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ABSTRACT

This report is one of four describing a project which investigated the impact of Head Start parent participation on the program's quality, on institutional changes in the community, on the Head Start children, and on the Head Start parents themselves. Two types of parent participation were investigated: (1) parents in decision-making roles, and (2) parents in learner roles. Another type of involvement in which parents were paid employees in Head Start programs was also studied. This report gives a summary of the project's methods and results, and includes the statistical data gathered from the 20 Head Start centers studied. In general, results are supportive of high parent participation in both roles in relationship to all dependent variable areas. Results also indicate that extensive parent involvement in Head Start centers appears to be related to the degree of involvement parents had in recognizing, planning and implementing improvements in the centers. Related documents include PS 006 815, PS 006 816, and PS 006 817. (ST)

INVESTIGATION

OF THE EFFECTS

OF PARENT PARTICIPATION

IN HEAD START

FINAL TECHNICAL REPORT

Prepared for: Project Head Start
Office of Child Development
United States Department of Health, Education and Welfare

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MIDCO EDUCATIONAL ASSOCIATES INC.

PREFACE

This report is the nationwide research final technical report of a project carried out by MIDCO Educational Associates, Inc., Denver, Colorado, under contract HEW-OS-72-45 to the Office of Child Development, Department of Health, Education and Welfare, to study parent participation in Head Start. It is one of three reports submitted to OCD, DHEW, and presents in detail the methodology and results of the project. Another of the reports is devoted to the relevant antecedent literature and firsthand reportage of events which formed the basis of Head Start parent participation. The third report summarizes the entire project, and identifies implications which may be relevant to the future of parent participation in Head Start.

The purpose of the project was, in the main, to investigate two types of parent participation: (1) parents in decision-making roles, and (2) parents in learner roles. Another type of involvement, parents as paid employees in Head Start, was studied as well. Four areas were investigated in relation to parent involvement. These were: (1) quality of Head Start programs, (2) change in community institutions, (3) Head Start children, and (4) the parents of Head Start children. Both former and current children and parents were subjects of the study.

The project began on November 8, 1971, and was completed within less than a year of that date. The work statement or Request for Proposals, which appears in Appendix A, describes the project originally requested by OCD. Several deviations from the research plan described in the work statement were made conjointly by MIDCO and OCD, so the work statement no longer represents the

final plan of the study in all particulars. The methodology was planned and executed in close cooperation with the OCD Project Officer, Dr. Thelma Zener, and was reviewed at critical stages by OCD's review panel for this project. MIDCO also convened review panels at important stages of the project for their advice and recommendations.

The research staff which carried out this project consisted of Dr. Donald G. Wargo, Dr. Bill Bassore, Mr. Ray Romero, Dr. C. Dean Miller, Dr. Eugene R. Oetting, Dr. Joe Dinges, and Mr. Charles Mowry. Many paraprofessional and professional Associates worked in various stages on the project, particularly in connection with the data collection process. Head Start parents, program persons, and professional persons participated in the review panels covered by MIDCO. Rocky Mountain Behavioral Sciences Institute was the subcontractor for data processing and analysis.

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SUMMARY OF PROJECT RESULTS

Introduction

Parent participation has been a major component since the beginning of Project Head Start in 1965. Head Start Guidelines include parents as participants in decision-making about the nature and operation of the programs, participation in the classroom as paid employees, volunteers and observers, participation in educational opportunities developed by Head Start programs, and finally in terms of consulting with Head Start staff regarding their own children. Thus, parents have been conceived as both contributors to and beneficiaries of Head Start from its inception.

The rationale underlying parent involvement includes a number of assumptions. First, it has been assumed that parent participation in decision-making roles would be good for program quality, since parents are acutely aware of their own children's needs. Secondly, it has been assumed that parent participation in decision-making roles would help parents to learn how to work within the community structure to achieve their goals, and in so doing gain a greater sense of competence. Third, the increased self-confidence and inner-direction gained by parents through participation is believed to have beneficial effects on their children's feelings, attitudes, motives, emotions, and consequently their achievements. Finally, it is believed that such participation would lead to changes in community institutions such that they would become more responsive to the needs of the poor.

