Associates, Inc.
in the following two parts:

1. Community Interviewer Manual
2. Site Coordinator Manual

ERIC

1. Community Interviewer Manual

PREFACE

This manual of field procedures has been prepared for field staff of the National Home Start Evaluation which is being conducted by the High/Scope Educational Research Foundation and Abt Associates Inc. It is designed to assist you in your work as a community interviewer. In this manual, we have tried to provide answers to most of the questions you will encounter during the Fall. Please read this manual carefully and do not hesitate to ask questions about any phase of your duties or the evaluation. We at Abt and High/Scope are here to assist you with any problems.

Before describing procedures that should be followed during the Fall in more detail, we would like to stress that your work as a community interviewer is "critical" to the success of the evaluation. It is your responsibility to obtain complete and accurate information from and on families selected for Fall testing, which then will be analyzed to determine the effectiveness of the overall Home Start Program. Much of the credit for the evaluation's success will go to you, our Field Staff.

Abt Associates Inc.

High/Scope Educational Research Foundation

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I. INTRODUCTION

• The National Home Start Program

Home Start is a new program for disadvantaged preschool children and their families and is funded by the Office of Child Development, U.S. Department of Health, Education, and Welfare. The program started in March of 1972 and has been funded for a three-year demonstration period. Home Start is a home-based program providing Head Start-type comprehensive (nutrition, health, education, and social and psychological) services to low-income families with 3-5 year old children. What is meant by a home-based program is that services are provided in the family home rather than in a center setting.

A unique feature of Home Start is that it builds upon existing family strengths and assists parents in their role as the first and most important educators of their own children.

Presently sixteen Home Start programs, funded by the Office of Child Development, are in operation. Each program receives approximately $100,000 for a 12-month period and serves about eighty families. Families are included from a wide variety of locales and with different ethnic and cultural backgrounds -- including white, black, urban, rural, Appalachian, Eskimo, Navajo, migrant, Spanish-speaking, and Oriental. Several programs are using television programs (such as Captain Kangaroo, Sesame Street, and the Appalachia Educational Laboratory's Around the Bend) as part of their educational component.

The Home Start program staff consists primarily of "Home Visitors," who visit the homes of enrolled families once or twice a week. In addition to working with the mother on the child's development, the Home Visitors discuss good nutrition, health problems, and social and psychological needs of the children and the families. When needed, Home Visitors or other program staff refer families to community agencies for specialized services.

Families enrolled in Home Start also participate in group activities or meetings on a specific topic, such as Parent Effectiveness or health, for example, or field trips to agencies which are of interest to the families. Each program has a policy-making council which sets policy for the local Home Start Program, in which enrolled families participate.

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- A Look at a Home Visit

The following brief description of a home visit which took place in Binghamton, New York will illustrate some of the activities the Home Start staff undertake with their families.

HOME VISITING IN BINGHAMTON[1]

"Sonobia Page has handled just about every job a home visiting program can offer, from recruiting families, running parent and children's groups, making referrals to community services, and teaching and demonstrating in the home. She's very comfortable knowing what she can and cannot do for her families and which local services are available to whom. Black and in her mid-forties, she can also give special support to black parents and children in the program.

This morning's visit is to four-year-old Jerry Kingsley, a bi-racial child, and his mother, Suzanne, who is white. Nutrition is the primary topic, partly because Jerry isn't eating enough and partly because his mother needs help in providing the best food value on a limited budget. Last visit, Sonobia talked about breakfast, and today she'll cover lunch. After a preliminary discussion with mother and child about the major food groups, Sonobia gives Jerry pictures of various foods to paste on a food chart which is then prominently displayed on the refrigerator. Jerry is drawn out about his favorite foods and describes what he ate for lunch yesterday. Sonobia proposes a two-item lunch and asks mother and child whether this is enough for a balanced diet. Suzanne responds that it would be if cheese or milk were included.

The lesson moves on to finger painting, cutting out shapes, and story time. Sonobia produces pictures of smiling and frowning faces for a session of differences and similarities, and then it's time for large-muscle exercises. Jerry needs to let off lots of steam--so much so that at one time his mother was afraid he was hyperactive. Sonobia had Jerry tested and was able to report that although he has a high energy level, he's not hyperkinetic. While Jerry exercises, Suzanne and

[1]Excerpt from the case study on the Binghmaton, N.Y. Home Start Program

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Sonobia talk about his reaction to his father's occasional visits. The visit ends after Sonobia and Suzanne have determined what the next session should cover.

Sonobia has a heavy workload, covering 14 families in each two-week period. A regular visit lasts approximately one to two hours and covers nutrition, health, child development, personal problems and social and educational goals for both children and parents. Sonobia also conducts small-group activities at her own home to give children sharing opportunities. This week she was called on to handle a family crisis. A father who is an epileptic drank too much, threatened his wife and children, and was hospitalized after the incident. Upon release, he again threatened his family. Sonobia worked with the welfare department to enable the mother to take the children with her to her sister's home. Home Start made sure the family had money and adequate transportation to the nearby city, and Sonobia kept the children overnight, until plans were firm. For Sonobia, it was all in a week's work."

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The Home Start Evaluation

At the time the National Home Start Program started in 1972, a contract was awarded to the High/Scope Educational Research Foundation of Ypsilanti, Michigan, and Abt Associates Inc. of Cambridge, Massachusetts,[1] to conduct a three-year evaluation of the program. The evaluation is designed to answer some basic questions about the program, its costs and its effectiveness.

The evaluation consists of two parts. The first part is the formative evaluation which looks at the "process" by which programs develop, and describes the essential features of the programs. Twice a year staff from Abt Associates and High/Scope have made field visits to each of the sixteen programs, talked with staff and parents about the program, and made home visits with the Home Visitors.

The second part is the summative evaluation, which summarizes the overall effectiveness of the programs after they have completed one or more years of operation. Six of the sixteen Home Start Programs are involved in the summative evaluation: Alabama (Huntsville), Arkansas (Dardanelle), Kansas (Wichita), Ohio (Cleveland), Texas (Houston) and West Virginia (Parkersburg). To evaluate the overall Home Start Program in terms of its effectiveness, during the Fall information needs to be gathered in each location from and on:

35-40 families and their children who are presently enrolled in Home Start;

35-40 families and their children who will be entering the program in September 1974; and

40 families and their children who are presently enrolled in Head Start.[2]

While comparisons will be made between the three groups of families (Home Start, Control Group and Head Start), the Fall evaluation

- does not compare how well one child did versus another child;
- does not compare the test scores of black children with those of white or Mexican-American children; and

---

[1] A description of the two companies conducting the evaluation can be found in Exhibit I of this Chapter.

[2] Head Start families in Kansas and Ohio will not be involved in the evaluation. Head Start is a one-year program in those states. Only two-year programs are part of the evaluation this year.

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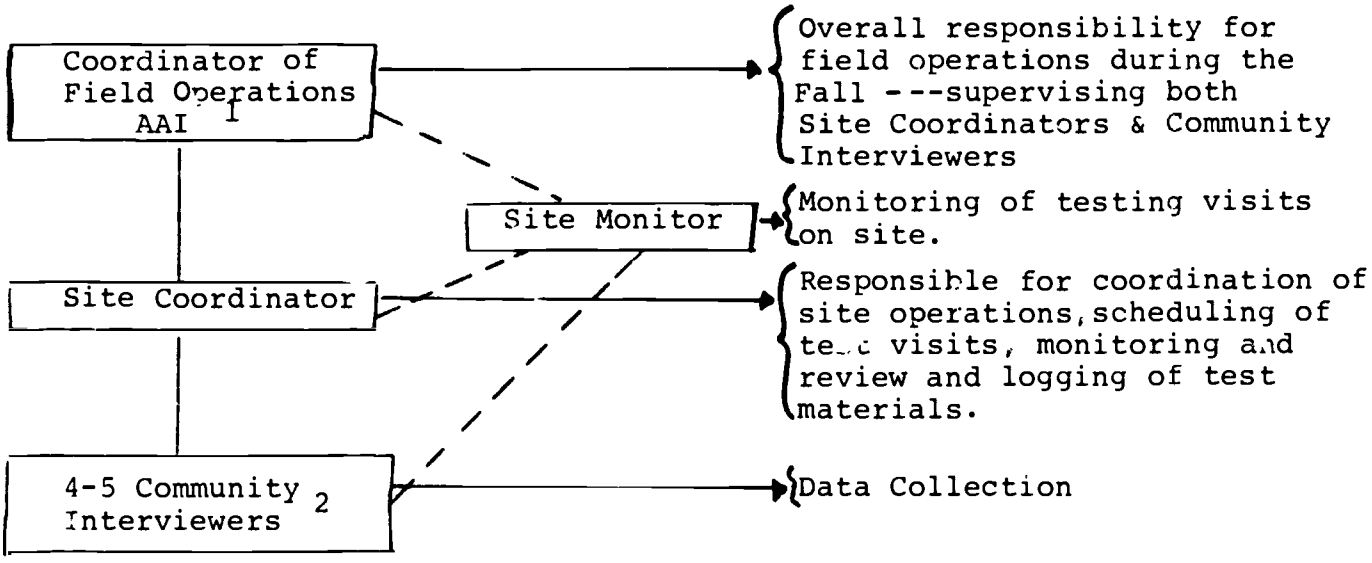
- does not compare families in one site with those in another site.

Likewise, no comparison will be made in a specific site between families enrolled in Home Start, those participating in Head Start, and families who will not be enrolled in either program until 1974. It should be noted that the evaluation is designed to determine the effectiveness of the OVERALL Home Start Program and not simply individual project . As a result, comparisons will only be made between all Home Start lies, all Head Start families and Control Group families who participated in the evaluation.

You were hired to administer questionnaires to the parents, give special tests to the children, and to gather other data, such as the height and weight of the child. In addition, you will be going on two home visits to observe activities that are conducted with the family. Special training will be provided to teach you appropriate interviewing techniques and procedures, how to administer tests to young children, and how to record Home Visit activities.

- Field Organization

The following chart indicates the field organization established for data collection and coordination of testing visits during the Spring of 1973:



On the following pages you will find job descriptions for community interviewers and site coordinators.

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[1] AAI is abbreviation for Abt Associates Inc.

[2] 4 in Kansas and Ohio; 5 in all other sites.

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- Community Interviewer

  - make testing visits to families assigned and administer tests and questionnaires;
  - make visits to two enrolled families to observe Home Visits;
  - schedule appointments for second testing visit with families;
  - notify site coordinator of appointments and testing schedule changes;
  - document time spent traveling and testing and record mileage to and from family home.
  - mail testing material weekly to site coordinator; together with mail log and time and travel log.

- Site Coordinator

  - Family Assignments

    assign families to community interviewers and discuss assignments with Program Directors

  - Scheduling Testing Visits

    schedule first testing visits for all community interviewers (2nd visits are scheduled by CI's[1]); and

    send appointment reminder cards to families 5 days in advance.

  - Monitoring

    arrange and conduct monitoring visits for first two weeks of testing for all community interviewers;

    hold review sessions for community interviewers who need additional training in specific tests and questionnaires;

    monitor test performance for each community interviewer once a week except during site monitor visit; and

    prepare written monitoring reports weekly.

[1] CI is abbreviation for Community Interviewer

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- Data Check-In

  log and review test materials weekly;

  note errors in scoring and discuss with community interviewers (give technical assistance if necessary); and

  submit test materials weekly to AAI.

- Liaison Activities

  coordinate testing visits with Programs (both Home Start and Head Start if applicable);

  respond to inquiries from community interviewers; and

  report on-site problems to AAI.

80250

EXHIBIT I.A.: COMPANY DESCRIPTIONS

High/Scope Educational Research Foundation

The High/Scope Educational Research Foundation is a group of about 70 people located just west of Detroit, engaged in developing, researching, and disseminating educational programs for infants, preschoolers, and early elementary children.

The High/Scope Foundation began full-scale operation as an independent nonprofit foundation on July 1, 1970. Prior to this, the foundation staff worked on early education projects funded primarily through the Research and Development Department of the Ypsilanti Public Schools and, to a lesser extent, through Eastern Michigan University. This involvement in early education research and program development has been continuous since 1962 with the inception of the Ypsilanti Perry Preschool Project. Foundation operations are headed by Dr. David P. Weikart, President, whose work in early education, beginning with the Ypsilanti Perry Preschool Project, has determined the substance and direction of present Foundation programs.

In the last several years this sequence of projects has received much formal recognition. For example, in 1968 the Perry Project was cited in a government-initiated research study as one of six exemplary remedial preschool projects out of several hundred research projects reviewed throughout the nation. A description of the Cognitively Oriented Curriculum developed in this project was subsequently included in the It Works! series published by the U.S. Office of Education. In 1970 the Office of Education selected the Foundation's Ypsilanti Curriculum Demonstration Project as one of 50 to receive the Title II innovative award. Also in 1970, the Cognitively Oriented Curriculum was selected as one of 34 Model Programs in Childhood Education to be summarized in published booklets for presentation at the December 1970 White House Conference on Children. This curriculum was selected in 1969 as one of 12 for use in the National Head Start Planned Variation Program. The National Association for the Education of Young Children, in a joint effort with ERIC/Early Childhood Education, has undertaken publishing costs for an extensive description of the curriculum. In 1969 the High/Scope Foundation was also selected as one of 21 Model Sponsors to participate in the National Follow Through Program.

The High/Scope Foundation has had extensive experience with home visits as currently embodied in the National Home Start Program. Home visits were part of the very first Ypsilanti project in 1962 and have been continuously conducted in one form or another through the entire ten-year sequence of projects. For example, a Home Teaching Program for preschoolers that is a close prototype for the Home Start model was completed in 1966 and reported in Hellmuth (ed.), Disadvantaged Child Vol. 2: Head Start and Early Intervention (New York: Brunner/Mazel, 1968). In the past few years an intensive effort has been devoted to preventative intervention using home visits with families who have infants. The foundation is currently preparing an elaborate series of videotapes of home visits with mothers and infants for use in training home visitors.

Abt Associates Inc.

Abt Associates is an interdisciplinary social science research and consulting firm of 250 professionals located near Boston, founded as a private-for-profit corporation by Dr. Clark C. Abt in early 1965. The company specializes in research, evaluation, and analysis of social problems, programs, and policies. The Human Development Division of the company is centrally responsible for the Home Start Evaluation. The Division's staff has particular expertise and experience in psychometric measurement, large-scale field operations, training and supervision of testers and interviewers, benefit/cost analysis, data processing and analysis, management information systems, and child care program operation and policy analysis.

In the area of early childhood, Abt Associates has completed or is now conducting a total of [illegible] projects. The largest of these was a nation-wide evaluation of 20 quality child care programs which included a thorough cost analysis of quality child care, the development of a manual for program operators, and in-depth case studies of the 20 programs. This study had wide distribution through OEO, and has also been republished by the Office of Education and the Department of Commerce. An edited version will be produced by the MIT Press this spring.

For the Office of Child Development, USDHEW, Abt conducted an analysis of sliding fee schedules. The design of a management information system for the 32 Parent and Child Centers was recently completed and was implemented through staff training and technical assistance. Abt has completed a manual for use by early childhood staff with handicapped children in a regular day care program. For the Department of Labor, another child care paper was written with information regarding delivery models, funding mechanisms, start-up and operating cost estimates, meeting the needs of children with special problems, and transportation. For the Office of Economic Opportunity, Day Care Demonstration Data Coordinators have been trained in data collection and reporting techniques also designed by Abt. Abt Associates designed and is now operating a child care center for its own employees. Technical assistance is currently being provided to both urban and rural child care programs in management program development, teacher training, and curriculum development.

Additional child care documents from Abt staff include a 60-page testimony on the Economics of Child Care, presented before the Committee on Finance, U.S. Senate, during the 92nd Congress, 1st Session, 1971. The text of the testimony addresses the questions of demand, costs, quality-cost tradeoffs, and present funding mechanisms; cost and quality issues are examined for their implications for public policy making and day care funding. For HEW's Office of Child Development, an Abt cost analyst produced Day Care Cost Analysis: A Manual for Instruction. This manual describes procedures for depreciating donated goods and services, and pro-rating personnel costs when calculating costs by function of service, determining start-up costs, and computing operating costs by function of service.

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II. PREPARATION AND PROCEDURES BEFORE TESTING BEGINS

While the Site Coordinator is responsible for site preparation activities in your community, it might be helpful to acquaint you with some of the procedures that are followed.

- Home Start Family Information

During the summer, Directors of the six Home Start Programs submitted a list of the names of approximately 80 families to the High/Scope Educational Research Foundation. Forty families were randomly selected by High/Scope to be enrolled in Home Start in September of 1973. The other 40 families will not start to participate in the program until September 1974, although they will be involved in evaluation activities. This latter group of families is called the "Control Group."[1]

Families who speak a foreign language and do not have sufficient knowledge of English will not participate in evaluation activities. Likewise, children who are severely handicapped will not be involved.

Each of the 80 families have signed a letter of permission indicating their willingness to provide information for the evaluation. No visits will be made to families who do not wish to participate.[2]

- Head Start Enrollment Information

In all six sites, except in Kansas and Ohio,[3] Directors of Head Start Programs provided the High/Scope Educational Research Foundation with information on families who will be enrolled in the program during the Fall of 1973. Forty families were selected on a random basis by High/Scope to participate in the evaluation. Letters of permission will be obtained from these forty families.

---

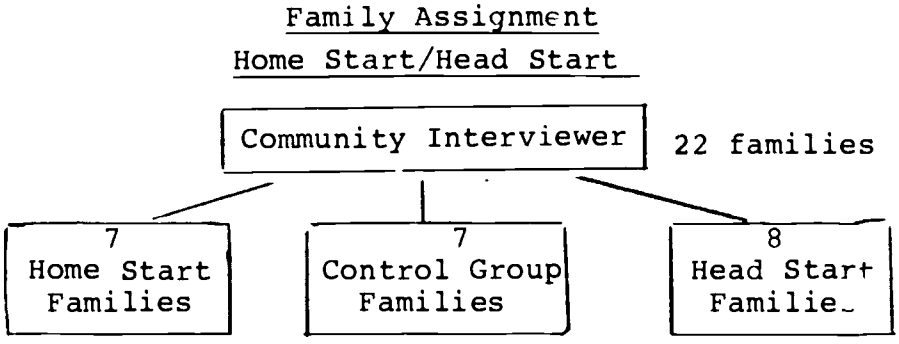
[1] "Control Group" is a technical research term for the group that is not presently being served. The evaluation does not in any way "control" this group, however.

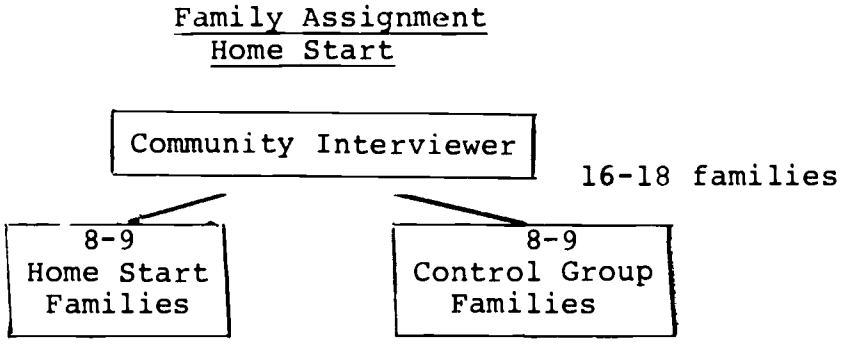
[2] See Appendix IIA for a sample letter of permission.

[3] Head Start families in Kansas and Ohio will not be involved in the evaluation. Head Start is a one-year program in those states. Only two-year programs are part of the evaluation this year.

