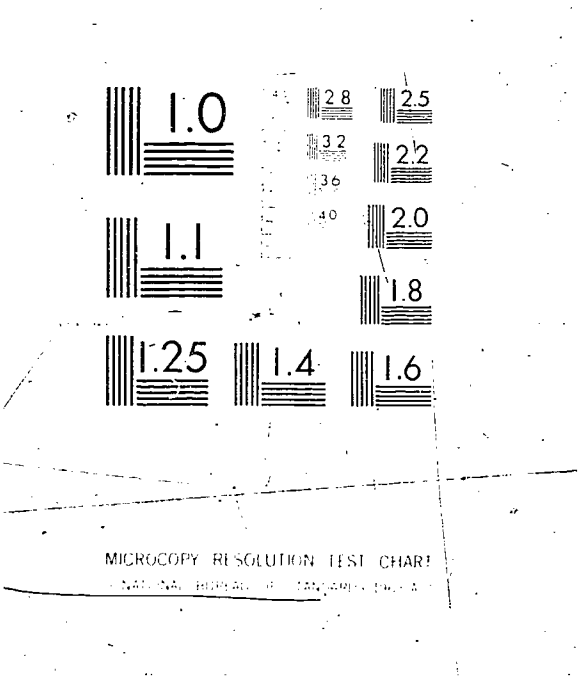
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MICROCOPY RESOLUTION TEST CHART

DOCUMENT RESUME

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ABSTRACT

The document presents the interim report for Phase II of a study to determine how services provided by Project Head Start programs impact handicapped preschool children. The report summarizes the baseline data obtained and identifies the key methodological issues for consideration in the final data analysis effort. The instrumentation and methodology are reviewed, a preliminary analysis of baseline findings is presented, pretreatment conditions are documented, and certain methodological issues are clarified for the analysis plan. In addition to comparing handicapped children's progress in Head Start and other programs with a small sample of unserved children, the study also focuses on involvement with Head Start as it affects parent and teacher attitudes. A description of the sample is presented, and instrumentation issues are discussed, including the Alpern-Boll Developmental Profile and measures of attitude towards mainstreaming of the handicapped. Group differences considered include personal characteristics of the child, attitudes and characteristics of the child's family, attitudes and characteristics of the teachers, characteristics of the programs, and classroom integration. Data collection procedures, instruments, frequency tables for demographic data, and the Duncan Socio Economic Index are appended. (DLS)

G-93

EVALUATION OF THE PROCESS OF MAINSTREAMING HANDICAPPED CHILDREN INTO PROJECT HEAD START

PHASE II INTERIM REPORT

March 24, 1978

Prepared for:

Administration for Children, Youth and Families
Office of Human Development
Department of Health, Education and Welfare

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The conclusions presented in this report are those of the Contractor and do not necessarily reflect the views of the U.S. Department of Health, Education and Welfare or any other agency of government.

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1

INTRODUCTION

STUDY BACKGROUND

The Head Start, Economic Opportunity and Community Partnership Act of 1974 required that the Secretary of the Department of Health, Education, and Welfare shall report to the Congress of the United States at least annually on the status of handicapped children being served in Head Start, their handicapping conditions, and the nature of the services being provided. The legislation also authorized the Secretary to undertake special studies to meet these information needs.

On July 1, 1976, the Office of Child Development, now the Administration for Children, Youth and Families, DHEW, contracted with Applied Management Sciences, Inc. for a two phase research study to investigate the services provided to handicapped children enrolled in Project Head Start. Phase I of the study focused on the processes of recruitment, screening, diagnosis and the provision of services for handicapped children enrolled in Head Start. Non-Head Start preschool programs for the handicapped were also included in this study for comparative purposes.

To complement this information, the second phase of the study (now in progress) is designed to determine how services provided by

Head Start programs impact handicapped children. Again, Head Start as well as non-Head Start programs are being studied, and (for this phase of the study) a small group of non-served children.[1/]

The data collected in this current research effort are to be used to assess efforts to serve the pre-school handicapped child and to formulate recommendations on ways to improve the effectiveness of Project Head Start through funding emphasis, technical assistance, and/or changes in performance guidelines. Information will also be disseminated to non-Head Start programs concerning Head Start practices that may be particularly effective with certain handicapping conditions.

PURPOSE OF THE INTERIM TECHNICAL REPORT

This report summarizes the baseline data obtained for this phase of the study during Fall 1977 and identifies the key methodological issues for consideration in the final data analysis effort. Specifically this report provides a review of the instrumentation and methodology, outlines preliminary analysis of baseline findings, documents pretreatment conditions, and clarifies certain methodological issues for the analysis plan.

The impact of services are to be assessed with respect to three major study questions:

- Is the progress of handicapped children enrolled in Head Start different from handicapped children receiving no special services?

[1/] Non-served handicapped children, for purposes of this study, are defined as handicapped children who are not enrolled in a program where at least two or more services (defined in terms of Head Start components, i.e., social services, education, parent involvement, health services, etc.) are available. The non-served sample, therefore, includes a few children who are receiving some limited services: 35 percent receive occasional services such as babysitting, parent training or counseling, and speech therapy (less than twice weekly); and 13 percent were previously enrolled in a program for services.

- Within Head Start programs, what variables explain differential progress among handicapped children?
- Do variables that account for developmental progress among children enrolled in Head Start differ from those that account for progress among children enrolled in non-Head Start programs?

In addition, there are several additional questions that will be addressed:

- To what extent does a handicapped child's involvement with Head Start affect his/her parents' attitudes and involvement with the child and his/her program of services?
- To what extent does the Head Start teacher's involvement with handicapped children affect his/her attitude toward mainstreaming and/or handicapped children?

Methodology

To answer these basic study questions a pretest-posttest evaluation design, shown in Figure 1.1, was developed using two referent comparison groups: non-Head Start programs and a group of non-served handicapped preschool children.

	PRE TEST	TREATMENT	POST TEST
Head Start programs	All measures [1]	Head Start	All specified post test measures
non-Head Start programs	All measures	Others	
non-served group	Selected child-specific measures	No Treatment	Selected child-specific measures

FIGURE 1.1: PRETEST/POSTTEST STUDY DESIGN

All specified pretest measures were administered to both the Head Start and non-Head Start cases. However, because they were not enrolled in any program, the non-served group, received only the child specific measures which could be completed by the parent. For posttest data collection, the non-served group will receive the same measures as used in baseline data collection. Both the Head Start

[1] The specific measures are discussed in detail in Appendix II

and non-Head Start respondents will have the same posttest measures used, however, those pretest measures dealing with static, non-alterable variables, such as teacher-pupil ratio, program budget, etc., will not be repeated.

Of the three groups from which data are being collected, the groups do not appear to be equivalent on any of the specified outcome measures and on some of the demographic characteristics. Because a superficial inspection of each group indicates differences, the study design assumes non-equivalent groups. A major purpose of the Interim Report will be to specify areas of non-equivalence for the groups under consideration and to specify procedures for controlling or correcting these differences. Identifying these areas of non-equivalence and the subsequent correction procedures is important for comparing the groups on any specified variable.

The primary dependent variable used to assess treatment effects is the growth and development of the child. A child's progress is defined in terms of developmental progress and increased interaction with peers and adults. The Administration for Children, Youth and Families, DHEW has detailed five broad types of variables on which they believe child progress is dependent:

personal characteristics of the child	developmental status (including social competency) • cognitive • social-emotional • motoric • self-help • language
	primary handicap/ severity level
	previous program experience
	chronological age

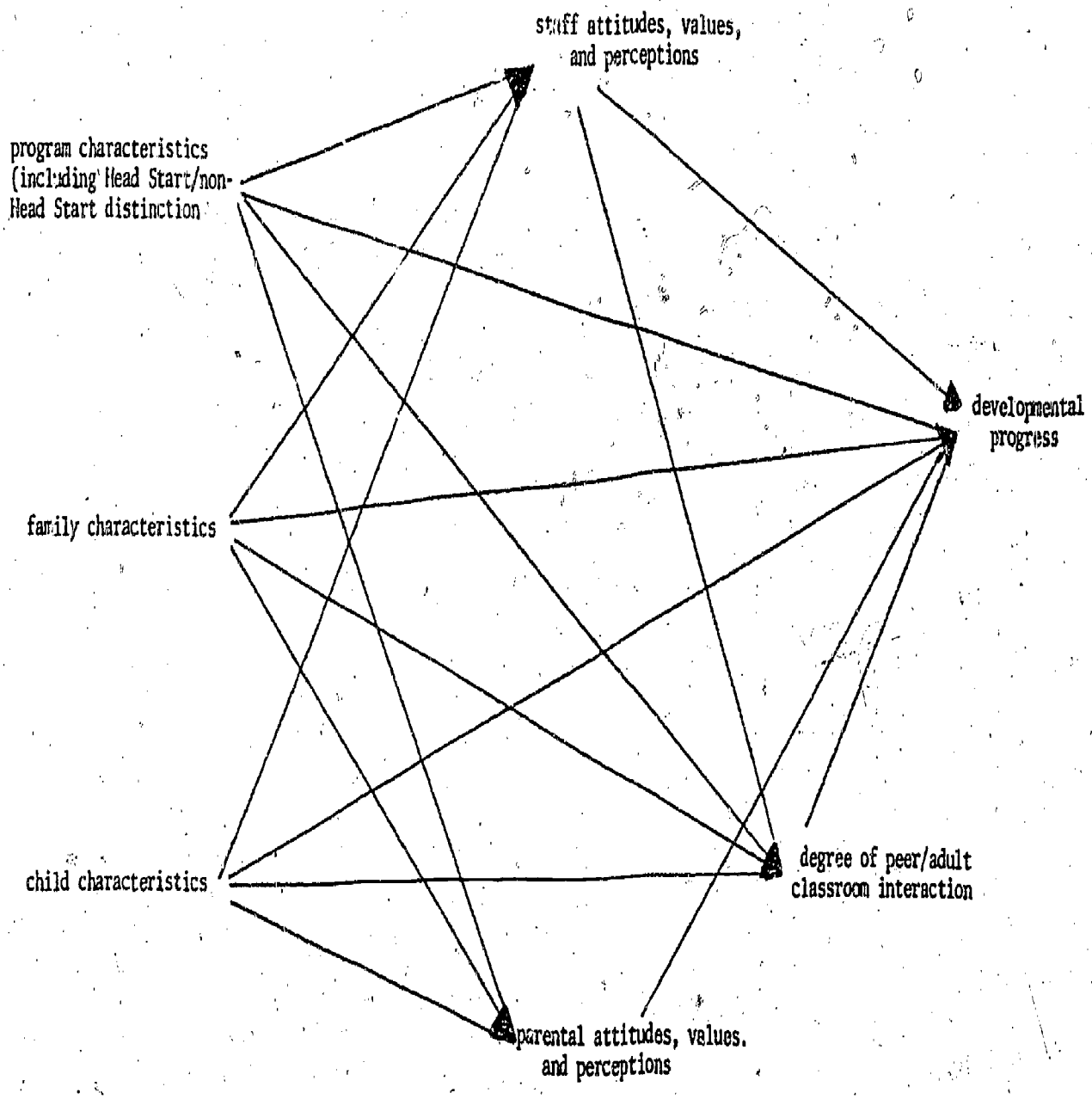
attitudes and characteristics of the child's family	family characteristics • structure • income • occupation • ethnicity parent support of child development parental attitudes about mainstreaming/ child's programs parent educational and familial values
attitudes and characteristics of the child's teacher	teacher characteristics • experience • education • training • salary attitudes about mainstreaming/ handicapped children teacher's perceptions of organizational support teacher's educational values (including perceptions of appropriate parent roles)
program characteristics	program size length of service to handicapped coordinator of handicapped services program structure mainstreaming options funding level use of community-resources classroom structure

classroom integration	degree of peer/child interaction
	degree of child/staff interaction
	degree of classroom integration

Answers to the study questions must be explored within the larger framework of relationships that serve to explain developmental changes over the course of a program year. It is expected that child progress can be explained in terms of the five groups of characteristics described above. This general framework of relationships is depicted in Figure 1.2 (page 1.6). This framework is based on the RFP specified variable construction and suggests that developmental progress is a function of several key variable categories. However, this framework also suggests that certain variable categories are contingent upon variable categories to their immediate left in this exhibit. For example, it is anticipated that developmental progress is dependent upon the degree of peer/adult classroom interaction to which a given child is exposed. However, the degree of peer/adult classroom interaction is in turn largely a function of the variable sets preceding it.[1/]

1/ The convention of path analysis in Exhibit 1 has been borrowed. It is not, however, intended for this exhibit to represent a complete conceptualization of the causal mechanism at work in a program's impact upon child development. This exhibit ignores non-recursive relationships which obviously would have to be considered in the issues under investigation (e.g., staff attitudes may be as much affected as they in turn affect the degree of classroom interaction). This model is also static, whereas Phase II analysis must deal with change in the three sets of intervening variables (staff attitudes, parent attitudes, and classroom interaction). However, for purposes of organizing the data needs for Phase II, this framework represents a useful point of reference.

FIGURE 1.2: STRUCTURAL FRAMEWORK FOR PHASE II ANALYSIS



Instrumentation Issues

Certain attitude measures and alternative test forms require detailed review in this report. This review provides a descriptive picture of key variables and also determines measurement idiosyncrasies that require statistical considerations in the conduct of the final analysis. Two issues especially require attention.

The first issue is the use of information based on parent report instead of direct functional assessment of the individual child. Applied Management Sciences has determined that the required time for administration of the Alpern-Boll Developmental Profile, a parent report measure, is significantly less than similar direct measures of the individual child (one-half or less). Therefore, respondent burden could be decreased and substantial economy could be gained by using this instrument (rather than a direct functional assessment of the individual child) as the primary dependent variable. The Learning Accomplishment Profile - Diagnostic edition (LAP-D) was selected as an individual measure requiring just over one hour to administer and score. The LAP-D assesses essentially similar areas of social, cognitive, and physical development. Additionally, the LAP-D was designed specifically for developmental assessment in the preschool and early school range, and with excellent psychometric properties, thus providing a powerful tool for comparison with the Alpern-Boll. While the psychometric data available on the Alpern-Boll indicate that it is essentially equivalent to other individual child measures that are designed to assess similar areas, a major study objective was to statistically confirm equivalence for this particular study population. Therefore, a minimum of 100 Head Start children were identified to receive individual administration of both the Alpern-Boll and the LAP-D. Following data collection, an analysis of test equivalency was conducted.

The second instrumentation issue requiring special attention is the development of two measures of attitude towards mainstreaming

handicapped children. Both attitude measures, one designed for parents and the other designed for teachers, were developed from item pools and other scales. They generally follow the "Likert" format.[1/] The content validity of the scales and the extent to which they measure what they purport to measure must be determined by analysis of baseline data.

In addition to specific examination of these instrumentation issues, there is another broader issue for consideration. Because of the possibility for respondent attrition or posttest absenc certain contingencies were carefully included in the collection of baseline data. These include the collection of alternate form data for certain respondents and the baseline collection of one-time only information (occupation, education, income, etc.). For purposes of posttest planning, the psychometric characteristics of the "alternate form," tests must be examined to determine their utility. Any indications of the lack of validity of these alternate forms in the baseline data may indicate that they are not useful for post-test data requirements.

Identification of Group Differences

A clear understanding of baseline findings is necessary in order to identify similarities and differences in Head Start and non-Head Start programs. Only the specific documentation of base-line levels and potential rates of change will enable accurate comparisons between groups.

1/ The "Likert" format for attitude scales is commonly designed as a positive or negative statement with which the respondent agrees (usually on a scale of strongly agree or agree) or disagrees (strongly disagree or disagree) or is neutral (undecided). The actual descriptors frequently vary as do the scales (some scales use only one choice for each category and others use 3 or 4 choices), but the general format of positive, or negative responses is standard.

Because of the complex nature of over 400 identified variables and because of the mixed nature of these variables (both discrete and continuous), those key variables which are most important in determining specific program effects, if any, must be identified.

The analysis of baseline findings presented in this report is primarily a descriptive approach. The intent is to describe how Head Start programs differ from available non-Head Start programs and to identify substantive differences in programming for various handicapping conditions. Identifying substantive pretest differences will prevent these differences from obscuring other changes and will help to accurately describe how programs make impact on children with handicaps. Because the study design uses two groups which are essentially non-equivalent, both with respect to themselves and with respect to the control group (non-served), it is necessary to identify as many of the variables as possible where similarities and differences do exist. This will enable statistical comparisons between programs where there are major similarities on these variables (such as in program or staff characteristics) for certain analysis efforts. Where substantial differences are shown to exist between programs, however, these differences must be verified and their effects statistically controlled for.

The complex path model used to describe the overall analysis approach requires that the massive quantity of variables be reduced to those significant groups of variables to which the greatest amount of assessed change can be attributed.

Overview of Sample

To answer the major study questions, data was collected on five groups:

- Program directors for each center in which children are sampled.

- Handicapped children enrolled in Project Head Start programs. Respondents included the child's parents and teachers, and observations of the child.
- Handicapped children enrolled in non-Head Start programs serving the preschool handicapped in the same communities as the selected Head Start programs. Again, respondents were the child's parents and teacher, and observations of the child.
- Handicapped preschool-age children who were currently not receiving any form of treatment related to their handicap. Respondents were limited to the parent.
- Non-handicapped preschool-age children. Observations of the child were obtained.

The sample included 400 Head Start handicapped children (429 were actually obtained), 400 handicapped children enrolled in non-Head Start programs (353 were obtained), and 200 diagnosed preschool handicapped children not receiving services (154 were found), and 200 "non-handicapped" children who would be observed with the Prescott-SRI Child Observation System in order to acquire a non-handicapped reference group (230 were identified and used).

A total of fifty-nine (59) Head Start programs (Grantees or Delegate Agencies) were selected for inclusion in the study (55 participated). Randomly selected, these programs are representative of the population of all Head Start programs with regard to SMSA/non-SMSA location and size of program enrollment. Fifty (50) non-Head Start programs which also serve preschool handicapped children in the same community agreed to participate. Three sources of information were utilized from Head Start as well as non-Head Start programs: existing program records, results of standardized tests and assessment procedures, and structured interviews conducted with children's parents and teachers. These measures collected data on respondent characteristics and attitudes toward handicapped children and the practice of mainstreaming, and on child growth and development.

Summary

The overall analysis plan cannot properly proceed without some descriptive information concerning the effects of various variable groups on these program features. This pretest-posttest design is based on what is expected to be non-equivalent groups for comparison of the effects of Head Start and non-Head Start programs as well as the relative absence of any program at all. A large number of prospective variables have been considered and some will have to be eliminated from the final data analysis effort. In addition, instruments require verification of their measurement capability.

The intent of this report is to verify the validity of certain test instruments, to describe program similarities and differences and to identify the key variables from each of the variable groups which should be retained for consideration in the general analysis plan.

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DESCRIPTION OF SAMPLE

To answer the study questions, five specific audiences were selected for data collection:

- Program directors for each center in which children are sampled;
- 400 handicapped children enrolled in Project Head Start, their parents and their teachers;
- 400 handicapped children enrolled in non-Head Start programs serving the preschool handicapped (in the same communities as the selected Head Start programs), their parents and their teachers;
- 200 handicapped preschool-age children who are currently not receiving any form of treatment related to their handicap and their parents;
- 200 non-handicapped preschool-age children.[1/]

PROGRAM SAMPLE

A total of fifty-nine (59) Head Start programs (Grantees or Delegate Agencies) were selected for inclusion in Phase I of the study and were asked to participate in this phase also. Randomly selected, these programs are representative of the population of all Head Start programs with regard to SMSA/non-SMSA location and size

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1/ For purposes of the study a preschool aged child is defined as a child between the ages of two years, six months and six years-six months at the time of pretesting.

of program enrollment. Four of the original fifty-nine Head Start programs were dropped from the data collection effort. Three programs were dropped because their start and end dates for the program year did not allow a sufficient pre-post interim. A fourth program requested to be dropped because they were involved in several other data collection efforts as well as a major evaluation and had been unable to secure the necessary diagnoses for their children.

A total of 160 non-Head Start programs which also serve preschool handicapped children in the same community were contacted and asked to participate. Of the fifty-four (54) non-Head Start programs that responded and agreed to participate, four were dropped when the age limits of their handicapped children exceeded the study requirements.

PLANNED SAMPLE

A total of 815 children who were enrolled in either Head Start or a designated non-Head Start program were ultimately selected for participation in the study. Children were selected for participation from coded lists which indicated only a child code, program code and primary handicapping condition. The desired sample goal was for 400 children in each program with equal distribution of all handicapping conditions. To meet this goal at least 40 children of each handicapping condition had to be present in the sampled Head Start programs and 40 additional children in the sampled non-Head Start programs.

As the random selection of children from the coded lists proceeded, it became obvious that the goal of 40 childr for each handicapping condition would not be met for some handic pping conditions. Only three blind and seven deaf children were available for sampling - all were selected for inclusion. Fewer than twenty- visually impaired and thirty-five hearing impaired children were available. While the national incidence level for

these few handicapping conditions is relatively small, the actual selection rate for the study significantly underrepresent the expected incidence of occurrence. Two possible phenomena may explan, in part, the low incidence: enrollment of these children in highly specialized (often segregated) "special" programs; and, the lack of comparable specialized services in most preschool programs.

Staffing, training, data collection procedures, and analysis strategies were all based on a planned for sample of 800 children from the two programs. The low frequency of these four handicapping conditions allowed for some other handicap categories to be sampled at a higher rate. This was most easily accomplished for the handicapping conditions of speech impaired, physically handicapped, and mentally retarded. Of the 815 children selected from the coded child lists for inclusion in the study, 782 have been retained for baseline analysis and will be reassessed during the posttest data collection. Thirty-three cases were dropped from the study because critical measures were missing or non-repeatable measures were considered invalid. The field teams determined that children from some of the selected non-Head Start programs exceeded the age limits for the study, and that parent permission had not been secured for all children. Completed data on all designated measures were obtained for the 782 cases that have been retained.

NON-SERVED SAMPLE

Children included in the non-served study group were selected from an identified (professionally diagnosed) population of preschool children not currently receiving treatment for their handicaps. Most of the children selected were chosen from the same communities in which the selected Head Start programs were located. Additionally, to avoid possible legal difficulties, the selected study group resided primarily in states which had not mandated the provision of services to all preschool handicapped children.

Potential study participants were identified through a number of sources. The directors of each Head Start and non-Head Start program was asked to provide names, addresses and telephone numbers of handicapped children who were awaiting enrollment in their programs. Other resources contacted for the same purpose included local school systems, local Public Health Departments, State and local directors of Easter Seal Agencies, and the Associations for Retarded Children.

Approximately 154 sample participants were identified through these resources. In each case the referring agency/person requested to make the initial contact with the respondent to solicit and encourage their participation in the study. This intermediate step was taken to protect the agency's confidentiality of data and the privacy of the parent.

After this initial communication was made, the Phase II field staff contacted the parents to: (1) further explain the purpose of the study; (2) secure permission for their handicapped child to be included in the study; and (3) confirm an interview date.

Children in the non-served control group and their parents were assessed with the same measures used for Head Start children and parents, except for those that were inappropriate because they related to classroom events or to services the children did not receive.

The majority of the non-served control group assessments were conducted in the parent's homes; however some of the respondents, where it was feasible, elected to utilize the facilities of the referring agency.

The data collection schedule is shown in Table 2.1.

TABLE 2.1: SCHEDULE FOR DATA COLLECTION

Dates	Program Type		
	Head Start	Non-Head Start	Non-Served
Begin	October 17, 1977	October 17, 1977	November 7, 1977
End	November 25,1977	November 25,1977	December 30,1977

Data collection activities for the non-served control group were not completed until December 30, 1977, primarily because of the initial difficulties in accessing data (names and addresses, etc., of preschool handicapped children) from some of the referral sources. In addition, some of the non-served group participants were identified after the completion of the primary data collection activities from the Phase II Head Start and non-Head Start programs.

The distribution of handicaps by program type for the 782 children enrolled in programs and 154 non-served is shown in Table 2.2. While the distributions for physically handicapped, specific learning disability, and emotionally disturbed fairly closely approximate the desired goal of 40 cases per handicap, there are other notable deficiences in the sample. The visually impaired, blind, hearing impaired, and deaf children show very low frequencies (as previously discussed), although they are fairly similar to those of the different sample groups. Both goals of forty (40) cases per handicapping condition and equal distributions by program type are not fully met in three other handicap categories (some of which were purposefully over sampled) — speech impaired, health or developmentally impaired, and mentally retarded. The frequency of occurrence of the first two handicapping conditions is twice as high (29% compared with 15% and 17% compared with 9%, respectively) in Head Start programs, while the later condition occurs at three times the rate (37% compared with 11%) in the non-Head Start programs. These distributions present significant problems which have to be accommodated for in analysis efforts.