By the same token, it has been assumed that parent involvement in learner activities may be a means of producing other desirable effects. For one, parents that participate as learners in Head Start programs might acquire skills and attitudes that will benefit their children's emotional and cognitive development. Further, the increased feelings of competence and gratification in child rearing resulting from participation in Head Start learner activities may well lead to improved self-concepts and increased effectiveness in general functioning, eventually leading to improvements in Head Start programs and community institutions.

While there is widespread acceptance of the underlying assumptions, or theoretical basis, for parent participation in Head Start, the empirical foundation has not been established. Even though it is often difficult to rigorously assess the effects of on-going social-action programs, it is possible to collect systematic evidence with some scientific precision which may well cast light on the efficacy of the relevant aspects of such social-action programs. Such is the case in the present project.

The purpose of the present project is to investigate the impact of Head Start parent participation in learner and decision-making roles, and to a lesser extent in the paid-employee role. Specifically, the purpose of the project was to assess the impact of these types of parent participation on Head Start program quality, on institutional changes in the community, on the Head Start children, and on Head Start parents themselves.

Method

Twenty Head Start Centers distributed across the 48 continental United States were selected for inclusion in the study based on a series of structured telephone interviews. Five were high on the degree to which they involved parents in both decision-making and learner activities; five were relatively low in the extent to which they involved parents in both decision-making and

learner activities; five were high in the extent to which they involved parents in decision-making activities, while low in the extent to which they involved parents in learner activities; and, the remaining five were low in the extent to which they involved parents in decision-making activities, but high in the extent to which they involved parents in learner activities.

In each of the twenty centers, samples of Head Start children and their parents were selected for study. Approximately twelve of these parent-child pairs were currently in Head Start (Current Sample), approximately eight pairs were in Head Start the preceding year (Former Sample), but in kindergarten or first grade during the current year, and up to four were paid employees of the Head Start center, while their child was currently or formerly in Head Start.

Data collection teams were trained, and then sent into each of the 20 selected centers during the Spring of 1972. Parents completed a series of self-report questionnaires and measures to assess attitudes and feelings, their community involvement, and self-concept. In addition, the extent and type of their individual involvement in Head Start was measured. Their Head Start children were individually administered a battery of tests designed to assess cognitive and intellectual development, school readiness, self-concept, social adjustment, and so forth. Program quality was assessed by specially constructed questionnaires completed by Head Start staff and Head Start parents, as well as by observational ratings made by data collection teams. Institutional change was assessed through a series of steps involving a lengthly, structured group interview with key parents and staff for the purpose of generating instances of institutional change, and then confirmation of these changes by a series of follow-up interviews.

Results

A vast array of specific statistical results were obtained. The data were ordered to see what patterns of results might emerge. Caution in intepretation of the results is indicated. The study is an ex post facto effort, and causal relationship might sometimes be mistakenly inferred though seldom warranted. It is possible, nonetheless, to point to some important conclusions.

In general, the results are supportive of high parent participation in both roles in relationship to all dependent variable areas. Parents who were high in both decision-making and learner roles appeared most satisfied, had more self-confidence, greater sense of internal control, and greater assurance about their future than did parents who were low in participation. They also had children who performed better on intellective and task-oriented measures. Parents highly involved in Head Start were more involved in community institutional change efforts as well. High parent involvement in the decision-making role was more highly related to positive or desirable findings in all four dependent variables areas than was learner involvement, even though there was a general tendency for parents who were high in one of the roles to be high in the other. The primary differences, in general, occurred between the parents who were not involved at all or at an absolute minimum, and those parents who were involved to a greater extent.

Centers with high parent participation in both roles appeared best in program quality assessment. In general, the quality of classroom, administration, medical/dental and recruiting were reported as positive; while social services, nutrition, and career development fluctuated. Psychological services were generally rated lowest. An unexpected and somewhat puzzling finding was that centers classified as low in both roles were reported as the second strongest in in program quality by local staff and chairmen.

In the area of community institutional change, both the greatest number of changes and the most significant changes were reported in centers rated high in both decision-making and learner activities. Centers rated low in both roles reported the fewest and least important changes, while other center classifications were in between. The extent to which parents and centers participated in all stages of changes were directly related to the extent of parent participation.