- Assignments of Families to Community Interviewers

The following two charts indicate the number of families from each of the family groups that will be assigned to you in both Head Start and non-Head Start sites (Kansas and Ohio). The number of families assigned to you may vary, however, depending on your time availability for the position or that of other field staff in your community.





Assignments will be made by the Site Coordinator in consultation with Program Directors.

A Family Assignment Sheet will be prepared for you by the Site Coordinator. On the Sheet you will find information regarding the family (i.e., name of the children to be involved in the activities, their ages, the address of the family and whether the family is enrolled in either Home Start or Head Start or is part of the Control Group). See Exhibit IIB for a Blank Family Assignment Sheet.

- Scheduling of Visits

Prior to the training conference, Site Coordinators will have scheduled some visits for you for the first two weeks of the evaluation (September 24 - October 5). At the training conference, or immediately following training, you will receive a copy of your schedule[1] for these first two weeks. Detailed scheduling procedures are outlined in Chapter III.

During these first two weeks, you will be working only with a limited number of families. On the first visit for each week, you will be accompanied by the Site Coordinator. She will meet with you following the visit to discuss how it went and to give you additional training in specific measures and questionnaires if needed. Following one or two visits to families with the Site Coordinator, you will be going on visits by yourself if your performance is satisfactory.

- Trunks

On Monday, September 24,[2] the Site Coordinator will meet with you and other field staff to review the schedule for the week and give you a trunk with materials you will need for the visits. After you have examined the contents of the trunk and have packed score sheets and other materials, the Site Coordinator will ask you to sign an inventory for the trunk.

Do NOT keep the trunk locked in your car -- but store it at home. Materials that you will need for specific visits should be kept in paper bags, which can more easily be taken into the home.

- Review Session

On Monday, October 1 you will meet for a half day with the Site Coordinator and other field staff. The purpose of this meeting is

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[1] A blank schedule can be found in Exhibit IIC.

[2] The Site Coordinator will let you know at the training conference where and when you will meet to get the trunks.

to review some of the tests and questionnaires which you have learned at the training conference.

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EXHIBIT IIA

HIGH/SCOPE EDUCATIONAL RESEARCH FOUNDATION
125 NORTH HURON STREET
YPSILANTI, MICHIGAN 48197

DAVID P. WEIKART, PH.D.
PRESIDENT

PHONE 313/485-2000

July 12, 1973

Dear Parent,

The Home Start Program is sponsored by the Office of Child Development in the U.S. Department of Health, Education, and Welfare. In order to get a better idea of how the program is working, the Office of Child Development needs certain information from families who are in the program and also from families who are waiting to get into the program. High/Scope Educational Research Foundation of Ypsilanti, Michigan and Abt Associates, Inc. of Cambridge, Massachusetts, have been hired by OCD to conduct this project. We would like your permission to ask your children some questions and to talk to you about your children and the things you do with them. We feel that the information you provide will help families who might come into Home Start in the future.

Several women have been hired from your area to visit families. These women have been given special training as Community Interviewers and they understand that anything you tell them is confidential. It will take about three hours for a Community Interviewer to visit with you. During this time she will be giving your child some things to do and she will be asking you and your child some questions. If you don't want to spend this much time in one day, you can ask the Community Interviewer to arrange the time over two days. After the Interviewer finishes, we will send you $5.00 as our thanks for your help.

If you agree to help us by letting an Interviewer visit with you, please check the first box at the bottom of the page and sign your name. Even if you agree to help, you will never have to answer any question you don't want to answer. If you do not want to help us, mark the second box and sign your name.

Thank you for your interest in Home Start and for letting us explain this to you. Please keep a copy of this letter.

Sincerely,

Dennis Deloria
Project Director

☐ Yes, I would like to help by providing information to the Community Interviewer who will visit me.

Signed _____ Date _____

☐ I do not wish to provide any information to a Community Interviewer.

Signed _____ Date _____

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EXHIBIT IIB
FAMILY ASSIGNMENT SHEET

Community Interviewer _____ Program _____

CODE*	FAMILY NAME (Name of HV/Teacher)	ADDRESS	NAME FOCAL CHILD (date of birth)	NAME SIBLING (date of birth)

* HM=Home Start; CG=Control Group; HD=Head Start

EXHIBIT IIC

Week of _____

TESTING SCHEDULE

CI _____

SITE _____

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8:00-						
9:00-						
10:00-						
11:00-						
12:00-						
1:00-						
2:00-						
3:00-						
4:00-						
5:00-						
6:00-						
7:00-						
8:00-						
9:00-						

III. PROCEDURES TO BE FOLLOWED FOR EACH VISIT

Outlined below are specific procedures that should be followed during the Fall.

- Confidentiality

Because many of the questions we are asking families may be considered personal by them, all interviews must be kept strictly confidential. Answers to the questionnaires and the score forms must always be kept private. You must not tell anyone what a respondent told you. When it is necessary to carry completed questionnaires or completed score forms with you to lunch, on a bus or subway, or into another family's house, you must be very careful not to leave them.

To insure confidentiality of information, you will be asked to sign an Affadavit of Confidentiality at the training conference (see Exhibit III.A).

- Measurement Battery

The following chart displays the questionnaires and child measures selected for the evaluation. We have indicated with a dot to whom they will be administered for each of the three groups of families.

Other forms to be completed by you are:

- a tester log following each visit.
- a Pupil Observation Checklist to be completed for the Focal Child following your last visit to the family.
- a Parent Card on your last visit to the family.
- Home Visit Observation Checklists and Questionnaire to be used for two visits you will make, accompanying the Home Visitor on a regular Home Visit.

A brief description of each of the instruments can be found in Appendix III.B of this chapter.

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	HOME START			CONTROL GROUP			HEAD START		
CHILD MEASURES	FOCAL[1] PARENT	FOCAL[2] CHILD	SIBLING[3]	FOCAL PARENT	FOCAL CHILD	SIBLING	FOCAL PARENT	FOCAL CHILD	SIBLING
PRESCHOOL INVENTORY (PSI)		●	●		●	●		●	
DENVER DEVELOPMENTAL SCREENING TEST (DDST)		●			●			●	NO SIBLINGS TESTED
HEIGHT AND WEIGHT		●	●		●	●		●	
CHILD FOOD INTAKE	●			●			●		
SCHAEFER BEHAVIOR INVENTORY	●			●			●		
QUESTIONNAIRES									
HOME ENVIRONMENT SCALE	●			●			●		
PARENT INTERVIEW	●			●			●		
OTHER INSTRUMENTS									
8 BLOCK SORT TASK	●	●		●	●		●	●	

[1]Focal Parent is the adult in the family who actively participates in program activities.

[2]Focal Child is between 3-5 years of age who is the focus of program activities.

[3]Sibling is a sister or brother of the Focal Child who also is between the age of 3 and 6 who may or may not be the focus of program activities. Only a limited number of activities are undertaken with siblings.

ACTIVITY SEQUENCE - HOME START AND CONTROL GROUP FAMILIES

The entire battery should be administered in two visits to each of the Home Start and Control Group families assigned to you. It may be necessary for you to make a third visit to a family, however, if you were unable to complete all activities in two visits.

Following is a suggested sequence; i.e., the measures which you should try to administer on your first and second visit. Also indicated is the length of each activity and the person to whom it will be administered.

1st Visit

• Preschool Inventory (PSI)	- Focal Child & Sibling	12 min.
• Schaefer Behavior Inventory (SBI)	- Focal Parent	5 min.
• Food Intake	- Focal Parent	15 min.
• Home Environment Scale (HES)	- Focal Parent	5 min.
TOTAL TIME		37 min.

2nd Visit

• Denver Developmental Screening Test (DDST)	- Focal Child	12 min.
• Height & Weight	- Focal Child & Sibling	3 min.
• 8-Block	- Focal Parent & F. Child	30 min.
• Parent Interview	- Focal Parent	16 min.
TOTAL TIME		61 min.

Although the actual time you are administering the instruments does not exceed one hour, you should plan on being in the home approximately 1 hour for the 1st visit, and 1-1/2 hour for the 2nd. You will need to get acquainted, for example, with the focal parent and the child before starting the activities. Interruptions such as a telephone call while you are interviewing the mother or taking the child to the bathroom while you are in the middle of an activity may take considerable time.

During a particular visit, parents may request that you shorten the visit because the child is getting tired or the mother has an appointment with the doctor or needs to fix dinner. Do so at the parent's request, but try not to stop in the middle of an interview or an activity with the child.

ERIC

- Daily Preparation of Materials

Some tasks need to be done prior to your going on your first visit. Each task is outlined below and should be followed for each subsequent visit you make to the home of one of the families assigned to you.

1. Since someone may accompany you on some visits, you should look at your Schedule to determine whether a Home Visitor will be going with you.[1]

2. Call Home Visitors you will be working with the following day to arrange for a place to meet her prior to going to the family.

3. Determine which instruments you will be administering the next day from your Schedule.

   For example, if you are making two first visits to Home Start families, you will need:

   1 PSI Manual
   2 PSI Score Forms
   2 Schaefer Score Forms
   2 Food Intake Forms
   2 Home Environment Scale Forms
   2 Tester Logs
   2 Envelopes

4. Determine whether you will be working with a sibling the next day. If you are, you will need for each sibling:

   an extra PSI Score Form

5. Check to see whether you have appropriate materials before you leave your house to go on a visit. (See Administration Manuals or Score Forms for materials you need for each activity.) Always carry your notebook with you on visits.

6. Prepare an envelope for each family you will be visiting and fill out the outside. Also write in the name of the child, the name of the focal parent, the community/city and state, and your name on each of the score forms you will be using the next day. See the example below. DO NOT FILL IN THE DATE until you actually start administering the instrument. After you have written in the family information on the score forms, insert them in the envelope you prepared for that family.

[1] Indicated with *

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Child's Name x Sam Jones Time Started
First Last

Focal Parent's Name x Sarah Jones Time Finished

Community/City x NY State. NY Date

Tester x Klein

Comments (Child became ill, refused etc.)

- Getting Acquainted with the Family

When you arrive at the house of one of the families you will be visiting, make sure you identify yourself and the purpose of your visit.

> "Hello Mrs. _____. My name is _____. I am a community interviewer for the Home Start Evaluation. I have come to do some activities with (name of child) and to ask you some questions. May I come in?"

Refrain from using the word TESTING. It is better to talk about interviewing and doing activities with children.

Creating the proper atmosphere for the visit is ESSENTIAL. Be friendly but at the same time professional in your manner. Remember that you are a stranger. Be a sympathetic, interested, and attentive listener. But don't over do it.

- Establishing Rapport with the Child

Make sure you allow sufficient time to get acquainted with the focal child and other children. You should be skillful in establishing rapport with the child, which includes the ability to engage the child in friendly conversation before and after each of the activities. The administration of an instrument should always begin as a natural outgrowth of the conversation. The community interviewer's attitude towards the child should be positive, friendly, and accepting.

ERIC

Under no circumstances should you indicate even the slightest degree of dissatisfaction with the child's response. Be friendly and encouraging to the child, but do not give him any clues as to the correct or incorrect response. Use such expressions as:

> "That's fine," rather than "Very Good" when the child responds to your question. The child will know that he/she is or isn't doing very well if you say "Very Good" when he/she gives you a correct response.
>
> You may also use the phrase: "That was very difficult, wasn't it?" if the child tried very hard (no matter whether the response was correct or not).

Do not hesitate to stop an activity if a child gets cranky or needs to go to the bathroom. Be sure, however, that you note the time you stopped and the time you resumed with the activity on the score form.

Chapter IV discusses specific situations which you may encounter and suggestions for handling them.

- Scheduling Visits to Families

The first visit to families participating in the evaluation will be scheduled for you by the Site Coordinator. She knows when you are available to make visits (from your Time Availability Sheet which you completed prior to training) and will schedule visits to families accordingly. Weekly, the Site Coordinator will send you a revised schedule.

Before you leave the family's home, you should make an appointment for your second or third visit to complete the measurement battery. Make sure you always have your schedule with you for subsequent weeks and that you know when you are available to make another visit. If you are making visits to families in the same community, you may want to try to schedule your second visit on a specific day when you are visiting other families there.

Call the Site Coordinator DAILY to let her know what appointments you have made with families.[1]

[1] Five days prior to each visit, the Site Coordinator will send a postcard to the family to remind them of the date and time of the visit. Parents will be asked to contact the Site Coordinator or the Home Visitor if an appointment is not convenient or needs to be changed. She will let you know if there are any changes.

It is EXTREMELY IMPORTANT that you notify the Site Coordinator immediately if you are unable to keep an appointment that was made for you. Try to notify the Site Coordinator at least 24 hours in advance of the visit, unless it is an emergency, so that she can try to contact the family and cancel the appointment.

The Site Coordinator will also arrange for you to accompany two Home Visitors to observe a Home Visit during the last couple of weeks of the evaluation. You should contact the Home Visitor prior to your visit so that you can make arrangements to meet somewhere.

- Finalization of the Visit

After you have arranged your second visit to the family, be sure to thank the parent for her cooperation. You need to complete a Tester Log for that particular visit after you have left the family.

Procedures for logging and mailing completed score forms are outlined in Chapter VI.

ACTIVITY SEQUENCE - HEAD START FAMILIES[1]

While families enrolled in Home Start or Control Group families are visited in their home, activities with Head Start families and children will be undertaken in the Head Start center. Outlined below are procedures which should be followed for Head Start families.

All measures to be administered to Head Start enrollees will be conducted in one session with the children. On this visit to the Center, you will be administering the following measures to all children in that center who were selected for the evaluation:

- Preschool Inventory (PSI)
- Denver Developmental Screening Test (DDST)
- Height and Weight

[1] Procedures apply only to Alabama, Arkansas, Texas and West Virginia.

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Let's look at an example of how a first session would be conducted at a Head Start Center. During this particular day, you will be working with three Head Start children.

1. Take the first child with you to a separate room in which you will conduct the activity.

2. Start administering the PSI and immediately following that the DDST and H & W. When you have completed the measures on the child, bring the child back to the classroom and get the second child. The chart below shows the activity sequence for Head Start children.

   1st Child - PSI, DDST and H & W
   2nd Child - PSI, DDST and H & W
   3rd Child - PSI, DDST and H & W

Special arrangements will be made with Head Start parents to make a visit to the center so that the 8Block and the various questionnaires can be administered. An attempt should be made to complete all instruments during one visit. Site Coordinators are responsible for arranging meetings with the parents at the Center for you.

A Head Start Teacher, Teacher's Aide or Parent may wish to be present while you are administering the child measures to the child. We have informed the Program that only one adult other than yourself, the Site Coordinator and/or Site Monitor may observe the session.

- Daily Preparation of Materials

The evening before your visit to the Head Start Center, you should complete the following tasks:

1. Determine which children you will be working with the next day and which measures you will be administering.

2. Take out appropriate materials for each measure, score forms, and envelopes and fill in appropriate family data (see page 21). Insert the score forms in the envelope.

3. Find out from the Site Coordinator which room at the Center has been set aside for you to work in.

- Getting Acquainted

It is important that you establish rapport with the children before you start with any of the activities. Since working in a Center is somewhat different from visiting with families in the home, the following procedures should be used for getting acquainted:

- meet with the Head Start Teacher and spend approximately 30 minutes with the children in the classroom so that they can get used to you. It is suggested that you participate in regular classroom activities and pay special attention to the children you will be working with.

- Selecting the First Child

Start with the child that is first on your list. Personally take the child from the classroom to the room in which you will be conducting the activities and bring the child back after you are finished. This will give you an opportunity to talk to the child before and after each session to make him/her feel at ease.

> Always ask the child prior to taking him/her to the special room whether he/she wants to go to the bathroom or would like a drink of water.

- Finding a Room to Conduct the Activities

Although the Site Coordinator will have talked with the Center Director and/or Teacher about a room in which to conduct activities, you should confirm this with them. Say, for example: "The Site Coordinator has told me that arrangements have been made for me to use _____ room to work with the children. Is the room still available for this purpose?"

If there is no special room available, ask permission to use the kitchen or hallway, or take the child outside to the playground (if present) if no other children are planning to be outside at that time. As a last resort, you may select a quiet corner in the classroom to conduct the activities, but it is NOT RECOMMENDED.

ERIC

- Setting Up the Room

Before you start with any of the activities, go to the room and determine the following:

1. Is there a child-sized table in the room with two chairs? (If not, you may conduct the activities on the floor or ask the teacher if you can use classroom furniture for the session.)

2. Is the room filled with toys or books which might distract the child during the session? (If so, arrange the child's chair in such a way that he/she is not facing the distractions. You also can cover the distractions with an old bed sheet or table cloth which you should carry with you.)

- Finalization of the Center Visit

Always make sure to thank the Center Director and/or Teacher for their cooperation.

EXHIBIT III A

HOME START EVALUATION

TESTER AFFIDAVIT OF CONFIDENTIALITY OF DATA

I understand that the data collected for the Home Start Evaluation conducted by the High/Scope Educational Research Foundation and Abt Associates Inc. are confidential in nature and that I will not give out any portion of the test materials or data to any persons other than representatives of the High/Scope Foundation or Abt Associates.

_____
(signature)

_____
(date)

_____
(community)

ERIC

38270

EXHIBIT IIIB

DESCRIPTION OF MEASUREMENT BATTERY

- Child Measures

  Preschool Inventory (PSI). This measure is designed to determine whether the child is ready for school. The child is asked questions of general knowledge (for example, "What does a dentist do?") and basic concepts, such as colors, different shapes, etc. Special materials needed for this activity include three plastic cars of different colors, three paper boxes, 10 checkers, 8 crayons, a pencil and a large grocery bag.[1]

  Denver Developmental Screening Test. This is an inventory of the child's developmental skills in four areas: gross motor, fine motor, language, and personal-social. Items deals specifically with the child's ability to hop, stand on one foot, walk in a straight line (gross motor), to draw a picture, build a tower with blocks (fine motor), to answer such questions as "Fire is hot, ice is _____" (language), and the ability of the child to dress without supervision. Special materials needed include a pencil, 8 blocks, a stop watch, and a tennis ball.

- Ratings of the Child

  Schaefer Behavior Inventory. This is a questionnaire administered to the parent. The parent rates her own child's behavior. Questions that would be asked include:

  "Does the child get impatient or unpleasant if he/she cannot get what he/she wants when he/she wants it?"

  "Does the child enjoy being with others?" and

  "Does the child watch carefully when an adult is showing him/her how to do something?"

  The behaviors rated reflect the child's task orientation, sociability, and tolerance. No special materials are needed to administer this questionnaire.

[1] All materials needed for each activity are provided by Abt Associates Inc.

Pupil Observation Checklist. After all measures and questionnaires have been completed, the community interviewer rates the child. Items are directed toward the nature of the child's involvement with the community interviewer. For example, the community interviewer would rate on a scale from 1 to 7 how cooperative the child was.

Height and Weight Measures. The child's height and weight are measured using a scale and tape measure. These two factors are important indicators of the child's nutritional and health condition.

- Parent Questionnaires

High/Scope Home Environment Scale. The questionnaire is administered to the parent to obtain information about the environment in which the child is growing up. The parent provides information, for example, about the availability and use of educational materials, the amount and kind of developmental stimulation, and the child's social experience.

Parent Interview. This is another questionnaire for the parent and deals specifically with the family's use of community services and participation in community events. It also seeks the parent's reactions to the Home Start or Head Start Program and attempts to determine how the parent felt about the community interviewer's visits and the activities that were conducted.