SUBSAMPLES

Two subsamples of the study groups were identified and selected for special study objectives. One special objective required a small subsample of at least 100 handicapped children to be administered the Learning Accomplishment Profile - Diagnostic edition (LAP-D). The purpose of this objective was to verify the accuracy

TABLE 2.2

DISTRIBUTION OF SAMPLE FOR PROGRAM TYPE AND HANDICAPPING CONDITION

PRIMARY HANDICAPPING CONDITION	PROGRAM TYPE		
	Head Start % of Column	Non-Head Start Programs % of Column	Non-Served % of Column
Visually impaired	4.7 (N=20)	0.6 (N=2)	1.9 (N=3)
Blind	0.2 (N=1)	0.6 (N=2)	1.9 (N=3)
Hearing impaired	4.4 (N=19)	3.1 (N=11)	1.2 (N=2)
Deaf	1.2 (N=5)	0.6 (N=2)	0.6 (N=1)
Physical handicap	18.6 (N=80)	18.3 (N=65)	16.2 (N=25)
Speech impaired	28.9 (N=124)	15.3 (N=54)	39.6 (N=61)
Health or developmentally impaired	17.2 (N=74)	8.8 (N=31)	12.4 (N=19)
Mentally retarded	11.4 (N=49)	36.5 (N=129)	9.2 (N=14)
Specific learning disability	6.3 (N=27)	6.8 (N=24)	0.0
Serious emotional disturbance	7.0 (N=30)	9.3 (N=33)	6.6 (N=10)
Not specified			10.4 (N=16)
TOTAL	100.0* (N=93 | 45.8* N=429)	37.7* (N=353)	16.5* (N=154)

*Percent of row.

of parent report information secured from the Alpern-Boll Developmental Profile and the psychometric equivalence of the two scales. A total of sixty-five (65) speech impaired and sixty-five emotionally disturbed children were selected from the coded child lists and the programs were asked to provide a quiet location in order to administer the LAP-D. Four of the children were enrolled in programs which were dropped so that a final subsample of 126 were retained for analysis.

The second special objective also required a subsample of approximately 100 respondents. The teachers of 125 randomly identified handicapped children were selected to receive the teacher

short form of the Alpern-Boll. The purpose of the second objective was to determine the extent to which the teacher short form could be used as an alternate form to the parent administered form (already scheduled to be administered to the parent) in the event of parent attrition. Four of the teachers were deleted when the programs they taught in were dropped leaving a final group of 121 for the correlation study between the two forms.

3

INSTRUMENTATION ISSUES

Twelve primary instruments were used to collect pretest data for the study. This chapter discusses some of the measurement issues of concern with three of these instruments. The Alpern-Boll Developmental Profile presented two key issues for consideration: whether parent report data could be validly considered as a substitute for a direct assessment of the child; and the equivalency of a short teacher-form which could be used in the event of parent attrition. Also, two measures of attitude toward the concept of mainstreaming were developed and a review of the measurement characteristics of these scales for this study sample is provided.

ALPERN-BOLL DEVELOPMENTAL PROFILE

Since all three primary study objectives (see page 1.2) require developmental assessment of each handicapped child, it was necessary to select an instrument that was sensitive both to differences across several distinct abilities and also to areas of growth and development during the pre-post interim. The Alpern-Boll Developmental Profile, a parent report instrument which assesses developmental growth of the child (See Appendix II), was selected as the primary measure.

However, previous experience with the use of parent-report information to assess growth and development of the child by ACYF

indicated that the validity of a direct functional child assessment might be substantially better then once removed parent-report data. The Learning Accomplishment Profile-Diagnostic edition (LAP-D) is a direct functional assessment of the child which was considered as the primary dependent measure. The Alpern-Boll was selected for the following reasons:

1. reduces respondent burden;
2. minimizes classroom disruption by not requiring the child be present for administration;
3. reduces the expense and time of training certified evaluators;
4. offers one additional measure (social-emotional) in an area deemed of critical importance at the pre-school level;
5. provides a full range of measurement in the Self Help area;
6. provides a streamlined measure of physical development skills.

Because the validity of using the parent report information was considered questionable by ACYF it was determined to assess the validity of information obtained from the Alpern-Boll compared with the direct child assessment data secured from the LAP-D. A secondary study objective was specified:

- how well does the Alpern-Boll serve as a valid alternative to the LAP-D?

Another important issue of concern with respect to the Alpern-Boll is the need to identify a backup source for the developmental growth data in the event the original respondent is unavailable for posttest data collection. A teacher administered short form of the Alpern-Boll was developed by Appalachian Educational Laboratory, Inc., Charleston, West Virginia. Although this teacher short form was selected as a backup measure, there was no measurement information on the equivalence of the two forms for the present study population. The reliability data supplied by the Appalachian Education Laboratory

provided data for a predominately non-handicapped population. Therefore another secondary study objective was specified:

- how well does a teacher "Short Form" serve as an alternate form for the Alpern-Boll (in the event of parent attrition or posttest absence)?

Study Objective I: Assessment of the *Alpern-Boll Developmental Profile* as a valid alternative to the *Learning Accomplishment Profile-Diagnostic Edition.*

Even though an item-by-item inspection of the two assessment profiles suggests that both instruments assess similar skills, such inspection does not provide information on how close the two measures are for any given group of children. It was necessary to obtain information with which to more precisely estimate the extent of measurement correspondence for these two developmental assessments in order to validate use of the Alpern-Boll.

The LAP-D was administered to a subset of 126 children for whom Alpern-Boll profiles were also collected. Table 3.1 presents the relevant Pearson product-moment correlations for the 126 children who had both assessments administered.

TABLE 3.1

ALPERN-BOLL AND LAP-D CORRELATIONS

ALPERN-BOLL \ LAP-D	Fine Motor	Gross Motor	Language	Cognitive	Total
Physical Age	0.46	0.47			
Academic Age			0.63	0.71	
Communication Age			0.64		
IQ Equivalency					0.45

N=126 Signifigance >.001

The relatively higher correlations (.71, .63, .64) of the Language and Cognitive scales of the LAP-D with the academic and communication scales of the Alpern-Boll support the initial conclusions of content correspondence for these scales (discussed in Appendix II). Since these areas are usually thought of as the critical skills for school success, the higher those correlations, the better the Alpern-Boll fulfills its role as a valid alternative for the LAP-D

In fact, there is some reason to believe that the obtained correlation coefficients are minimal estimates and that truer estimates would raise the correlations substantially. When conducting correlation analysis with samples where the sample range is restricted in some manner, the resulting correlation coefficients tend to be artificially low. This is demonstrated in Figures 3.1 and 3.2 which illustrate typical scatter plots of the corresponding scores on two measures. The illustration in Figure 3.1 shows the scatter plot for two measures that have a high positive correlation

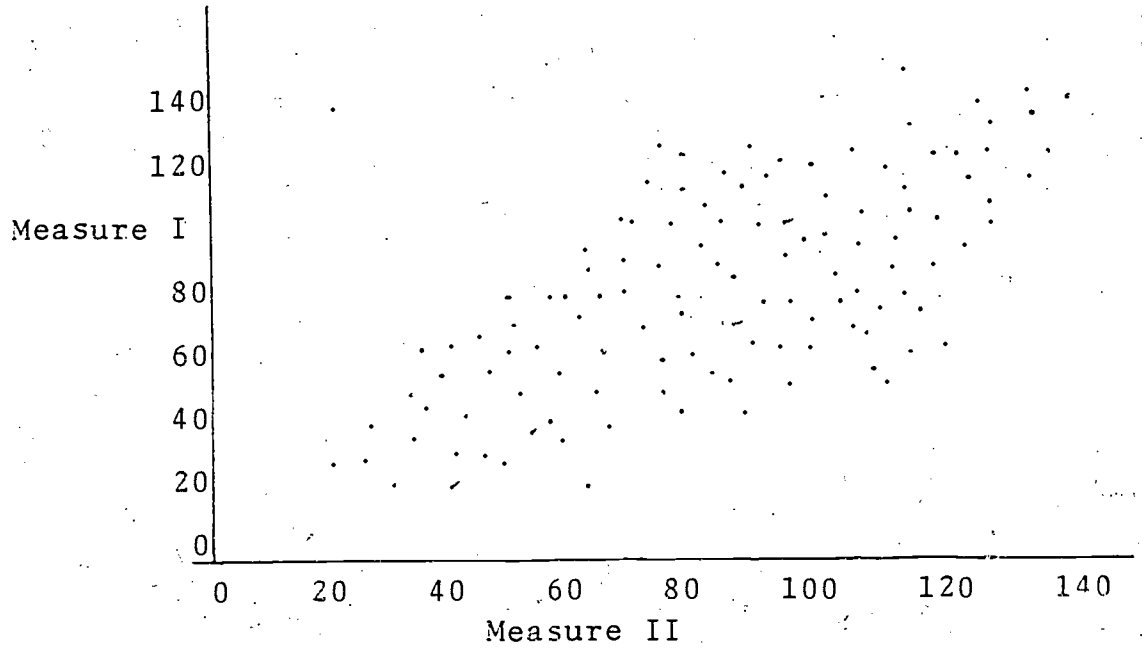


FIGURE 3.1: SCATTERPLOT OF A MODERATELY HIGH CORRELATION FOR TWO MEASURES

with each other (about +.90). The range of possible scores for each measure is from about 20 to about 140 on the scales provided.

Suppose, however, that something happens when administering the tests so that only a restricted range of the available sample receives the tests. If the range is from 60 to 80, for example, the resulting scatterplot and computed correlation will appear quite different. Figure 3.2 illustrates the "new" scatterplot in the inset. Visual inspection of this "new" scatterplot indicates that there is probably very little relationship between Measure I and Measure II.

To the extent that the sample children receiving both the Alpern-Boll and the LAP-D represent a restricted range the correlation between the two measures will be artificially lowered. Since both the study sample itself and the correlation sample is composed

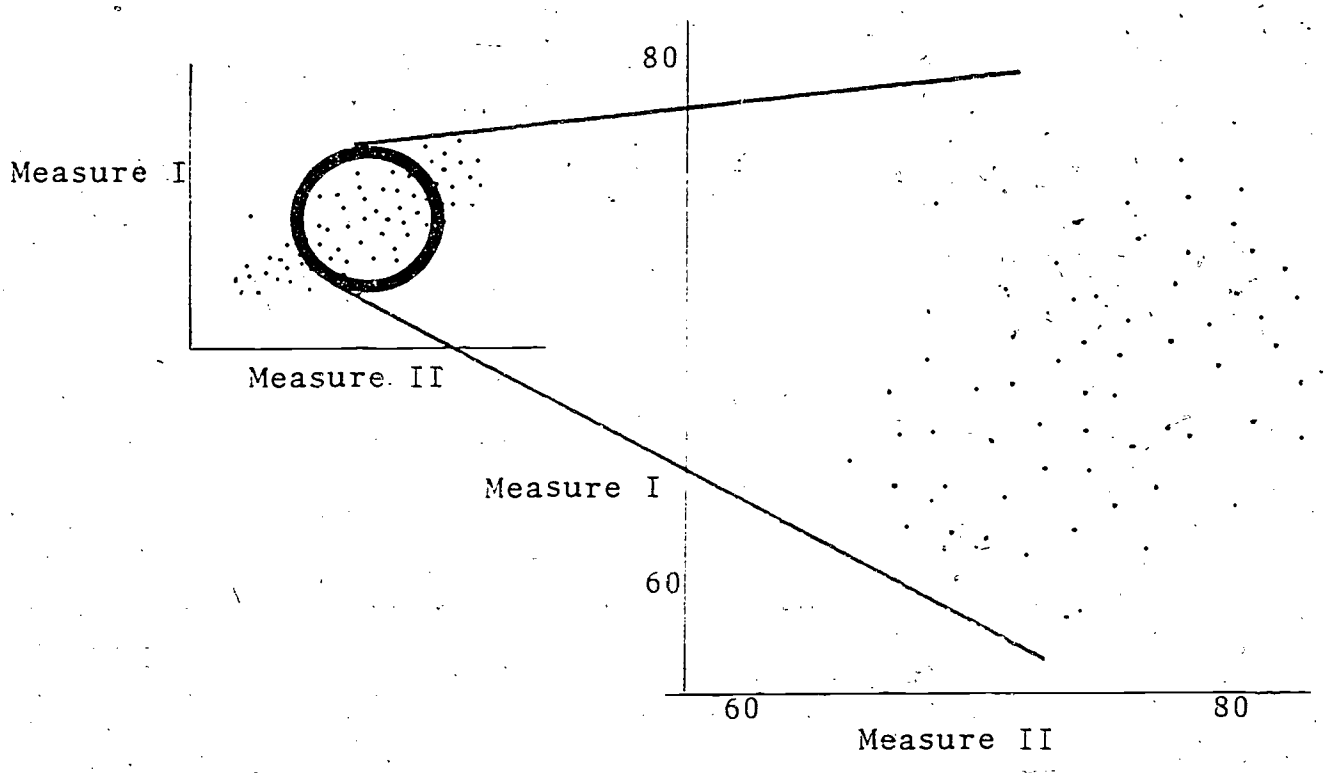


FIGURE 3.2: INSET FOR RESTRICTED RANGE OF 60 TO 80 SHOWING "NEW" SCATTERPLOT

of only handicapped preschool children it is highly probable that this sample of 126 children used for the correlation analysis has some restrictions in overall ability ranges. This would affect the computed correlations by artifically lowering them.

The effect of restricting the range of a group of scores on artificially lowering measures of association for two instruments has already been discussed. In a similar way, restricting the range within which an individual score can fall may artificially lower the sensitivity of the measure and thus the capacity to identify changes in true scores as reflected by changes in earned scores. When considering the validity of the Alpern-Boll as an alternative to the LAP-D, the sensitivity of each measure to changes in growth and development is crucial. As reviewed in Appendix II, the administration directions for the LAP-D provide instructions for a "ceiling" is achieved when the child misses three out of five items. No further items of greater difficulty are administered since it is assumed that the child will miss all items beyond his "ceiling." However, the Alpern-Boll procedures for handicapped (atypical) children require administration of each entire subscale up to a triple "basal" or "ceiling." This procedure recognizes the greater variability of performances across several assessment areas and assures more opportunity for a wider range of scores.

This difference in administration instructions can affect the sensitivity of the instrument to changes in developmental skills. Table 3.2 presents the ranges of scores found on both the LAP-D and the Alpern-Boll. Only the range of scores for the "Cognitive" scale of the LAP-D is fairly large compared with the ranges of the Alpern-Boll. A review of the scatterplots for the correlations confirms that the LAP-D scores tend to be lower and of a narrower range.

TABLE 3.2

RANGE FROM LOWEST TO HIGHEST SCORES FOR ALPERN-BOLL AND LAP-D

SCALE	Measure					
	ALPERN-BOLL			LAP-D		
	Lowest Score	Highest Score	Range of Scores	Lowest Score	Highest Score	Range of Scores
Academic Age Cognitive	20	82	66	9	88	72
Communication Age Language	24	96	72	8	53	45
Physical Age	18	116	98			
Gross Motor				25	78	53
Fine Motor				28	74	46

In situations where the developmental changes can be expected to be very small, even minor blunting of the sensitivity could mast important (although small) changes.

While the range restrictions do not necessarily affect group performances, such restrictions tend to contribute adversely to the tests' sensitivity to change and can contribute to lowered correlation coefficients. This blunting of sensitivity is particularly damaging at the ability extremes, and even more so with handicapped children since developmental changes for this group tend to be more gradual and less pronounced.

The result is that the LAP-D could tend to be somewhat less sensitive to minor developmental changes for this study population. The Alpern-Boll, on the other hand, could yield slightly more accurate true score estimates. This would increase sensitivity to small developmental changes and would also remove a small amount of residual variance from prediction equations.

Another factor contributing to the relatively low correlations between the Alpern-Boll and the LAP-D on the physical and Fine/Gross Motor scales could be "test fatigue." The LAP-D is typically

administered in two or three sessions so that the Fine/Gross Motor scales are administered by themselves as with only one other scale. The pretest administration procedures required the entire scale to be administered in one session, with the Fine/Gross Motor scales being last. Field staff reported evidence of fatigue and inattention on these latter scales.

Summary and Conclusion

1. The Alpern-Boll subscales that are usually thought of as the best predictors of school success (academic, communication, and IQ equivalency) were the scales which best correlated with content similar scales on the LAP-D and there is reason to believe that true score correlations should be even higher.
2. The administration procedures for the Alpern-Boll provide better assurance for sensitivity of the measure to change and less opportunity for imposed range restrictions.

While not psychometrically equivalent, the Alpern-Boll Developmental Profile can serve as a comparable measure to the LAP-D for purposes of measuring change in short term development across the specified abilities.

Study Objective II: The Teacher "Short Form" of the *Alpern-Boll Developmental Profile* as an Alternative Form in the Event of Parent Attrition or Posttest Absence

All 105 programs and 782 parents have agreed to participate in both the pre- and posttest data collection efforts. In the event of parental absence for the posttest, however, the primary dependent measure of developmental growth for the child (the Alpern-Boll) would be unobtainable. Applied Management Sciences, has participated that even with concerted follow-up efforts and parent incentives some amount of attrition can be expected.

If this attrition should occur in the handicap categories where the sample size is close to or greater than the desired goal of fifty (50) cases, then these cases could simply be dropped from any analysis which uses the Alpern-Boll. However, if this attrition should occur in handicap categories in which the sample size is

very small to begin with, elimination of even a single case could be damaging to analysis efforts. It is crucial, therefore, to carefully consider alternatives to eliminating a case from the study sample.

The most desired alternative would be to invest the additional effort and resources that would eventually permit the parent to be interviewed. This might mean traveling to a separate interview site or returning to the original site at a more convenient time. If this does not prove to be feasible (for example, if the parent is ill, deceased or cannot be located), then special effort to collect the data from another respondent must be made.

Applied Management Sciences, Inc., has anticipated such a possibility. Field staff were directed to administer to the teachers of 121 randomly selected children, a short "teacher form" of the Alpern-Boll Developmental Profile developed by the Appalachian Educational Laboratory, West Virginia. This information could then be used to determine the suitability of the short "teacher form" as an alternative in the event that the parent could not be interviewed to provide the child growth and development information.

Table 3.3 presents the Pearson product-moment correlation coefficients for the two forms of the Alpern-Boll. Two of the subscales (Academic Age and Communication Age scales) and the IQ equivalency score show good correlation coefficients for the two forms. These three correlation coefficients assume even more significance in light of the previous discussion concerning restriction of ranges, a factor which can be expected to artificially lower these coefficients also. The three scales with relatively low correlation coefficients (Physical, Self Help, and Social Age Scales) do not seem to provide enough explained variance to make their inclusion as an alternative measure useful. While these correlation coefficients can also be expected to be lower than might be achieved with a better distribu ed range of cases, there appears to be considerable variability between scores that cannot otherwise

TABLE 3.3

CORRELATION COEFFICIENTS FOR THE ALPERN-BOLL DEVELOPMENTAL PROFILE PARENT ADMINISTERED FORM AND TEACHER ADMINISTERED SHORT FORM

Parent Administered \ Teacher Administered	IQ Equivalency	Physical Age	Self Help Age	Social Age	Academic Age	Communication Age
IQ Equivalency	0.69					
Physical Age		0.47				
Self Help Age			0.57			
Social Age				0.54		
Academic Age					0.74	
Communication Age						0.69

N=121 Significance >.001

be accounted for. Analysis of this variability suggests that baseline unfamiliarity with the child on the part of the teacher has resulted in excessive variation between the two forms of the Alpern-Boll. Although both the Academic Age scale and the Communication Age scale show correlations which are adequate, they are expected to be low estimates. If the excessive variability between the long and short forms of the Alpern-Boll is a consequence of teacher unfamiliarity with the actual capabilities of handicapped children at the beginning of a program year, then increased teacher familiarity should result in stronger long/short Alpern-Boll correlations at the end of the program year. Based on this assumption, Applied Management Sciences will continue with plans to use the short form of the Alpern-Boll to collect developmental data in those cases in which parents cannot be contacted during the posttest. However, Applied Management Sciences will also conduct another long form/short form posttest validity study similar to the one that was conducted during the pretest in order to verify the assumption of greater posttest correlation.

Summary and Conclusions. The most desirable alternative to the scheduled posttest parent interview with the Alpern-Boll is a second effort to locate and interview the parent at a more convenient time or location. However, in the event that it is not feasible, the short "teacher-form" of the Alpern-Boll could be effectively used. At present it appears that the analysis using this alternate form is limited to the use of the IQ equivalency score, the Academic scale and the Communication scale. This seems entirely possible since these are the three scales most frequently associated with school success and are likely to be included in most analysis efforts with the Alpern-Boll.

However, the teacher short form will again be administered to a sample of 120 during posttest data collection in order to examine the possibility of increased correlation between the two scales resulting from greater teacher familiarity with the child. Should an original respondent be unavailable for posttest data collection and should alternative methods to contact that respondent be unsuccessful, then the teacher administered short form of the Alpern-Boll will be used. The IQ equivalency score, the Academic Age, and the Communication Age scores of the short form should be used in the final data analysis effort. If posttest analysis reveals the expected increase in correlation coefficients, then it is possible that additional scales will be used as well.

MEASURES OF ATTITUDE TOWARDS MAINSTREAMING THE HANDICAPPED

Two attitude scales were constructed by Applied Management Sciences, Inc., for use in measuring relative attitudes toward the concept of mainstreaming handicapped children. The "Parent Interview Schedule" consists of nine items in which the questions to parents are phrased with respect to their child. The "Teacher Attitudes and Opinions Interview" consists of 19 items comprising two scales and yielding a total scale score. These items are not specific to a given child. Rather they refer specifically to the teacher and referenced handicapped children only in general.

Attitude toward some element of a program, whether by a parent or a teacher, may obscure or otherwise effect a child's performance on some measure, or could mask the effects of other elements of the program. Attitude is known to be a powerful correlate of many performance levels. It is not always clear whether a given attitude is produced by some performance, whether the performance is only made possible because of the attitude held by the individual, or whether the two interact delicately so as to continually modify each other. While the causal relationship is not always apparent, it is still important to describe how these attitudes differ with respect to certain demographic variables.

These two attitude scales were constructed in part from item pools developed by Applied Management Sciences and in part from other attitude measures. Because these scales are non-standard measures, it is also necessary to describe the measurement characteristics of each scale and to confirm both the content validity of the scales and the suitability of each scale to serve as a measure of the desired attitude.

"[illegible]rent Interview Schedule"

This nine item questionnaire assessed the parents' attitude toward having their child enrolled in a "mainstreamed" program compared with enrollment in a more specialized program with other handicapped children. Parents could respond to each item with "yes," "no," or "can't say." Responses that indicate a positive attitude toward mainstreaming were weighted with a score of 3, neutral responses received a 2, and negative responses received a 1. For scoring purposes, the nine items were summed. A score of 9 would be the lowest possible score indicating a negative attitude overall towards mainstreaming. A total score of 27 is the highest possible and indicates a positive attitude towards having a child placed in a mainstreamed program.

Table 3.4 presents the Pearson product-moment correlations for each item and the total score. Inter-item correlations are especially low while item-total correlations are considerably higher.

This suggests that the measurement content of each item has little overlap with other items, and that each item contributes some unique measure to the total score. Also, this suggests that the questionnaire is relatively efficient because it does not excessively duplicate content measurement, although the real utility of the scale is determined by its sensitivity to extraneous measurement error.

TABLE 3.4

PEARSON PRODUCT-MOMENT CORRELATION COEFFICIENTS FOR ITEMS AND TOTAL SCORE ON THE PARENT INTERVIEW SCHEDULE

Questionnaire Items	Total Score	Items 1	2	3	4	5	6	7	8	9
1. I feel my child could do better in a more specialized program for her/his type of handicap.	.53									
2. I think some children don't like to be in the same class with handicapped children	.50	.14								
3. I think my child gets along better at home since she/he has been in school with children who don't have handicaps.	.39	.07	.06							
4. I think it's best for handicapped children to be in a classroom with children who don't have handicaps.	.52	.15	.18	.09						
5. I think my child would have more friends if she/he were in a class of children with similar handicaps.	.49	.26	.19	.01	.13					
6. I think that handicapped children in classes with other children get along better with other people.	.45	.08	.06	.22	.31	.06				
7. Handicapped children are more like other children than different.	.39	.11	.12	.02	.13	.12	.11			
8. I think my child is afraid to try when she/he is competing with other children.	.39	.18	.17	.06	.06	.22	.01	.05		
9. I think children without handicaps are less likely to make fun of handicapped children if they're in the same class together.	.41	.13	.08	.12	.16	.02	.16	.06	.03	

N = 481 (number of mainstreamed children)

Extraneous measurement error could occur when some other variable is also being measured by the questions. For example, a child who doesn't like <u>big</u> dogs, may report that he/she doesn't like <u>dogs</u> when questioned about several large animals, including dogs. If a conclusion were made that this child does not like dogs, it would only be

partially correct, since there is considerable measurement error present in the way the child qas questioned. The "Parent Interview Schedule" is designed to assess the attitude of parents towards mainstreaming their handicapped child. There is one extraneous, but related, variable which could affect measurement of this construct: the attitude of the parent toward the specific program the child is enrolled in. Two measures of this are provided in the parent interview instrument. One question asks if the parent believes the child will benefit from the program they are enrolled in. Responses range on a four item scale from "greatly" to "no." The second question asks if the parent believes the current program is the best one available (responses; yes = 1, no = 2).