In general, the results are strongly supportive of positive relationships between Head Start parent participation and desirable functioning in the parents, desirable functioning in their Head Start children, high levels of program quality, and involvement in institutional changes.

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INTRODUCTION

The involvement of parents has been an integral part of Head Start from its beginning. The so-called "Cooke Memo" (Cooke, 1965) in generating the original Head Start objectives and the original Head Start guidelines (Head Start, 1967), spelled out, explicitly, ways in which parents were to be involved. These included the following: participation in decision-making about the nature and operation of programs; participation in the classroom as paid employees, volunteers or observers; visits with staff in the Head Start family's home; and, participation in educational opportunities developed by Head Start programs. It is clear that a broad spectrum of parent participation activities was intended, ranging from relatively passive involvement and focus on the parents' own Head Start children at the one extreme, through more active learning, observing, and helping activities, to even more active involvement in planning and decision-making at every level of Head Start. The Head Start agency application form (CAP Form 30a) required agencies to describe their plans for attaining the objectives of parent participation on advisory groups, how they planned to involve parents in program operations, and ways in which the parents were to become beneficiaries of the program directly. Thus, Head Start, while usually thought of as a program for preschool children of the poor, is truly a program intended to involve parents both as contributors and beneficiaries.

Prior to the conception of Head Start, several forces were interacting that influenced the direction and development of the nation's first widescale program for preschool children and families.

In the early 1960's a knowledge base to justify a program for preschool children was emerging. Martin Deutsch was having considerable success in his work with "deprived" children. Bloom (1964) discussed the importance of early experiences upon the cognitive growth education achievement of children. Kagan and Moss (1962) pointed out the specific influence of home and maternal factors in the development of young children. Parent participation in Head Start was to a large extent related to these developments. As Hess (1971) points out:

> A compelling line of argument was developed for parent participation in early education programs. It contended that early experience affects subsequent intellectual and educational growth and achievement, and that children who grow up in homes disadvantaged by racial discrimination and poverty have a deficit of experiences presumably essential for academic achievement in the public schools.

The assumptions stated by Hess, though not necessarily reflective of his own position, became the underpinning for Project Head Start. The arguments for involving parents in the program were largely rehabilitative in nature. Their intent was to assist parents "in providing a more adequate educational environment for their young children (p. 265-266)."

At the same time, however, there was another set of arguments that emanated from a different direction. Although Head Start was conceived primarily as a program for young children, the context in which it developed was that of the Community Action Program (CAP) of the Office of Economic Opportunity (OEO). In the words of the enabling legislation, a community action program was one "which is developed, conducted, and administered with the maximum feasible participation of the residents of the areas and members of the groups served..." (Section 202a 3 of S. 2642 and the Economic Opportunity Act of 1964). Thus, a

second rationale for parent participation was a mandate in the legislation itself*, and the phrase "maximum feasible participation" became a byword for this thrust.

In Hess's view, the latter was primarily social and political in origin -- as opposed to educational -- although one could argue that most rationales for overcoming the effects of deprivation are social in origin. According to Hess and his associates (1971) it was the impetus of the civil rights movement which preceded, but only barely, the enactment of the EOA that lead to the development.

> One feature of the civil rights movement was a bitter and articulate criticism of the public schools, especially in urban areas. Criticisms concentrated upon the lack of relationship between the educational experiences offered by the school and the local community's cultural experiences and needs (p. 266).

There is no doubt that social and political considerations were among the factors that influenced the design of the program, as indeed they influenced the Economic Opportunity Act itself. At the same time, however, there was also a body of experience, knowledge, and a set of assumptions about the causes of deprivation that provided a rationale for this approach. Primarily, this set of assumptions was derived from studies by sociologists, anthropologists, political scientists, and to some extent economists, who viewed deprivation not so much the result of faulty or inadequate socialization, but the consequence of the way our society was organized, and the fact that our major institutions, among which education was a prime example, were geared mainly to serving the middle class. In this view, the aim of anti-poverty programs was not merely to provide additional services to the poor, but to make sure that the programs and services remained relevant to their aspirations and needs.

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*The complexities of and confusion about this mandate are discussed in Chapters 2 and 3 of Perspectives on Parent Participation in Project Head Start, one of the accompanying reports for this project.