Child Food Intake Questionnaire. This questionnaire utilizes 24-hour recall to obtain information on the quantity and nutritional quality of foods eaten by the Focal Child. The mother is asked what the child ate for breakfast, lunch, dinner and snacks on the previous day, and they are asked to approximate amounts of each food through the use of such food models as glasses and bowls.

- Parent-Child Interactions

8-Block Sort Task. This task was designed to find out how the mother teaches her child and how she interacts with her child. The mother is first shown how to sort blocks according to their size and markings. Then she is asked to teach her child to sort the blocks. At the conclusion of the teaching session, the child will be asked to place two similar blocks he/she has not seen before and to explain why they were placed that way.

The mother-child interaction is tape recorded. The tape is later examined for such things as the explanations the mother gives the child, the praise and acknowledgment provided by the mother, and the kinds of comments and questions spoken by the child.

ERIC

Special materials required for the 8-Block Sort Task are: a board divided into 4 quarters, 8 "original" blocks, 4 "extra" blocks, and 2 "other" blocks. A tape recorded will be used for the sort task.

- Other Forms

Tester Log. A tester log is completed by the community interviewer following each visit to a home or center. On this log, she would indicate where the testing took place (i.e., the kitchen, living room, or dining room), how many people were in the room, whether it was noisy, etc.

Home Visit Observation Instrument. This checklist is used to determine the types of activities the Home Visitor is conducting with the Focal Child and Parent in the home. The checklist is used to record interaction between the Home Visitor, Focal Parent, and Child, the content of each activity, the types of materials used and where the activity was conducted. This instrument will only be used to observe two home visits per community interviewer.

IV. SITUATIONS YOU MAY ENCOUNTER AND WHAT TO DO

The following are examples of frequent types of situations that are encountered during visits to the home or center and suggestions for how they may be handled. Some general procedures which apply to Home Start Families, Control Group Families, and Head Start Families are:

- Always make sure the child is seated before starting the activity.

- If the child has difficulty with English or is more comfortable with another language, that language may be used to establish rapport and put the child at ease. Once the actual activity begins, read the instructions and questions as given in ENGLISH in the score form. At no time attempt to translate any of the questions.

ERIC

- The Negative Child

Situation: You are administering a child measure to the focal child and in the middle the child indicates that she does not want to do it anymore.

Suggestions:

(a) Suggest that you go for a drink of water or a brief walk before doing any more activities. (Be sure to indicate on the first page of the score form that you stopped the activity and the time you stopped.) Try to resume with the questions at the point where you left off.

(b) If after this break the child still refuses to answer or does not respond to the questions, stop the activity completely. Be sure you follow instructions for stopping a test (see Administration Manual for each instrument).[1]

(c) If the mother (or Teacher) is present you might ask her to leave the room. Occasionally an "aware" parent or teacher recognizes that the child may perform better if she were to leave the room. This will only work if the child does not become upset by the separation. Be sure you ask the mother whether the child might perform better if she were not present. If her answer is no, do not persuade her.

(d) If the mother (or teacher) is not present, ask the mother (or teacher) to come into the room and have the child sit on her lap. The mother (or teacher) cannot assist the child with any of the answers. The child must respond without any help from anyone.

[1] Administration Manuals will be given to you at the training conference

- The Overactive Child

Situation: You are administering a test and before you can ask the question the child is already giving you a response. For example, you are demonstrating "walking in a straight line." While you are demonstrating, the child starts to walk all across the room and does not pay any attention to what you are doing.

Suggestions:

(a) Always make sure that you have the child's attention. If the child responded before you even asked the question, say for example, "Johnny, I want you to watch me carefully." You also could take the child by the hand and make sure that he pays attention.

(b) Repeat the question (where permissible) and do not score what the child did if he did not respond to a specific question. For example, if the child walked around in the room while you were demonstrating and the child did not watch, do not score his walking through the room, whether it was correct or not, but make sure he responds to your questions.

- The Distracted Child

Situation: The child loses interest in the activity and the materials and goes to play with a toy in the room or other materials you brought with you, while you are administering the test.

Suggestions:

(a) Make sure that all materials are kept in the bag and out of reach of the child, except for the materials being used for a particular measure or item. If the child is playing with something else, suggest that he play with it later. For example, the child is playing with the tennis ball and you are asking him to build a bridge with the blocks. Take the ball away. Be sure, however, that you let the child play with the ball afterwards if you promised him he could.

(b) Arrange the table and the child's position at the table so that his back is to any distractions which cannot be removed from the room.

(c) Suggest that you take a break and do the rest of the activity later. It is extremely important that you remain calm and firm with the child. Never ask the child if he will perform a task for you. But tell him in a nice and firm way.

- Parent is Anxious About 8-Block

Situation: You have asked the mother to sit at the table in the kitchen or livingroom and you are setting up the tape recorder. The mother looks anxiously around.

Suggestions:

(a) Before you take out the tape recorder and set up the microphone, you should explain to the mother that this is an activity for both the mother and the child. Tell her that you are going to show her how to sort a set of blocks and that you will then ask her to teach the same task to her child. You can explain that we are interested in seeing how mothers work with their children and that the tape recorder will be running the whole time.

(b) If the mother has never heard herself on tape before, promise that you will let her hear a small part of the tape recording after the 8-Block has been finished.

Situation: The mother seems anxious because she wants to teach her child the task the right way and asks you how the tasks should be taught.

Suggestion:

(a) Make sure you stress to the mother that she can teach the child in any way she wants to and that there are not right or wrong ways in which to teach the task.

- Mother Who is Upset About Testing

Situation: The parent is frightened by the whole idea of having her child involved in the evaluation and being interviewed herself.

Suggestion:

(a) Here the important thing is to lighten the atmosphere and to let the respondent know that you are friendly.

(b) Stress the importance of getting her responses to the questions so that we can determine whether Home Start is a good program.

(c) Remember that the tests do not compare one child with another, one program with another, but that we are looking at the overall effectiveness of the Program. (See pages 4 & 5).

Situation: The parent is upset about the tests and refuses to have her child involved in any more of them.

Suggestion:

(a) Do not try to persuade the parent to continue the interviews or to have the child participate in further testing. Note what the mother said on the tester log and the score form and thank her for her participation.

(b) Call your Site Coordinator to discuss what happened.

ERIC

- The Non-Responsive or Shy Child

Situation: You enter the home (or center) and introduce yourself to the mother (or teacher) and the focal child. The focal child appears very shy and fearful and clings to the mother. It may take you a long time to gain rapport with the child so that he/she will try to respond to the questions you will be asking.

Suggestions:

(a) Give the child blocks or some other materials which seem to interest him while you talk to the parent. (For Head Start, go into the room in which you will be working and talk with the teacher.)

(b) Do not make the shy child the center of attention by talking directly to him. Start out with one of the parent questionnaires while the child becomes used to you or talk with the teacher.

(c) Focus your attention on the child when you have completed the questionnaire and try to engage the child in conversation. If you have seen a swing outside, for example, you might suggest that you push him/her (weather permitting).

(d) If the child still appears to be shy and uncommunicative, ask the parent or teacher if they'd like to play with the child, using materials which you brought for the activities.

(e) When all suggestions fail and you are unable to get the child to respond to you, start working with a sibling if there is one in the home or finish the questionnaires. If the child still does not want to do any of the activities with you after all these attempts, suggest to the mother that you will come back at another time.

- An Overanxious Parent or Home Visitor

Situation: The mother (or home visitor) is present while you are administering the test. The mother is very anxious about the test since the child is not doing very well. She is prompting the child to give the correct answer and to change wrong responses.

Suggestions:

(a) Tell the mother (and home visitor) that the child must do the test without any help from anyone.

(b) Discuss with them that it is quite natural for a child of this particular age to give incorrect answers even if he/she knows better. Remind the parent that the child will not be expected to do well on everything asked of him.

(c) Make a notation in the margin of the score form indicating that the mother said the child knew the right answer. This may assure the mother that the people analyzing the data are made aware that the child can do better.

(d) If interference with the activity continues, you might tactfully suggest that the mother leave the room by saying: "Sometimes children do better if you were not in the room." Do not persuade the mother, however, if she has indicated that she wants to be present.

- A Turned-On Television

Situation: A television is turned on in the livingroom when you enter the home and is not turned off when you are getting ready to start the test.

Suggestions:

(a) Ask the mother if you could test the child in the kitchen. If the mother indicates that it is too messy and that she wants you to do the activities in the livingroom, do as she asks.

(b) Never ask the mother to turn the television set off -- Remember you are a guest in her home. You might tactfully ask her, however, to turn it down.

(c) Place the child in such a way that he cannot see the TV screen, with his back toward it.

- Testing A Focal Child and Sibling

Situation: You are testing two children in this home. When you are getting ready to start the PSI with the focal child, the sibling stands by and watches. This is not permissible since the sibling would already know the questions by the time she is being tested.

Suggestions:

(a) Explain to the mother and the home visitor that the sibling should not be present in the room while you are administering the PSI because you will do it later with the other child.

(b) If the mother doesn't take the child out of the room, give the sibling some of the test materials for another test and let him/her play with them away from the testing. Promise that you'll do some games with him/her after his/her brother/sister is finished.

00252

- Focal Child is Present for 8-Block

Situation: You are in the kitchen setting up the tape recorder, the blocks and the board and the child is sitting on the mother's lap.

Suggestions:

(a) The focal child should not be in the room while the 8-Block sort task is being taught to the mother, since she in turn will have to teach it to the child.

(b) If the home visitor is present, suggest that she take the child on a walk, read a story, or undertake other activities. We have asked home visitors to do this. Stress the importance of not having the child present while the 8-Block is being taught.

(c) If the Home Visitor is not present during you testing visit, give the child some materials to play with away from the testing. Tell the child that his/her mother will play the game with him/her in a little while

- Mother Embarassed During Visit

Situation: You arrive at the home and the mother is embarrassed because she looks untidy or because the house "is in a mess."

Suggestion:

(a) Reassure the mother and say something about knowing how busy she is or how impossible it is to keep a house clean with kids around. Be sympathetic and show an interest.

- Visit is Inconvenient for Mother

Situation: The mother is irritated to be interrupted when you arrive at the home. She is ironing when you come and does not have time to sit down with you and devote full attention to the interview.

Suggestion:

(a) You may suggest to the mother that you interview her while she continues to do her ironing. Never imply that what she is doing is not important or less important than the interview.

Situation: The mother is bathing a younger child and does not feel she has time to devote to the interview.

Suggestion:

(a) Offer to come back at a more convenient time.

(b) Ask the Mother if you can go ahead with the activities with the child.

V. MONITORING AND REVIEW PROCEDURES

As was noted in a previous chapter, you will be accompanied at least once a week on a testing visit by the Site Coordinator.[1] The purpose of monitoring visits is two-fold:

- to determine accuracy of test administration and scoring,
- and to give the Site Coordinator an opportunity to assist with tests or items which are giving you difficulties, following the testing visit.

The Site Coordinator will let you know once a week which visit she will be accompanying you on and make arrangements to meet you prior to the monitoring visit.

The Site Coordinator's role is to "support and assist you." Consequently she will reserve all her comments regarding your testing performance until after the visit when you have left the home or center. She will meet with you following the visit to discuss problem areas or review them in the car or by telephone. She also may suggest that you get together with her for additional training on specific tests if she feels this would improve your performance. In addition to accompanying you weekly on testing visits, the Site Coordinator is responsible for reviewing all completed tests which you send her at the end of each week. If mistakes in scoring are found in the materials, she will call you to discuss them with you. Write down her comments and review them periodically. A sample performance evaluation form which is completed following each monitoring visit can be found in Exhibit V.A.

The Site Coordinator is responsible for supervising the testing in your community and reports all problems to the Coordinator of Field Operations at Abt Associates Inc. If serious problems arise, action will be taken by Abt Associates Inc.

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[1] During the month of October, one of the trainers/monitors from High/Scope or Abt will conduct monitoring activities.

MONITORING FORM & PERFORMANCE EVALUATION

PRESCHOOL INVENTORY

Tester _____ Name of Family _____ Date _____

Test Administration Errors		
1. REPEATS (non cars & boxes)	____ x 0.5=	____
2. REPEATS (cars & boxes)	____ x 0.5=	____
3. Failing to have CORRECT TEST MATERIALS	____ x 2.0=	____
4. INCORRECT PLACEMENT of Test Materials	____ x 0.5=	____
5. INCORRECT WORDING of Questions	____ x 0.5=	____
6. SKIPPING ITEM or Stopping Test Incorrectly	____ x 0.5=	____
7. PROBING (too many or too few)	____ x 0.5=	____
8. Other: Specify		
_____	____ x 0.5=	____
_____	____ x 0.5=	____
_____	____ x 0.5=	____
_____	____ x 0.5=	____
WEIGHTED TOTAL		

MUST NOT EXCEED (4)

Rapport with Child (check one): Poor ____
Adequate ____
Good ____

ACTION TAKEN: _____

_____

_____
Name of SC/SM

Scoring Discrepancies			
Item	Score	v	Response/Probe
#1			
#2			
#3			
#4			
#5			
#6			
#7			
#8			
#9			
#10			
#11			
#12			
#13			
#14			
#15			
#16			
#17			
#18			
#19			
#20			
#21			
#22			
#23			
#24			
#25			
#26			
#27			
#28			
#29			
#30			
TOTAL			

VI. FIELD LOGISTICS

In this section you will find details regarding all aspects of the field logistics. Please review this section carefully. If correct logistical procedures are not followed, it may jeopardize the entire Fall field operation.

• Scheduling of Testing Visits

-All 1st visits to families assigned to you are scheduled weekly by the Site Coordinator. At the end of each week, she will prepare a schedule for you indicating which families you have appointments with the following week. Notify the Site Coordinator at least 24 hours in advance of a visit if you are unable to keep an appointment. (Do NOT contact families directly; Site Coordinators are responsible for that.)

-2nd and 3rd Visits are scheduled by you at the end of your 1st testing visit. Make sure you have your testing schedule with you, so that you know when an appointment has been scheduled. Notify the Site Coordinator DAILY to let her know of appointments you have made so that she can revise your testing schedule and send out a postcard to the family to remind her of the appointment. (If the parent wants to change the appointment, the Site Coordinator will let you know.) Also see page 22 for a brief discussion of scheduling procedures.

You need not schedule 2nd visits to Head Start Centers, since the site Coordinators arranges these visits. Be sure to confirm the 2nd visit, however, with the Center Director or Teacher.

If a 3rd visit needs to be made to a Head Start Center which was not scheduled, you should make arrangements for this visit directly with the Head Start Directors. Call the Site Coordinator to inform her of your schedule. 3rd visits may need to be made if some of the children were absent during an earlier testing session due to illness and you were unable to test them.

• Logging of Testing Materials

At the end of each day, the following administrative tasks should be done:

1. Go over the testing materials to insure that all test were inserted in the proper envelope and that you have checked the contents on each envelope. Never seal the envelope.

2. Note on your mail log[1] only test materials which you failed to collect that day. For example:

You collected all 1st visit materials on the Brown Family

	NAME OF FAMILY	VISIT #	COMPLETE	MATERIALS MISSING
1.	BROWN	1	✓	

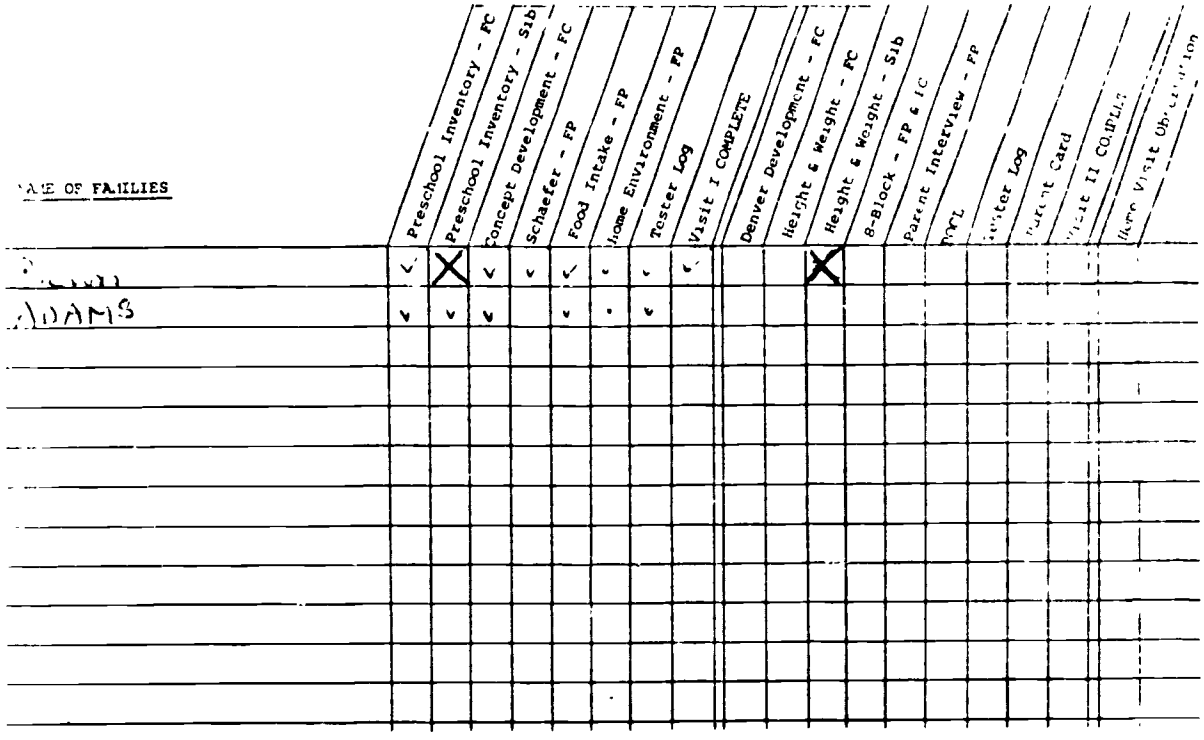
You collected all 1st visit materials except the Schaefer for the Adams Family. Note materials missing.

2.	Adams	1		SCHAEFER

Mail Logs are sent weekly to the Site Coordinator. A signed copy of the mail log will be returned to you to indicate that materials have been received.

[1] See Exhibit I VI. A

3. Take out your checksheet and indicate on here which tests you do not need to collect by looking at your Family Assignment Sheet.



The Brown Family for example has only a Focal Child and no siblings.

At the end of each day mark the test you collected with a check mark. This checksheet will enable you to keep track of the tests you already have administered and those you still need to give. This checksheet is for your purposes only and is not forwarded to the Site Coordinator.

ERIC
Full Text Provided by ERIC

4. Take out a Log of Unsuccessful Visits[1] and record daily visits you made to a family when you found the family not at home. Record on the log the name of the family, the community the family was in and whether this was your 1st visit, 2nd or 3rd. You only need to record unsuccessful visits which you made to Home Start and Control Group Families. Logs are sent weekly to the Site Coordinator.

5. Put the closed (not sealed) tester envelope in a large mailing envelope in which to send testing materials to Site Coordinator at the end of each week.

- Mailing of Materials

Materials must be mailed to the site coordinator on the last day of the week, Friday or Saturday. In urban communities, when feasible, community interviewers should drop the materials off at the house of the site coordinator. Included with the test materials should be:

- all testing materials you completed that week
- mailing log
- log of unsuccessful visits
- weekly time and travel log (see pages 54 and 55).

If you are unable to send these materials on Friday or Saturday or to drop them off over the weekend, you must call your site coordinator and inform her of this.

If you are mailing testing materials, they must be sent CERTIFIED MAIL/RETURN RECEIPT REQUESTED. This means that you will have to go to the Post Office to deliver the materials at the end of the week. To make things simpler for everyone, we are providing you with large envelopes, certified mail stickers, and return receipts. At the end of the week seal the envelope (large) and take out a certified mail sticker.