Table 3.5 presents the correlation coefficients of each item with the total score controlling for (partialling out) the effects of these two questions. The table shows very little change in correlation coefficients from the first order coefficients presented in Table 3.4. This indicates that parental attitude toward mainstreaming as measured by the "Parent Interview Schedule" is free from the confounding effects of their attitude toward the specific program their child is enrolled in. A similar analysis of this scale controlling for the effects of whether the child is mainstreamed or not is not possible, since this scale was not administered to parents of non-mainstreamed children. The scale was not administered in order to keep respondent burden to a minimum, to avoid raising this issue with parents whose children were in self-contained or segregated programs, and because data from this group were not required for the specified analysis plan.

Summary and Conclusions. The nine item "Parent Interview Schedule" is an efficient measure of parental attitude towards mainstreaming a handicapped child and is not confounded by the attitude of the parent towards the specific program the child is enrolled in. The "Parent Interview Schedule" is a brief but efficient measure of parental attitude towards the mainstreaming of a handicapped child.

TABLE 3.5

SECOND ORDER CORRELATION COEFFICIENTS FOR ITEMS WITH THE TOTAL SCORE ON THE PARENT INTERVIEW SCHEDULE CONTROLLING FOR PARENT ATTITUDES TOWARD THE SPECIFIC PROGRAM

Questionnaire Items	Controlling for "Best Program" Total Score	Controlling for "Benefit from Program" Total Score	Controlling for Both Total Score
1. I feel my child could do better in a more specialized program for his/her type of handicap	.51	.47	.48
2. I think some children don't like to be in the same class with handicapped children	.51	.37	.49
3. I think my child gets along better at home since she/he has been in school with children who don't have handicaps	.38	.37	.37
4. I think it's best for handicapped children to be in a classroom with children who don't have handicaps	.52	.49	.50
5. I think my child would have more friends if she/he were in a class of children with similar handicaps	.49	.48	.48
6. I think that handicapped children in classes with other children get along better with other people	.44	.44	.44
7. Handicapped children are more like other children than different	.40	.39	.40
8. I think my child is afraid to try when she/he is competing with other children	.40	.38	.39
9. I think children without handicaps are less likely to make fun of handicapped children if they're in the same class together	.41	.40	.41

N = 481 (number of mainstreamed children)

"Teacher Attitudes and Opinions Interview"

This attitude measure is comprised of a total of 19 questions; there are two scales. Scale I contains 13 questions and assessed general attitude towards the handicapped child. Scale II contains 6 questions and assessed the teacher's view of obstacles or impediments to mainstreaming the handicapped child. All questions on the "Likert type" measure were summed for scale scores and for the total score.

Scale construction involved sorting relevant questionnaire items from a pool of 62 possible items based on specialists judgment of of the content validity of each item. The item pool was derived from the Teacher Opinions of Special Education and Special Pupils scale developed by Bruce Bau, Warren Gleckel and Idajean Windell (1975). Administration time for the item pool scale was considered too lengthy and also contained some irrelevant information. Questionnaire items (shown in Table 3.6) were selected to fall into the

TABLE 3.6

QUESTIONNAIRE ITEMS FOR THE "TEACHER ATTITUDES AND OPINIONS INTERVIEW"

1. I like to work with handicapped children.	11. It seems to me that handicapped children tend to "give up" in the regular classroom setting.
2. I feel it is good for the normal children to be in the same classroom as handicapped children.	12. The integration of handicapped children in regular classes slows down the learning of the other children in my class.
3. Working with handicapped children takes too much classroom time away from normal children.	13. Planning instruction for both handicapped and normal children demands too much additional teacher preparation time.
4. I think mainstreaming is harmful to normal children.	14. I think handicapped children should be mainstreamed, but they should have teachers with more special training than I have.
5. It's hard for me to make handicapped children feel "at home" in my class.	15. Handicapped children are more like normal children than they are different.
6. I feel mainstreaming is harmful to many handicapped children.	16. I think that normal and handicapped children get along well with one another.
7. For me working with handicapped children is difficult in a regular classroom setting.	17. It seems to me that handicapped children are withdrawn around the normal children in the class.
8. It seems to me that handicapped children learn more in special classes that do not include normal children.	18. I think normal children do not try as hard around handicapped children.
9. I feel that handicapped children need to be made aware of their limitations.	19. Being in the same class with normal children helps the social development of handicapped children.
10. I am afraid of working with some handicapped children.	

two categories of "impediments to mainstreaming" and "attitudes toward mainstreaming" in order to shorten the administration time. Since the validity of using these two scales separately or as a summed total has not been determined, the following analyses from the baseline data are directed towards verifying the utility of this scale. Table 3.7 presents the Pearson product-moment correlations for the scales and the total scale.

TABLE 3.7

PEARSON PRODUCT-MOMENT CORRELATIONS FOR THE TEACHER ATTITUDES AND OPINIONS INTERVIEW

	Total	Scale I	Scale II
Total	*	*	*
Scale I	.98	*	*
Scale II	.84	.68	*

N=674

The correlation between Scale I and Scale II shows a positive relationship. As the teacher identifies fewer obstacles and impediments to mainstreaming handicapped children (Scale II) their attitude, in general, towards handicapped children (Scale I) is more positive. Scale I is the longer scale (13 items) and, as expected, shows a slightly stronger relationship with the total score.

While Scale I and II show a positive relationship (r=.68) there is enough unique or unexplained variance ($1-r^2=54\%$) to justify separate considerations for analysis purposes. This is further indicated by the difference in correlation cofficients for each scale with the total. The population of respondents who provided the attitudinal information for these scales do not show evidence of range restrictions on this variable. Therefore, for psychometric purposes of determining alternate form reliability (such as this) a correlation of .80 or higher would be deemed desirable. Overall this suggests that the two scales measure somewhat distinct attitudes and that summing the two scales for a single measure is not useful.

Table 3.8 presents statistical measures of the distribution for each scale. While superficial measures of the distributions for Scale I and Scale II appear to be additive with respect to the total score (indications of range for example), such indications do not follow for other measures. Both the standard deviation and standard error for each scale do not nearly approximate estimates of deviation and error which are much larger for the total scale.

TABLE 3.8

MEASURES OF DISTRIBUTION FOR THE TEACHER ATTITUDES AND OPINIONS INTERVIEW

Measures	Total	Scale I	Scale II
Range: Low	18.00	13.00	5.00
High	108.00	77.00	35.00
Standard Deviation	25.69	16.56	5.49
Standard Error	0.92	0.59	0.21
Skewness	0.85	0.61	-0.45

Additionally, the total scale appears to be considerably more skewed than would be suggested by combining the two scales.

Summary and Conclusions. As separate measures the two subscales of the "Teacher Attitudes and Opinions Interview" show some positive correlation with each other although leaving more variance "unexplained" than accounted for by the two measures. Summing the two scales to produce a single measure increases variability and produces a distribution for the total scale that is substantially different from either distribution for the two scales separately. In addition, the item content of the two scales differs enough in the type of information gathered to make combining the scales questionable. Scale I and Scale II of the "Teacher Attitude and Opinions Interview" should be treated as separate measures. A summed total should not be used in analysis efforts.

4

GROUP DIFFERENCES

INTRODUCTION

As indicated in Chapter 1, the study design for Phase II of the evaluation of Head Start services to the handicapped includes provisions for a comparative study of child-specific outcomes among three groups: children enrolled in Head Start programs, children enrolled in non-Head Start programs and children not enrolled in any program of services. Ideally, placement of children in each of these three groups should occur randomly to avoid confounding the study outcomes with systematic group biasis. However, random assignment of subjects in the present study was neither ethical nor economically feasible. Consequently, the proposed group comparisons may also require examination of differential outcomes. Even a cursory review of the distribution of handicapping conditions for each group (Chapter 2, Table 2.1) indicates that the groups are not equivalent in several respects. This will require the comparison of non-equivalent groups.

Much has been written about the pitfalls of analyses involving non-equivalent groups. Lord (1967) for example, goes so far as to say that "...there simply is no logical or statistical procedure that can be counted on to make proper allowances for uncontrolled preexisting differences between groups." Other writers such as

Porter and Chibucas (1974, 1975), Kenny (1975) Linn and Werts (1977), Tallmadge and Horst (1976) and Magidson (1977) approach the issue from a more positive standpoint, each suggesting various analytical strategies that should be considered in the non-equivalent group situation. Irrespective of the merits of the positions taken by these writers, though, the critical issue in study design using non-equivalent groups is the specification of the relevant dimensions which differentiate the study groups in question. Unless the analyst is confident that all such diversions are accounted for and that each can be measured with a reasonable degree of validity, non-equivalent group comparisons, no matter which adjustment strategy is utilized, will generate problematic conclusions at best.

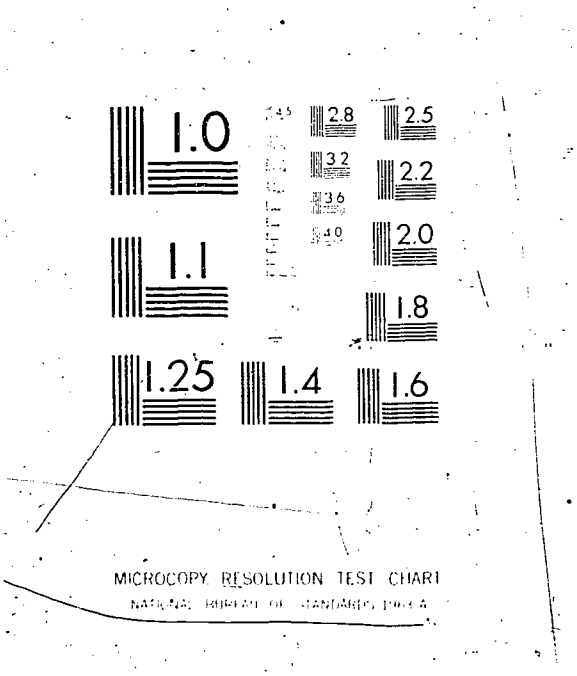
Therefore, the primary purpose of this chapter is to review all of the variables measured during the pretest data collection effort and determine those variables where differences between groups exist which will require special statistical consideration during pretest-posttest analyses. Variables reviewed for this purpose are the five key variable groups which were defined in Chapter 1.

A second function of this chapter is to guide data reduction efforts and the development of composite variables. This is a critical task for the study, since over 400 distinct variables have been identified for analytical consideration. This large number of variables affects the usefulness of the model (Chapter 1) in depicting causal relationships. Reducing the number of variables being considered, will improve the statistical strategies used to evaluate the model. Variables which add more variance than they explain, variables which contribute no significant effects, and variables which mask or obscure the effects of other variables must either be eliminated or controlled for (statistically or in the methodogical design). Clearly, many of these variables are high correlated and it may be possible to use one or two variables as "indicators" for an entire variable set (e.g., program characteristics). This would

greatly facilitate the efficient testing of the model presented in Chapter 1. In addition, many of the 400 variables may be invariant or uncorrelated with respect to outcome measures. If those measures which are uncorrelated with outcome measures are eliminated from consideration this would allow for the development of a simpler and more straightforward set of variables for analytical consideration.

Both issues of concern in this chapter were addressed concurrently utilizing the same analytical techniques. That is, an investigation of study group differences with respect to characteristics of the child and family also allowed an assessment of which variables could be reasonably eliminated from further analysis or replaced by composite variables, or other variables serving as "indicators". Therefore, this chapter is organized by the key variable groups (rather than by basic chapter issues):

personal characteristics of the child	developmental status (including social competency) • cognitive • social-emotional • motoric • self-help • language primary handicap/ severity level previous program experience chronological age
attitudes and characteristics of the child's family	family characteristics • structure • income • occupation • ethnicity


1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

contribute to developmental progress of the child. Four kinds of data were collected: demographic characteristics (education, salary, certification, and previous experience with the handicapped), values toward education and the center program (perceptions of organizational support and education values), attitude towards the concept of mainstreaming handicapped children, and class enrollment.

Demographic Characteristics

Five specific variables were identified as key demographic characteristics of teaching staff which might contribute to differences by program type or to the developmental progress of handicapped children.

Education level. Table 4.29 presents the educational levels of teachers for the sampled handicapped population. Dramatic differences are evident by program type. Most of the non-Head Start sample of teachers are college graduates (81.4%) compared with only about one third of the Head Start sample (38.9%). The modal educational level (most frequent) for Head Start teachers is "some college," for non-Head Start teachers it is "post graduate study." Only 3.4 percent of the non-Head Start sample have a high school degree as their highest level of educational attainment, compared with 10.8 percent in Head Start.

TABLE 4.29

DISTRIBUTION OF PROGRAM TYPE BY EDUCATION LEVEL OF TEACHER

Education Level of Teacher	Program Type	
	Head Start % of Column	Non-Head Start % of Column
Total	100.0 (N=429)	100.0 (N=353)
Some High School	3.3 (N=14)	*
High school Graduate	7.5 (N=32)	3.4 (N=12)
Some College	40.3 (N=173)	13.3 (N=47)
Associate Degree	10.0 (N=43)	2.8 (N=10)
Bachelor's Degree	21.7 (N=93)	31.4 (N=111)
Postgraduate Study	17.2 (N=74)	49.0 (N=173)

This dramatic difference in level of education is coupled with additional differences in specialization areas. Table 4.30 shows that almost half of the non-Head Start teachers (44.2%) have degrees in special education, compared with only 5.1 percent of Head Start teachers. The most common degree area in Head Start is early childhood education.

TABLE 4.30
DISTRIBUTION OF PROGRAM TYPE AND SPECIALIZATION AREAS FOR COLLEGE GRADUATES

Specialization Area	Program Type	
	Head Start % of Column	Non-Head Start % of Column
Total	100.0 (N=429)	100.0 (N=353)
NO DEGREE	49.4 (N=212)	13.3 (N=47)
Special Education	5.1 (N=22)	44.2 (N=156)
Early Childhood Education	26.1 (N=112)	18.1 (N=64)
Other Degree Area	13.5 (N=58)	22.9 (N=81)
Not Specified	5.8 (N=25)	1.4 (N=5)

This educational level and specialization information indicates that non-Head Start programs tend to employ college educated special education personnel, while Head Start programs tend to employ non-college degreed teachers. While this indicated significant differences in the type of teaching staff, it may also reflect even more important differences in the programs themselves. This is discussed in greater detail in the section on PROGRAM CHARACTERISTICS.

Certification. Table 4.31 shows programs with State certified teachers. One fourth as many Head Start teachers (13.8%) are certified by their State education agency as are non-Head Start teachers (56.1%). Again, this difference may reflect more important and overriding program differences, and is discussed in more detail later.

TABLE 4.31

DISTRIBUTION OF PROGRAM TYPE BY TEACHER CERTIFICATION

Teacher Certified by State For Teaching Handicapped Children	Program Type	
	Head Start % of Column	Non-Head Start % of Column
Total	100.0 (N=429)	100.0 (N=355)
Yes	13.8 (N=59)	56.1 (N=198)
No	86.2 (N=370)	43.9 (N=155)

Experience with preschool handicapped. Teachers in both types of programs appear to have essentially similar backgrounds with preschool handicapped children. This is shown in Table 4.32. Only 13.9 percent of Head Start teachers and 9.4 percent of non-Head Start teachers have had no previous experience with handicapped preschoolers prior to the current program they are teaching in. While the non-Head Start sample has had slightly more volunteer experience (36.8% compared with 27.0%) the amount of teaching and classroom aide experience is very similar. Although the types of experience and contact does not appear to be different for the two programs, there are small differences in the overall amount of experience. Table 4.33 shows the years of experience working with handicapped children. Head Start programs tend to have fewer teachers with less than one year experience (9.8% compared with 17.3% for non-Head Start teachers) and more teachers with five years or more experience (33.3% compared with 22.9%). In other words, the element of teaching experience with the handicapped preschool child tends to favor Head Start. This may reflect age differences of teachers, rates of personnel turnover, or other differences related to characteristics of the programs themselves.

TABLE 4.32

DISTRIBUTION OF PROGRAM TYPE BY TYPE OF PRIOR EXPERIENCE WITH HANDICAPPED CHILDREN FOR TEACHERS

Type of Prior Experience With Handicapped Children	Program Type	
	Head Start % of Sample* N=429	Non-Head Start % of Sample* N=353
Total	100.0 (N=429)	100.0 (N=353)
No previous experience	13.9 (N=60)	9.4 (N=33)
Volunteer experience	27.0 (N=116)	36.8 (N=130)
Teaching	61.8 (N=265)	58.6 (N=207)
Aide	21.5 (N=92)	19.8 (N=70)
Parent	14.5 (N=62)	7.1 (N=25)
Sibling	3.9 (N=17)	4.5 (N=16)
Other	17.5 (N=75)	41.1 (N=145)

*Respondents could have experience in more than one category, so totals do not sum to sample N.

TABLE 4.33

AMOUNT OF PREVIOUS EXPERIENCE WITH PRESCHOOL HANDICAPPED CHILDREN BY PROGRAM TYPE

Amount of Experience	Program Type	
	Head Start % of Column	Non-Head Start % of Column
Total	100.0 (N=429)	100.0 (N=353)
Less than 1 year	9.8 (N=42)	17.3 (N=61)
1 to 2 years	23.8 (N=102	26.6 (N=94)
3 to 5 years	33.1 (N=142)	33.1 (N=117)
More than 5 years	33.3 (N=143)	22.9 (N=81)

Salary. Teacher salary is shown in Table 4.34. As might be expected from differences in the education levels, there are pronounced differences in salary levels for Head Start and non-Head Start programs. Very few Head Start teachers (4.9%) receive a salary in excess of $12,000 while 17 percent of non-Head Start teachers receive salaries at that level. Many Head Start teachers (40.6%) receive less than $5,000 while only 7.1 percent of non-Head Start teachers are paid that amount. The difference is best illustrated by the fact that 70 percent of Head Start teachers receive less than $7,000 while 73.7 percent of non-Head Start teachers receive more than $7,000.

TABLE 4.34

DISTRIBUTION OF PROGRAM TYPE BY TEACHER SALARY

Teacher Salary	Program Type	
	Head Start % of Column	Non-Head Start % of Column
Total	100.0 (N=429)	100.0 (N=353)
Unspecified	0.5 (N=2)	1.4 (N=5)
$ 5,000 or less	40.6 (N=174)	7.1 (N=25)
$ 5,000 to $ 7,000	30.8 (N=132)	17.8 (N=63)
$ 7,000 to $10,000	16.8 (N=72)	34.3 (N=121)
$10,000 to $12,000	6.5 (N=28)	22.4 (N=79)
Over $12,000	4.9 (N=21)	17.0 (N=60)

Class enrollment

Table 4.35 presents average class enrollments for each program. The special education emphases which were discussed earlier in educational specialization areas, are again reflected in the enrollment figures. Head Start children are predominately non-handicapped

TABLE 4.35

MEAN ENROLLMENTS FOR HANDICAPPED AND NON-HANDICAPPED CHILDREN BY PROGRAM TYPE

Children	Program Type: Head Start Mean per Class	Program Type: Non-Head Start Mean per Class
All children per class	21.1	13.1
Non-handicapped per class	17.4	2.3
Handicapped only per class	3.7	10.8

with an average of only 3.7 handicapped children per class. On the other hand, the non-Head Start children are predominately handicapped. They average 10.8 handicapped children in each class of 13 children. The non-Head Start classrooms tend to be staffed by special education teachers (who are incidentally considerably better paid than Head Start teachers) and tend to deal almost exclusively with handicapped children.

Since initial review of these six demographic variables indicates that they all show strong potential for differentiating between the two program types, a discriminate analysis was computed to determine the key variables. These data are presented in Table 4.36. All of the prespecified variables show statistical significance as predictors for the discriminate function, which is relatively powerful (Wilks' Lambda = 0.4514; Chi square = 659.485, significance $<.000$) and explains 57.3 percent of the variance (cannonical correlation = .757; r^2 = .573). Almost 90 percent of the teachers are correctly classified by program type using this discriminate function. This extremely high rate of classification indicates that each of the specified variables have substantially different effects for each program.

Because it is necessary, for practical purposes, to reduce the number of variables considered for inclusion in the final analysis effort, one variable may be considered for elimination: certification of the teacher. Table 4.36 shows that the first three variables (handicapped enrollment, total enrollment and teacher salary) each

TABLE 4.36

DISCRIMINATE FUNCTION TO PREDICT TYPE OF PROGRAM MEMBERSHIP FOR DEMOGRAPHIC CHARACTERISTICS OF TEACHERS

Variables	F Statistic	Wilks' Lambda	Significance	Standardized Discriminate Coefficients	Significance of Change by Adding This Variable
Handicapped Enrollment	312.116	.7142	<.001	+ .5956	<.000
Total Enrollment	323.188	.5048	<.001	- .5508	<.000
Teacher Salary	104.417	.4451	<.001	+ .2616	<.000
Teacher Educational Level	8.449	.4403	<.001	+ .0736	<.000
Experience with Preschool Handicapped Children	6.342	.4367	<.001	- .0761	<.000
Certified	4.163	.4314	<.001	- .0675	=.002

Wilks' Lambda = 0.4314
Chi Squared = 659.485
Significance = <.000
Canonical Correlation = .757
r^2 = .5730 or 57.3% variance explained

Actual Membership	Predicted Membership	
	Non-Head Start % of Row	Head Start % of Row
Non-Head Start	87.0 (N=307)	13.0 (N=46)
Head Start	7.7 (N=33)	92.3 (N=396)

Percent correctly classified (corrected for unequal group size) = 89.9%.

substantially reduce Wilks' Lambda (the measure of power for the discriminate function). Although the other three variables (education level, experience, and certification) all contribute "change" in the function which is statistically significant, they do not greatly reduce Wilks' Lambda either individually or as a group. Since the purpose of calculating the discriminate function is to identify those few key variables which differentiate between groups (rather than creating a prediction equation), one of these latter three variables should be discounted from the final analysis effort: certification of teacher. Inclusion of the first three variables accounts for almost all available variance, and two of the latter three variables add slightly to the power of the function.

Attitudes and Values of Teachers

Three measures of attitudes and values toward education and toward the specific program the teacher works in were used. Two measures were obtained from the two scales contained in the Schaefer Teacher Inventory. The "General" scale assesses attitudes towards parents, conferences, and roles of the parents and home environment in the child's learning. The "Education" scale assesses attitudes toward authority, learning styles and discipline. The third measure is the Schaefer Teacher Perception of Center Environment which assesses the teacher's perceptions of organizational support, control, and climate. Differences between programs have already been detailed in terms of selection biases for the population served, family characteristics, and certain demographic characterizations of teachers. To the extent that teacher attitudes, which can be expected to affect developmental progress of the child, differ with respect to program type; then the true effects of the program are additionally obscured by the attitudinal variables of teachers. The following review is intended to identify those attitudes which differ by type of program.

Schaefer Teacher Inventory

Table 4.37 shows the mean scores of each of the Schaefer Teacher Inventory scales by program type. The largest mean difference occurs on the second scale of the "general" section (importance of home learning; mean difference = .75) and on the third and fourth scales of the "Education" section (children learn passively and children should be treated uniformly; mean differences 2.45 and 3.46 respectively). These differences reflect significant attitudinal variation by program type. Head Start teachers consistently show more positive attitudes in these areas than non-Head Start teachers.

TABLE 4.37

MEAN SCORES ON SCHAEFER TEACHER INVENTORY BY PROGRAM TYPE

Schaefer Teacher Inventory Scales**	Program Type: Head Start Mean Score	Program Type: Non-Head Start Mean Score	Minimum Possible Score	Maximum Possible Score
GENERAL				
Uselessness of p-t conferences	4.39	4.19	3 (disagree)	15 (agree)
Importance of home learning	11.88	11.13	3 (disagree)	15 (agree)
Skills and comfort with parents	13.30	12.89	3 (disagree)	15 (agree)
Parents' appreciation of teachers	12.89	12.29	3 (disagree)	15 (agree)
Difficulty with parents of children with problems	6.05	6.83	3 (disagree)	15 (agree)
Reluctance to teacher parents	5.03	5.16	3 (disagree)	15 (agree)
Discomfort with parents	5.28	5.71	3 (disagree)	15 (agree)
EDUCATION				
Parental authority is absolute	8.28	7.00	3 (disagree)	15 (agree)
Children basically good	12.56	11.42	3 (disagree)	15 (agree)
Children learn passively	*10.81	8.36	3 (disagree)	15 (agree)
Children should be treated uniformly	*17.53	14.07	5 (disagree)	25 (agree)
Irritability with children	8.86	8.92	3 (disagree)	15 (agree)
Teacher's authority is absolute	11.45	10.11	4 (disagree)	30 (agree)

*Scales with the largest mean differences.

**High scores reflect more positive attitudes; low scores reflect more negative attitudes. Because some scales have a different number of items, and therefore different high-low ranges, scores on one scale cannot always be compared to scores on another scale.

Schaefer Teacher Perception of Center Environment

The mean scores for the three scales of this measure are presented in Table 4.38. The participation-non-participation scale shows the largest mean difference (3.99) with Head Start teachers indicating a higher feeling of participation in center activities. This would seem to be an important morale area and differences by program type could be important to control for.

A separate discriminate function was calculated on these attitude scales to verify indications that certain attitude variables were differentially represented in each program. These data are presented in Table 4.39. A total of 11 variables contributed significant effects to the d scriminate function which only reduced

TABLE 4.38

MEAN SCORES FOR THE SCHAEFER TEACHER PERCEPTION OF CENTER ENVIRONMENT BY PROGRAM TYPE

Schaefer Teacher Perception of Center Environment**	Program Type	
	Head Start Mean Scores	Non-Head Start Mean Scores
Internal Support-nonsupport	54.32	52.28
Participation-nonparticipation*	35.92	31.93
Control-Compliance	43.79	40.95

*Largest mean difference.