From this perspective, the purpose of parent participation went far beyond the training or education of parents so they could provide a more adequate educational environment for their young children within the family. Here the emphasis was to give parents, or other residents of poverty areas, a measure of control over the services and programs that were intended for their benefit.

According to Hess and his associates (1971),

> It was not widely recognized at the time that the rationale and points of view that underlay these two influences -- educational and political -- soon would come into conflict. There may be an inherent contradiction between the arguments that have to do with cumulative deficit and those which support ethnic pride and self-determination for ghetto communities (p. 266).

A somewhat similar concern is noted in the Request for Proposal that initiated this project:

> While the value of parent participation in the child's development has long been recognized as a central element in optimum growth, the value of parent participation in decision-making efforts about staffing, budget, curriculum, personnel and other matters relating to program operation has been questioned. We need to examine the Head Start experience for whatever guidance it can offer as to whether the optimism about the value of the role of learner, and the skepticism about the values of the role of decision-maker as these have been realized in current educational practice are justified (p. 3 of the Work Statement).

Although several positive reasons for parent involvement are frequently cited, its efficacy does not go unchallenged. As Hess et. al. (1969) have pointed out, the school and the family perform similar functions with regard to child development, and may be regarded as competing agents of socialization. If one assumes that the educational system should have primary responsibility for the development of the child, then it would place the educational system in the role of the "expert," and the parent and family would assume a less important role. The positive effects of parent involvement are by no means universally accepted, either in terms of extent or in terms of type of parent participation involved. The extent and type of involvement one might assume to be optimal

would depend on the model of educational disadvantagement adhered to, as outlined by Hess et. al. and discussed more thoroughly in Perspectives on Parent Participation in Project Head Start, the literature review for this project.

It is out of this uncertainty that the question of the efficacy of parent involvement has arisen. Are the assumptions valid upon which Head Start parent participation is based? The present project has been carried out in an effort to help answer this question.

The purpose of this project has been to investigate the impact of parent participation as decision-makers and as learners -- and to a lesser extent, as paid employees -- on Head Start program quality, on institutional change, on the parents themselves, and on their Head Start children. More specifically, the work statement setting forth the task of this project (RFP #2-72-HEW-OS) has presented the rationale in the form of assumptions to be examined. First, it has been assumed that parent participation in decision-making roles will be good for program quality, since parents are acutely aware of their own children's needs. Secondly, it has been assumed that parent participation in decision-making roles would help parents to learn how to work within the community structure to achieve their goals, and in so doing gain a greater sense of competence. Third, the increased self-confidence and inner direction gained by parents through participation is believed to have beneficial effects on their children's feelings, attitudes, motives, emotions, and consequently their achievement. Finally, it is believed that such participation would lead to changes in community institutions such that they would become more responsive to the needs of the poor. In addition to parent involvement in decision-making, it has been assumed that involving parents in learner roles may be a means of producing other desirable effects. For one, parents who participate as learners in Head Start programs might acquire skills and attitudes which will benefit their children's emotional and cognitive development. Further, the increased feelings of

competence and gratification in child rearing resulting from participation in Head Start learner activities may well lead to improved self-concepts and increased effectiveness in general functioning, eventually leading to improvements in Head Start programs and community institutions.

Thus, while there is a philosophical--theoretical basis behind the parent involvement emphasis in Head Start, and numerous assumptions are made about its benefits for the children, the parents, the community, and the Head Start programs themselves, an empirical evaluation of parent participation in Head Start has not been carried out. It is the purpose of this project to evaluate the impact of parent participation in the Head Start context.

In summary, then, the objective of the project was to provide evaluative information concerning four of the primary assumptions underlying Head Start programs:

1. Assumption: Parent participation has positive effects on the quality of center programs.
2. Assumption: Parent participation has positive effects on community institutions.
3. Assumption: Parent participation has positive effects on the parents themselves.
4. Assumption: Parent participation has positive effects on their Head Start children.

METHOD

Design of the Study

It has been widely observed that Head Start centers vary greatly in the extent to which parents are involved. Some centers have more than 50 percent of the parents involved in their programs, while in other centers only a very small percentage of parents participate in decision-making and learning activities. The present project investigated these two types of parent participation at the center level.