[1] Exhibit VI.B.

80299

Complete this portion of the Certified Mail receipt by indicating the NAME AND ADDRESS OF PERSON TO WHOM MATERIALS ARE BEING SENT.

This portion will be your receipt after it has been stamped by the PO

RECEIPT FOR CERTIFIED MAIL—30¢ (plus postage)

Addressee

POSTMARK OR DATE

OPTIONAL SERVICES FOR ADDITIONAL FEES

RETURN RECEIPT SERVICES
1 Shows to whom and date delivered 15¢
With delivery to addressee only 65¢
2 Shows to whom, date and where delivered 35¢
With delivery to addressee only 85¢
DELIVER TO ADDRESSEE ONLY 50¢
SPECIAL DELIVERY (extra fee required)

No.

PS Form 3800 Apr. 1971 NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL (See other side)

CERTIFIED MAIL No. 835777

This portion will go on envelope

goes on return receipt see below

Note the Certified Mail # on the back of the Return Receipt, as follows:

PLEASE FURNISH SERVICE(S) INDICATED BY CHECKED BLOCK(S). REQUIRED FEE(S) PAID.

☐ Show to whom, date and address where delivered ☐ Deliver ONLY to addressee

RECEIPT

Received the numbered article described below.

REGISTERED NO.

CERTIFIED NO. 835777

INSURED NO.

DATE DELIVERED

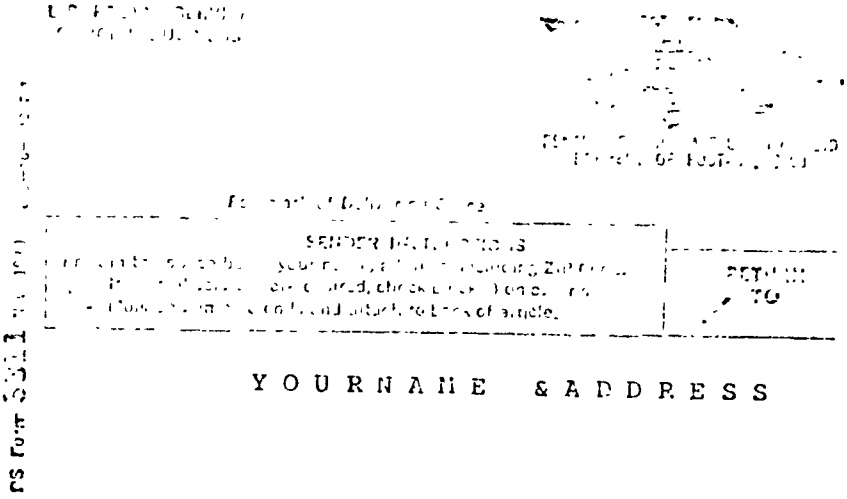
1 SIGNATURE OR NAME OF ADDRESSEE (*Must always be filled in*)

2 SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

3 SHOW WHERE DELIVERED (*only if requested*)

ERIC

Write on this side of the return receipt YOUR NAME AND ADDRESS. The receipt will be mailed back to you.



After completing all these steps go to the Post Office and pay the postage required. Get a receipt for postage fees and note the amount on next week's Time and Travel Log (see pages 54 and 55). The receipt should be attached to your T&T Log.

Be sure you keep the receipt for sending the package certified mail. These receipts are proof that you have mailed the materials.

- Communications

If you have any questions regarding the tests, procedures or any other aspects of the field activities, call the Site Coordinator. She will be in constant touch with the coordinator for field operations and will respond to your inquiries directly or will obtain an answer for you from AAI. Call AAI only, if you are having on-site problems which you feel you cannot discuss with the Site Coordinator. The person to contact at Abt is:

Marrit Nauta
(617) 492-7100 Ext.225
ALWAYS CALL COLLECT

- Payment Procedures

The following procedures should be followed for the reimbursement of local expenses and payment of wages:

1. Training

You will be paid $20 per day for a 6-day period for participating in the training conference. If you participate in a portion of the training, you will be paid on a pro-rated basis.

Travel costs will be paid for you. Air travel will be arranged and paid for by Abt Associates. Travel to and from the airport will be reimbursed on receipt of a properly completed invoice. If buses or trains are used, receipts must be attached to the invoice.

Travel to the training conference by private car will be reimbursed at 10¢ per mile. If the cost of travel by car exceeds the air fare, reimbursement will be only up to the cost of air fare.

2. Testing

You will be paid on an hourly basis for work you have completed. In addition, local travel expenses and other miscellaneous costs, such as telephone charges and postage fees, will be reimbursed.

In order to get reimbursed for local travel, miscellaneous expenses and to get paid for hours worked testing Home Start families, you must record the following information on a daily basis:

- date of the visit
- name of the family visited
- visit # (i.e. whether it is your 1st, 2nd or 3rd visit)
- time started -- the time you left your home to visit the family
- mileage to the home of the Home Start family
- mileage from the home of the Home Start family
- time ended -- the time you returned home from your visit
- total hours worked in testing that family
- total mileage for your visit

In addition to the above information which you record for each of your testing visits, you must indicate the following:

A-Administration -- time spent on preparing test materials for test visits and preparing materials for mailing.

TR-Travel Time which is not associated with any testing visits. This category would be used for dropping off test materials at the end of the week to the home of the site coordinator or Post Office.

On page 2 of the T & T log , you must record miscellaneous expenses such as Postage Fees and Telephone Charges.[1] (Attach receipts or bills if applicable.) YOU MUST COMPLETE THIS LOG PROPERLY IN ORDER TO GET PAID AND REIMBURSED FOR MILEAGE.

Let us review the attached example of a weekly time and travel log on a step-by-step basis. Note that all items which must be recorded on the log are underlined.

-Sept. 24 -(date -- I am meeting with the Site Coordinator to get a testing trunk so I have indicated the Code A for Administration. I left my house at 9:00 (time started) and returned home at 12:00 noon (time ended). I had to drive 4.5 miles to the meeting and 4.5 to get back home (mileage to and from home). To attend this meeting, I worked 3 hours (total hours) and drove 9 miles (total mileage).

To prepare myself for test visits the following day, I spent some time in the afternoon filling out the score forms for the first visit. Note that I recorded the date, A for Administration, the time I started, the time I stopped work and the total # of hours.

-Sept. 25 - I made my first visit to the Baker Family. I left the house at 8:45 AM (time started) and drove 8 miles (mileage to home of Family). I drove again 8 miles to get home (mileage from home of Family) and arrived there at 10:15 AM (time ended). I worked a total of 1.5 hours (total hours) and drove 16 miles for this particular visit.

In the afternoon on the same day (date) I made my first visit to the Adams family. I left my house at 12:15 PM and drove 3.4 miles to get to the family. I drove again 3.4 miles to get home and arrived there at 2:15 PM. To complete this visit to the Adams family, I worked a total of 2 hours and drove 6.8 miles.

[1]Miscellaneous expenses are not reimbursed on a weekly basis but charged against a $10 advance which you will receive for testing. Upon completion of the testing, expenses exceeding the advance will be reimbursed.

In the evening I spent 15 minutes preparing test materials for the following day.

-On Sept. 26 I have two visits scheduled during the morning--one to the Jones family and one to the Newman family. Both will be my first visit to the families. I left the house at 8:15AM to go to the Jones family. I drove 4.5 miles to get there. Following the completion of this visit, I am going DIRECTLY from the Jones' to the Newman family -- Note that I left the mileage from home blank, since the mileage from the Jones to the Newman family is recorded under mileage to home. I worked a total of 2 hours to complete the visit to the Jones family and drove 4.5 miles.

I arrived at the Newman's at 10:15 AM after driving 3 miles. I returned home at 12:00 noon and drove 7.5 miles to get there. I worked 1.75 hours to complete the visit to the Newmans and drove 10.5 miles.

-On Sept. 27th, I made three visits. The first one was my second visit to the Baker Family. I left the house at 8:45 AM and drove 3.4 miles to get there from the Baker Family. When I completed the visit it was lunch time and I decided not to go home. I recorded the time I left the Adams family as time ended -- 11:45AM and left the mileage from home blank. To complete the 2nd visit to the Adams family, I worked 1.5 hours and drove a total of 3.4 miles.

I left the restaurant at 1:30 to make my second visit to the Jones Family. Record this time as time started for the Jones family. From the restaurant I had to drive 4 miles to get to their house (mileage to home). Following this visit I went home and arrived there at 3:00 PM, after driving 9 miles. I worked a total of 1.5 hours and 13 miles.

In the evening, I spend a half hour on test Administration.

I did not make any further visits during this week and dropped off the test materials at the house of the site coordinator the following day. I left the house at 1:00 PM and returned at 1:30 PM. I had to drive 4 miles to get to the house of the site coordinator and 4 miles back. Total hours worked this day was 0.5, and total mileage came to 8.

Total up the TOTAL HOURS and TOTAL MILEAGE COLUMNS and record the totals on the second page of the log. Multiply the total hours column by your hourly wage to determine the wages that will be paid to you for that particular week. Multiply the total mileage column by $0.10 to determine expenses for that week for which you will be reimbursed. Indicate on the left expenses for postage and telephone.

- Bonus

When all testing has been completed and your testing performance was satisfactory, you will be paid a bonus of $0.50 for each hour you worked. Bonuses will be paid after you have returned your testing trunks to the site coordinator and she has checked the trunk contents.

- Taxes

Abt Associates Inc does not withhold income or other taxes from your earnings. At the end of the year, a statement will be sent to you indicating total earnings for the year from AAI.

00236

Weekly TIME AND TRAVEL LOG

Home Start Community Interviewers

Name John Doe Week Ending Sept. 28, 1973

Address Anytown, U.S.A

Date	Name of Family or Code	Visit #	Time Started	Time Ended	Total Hours	Mileage To Home	Mileage From Home	Total Mileage
9/24	A	—	9:00	12:00	3	4.5	4.5	9
9/24	A	—	4:10	4:25	0.25	—	—	—
9/25	Baker, Wm	1	8:45	10:15	1.5	8.0	8.0	16
9/25	Adams, John	1	12:15	2:15	2	3.4	3.4	6.8
9/25	A	—	8.00	8:15	0.25	—	—	—
9/26	Jones, Bill	1	8:15	10:15	2	4.5	—	4.5
9/26	Newman, Jo	1	10:15	12:00	1.75	3	7.5	10.5
9/27	Baker, Wm	2	8:45	10:15	1.5	8.0	—	8.0
9/27	Adams, John	2	10:15	11:45	1.5	3.4	—	3.4
9/27	Jones, Bill	2	1:30	3:00	1.5	4.0	9.0	13.0
9/27	A	—	7:00	7:30	0.5	—	—	—
9/28	TR	—	1:00	1:30	0.5	4.0	4.0	8.0
SUB-TOTAL					16.25			79.2

Date	Name of Family or Code	Visit #	Time Started	Time Ended	Total Hours	Mileage To Home	Mileage From Home	Total Mileage
	Subtotal from Previous Page	-	-	-	16.25	-	-	79.2
TOTAL					16.25			79.2
					x 2.50			x 0.10
					40.63			$7.92

Miscellaneous Expenses:

Postage $ 0.20

Telephone $ 0.30

John Doe

Signature Community Interviewer

MAILING LOG

NAME OF CI _____ WEEK ENDING _____

	NAME OF FAMILY	VISIT #	COMPLETE	MATERIALS MISSING
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				

EXHIBIT V[illegible].B

LOG OF UNSUCCESSFUL VISITS

_____ Week Ending: _____

Name of CI

DATE OF VISIT	FAMILY NAME	COMMUNITY	VISIT #

ERIC

2. Site Coordinator Manual

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*Sections I. and IV. can be found in the Community Interviewer Manual. The chapters were not supplemented for use by site coordinators.

I. INTRODUCTION*

*Section I can be found in the Community Interviewer Manual. The chapter was not supplemented for use by site coordinators.

II. SITE START-UP AND PREPARATION

Since on-site monitoring will be conducted immediately following the training conference, some site preparation needs to be done during the last week in August or the first week in September.

Outlined below are procedures which should be followed:

- Lists of Families to be Tested

During the last week of August, I will be sending you a partial list of the names of families enrolled in Home Start who will be involved in the testing during the Fall. The list is only partial since many of the Home Start Programs are still in the process of recruiting families. At the training conference you will obtain the complete list of families (including a list of Control Group families and for all sites, except Kansas and Ohio, Head Start families.) During the site start-up and preparation activities you only will have to concern yourself with families enrolled in the Home Start Program.

- Initial Family Assignments

During the last week of August, I also will be sending you initial family assignments for each community interviewer. Please review these assignments with the Program Director/Coordinator to insure that they concur with these assignments. Feel free to make changes but MAKE SURE that the "tentative" workload is fairly evenly distributed among community interviewers.

- Time Availability Sheets

Time Availability Sheets from each of the community interviewers will be obtained as soon as the recruitment effort has been concluded. Time Availability Sheets will be sent to you during the last week of August so that you can consult the schedules before making appointments for testing visits.

- Scheduling of Testing Visits (Sept. 24-Oct. 5)

Scheduling is complicated since you will be monitoring test performance for each of the community interviewers (including those who have experience with testing). You will be accompanying community interviewers at least once during each of the two weeks of start-up testing; once during the week of September 24 (1st visit battery) and again during the week of October 1 (2nd visit battery). This means that you will be making at least 8 to 10 monitoring visits during these first two weeks. No one starts testing until you have monitored at least one visit.

96301

Step #1--Discuss family assignments with Program Directors/Coordinators and find out which Home Visitors plan to be present during the testing visits.[1]

Step #2--Set up appointments for two testing visits for each family with the Home Visitor working with that family IF the Home Visitor plans to be present. Please see the section on Scheduling Procedures for the two weeks of start-up testing, so that your schedule is arranged in such a way that you will be able to accompany each community interviewer on her first testing visit of the week. A testing schedule should be prepared for the Home Visitors.

For families who will be visited by community interviewers WITHOUT the Home Visitor present, the following procedures must be followed:

1. A letter will be sent to parents on your list during the last week of August to give them some general information about the evaluation and the testing and to advise the parent that you will be in touch with her to arrange an appointment. (Exhibit II.A)

2. A telephone call to families to arrange the testing visit IF a telephone is present.

   For families who do not have a telephone, you should set up a preliminary testing schedule for them. Then inform the parent on a postcard (which will be printed up by Abt Associates) of the date and time of the visit, asking the parent to get in touch with you if it is not convenient. (Exhibit II.B)

Step #3--During the Fall, you will be responsible for sending out postcards to each family to remind them of the time and date of the appointment for the testing. Postcards for start-up testing visits must be mailed no later than September 11, the day before you travel to Michigan.

(Exhibit II.C)

---

[1] Home Start Programs have the option of NOT having Home Visitors accompany community interviewers on testing visits in order to minimize interference with regular program activities.

00305

- Testing Schedule

Let's take this slow and review each procedure thoroughly. It is ESSENTIAL that the start-up testing schedule is set up properly so that testing can start promptly following the training conference.

1. On Monday morning, September 24 set up a meeting with your entire field staff so that you can give each community interviewer a testing trunk and sufficient score forms for testing. This meeting should last no longer than an hour. Also confirm with families or the Home Visitors (if they plan to be present) your Monday afternoon testing schedule.

2. For Monday afternoon, September 24 set up two testing appointments for only ONE community interviewer as follows:

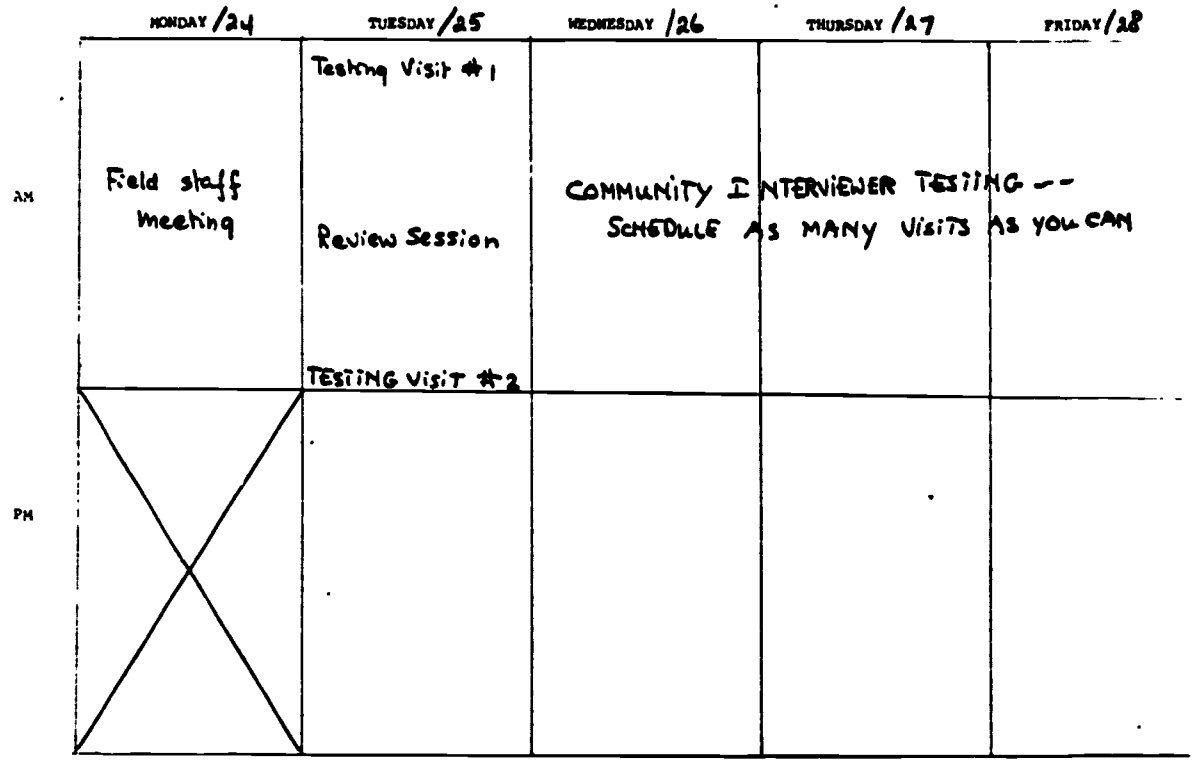
COMMUNITY INTERVIEWER #1

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	SEPT. 24	SEPT. 25	SEPT. 26	SEPT. 27	SEPT. 28
AM	open for field staff meeting & confirmation of visits.	———	———	———	———
		COMMUNITY INTERVIEWER TESTING -- SCHEDULE AS MANY VISITS AS YOU CAN			
	Testing Visit #1				
PM	Review of Scoring	———	———	———	———
	Testing Visit #2				

Then schedule as many visits as possible for the remainder of the week for that particular community interviewer.