**High scores reflect more positive attitudes; low scores reflect more negative attitudes. Because each scale has a different number of items, and therefore different high-low ranges, comparisons can only be made relative to one scale at a time. Scores on one scale cannot be compared to scores on another scale.

TABLE 4.39

DISCRIMINATE FUNCTION TO PREDICT TYPE OF PROGRAM MEMBERSHIP FOR ATTITUDES/VALUES OF THE TEACHER

Variables	F Statistic	Wilks' Lambda	Significance	Standardized Discriminate Coefficients	Significance of Change by Adding This Variable
Children Learn Passively	104.850	.8815	<.000	- .5344	<.000
Participation	39.233	.8839	<.000	- .3478	<.000
Importance of Home Learning	16.481	.8218	<.000	- .2659	<.000
Children should be treated uniformly	12.237	.8091	<.000	- .2727	<.000
Children are basically good	5.786	.8031	<.000	- .1732	= .007
Teacher authority is absolute	3.993	.7989	<.000	+ .1859	= .025
Uselessness of parent conference	2.945	.8959	<.000	- .1833	= .054
Parent appreciation of teacher	4.642	.7912	<.000	- .1207	= .015
Difficulty with parents of problem children	2.469	.7887	<.000	+ .1060	= .076
Irritability with children	1.764	.7869	<.000	+ .0965	= .132
Control-Compliance	1.065	.7858	<.000	- .0837	= .240

Wilks' Lambda = 0.7858
Chi Squared = 186.697
Significance = .0001

Canonical Correlation = .463

r^2 = .2144 or 21.4% variance explained

Actual Membership	Predicted Membership	
	Non-Head Start % of Row	Head Start % of Row
Non-Head Start	66.9 (N=236)	33.1 (N=117)
Head Start	26.6 (N=114)	73.4 (N=315)

Percent correctly classified (corrected for unequal group size) = 70.5%.

Wilks' Lambda to .7858 and only explains 21.4 percent of the variance in program membership (canonical correlation = .463; r^2 = .214). While all 11 variables have statistically significant effects, only the first four variables (children learn passively, participation, importance of home learning, and treat children uniformly) have change effects greater than .001 probability. These first four variables reduce Wilks' Lambda to .8091 and the addition of all other seven variables to the function only results in an additional reduction to .7858. For purposes of simplifying analysis efforts, these first four variables should be retained in efforts to statistically control for systematic program differences.

Attitudes Towards Mainstreaming

The Teacher Attitude and Opinion Interview was discussed in Chapter 3. The two subscales appeared to measure different attitudes and it was recommended that they be treated as independent measures. Scale I measures attitude towards the concept of mainstreaming and Scale II assesses the perception of constraints to mainstreaming efforts. Table 4.40 presents the mean scores for Scale I (attitude towards mainstreaming) by handicapping condition and program type.

TABLE 4.40

MEAN SCORES ON ATTITUDE TOWARDS MAINSTREAMING* BY PROGRAM TYPE AND HANDICAPPING CONDITION

Handicapping Condition	Program Type	
	Head Start Mean Score	Non-Head Start Mean Score
Visually impaired	31.8 (N=20)	19.5 (N=2)
Blind	26.0 (N=1)	24.5 (N=2)
Hearing impaired	26.7 (N=19)	37.1 (N=11)
Deaf	32.4 (N=5)	52.0 (N=2)
Physical handicap	25.7 (N=80)	38.0 (N=65)
Speech impaired	29.1 (N=124)	44.0 (N=54)
Health or developmentally impaired	27.1 (N=74)	42.9 (N=31)
Mentally retarded	28.8 (N=49)	50.9 (N=129)
Specific learning disability	33.0 (N=27)	38.1 (N=24)
Serious emotional disturbance	28.7 (N=30)	40.9 (N=33)

*Minimum possible score: 12 most positive attitude towards mainstreaming
Maximum possible score: 84 least positive attitude towards mainstreaming.

With the exception of some variability in the low incidence handicaps, the Head Start teachers show substantially lower scores (more positive attitude towards mainstreaming) than do non-Head Start teachers. Differences vary from as little as five points (learning disability) to as large as 22 points (mentally retarded). This more positive attitude toward the concept of mainstreaming may be due to any number of factors. Possible explanations could be that the populations serviced by Head Start are less severely handicapped so they are easier to mainstream; in-service training efforts may be more directed to this topic; mainstreaming occurs naturally within Head Start and it is therefore not a "new" concept; or the highly probable indication that all but a very few mainstreamed children are Head Start children only, therefore giving the Head Start teachers more experience and exposure to the mainstreaming issues. Regardless of the source of this attitude difference, the presence of the difference is important.

This attitude difference between Head Start and non-Head Start programs documents effects of the programs which are demonstrably different. It will be crucial to statistically control for these differences when conducting comparisons between-groups. This pretest attitude difference also suggests that when conducting within-groups analyses for pretest-posttest differences, the results may be expected to vary by program type--non-Head Start programs can improve (have more positive attitudes) quite a bit more than Head Start programs who already have positive attitudes.

Mean scores for Scale II (perceived constraints to mainstreaming) are shown in Table 4.4I. Mean differences are very small for this measure. A difference of 2.5 is the largest (for mentally retarded) and most differences are 1.0 or less. Differences between programs are not large enough to consider efforts for statistical controls to be warranted. However, since a more favorable attitude towards mainstreaming is often a desired goal of many programs, even small changes in attitude toward mainstreaming (as measured by Scale I) may improve the "treatment effects" of each

TABLE 4.41

MEAN SCORES ON PERCEIVED CONSTRAINTS TO MAINSTREAM* BY PROGRAM TYPE AND HANDICAPPING CONDITION

Handicapping Condition	Program Type	
	Head Start Mean Score	Non-Head Start Mean Score
Visually impaired	26.3 (N=20)	27.5 (N=2)
Blind	24.0 (N=1)	26.0 (N=2)
Hearing impaired	25.7 (N=19)	24.6 (N=11)
Deaf	19.8 (N=5)	20.0 (N=2)
Physical handicap	26.6 (N=80)	25.7 (N=52)
Speech impaired	25.8 (N=124)	24.7 (N=55)
Health or developmentally impaired	26.5 (N=74)	25.0 (N=30)
Mentally retarded	25.4 (N=49)	22.9 (N=129)
Specific learning disability	24.5 (N=27)	23.5 (N=24)
Serious emotional disturbance	25.2 (N=30)	23.9 (N=9)

*Minimum possible score: 5 (Large number of perceived constraints)
Maximum possible score: 35 (Few perceived constraints)

program over a long period. Attitudes of long standing however, change slowly and sometimes very minutely, if at all. If there are certain other measures which may change more easily and which may also serve as precursors to changes or indicators of change in more deeply embedded attitudes, then it is possible that these other measures because of their sensitivity to early change, could serve as alternate measures. Scale II measures changes in the teachers identification of fewer obstacles to mainstreaming. To the extent that fewer perceived obstacles is an early indicator of attitude change toward mainstreaming then Scale II may provide an efficient measure for this. Since it may serve as a good indicator of early attitude changes which is in progress or is just developing, Scale II should be retained as a secondary dependent measure in order to estimate time-lagged effects.

Summary and Recommendations

Attitudes, values, and characteristics of teachers have no less importance in determining the eventual effects of a program, than does the curriculum that is taught to the child or the services received by the child and family. To the extent that programs select teachers with different characteristics, or by virtue of low rates of personnel turnover, they modify certain characteristics of their teachers, then the resulting "effects" of the respective programs are also modified. Where these differences can be detected, it is crucial to control for their systematic effects. Such differences were found in some key characteristics of teaching staff. These characteristics require statistical corrections in the analysis for between-group comparisons, and will require interpretation considerations for within-group comparisons. Those key characteristics are:

- Demographic characteristics--enrollment levels, teacher salary, teacher education level, and experience with preschool handicapped children vary dramatically by program type. Special statistical controls are necessary to equalize teachers on these variables and interpretations of the results will require caution.
- Attitudes toward education and parents--Four attitude indicators (children learn passively, participation, importance of home learning, and children should be treated uniformly) show major differences by program type, requiring statistical controls for group comparisons.
- Attitude toward mainstreaming--there are two findings of note on this measure:

    1. The attitude measure directly assessing the concept of mainstreaming suggests substantial differences by program type. However, since mainstreaming is almost totally confounded by program type (Table 4.46) for purposes of group comparisons, mainstreaming will be considered as a treatment effect (this is discussed in greater detail in the next section, PROGRAM CHARACTERISTICS).
    2. The attitude measure assessing precursor attitudes (obstacles to mainstreaming) shows no group differences, but may serve as a time-lagged estimate of potential changes in attitudes toward mainstreaming. This measure will be retained as a secondary dependent variable.

CHARACTERISTICS OF PROGRAMS

Certain characteristics of the programs sampled for the study may have significant effects on outcome measures or may be systematically different for Head Start and non-Head Start programs. Such characteristics as the size of the program, the amount of available funds, or the amount of staff for example, could systematically effect the amount or quality of services provided to the handicapped child. Since such differences in instruction are presumed to effect developmental progress as assessed by the dependent measures, it is crucial to identify differential program effects and to control for their systematic effects. Data on two types of program variables were collected on a subset of participating programs. Some programs were unable to supply the necessary data. Those variables were: characteristics of the programs (enrollment levels, budgets, mainstreaming options, and staff); and adjunctive variables to programs (amount of parent participation, training, and related services).

Characteristics of Programs

These demographic characteristics roughly categorize programs by variables which tend not to fluctuate from year to year and are generally stable throughout any given year. While a given program might make changes in curriculum materials from one year to the next, for example, that program tends not to change curricula frequently during an academic year. Five specific variables are addressed in this regard: budget, enrollment levels, curriculum, training needs, and mainstreaming options.

Budget. Table 4.42 presents program budgets expressed as per-child expenditures and shows that the majority of Head Start programs (56%) have expenditures within the $1,000 to $1,500 per child range. However, most of the non-Head Start programs have per child expenditures above $2,500 (64.9%). These differences in the relative expenditures per child reflect substantial differences in the capability of some programs to utilize other resources, maintain teaching staff, provide training, and conduct other upgrading activities.

TABLE 4.42

PER CHILD EXPENDITURES BY PROGRAM TYPE

Budget	Program Type	
	Head Start % of Column	Non-Head Start % of Column
Total	100.0 (N=53)	100.0* (N=48)
$ 500 per child or less	9.4 (N=5)	12.5 (N=6)
$ 501 to $1,000 per child	5.6 (N=3)	2.1 (N=1)
$1,001 to $1,500 per child	56.6 (N=30)	4.2 (N=2)
$1,501 to $2,500 per child	20.8 (N=11)	16.7 (N=8)
$2,501 to $5,000 per child	5.6 (N=3)	22.9 (N=11)
Over $5,000 per child	1.8 (N=1)	41.7 (N=20)

*Two non-Head Start programs did not report these data.

Enrollment levels. Overall enrollment levels for programs are shown in Table 4.43. Almost all of the non-Head Start programs (91.5%) have total enrollments of less than 100 children, while Head Start programs are fairly equally distributed between less than 100 children and up to 1000. Given that many non-Head Start programs have smaller budgets than Head Start programs, this smaller overall enrollment is consistent.

TABLE 4.43

ENROLLMENT LEVELS BY PROGRAM TYPE

Enrollment Levels	Program Type	
	Head Start % of column	Non-Head Start % of column
Total	100.0 (N=53)	100.0* (N=47)
Less than 100 children	26.8 (N=11)	91.5 (N=43)
100 to 500 children	35.9 (N=18)	4.3 (N=2)
250 to 500 children	22.6 (N=12)	*
500 to 1,000 children	18.9 (N=10)	2.1 (N=1)
Over 1,000	3.8 (N=2)	2.1 (N=1)

*Three non-Head Start programs did not report these data.

Table 4.44 shows the enrollment of handicapped children. The frequency of high and low enrollments for handicapped children is consistent across program types. However, since the Head Start and non-Head Start programs have similar enrollments of handicapped children, but the non-Head Start programs have a smaller overall enrollment, then the higher concentration of handicapped children is in the non-Head Start programs. This indicates that the non-Head Start programs are actually segregated programs with few, if any, opportunities for mainstreaming for their handicapped children. This confirms the discussion of the previous section (ATTITUDES AND CHARACTERISTICS OF TEACHERS) in which average class enrollments (Table 4.35) were shown to be smaller for non-Head Start programs and to be comprised almost exclusively of handicapped children.

TABLE 4.44

HANDICAPPED ENROLLMENT LEVELS BY PROGRAM TYPE

Handicapped Enrollment	Program Type	
	Head Start % of column	Non-Head Start % of column
Total	100.0 (N=53)	100.0* (N=47)
Less than 25	50.9 (N=27)	55.5 (N=27)
25 to 50	24.5 (N=13)	29.7 (N=14)
50 to 100	18.9 (N=10)	8.5 (N=4)
100 to 300	3.8 (N=2)	4.2 (N=2)
Over 300	1.9 (N=1)	2.1 (N=1)

*Three non-Head Start programs did not report these data.

Mainstreaming Options. Information on the extent of mainstreaming used by each program was assessed from two sources: program directors who reported on the use of mainstreaming throughout their program; and the teachers report of whether the handicapped child being studied was mainstreamed or not. Table 4.45 presents the information reported by program directors on the availability and use of mainstreaming throughout their programs. According to these directors, all Head Start programs mainstream their handicapped children while one half of the non-Head Start programs

TABLE 4.45

NATURE OF MAINSTREAMING BY PROGRAM TYPE

Nature of Mainstreaming	Program Type	
	Head Start % of Programs	Non-Head Start % of Programs
Total	100.0 (N=53)	100.0 (N=47)
Not mainstreamed	*	56.3 (N=27)
Mainstreamed for Non-classroom activities	*	2.1 (N=1)
Mainstreamed	100.0 (N=53)	41.7 (N=20)
	% of mainstreamed only for each Program	
Complete mainstreaming of handicapped child into a regular classroom (no supportive services provided)	35.9 (N=19)	40.0 (N=8)
Complete mainstreaming of handicapped child into a regular classroom with supportive assistance provided by a specialist	79.3 (N=42)	60.0 (N=12)
Complete mainstreaming of handicapped children in a classroom where the regular classroom teacher and a special education teacher cooperatively work with all children (a team arrangement)	22.6 (N=12)	25.0 (N=5)
Reverse mainstreaming in which normal children become part of a special education class	5.7 (N=3)	15.0 (N=3)
Partial mainstreaming where handicapped children are in a special education class but go to mainstreamed classes for one or more regular classroom activities	15.1 (N=8)	30.0 (N=6)
Handicapped children receive services from your program but are not mainstreamed	7.6 (N=4)	35.0 (N=7)

provide mainstreaming. The one half of the non-Head Start programs who do not provide mainstreaming are categorical programs that only serve the handicapped. With the exception of one option category, the availability of mainstreaming options are very similar between program types. The option showing a slight difference is the lower frequency of non-Head Start programs (60%) which provide complete mainstreaming to the handicapped with assistance from a specialist, compared with the higher frequency for Head Start programs (79.3%).

The second source of information on mainstreaming is the child's teacher. These data are presented in Table 4.46. According to the teachers 98.8 percent of all Head Start handicapped children are mainstreamed compared with only 13.3 percent from non-Head Start programs.

TABLE 4.46

DISTRIBUTION OF PROGRAM TYPE BY WHETHER THE CHILD IS MAINSTREAMED--AS REPORTED BY THE TEACHER

PROGRAM TYPE	% of Row	Mainstreamed % of Row	Not Mainstreamed % of Row
Head Start	100.0 (N=429)	98.6 (N=423)	1.4 (N=6)
Non-Head Start	100.0 (N=355)	13.3 (N=47)	86.7 (N=306)

For some reason, mainstreaming is used by the non-Head Start programs at a considerably lower rate than it is reported to be available. This may reflect severity level (the more severely handicapped the child the more difficult to mainstream) or the self contained (and probably isolated) nature of the non-Head Start programs. The non-Head Start programs, as relatively segregated programs, tend to be housed in facilities with their own support services. State or community mental hospitals, for example, have little mainstreaming opportunity.

Table 4.47 presents the distribution of severity level for each handicapping condition according to whether the child is mainstreamed or not. The percentage of children in each handicapping condition and at each level of severity who ARE NOT mainstreamed (those handicapped children who are in self contained or segregated classes) is subtracted from the percentage of children who ARE mainstreamed. The table shows the differences between the percent of non-mainstreamed and mainstreamed children for each handicapping condition and severity level. A negative difference (minus)

TABLE 4.47

DISTRIBUTION OF HANDICAPPING CONDITION BY SEVERITY OF HANDICAP FOR MAINSTREAMED COMPARED WITH NON MAINSTREAMED CHILDREN*

PRIMARY HANDICAPPING CONDITION	SEVERITY LEVEL OF HANDICAP			
	Mild	Moderate	Severe	Profound
Visually Impaired	+1.4	+14.1	-17.5	+ 5.3
Blind	----	----	----	----
Hearing Impaired	+47.4	+ 9.5	+1.4	-40.2
Deaf	----	----	----	0
Physically Handicapped	+15.9	+13.8	-15.4	-19.2
Speech Impaired	+34.4	+ 6.5	-4.7	-16.2
Health or Developmentally Impaired	+17.3	-17.7	-1.1	+ 1.4
Mentally Retarded	+19.9	-11.1	+0.7	-4.6
Specific Learning Disability	-9.7	+18.2	-3.3	-5.3
Serious Emotional Disturbance	+20.9	-0.5	-23.1	+2.6

*(Percent of children with "X" handicap who are mainstreamed minus percent of children with "X" handicap who are not mainstreamed.

indicates that more children are in a segregated setting; a positive difference (plus) indicates that more children in this cateogy are mainstreamed.

The table shows that for some handicapping conditions the severity level and whether the child is mainstreamed or not are highly confounded. Hearing impaired, physically handicapped, speech impaired, and health or developmentally impaired all show consistent confounding by severity level and mainstreaming. If all "severely hearing impaired" cases are selected for special analysis, this would be almost the same as selecting only mainstreamed hearing impaired cases and the non-mainstreamed (or profoundly handicapped) would not be included in that selection. Any effects that would be identified could not clearly be attributed to the level of severity of the child, since the effects may also be the result of being enrolled in a mainstream program.

While it is important to distinguish between the effects of programs, the effects of mainstreaming, and the effects of levels of severity, to a certain extent these effects can only be estimated from the given data. Since mainstreaming is confounded by

program type. (98% of all Head Start programs mainstream their children compared with only 13% of non-Head Start programs), mainstreaming itself must be considered as a treatment effect which is present in Head Start and absent in non-Head Start programs.

Also, evidence of small deviations tends to confirm earlier suspicions of some operational difficulty with the concept of "severity." For example, Table 4.47 shows that most "mildly learning disabled" are in segregated settings while most "moderately learning disabled" are in mainstream classes. As discussed previously, level of severity was ascertained via teacher judgment, and it can be expected that the criterion referent for severity level for mainstreamed teachers is different from teachers in a segregated setting. In other words, a teacher in a mainstream setting could be expected to rate the severity level of a given child differently from the severity level rating assigned to the same child by a teacher in a segregated setting. These variables (which show evidence of confounding) must be carefully considered in conducting between-group comparisons, and may deserve special posttest considerations.

Curriculum. Table 4.48 shows that the percentage of programs electing to use standardized curriculae is similar for both Head Start and non-Head Start programs (69.8% and 72.3% respectively). However, the non-Head Start programs appear to have many more standardized curriculae available to choose from. While the Peabody was selected by comparable percentages from both programs (72.9% and 67.7% respectively) the non-Head Start programs have much higher selection rates for all other curricular choices (with the notable exception of the LAP-C). Overall, it appears that the Head Start programs must make decisions concerning curriculum selection from a much smaller pool of curriculum resources. While not important to statistically control for, this information may be important in analyzing and interpreting the final study findings.

TABLE 4.48

TYPE OF CURRICULUM BY PROGRAM TYPE

Curriculum	Head Start % of Column	Non-Head Start % of Column
Total	100.0 (N=55)	100.0 (N=47)
Do not use any standardized curriculum with handicapped	30.2 (N=16)	27.7 (N=13)
Use standardized curriculum of one or more kinds	69.8 (N=37)	72.3 (N=34)
	% of Programs Using Standardized Curriculum for Each Program	
Portage	29.7 (N=11)	50.0 (N=17)
Peabody	72.9 (N=27)	67.7 (N=23)
Learning Accomplishment Profile - Curriculum	45.9 (N=17)	32.4 (N=11)
Cognitive (Ypsilanti)	10.8 (N=4)	5.9 (N=2)
Montessori	10.8 (N=4)	26.5 (N=9)
Frostig	5.4 (N=2)	55.9 (N=19)
Other Type	24.3 (N=9)	58.8 (N=20)

Adjunctive Program Variables

Certain variables are important to successful progress of the child, but which are indirectly related to direct services provided to the child by the program. These include parent participation, training needs, and the coordination of other services.

Parent Participation in Program Activities. Table 4.49 shows the extent of parent participation in the activities of the programs. (Table A4 in the Appendix presents the types of activities parents participate in by program type.) There are no substantial differences in the extent of particpation by type of program nor in the types of activities (see appendix). While this variable can be ignored for purposes of between-group comparisons, it may be important in examining within group progress and differential effects of parent involvement efforts across programs. It is typical that extensive parent involvement is a goal of many preschool programs. To the extent that progress towards such a goal is important to assess, then pretest-posttest comparison within groups may be important.

TABLE 4.49

EXTENT OF PARENT PARTICIPATION BY PROGRAM TYPE

Extent of Participation	Program Type	
	Head Start % of Column	Non-Head Start % of Column
Total	100.0 (N=429)	100.0 (N=555)
No Participation	35.0 (N=150)	32.6 (N=115)
1 to 3 hours per month	37.5 (N=161)	40.5 (N=143)
2 to 3 hours per week	16.1 (N=69)	18.1 (N=64)
4 or more hours per week	11.4 (N=49)	8.8 (N=31)

Staff for the Handicapped Child and Training Requirements of Programs. The purposes for which staff are employed and their own perceived needs determined, to a large extent, inservice training requirements of the programs. Table 4.50 shows that programs who employ staff exclusively for working with the handicapped are primarily non-Head Start programs:

TABLE 4.50

PROGRAMS EMPLOYING STAFF EXCLUSIVELY FOR THE HANDICAPPED ONLY

Staff Employed for Handicapped Only	Program Type	
	Head Start % of Programs	Non-Head Start % of Programs
Total	100.0 (N=55)	100.0 (N=47)
Full-time teachers	26.4 (N=14)	82.9 (N=39)
Part-time teachers	24.5 (N=13)	42.6 (N=20)
Full-time resources staff	47.2 (N=25)	51.1 (N=24)
Part-time resource staff	43.4 (N=23)	59.6 (N=28)
Volunteers	24.5 (N=13)	44.7 (N=21)
No Staff employed for the Handicapped ONLY	22.6 (N=12)	12.8 (N=6)

82.9 percent employ fulltime teachers and 51.1 employ fulltime resource staff compared with 26.4 percent and 47.2 percent respectively for Head Start programs. This might initially suggest that

the non-Head Start programs are larger, service more children, and have larger staffs which are supported by larger budgets. However, as discussed previously they tend to have small enrollments and be funded at lower rates. The higher rate of fulltime staff for the handicapped confirms previous findings that these programs are more oriented to only handicapped children.

The finding is substantiated again from perceived training needs of the staff (Table 4.51). Major differences in perceived needs are in the areas of theory and practice of mainstreaming and in the understanding of handicapping conditions. Head Start teachers more frequently indicate training needs in these areas (65% and 73%) compared with non-Head Start teachers (34% and 26%). Considering the education and specialization areas (Tables 4.29 and 4.30) the needs identified in these "special education areas" are certainly appropriate for Head Start personnel who have very little, if any, special education training.

TABLE 4.51

DISTRIBUTION OF PROGRAM TYPE BY PREFERRED TRAINING NEEDS

Preferred Training Needs	Program Type	
	Head Start % of Row	Non-Head Start % of Row
Total	54.9 (N=429)	45.1 (N=353)
Knowledge of Head Start Performance Standards	54.7 (N=35)	45.3 (N=29)
Classroom Management	44.6 (N=95)	55.4 (N=118)
Individualized Instruction	59.9 (N=145)	40.1 (N=97)
Preparation of Individualized Learning Objectives	46.0 (N=97)	54.0 (N=114)
Working with Parents	58.8 (N=67)	41.2 (N=47)
Strategies to Recruit Handicapped Children	51.2 (N=43)	48.8 (N=41)
Screening and Assessment	44.1 (N=80)	55.9 (N=101)
Theory and Practice of Mainstreaming	65.2 (N=90)	34.8 (N=48)
Specific Training for Handicapped Conditions	58.1 (N=227)	41.9 (N=164)
Understanding Handicapping Conditions	73.8 (N=177)	26.3 (N=63)
Other	46.9 (N=8)	53.1 (N=9)

Related services. Many services provided to the child are not provided directly by the preschool program in which the child is enrolled. Table 4.52 shows that approximately one third of the children sampled receive additional services (33.1% of Head Start and 28.0% of non-Head Start). To the extent that these services

TABLE 4.52

DISTRIBUTION OF PROGRAM TYPE AND CHILDREN WHO RECEIVE ADDITIONAL SERVICES BEYOND THOSE PROVIDED BY THE PROGRAM

Receive Additional Services	Program Type	
	Head Start % of Column	non-Head Start % of Column
Yes	33.1 (N=142)	28.0 (N=99)
No	66.9 (N=287)	72.0 (N=254)
TOTAL	100.0 (N=429)	100.0 (N=353)

facilitate child growth and development those children receiving services may experience special effects of these treatments. It is possible that these related treatment effects might obscure more direct program related effects.