Four types of centers were selected to reflect the variation in extent and type of parent involvement which characterizes Head Start programs. Five centers were selected in each of the four types. Five centers had extensive involvement of large numbers of parents in both decision-making and in learning activities; five centers had very little involvement of parents in either decision-making or in learning activities; five centers had extensive parent involvement in decision-making and little parent involvement in learning activities; and five centers had little parent involvement in decision-making but extensive parent involvement in learning activities. These four groups of centers provided for comparisons of extent and type of parent involvement at the center level. The dependent variables of program quality and institutional change were studied by making comparisons between groups of Head Start centers which varied according to extent and type of parent involvement.

The second level of parent involvement studied was the wide variation in involvement existing among parents within Head Start centers. Every center appeared to have at least a few parents who were highly involved in the program even when the overall involvement of parents was low. Some centers had extensive involvement of a majority of the parents in both roles. Parents were selected within each of the four groups of centers according to the parents' involvement in their own Head Start program. In each of the 20 centers one group of parents was selected as being the most involved parents in the program; another group of parents having little or no involvement in either role was selected; a third group of parents was selected on the basis of high involvement in decision-making but low involvement in learning activities; and a fourth group of parents was selected on the basis of low or no involvement in decision-making but high involvement in learning activites. A fifth group of parents was also selected at each center to investigate involvement in Head Start as paid employees. The same instrument was used to assess the extent and type of each parent's participation in Head Start.

The results of the selection of parents within each of the 20 centers, grouped in the four categories of centers, is summarized in Table D1. The results indicate that classifications of parents involvement were reasonably accurate with respect to the variations of parent participation across centers and within a single Head Start center.

The same criteria was used to classify parents within each of the four groups of centers. Even though the number of parents selected at each center was approximately the same, the number fulfilling the criteria for high involvement in both roles was nearly twice as high in the HiHi group of centers as in the LoLo group of centers. This was anticipated and supported the observation that there were at least a few highly involved parents in every Head Start center and many highly involved parents in some centers.

Table D1

Extent and Type of Parent Participation Within the Four Groups of Sites

		Site Classification											
		HiHi N=5			HiLo N=5			LoHi N=5			LoLo N=5		
		High Decision Making High Learning			High Decision Making Low Learning			Low Decision Making High Learning			Low Decision Making Low Learning		
		Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N
High in Both Roles	High in Decision Making	13.42	.79	48	11.93	6.17	33	11.28	5.59	29	9.35	5.18	26
	High in Learning	20.94	6.85	48	19.48	5.05	33	20.34	6.98	29	15.42	4.07	26
Low in Both Roles	No Decision Making	-0-	-0-	11	-0-	-0-	13	-0-	-0-	23	-0-	-0-	19
	Very Low in Learning	1.91	1.45	11	1.77	1.59	13	2.35	1.64	23	1.79	1.18	19
High in one Role and Low in Other Role	High in Decision Making	4.88	1.64	8	7.20	4.07	15	5.25	2.65	16	4.67	1.83	12
	Low in Learning	6.00	3.07	8	7.13	2.45	15	7.00	2.53	16	8.08	2.27	12
	Low in Decision Making	1.27	.79	11	.75	.96	4	1.20	.84	5	.20	.42	10
	High in Learning	14.64	2.73	11	12.75	1.50	4	13.00	2.92	5	13.00	2.16	10
Paid Employees	Decision Making	12.50	8.32	13	10.53	6.72	12	5.67	4.12	9	7.47	5.3	19
	Learning	25.69	10.00	13	18.67	7.08	12	20.67	7.98	9	17.21	5.9	19

HiHi 136

LoLo 66

HiLo 51

LoHi 30

Paid Employees 53

PARENT PARTICIPATION

The parents who were highly involved in both roles were compared with the parents who had little if any involvement in either role to study effects on parents and children in relation to extent of parent involvement. The parents who were highly involved in one role but not in the other provided two groups which varied in terms of type of involvement. It is important to note that parents who were selected as having high involvement in one role but not in the other role had much lower involvement scores than parents who were highly involved in both roles. The parents who were paid employees represent another type of involvement in Head Start and were similar in parent involvement to the group of parents highly involved in both roles. Because of this they represent extent (strength) of involvement much more clearly than type of involvement.