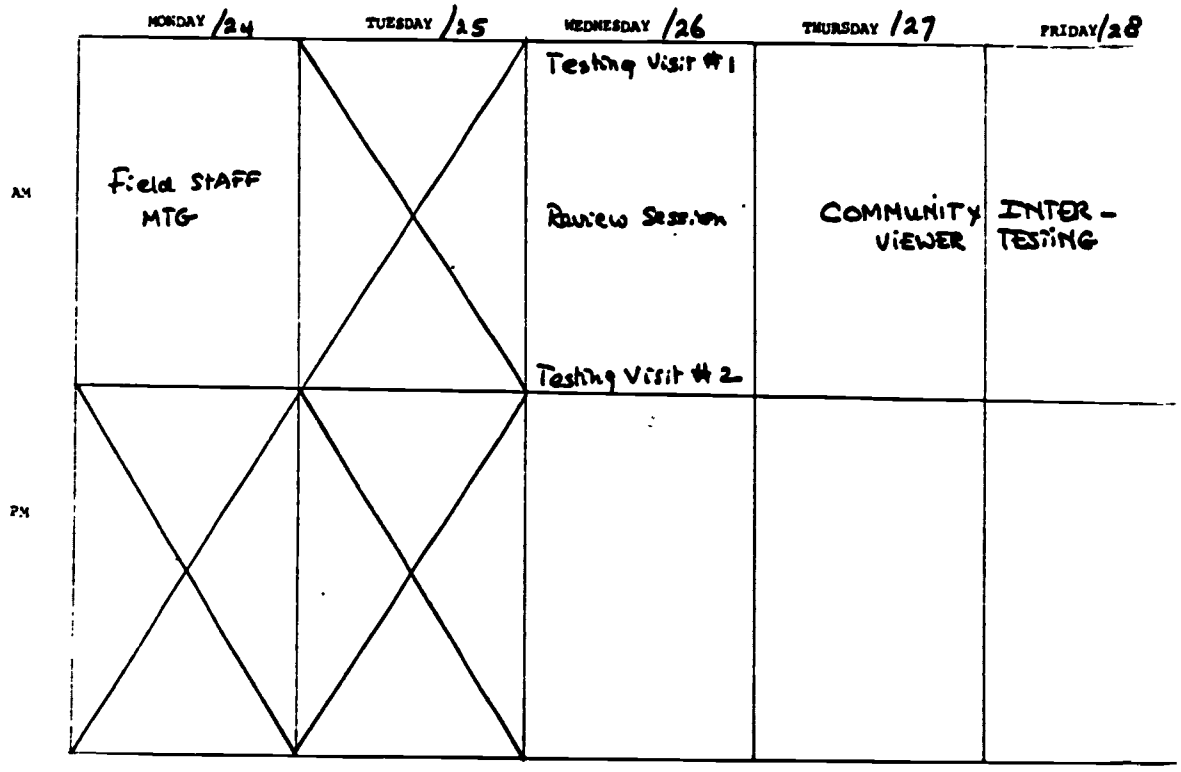
3. For Community Interviewer #2, start scheduling testing visits on Tuesday, September 25th and then for the remainder of the week plus Monday. Like this:

COMMUNITY INTERVIEWER #2



and so on:

60307



In brief, you plan on accompanying each community interviewer on the VERY FIRST TESTING VISIT and if necessary the second one. Following your test monitoring, you should schedule testing visits for an additional 4 days. On the 5th day, you should be monitoring the Community Interviewer again, this time on the 2nd visit battery. Again, schedule 4 days of 2nd visits following your monitoring visit. At the end of the two weeks monitoring period for each community interviewer, regular testing visits can start to be scheduled.

The schedule for the first two weeks of testing should be as follows:

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	Sept. 24 FIELD STAFF MEETING	Sept. 25 CI #1 TESTING CI #2 - Visit #1 Review	Sept. 26 CIs #1 & 2 TESTING CI #3 - Visit #1 Review	Sept. 27 CIs #1, 2 & 3 TESTING CI #4 - Visit #1 Review	Sept. 28 CIS #1, 2, 3, & 4 TESTING CI #5 - Visit #1 Review
1st VISIT BATTERY	CI #1 - Visit #1 Review CI #1 - Visit #2	CI #2 - Visit #1 CI #1 TESTING	CI #3 - Visit #2 CIs #1 & 2 TESTING	CI #4 - Visit #2 CIs #1, 2 & 3 TESTING	CI #5 - Visit #2 CIs #1, 2, 3 & 4 TESTING
See page II.7 for a change in procedures.	Oct. 1 CIs #2, 3, 4 & 5 TESTING 1st Visit Battery CI #1 - Visit #1 (2nd)	Oct. 2 CIs #3, 4 & 5 TESTING 1st Visit Battery CI #1 - TESTING (2nd) CI #2 - Visit #1 (2nd)	Oct. 3 CIs #4 , 5 TESTING (1st) CIs #1 & 2 TESTING (2nd) CI #3 - Visit #1 (2nd)	Oct. 4 CI #5 TESTING (1st) CIs #1, 2 & 3 TESTING (2nd) CI #4 - Visit #1 (2nd)	Oct. 5 CIS #1, 2, 3, & 4 TESTING (2nd) CI #5 - Visit #1
	Review CI #1 - Visit #2 (2nd) CIs #2, 3, 4 & 5 TESTING 1st Visit Battery	Review CI #2 - Visit #2 (2nd) same as above	Review CI #3 - Visit #2 (2nd) same as above	Review CI #4 - Visit #2 (2nd) same as above	Review CI #5 - Visit #2 (2nd) same as above

When you have arranged the testing visits, prepare a schedule for Home Visitors (if they plan to be present) and community interviewers. BRING THESE SCHEDULES WITH YOU TO THE TRAINING CONFERENCE; I will want to review them with you.

- Materials Needed for Site Start-Up

  - List of Names of Families (AAI to supply)
  - Family Assignment Sheets Completed (AAI to supply)
  - Blank Family Assignment Sheets (AAI to supply)
  - Blank Testing Schedules for HV's and CI's (AAI to supply)
  - Appointment Cards (AAI to supply)
  - Appointment Reminder Cards (AAI to supply)
  - 8-cent stamps (buy)
  - carbon paper (if you do not have any left from the Spring field effort, buy a box)

  Materials will be sent to you during the last week in August.

ERIC

During the last week of August, I will be sending you a $30 advance for miscellaneous expenses such as stamps, extra carbon paper, and such things as large envelopes.

Review Session - 2nd Visit Battery

For October 1, you should schedule a review session with your entire field staff to review all tests and questionnaires for the second visit battery.

ERIC

DRAFT EXHIBIT II.A

ABT ASSOCIATES INC.
55 WHEELER STREET, CAMBRIDGE, MASSACHUSETTS 02138
TELEPHONE • AREA 617-492-7100
TELEX 710-320-6367

September 1973

Dear Home Start Parent:

The Home Start Program has informed us that you are presently enrolled in the program. We are very pleased to know that you have given us permission to have a community interviewer ask your children some questions and to talk to you about your children and the things you do with them. We feel that the information you provide will help families who might come into Home Start in the future.

We thought you might like to know a little bit about the kinds of questions that will be asked, who will be contacting you to arrange for a visit to your home, and how long the community interviewer will be visiting with you and your family.

During the last week in September or the first week in October, someone from Home Start or the Site Coordinator for the Evaluation will be in touch with you either by telephone or mail to arrange a time and date for a visit to your home. A specially trained community interviewer from your area will visit you for a period of about 1 1/2 hours at the time you have agreed upon. During the visit itself, if you feel your child is getting too tired or the visit is too long, please feel free to let the community interviewer know. She'd be happy to come back at another time to finish the activities.

At the conclusion of the visit, the community interviewer will arrange for a second visit to your home, which also will last approximately 1 1/2 hours. After all activities have been completed, the community interviewer will ask you to sign a green card which will be sent to us. Upon receipt, we will send you a check for $5.00 as our thanks for your help.

On one of the visits to your home, someone may accompany the community interviewer so that we can find out whether she is doing a good job.

A brief description of the types of activities the community interviewer will be undertaking with you and your children during the first and second visit to your home is attached.

We appreciate your willingness to let us visit with you and your children and, assure you that anything you tell the community interviewer will be treated confidentially.

Sincerely yours,

Marrit J. Nauta
Coordinator of Field
Operations

njn

00311

EXHIBIT II.B

APPOINTMENT CARD

This is to inform you that _____,
Community Interviewer for the Home Start Evaluation,
is planning to visit you on _____
at _____ AM/PM to interview you and do some
activities with your child(ren).

Please call me at _____ if this is not
convenient and you wish the date or time of the
visit to be changed.

_____
SITE COORDINATOR
Home Start Evaluation

00312

EXHIBIT II-C

APPOINTMENT REMINDER

This is to remind you that _____ will be visiting you on _____ at _____ AM/PM to interview you and do some activities with your child(ren) for the Home Start Evaluation.

Please call me at _____ if this is not convenient and you wish the data or time of the visit to be changed.

_____
SITE COORDINATOR
Home Start Evaluation

00313

III. TESTING AND SCHEDULING PROCEDURES - SITE COORDINATORS

During the first two weeks of start-up testing (September 24 to October 5), you should start scheduling additional testing visits to Control Group Families, Head Start Centers (if applicable), and to other families enrolled in Home Start. An attempt should be made to test families in each of the three groups each week, rather than scheduling all Head Start families for the last couple of weeks of the Fall data collection effort, for example.

Procedures which should be used in scheduling testing visits to the three groups of families are outlined below.

- Obtain Complete Family Information

Some of the family rosters are incomplete. You should contact the program as soon as possible to get the addresses and telephone numbers of the families (if you do not already have them) and, for some sites, find out to which Home Visitors the families have been assigned (Kansas and Texas).

- Scheduling Testing Visits

You are responsible for scheduling only 1st visits to Home Start and Control Group families. Community interviewers are responsible for scheduling 2nd and 3rd visits directly with the family (and/or Home Visitor). Community interviewers have been instructed to call you daily to let you know which appointments were made. Enter these on the testing schedule. If a community interviewer is unable to schedule a 2nd or 3rd visit, you should do it for her. For example, if the community interviewer found the family not home on her first visit, she is unable to arrange for another visit.

Make sure that scheduling is done properly and that the job is getting done.

Families have been instructed to call you if an appointment needs to be changed. Make sure you contact appropriate parties promptly to inform them of a change.

> Notify families at least 24 hours in advance if a visit needs to be cancelled.

If a community interviewer is unable to make a testing visit scheduled for her and it is not possible for you to contact the family, try to make the testing visit yourself, or see if any other community interviewer is available to substitute.

ERIC

If the community interviewer does not find the family home, follow the same procedure of scheduling another testing visit to the family. You do this three times. If after three visits, the community interviewer still has not reached the family, no further attempts will be made.[1]

A family may have moved without notifying anyone. If the community interviewer has made a visit and finds the family no longer residing at that address, take the following steps:

- call the Program Director and find out if she knows the family's new address. If so, schedule another testing visit. If not, let me know and the family will be dropped from the evaluation.

- Home Start Family Testing

Make sure you know the Program's preference in terms of having Home Visitors accompany community interviewers on testing visits.

On the Family Assignment Sheets for each community interviewer indicate visits on which the Home Visitor will accompany the CI by placing the following marks after the family name:

* -- Home Visitor will be present for 1st visit

** - Home Visitor will be present for all testing visits.

1. If Home Visitors plan to be present, meet with or call the Home Visitor responsible for that family and arrange the first testing visit.

2. Prepare a testing schedule for each Home Visitor weekly (a copy of which should be forwarded to the Program Director, Coordinator or Assistant Director -- your contact person at Home Start). Indicate with an asterisk (*) on the CI's schedule that the Home Visitor plans to be present. This will enable the CI to contact the Home Visitor prior to the testing visit and arrange a place to meet.

3. Five days before the testing visit, send a postcard reminding the family of the visit.

   (I suggest you follow a routine for yourself of looking daily at the schedule for five days from that

[1] Community interviewers indicate weekly all unsuccessfull visits to families. These must be submitted weekly to AAI, together with other site and test materials.

that date and send postcards. Place a checkmark beside the family name on the schedule to indicate that you have sent the card.)

4. Testing schedule are also prepared for subsequent visits to families (even though visits were arranged by the community interviewer). Likewise, you should remind families of the 2nd visit appointment five days prior to the visit.

If Home Visitors do not plan to be present during the testing visits, the following procedures should be used:

- Control Group and Home Start Family Testing if CI's will not be accompanied by the Home Visitor

Look at the Family Assignment Sheets and indicate with a dot (●) families who have a telephone. First you start scheduling families who do not have a telephone (or those with no markings beside their name).

1. Look at the testing schedule for the CI and determine a date and time the CI assigned to that family could make the visit. Make up a master schedule for each CI and take the family location into consideration when scheduling visits.[1]

   For example, if three families without a phone live on Concord Avenue, try to schedule all three families on one day.

   Make all entries on the schedule in pencil and place parentheses around the family name so that you know that this visit has not yet been confirmed.

2. Prepare an Appointment Card for each family indicating the date and time the community interviewer plans to visit the home. Send this card to the family.

3. If the family did not get in touch with you to change the date and time of the visit, the community interviewer should make the visit as planned.

4. If the family wasn't home when the CI visited them, follow the same scheduling procedures as outlined above (i.e., set up a new date and notify the family).

[1] Allow some time for the U. S. Postal Service to get the card to the family and for the family to respond.

After you have contacted these families by mail, try to call families who have a telephone.

1. Determine before you call when the community interviewer would be available for a testing visit. Have a date in mind for the visit when you call.

2. Identify yourself: Hello, Mrs. _____. My name is _____, Site Coordinator for the Home Start Evaluation. I would like to arrange a time for a community interviewer to visit with you and your family. Would _____ be convenient?

   I'll send a card to you in a couple of days to remind you of the time and date of the visit.

3. Note the time and date on the testing schedule and send Reminder cards five days in advance of the visit.

4. If the family wasn't home when the community interviewer visited them, follow the same procedures as outlined above.

- Head Start Family Visits

Different procedures will be used for setting up testing visits with Head Start families.

1. Arrange a meeting with the Head Start Director(s) as soon as possible to:

   a. obtain a list of the names of Center Directors if more than one.

   b. discuss with them the following:

      - you will make contact with the local Center Directors to:

        obtain signed letters of permission from families selected for the evaluation[1]. Letters are to be sent to AAI.

        offer to give a demonstration of the child measures and the 8-Block (if desired).

[1] If letters have not been signed, be sure to have the community interviewer collect them before testing starts. Keep a list of the names of families that still need to sign.

schedule testing visits for children in the center. It will take approximately 1/2 hour per child + the 8 Block, which is administered during a separate visit.

to find out whether local Center Directors wish to contact parents to arrange a time for a meeting at the center or if they'd like you to do that. (Total time for each parent is approximately 1 hour and 10 minutes.)

to find out whether a separate room is available in which the testing can be conducted.

2. Call or arrange a meeting with local Head Start Director(s) and discuss the above. If the Directors would like a demonstration of the tests, arrange for a tester or yourself to do so at a convenient time.

   a. Set up one visit with the Head Start Director for the purpose of testing Head Start children.

   b. If the Program plans to contact families directly, ask the Director when you can call her back to find out when the visits have been set up. (Specify a date, or several for testing so that the schedule they set up does not conflict with other testing appointments.)

   c. If the Program would like you to contact families, call the families and arrange for a date and time for a visit at the Center or ask a teacher to do so (if no phone is present in the home).[1]

3. Prepare a testing schedule for Head Start Teachers with a copy for the local and overall Program Directors.

[1] In a few instances, the parent may be unable to come to the Center. If so, schedule a visit to the home. Make sure, however, that the Focal Child is home from the Center on the 2nd visit so that the 8-Block can be administered.

- Monitoring Visits

Weekly you should monitor a testing visit for each community interviewer (except when the site monitor will be visiting your site -- see Chapter V).

You should schedule visits a week ahead of the monitoring visit so that you can let the community interviewer, the Home Visitor, or Center Director know which family you will be visiting. Indicate with two asterisks (**) on the schedule which family you plan to visit for monitoring purposes. You must notify field and program staff at least 3 days in advance of a monitoring visit.

- Testing Schedules

Let's briefly review some of the markings you should make on the various schedules and the # of copies you need to make of them.

- Family Assignment Sheet

  * - Home Visitor plans to be present during first testing visit

  ** - Home Visitor plans to be present for all testing visits

  ● - Family has a telephone, but community interviewer will not be accompanied by the Home Visitor.

  Three copies of the Family Assignment Sheets are prepared: one for the CI, one for your records, and one for AAI.

- Testing Schedules

  ( )- Appointment has not been confirmed

  * - Home Visitor will be present for testing visit

  ** - Visit will be monitored.

  Also make sure that you indicate on the testing schedule the group the family is part of by using the following codes:

  HM - Home Start Family
  CG - Control Group Family
  HD - Head Start Family

Testing Schedules are prepared weekly for:

- Community Interviewers - Yellow - 2 copies (1 CI; 2 SC)
- Home Visitors - Green - 2 copies (1 HV; 2 Director)
- Head Start Teachers - Green - 3 copies (1 Teacher, 2 Local Dir., 3 HdS Dir)

For Abt Associates Inc., you prepare a separate schedule. You will be provided with an alphabetical listing of all the families that will participate in the Fall evaluation. Weekly you indicate with a checkmark which families will be visited that week.

For example:

MASTER SCHEDULE: _____ Page ____

Family Name (HV/Center)	Assignment	Code	9/24-28	10/1-5	10/8-12	10/15-19	10/22-26	10/29-11/2	11/5-9	11/12-16	Comments
Adams, Wm (Berios)	K. Johnston	HM	✓								
Baldwin, Mary (Bates)	K. Johnston	HD	✓								
Caldwell, John (Bates)	K. Johnston	HD		✓							
Jones, Jane (Williams)	B. Moats	HM	✓								
Miller, Mary (Williams)	B. Moats	CG		✓							

06320

Indicate testing visits for one week at a time only (appointments may need to be rescheduled for subsequent weeks). After all visits to the family have been completed, cross out the family name. Retain a copy of this master schedule for your own records.

- Selection of Alternate Families

If a family drops out of the program or you are unsuccessful in reaching the family, call the Program Director or Abt Associates Inc. to find out if an alternate family can be assigned. In the majority of cases, no alternates will be available.

If the Director tells you that no alternates are available for a specific Home Visitor, do not assume that no alternates are available for other Home Visitors as well. The availability of alternates will vary from Home Visitor to Home Visitor, so always contact the Director or AAI to get alternate information.

IV. SITUATIONS YOU MAY ENCOUNTER AND WHAT TO DO*

* Section IV can be found in the Community Interviewer Manual. The chapter was not supplemented for use by site coordinators.

V. MONITORING - SITE COORDINATORS

Monitoring of test performance will be conducted weekly for each community interviewer, either by yourself or the Site Monitor from Abt Associates Inc. or the High/Scope Educational Research Foundation. It may be necessary for you, however, to make more than one monitoring visit per community interviewer during a specific week if the CI's performance is not satisfactory.

When monitoring a testing visit, refrain from making any comments to the community interviewer regarding her test performance while you are still in the home. Reserve your comments till later. In some instances, community interviewers may look to you for assistance. Give her some time to handle the situation by herself. Only in unusually difficult situations should you make suggestions to the tester or help her by taking a sibling out of the room to improve testing conditions. Your role is not to babysit, however, but to monitor test performance. So you should be present while the tests and/or questionnaires are being administered.

> ALL TESTS AND QUESTIONNAIRES MUST BE MONITORED, NOT ONLY THE CHILD MEASURES AND THE 8-BLOCK

- Start-Up Monitoring

Procedures for setting up a monitoring schedule for the first two weeks of start-up testing are outlined in Chapter II of the Site Coordinator Manual. Your responsibilities during these first two weeks of start-up testing include:

1. Meeting with the field staff on Monday morning, September 24 to distribute trunks and testing materials and to review the testing schedule with each community interviewer.

2. At least one monitoring visit for each community interviewer during each of the two weeks of start-up. NO COMMUNITY INTERVIEWER IS PERMITTED TO VISIT A FAMILY WITHOUT SUPERVISION UNTIL YOU HAVE MONITORED HER PERFORMANCE AND DETERMINED ITS ADEQUACY.