Table 4.53 presents information on the types of services typically coordinated by programs. All of the services appear to be utilized and coordinated equally by both Head Start and non-Head Start programs with the exception of those services oriented primarily to the poverty populations (food commodities, food stamps, medicaid, and special purpose agencies). As expected those are used more frequently by Head Start programs, and confirms previous findings that the population served by the two programs are markedly different in terms of needs and resources.

TABLE 4.53

COORDINATION OF SERVICES BY PROGRAM TYPE

Agency or Service Coordination Occurs With	Program Type: Head Start % of Programs (N=53)	Program Type: Non-Head Start % of Programs (N=47)
Private practitioner/consultant	86.8 (N=46)	82.9 (N=39)
Hospital	73.6 (N=39)	63.9 (N=30)
Health clinic or department (public or state)	92.5 (N=49)	85.1 (N=40)
Mental health clinic or department (public or state)	92.5 (N=49)	78.7 (N=37)
Medicaid	79.3 (N=42)	44.7 (N=21)
Food Stamps Program	69.8 (N=37)	19.2 (N=9)
Food Commodities	35.9 (N=19)	17.0 (N=8)
Special Purpose Agencies (Easter Seal, Crippled Children Association, etc.)	84.9 (N=45)	68.1 (N=32)
Planned Parenthood	45.3 (N=24)	25.5 (N=12)
Family counseling agencies	69.8 (N=37)	72.3 (N=34)
Day Care Program	56.6 (N=30)	57.5 (N=27)
Other Head Start programs	77.4 (N=41)	53.2 (N=25)
University affiliated facilities	79.3 (N=42)	76.6 (N=36)
Other	45.3 (N=24)	38.3 (N=18)

Summary and Recommendations

Review of these demographic program characteristics and adjunctive program variables confirms previous indications that the two program types are very different, both in terms of the populations served and in terms of the specific nature of the programs themselves. The following conclusions require analytic considerations:

- The mainstreaming effort for handicapped children is confounded with program type.
- Severity level is:
  1. confounded with mainstreaming and with program type;
  2. of suspect validity.
- Dramatic differences in several variables confirm differences in the scope and focus of programs and in the identified primary service populations:
  1. budget differences reflect differing levels of support;

2. curriculum resources vary markedly by program type;

3. perceived training needs, service coordination, and staffing patterns consistently indicate different service populations;

4. enrollment ratios of handicapped to non-handicapped children confirm differences in populations served.

One major objective of the study is to provide comparative judgements on the effects of Head Start and non-Head Start programs (and, where possible, a non-served group). To enable this type of comparison some special statistical and design considerations are necessary:

- In order for the effects of severity level to be statistically controlled for (eliminating one major confounding variable), valid estimates must be obtained. As stated earlier in this chapter, post-test data collection verify handicap severity.
- Analysis alternatives will be designed which allow for the anticipated difficulties in conducting all of the planned comparisons between groups. This could include:

  1. Conducting extensive within-groups analyses and making certain between-groups comparisons on a conceptual basis only with little (or no) direct statistical comparisons;

  2. Utilizing covariates (and, where possible, allowing a single variable to serve as a "proxy" for a group of variables) to statistically equalize groups.

CLASSROOM INTEGRATION

The Prescott-SRI Child Observation System was selected to be used in collecting data related to a major outcome variable of the study: children's behavior and social interactions. This variable was specified as a possible indicator of the impact a Head Start or non-Head Start program may have upon the handicapped children it serves. Additionally, the measure provided data which helped to describe the differential treatment effects of programs. For example, different types of programs may enable or encourage different kinds of child behaviors to occur at different frequencies. These differences in rates of occurrence may be related to program variables, such as pupil/teacher ratio or the ratio of handicapped to non-handicapped children in a given class. These observation data were recorded on all 782 handicapped children in the Head Start and non-Head Start samples as well as a group of 219 non-handicapped children.

The purpose of this section is to describe the procedures utilized in reducing the number of variables to be considered for analysis and to identify group differences between the Head Start and non-Head Start study samples for the Prescott-SRI data. As previously discussed, it is important to identify any pre-existing group differences so that statistical or methodological techniques can be utilized to control for these differences. This section includes a brief description of the observation instrument, a review of decisions related to analysis, a description of group differences by certain key variables, and a discussion of proposed data reduction techniques.

Description of the Prescott-SRI Child Observation System

This observation system is used to record the nature and kind of activities and social interactions in which children engage within the preschool environment. The Prescott-SRI Child Observation System is an especially complex and comprehensive system which

requires coding a specific child's (focus child) behavior every 12 seconds during two separate 20-minute observation periods. The coding of child behaviors on the Prescott-SRI occurs across three dimensions of behavior:

1. child activity codes
2. object of the child's attention
3. activity continuity.

1. The child activity codes contain four broad areas, each of which is considered as a continuum of possible categories. The four areas are:

- I - Integrates: Codes in this category were used to record active involvement with tasks or social situations. The target child accomplished this by continuing activities, structuring a task, studying a problem, or acting creatively.
- T - Thrusts/Initiates: Codes in this category were used to record behavior initiated by the focus child, for example, selecting an activity; asking for comfort, reassurance, or recognition; asking questions; giving information; or stating preference.
- R - Receives: Codes in this category were used to record inputs to the child and his/her reaction to inputs for which a response was expected. Inputs included statements of information, questions about facts, invitations to relate to others.
- D - Defends, Responds: Codes in this category reflected avoiding or ignoring, crying, anger, defending rights, and asserting ownership.

Within the continuum of possible categories for these four areas, there are 54 child activity codes. These child activity codes are presented in Table A6 in the appendix. Most of the child codes can be further specified in terms of the object of the focus child's attention (object code) and an index of continuity for the focus child's activity (continuity code). For example, if the focus child continues the activity of stringing beads, this would be coded "I2c-E-O." The "I2c" child code identifies bead stringing as

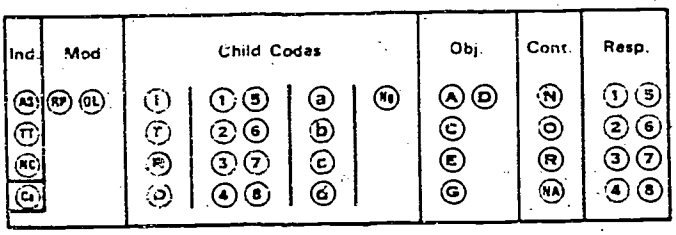
a closed, structured activity. The "E" refers to the focus of the child's attention (in this case the beads) which is designated as the "environment." The code "O" indicates that the child's activity is ongoing because in this situation there is continuity to the bead stringing behavior.

2. The object of a focus child's attention was designated by separate codes:

- A - an adult
- C - another child;
- G - a group of children with or without adults;
- D - a handicapped child or group of children including one or more handicapped children;
- E - environment.

3. Activity continuity was a final area in which the continuous nature of a child's behavior was examined. Activity continuity referred to whether the focus child was involved in an activity designated as new or ongoing, or whether the child was returning to a previous activity, or was not involved in any activity at all. In addition, for some of the "Receives" (R) codes it was possible to record the focus child's response tc the stimuli. For example, if another child asks the focus child if s/he would like a cracker; and the focus child says, "no, thank you," the activity would be coded "R_2-C-O-7." The "R_2" indicates that the focus child received an offer to share and the "C" designates that this offer was from another child. If this has happened during snack time the "O" could refer to the fact that snack was an ongoing activity. The "7" identifies "no, thank you" as an active and appropriate response to the offer.

These three behavior dimensions are represented in the recording booklet as illustrated below:



1. = Child Activity Codes
2. = Object Codes
3. = Continuity codes

The final column (4) is for the recording of the specific child response, if applicable.

For standardized recording observers were provided with a beeper timed at 12 second intervals to signify recording points. In addition, at the end of each 20-minute observation period, the observer completed an 11-item summary of more general behaviors displayed during the 20 minutes. (Table A5 in the appendix presents the summary coding forms.) The items covered in the summary coding included:

- program structure
- focus child's interaction and level of involvement with handicapped and non-handicapped children, and adults
- focus child's affect.

In summary, every 12 seconds, child activity data were coded by frame in the Prescott-SRI scoring booklet. Each frame included:

- child activity code
- object code
- continuity code
- response code, if applicable.

For each 20 minute observation period observers coded approximately 100 frames of child behavior. Two 20-minute periods were required for each child included in the study sample. The Prescott-SRI provided 54 different child activity codes, 5 object codes, 4 continuity codes, and 4 response codes which were utilized in recording the focus child's activities and interactions within the program environment. There are a large number of possible permutations of these child behavior codes (approximately 780 valid combinations). This large volume of variables must be reduced to a more manageable number.

Issues of Data Analysis and Reduction

Because the Prescott-SRI is being used both as a secondary dependent variable to show the effects of program treatments on certain child behaviors, and also as an independent variable to show the extent to which certain child behaviors can affect growth and development (as measured by the Alpern-Boll), there are four specific issues for consideration.

1. Reduction of the large quantity of observation codes to a small group (or a single indicator).
2. Identification of child codes which distinguish between program types.
3. Identification of similarities and differences in the nature and types of activities for observation codes.
4. Adequacy of reliability from observer to observer or session to session.

Subsample of "Normal" Children

In addition to the child code observation data which were collected on the handicapped Head Start and non-Head Start samples, the same kind of observation data was collected on a sample of non-handicapped children. The purpose of these data were to provide a reference group for the frequency counts of each behavior and also

to enable the development of an interval measure. These data were considered as a normative frame of reference for rates of child behaviors exhibited by non-handicapped ("normal") children. In addition this "normative" sample was used to create standardized scores.

Data Reduction

Data collected utilizing the Prescott-SRI yielded over 780 specific individual variables which relate to the nature and extent of social interactions and behaviors of handicapped children with their handicapped peers, normal peers, and adults. Since it is not feasible to utilize each individual variable, and since the measure of behaviors is in the form of frequency counts, there are two major data reduction tasks:

1. Reduce the quantity of variables,
2. Modify the nature of the measure for comparison purposes.

Key Variables: The first step in the process of identifying key variables in order to reduce the quantity of variables was to review the frequency distribution for all coded frames. These frames included all child activity, continuity, and object codes which were recorded for each child in the sample. If the rate of occurrence of any child behavior code was 100 or greater, that particular code was retained for the next variable reduction step. Child behavior codes with frequency counts of less than 100 were eliminated from consideration for the following reasons: (1) low frequencies were not sensitive to change, and (2) inclusion of low frequencies of child behavior codes could cause the data to be especially vulnerable to any systematic bias which might exist.

A total of 87 child behavior codes occurred with a frequency of 100 or more times. These 87 behavior codes were further examined by handicapping condition because it was felt that the low incidence handicaps (discussed previously) may be represented by

behavior codes with relatively low frequencies (between 500 and 100 total frequency count). In examining the frequency of child behavior codes by handicapping condition three primary criteria were considered for retaining a child behavior code:

(1) A high frequency of occurrence of the child behavior code (codes appearing 1,000 times or more).

(2) Evidence that the rate of occurrence of the behavior code varied by handicapping condition.

(3) Evidence that the frequency of a given behavior or that differences between handicapped groups was conceptually logical.

These are not mutually exclusive criteria. If only one of the criteria was met, or if there seemed to be a logical explanation (why blind children exhibited a specific behavior more frequently than children with other kinds of handicapping conditions, for example) then the child behavior code could still be selected for further analysis. Since blind and deaf children were less likely than other handicapped children to be involved in group activities where passive attention was demonstrated (listening to a story being read to a group, or listening to a record or tape), several behavior codes for these low incidence groups were in fact retained.

After application of these procedures and criteria, a total of 44 child activity and object codes were retained. These behavior codes either occurred with sufficient frequency, showed differences in frequencies by handicapping conditions, or were consistent with the general body of knowledge about behaviors of children with specific handicapping conditions. These selected codes are discussed in more detail later.

Comparability: Because the child observation data collected by this instrument is a frequency count for specific coded behaviors, the data are only meaningful relative to the frequency counts for

the same behavior code by other children. The transformation of these data to standardized scores also allows the data to more easily accommodate the analysis requirements. The complex path analysis model (proposed in Chapter 1) requires the use of an interval measure, and the transformation satisfies the requirements better than other alternatives.[1/] In order to insure comparability of the frequency counts (across behavior codes, and across other variables as well as other children), and in order to better meet the needs of the path analysis model, the frequency counts were transformed into standardized (Z) scores. Each frequency score was transformed using the formula for a standardized score:

$$Z = \frac{X-\overline{X}}{\sigma} = \frac{\text{Frequency Score - Mean Frequency}}{\text{Standard Deviation}}$$

Because the study population represents a restricted range in at least one known assessment area, it is highly probable that some of the behaviors being observed for by the Prescott-SRI represent areas where the range restriction issue would be a problem. (The problems with respect to range restrictions have been discussed previously in Chapter 3 and will not be reviewed here.) However, to avoid the range restriction problem with these data, and also in order to reference the "frequency counts" to some standard, the Z score transformation was conducted with data from a sample of non-handicapped children. The mean and standard deviation of each selected observation code from the non-handicapped sample were used to transform the frequency count for each handicapped child into a standardized Z score. The modified equation is:

$$Z_{\text{(for specific behavior code)}} = \frac{\text{Frequency Count (for Handicapped Child)} - \text{Mean Frequency (for non-handicapped sample)}}{\text{Standard Deviation (for the non-handicapped sample)}}$$

1/ While dummy variables can be used for categorical variables or essentially non-continuous data, they become cumbersome to the analysis effort when more than two or three are used.

To insure that the "non-handicapped sample" most closely approximated the full range of frequency counts for every selected observation code a small sample of handicapped children were included in this reference sample. Twenty-four children were randomly selected from the pretest data by handicapping condition in proportion to the incidence of that handicapping condition in the general population (6 speech impaired, 4 mentally retarded, 1 visually impaired, for example).

This transformation of the data provides a standardized score for each observation code which reflects the performance of the handicapped child in reference to the non-handicapped sample and also allows for comparability across behavior codes and other key variables such as handicapping condition. The transformation also better meets the needs of the analysis model.

Differences Between Programs

The Prescott-SRI contains over 700 usable codes for describing the behavior of the observed child in the program environment. As previously discussed, there are identifiable differences between Head Start and non-Head Start programs with respect to certain variables which can be expected to contribute to possible differences in the program environments. The level of education and salary of the teachers, for example, may result in teachers who structure their classrooms differently, encourage different levels of independence on the part of the child, or allow differing levels of adult-child interactions. An important difference in the programs, which has already been partially discussed is the mainstream nature of the Head Start programs compared with the more restrictive "special education" emphasis of the non-Head Start programs. The non-Head Start classrooms are comprised predominately of handicapped children and there is little opportunity for child-to-child interactions of a mainstream nature in these programs. Because the Prescott-SRI contains codes for observing the frequency of interaction between handicapped and non-handicapped children, and because

the availability of non-handicapped children differs so strongly (Head Start programs have many more non-handicapped children available), there is a strong indication to believe that the child interaction frequencies for some codes will vary substantially.

To examine this possibility another discriminant analysis was conducted using the 44 selected codes and the seven summary codes. The purpose was to examine the ability of the data to differentiate between Head Start and non-Head Start programs. The results of this analysis are presented in Table 4.54, and show that the resulting discriminant function predicts membership in program type with 85.6 percent[1/] accuracy. This suggests that programs do have substantial differences in the frequency of occurrence of certain observed behaviors. The discriminant function reduces Wilks' Lambda to .4704, indicating very good discriminating power, and includes twenty-six of the possible fifty-one codes (44 preselected codes and 7 summary codes). The canonical correlation of r = .728 is very high and explains over half of the variance (53.1%) for membership in program type.

While the discriminate function included 26 of the observation codes, only the first 12 meet the a prior limits for inclusion (significance of change by adding the variable <.000). The inclusion of the other 14 variables to the function only reduces Wilks' Lambda from .4905 to .4704, adding very little power to the function at the cost of more than doubling the number of variables used in the equation.

[1/] Corrected for unequal n per classification group.

TABLE 4.54: DISCRIMINATE FUNCTION TO PREDICT TYPE OF PROGRAM MEMBERSHIP FOR SRI CODES

Variables	F Statistic	Wilks' Lamba	Significance	Standardized Discriminate Coefficients	Significance of Change by Adding This Variable
1. NT8	344.128	0.6938	<.001	- 0.4209	<.000
2. ZOBJC	146.838	0.5838	<.001	+ 0.5429	<.000
3. ZOBJD	30.007	0.5621	<.001	- 0.1863	<.000
4. ZCONTINN	17.460	0.5294	<.001	- 0.1458	<.000
5. ZT4 D	10.141	0.5226	<.001	+ 0.0919	<.000
6. ZR3 A7	8.327	0.5170	<.001	- 0.1203	<.000
7. ZI6B E	6.792	0.5125	<.001	+ 0.0799	<.000
8. ZOBJA	6.842	0.5080	<.001	+ 0.3737	<.000
9. ZI6C E	7.093	0.5034	<.001	+ 0.2039	<.000
10. ZR7B C5	6.747	0.4990	<.001	+ 0.0732	<.000
11. ZCHLDCDR	5.999	0.4952	<.001	- 0.2161	<.000
12. ZI6B A	7.400	0.4904	<.001	- 0.1027	<.000
13. NT7	4.535	0.4876	<.001		.001
14. ZI6C D	3.609	0.4853	<.001		.001
15. ZI6B C	2.854	0.4835	<.001	Not reported because Significance of Change >.001	.001
16. ZT4 C	3.218	0.4814	<.001		.001
17. NT4	2.442	0.4799	<.001		.001
18. ZT4B E	2.715	0.4787	<.001		.001
19. NT6	2.209	0.4773	<.001		.001
20. ZR5B A	1.814	0.4762	<.001		.001
21. ZI2C E	2.195	0.4748	<.001		.001
22. ZI4A E	1.718	0.4737	<.001		.001
23. ZR7B C7	1.392	0.4729	<.001		.001
24. ZI1 G	1.148	0.4721	<.001		.001
25. ZCONTINO	1.353	0.4713	<.001		.001
26. NT2	1.574	0.4703	<.001		.001

Wilks' Lambda = .4704
Chi Squared = 578.484
Significance = <.000

Canonical Correlation = .728

r^2 = .5309 or 53.1% variance explained

Actual Membership	Predicted Membership	
	Non-Head Start % of Row	Head Start % of Row
Non-Head Start	81.9 (N=299)	18.1 (N=64)
Head Start	11.4 (N=43)	88.6 (N=380)

Percent correctly classified (corrected for unequal group size) = 85.6%

The 12 child code variables identified by the discriminate function are summarized in Table 4.55. For purposes of clarity the description of the code variables also reflect the directionality of differences between programs. Tables 4.56 and 4.57 present the mean scores (standardized Z scores) by program type for all of the key object-continuity codes and for the key child activity codes respectively (44 all total). These tables better illustrate differences in mean frequencies for these behavior codes. To the extent that mean frequencies are different from zero they also provide a referent with respect to the non-handicapped population. A superficial review shows that child behavior codes for the non-Head Start programs more often have large differences from zero than do Head Start programs (38 codes compared with 6 respectively). In general, this indicates that the frequency of these behaviors for handicapped children in Head Start more nearly approximates the frequency of occurrence for non-handicapped children than does the frequency of occurrence for children in non-Head Start programs. In other words, the Head Start handicapped children are more like the non-handicapped sample (with respect to these 44 identified variables) than they are the non-Head Start sample.

Three dimensions were evident within the Prescott-SRI child behavior codes that were identified by the discriminant function as differentiating between types of programs. These dimensions are:

- class composition (child/teacher ratio and handicapped to non-handicapped ratio),
- classroom activity structure (open, closed),
- social integration of handicapped children (mainstreaming).

These three dimensions are interrelated and it is not possible to explain the frequency of specific child behaviors strictly in terms of any one of these dimensions. However, in some cases, a

TABLE 4.55: SELECTED PRESCOTT-SRI CHILD CODES

Prescott-SRI Child Code	Description of Code
NT8	Head Start handicapped children are less often involved in interactions or tasks with other handicapped children.
OBJC	Handicapped children in Head Start more often receive from or give attention to non-handicapped children
OBJD	Handicapped children in non-Head Start programs more often receive from or give attention to other handicapped children or groups including handicapped children.
CONTINN	In Head Start programs fewer frames were recorded in which handicapped children were involved in new tasks or activities.
T4 D	Handicapped children in Head Start programs give fewer general informational comments to their handicapped peers.
R3 A7	Head Start handicapped children receive less adult help with tasks (while responding appropriately) than do handicapped children in non-Head Start programs.
I6B E	Handicapped children in non-Head Start programs are less likely to be involved in open-ended expressive group activities with attention focused on an object than are Head Start handicapped children.
OBJA	The attention of handicapped children in Head Start is less often directed at adults than is the attention of handicapped children in non-Head Start programs.
I6C E	Head Start handicapped children are not often involved in structured group activities with objects as the foci of their attention than are handicapped children in non-Head Start programs.
R7P C5	Head Start handicapped children receive more playful intrusions to which they respond defensively than do handicapped in non-Head Start programs.
CHLDCDR	Handicapped children in Head Start receive less input than do the handicapped focus children in non-Head Start programs.
I6B A	Head Start handicapped are involved less frequently in open-ended expressive group activities with their attention directed at adults than are handicapped children in non-Head Start programs.

TABLE 4.56: Z* SCORES FOR PRESCOTT-SRI OBJECT AND CONTINUITY CODE VARIABLES

PRESCOTT-SRI CODE	CHILD ACTIVITY CODE DESCRIPTIONS	NON-HEAD START	HEAD START
OBJA **	Summation of all frames in which the focus child's attention was directed at an adult	0.745	0.236
OBJC **	Summation of all frames in which the focus child's attention was directed at another child	- 1.070	- 0.126
OBJE	Summation of all frames in which focus child's attention was directed at some object	- 0.407	- 0.222
OBJG	Summation of all frames in which focus child's attention was directed at a group	- 0.312	0.135
OBJD **	Summation of all frames in which focus child's attention was directed at a handicapped child or group including a handicapped child	1.789	0.003
CONTINN **	Summation of all frames in which the focus child engaged in a new activity	0.245	- 0.030
CONTINO	Summation of all frames in which the focus child continued involvement in activity or interaction	- 0.299	- 0.163
CONTINNA	Summation of all frames in which the focus child is not involved in a specific task or activity	0.152	0.085

* Frequency counts for each variable were transformed to standardized scores for ease of comparability.

This transformation was conducted using distribution data (mean, standard deviation) from the sample of normal children (N-219) plus a proportionate sample of handicapped children (N=24, total N=243).