The details of the procedures used to select centers and parents will be presented in the paragraphs which follow. Centers were selected primarily to study effects of parent participation on program quality and institutional change. Within each center parents were selected on the basis of their involvement in order to study the effects of extent and type of parent involvement on parents and their children. Limitations and advantages of ex post facto studies will be discussed as part of the design of the study.

There was no experimental manipulation involved in the study. In one sense there were two "treatments" which were of interest: (1) extent and type of parent involvement as reflected in a total Head Start program; and (2) extent and type of individual parent involvement within a Head Start program. It was anticipated that the two "treatments" were related, and the data indicate that individual parent participation does covary with overall parent involvement in a program.

Ex Post Facto Research Designs

In the evaluation of programs with social-action orientation, it is

seldom possible to perform a true experiment. That is, one is simply prohibted from any manipulation of the variables of interest. These variables of interest, the so-called independent variables, can only be assessed in terms of their most salient descriptive features, and perhaps in terms of some scale of level or suspected potency. Correlated effects may then be measured. The observed differences among the dependent measures are then attributed to the differential status of the comparison groups on the independent variables. As Campbell and Stanley (1963) have noted, there are some problems in making causal inferences in research that involves the use of non-manipulable characteristics. There are several problems with such designs. These involve primarily the fact that the groups formed on the basis of any particular set of characteristics were self-selected. There was no random assignment to conditions, but rather the subjects arrived at their differential status through the operation of any number of both guessed-at and unimagined factors. Since use must be made of naturally-occurring "treatments" there is no guarantee that the classification variables are those involved in the observed differences. The problem is one of assigning cause-effect relationships.

Nonetheless, this type of design can still be highly valuable. For example, absence of significance could enable the investigator to dismiss a particular factor. Unfortunately, with a significant result, the universe of potential rival hypotheses may be nearly infinite. In the present investigation, for example, if there were a relationship between parent involvement and a variable labeled "responsibility" it is perhaps as likely that a sense of personal responsibility leads parents to become involved in Head Start programs as it is that such involvement produces an increased sense of personal responsibility. Further, some other unknown factor could underly both variables. We must consider the total pattern of the data in order to select

the most promising of the alternate hypotheses. Such research is valuable and often obtains provocative and meaningful data when other approaches are not feasible, but a thorough treatment of the basic characteristics of the research population is essential to the inferential process. Differences among the comparison groups must be tested, and where such differences in status are found to exist, the extent to which those variables might relate to differences in the criteria must be considered. In this way, competing or alternative explanations can be profitably explored.

Such an analysis is intrinsic to adequate ex post factc research. In the present case, this approach has been utilized along with extensive measurement. The fact that outcomes have been measured in a number of ways adds inferential strength in that the entire pattern of results can be considered in terms of its logic. Certain factors should be found together; others should not. Logical patterns tend to have higher validity than individual findings. Nevertheless, since all of the variables that may contribute to both independent variable and dependent variable status cannot be known, significant effects must be considred as indicative of possibilities rather than as conclusive. Even this, however, represents a considerable advance over hypotheses based only upon subjective evaluations. In a practical sense, ex post facto research often provides the only data base available on which to make decisions and develop policies. When used appropriately and with caution, it is far superior to no data base at all.

While there are problems in the interpretability of results acquired through ex post facto research, its uses are also readily apparent. Specifically, there are at least three products of major importance:

1. The results can indicate, because of non-significant differences or small mean differences, that previously accepted hypotheses or supposedly logical relationships are inaccurate and should be dropped or modified.

2. The new hypotheses that derive from the results form a better base for policy decisions than personal judgement with no data base.

3. Future research can be planned far more effectively -- the detailed results can indicate which personality factors, selection factors, or program types are more pertinent; the concurrent validity and reliability of instruments and measurement procedures can be evaluated and used to improve measurement quality; the findings about populations, program types, and practical field contingencies can lead to better experimental design; and, most important of all, the pattern of results can suggest far more meaningful and sophisticated hypotheses for future research.

These are the primary benefits that may be derived from the results of such research. Any research is subject to sources of invalidity; but, when considered in terms of the objectives of the type of research aimed at the evaluation and innovation of social-action programs, the current approach performs a set of valuable services. It provides information that can be used in administrative decision-making and program redesign. It also provides a sharper focus for any subsequent research.