   During the first week (Sept. 24-28), you will be monitoring only the first visit battery. During the second week (Oct. 1-6), you will be reviewing the second visit battery.

3. On October 1 in the morning, you should conduct a 1/2 day review session for all staff on the second visit battery.

00123

If the community interviewer's performance is NOT adequate (determined by the Monitoring & Performance Evaluation Form discussed on Page V-4 of this Chapter), you must conduct a review session for the tester to discuss scoring and/or administration errors.

- Review Sessions

If a review session needs to be conducted with one of your field staff, you must call another community interviewer to be present during the retraining. The purpose of this procedure is to insure that all community interviewers are trained uniformly.

> TWO PERSONS, OTHER THAN THE TESTER BEING REVIEWED, SHOULD BE PRESENT DURING REVIEW SESSIONS

Following this review session, another monitoring visit should be conducted. If the community interviewer's performance continues to be unsatisfactory, Abt Associates Inc. should be contacted immediately so that a determination can be made regarding the continued employment of the tester.

- On-Going Monitoring

On-going monitoring will be conducted weekly for each community interviewer until all testing has been completed. The following monitoring schedule should be used:

NON-HEAD START MONITORING

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6
Treatment Group	5-10 - SC	5-10 - SC	--	--	5 - SC	--
Control Group	--	--	5 - SM	5 - SC	--	--

HEAD START MONITORING

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6
Treatment Group	5-10 - SC	5-10 - SC	--	--	--	--
Control Group	--	--	5 - SM	--	5 - SC	--
Head Start	--	--	--	5 - SC	--	5 - SC

Legend: SC=Site Coordinator
SM=Site Monitor

00324

If additional monitoring visits need to be made during Weeks 6 and 7 of the Fall Data Collection Effort, you may determine which group of family visits you will be monitoring.

Since the date of the Site Monitor's visit has not yet been determined, the monitoring schedules for Weeks 3 and 4 may need to be reversed for some of the sites.

Some general procedures which should be followed for on-going monitoring:

1. With the exception of the two weeks of start-up monitoring, ONLY ONE MONITORING VISIT SHOULD BE MADE TO ANY ONE FAMILY INVOLVED IN THE EVALUATION.

2. At NO TIME will more than one person supervise the testing (i.e. the Site Coordinator and the Site Monitor) as was done during the Fall.

3. If the Home Visitor is planning to accompany the community interviewer on a testing visit which you plan to monitor, you should contact the Home Visitor at least three days in advance so that she can let the family know how many people are planning to visit her.

4. Likewise, community interviewers should be notified three days in advance of the monitoring visit so that they know you are coming and can arrange to meet you somewhere prior to the testing.

- Head Start Monitoring Procedure

Head Start monitoring procedures are slightly different from those used for Home Start and Control Group families since it will not be possible to monitor a full battery of tests. Plan to be at the Center when the community interviewer is scheduled to be there and spend approximately two hours or less monitoring the testing. This means that you would observe three PSIs and two DDSTs for example, rather than any of the other tests.

- Monitoring and Performance Evaluation

In order to make monitoring procedures uniform across all sites, we have developed some performance evaluation guidelines. The revised monitoring forms which can be found in Appendix A will assist you in making determinations about the community interviewer's performance. Monitoring forms have been developed for each of the three child measures, the 8-Block and one for the Parent Questionnaires. In addition to helping you determine whether the community interviewer's performance is satisfactory, the completed forms will enable us to analyze (1) the accuracy of test administration and (2) inter-judge reliability (i.e. how your score forms compare with those of the community interviewer).

Let's take a look at the Child Measure Monitoring Forms -- There are basically two columns: one to record administration errors and the other to record discrepancies between your score form and that of the community interviewer. In the Administration Error column, we have noted errors which frequently occur on this particular test. Since some errors are more serious than others, we have weighted each item. For example, if the community interviewer failed to bring the appropriate blocks for the PSI, a check mark is placed after item 3 worth 2 points.

Each time an error occurs, you place a check mark in the appropriate space. Total up the check marks after the test has been administered and multiply by the weight assigned to each item. Then total the column and determine whether the total exceeds the number of acceptable errors. If it does, a review session is called for. If the # of errors is lower, you should call the community interviewer and discuss administration errors.

In addition to Monitoring and Performance Evaluation Forms for the child measures, the 8-Block and one for the Parent Questionnaires, we have prepared a summary sheet. On this sheet you simply record the total # of Administration Errors and Scoring Discrepancies for each of the tests that were administered that particular day. Again, total the column and determine whether the total exceeds the number of acceptable errors. If it does on the summary sheet, a review session is called for even though performance was adequate on the individual tests and/or questionnaires.

DO NOT CHANGE ANY OF THE SCORES ON THE SCORE FORMS

ERIC

In summary:

1. When monitoring a visit, you should score along with the tester on the child measures, the 8-Block and the Food Intake. At the same time, you should complete a monitoring form for EACH of the instruments being administered.

   a. record each administration error by placing a check mark in the appropriate box. Note: an error may occur more than once and should be reflected in your report.

   b. multiply the # of check marks by the weight assigned to each item and total the column.

   c. the total should not exceed the # of acceptable errors.

   d. record the total # of administration errors on the summary sheet.

   e. total the summary sheet. Total should not exceed the # of acceptable errors.

For the child measures and the 8-Block, you also compare score forms and see on which items you and the community interviewer do not agree. Simply record the # of disagreements for each item listed and total the column.

Monitoring and Performance Evaluation Forms are to be submitted weekly to Abt Associates Inc. with other testing materials.

00327

- Review of Completed Score Forms

Weekly, completed test materials will be forwarded to you by your field staff. After logging the materials (see pages _____), you should review each score form for completeness (i.e., did the community interviewer skip items or fail to score them). If the score forms are incomplete, take the following steps:

1. Discuss incompleteness with the community interviewer, and

2. Score items or correct scores, if you have sufficient information to do so.

   For example, on the PSI, Item #1 reads as follows on this score form. (The child's name is Johnny.)

1.	WHAT IS YOUR FIRST NAME?	C	W	DK	R	NR	v	Johnny

The community interviewer failed to score this item, but you have sufficient information to score it for her (writing in the margin). Circle C and v.

On the following items, the community interviewer obviously made a mistake scoring Item #22.

19	POINT TO THE MIDDLE ONE.	(C)	W	DK	R	NR	v	○	○	(X)	○	○
20	POINT TO THE FIRST ONE.	(C)	W	DK	R	NR	v	(X)	○	○	○	○
21	POINT TO THE LAST ONE	C	(W)	DK	R	NR	v	○	○	○	(X)	○
22	POINT TO THE SECOND ONE.	(C)	W	DK	R	NR	v	○	○	○	(X)	○
												YOU

Correct the scoring for her.

ALWAYS USE A PURPLE PEN[1] WHEN SCORING OR CORRECTING SCORES FOR THE COMMUNITY INTERVIEWER

[1] Pens will be supplied

ERIC

You only correct scores, or score for the community interviewer during your review of completed materials, NOT FOLLOWING A MONITORING VISIT. Only if the community interviewer's score form has sufficient information to warrant a change should you do so.

For example in the following instance you DO NOT change the score form:

Tester's Score Form

	Write in number of steps up to 8			
Response 1 ..... number of steps	3	DK	R	NP
Response 2 ..... number of steps	5	DK	R	NP
Response 3 ..... number of steps	7	DK	R	NP

Your Score Form

	Write in number of steps up to 8			
Response 1 ..... number of steps	2	DK	R	NP
Response 2 ..... number of steps	6	DK	R	NP
Response 3 ..... number of steps	8	DK	R	NP

Scoring mistakes to watch for when reviewing completed instruments are outlined in Appendix B.

EXHIBIT V.A.

MONITORING AND PERFORMANCE EVALUATION FORMS

ERIC

SUMMARY

MONITORING AND PERFORMANCE EVALUATION

Tester _____ Family Name _____ Date _____

CHECK IF APPLICABLE	TESTS	TOTAL # of ADMINISTRATION ERRORS	TOTAL # of SCORING DISCREPANCIES
	PSI-FC		
	PSI-Sib		
	CDT-FC		
	Schaefer-FP		
	Food Intake-FP		
	HES-FP		
	DDST-FC		
	H&W-FC		
	H&W-Sib		
	8-Block		
	Parent Interview		
	TOTAL		
	SHOULD NOT EXCEED (10)		

ACTION TAKEN: _____

_____

_____

_____
Name SC/SM

ERIC

99331

MONITORING FORM & PERFORMANCE EVALUATION

PRESCHOOL INVENTORY

Tester _____ Name of Family _____ Date _____

Test Administration Errors

1.	REPEATS (non cars & boxes)	_____ x 0.5=	_____
2.	REPEATS (cars & boxes)	_____ x 0.5=	_____
3.	Failing to have CORRECT TEST MATERIALS	_____ x 2.0=	_____
4.	INCORRECT PLACEMENT of Test Materials	_____ x 0.5=	_____
5.	INCORRECT WORDING of Questions	_____ x 0.5=	_____
6.	SKIPPING ITEM or Stopping Test Incorrectly	_____ x 0.5=	_____
7.	PROBING (too many or too few)	_____ x 0.5=	_____
8.	Other: Specify		
	_____	_____ x 0.5=	_____
	_____	_____ x 0.5=	_____
	_____	_____ x 0.5=	_____
	_____	_____ x 0.5=	_____
	WEIGHTED TOTAL		

MUST NOT EXCEED (4)

Rapport with Child (check one): Poor _____
Adequate _____
Good _____

ACTION TAKEN: _____

_____

_____
Name of SC/SM

Scoring Discrepancies

Item	Score	v	Response/Probes
#1			
#2			
#3			
#4			
#5			
#6			
#7			
#8			
#9			
#10			
#11			
#12			
#13			
#14			
#15			
#16			
#17			
#18			
#19			
#20			
#21			
#22			
#23			
#24			
#25			
#26			
#27			
#28			
#29			
#30			
TOTAL			

ERIC

MONITORING FORM & PERFORMANCE EVALUATION

DENVER DEVELOPMENTAL SCREENING TEST

Tester _____ Name of Family _____ Date _____

Test Administration Errors			
1. REPEATS too many or too few	_____	x 0.5=	_____
2. Failing to have CORRECT TEST MATERIALS	_____	x 2.0=	_____
3. INCORRECT PLACEMENT of Test Materials	_____	x 0.5=	_____
4. INCORRECT WORDING of Questions	_____	x 0.5=	_____
5. SKIPPING ITEM or Stopping Test Incorrectly	_____	x 0.5=	_____
6. PROBING	_____	x 0.5=	_____
7. UNSATISFACTORY ENVIRONMENT for Testing	_____	x 0.5=	_____
8. Other: Specify			
_____	_____	x 0.5=	_____
_____	_____	x 0.5=	_____
_____	_____	x 0.5=	_____
_____	_____	x 0.5=	_____
WEIGHTED TOTAL			

MUST NOT EXCEED (4)

Scoring Discrepancies	
#1 - Tower (3)	
#2 - Bridge (1)	
#3 - Longer Line (6)	
#4 - Vertical Lines (1)	
#5 - Copies O (1)	
#6 - Copies + (1)	
#7 - Draw (1)	
#8 - Singular/Plural (2)	
#9 - Cold, Hungry, etc. (3)	
#10- Prepositions (4)	
#11- Colors (4)	
#12- Opposites (3)	
#13- Made of (3)	
#14- Stand on One Foot (3)	
#15- Jump (1)	
#16- Paper Jump (1)	
#17- Hop (1)	
#18- Forward Walk (3)	
#19- Backward Walk (3)	
#20- Catch Ball (3)	
#21-#27 (7)	
TOTAL DISCREPANCIES	

Rapport with Child (check one) Poor _____
Adequate _____
Good _____

Rapport with Parent (check one) Poor _____
Adequate _____
Good _____

ACTION TAKEN: _____

_____

_____
Name SC/SM

00333

MONITORING FORM AND PERFORMANCE EVALUATION

8-BLOCK

Tester _____ Name of Family _____ Date _____

ADMINISTRATION ERRORS		SCORING DISCREPANCIES	
1. INADEQUATE SET-UP before starting 8-Block	___ x 0.5 = ___	Placements Mother	_____
2. INCORRECT WORDING	___ x 0.5 = ___	Placements Child	_____
3. INCORRECT PLACEMENT	___ x 0.5 = ___	Punishments	_____
4. Failing to ask VERBAL RESPONSE	___ x 0.5 = ___	Final Placement of Child Blocks	_____
5. Failing to ask for PLACEMENT	___ x 0.5 = ___	TOTAL DISCREPANCIES	_____
6. REPEATS	___ x 0.5 = ___		
7. SKIPPING SECTION	___ x 0.5 = ___		
8. FAILING to ASK CORRECT QUESTIONS	___ x 0.5 = ___		
WEIGHTED TOTAL			

SHOULD NOT EXCEED (4)

Rapport with Child: Poor _____
Adequate _____
Good _____

Rapport with Mother: Poor _____
Adequate _____
Good _____

ACTION TAKEN: _____

_____
Name SC/SM

90334

MONITORING FORM AND PERFORMANCE EVALUATION

QUESTIONNAIRES: _____(specify)

Tester	Name of Family	Date
_____	_____	_____

ADMINISTRATION ERRORS		SCORING DISCREPANCIES	
1. INCORRECT WORDING	___ x 0.5 = ____	Item # ___	_____
2. PROBING too little	___ x 0.5 = ____	Item # ___	_____
3. SKIPPING ITEMS	___ x 0.5 = ____	Item # ___	_____
4. COMMENTING on what parent said	___ x 0.5 = ____	Item # ___	_____
5. Other: Specify		Item # ___	_____
_____	___ x 0.5 = ____	Item # ___	_____
_____	___ x 0.5 = ____	TOTAL DISCREPANCIES	_____
_____	___ x 0.5 = ____		
_____	___ x 0.5 = ____		
WEIGHTED TOTAL			
SHOULD NOT EXCEED (2)			
Rapport with Parent: Poor _____ Adequate _____ Good _____			
ACTION TAKEN: _____			
		Name SC/SM _____	

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APPENDIX V.B

REVIEW OF COMPLETED MATERIALS

THINGS TO LOOK FOR

ERIC

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- Preschool Inventory (PSI)

  - Where a response needs to be written in the margin, v always must be circled in order for the item to be scored correct.

  - Always check the child's verbal response to determine whether the community interviewer scored correctly.

  - The test should be stopped after the child has not responses (NR) to four items in a row.

  - On Items #19 through 22 (checker items), the checker the child picked always should be marked. Look at the markings and make sure that the community interviewer scored correctly.

  - On Items #12 through 16, a verbal response is required although the response does not need to be written in the margin.

- Denver Developmental Screening Test (DDST)

  - The test should be stopped after the child has not responded (NR) to four items in a row, not four subitems. The only exception is the Language Section of the DDST. If the child does not respond to four items in this Section, do not ask any other questions in this Section but continue with questions listed in the Gross Motor Section.

  - Probing is not permitted on the DDST.

  - On Item #3, if two out of the first three responses was correct, the item should be repeated three more times (Responses #4, 5 and 6).

  - Make sure that Section IV is completed. If the CI has failed to complete this section and is not returning to the family home, have the CI call the family so that the interview can be conducted by telephone.

- Concept Development Test (CDT)

  - This test should not be stopped since there are only four items to be given.

  - A verbal response is always required, unless the child did not respond, refused or didn't know when you asked the child to place checkers, blocks or dolls.

  - Even if the dolls were NOT IN CORRECT ORDER in Part A of Item 3, you should proceed with Part B.

  - Item 4, Part B: Did the community interviewer place a check mark indicating that the child placed the blocks in the same grouping as in Part A?

- 8-Block

  - Did the community interviewer circle the blocks the child picked?

- Parent Interview

  - Is the community interviewer following skip instructions?

  - Did she score Item #29 correctly?

  - Did she check the family location (first page of Parent Interview)?

- Food Intake

  - Did the community interviewer probe sufficiently for the contents of such items as spaghetti sauce, stews, etc.?

  - Did she indicate quantities for each item listed?

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VI. LOGISTICS AND PAYMENT PROCEDURES

This Chapter briefly reviews procedures that need to be followed on site.

- Trunk Inventories

On Monday, September 24, each of your field staff should be assigned a tester trunk. Community interviewers will be asked to sign two copies of a trunk inventory (one for their records, and one for yours). After all testing has been completed, community interviewers are responsible for bringing the trunk to your place so that you can take an inventory of its contents. Blank inventory sheets on which you can indicate the trunk contents will be supplied to you during the last couple of weeks of testing.

- Logging and Review of Completed Test Materials

Checksheets should be used for this purpose. For review procedures, see page V.6.

- Mailing of Reviewed Materials to AAI

All materials must be mailed weekly AIR MAIL - CERTIFIED - RETURN RECEIPT REQUESTED. Although certified mail stickers will be provided to you, we are requesting that you buy large envelopes on site in which to mail the completed materials.

Weekly you also should mail:

Time and Travel Logs for community interviewers
Time and Travel Log for yourself
Mail Logs for community interviewers
Logs of Unsuccessful Visits for community interviewers,
and Monitoring Reports.

- Communications Log

We are suggesting a different procedure for keeping track of communications with community interviewers and program staff. Rather than keeping a general log, buy some line paper (three hole punched) and insert a sheet in your notebook for each community interviewer. Note your communications and specific problem areas on this sheet and review your comments periodically.

Also keep a log of communications with the Programs.

A pad of paper near the telephone and your master list of families will help you to keep track of calls from families.

00339

- Payment Procedures

For your participation in the Home Start Evaluation, you will be compensated as follows:

- Training: $32 per day for 10 days and room and board plus travel expenses.

- Site Coordination: $4 per hour plus expenses. A $0.50 bonus will be paid to you for each hour worked during the Fall after all testing has been completed in your site.

Since you are not being paid on a fixed fee basis as was done during the Spring, it is essential that you keep track of your time. Use the following charge categories and make daily entries on your Time and Travel Log:

M = Monitoring Visits
S = Scheduling Testing Visits
RW= Review of Completed Test Materials
RS= Review Session with Testers
A = Administration -- i.e., conferences with the programs, sending out appointment reminder cards, etc.

APPENDIX B

PRELIMINARY OUTCOME ANALYSIS PLAN

THE NATIONAL HOME START EVALUATION
INTERIM REPORT IV: SUMMATIVE EVALUATION RESULTS

June 14, 1974

High/Scope Educational
Research Foundation
125 North Huron Street
Ypsilanti, Michigan 48197

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APPENDIX B

Preliminary Outcome Analysis Plan

This appendix examines possible analysis strategies that might be used to identify program effects, examines some of the related problems, and presents tentative recommendations for an analysis strategy which can in turn be critiqued and revised in time for analysis of the spring summative data.

Analysis of Six Month Program Effects: Fall 1974 Report

The most important question to be answered using the spring 1974 data involves the relative fall to spring changes of the parents and children in the three programs. Clearly one would expect families in both the Home Start and Head Start programs to show greater changes on desirable characteristics than control families, and relatively minor change differences between each other. There is considerable controversy among educational researchers about the best ways of analyzing growth data, so some of the issues involved will be discussed in the context of the Home Start evaluation before recommendations are made about analysis strategies.

Two questions about program effects need to be examined:

- Do Home Start families show larger increases in desirable characteristics than control families? (Larger increases on most measures are expected for Home Start families.)

- Do families in Home Start and Head Start show the same increases in desirable characteristics? (Given the different methods used by the two programs, Head Start children might be expected to show slightly

larger increases on personal/social and cognitive measures, and Home Start mothers show slightly larger increases on teaching methods, provision of balanced meals, general interaction patterns with their children, and structuring of the home environment.)