** Key variables identified by the discriminant analysis

TABLE 4.57: Z* SCORES FOR CHILD ACTIVITY CODE VARIABLES

PRESCOTT-SRI CODE	CHILD ACTIVITY CODE DESCRIPTIONS	NON-HEAD START	HEAD START
I1 A	Child's attention directed at an adult	0.378	0.223
I1 C	Child's attention directed at another child	- 0.402	0.337
I1 G	Child's attention is directed at a group without handicapped children	- 0.202	0.349
I1 D	Child's attention is directed at a handicapped child or group including one or more handicapped children	2.274	0.299
I2b E	Child maintains open-ended, expressive activity with focus of attention on some object	0.147	0.049
I2c E	Child maintains structured closed activity involving some object	0.165	- 0.051
I4a E	Child considers, contemplates, tinkers with some object	0.091	0.029
I4b E	Child adds a different prop or new idea	- 0.439	- 0.316
I6a A	Child participates with passive attention in a group activity with an adult as the focus of his/her attention	- 0.251	- 0.118
I6a E	Child participates with passive attention in a group activity with some object as the focus of his/her attention	- 0.141	- 0.120
I6b A **	Child participates in open-ended group activity with attention directed at an adult	0.881	0.122
I6b C	Child participates in open-ended group activity with attention directed at another child	- 0.359	- 0.048
I6b E **	Child participates in open-ended group activities with attention directed at some object	- 0.429	- 0.088

TABLE 4.57: (CONTINUED)

PRESCOTT-SRI CODE	CHILD ACTIVITY CODE DESCRIPTIONS	NON-HEAD START	HEAD START
I6b D	Child participates in expressive, open-ended group activity with attention directed toward a handicapped child or group including a handicapped child	0.612	- 0.065
I6c A	Child participates in closed structured groups activity with attention directed at an adult	0.037	0.148
I6c C	Child participates in closed structured group activity with attention directed at another child	- 0.406	- 0.038
I6c E **	Child participates in closed structured group activity with attention directed at some object	- 0.332	- 0.093
I6c G	Child participates in closed structured group activity with attention directed at the group	- 0.067	- 0.021
I6c D	Child participates in closed structured group activity with attention directed at a handicapped child or group including a handicapped child	1.778	- 0.066
T1a E	Child wanders with no apparent purpose with attention directed at some object	0.037	- 0.069
T4 A	Child initiates statements about his/her preferences, likes, dislikes with an adult	- 0.048	- 0.139
T4 C	Child initiates general statements with another child	- 0.656	- 0.131
T4 D **	Child initiates general statements with a handicapped child or group including a handicapped child	0.572	0.079
T7b C	Child initiates playful, exuberant behavior directed at another child	- 0.496	- 0.035
T7b E	Child initiates playful, exuberant behavior directed at some object	0.008	0.009
R3 A3	Child receives information or help with a task from an adult and is crying or whining	0.123	- 0.044

TABLE 4.57: (CONTINUED)

PRESCOTT-SRI CODE	CHILD ACTIVITY CODE DESCRIPTIONS	NON-HEAD START	HEAD START
R3 A7 **	Child receives information or help with a task from an adult and responds actively and appropriately	0.605	- 0.115
R5b A	Child receives praise from an adult	0.754	0.072
R7b C	Child receives a playful intrusion from another child	- 0.264	0.090
R7b C5 **	Child receives a playful intrusion from another child and responds by defending or asserting rights	- 0.432	- 0.089
R7b C7	Child receives a playful intrusion from another child and responds actively and appropriately	- 0.349	- 0.188
INDCNT1	Child attends to self - withdraws completely	0.092	- 0.081
MODRP	Child assumes he/she is in an imaginary role	- 0.223	- 0.160
CHLDCDI	Summation of all child codes which are used to describe active involvement in interactions or tasks	- 0.544	- 0.076
CHLDCDT	Summation of all child codes used to describe initiating behavior	- 0.434	- 0.166
CHLDCDR **	Summation of all child codes used to describe inputs received	1.058	0.170

child's behavior appears to be more related to one dimension than the other two. For example, some handicapped children in Head Start programs are less frequently involved in open-ended, expressive group activities with their attention directed toward adults. A possible explanation could be attributed to Head Start class composition which includes fewer adults than non-Head Start programs. In the case where Head Start handicapped children are less often involved in interactions with other handicapped children, it could be explained by the ratio of handicapped to non-handicapped children which in most Head Start programs is much lower than in non-Head Start programs. Similarly, in non-Head Start programs there is a higher frequency for handicapped children to interact with handicapped peers, since the classroom composition usually reflects only handicapped peers.

When child behavior codes were examined in terms of the dimension of social integration for handicapped children, several child behavior codes seemed reflective of this construct. Head Start handicapped children are more often involved in structured group activities with objects as the focus of their attention than are handicapped children in non-Head Start programs. The data indicate the frequency of group involvement for Head Start handicapped children more closely approximates the mean for the "normal" sample (the Z scores are very close to zero). Head Start handicapped children may indeed be more like normal children than different, however this raises the caution of how severely involved the Head Start handicapped children are. On the other hand this finding could support the premise of mainstreaming and the positive impact upon handicapped children gained by their social integration with normal peers.

The finding that Head Start handicapped children received more playful intrusions from non-handicapped peers than those focus children in non-Head Start programs is possibly indicative of social

integration being achieved by handicapped children. It could also be explained, at least partially, by the fact that Head Start programs have many more non-handicapped peers available. In general, few, if any, non-handicapped children were integrated within non-Head Start programs.

The frequency of occurrence of both structured group activities and open-ended activities was more similar to the non-handicapped sample (Z scores are very close to zero) for Head Start children. Non-Head Start children on the other hand had substantially fewer occurrences of both behavior codes. The question of how such activity structure affects the behaviors of children is not always clear. However, in Head Start classes there appears to be more opportunity for children to be self-directed and to initiate activities and interactions in a less rigidly structured, teacher-controlled environment. In classes where there is more teacher directed activity, the dimension of child control over the environment and his or her own reactions to and behaviors within it, are subject to more defined parameters. The nature and number of open-ended (expressive) vs. closed or structured activities available for children to become involved in is possibly determined by whether the program structure itself is open or closed. This availability of opportunity in turn affects the behaviors children exhibit in the preschool environment. Head Start programs, as a group appear to have a greater range of open-closed activities compared with non-Head Start programs which simply have fewer of both kinds.

Because there are notable differences between the two programs that are reflected in several specific behavior codes, and because there appears to be some common dimensions of the focus child's attention, it is necessary to ascertain if the large number of variables can be reduced further. In order to adequately undertake statistical corrections for differences between programs, the

number of correction terms selected for use must be held to a minimum. (A large number of "corrections" may inadvertently eliminate all but error variance from the analysis.)

In order to further reduce the number of child behavior codes a factor analysis with varimax rotations was conducted to examine the possibility that underlying constructs within the behavior coding system existed. If underlying constructs were present it could allow for the elimination of certain groups of variables by using a single indicator. Such underlying constructs could also assist in interpreting differences between programs.

The results of the factor analysis produced eight identifiable "factors." Two of the factors account for 48 percent of all of the variance explained by the set of factors. The other six factors account for approximately equal (but small) amounts of the variance. The two factors accounting for the largest explained variance are explained below:

FACTOR 1 - Initiated Interaction

Variable	Factor loading	Description of Variable
T4XXA	.3144	Child initiates statements about his/her preferences, likes, dislikes with an adult
NT2	.8946	Summary code rating for the extent of participation and involvement in center activities
NT4	.4119	Summary code rating for the level of interaction with adults
NT5	.7311	Summary code rating for the observed affect of the child
NT7	.4655	Summary code rating for the extent of involvement with other children.

Initiated Interaction: affirmative efforts to participate in center activities by interacting with other activity participants. This includes taking the initiate to express satisfaction, locating oneself in close proximity to participants, and actively seeing opportunities to participate.

FACTOR 2 - Interaction and Contact with non-Handicapped Children

Variable	Factor Loading	Descriptor of Variable
I6BxC	.4255	Child participates in open-ended group activity with attention directed at another child
I6CxD	-.3257	Child participates in closed structured group activity with attention directed at a handicapped child or group including a handicapped child
T4xxC	.5857	Child initiates general statements with another child
T7BxC	.5530	Child initiates playful, exuberant behavior directed at another child
R7BxC	.3193	Child receives a playful intrusion from another child
NT6	.3236	Summary code rating for observed hostility by the focus child
NT8	.4065	Summary code rating for the extent of involvement with other handicapped children.

Interaction and Contact with non-Handicapped Children: reciprocal interaction of a constructive, non-hostile nature with non-handicapped children. This includes initiating direct interpersonal contacts, maintaining attention, and encouraging (through affect and physical proximity) the reception of interpersonal contacts.

These two factors will be used for certain within group analyses by computing Factor Scores for each child. These Factor Scores are obtained by multiplying the factor loading for each variable in the factor times the standardized score for that variable. The sum of all products equals the factor score. In this way the Factor Scores for Factor 1 and for Factor 2 can serve as "proxies" (substitute variables) for several other variables, thus reducing the total number of Prescott-SRI variables.

Posttest data analysis efforts will again re-examine the Prescott-SRI by factor analysis to determine if similar factors re-emerge. Factor 1 and Factor 2, however, appear to be the most utilitarian factors at present. In combination, the factors account for 48 percent of all factor analysis variance and the identified constructs (initiated interaction and extent of interaction with non-handicapped children) are highly relevant to the specified goals of assessing classroom integration.

Interrater Reliability of the Prescott-SRI Child Observation System

As previously mentioned, the Prescott-SRI is an unusually complex and comprehensive instrument. Observer training required an intensive 7-day training session with a trainer/trainee ratio of 1/6. These sessions included familiarization of the coding system, practice recording child's behavior in preschool classrooms and day care centers, coding practice with video-tapes especially developed for the system, and frequent reliability checks made throughout the training process. The final criterion for certification in the Prescott-SRI was a three-hour exercise in which trainees coded video-taped sequences of children's behavior. Trainees were required to meet the .75 trainer/trainee reliability level in order to be qualified to collect observation data using this system.

Despite the strict .75 reliability standard for all trainees, there is some possibility that this reliability does not remain constant. As observers collect data in the field there is little continuous pressure to code behaviors consistent with the training standard. Often there is no second opinion available for validation of an observer's coding in difficult or ambiguous situations. In addition, some codes are more difficult to code consistently than others, and some codes occur with such low frequency that there is little opportunity for trainees to practice these.

One result of decreased reliability is the tendency for observers to lapse into more general codes about which there is little question. However, these codes do not provide as sensitive a description of the child behavior as is possible with this system. This

study requires both detailed information and good reliability. Since children's behaviors from the pretest data collection will be compared with their posttest behaviors, it is crucial that reliability be maintained consistently across observers. Poor reliability could dramatically affect the pretest-posttest frequencies of codes by handicapping conditions. For example, if observers are instructed to pay particular attention to behaviors which are difficult to code and which do not occur frequently, they may inadvertently code more low frequency behaviors than would be expected. This kind of situation contributes to collecting idiosyncratic data which are particularly problematic in pre/post comparisons. Therefore, verification of reliability.

Summary and Conclusions

The Prescott-SRI Child Observation System provides a complex and detailed description of child behaviors. In order to conduct the analysis of baseline data with such a large quantity of child code variables, several data reduction steps were undertaken:

- The total possible child behavior codes (exceeding 780) were reduced to 44 valid codes for initial analysis.
- Child behavior frequency counts were transformed to standardized Z scores based on a non-handicapped sample (which included proportionate representation by handicapping condition). This enabled the development of:
  1. a score which is referenced by a "normal" sample,
  2. an interval measure which better meets the requirements of the proposed data analysis model.

Analysis of the baseline data confirmed expected differences in the Prescott-SRI behavior code frequencies. These differences underscore the intrinsic "treatment" differences between the Head Start and non-Head Start programs.

- Twelve specific child observation codes show significant differences in mean frequency of occurrence for program type.

- Three general dimensions of commonality appear to be present throughout the 12 key variables:
  1. class composition (ratio of children to adults and ratio of non-handicapped children to handicapped children),
  2. closed vs. open structure of the classroom,
  3. degree of social integration and mainstreaming in the classroom.

Further efforts to reduce the large quantity of child-code variables by factor analysis produced two selected factors. In combination these two factors account for half of the factor analysis variance, and appear to be highly related to the goal of assessing classroom integration.

In order to confirm reliability estimates for this measure, Dr. Elizabeth Prescott was contacted directly to discuss strategies for establishing and improving interrater reliability. Difficulties in establishing interrater reliability include the individual variances of observers, the extent of low incidence behavior or complex codes they are exposed to (and thus can practice on), synchronization of the beepers designating 12-second intervals, and situational sensitivity to certain behavior codes. In order to establish reliability for field data collection conditions and to improve interrater reliabilities, special steps will be taken:

- Strict training standards (.75 observer reliability) will be adhered to.
- All field staff will be trained in the Prescott-SRI which will enable more "intra-staff consultation" on how certain complex behaviors should be coded.
- A subsample of 50 children will have observations by two observers for purposes of estimating interrater reliability under field conditions:
  1. beepers will be matched for accuracy of 12-second intervals in order to insure paired observations at identical (plus or minus two seconds) times,
  2. reliability calculations will be conducted on all key child code variables in order to determine if certain ones are more highly subject to reliability variances than other variables.

5

WITHIN GROUP ANALYSIS

There are two overriding analysis strategies which will be used in the conduct of the final data analysis: between groups and within groups. Each analysis strategy is designed to assess certain statistical differences. The analysis procedures for between groups is designed to identify differences in outcome measures between the Head Start, non-Head Start and (when appropriate) the non-served groups. Since any differences identified between groups on posttest scores could be due to preexisting group differences, it is necessary to examine pretest scores for evidence of such differences. Where pretest differences exist (family income levels for example) statistical controls are necessary to equate the groups. A larger portion of this interim technical report has been organized to identify any of these pretest differences and to specify which variables the groups must be statistically equated on.

The procedures designed for within group analysis will take one of two general approaches. One approach assess differences between pretest and posttest conditions and identifies specific variables which appear to contribute most substantially to these changes. The major thrust of this approach would be to utilize the convention of path analysis to describe and portray causal relationships between certain variables and the outcome measure (growth and development of the child). The second approach would be to create a nominal scale variable, identifying those children who showed "treatment gains"

(gainers) and those children who showed non-treatment related gains, or even losses (no gainers). A series of discriminant functions, specific to handicapping condition, would then identify individual variables of significance.

Most of the variables used in the study were selected because they were either thought to accurately represent probable differences between groups, or because previous research has shown them to be good indicators of the relationship of that variable with growth and development. Since analysis of pretest data can only identify existing pretest differences, comprehensive within group analyses are to be conducted for each group (Head Start, non-Head Start and non-served). In addition to providing a baseline description of pretest levels for each variable, this will allow for a description of those variables which ultimately contribute to changes in outcome measures. Because the nature of the within group analysis strategy is directed towards an examination of all probable variables, the data reduction effort required for the between group analysis is not necessary.

The exact scope of the within group analysis efforts is detailed in the Analysis Plan. The general thrust of the analysis, however, is to describe the relationships of the selected variables and their independent as well as joint effects on the outcome measures.

6

SUMMARY AND RECOMMENDATIONS

The major purpose of this report has been to 1) review the validity and/or psychometric properties of several study data collection instruments, 2) to review baseline data for the purpose of establishing parameters which must be considered in proposed comparative analyses, and 3) to reduce available study data to an efficient set of variables for analytic purposes. The results of investigations directed toward meeting these objectives are presented below. As results are presented, recommendations are made which relate study findings to proposed baseline posttest analyses. Unless otherwise directed by ACYF, these recommendations will be strictly followed in all between group Phase II analyses and in the amount of posttest data collection activities.

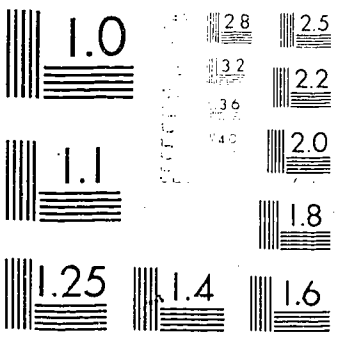
Study Instrumentation Issues

1. Validity of Alpern-Boll Developmental Data

Findings

Using the Learning Accomplishment Profile as a point of reference it was found that correlations between several Alpern-Boll/LAP-D subscale areas were of sufficient magnitude, taking into account the restriction of range issue, to conclude that parent reported information was sufficiently equivalent for analytical purposes in specific areas. The relevant Alpern-Boll subscales include the Academic and Communication subscales. Because there is no LAP-D equivalent for the Alpern-Boll Self-Help subscale, there was no way to validate this particular information set (pages 3.5 - 3.8).

However, the Physical Development subscale of the Alpern-Boll did not correlate well with either the Fine or Gross Motor subscales of the LAP-D. Lack of correlation is not a function of extreme case scores. This fact raises serious questions about the equivalence of Alpern-Boll data in this area.



11. OF THE FOLLOWING FUNDS, WHICH HAVE YOU SPECIFICALLY EARMARKED (ALL OR A PORTION) FOR SERVICES TO THE HANDICAPPED? PLEASE INDICATE SOURCE, AMOUNT, AND LENGTH OF TIME YOU HAVE RECEIVED THESE FUNDS.

SOURCE OF FUNDS	AMOUNT (enter figure)	NUMBER OF YEARS RECEIVED (enter number)
Basic Head Start grant		
Head Start Supplemental funds		
BEH First Chance funds		
State "reimbursement of services" funds		
Other State funds		
Other local funds		
Other Federal funds		
Other Education for the Handicapped Act funds		
Parent tuition		
Other (specify) _____		
Other (specify) _____		

CASE BACKGROUND DATA PROFILE

4. WOULD THIS CHILD BE CONSIDERED AS MULTIPLY HANDICAPPED?

35

2 no

1 yes

(specify handicaps; use codes from #2)

→ ☐☐ ☐☐ ☐☐

36-37, 38-39, 40-41

5. IS THIS CHILD PARTICIPATING IN A MAINSTREAMING PROGRAM?

42

2 no

1 yes

→ 5a. IN WHICH OF THE FOLLOWING MAINSTREAMING OPTIONS HAVE YOU PLACED THIS CHILD? *(Check one that applies)*

43

1 complete mainstreaming of handicapped child into a regular classroom *(no supportive assistance)*

2 complete mainstreaming of handicapped child into a regular classroom with supportive assistance provided by a specialist

3 complete mainstreaming of handicapped children in a classroom where the regular classroom teacher and a special education teacher cooperatively work with all children *(a team arrangement)*

4 reverse mainstreaming in which normal children become part of a special education class

5 partial mainstreaming where handicapped children are in a special education class but go to mainstreamed classes for one or more regular classroom activities

6 handicapped children receive services from your program but are <u>not</u> mainstreamed

5b. HOW MANY HOURS WOULD YOU ESTIMATE THIS CHILD SPENDS IN A MAINSTREAMING SITUATION WITH NORMAL CLASSMATES?

44-45

☐☐ *(Hours per week)*

(3

5c. HOW MANY HOURS IS THIS CHILD'S MAINSTREAMING SITUATION POTENTIALLY AVAILABLE?

46-47 ☐☐ *(Hours per week)*

48-50 ☐☐☐ *(Interviewer: Compute percentage of available mainstreaming time the child actually participates in)*

6. IS THIS CHILD INVOLVED IN A CLASSROOM THAT USES A LOCALLY DESIGNED CURRICULUM?

51 2 No

1 Yes

→ 6a. Which of the following types of curriculums were designed.

52 ___ Performance based (criterion referenced)

53 ___ Experienced based (discovery learning)

54-56 ___ Other (specify) _____

57-59 ___ Other (specify) _____

7. IS THIS CHILD INVOLVED IN A CLASSROOM THAT USES A CURRICULUM THAT IS LOCALLY ADAPTED FROM A STANDARDIZED CURRICULUM?

60 2 No

1 Yes

→ 7a. Which of the following standardized curriculum were adapted? *(Check all that apply)*

61 ___ Portage

62 ___ Learning Accomplishment Profile - Curriculum

63 ___ Peabody

64 ___ Cognitive (Ypsilanti)

65 ___ Montessori

66 ___ Frostig

67,68-69 ___ Other (specify) _____

70,71-72 ___ Other (specify) _____

8. HOW LONG HAS THIS CHILD BEEN IN YOUR PROGRAM?

73

1 less than one year

2 one year

3 2 years

4 over 2 years

9. HOW WOULD YOU CHARACTERIZE THE INVOLVEMENT OF THIS CHILD'S PARENTS IN YOUR PROGRAM?

74

1 very active

2 average involvement

3 only minor involvement

4 do not participate at all

10. ARE THERE ANY SERVICES YOU WOULD LIKE TO MAKE AVAILABLE EITHER TO THIS CHILD OR HIS/HER FAMILY THAT YOU HAVE NOT HAD THE RESOURCES AND/OR THE TIME TO PROVIDE?

75

2 No

1 Yes

What Services? *(Interviewer: Coding will be done at later date. Enter responses verbatim)*

76 ☐ _____

77 ☐ _____

78 ☐ _____

79 ☐ _____

CALIFORNIA PRESCHOOL SOCIAL COMPETENCY SCALE

OMB forms clearance; but the study is authorized under:

OMB # 85-S77002

Expires 12/31/78

EVALUATION OF THE PROCESS OF MAINSTREAMING HANDICAPPED CHILDREN INTO HEAD START

APPLIED MANAGEMENT SCIENCES, INC.

PHASE II

CALIFORNIA PRESCHOOL SOCIAL COMPETENCY SCALE

1. Grantee _____
2. Delegate Agency _____
3. Alternate Program _____

ID COLUMN

Program Code

1-5 | | | | | |

Child Code

6-11 | | | | | | |

Form Number

12-13 | 0 | 4 |

Respondent:

_____
(Position/Title)

Program Name:

_____

_____

Interview Date __/__/__

Interviewer _____

_____

IDENTIFICATION

1. Can state first name only.
2. Can state full name.
3. Can state full name and age as of last birthday.
4. Can state name, age, and address.

USING NAMES OF OTHERS

1. Uses no proper names in interacting with those around him.
2. Uses the names of no more than five children or adults.
3. Uses the names of from five to ten children.
4. Uses the names of virtually all children and adults.

GREETING NEW CHILD

When a new child joins the group—

1. He inadvertently physically overpowers child in greeting him (i.e., hugs, bumps, pulls).
2. He makes a limited and brief physical contact (i.e., pats, pokes, rubs) with child and some verbal contact.
3. He usually makes verbal contact and sometimes touches child.
4. He nearly always makes verbal contact with child without physical contact.

SAFE USE OF EQUIPMENT

1. He proceeds with activity, ignoring hazards involving height, weight, and distance (climbing on unstable equipment, stacking boxes too high, jumping onto off-balanced structures).
2. He proceeds with hazardous activity, sometimes seeking help and sometimes getting into difficulty.
3. He proceeds with hazardous activity but frequently seeks help when he is in difficulty.
4. He corrects hazards or seeks help before proceeding with activity.

EPORTING ACCIDENTS

hen he has an accident (e.g., spilling, breaking)—

1. He does not report accidents.
2. He sometimes reports accidents.
3. He frequently reports accidents.
4. He nearly always reports accidents.

NTINUING IN ACTIVITIES

1. He wanders from activity to activity with no sustained participation.
2. He continues in his own activity but is easily diverted when he notices activities of others.
3. He continues in his own activity and leaves it only when he is interrupted by others.
4. He continues in his own activity in spite of interruptions.

PERFORMING TASKS

1. He usually has to be asked two or three times before he will begin a task.
2. He usually begins task the first time he is asked but dawdles and has to be reminded.
3. He begins task the first time he is asked but is slow in completing task.
4. He begins task first time he is asked and is prompt in completing task.

8. FOLLOWING VERBAL INSTRUCTIONS

He can follow verbal instructions—

1. When they are accompanied by demonstration.
2. Without a demonstration, if one specific instruction is involved.
3. Without a demonstration, when it involves two specific instructions.
4. Without a demonstration, when it involves three or more instructions.

9. FOLLOWING NEW INSTRUCTIONS

1. He carries out one familiar instruction.
2. He carries out one new instruction the first time it is given.
3. He follows new instructions given one at a time, as well as familiar ones.
4. He follows several new instructions given at a time, as well as familiar ones.

10. REMEMBERING INSTRUCTIONS

1. He nearly always needs to have instructions or demonstration repeated before he can perform the activity on his own.
2. He frequently requires repetition, a reminder, or affirmation that he is proceeding correctly.
3. He occasionally needs repetition of instruction for part of the activity before completing the activity.
4. He performs the activity without requiring repetition of instructions.

11. MAKING EXPLANATION TO OTHER CHILDREN

When attempting to explain to another child how to do something (put things together, play a game, etc.)—

1. He is unable to do so.
2. He gives an incomplete explanation.
3. He gives a complete but general explanation.
4. He gives a complete explanation with specific details.

12. COMMUNICATING WANTS

1. He seldom verbalizes his wants; acts out by pointing, pulling, crying, etc.
2. He sometimes verbalizes but usually combines actions with words.
3. He usually verbalizes but sometimes acts out his wants.
4. He nearly always verbalizes his wants.

13. BORROWING

1. He takes objects *when in use* by others without asking permission.
2. He sometimes asks permission to use other's objects.
3. He frequently asks permission to use other's objects.
4. He nearly always asks permission to use other's objects.

14. RETURNING PROPERTY

When he has borrowed something—

1. He seldom attempts to return the property to its owner.
2. He occasionally attempts to return the property to its owner.
3. He frequently attempts to return the property to its owner.
4. He nearly always returns the property to its owner.

15. SHARING

1. He does not share equipment or toys.
2. He shares but only after adult intervention.
3. He occasionally shares willingly with other children.
4. He frequently shares willingly with other children.

16. HELPING OTHERS

When another child is having difficulty (such as using equipment, dressing)—

1. He never helps the other child.
2. He helps another child *only* when they are playing together.
3. He sometimes stops his own play to help another child.
4. He frequently stops his own play to help another child.

17. PLAYING WITH OTHERS

1. He usually plays by himself.
2. He plays with others but limits play to one or two children.
3. He occasionally plays with a larger group (three or more children).
4. He usually plays with a larger group (three or more children).

8. INITIATING INVOLVEMENT

When other children are involved in an activity which permits the inclusion of additional children—

1. He seldom initiates getting involved in the activity.
2. He sometimes initiates getting involved in the activity.
3. He frequently initiates getting involved in the activity.
4. He nearly always initiates getting involved in the activity.

9. INITIATING GROUP ACTIVITIES

1. He nearly always initiates activities which are solely for his his own play.
2. He initiates his own activities and allows one child to join him.
3. He sometimes initiates activities which include two or more children.
4. He frequently initiates activities which are of a group nature.

0. GIVING DIRECTION TO PLAY

When playing with others—

1. He typically follows the lead of others.
2. He sometimes makes suggestions for the direction of the play.
3. He frequently makes suggestions for the direction of the play.
4. He nearly always makes suggestions for the direction of the play.

1. TAKING TURNS

1. He frequently interrupts or pushes others to get ahead of them in an activity taking turns.
2. He attempts to take turn ahead of time but does not push or quarrel in order to do so.
3. He waits for turn, but teases or pushes those ahead of him.
4. He waits for turn or waits to be called on.

2. REACTION TO FRUSTRATION

When he does not get what he wants or things are not going well—

1. He has a tantrum (screams, kicks, throws, etc.).
2. He finds a substitute activity without seeking help in solving the problem.
3. He seeks help from others in solving problem without making an attempt to solve it himself.
4. He seeks help from others in solving the problem after making an effort to solve it himself.

23. DEPENDENCE UPON ADULTS

He will continue in an activity on his own without having an adult participate with him or encourage him—

1. Hardly ever.
2. Sometimes.
3. Frequently.
4. Nearly always.

24. ACCEPTING LIMITS

When an adult sets limits on the child's activity (play space, use of material, type of activity) he accepts the limits—

1. Hardly ever.
2. Sometimes.
3. Frequently.
4. Nearly always.

25. EFFECTING TRANSITIONS

In changing from one activity to another—

1. He requires personal contact by adult (i.e., holding hands, leading).
2. He will not move toward new activity until the physical arrangements have been completed.
3. He moves toward new activity when the teacher announces the activity.
4. He moves toward new activity without physical or verbal cues.

26. CHANGES IN ROUTINE

The child accepts changes in routine (daily schedule, room arrangements, adults) without resistance or becoming upset—

1. Hardly ever.
2. Sometimes.
3. Frequently.
4. Nearly always.

27. REASSURANCE IN PUBLIC PLACES

When taken to public places he must be given physical or verbal reassurance—

1. Nearly always.
2. Frequently.
3. Sometimes.
4. Hardly ever.

28. RESPONSE TO UNFAMILIAR ADULTS

1. He avoids or withdraws from any contact with unfamiliar adults.
2. He, when initially approached by unfamiliar adults, avoids contact, but if approached again, is responsive.
3. He responds to overtures by unfamiliar adults but does not initiate contact.
4. He readily moves toward unfamiliar adults.

29. UNFAMILIAR SITUATIONS

1. He restricts himself to activities in which he has previously engaged.
2. He joins in an activity which is new for him only if other children are engaged in it.
3. He joins with other children in an activity which is new to everyone.
4. He engages in an activity which is new for him even though other children are not involved.

30. SEEKING HELP

When he is involved in an activity in which he needs help—

1. He leaves the activity without seeking help
2. He continues in the activity but only if help is offered.
3. He persists in the activity and finally seeks help.
4. He seeks help from others after making a brief attempt.

TOTAL SCORE _____

CALIFORNIA PRESCHOOL SOCIAL COMPETENCY SCALE

PROFILE SHEET

1-22="01"
23-24="00"
25-26="00"

Child's Name _____ Norm Table Used _____

Sex: _____ Age _____ Total Score: _____ Percentile: _____

	Item	0	1	2	3	4
27	1. Identification	•	•	•	•	•
28	2. Using Names of Others	•	•	•	•	•
29	3. Greeting New Child	•	•	•	•	•
30	4. Safe Use of Equipment	•	•	•	•	•
31	5. Reporting Accidents	•	•	•	•	•
32	6. Continuing in Activities	•	•	•	•	•
33	7. Performing Tasks	•	•	•	•	•
34	8. Following Verbal Instructions	•	•	•	•	•
35	9. Following New Instructions	•	•	•	•	•
36	10. Remembering Instructions	•	•	•	•	•
37	11. Making Explanation to Other Children	•	•	•	•	•
38	12. Communicating Wants	•	•	•	•	•
39	13. Borrowing	•	•	•	•	•
40	14. Returning Property	•	•	•	•	•
41	15. Sharing	•	•	•	•	•
42	16. Helping Others	•	•	•	•	•
43	17. Playing with Others	•	•	•	•	•
44	18. Initiating Involvement	•	•	•	•	•
45	19. Initiating Group Activities	•	•	•	•	•
46	20. Giving Direction to Play	•	•	•	•	•
47	21. Taking Turns	•	•	•	•	•
48	22. Reaction to Frustration	•	•	•	•	•
49	23. Dependence upon Adults	•	•	•	•	•
50	24. Accepting Limits	•	•	•	•	•
51	25. Effecting Transitions	•	•	•	•	•
52	26. Changes in Routine	•	•	•	•	•
53	27. Reassurance in Public Places	•	•	•	•	•
54	28. Response to Unfamiliar Adults	•	•	•	•	•
55	29. Unfamiliar Situations	•	•	•	•	•
56	30. Seeking Help	•	•	•	•	•

Comments and Recommendations: _____

57-58 Total _____

Signed _____

A.43 202

TEACHER INTERVIEW SCHEDULE

PART I: TEACHER BACKGROUND

Below you will find a series of questions about yourself and your experience with special children. Circle the answers to these questions which come closest to describing you and your background.

21-22="01"

For Office Use Only

1. How many years have you worked with preschool handicapped children?

23

1 Less than 1 year
2 1-2 years
3 3-5 years
4 over 5 years

2. Prior to this program year what types of contact have you had with handicapped children? (Check all that apply)

24 ____ as a volunteer
25 ____ as a teacher
26 ____ as an aide
27 ____ as a parent
28 ____ as a sibling
29,30-31 ____ other (specify) _____
32,33-3 ____ other (specify) _____
35 ____ none

3. What is the highest level of education you have completed?

1 some high school, but no diploma
2 high school graduate (or GED)
36
3 some college, but no degree
4 associate degree
5 bachelor's degree
6 postgraduate study

4. If you are a college graduate, what is your present area of specialization?

1 special education
2 early childhood development
3 other degree area
37
4 does not apply

5. Have you received any other formal classroom training that has prepared you to work with preschool children?

3 no
38,39-40
2 yes, I'm a Child Development Associate (or soon will be)
1 yes, I have other special training _____ (specify)

For Office Use Only

41

6. Are you certified by your State Department of Education to teach handicapped children?

2 no

1 yes

7. What do you consider to be your most important training needs at this time? (Check no more than three training areas)

42 ____ knowledge of Head Start performance standards

43 ____ behavior modification/classroom management

44 ____ individualized instructional techniques

45 ____ preparation of individualized learning objectives

46 ____ working with parents

47 ____ strategies for recruitment of handicapped children

48 ____ screening and assessment

49 ____ theory and practice of mainstreaming

50 ____ specific training for a handicapping condition (e.g., blind, deaf)

51 ____ understanding handicapping conditions

52,53-54 ____ other (specify) _____

55,56-57 ____ other (specify) _____

8. How many children do you have enrolled in your class?

58-60 [| |] (enter number)

→8a. Of this number, how many have been identified as handicapped?

61-63 [| |]

→8b. Of the handicapped children how many are:

64-66 [| |] American Indian or Alaskan Native

67-69 [| |] Asian or Pacific Islander

70-72 [| |] Black, not of Hispanic origin

73-75 [| |] Hispanic

76-78 [| |] White, not of Hispanic origin

21-22="02"

9. How many paid adult staff (excluding yourself) are generally in your class during the day?

23-25 [ ]

10. How many volunteers are generally in your class during the day?

26-28 [ ]

→10a. Of this number, how many are parents of handicapped children enrolled?

29-31 [ ]

11. Which of the following represents your salary? (Circle one)

32

1 $5,000 or less

2 $5,000 to $7,000

3 $7,000 to $10,000

4 $10,000 to $12,000

5 Over $12,000

PART II: TEACHER ATTITUDES AND OPINIONS

TEACHER INTERVIEW

Since this is an opinion scale, the only "right" answers are those that you feel express what you think about mainstreaming and children with handicaps.

1-22="01"

All of the items are views with which you may agree or disagree. Mark the number which most accurately describes your feelings and thoughts about each statement.

		Strongly Agree			Neutral			Strongly Disagree
23	1. I like to work with handicapped children.	1	2	3	4	5	6	7
24	2 I feel it is good for the normal children to be in the same classroom as handicapped children.	1	2	3	4	5	6	7
25	3. Working with handicapped children takes too much classroom time away from normal children.	1	2	3	4	5	6	7
26	4. I think mainstreaming is harmful to normal children.	1	2	3	4	5	6	7
27	5. It's hard for me to make handicapped children feel "at home" in my class.	1	2	3	4	5	6	7
28	6. I feel mainstreaming is harmful to many handicapped children	1	2	3	4	5	6	7
29	7. For me working with handicapped children and normal children is difficult in a regular classroom setting.	1	2	3	4	5	6	7
30	8. It seems to me that handicapped children learn more in special classes that do not include normal children.	1	2	3	4	5	6	7
31	9. I feel that handicapped children need to be made aware of their limitations.	1	2	3	4	5	6	7
32	10. I am afraid of working with some handicapped children.	1	2	3	4	5	6	7
33	11. It seems to me that handicapped children tend to "give up" in the regular classroom setting.	1	2	3	4	5	6	7
34	12. The integration of handicapped children in regular classes slows down the learning of the other children in my class.	1	2	3	4	5	6	7
35	13. Planning instruction for both handicapped and normal children demands too much additional teacher preparation time.	1	2	3	4	5	6	7
36	14. I think handicapped children should be mainstreamed, but they should have teachers with more special training than I have.	1	2	3	4	5	6	7

		Strongly Agree			Neutral			Strongly Disagree
37	15. Handicapped children are more like normal children than they are different.	1	2	3	4	5	6	7
38	16. I think that normal and handicapped children get along well with one another.	1	2	3	4	5	6	7
39	17. It seems to me that handicapped children are withdrawn around the normal children in the class.	1	2	3	4	5	6	7
40	18. I think normal children do not try as hard around handicapped children.	1	2	3	4	5	6	7
41	19. Being in the same class with normal children helps the social development of handicapped children.	1	2	3	4	5	6	7

SCHAEFER TEACHER INVENTORY I
(general form)

SCHAEFER TEACHER INVENTORY I
(general form)

21-22="01"

Check the number of the response that most closely reflects how you really feel about each statement. There are no right or wrong answers.

		Strongly Disagree	Mildly Disagree	Not Sure	Mildly Agree	Strongly Agree
23	1. Meetings with parents are really not very useful	1	2	3	4	5
24	2. A child's success in learning is influenced more by the home than the Center	1	2	3	4	5
25	3. I know how to conduct a useful parent-teacher conference	1	2	3	4	5
26	4. Parents are good about letting me know that they appreciate my efforts	1	2	3	4	5
27	5. It is hard to face the parents of a child who is doing poorly	1	2	3	4	5
28	6. I do not want to work with parents any more than I already do	1	2	3	4	5
29	7. Conferences with parents sometimes make me uneasy	1	2	3	4	5
30	8. Meetings with parents do not help me achieve my goals for the children	1	2	3	4	5
31	9. The most important part of a child's learning happens at home before she starts in any school	1	2	3	4	5
32	10. I feel comfortable calling parents about any questions I have	1	2	3	4	5
33	11. Most parents seem to appreciate what I do for their children	1	2	3	4	5
34	12. It is unpleasant talking to a parent whose child is not doing as well as he should	1	2	3	4	5
35	13. Working more with parents would interfere too much with my other teaching responsibilities	1	2	3	4	5

			Strongly Disagree	Mildly Disagree	Not Sure	Mildly Agree	Strongly Agree
36	14.	I feel ill-at-ease when I visit with a child's parents	1	2	3	4	5
37	15.	Meetings with parents are not worth the time they take	1	2	3	4	5
38	16.	Even during a child's school years the most important part of learning takes place at home	1	2	3	4	5
39	17.	When a child comes to the Center with a problem, I feel comfortable talking to the parents	1	2	3	4	5
40	18.	Parents want me to tell them how to help their child learn	1	2	3	4	5
41	19.	It is a strain on me to discuss a child's problems with his parents	1	2	3	4	5
42	20.	Working with parents is too much to expect from the classroom teacher	1	2	3	4	5
43	21.	I get tense when I have to talk to a parent about a child	1	2	3	4	5

(educational beliefs)

			Strongly Disagree	Mildly Disagree	Not Sure	Mildly Agree	Strongly Agree
44	1.	The most important thing to teach children is absolute obedience to parents	1	2	3	4	5
45	2.	Although adults may have difficulty accepting them, all children are basically good at heart	1	2	3	4	5
46	3.	Basically, children learn by being told about the world	1	2	3	4	5
47	4.	Teachers should show the same amount of affection to all their children	1	2	3	4	5
48	5.	Children will get on any woman's nerves if she has to be with them all day	1	2	3	4	5
49	6.	The most important thing to teach children is absolute obedience to whoever is in authority	1	2	3	4	5
50	7.	Children should always obey their parents	1	2	3	4	5
51	8.	All children are good by nature	1	2	3	4	5
52	9.	Children's learning results mainly from being presented basic information again and again	1	2	3	4	5
53	10.	Teachers should give all children an equal amount of praise	1	2	3	4	5
54	11.	Mothers very often feel that they can't stand their children a moment longer	1	2	3	4	5
55	12.	Children should always obey the teacher	1	2	3	4	5
56	13.	Children should not question the authority of their parents	1	2	3	4	5

			Strongly Disagree	Mildly Disagree	Not Sure	Mildly Agree	Strongly Agree
57	14.	Children are born good; it is society that turns some children into trouble-makers	1	2	3	4	5
58	15.	A child learns primarily by absorbing knowledge she is given by others	1	2	3	4	5
59	16.	Teachers should discipline all the children the same	1	2	3	4	5
60	17.	Raising children is a nerve-racking job	1	2	3	4	5
61	18.	Children should not question the authority of the teacher	1	2	3	4	5
62	19.	Children should always do what their parents say, no matter what	1	2	3	4	5
63	20.	In order to be fair, a teacher must treat all children alike	1	2	3	4	5
64	21.	Children should always do what the teacher says, no matter what	1	2	3	4	5
65	22.	Children should be treated the same regardless of differences among them	1	2	3	4	5

SHAEFER TEACHER PERCEPTION OF CENTER ENVIRONMENT

SHAEFER TEACHER PERCEPTION OF CENTER ENVIRONMENT

21-22="01"

Mark the number of the response that most closely reflects how you really feel about each statement. There are no right or wrong answers.

			Strongly Disagree	Mildly Disagree	Not Sure	Mildly Agree	Strongly Agree
23	I.	1. My ideas are generally supported by other staff members	1	2	3	4	5
24		2. Fellow staff members encourage me with my work	1	2	3	4	5
25		3. The staff would provide support if things didn't go well	1	2	3	4	5
26	II.	1. The staff is warm and friendly	1	2	3	4	5
27		2. Staff members make me feel that I can confide in them	1	2	3	4	5
28		3. The friendliness of the staff is a benefit in this job	1	2	3	4	5
29	III.	1. The director encourages me to involve parents in their child's education	1	2	3	4	5
30		2. The director would support my attempts to involve parents in their child's education	1	2	3	4	5
31		3. Center policies favor teachers' efforts to involve parents in their child's education	1	2	3	4	5
32	IV.	1. The director encourages parents to take the initiative in contacting teachers	1	2	3	4	5
33		2. The director makes parents feel free to contact their child's teacher	1	2	3	4	5
34		3. The Center director supports parents contacting teachers for any reason	1	2	3	4	5

				Strongly Disagree	Mildly Disagree	Not Sure	Mildly Agree	Strongly Agree
35	V.	1.	The Center provides me opportunities for discussion with other teachers	1	2	3	4	5
36		2.	There is ample opportunity scheduled for me to talk with the other teachers	1	2	3	4	5
37		3.	I have enough time during working hours to talk with other teachers about important matters	1	2	3	4	5
38	VI.	1.	In matters of importance the teachers' point of view is considered by the director in making decisions	1	2	3	4	5
39		2.	What teachers think helps determine Center decisions	1	2	3	4	5
40		3.	Teacher input is considered an important part of the decision making process in this Center	1	2	3	4	5
41	VII.	1.	Rules important to Center functioning are arrived at together by the teachers, the director, and the parent policy committee	1	2	3	4	5
42		2.	Basic Center rules are arrived at through joint teacher-director-parent policy committee decisions	1	2	3	4	5
43		3.	Rules are decided upon through a majority decision by the director, parent policy committee and teachers	1	2	3	4	5
44	VIII.	1.	My suggestions seldom are accepted by colleagues	1	2	3	4	5
45		2.	I have little voice in decision making in this school	1	2	3	4	5
46		3.	I have little hope in making changes in this school	1	2	3	4	5

			Strongly Disagree	Mildly Disagree	Not Sure	Mildly Agree	Strongly Agree
47	IX. 1.	The director gives frequent feedback about my work	1	2	3	4	5
48	2.	The director takes time regularly to provide feedback about teaching skills	1	2	3	4	5
49	3.	Helpful suggestions are given to teachers by the director	1	2	3	4	5
50	X. 1.	Teachers are given help in improving skills they feel they need	1	2	3	4	5
51	2.	Help is provided to a teacher in areas she feels she needs to work on	1	2	3	4	5
52	3.	The teachers in this Center are given help in correcting their weaknesses	1	2	3	4	5
53	XI. 1.	Teachers in this Center help one another with their classroom problems	1	2	3	4	5
54	2.	The teaching staff in this Center provides each other with mutual assistance for working on problem areas	1	2	3	4	5
55	3.	Teachers are happy to share their skills with one another	1	2	3	4	5

XII. Please rank these job factors which might help to keep you in teaching. Rank them in the order of importance to you from greatest (1) to least (6), using the numbers 1-6.

56 Money, job security and possible promotions _____

57 The Center director's and parent policy committee's commitment to the education of children _____

58 Personal satisfaction gained from teaching _____

59 Interest of the director in the welfare of children _____

60 Good benefits and long vacations _____

61 The feeling that I can make a difference in the lives of the children _____

This instrument does not require OMB forms clearance; but the study is authorized under:

OMB # 85-S77002

Expires 12/31/73

EVALUATION OF THE PROCESS OF MAINSTREAMING HANDICAPPED CHILDREN INTO HEAD START

APPLIED MANAGEMENT SCIENCES, INC.

PHASE II

ALPERN-BOLL DEVELOPMENTAL PROFILE

1. Grantee _____

2. Delegate Agency _____

Program Code

1-5 | | | | | |

Child Code

6-11 | | | | | | |

Form Number

12-13 | 0 | 8 |

Respondent:

_____
(Position/Title)

Program Name:

_____

_____

Interview Date ___/___/___

Interviewer _____

_____

DEVELOPMENTAL PROFILE

SCORING & REPORT FORM

PSYCHOLOGICAL DEVELOPMENT PUBLICATIONS
P.O. Box 3198
Aspen, Colorado 81611

Child's Name: _____ *School Placement:* _____ *Date:* _____

Rater: _____ *Birthdate:* _____

21-22 = "01"

Interviewee: _____ *Relationship to Child:* _____ *Chronological Age:* _____

DEVELOPMENTAL SKILL AGE PROFILE

COMMENTS AND CONCLUSIONS

24-25 Physical Age ☐☐☐ yrs. · mos.

27-28 Self-Help Age ☐☐☐ yrs. · mos.

30-31 Social Age ☐☐☐ yrs. · mos.

33-34 Academic Age ☐☐☐ yrs. · mos.

36-37 Communication Age ☐☐☐ yrs. · mos.

38-40 I. E. Equivalency Score ☐☐☐

A.61

22

23

PHYSICAL SCALE SCORING FORM

ITEM	SCORING Fail	SCORING Pass	BASAL CREDIT	ITEM	SCORING Fail	SCORING Pass	BASAL CREDIT
P-1	0	2 mos.		P-22	0	4 mos.	
P-2	0	2 "		P-23	0	4 "	
P-3	0	2 "	½ yr.	P-24	0	4 "	4½ yrs.
P-4	0	2 "		P-25	0	4 "	
P-5	0	2 "		P-26	0	4 "	
P-6	0	2 "	1 yr.	P-27	0	4 "	5½ yrs.
P-7	0	2 "		P-28	0	4 "	
P-8	0	2 "		P-29	0	4 "	
P-9	0	2 "	1½ yrs.	P-30	0	4 "	6½ yrs.
P-10	0	2 "		P-31	0	4 "	
P-11	0	2 "		P-32	0	4 "	
P-12	0	2 "	2 yrs.	P-33	0	4 "	7½ yrs.
P-13	0	2 "		P-34	0	4 "	
P-14	0	2 "		P-35	0	4 "	
P-15	0	2 "	2½ yrs.	P-36	0	4 "	8½ yrs.
P-16	0	2 "		P-37	0	4 "	
P-17	0	2 "		P-38	0	4 "	
P-18	0	2 "	3 yrs.	P-39	0	4 "	9½ yrs.
P-19	0	2 "		P-40	0	6 "	
P-20	0	2 "		P-41	0	6 "	
P-21	0	2 "	3½ yrs.				10½ yrs.

SCALE SUMMARY

BASAL CREDIT

Age credit in highest (oldest) box in which all items are passed.

_____ Yrs. _ Mos.

ADDITIONAL CREDIT

Sum of months credit (items passed) beyond basal level.

_____ _ Mos.

PHYSICAL AGE

Basal credit plus additional credit.

_____ Yrs. _ Mos.

Directions:

Circle zero for items failed. Circle number (months credit) for items passed. Manual offers complete directions.

SELF-HELP SCALE SCORING FORM

ITEM	SCORING Fail	Pass	BASAL CREDIT
S-H 1	0	2 mos.	
S-H 2	0	2 "	
S-H 3	0	2 "	½ yr.
S-H 4	0	2 "	
S-H 5	0	2 "	
S-H 6	0	2 "	1 yr.
S-H 7	0	2 "	
S-H 8	0	2 "	
S-H 9	0	2 "	1½ yrs.
S-H 10	0	2 "	
S-H 11	0	2 "	
S-H 12	0	2 "	2 yrs
S-H 13	0	2 "	
S-H 14	0	2 "	
S-H 15	0	2 "	2½ yrs.
S-H 16	0	2 "	
S-H 17	0	2 "	
S-H 18	0	2 "	3 yrs.
S-H 19	0	2 "	
S-H 20	0	2 "	
S-H 21	0	2 "	3½ yrs.
S-H 22	0	4 mos.	
S-H 23	0	4 "	
S-H 24	0	4 "	4½ yrs.
S-H 25	0	4 "	
S-H 26	0	4 "	
S-H 27	0	4 "	5½ yrs.
S-H 28	0	4 "	
S-H 29	0	4 "	
S-H 30	0	4 "	6½ yrs.
S-H 31	0	4 "	
S-H 32	0	4 "	
S-H 33	0	4 "	7½ yrs.
S-H 34	0	4 "	
S-H 35	0	4 "	
S-H 36	0	4 "	8½ yrs.
S-H 37	0	4 "	
S-H 38	0	4 "	
S-H 39	0	4 "	9½ yrs.
S-H 40	0	4 "	
S-H 41	0	4 "	
S-H 42	0	4 "	10½ yrs.
S-H 43	0	4 mos.	
S-H 44	0	4 "	
S-H 45	0	4 "	11½ yrs.
S-H 46	0	4 "	
S-H 47	0	4 "	
S-H 48	0	4 "	12½ yrs.

SCALE SUMMARY

BASAL CREDIT
Age credit in highest (oldest) box in which all items are passed.

_____ Yrs. – Mos.

ADDITIONAL CREDIT
Sum of months credit (items passed) beyond basal level.

_____ – Mos.

SELF-HELP AGE
Basal credit plus additional credit.

_____ Yrs. – Mos.

Directions:
Circle zero for items failed. Circle number (months credit) for items passed. Manual offers complete directions.

SOCIAL SCALE SCORING FORM

ITEM	SCORING Fail	Pass	BASAL CREDIT
S-1	0	2 mos.	
S-2	0	2 "	
S-3	0	2 "	½ yr.
S-4	0	2 "	
S-5	0	2 "	
S-6	0	2 "	1 yr.
S-7	0	2 "	
S-8	0	2 "	
S-9	0	2 "	1½ yrs.
S-10	0	2 "	
S-11	0	2 "	
S-12	0	2 "	2 yrs.
S-13	0	2 "	
S-14	0	2 "	
S-15	0	2 "	2½ yrs.
S-16	0	2 "	
S-17	0	2 "	
S-18	0	2 "	3 yrs.
S-19	0	2 "	
S-20	0	2 "	
S-21	0	2 "	3½ yrs.
S-22	0	4 mos.	
S-23	0	4 "	
S-24	0	4 "	4½ yrs.
S-25	0	4 "	
S-26	0	4 "	
S-27	0	4 "	5½ yrs.
S-28	0	4 "	
S-29	0	4 "	
S-30	0	4 "	6½ yrs.
S-31	0	4 "	
S-32	0	4 "	
S-33	0	4 "	7½ yrs.
S-34	0	4 "	
S-35	0	4 "	
S-36	0	4 "	8½ yrs.
S-37	0	4 "	
S-38	0	4 "	
S-39	0	4 "	9½ yrs.
S-40	0	4 "	
S-41	0	4 "	
S-42	0	4 "	10½ yrs.
S-43	0	4 mos.	
S-44	0	4 "	
S-45	0	4 "	11½ yrs.

SCALE SUMMARY

BASAL CREDIT
Age credit in highest (oldest) box in which all items are passed.