A third variation of the program effects question is interesting but assumes secondary importance because of the different selection methods for the Head Start and control groups:

- Do Head Start families show larger increases in desirable characteristics than control families? (Larger increases on most measures are expected for Head Start families).

The general strategy for analyzing the data to answer these questions is to conduct some sort of overall analysis, followed by the appropriate planned comparisons. However, there are several overall analyses that are commonly used, and a selection must first be made from among them.

Alternative ways of analyzing change. There are many ways of analyzing change over time between two or more groups of people. They primarily differ on two main characteristics, their sensitivity to detect real change and the hypotheses they test. Some of the possible analyses include:

Interindividual methods

- One-way ANOVA of difference scores
- Two-way ANOVA, using only the group by time interaction
- Repeated measures two-way ANOVA, using only the group by time interaction
- One-way ANCOVA of adjusted final scores, entry scores as covariates

Intraindividual methods

- Chi-square for correlated proportions
- Gross percent change
- Net percent change.

All of these methods use scores from two groups of people collected at two different times, in the simplest example of a change comparison between treatment and control families. Table B-1 shows the data matrix for this example, with the cells lettered A through D for convenience in following discussions:

Table B-1

Simplest Data Matrix Allowing Analysis of Change Between Groups

	entry score	final score
Treatment families	A	B
Control families	C	D

The interindividual analysis methods usually use total scores for each person at the two time points, and generally accumulate them into cell means to be able to examine clusters of individuals at once; the intraindividual analyses, on the other hand, examine changes occurring on individual items within a measure for one person at a time. These two classes of change analysis are complementary, since each provides some information not provided by the other. In addition, some of the interindividual measures provide different information, so the following discussion is not oriented toward finding the "best" analysis method, but rather toward finding the combination of methods that gives the most useful information. Interindividual analysis methods will be examined first, then intraindividual measures.

Analysis of interindividual change. The simplest way to see if treatment families gain more than control families is to test for a significant difference between the final score means of the two groups (that is, test whether the difference between cells B and C from Table II-7 equals zero). When groups have been randomly assigned this is an entirely suitable, and utterly simple, way of testing for program effects (Campbell and Stanley, 1963; Cronbach and Furby, 1970).

It is very unusual for two groups of people to be exactly equal on any measure when they enter an evaluation such as this, so their entering scores must ordinarily be taken into account if the true program effects are to be assessed. The simplest way of doing this is to calculate "gain" scores for each person by subtracting their entry score from their final score, then testing to see if the average gain scores for the two groups are equal. Gain scores tested in this way have been sharply criticized because they are systematically related to any random error of measurement, leading to biased results (Cronbach and Furby, 1970). One commonly encountered finding using gain scores to test for program effects is that people with initially low scores tend to gain the most, and people with the highest scores the least. If entering scores are different on the average for the two groups, then different average gain scores would be expected even in the face of equal program effects; this is clearly not a desirable test of program effects because of its obvious bias. This problem has caused researchers to increasingly emphasize the importance of random assignment of families to treatments in order to obtain initially equal groups. Then gain scores need not even be calculated, since the simpler final-score-only comparison described above can be made, and the statistical bias can be avoided entirely.

Two-way ANOVA designs present another way commonly used to examine change between groups. The simplest two-by-two ANOVA (two treatments by two time points) exactly fits the data matrix configuration of Table II-7. Three non-overlapping tests are usually computed in such an ANOVA:

- Group main effect: the mean of all treatment family scores is compared to the mean of all control family scores (that is, scores from the two time points are averaged together--A + B is compared to C + D, Table II-7).

- Time main effect: The mean of all entry scores combined is compared to the mean of all final scores combined (that is, scores from the two treatments are averaged together--A + C is compared with B + D, Table II-7).

- Group by time interaction effect: The mean entering scores for treatment families are combined with the mean final scores for control families, and are compared to the mean final scores for treatment families combined with the mean entering scores for control families (that is, scores from opposite times and groups are averaged together for the comparison--A+D is compared with B+C, Table II-7).

The first two tests are clearly not appropriate for testing the effects of treatments over time, since groups or times which must be kept separate are averaged together. Although it is not immediately obvious from the combination of groups and times averaged together, the interaction is exactly the test of program effects over time. That this is true can be seen more clearly by algebraically rearranging the cell combinations: (A+D) - (B+C) = 0 can be rearranged as (D-C) - (B-A) = 0, which is just the difference between the average group changes between the entry and final times. Since this analysis is based on average group changes, the two groups do not have to be equal at entry for a valid test to be performed.

In a variation of this ANOVA design, which takes account of the average score of each person over the two times, the test of the interaction effect is based on average "individual changes", rather than "group average" changes as shown above. This repeated measures ANOVA is more sensitive than ordinary ANOVA, since it uses more of the information available in the data. However, the simple ANOVA design above does not require that the same people be measured both times, so, for example, two separate groups of treatment families could be selected; one could be measured at entry, the other at the final time, (and similarly for two control family groups), and the interaction effect test would still be a valid test of program effects (provided there were no systematic biases between the two treatment groups or the two control groups). When the same families are measured both times so that the repeated measures version is appropriate, a more sensitive test of change is possible. However, it is not often pointed out that the repeated measures ANOVA interaction test is exactly equivalent to the simple comparison of gain scores, dismissed above as being biased. Thus, this method is affected by all the problems affecting simple gain scores.

One final method for testing whether group changes are equal is a one-way analysis of covariance (ANCOVA) on final scores (B and D, Table II-7), using entry scores (A and C) as the covariate. This tests whether the two group's final averages are equal after entering differences between the groups are subtracted out; however, although the group differences are

removed by simple subtraction, the differences for each individual person are not. Instead, they are adjusted according to his distance from the mean of his group's entry scores, and according to the overall correlation between entry scores and final scores. A one-way ANCOVA is very similar to the simple test of difference scores described above, except that some of the sources of bias have been partially removed; also, if all the assumptions underlying the ANCOVA test (Glass, Peckham, and Sanders, 1972) are met, the test is more sensitive for detecting differences between treatment and control effects than are tests of difference scores or repeated measures ANOVA, and far more sensitive than simple two-way ANOVA designs. Sometimes, if the correlations between entering and final scores are only moderately large (less than .40; Feldt, 1958) an analysis similar to ANCOVA can be used that has slightly more sensitivity. This is a two-way ANOVA with the entering scores used as a blocking factor to group individuals according to their level of entering ability (Myers, 1972).

In reviewing the five ways of testing for changes over time between two groups, then, ANCOVA seems to be superior to any of the other four in terms of sensitivity and lack of bias. However, this is only true if the assumptions underlying the general ANCOVA method are met (Glass, Peckham, and Sanders, 1972); when they are not met, sensitivity to true changes can be greatly reduced, and systematic biases against one group or the other introduced. There are many assumptions underlying the ANCOVA model, but the one most commonly violated in applied evaluation projects is the assumption that the covariate and treatment group will be independent of each other. They are not independent when one group has a higher mean score on the covariate than the other group, but this is precisely the situation when ANCOVA is most commonly used--to remove the effects of entering group differences. Evans and Anastasio (1968), and Elashoff (1969) discuss this problem extensively. When the covariate is not independent of the treatment (that is, the correlation between the two is not zero), part of the treatment effect is removed (or increased, depending on the direction of the entering differences) during the process of adjusting final scores for each person according to his entry score. Depending on the expected relationship between the covariate and treatment, this may be the correct thing to do: for example, if the treatment is expected to produce different results for, say, brighter children than for normal children. Even when such a relationship is not expected, however, the actual treatment effects will be altered according to actual entering levels, so care must be taken to allow for possible unintended adjustments when interpreting the results.

A compromise approach is recommended for the analysis of program effects in this evaluation. Since the repeated measures ANOVA assumes that all gain scores are true gain scores, and no adjustment is made even for known biases, it may be considered a test of program effects under one boundary condition (full changes for all persons, regardless of entering level and group). Since the ANCOVA method assumes that all gain scores must be adjusted for entering level and group, it can be considered a test of program effects under the other boundary condition (restricted changes for all persons, especially taking into account extreme entering levels and group differences). Thus it can be said that repeated measures ANOVA underadjusts, and ANCOVA overadjusts, at least when there are entering group differences. Given the calculation of both methods for testing program effects, the results can fall into three categories: both reaching statistical significance, one reaching significance and the other not, and neither reaching statistical significance. In the first and third categories, the results are unambiguous, and entering group differences are of no consequence; in the second category, assumptions about the relationship between program effects and the covariate will have to be considered in order to decide which test is most appropriate for testing program effects under the observed conditions.

One more point needs to be made about the interpretation of results: regardless of whether one or both of the tests are significant, calculations of the "percent of variance" in the final scores accounted for by the program effects may turn out to be very small--much smaller than could be considered educationally meaningful. If this is so, then we are brought full circle back to the least powerful and least sophisticated test of program effects: simple two-way ANOVA. Given the large number of families in this evaluation, ordinary ANOVA could well prove to be an adequate test for detecting changes as large as those needed to reach educational meaningfulness. This would have the additional advantage of allowing more families to be used, since they would no longer be required to have both entry and final scores.

The data matrices presented in Tables II-3 and II-4 are more complex than the simple two-by-two example presented in Table II-7, but all of the discussions above can be extended to the more complex designs. If the two available interaction degrees of freedom are tested separately, the data matrix in Table II-3 permits a test of the two key questions:

- Did the Home Start families gain more than control families from fall 1973 to spring 1974?
- Did Home Start families gain as much as Head Start families from fall 1973 to spring 1974?

The data matrix in Table II-4 adds two more interaction degrees of freedom and permits a test of two additional questions:

- Did the Home Start families gain more than control families from fall 1973 to fall 1974?
- Did the Home Start families gain as much as Head Start families from fall 1973 to fall 1974?

These questions will be tested by calculating the proper comparisons within a multiple regression framework (Cohen, 1968; Kerlinger and Pedhazur, 1973), but when there are equal numbers of families in all groups and at all times they produce the exact same tests as those calculated by traditional ANOVA methods.

Another problem that needs to be addressed in the analysis concerns the imbalance between the size of the groups, and the related overlap of tests that this causes. Even though multiple regression methods can be used to test traditional ANOVA main effects under unbalanced conditions (even with missing cells), the tests are no longer independent as in the case of balanced conditions. It has not been commonly done, but it is possible to estimate the amount of overlap introduced by particular imbalances in terms of percent of variance using "commonality analysis". This method was first introduced by Newton and Spurrell (1967a; 1967b) and was used extensively by Mayeske, et al. (1972) in the reanalysis of the Equality of Educational Opportunity data to clarify the effects of various combinations of school characteristics, student characteristics, and student attitudes. They did not use commonality analysis for the purpose suggested here, but the extension seems straightforward. Mood (1971) gives a simple description of the methods used in commonality analysis.

Analysis of intraindividual change. The measures of interindividual change above all have as a point in common a reliance upon the performance of a group for calculation, interpretation, or both. In this section, three intra-individual change measures which depend only upon the performance of one individual will be examined; chi square for correlated proportions, gross percent change, and net percent change.

These methods all take individual items from measures as their starting point, and look at the changes that occur between two times. For a dichotomous item there are four possibilities with respect to what can happen to an item response from one administration to another, assuming that the subject has answered all items in each administration:

1. (A) or (++): right each time
2. (B) or (+-): right the first time, wrong the second time
3. (C) or (-+): wrong the first time, right the second time
4. (D) or (--): wrong each time

The item responses on a scale for any one individual can be cross-tabulated in a fourfold contingency table:

		Posttest		
		+	-	
Pretest	+	A	B	
	-	C	D	

The pretest score is the sum of cells A and B; the posttest score is the sum of cells A and C. The difference score is (A + C) - (A + B) = (C - B). Thus, the difference score is identical to the difference between the frequencies in the two change cells, B and C. McNemar's chi square for correlated proportions (1962), using frequencies from the contingency table, is one way for determining if a significant change has taken place.

In the second intra-individual analysis method, gross percent change, the observed change is taken as a percent of the amount of possible change in the direction of the sign of the observed change. If the difference score (posttest minus pretest) is positive, indicative of gain, the percent gain is calculated as the obtained difference score taken as a percent of the amount of gain possible for that individual, i.e., the highest score possible on the test minus the pretest score. In terms of the cells from the test-retest contingency table, the gross percent change (GP) is

$$GP = \frac{C-B}{C+D} \times 100$$

If, however, the individual's difference score is negative, i.e., his pretest score is larger than his post-test score, then percent loss is calculated. Percent loss is the observed difference score taken as a percent of the amount of loss possible for that individual, i.e., the pretest score itself. In terms of the cells from the test-retest contingency table, the gross percent change is now calculated

$$GP = \frac{C-B}{A+B} \times 100$$

The use of percent gain or percent loss as measured by gross percent change incorporates an additional piece of information, floor and ceiling effects. Because of the limited number of items on any one test scale, a person whose initial score is high cannot show a large increase as measured by the simple difference score. Likewise, the person whose initial score is low cannot show a large decrease on the simple difference score. The gross percent change gives more weight to changes made by initially extreme scorers in the direction not expected by regression effects.

It is also reasonable to obtain for each individual a net percent change in which the difference between the percent gain and percent loss is the desired change measure. Using the cell designations of the test-retest item response contingency table, the amount of gain (cell C) is taken as a percent of the amount of gain possible (C+D); the amount of loss (cell B) is taken as a percent of the amount of loss possible (A+B). Thus, net percent change is given by:

$$NP = \frac{C}{C+D} = \frac{B}{A+B} \times 100$$

If either cell C or cell B is zero, then net percent change is equal to the gross percent change. This net percent change can be considered analogous to formula scoring in traditional test theory, in which a proportion of the number of items the subject answered incorrectly is subtracted from the number of items answered correctly.

It was noted earlier that difference scores tend to be negatively correlated with initial scores, which has been attributed to shared errors of measurement of opposite sign. The scoring limitations of psychological tests may also help explain the negative correlation between observed difference scores and initial scores. Although this negative correlation is explained by test theorists in terms of random errors of measurement, it may also be considered as an artifact of the test. An initially low score can either remain low or get higher, and an initially high score can either remain high

or get lower. It is changes in these extreme scores that contribute to the observed negative correlation between gain and initial level. Rather than being the result of measurement error, changes made by initially extreme scorers may indeed be real changes. Gross percent change and net percent change allow extreme scores on the initial test to show extreme change in the direction opposite of that expected by regression, a result not compatible with the ways of assessing interindividual change given above.

Hockman (1971) compared these three methods of analyzing intra-individual change with three methods of analyzing inter-individual change (difference scores, adjusted true scores, and ANCOVA) using attitude measures, and concluded that the net percent change had the highest validity and used more information from the data than any of the other methods. Net percent change was also used to analyze Home Start Evaluation data reported in Interim Report III. One useful feature of the net percent change method is that it can be used either for analyzing a person's change across many items, or an item's change across many persons. Net percent change will be used as a complementary method to the interindividual analysis methods for assessing the nature of program effects across time.

Analysis of Twelve Month Program Effects: Winter 1975 Report

The addition of a third time point, as shown in the data matrix in Table II-4, greatly complicates the analysis of program effects. Several strategies can be used, including analysis of multiple gain scores (between time one and time two, then between time one and time three, finally between time two and time three), three one-way ANCOVA's following the same pattern, a three-by-three ANOVA (either repeated measures or non-repeated measures design) followed by linear and quadratic analyses (Hays, 1973), or multivariate profile analysis (Morrison, 1967). As described above, the repeated measures ANOVA is more sensitive than ordinary ANOVA, and ANCOVA is more sensitive yet if the assumptions are met; however, questions have also been raised about whether certain assumptions of repeated measures ANOVA are usually violated in educational data (McCall & Applebaum, 1973), and the recommendation was made that multivariate methods be used instead. No specific recommendations are made here regarding the analysis of twelve month program effects, but it is clear that each method will have to be carefully considered, taking into account the questions it answers, sensitivity, power, assumptions, data requirements, availability of computer programs, and practical usefulness as judged from its applications in past studies.

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APPENDIX C

CODING MANUAL: CHILD FOOD INTAKE QUESTIONNAIRE

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ERIC

FOOD INTAKE CODING INSTRUCTIONS

Food Intake coding is based on the total amount of food eaten during the day. When figuring the total amount of milk, etc., it does not matter at what meal the child gets the food.

In calculating the food score for each group, it does not matter which specific foods were eaten. Add all foods of one group together.

Food Group	Code # of Servings (e.g.,1.0,1.5,2.25, etc.) 1 serving =	Foods Included
Milk	1 cp	milk
	2 oz	cheese
	8 oz	ice cream
Meat	2 oz	beef, veal, pork, lamb, poultry, fish
	1/4 cp	dried beans and peas
	5 Tbl	peanut butter
	1 cp	almonds
Eggs	(Code # of eggs)	eggs
Vitamin A rich vegetables	1/4 cp or 1 stalk	carrots, collards, dandelion greens, kale, mustard greens, pumpkin, spinach, squash, sweet potatoes, turnip greens
Citrus fruits and Vitamin C rich vegetables	1/4 cp	orange juice
	1/2 med. fruit	orange
	1/2 cp	grapefruit juice
	1/2 med. fruit	grapefruit
	1 cp	pineapple
	1 cp	raspberries
	1/2 cp	strawberries
	1 med. fruit	tangerine
	1/2 cp	tangerine juice
	1 wedge (4" x 8")	watermelon
	6 slices or 1 fruit	tomato
	1 cp	tomato juice
Other fruits and vegetables	1/4 cp	other vegetable
	1/4 cp	other fruit juice
	1/2 small fruit	apple
	1/2 med. or 1/2 cp	potato

(Continued)

FOOD INTAKE CODING INSTRUCTIONS

(Continued)

Food Group	Code # of Servings (e.g., 1.0,1.5,2.25,etc.) 1 serving =	Foods Included
Breads and cereals	1 slice	bread
	1/2 cp	cereal
	1/2 cp	macaroni
	1/2 cp	rice
	1 med.	biscuit
	1/2 cp	grits
	1/2 cp	noodles

Combinations of Foods	Proportion of Ingredients
Cream potatoes	1 part potato, 1 part milk
Gumbo	1 part rice, 1 part chicken, 1 part sausage
Canned soup	1 cp vegetable = 1/4 cp 'other' vegetables
	1 cp chicken noodle = 1/2 cp noodles
Uncanned soup	1 cp = 2 Tbl meat, 2 Tbl vegetables
French toast	6 pieces = 1 egg, 6 slices bread
	3 pieces = 1/2 egg, 3 slices bread
	2 pieces = 1/3 egg, 2 slices bread
Chili (plain)	3/4 cp = 1/2 cp meat
	1/2 cp = 1/4 cp meat
Chili (with beans, etc.)	1 part beans, 1/2 part meat, 1 part tomato juice
Spaghetti and meatballs	3 parts spaghetti, 1 part meat
Cheese macaroni	3 parts macaroni 1 part cheese
Pot pie (1)	pie crust = 1 serving bread
	meat = 2 oz
	disregard vegetables
Tuna sandwich	2 slices bread, 3 Tbl tuna
Peanut butter sandwich	2 slices bread, 2 Tbl peanut butter
TV dinner (e.g., chicken)	3 pieces chicken = 5 ozs
	1/4 cp vegetables
	1/2 cp mashed potatoes
Baby food(combination jars)	count as vegetable, no meat
Taco	meat = 1/4 cp
	cheese = 1 Tbl
	lettuce = 1/4 cp
Tamale	1 part mean, 1 part corn bread
Beef stew	1 cp = 1/4 cp mean, 1/2 cp vegetables
Hamburger Helper	1/4 cp = 1 Tbl meat, 1 Tbl macaroni
Pudding	1 cp = 1 egg, 1 cp milk

APPENDIX D

CODING MANUAL: 8-BLOCK AUDIO TAPE

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CODING MANUAL: 8-BLOCK AUDIO TAPE

High/Scope Educational Research Foundation
October, 1973

The audio portion of the 8-Block Sort Task is scored according to 38 mother and child verbal interaction categories. Three task-specific categories--"Request Talking," "Request Understanding", and "Request Placement"--fall under the MOTHER heading. The task-specific category, "Talk About", is found under both MOTHER and CHILD headings. Each task-specific category contains four subclassifications--Height, Mark, Height and Mark, and Unclassified. The mother and child categories are listed in Figure 1.