_____ Yrs. - Mos.

ADDITIONAL CREDIT
Sum of months credit (items passed) beyond basal level.

_____ Mos.

SOCIAL AGE
Basal credit plus additional credit

_____ Yrs. - Mos.

Directions:
Circle zero for items failed. Circle number (months credit) for items passed. Manual offers complete directions.

ACADEMIC SCALE SCORING FORM

ITEM	SCORING Fail	Pass	BASAL CREDIT
A–1	0	2 mos.	
A–2	0	2 "	
A–3	0	2 "	½ yr.
A–4	0	3 "	
A–5	0	3 "	
			1 yr.
A–6	0	3 "	
A–7	0	3 "	
			1½ yrs.
A–8	0	2 "	
A–9	0	2 "	
A–10	0	2 "	2 yrs.
A–11	0	2 "	
A–12	0	2 "	
A–13	0	2 "	2½ yrs.
A–14	0	2 "	
A–15	0	2 "	
A–16	0	2 "	3 yrs.
A–17	0	2 "	
A–18	0	2 "	
A–19	0	2 "	3½ yrs.
A–20	0	4 mos.	
A–21	0	4 "	
A–22	0	4 "	4½ yrs.
A–23	0	4 "	
A–24	0	4 "	
A–25	0	4 "	5½ yrs.
A–26	0	4 "	
A–27	0	4 "	
A–28	0	4 "	6½ yrs.
A–29	0	4 "	
A–30	0	4 "	
A–31	0	4 "	7½ yrs.
A–32	0	6 "	
A–33	0	6 "	
			8½ yrs.
A–34	0	6 "	
A–35	0	6 "	
			9½ yrs.
A–36	0	6 "	
A–37	0	6 "	
			10½ yrs.
A–38	0	6 mos.	
A–39	0	6 "	
			11½ yrs.

SCALE SUMMARY

BASAL CREDIT
Age credit in highest (oldest) box in which all items are passed.

Yrs. – Mos.

ADDITIONAL CREDIT
Sum of months credit (items passed) beyond basal level.

– Mos.

ACADEMIC AGE
Basal credit plus additional credit.

Yrs. – Mos.

Directions:
Circle zero for items failed. Circle number (months credit) for items passed. Manual offers complete directions.

COMMUNICATION SCALE SCORING FORM

ITEM	SCORING Fail	Pass	BASAL CREDIT
C-1	0	2 mos.	
C-2	0	2 "	
C-3	0	2 "	½ yr.
C-4	0	2 "	
C-5	0	2 "	
C-6	0	2 "	1 yr.
C-7	0	2 "	
C-8	0	2 "	
C-9	0	2 "	1½ yrs.
C-10	0	2 "	
C-11	0	2 "	
C-12	0	2 "	2 yrs.
C-13	0	2 "	
C-14	0	2 "	
C-15	0	2 "	2½ yrs.
C-16	0	2 "	
C-17	0	2 "	
C-18	0	2 "	3 yrs.
C-19	0	2 "	
C-20	0	2 "	
C-21	0	2 "	3½ yrs.
C-22	0	4 mos.	
C-23	0	4 "	
C-24	0	4 "	4½ yrs.
C-25	0	4 "	
C-26	0	4 "	
C-27	0	4 "	5½ yrs.
C-28	0	4 "	
C-29	0	4 "	
C-30	0	4 "	6½ yrs.
C-31	0	4 "	
C-32	0	4 "	
C-33	0	4 "	7½ yrs.
C-34	0	6 "	
C-35	0	6 "	
			8½ yrs.
C-36	0	4 "	
C-37	0	4 "	
C-38	0	4 "	9½ yrs.
C-39	0	6 "	
C-40	0	6 "	
C-41	0	6 mos.	
C-42	0	6 "	
			11½ yrs.
C-43	0	6 "	
C-44	0	6 "	
			12½ yrs.

SCALE SUMMARY

BASAL CREDIT
Age credit in highest (oldest) box in which all items are passed.

_____
Yrs. - Mos.

ADDITIONAL CREDIT
Sum of months credit (items passed) beyond basal level.

_____
Mos.

COMMUNICATION AGE
Basal credit plus additional credit

_____
Yrs. - Mos.

Directions:
Circle zero for items failed. Circle number (months credit) for items passed. Manual offers complete directions.

A.66

HIGH SCOPE HOME ENVIRONMENT SCALE

This instrument does not require OMB forms clearance; but the study is authorized under:

OMB # 85-S77002

Expires 12/31/78

EVALUATION OF THE PROCESS OF MAINSTREAMING HANDICAPPED CHILDREN INTO HEAD START

APPLIED MANAGEMENT SCIENCES, INC.

PHASE II

HIGH SCOPE HOME ENVIRONMENT SCALE

1. Grantee _____
2. Delegate Agency _____
3. Alternate Program _____

CARD COLUMN

1-5 Program Code [| | | | |]

6-11 Child Code [| | | | | |]

12-13 Form Number [1 | 0]

Respondent:

_____
(Position/Title)

Program Name:

_____

_____

Interview Date ___/___/___

Interviewer _____

_____

Child's Name _____ Time Started _____
First Last

Focal Parent's Name _____ Time Finished _____

Community/City _____ State _____ Date _____

Tester _____

Comments (Child became ill, refused, etc.) _____

HIGH/SCOPE HOME ENVIRONMENT SCALE

This booklet was prepared by High/Scope Educational Research Foundation, Ypsilanti, Michigan for use under Office of Child Development, HEW, Contract No. HEW-OS-72-127.

April, 1975

-22 = "01"

I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE ACTIVITIES THAT _____ (Child's Name) DOES FROM DAY TO DAY. SOME OF THE 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 _____ (Child's Name) CAN LOOK AT?

23

Would you say:	3	fifteen or more
or:	2	several, but not fifteen
or:	1	three or fewer

2. HOW OFTEN WOULD YOU SAY SOMEONE READS STORIES TO _____ (Child's Name)?

24

Would you say:	3	almost every day
or:	2	several times a week
or:	1	not that often?

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

25

Would you say:	3	for about a half-hour or more every day
or:	2	for a few minutes every day
or:	1	several times a week or less?

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

26

Would you say:	3	almost every day
or:	2	several times a week
or:	1	not that often?

5. I'M GOING TO READ A LIST OF HOUSEHOLD TASKS THAT CHILDREN SOME TIMES HELP WITH. PLEASE TELL ME WHICH OF THEM _____ (Child's Name) HAS HELPED YOU WITH IN THE LAST MONTH.

Yes	No	
1	0	clean or peel food for a meal
1	0	mix or bake things, like cookies
1	0	stir things while they cook, like soup, pudding, or jello
1	0	find food on shelves at the grocery store for you
1	0	take off the dishes after meals
1	0	put clean clothes into the right drawers or shelves

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

Would you say:
3 almost every day
or: 2 once a week or so
or: 1 not that often?

7. HOW MUCH TIME DOES _____ (Child's Name) WATCH TELEVISION?

Would you say:
3 about 2 hours a day or more
or: 2 every day but not for two hours
or: 1 several times a week or less?

8. HOW OFTEN DO YOU TALK WITH _____ (Child's Name) 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?

Would you say:
3 almost every day
or: 2 several times a week
or: 1 not that often?

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

Check "yes" only if item is presently available in home.

	Yes	No	
36	1	0	crayons and paper
37	1	0	scissors
38	1	0	scotch tape, paste, or stapler
39	1	0	jigsaw puzzles
40	1	0	old picture catalogs to read and cut up, like Sears, Wards, or others
41	1	0	paint or magic markers
42	1	0	clay or playdough
43	1	0	"put-together" toys like tinkertoys, Legos, pegboards, or beads for stringing
44	1	0	hammer and nails with some wood scraps
45	1	0	yarn, thread, and cloth scraps for knitting or sewing
46	1	0	make believe toys out of milk cartons, tin cans, or egg cartons
47	1	0	plants of his (her) own in a pot or garden

10. HOW OFTEN DO YOU PLAY "HOUSE", "STORE", "DOCTOR", OR OTHER MAKE-BELIEVE GAMES WITH _____ (Child's Name) ?

48

Would you say: 3 almost every day
or: 2 several times a week
or: 1 not that often?

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 THESE YOU HAVE TRIED TO TEACH _____ (Child's Name) IN THE PAST MONTH.

If reply is "already knows," probe for "in the past month." If someone other than focal parent taught child, score "no."

	Already Knows	Yes	No	
49	1	1	0	nursery rhymes, prayers, or songs
50	1	1	0	colors
51	1	1	0	shapes, such as circles, squares, or triangles
52	1	1	0	to write his (her) name
53	1	1	0	to remember his (her) address and telephone number
54	1	1	0	to count things
55	1	1	0	to recognize numbers in books
56	1	1	0	to say the "abc's"
57	1	1	0	to recognize letters in books
58	1	1	0	to read words on signs or in books
59	1	1	0	ideas like "big-little", "up-down", "before-after", and so on

237

Be sure to record time finished

PARENT'S INTERVIEW SCHEDULE - PART I

PARENT'S INTERVIEW SCHEDULE - PART I

21-22 = "01"

1. Do you have any other children? (Circle response given)

23 (2) no

24-25 (1) yes

↳ How many? ☐☐ (enter number)

2. Do any of these other children have handicaps or special learning problems? (Circle response given)

26 (2) no

(1) yes

3. Is this child: (circle one)

27

1 First Born 3 Only Child

2 Last Born 4 Other

4. Does your child receive any special services other than those provided by _____ (name of program).

28 (2) no

(1) yes

↳ What kind of services?

29-30 _____ (Interviewer: Record verbatim. Answers will be coded at a later date)

31-32 _____

33-34 _____

5. Was your child ever enrolled in another program similar to the one s/he is currently enrolled in?

35 2 no

1 yes

→ 5a. What kind of program was it?

36 1 Home-based, Head Start

37, 38-39 2 Home-based, Other _____

40 3 Infant stimulation program

41 4 Easter Seal Treatment Center

42 5 Association for Retarded Children (center-based)

43 6 BEH First Chance Project

44 7 Public School Preschool (center-based)

45, 46-47 8 Other, specify _____

→ 5b. How many years was your child enrolled? (Total time in all previous programs)

48 1 less than 1 year

2 1 year

3 2 years

4 3 years or more

6. Do you participate in activities sponsored by your child's program?

49 2 no

1 yes

→ 6a. How often are you involved?

50 1 1-3 hours a month

2 2-3 hours a week

3 4 or more hours a week

→ 6b. What kinds of activities are you involved in? (Check all that apply)

51 ____ provide transportation for my child or other children

52 ____ train or counsel other parents (i.e., a parent trained in a skill shares that skill with other parents)

53 ____ involved in outreach and recruitment of other handicapped children

54 ____ involved in developing a community resource file

55 ____ helped develop goals for social services and parent involvement activities

56 ____ function as a contact between my child's program and other service agency(ies)

57 ____ contributed by making or donating materials for the classroom

58 ____ involved in functions with parents of other normal Head Start children (social functions, class functions, etc.)

59 ____ other (specify) _____

60 ____ other (specify) _____

7. How often do you talk to your child's teacher or the program director about your child? (Interviewer: Code response below)

61
- 1 at least weekly
- 2 2-3 times a month
- 3 monthly
- 4 several times a year
- 5 rarely or never

8. How important do you think it is for your child to be in a special program designed to meet his/her special needs? (Interviewer: Make certain the respondent understands the intent of this question)

62
- 1 Very important
- 2 Somewhat important
- 3 I don't know
- 4 Somewhat unimportant
- 5 Very unimportant

9. Do you think the program your child is currently in is the best program for him/her?

63
- 2 no
- 1 yes
  - → 9a. What program do you think would be best?

64-65 _____ (Interviewer: Write in verbatim)

66-67 _____

10. Do you think your child will benefit from the program he/she is in this year? (Interviewer: Benefit may be defined in terms of increased learning, better social skills, and/or enhanced self-help skills)

68
- 4 I don't know
- 3 no
- 2 yes, but only a little
- 1 yes, he/she will benefit greatly

11. Where do you expect your child to be enrolled in school next year?

69
- 1 Public school

70
- 2 Head Start

71, 72-73
- 3 Private school (specify) _____

74, 75-76
- 4 Other (specify) _____

77
- 5 No program

21-22 = "02"

Now I'd like to ask you some general questions about yourself. This information will be kept strictly confidential and will not be told to anyone. You do not have to answer any of these questions, but it would help us in the study if you would answer them. Thank you.

12. What is the highest level of education you have completed? (Interviewer: Code response below)

23

1 less than high school

2 high school graduate

3 some college, but not a 4-year degree

4 college graduate

5 postgraduate study/degree

12a. Your spouse?

24 ☐ (Interviewer: Enter code from #12)

25-26 13. What is your occupation?

_____ (Interviewer: Record verbatim)

27-28 13a. What do you do in your job?

_____ (Interviewer: Record verbatim)

29-30 14. What is your spouse's occupation?

_____ (Interviewer: Record verbatim)

31-32 14a. What does your spouse do in his/her job?

_____ (Interviewer: Record verbatim)

15. Here is a card showing income groups (Interviewer: Hand card to parent) Tell me the number of the group which represents your family's total annual income, before taxes.

33

1 Under $5,000

2 $5,000 - $10,000

3 $10,000 - $15,000

4 Over $15,000

PARENT'S INTERVIEW SCHEDULE - PART II
(For Mainstreaming Classes Only)

			Yes	Can't Say	No
34	1	I feel my child could do better in a more specialized program for her/his type of handicap.	1	2	3
35	2	I think other children don't like to be in the same class with handicapped children.	1	2	3
36	3	I think my child gets along better at home since she/he has been in school with children who don't have handicaps.	3	2	1
37	4	I think it's best for handicapped children to be in a classroom with children who don't have handicaps.	3	2	1
38	5	I think my child would have more friends if she/he were in a class of children with similar handicaps.	1	2	3
39	6	I think that handicapped children in classes with other children get along better with other people.	3	2	1
40	7	Handicapped children are more like other children than different.	3	2	1
41	8	I think my child is afraid to try when she/he is competing with other children.	1	2	3
42	9	I think children without handicaps are less likely to make fun of handicapped children if they're in the same class together.	3	2	1

SHAEFER PARENT INVENTORY I

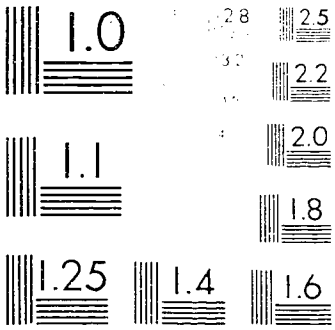
SHAEFER PARENT INVENTORY I

Check the number of the response that most closely reflects how you really feel about each statement. There are no right or wrong answers.

	Strongly Disagree	Midly Disagree	Not Sure	Midly Agree	Strongly Agree	21-22="01"
1. Parents can do much about Center policies and practices.	1	2	3	4	5	23
2. I am eager to have the teacher's ideas about how I can work with my child.	1	2	3	4	5	24
3. Parents cannot do much to change what happens in my child's classroom.	1	2	3	4	5	25
4. I want the teacher to tell me how to help my child learn.	1	2	3	4	5	26
5. There is not much hope that parents can have a meaningful effect on the center.	1	2	3	4	5	27
6. I want the teacher to help me to do a better job of teaching my child at home.	1	2	3	4	5	28

(educational beliefs)

		Strongly Disagree	Mildly Disagree	Not Sure	Mildly Agree	Strongly Agree	
1.	The most important thing to teach children is absolute obedience to parents	1	2	3	4	5	29
2.	Although adults may have difficulty accepting them, all children are basically good at heart	1	2	3	4	5	30
3.	Teachers should show the same amount of affection to all the children	1	2	3	4	5	31
4.	The most important thing to teach children is absolute obedience to whoever is in authority	1	2	3	4	5	32
5.	A child learns best by doing things himself rather than listening to others	1	2	3	4	5	33
6.	One of the worst things about taking care of children is that a woman feels that she can't get out	1	2	3	4	5	34
7.	Children should always obey their parents	1	2	3	4	5	35
8.	All children are good by nature	1	2	3	4	5	36
9.	Teachers should give all children an equal amount of praise	1	2	3	4	5	37
10.	Children should always obey the teacher	1	2	3	4	5	38
11.	Basically, a child learns by exploring the world around him	1	2	3	4	5	39
12.	Most mothers are bothered more by the feeling of being shut up in the home than by anything else	1	2	3	4	5	40
13.	Children should not question the authority of their parents	1	2	3	4	5	41
14.	Children are born good; it is society that turns some children into troublemakers	1	2	3	4	5	42


1.0
2.8
2.5
2.2
2.0
1.1
1.8
1.25
1.4
1.6

XI: LABORERS, EXCEPT FARM AND MINE

Census Book Code	ISR Code	Occupation	Duncan Socio-Economic Index	Duncan Population Decile	Census Socio-Economic Index	Rice Modified White-Blue Collar	1960 Census Data: Percent Population	Percent Women	Percent Increase 1950-60
960	323	Carpenters helpers, exc. logging & mining	07	0	16	4	.07	01	-30
962	411	Fishermen & oystermen	10	1	11	4	.06	01	-47
963	412	Garage laborers, car washers & greasers	08	1	24	4	.14	03	32
964	413	Gardeners, exc. farm and groundskeepers	11	1	19	4	.33	02	38
965	414	Longshoremen & stevedores	11	1	25	4	.09	01	-16
970	415	Lumbermen, raftsmen, woodchoppers	04	0	04	4	.21	01	-28
971	416	Teamsters	08	1	13	4	.03		-03
972	417	Truck drivers' helper	09	1	28	4	.05	01	-12
973	503	Warehousemen n.e.c.	08	1	28	4	.19	01	60
		Laborers, n.e.c.	07	1		4	2.79	03	-03
		Non-manufacturing:							
X(C)	491	Construction (for other non-mfg. ind. see after mfg. industries below)	07	1	16	4	1.16	01	08
X(985)		Manufacturing (If NA what kind see not spec. ind. under manufacturing below)	08	1		4	1.49	07	-17
		Durable goods					.96	04	-15
X(206)		Lumber & wood prod. exc. furn.							
X(207)	419	Logging							
		Sawmills, planing mills, & millwork	03	0	04	4	.15	02	-34
X(208)	420	Misc. wood products	02	0	09	4	.02	09	-27
X(209)	421	Furniture & Fixtures	05	0	19	4	.03	08	-08
X(216-236)	422	Stone, clay & glass prod. (If NA which below)	07	1		4	.13	03	01
X(216)	423	Glass & glass products	14	2	31	4	.02	07	-02
X(217)	424	Cement, concrete, gypsum, plaster products	06	0	22	4	.04	01	18
X(218)	425	Structural clay products	05	0	19	4	.04	03	-08
X(219)	426	Pottery & related prod.	07	1	30	4	.01	16	-31
X(236)	427	Misc. nonmetallic mineral & stone products	05	0	23	4	.02	02	14
		Metal Industries	07	1		4	.39	03	-11
X(237)	430	Blast furnaces, steel works, rolling mills	09	1	35	4	.19	01	-15
X(238)	431	Other primary iron & steel ind.	04	0	18	4	.07	01	-19
X(239)	432	Primary nonferrous ind.	06	0	34	4	.04	02	-04
X(246)	433	Cutlery, hand tools & other hardware	07	1	27	4	.01	18	-48
X(247)	434	Fabricated structural metal products	07	1	27	4	.03	03	15
X(248)	435	Misc. fab. met. prod.	10	1	27	4	.06	11	16
X(249)	436	Not spec. metal ind.	09	1	28	4	*	11	-57
X(256+257M)	437	Machinery, exc. elec. (If NA which below)	11	1		4	.07	04	-16
X(256)	438	Agric. mach., tractors	14	2	38	4	.01	03	-47
X(257)	439	Office & store machines & devices	17	3	45	4	*	08	05
X(M)	440	Miscellaneous machinery	10	1	32	4	.06	03	-07
X(259)	441	Electrical machinery, equipment and supplies	14	2	45	4	.05	18	-02
X(267-276)	442	Transportation equipment (If NA which below)	11	1		4	.10	03	-17
X(267)	443	Motor vehicles & motor vehicle equipment	13	1	42	4	.06	03	-27
X(268)	444	Aircraft and parts	15	3	51	4	.01	06	65
X(269)	445	Ship & boat bldg. rpr.	02	0	19	4	.02	02	-09
X(276)	446	Railroad & misc. transportation equipment	08	1	31	4	.01	04	-03

* Less than .01

XII_ Laborers (continued)

Census Book Code	ISR Code	Occupation	Duncan Socio-Economic Index	Duncan Popular-ity Decile	Census Socio-Economic Index	Rice Modified White-Blue Collar	1960 Census Data: Percent Popular-ity	1960 Census Data: Percent Women	Percent Increase 1950-60
X(286-299)	447	Professional & photographic equipment & watches (If NA which below)	11	1		&	-01	19	-07
X(286)	448	Profess. equip. & supp.	10	1	37	&	*	18	17
X(287)	449	Photo. equip. & supp.	16	1	41	&	*	18	17
X(289)	504	Watches, clock, & clock-work operated devices	11	1	29	&	*	32	-62
X(296)	450	Misc. Mfg. Industries	12	1	28	&	.02	18	-22
		Nonspecified metals					-53	10	-14
		Food & kindred prod. (If NA which see Spec. Spec. Food Ind. below)	09	1		&	-21	09	-16
X(306)	452	Meat products	08	1	32	&	-05	10	-12
X(307)	453	Dairy products	13	1	34	&	-03	03	-23
X(308)	454	Canning & preserv. fruits vegetables & sea foods	06	0	15	&	.04	17	02
X(309)	455	Grain-mill products	06	0	23	&	-03	02	-07
X(316)	456	Bakery products	10	1	30	&	-01	12	78
X(317)	457	Confect., & related prod.	10	1	33	&	-01	17	-17
X(318)	458	Beverage industries	16	3	34	&	-03	03	-19
X(319)	459	Misc. food prep. & kind. prod.	05	0	17	&	-03	05	-41
X(326)	460	Not spec. food ind.	14	2	40	&	*	20	-20
X(329)	461	Tobacco Manufacturers	00	0	10	&	-01	31	02
X(346-356)	462	Textile mill products (If NA which below)	03	0		&	.06	16	-33
X(346)	463	Knitting mills	04	0		&	*		
X(347)	464	Dyeing & finishing textiles except knit goods	07	1		&	*		
X(348)	465	Carpets, rugs, floor covering	14	2		&	*		
X(349)	466	Yarn, thread, & fabric mills	01	0	12	&	.05	16	-34
X(356)	467	Misc. textilemill products	06	0	14	&	*		
X(36763)	468	Apparel & other fab. textile products	09	1	21	&	.02	60	-02
X(5)	469	Apparel & accessories	11	1		&			
X(367)	470	Misc. fab. textile products	05	0		&			
X(386-389)	471	Papers & allied prod. (If NA which below)	07	1		&	.06	06	-15
X(386)	472	Pulp, paper, & paperbd. mills	05	0	27	&	.04	02	-13
X(387)	473	Paperbd. containers & boxes	10	1	31	&	.01	12	-61
X(389)	474	Misc. paper & pulp products	08	1	30	&	.01	17	-39
X(3966398)	475	Printing, publishing, allied industry	23	5	50	&	-02	-13	09
X(406-409)	476	Chemicals & allied products (If NA which below)	08	1		&	.07	02	-13
X(406)	477	Synthetic fibers	04	0	30	&	*	09	-22
X(407)	478	Drugs & Medicines	22	5	48	&	*	08	03
X(408)	479	Paints, varnishes and related products	08	1	42	&	*	05	-34
X(409)	480	Misc. chemicals & allied products	08	1	18	&	.06	03	-10
X(416 & 419)	481	Petroleum & coal products (If NA which below)	22	5		&	.03	01	-26
X(416)	482	Petroleum refining	26	5	59	&	.02	01	-40
X(419)	483	Misc. petroleum and coal products	03	0	26	&	*	02	-03
X(4266429)	484	Rubber products	12	1	41	&	.03	13	-14
X(436-439)	485	Leather & leather products (If NA which below)	06	0	27	&	.02	22	-28
X(436)	486	Leather; tanned, curried & finished	02	0		&	*		
X(437)	487	Footwear, except rubber	10	1		&	*		
X(438)	488	Leather products, except footwear	12	1		&	*		
X(459)	489	Not Specified manufacturing industries (Incl. Manuf. but NA kind)	08	1	26	&	*	11	-37
X(L)	492	Railroads & railway express service	03	0	20	&	.21	02	-52
X(507-526)	493	Transportation, except railroads	09	1	28	&	.14	01	04
X(536-579)	494	Telecommunications and utilities & sanitary service	06	0	18	&	.19	01	-06
X(606-696)	495	Wholesale & retail trade	12	2	28	&	.58	05	38
X(806-809)	496	Business & repair services	26	1	09	&	.04	04	54
X(X,826-81)	497	Personal services	09	0	01	&	.12	07	-03
X(906-936 J)	498	Public admintsaration	29	1	07	&	.12	03	-22
X(999-non manuf.)	490	Non-manufacturing (incl. non-manuf. NA kind)	07	1		&			
X(939-017-015,706-422,736.1	499	All other industries (incl. not reported.)	07	0	06	&	.23	09	-15
		Total					5.47	04	-07

* Less than .01

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