Tallying on the 8-Block Audio Score Form is sequential. The initial verbalization is scored in the far left-hand column, with subsequent verbalizations tallied in succeeding columns from left to right across the page.

The language that typically occurs when a mother is interacting with her child does not neatly fall into identifiable units. There are, for example, many occurrences of incomplete sentences, single word utterances, and interrupted speech. In order to code the language, it is necessary to impose some sort of order on these verbalizations.

To facilitate the process of scoring the 8-Block tapes, the coders should consider whether a verbalization is a complete sentence or a phrase. Each complete sentence must be coded as a single unit. For example, the sequence "These are small. These blocks go here.", consists of two distinct sentences and each one would be scored according to the coding categories. Phrases are coded as separate units only if they are separated from a sentence or other phrase by a pause of one second or more. If there is no pause between phrases, the connected phrases are scored as one unit. For example, "The tall circle...(pause)..., Where does the tall circle go?" would be coded as two verbalizations. If the pause after 'circle' were less than two seconds, this would be coded as one verbalization.

If sentences or phrases are connected by "and", "or", "but", or "so", they are scored as one unit, unless there is a two-second pause between them. For example, 'Is this big or is this little?" without a pause would be tallied as one unit. 'Is this big...(pause)...or is this little?" contains two units and each one should be coded. A stop watch calibrated to 1/5 second should be used for determining the length of pauses when they are not clearly longer than one second.

Figure 1. Categories Used in Coding Mother-Child Verbal Interactions

MOTHER CATEGORIES	CHILD CATEGORIES
Request Talking	Talk About
Height	Height
Mark	Mark
Height & Mark	Height & Mark
Unclassified	Unclassified
Request Understanding	---
Height	Direct Request
Mark	Comments
Height & Mark	Task Irrelevancy
Unclassified	Acknowledge
Request Placement	I Don't Know
Height	Refuse, Reject
Mark	
Height & Mark	
Unclassified	
Talk About	
Height	
Mark	
Height & Mark	
Unclassified	
Future Task	

Direct Request	
Comments	
Task Irrelevancy	
Praise	
Acknowledge	
Encourage	
Threaten, Demean	
Bribe	
Correction/Alone	
Correction/Reason	
Correction/Question	

99360

MOTHER CATEGORIES

A. Request Talking

The Request Talking category is for requests by the mother to the child in which the mother is expressly attempting to elicit a height or mark response from the child.

Phrases to be tallied under Request Talking-Height are those asking the child to verbalize the height dimension. The following phrases, for example, require one tally under Request Talking-Height:

"Are these big or little blocks?" (It is assumed that the response the mother is attempting to elicit from the child is "big' or "little' and not "yes' or "no".)

"What size is this one?"

"Was it a big one, or was it a little one?"

Sentences to be tallied under Request Talking-Mark:

"Is this X or is this 0?"

"What's this got?"

"What's that on top of the block?"

'And it's got..."

For a sentence to be tallied under Request Talking-Height and Mark, the mother must refer to both dimensions of the blocks, while asking the child to verbalize at least one dimension. For example:

"Is this little or big with X or 0?"
(Mother is asking child to verbalize both dimensions.)

"These are small and they've got what?"
(Mother refers to both while asking child to verbalize only one.)

"This is how tall and it's got what on top?"

"This has a 0 and it's how tall?"

"This is big and what's on top?"

ERIC

A pause between "This is big...(pause)...and what's on top?" would make it necessary to score "This is big" under Talk About-Height and "and what's on top?" under Request Talking-Mark.

Phrases to be tallied once under Request Talking-Unclassified:

"What's the difference between these two blocks?"

"How's this one the same as that one?"

Phrases containing "say it" or "tell me" are usually tallied under Request Talking:

"Tell me what this one is...say it."
(Two tallies under Request Talking-Unclassified are required because these are two distinct sentences.)

"Tell me where you think this belongs."
(One tally under Request Talking-Unclassified.)

B. Request Understanding

Request Understanding is for requests in which the mother attempts to evoke a verbal or non-verbal response from the child, but she does not seek a specific height or mark response. For example, "Is this one little?" requires a "yes" or "no" answer from the child and is thus tallied under Request Understanding-Height. Sentences scored in the Request Understanding category must deal specifically with the task and must request that the child understand a certain facet of the task.

Examples of sentences to be tallied under Request Understanding-Height:

"Point to the big one."

"Look at the baby blocks."

"Can you show Mommy which blocks are little?"

"This is bigger than that, isn't it?"

"Give Mommy the little ones."

"If you put them side by side, Danny, see that's a lot smaller than that, isn't it?"

90362

"All these blocks are tall, right?"

"Take the little one out of here."

"The big one?"

"Do you want to look at the little blocks for a minute?"

"Can Ricky find another big block for Mommy?"

"Isn't that tiny?"
(If stated as a declarative sentence this would be tallied under Talk About-Height.)

"All these blocks, you see they're small?"

Sentences containing "tell me" are usually tallied under Request Talking; however, an example of one to be scored under Request Understanding-Height is:

"Tell Mommy where the tall one is."

Examples of phrases to be tallied under Request Understanding-Mark:

"Is this an X?"

"Where's the other zero one?"

"See the block over here?"

"Look at the top."

"Does that have a 0 on it?"

"This is a zero and this is an X, right?"

"The marks, see them?"

"Mommy wants you to take the blocks over here that are marked the same."

"Now you're going to take these two blocks--see the circles?--and match them together."
(. pause, one tally.)

Phrases to be tallied under Request Understanding-Height and Mark:

"Find the little X."

"Are these the same height and do they have the same mark on top?"

"Show me the Mommy blocks that have 0's.'

"Take the tall ones and match them with the X's."

Phrases to be tallied under Request Understanding-Unclassified:

"Is this one in the right place?"

"What about if I do this?"

"You have too many people in this house and not enough people in this house, don't you?"

"See these blocks?"
(Request Understanding because "these" was stressed by mother, suggesting she wanted the child to take note of a particular group of blocks.)

"Then that doesn't go there, does it?"

"Look at this and look at this."

"Look right here."

"Think you can remember now?"

"Do you see where they go on the board?"

"Lannie, does it go here or over here?"

"Can you find the other one that goes with this one?"
(This could also be a placement request, depending upon the context.)

"Look at all the blocks and see which ones have pencil marks on them."

"What are you going to do with these?"

"Doesn't it belong here?"

"See how it would go?"

"Why don't you pick these up?"

ERIC

"Do you see all these here?"

"Now I want you to finish taking these blocks."

"Now let's try it again."

"Get the other ones."

"Try another one."

Does it go here or there?"

"Why don't you pick these up?"

"O.K., but what about if I do this?"

"Try it again."

"See these blocks, Billy? See where they go? Do you see where they go on the board?" (Three tallies under Request Understanding-Unclassified.)

You must occasionally score sentences containing "tell me" under Request Understanding rather than Request Talking. The following, for example, should be scored once under Request Understanding-Unclassified:

"I want you to tell me if they're the same."

"Tell me if you think they belong here."

C. Request Placement

Sentences in which the mother asks the child to "put" or "place" blocks are scored under Request Placement. It includes statements asking the child "where" a block goes, and phrases by the mother using "match", "stack" or any other word of the mother's choice as long as it is clear she is asking for specific block placement.

Requests containing "go", such as, "Where does this one go?" or "Which one of these goes with them?" are always tallied under Request Placement.

The following phrases require one tally under Request Placement-Height:

ERIC

"Put the tall blocks where they belong."

"Where do the big blocks go?"

"Can you take and put the big ones--put them here?"

"Match the Mommy blocks and baby blocks together on board."

Sentences to be scored under Request Placement-Mark:

"Put it with the 0's."

"I want you to put all the X's together and all of the 0's."

"Place all the X's in one square."

"Where does the circle block go?"

"Match these blocks with the 0's on the board." (This is clearly a placement request because of the words "on the board".)

Examples of sentences to be tallied under Request Placement-Height and Mark:

"Put them where you think they should go, by height and by mark, okay?"

"Put the X's with the other tall X's."

"The tall circle, where does the tall circle go?"

"I want you to take the big one with an X and one little one with an X and put them on a square."

"Stack the short 0's together."
(Where stack in a given context is clearly used in place of "Put". If stack is used in any other sense it should be tallied under Request Understanding-Height and Mark.)

The following phrases are examples of those to be tallied under Request Placement-Unclassified:

"Now put these where they belong."

"Now, find the other one that goes here because Mommy's awfully lonesome and she doesn't have her baby."

ERIC

"Where does it go?"

"Set it all the way in the box."

"Put this where...where does this one go?"

"Take and match these up with the ones here."
(Depending upon context, this is usually a placement request.)

"Show Mommy where this one goes."

"Can you find the other one that goes with this one?"

"I want you to finish taking these blocks and put them where they belong."

"Can you do that one?"

"Now put this block on the board. O.K., some more, you've got three more to do."
(Two tallies under Request Placement-Unclassified because there are two distinct phrases and it's very clear that the second phrase is a placement request since it immediately follows the first placement request.)

"Why don't you pick these up and put them where they go?"

"Now try another one."
(This is scored under Request Placement if it is clear from the context that mother actually requests placement.)

D. Talk About

Sentences to be scored in this category are declarative statements by the mother which relate specifically to the 8-Block Task.

Statements ordinarily tallied under Talk About, but which are followed by "see", "right", "doesn't it" and so forth, can be tallied either under Talk About or Request Understanding, depending upon the intonation.

Sentences to be scored under Talk About-Height:

"These tall blocks go with the other tall blocks."

09367

"These are little, too."

"A big one, not a little one, a big one."

"Two are tall and two are short."

Examples of sentences to be scored under Talk About-Mark:

"This is an X and this is an O."

"Yes, like the circle."

"These are O's, like cheerios."

"You know what X is."

"These blocks are marked with X's and O's."

"That's a zero, zero, zero."

"That's X."

"...with the X's on them."

Sentences to be tallied once under Talk About-Height and Mark:

"This is small with an X."

"...and the large blocks with X's in that corner." (This would be a placement request if it's clear from the context that the mother is asking for placement.)

"These tall blocks have O on top."

"I'm not telling you which is the small O."

"The tall X, that's the short one."

"The little one, little one with a zero."

"See, that's a big one, yes, but it doesn't have an O on it."

Sentences to be tallied once under Talk About-Unclassified:

"This block doesn't match those blocks."

99368

"The ones that are over here."

"Mommy's going to take all these blocks and mix them up."

"And this one."

"C'mon, we have to put these blocks on the board."

"Now here's another one."

"I'm not going to tell you."

"Now another one."

"We're going to play it one more time."

Future Task is an orientation statement in which the mother introduces the task or "game" to the child. Examples of Talk About-Future Task are:

"Mommy wants you to play a game with her and we're going to play with blocks."

"When you play this game, Sheri, you have to put the X's together and the O's together, and you have to put the big ones together and the little ones together."

"Now wait a minute because Mommy's going to tell you something and you're going to listen, O.K.?"

E. Other Mother Categories

Categories below the broken line, with the exception of Correction categories, are for sentences containing less specific information. When you think something the mother says could be tallied in more than one category, always tally it in the more specific category only. For example, "See these tall blocks?" could be tallied under Request Understanding-Height and also under Direct Request. Score it under Request Understanding-Height because this gives more specific information.

Direct Requests are nontask-specific requests by mother to child. They cannot be negative. (Negative direct requests are essentially corrections and are thus scored under Correction.) Direct requests that require one tally, for example are:

ERIC

"Billy, pay attention."

"Leave one."

"Leave that up."

"Look at the blocks."
(Remember, a request for the child to look at a particular aspect or group of blocks is Request Understanding.)

"Look at the board."

"Look what Mommy's telling you to do."

"Look at all of them now."

"Take these off."

Comments are statements by the mother not related to the 8-Block Sort Task. Comments which require one tally are:

"It's hot in here."

"You can build a bridge with the blocks when you're finished."

"I know you're getting tired."

"Whoops, you dropped them."

"That's a tape recorder."

"Sure, go get a drink of water."

"Yes, that's correct."

"No."

Comments by mother to someone other than child, such as to the tester--"Am I doing this right?"--are not coded at all.

The Task Irrelevancy category is for any comments, corrections or questions which refer to the color or shape of blocks (irrelevant dimensions for the 8-Block Sort Task):

"These blocks are red."

99379

"Point to the square blocks."

"Put the same color blocks together."

"Can you separate the square ones?"

Sentences tallied under Praise are statements which indicate explicitly that the mother feels the child is doing well. Examples of phrases to be scored as Praise are:

"Good girl."

"Mommy's proud of you."

"That's just what Mommy wanted!"

"That's a girl."

For all phrases tallied under Praise be sure and tally one time for each indication of praise. "Good. That's a good girl," would thus receive two tallies, as would "I'm proud of you, Jenny! That's a good girl."

Phrases tallied under Acknowledge are simple statements by the mother which recognize something the child has done or said. They are single words, such as:

"Right."

"O.K."

"That's fine."
(If mother indicates elation, tally once under Praise.)

"Yeah."

The Encourage category is for nontask-specific statements in which the mother attempts to motivate the child. For example:

"Keep trying, Susie."

"I bet you can do it."

"Come on, I know you can get it."
(With no pause, tally this once under Encourage.)

"Come on."

ERIC

"Go ahead."

"Help me."

Any time the mother threatens the child or makes a demeaning remark it is tallied under Threaten, Demean. This category includes conditional statements which refer to negative consequences. For example:

"If you don't pay attention you're going to get a spanking."

"You're such a stupid child."

"I don't know why you can't do it right."

Statements by the mother in which she attempts to bribe the child are tallied under Bribe. This category includes conditional statements which refer to positive consequences:

"If you play this game with Mommy you can have an ice cream cone when we're through."

Correction/Alone is for phrases of a corrective nature that give no further information. Negative direct requests which include no explanation are tallied under Correction/Alone. Phrases to be tallied under Correction/Alone are:

"No, no." (2 tallies)

"Wait a minute."

"These don't go there!"

"Don't do that."

"No, that's not right." (1 tally)

"No, you're not going to build a house."

"You're not looking, Beverly!"
(Strong intonation makes this correction.)

"No, not on the board."

"All right, don't be silly."

"That's not it."

"No, where the other one is."

"No, Joe, these go right here."

"No, Christy, over here on the square."

"Just these blocks here, Karrie!"
(Intonation must indicate that this is a correction.)

"No, don't start yet. Wait a minute."
(This must be tallied twice under Correction/Alone because it is two distinct sentences.)

If a correction is followed immediately by a placement request, tally the corrective phrase under Correction and tally the placement request under Request Placement. For example:

"No. Put it with the other tall X's."
(Tally "No," once under Correction/Alone, and "Put it with the other tall X's," once under Request Placement-Height and Mark.)

"Wait a minute. Where does it go?"
(Tally "Wait a minute," under Correction/Alone, and "Where does it go?" under Request Placement-Unclassified.)

Corrections which give a reason for the child's error are scored under Correction/Reason. Examples of statements to be tallied once in this category are:

"No, no, those don't match the other ones."
(If no pause exists, this is tallied once under Correction/Reason. With a pause after "No, no," this first segment should be tallied under Correction/Alone, and "Those don't match the other ones," under Talk About-Unclassified.)

"No, you don't put them on the line because they live inside the box."

"No, it goes here because it's little."

"Don't put the baby blocks in that square!"
(Mother's intonation must indicate that this is a correction.)

"Wait a minute, they don't have X's."

"No, they don't read the same on top."

"You don't put that there, honey, cause this one's got the X on top so it goes there."

"Not like that, the tall X's go there and the short O's go there."

"That's not a small X!"

"Don't stack the tall O's here!"
("Stack the short O's here," on the other hand, would be a Request Placement-Height and Mark because the statement itself is a command and because of the specificity provided by the word "here".)

"No, it goes here, with the little circles."

Corrections which attempt to focus the child's attention away from task irrelevant aspects are usually tallied under Correction/Reason. For example:

"No, we're not doing it by color."

Corrections followed by questions or direct requests (other than placement requests) are tallied under Correction/Question. For example:

"No, does it go like that?"

"Drait, didn't you hear what I said?"

"No, is that a tall block?"

"That doesn't go with the small ones, does it?"

"That doesn't go with the O's does it?"

"No, don't the crosses go in one square?"

"Wait, we don't put the tall and short X's together, do we?"

"No, is it a short O block?"

"No, look at the top of it."

Comments made to tester or someone other than child are never coded. If you are not sure to whom a comment is made, tally it as if it were to the child.

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Sentence fragments, such as "Put the...", "I said...", etc., are not coded.

CHILD CATEGORIES

A. Talk About

All task-specific statements and responses by the child are scored under Talk About. This category for the child is much broader than for the mother in that any time the child mentions a dimension of the blocks it is scored under Talk About, regardless of whether the statement is declarative or interrogative. For example, "These are baby blocks," is tallied once under Talk About-Height, and "Is this X?" is tallied once under Talk About-Mark.

Since few children speak in complete sentences, you should tally all meaningful phrases and sentence fragments spoken by the child. Thus, a simple word, such as "this", in response to a mother's task-specific question is scored under Talk About-Unclassified.

Phrases to be scored under Talk About-Height:

"These are tall."

"Big red one."

"Mommy block?"

Statements to be tallied under Talk About-Mark:

"Looks like a Cheerio."

"Is it circles?"

"Airplanes."

"They're flowers."

Phrases containing both dimensions are tallied under Talk About-Height and Mark:

"Tall X."

"Little flowers?"

"Big with butterflies."

Responses, statements or questions by the child which refer to the task, but do not specifically mention height or mark, are scored under Talk About-Unclassified. For example:

"Right here."
(When it is in response to task-specific questions by mother.)

"No."
(When it is in response to task-specific questions such as "Are these little?")

"Like this?"

"Because you told me to."
(This might be in response to a question such as "Why did you put it there?)

B. Other Child Categories

Categories below the broken line are again generally less specific than those above it.

All requests which are not task-specific are tallied under Direct Request. For example:

"Mommy."

"Mommy, Mommy."
(Two tallies.)

"Right there?"

"Why does it go here?"

"I want to build a train."

"Do I have to do this?"

"I want a drink of water."

Comments are nontask-related phrases by the child. They include answers to nontask-related direct request.

"Grandma's coming to see us tomorrow."

"Maria got some blocks for Christmas."

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"Yes."
(When it is in response to questions such as "Do you want a cookie?")

Any time the child mentions the color or shape of blocks (with no mention of height or mark), it is tallied under Task Irrelevancy. For example:

"I'm putting the red ones together."

"Square blocks match."

The Acknowledge category is for simple statements of recognition:

"Yes."
(Perhaps made in response to something unheard on tape.)

The I Don't Know category is for indications by the child that she or he does not know:

"I don't know how to do it."

Statements by the child indicating unwillingness to cooperate are scored under Refuse, Reject:

"I don't want to play with these blocks."

"I don't like this game!"

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