The Study Population

Selection Procedure for Center Selection and Classification

The major objective in selecting sites was to obtain Head Start centers which varied in parent participation with respect to extent of involvement and type of involvement. This would make it possible to make comparisons between groups of centers to examine the relationships between extent and type of parent involvement and the dependent variables of program quality and institutional change. An outline of the procedures used in selecting 20 centers will be presented in this section.

A 10 percent sample of the 943 grantee agencies listed as of March 1, 1971, was contacted as the first step in the site selection procedure. The number of

grantees selected from each HEW-OCD region out of the 94 agency sample was determined by the number of children in full-year Head Start programs in each region, based on OCD statistics as of June 30, 1971. For example, Region VI contained 13.7 percent of the total number of full-year Head Start children. Thus, 13.7 percent of the total 94 grantees, or 13 agencies, were randomly selected from all of the grantees in Region VI. The same procedure was followed for each of the 10 regions. No agencies existing outside the continental 48 states were included. Table D2 contains the distribution of Head Start children by HEW region as of June 30, 1971.

The 94 grantee agencies selected for the sample were sent a letter containing a brief explanation of the study and were asked to participate in the telephone survey. Each agency was asked to return a postcard indicating the best time to be contacted by phone. A copy of the questions to be asked in the telephone survey were mailed along with the first letter to enable the agency directors, or their representatives, to gather the information needed for the interview.

The ratings of agency directors obtained in the first, or Set I interviews, were designed to select the forty centers to be surveyed during the second telephone survey. After the second telephone survey with the Set II questions, the information provided by the center director and the chairman of the Center Committee was used to assign ratings of parent participation in each center.

The development of the questions and procedures for Telephone Surveys Sets I and II was a joint effort of Head Start parents, administrative staff, teachers, research staff and specialists in parent participation. Pretesting was done at one Head Start center and involved members of the center committee and policy council for the sponsoring agency.

TABLE D2

DISTRIBUTION OF HEAD START CHILDREN

BY HEW REGION AS OF JUNE 30, 1971

Number of Children for which Grants were Funded

Full Year

Region	Full-Day	Part-Day	Total	Percentage*	#1	#2
I	1,592	11,515	13,107	5.0	4.7	5
II	7,149	17,686	24,835	9.4	8.8	9
III	5,7.9	12,407	18,126	6.8	6.4	6
IV	35,087	46,763	81,850	30.9	29.0	29
V	6,795	29,180	35,975	13.6	12.8	13
VI	15,838	20,420	36,258	13.7	12.9	13
VII	1,409	13,738	15,147	5.7	5.4	5
VIII	196	6,985	7,181	2.7	2.5	3
IX	2,720	20,904	23,624	8.9	8.4	3
X	1,914	6,853	8,767	3.3	3.1	3
	78,419	186,451	264,870	100.0%	94.0	94

Note.---*Percentage refers to regional percentage of national total.

#1 Number of grantee agencies by region selected from the national grantee agencies based on percentage of national total.

#2 Number of grantee agencies to be selected in each region.

The Set I interview guide included questions about both grantee operated and delegate agency operated Head Start programs funded by the grantee. Each director was asked to provide the names of delegate agencies which had programs that were representative of the total Head Start programs funded by the grantee, along with the names of five centers. It was necessary to select centers having at least two classrooms in order to have a large enough enrollment to be able to select approximately 24 parents and children who met certain criteria needed to form comparison groups. An upper limit of five classrooms was selected in order to simplify the administrative problems associated with data collection.

The following information was gathered on each of the representative centers selected by the director of the grantee agency:

1. Ethnic composition of the centers.
2. Name of the director of each center.
3. Name of the chairman of the center committee.
4. Addresses and phone numbers (if available) of center director and chairman of the center committee.
5. A designation of grantee or delegate agency operated center.
6. If operated by a delegate agency, the name of the director of the delegate agency.
7. A designation of each center showing the families being served in relation to urban, suburban or rural backgrounds.
8. Length of time the Head Start program had been in operation at each center.
9. A statement regarding research involvement or special projects which might affect the center to such an extent that it should not be included in the study.
10. A rating of parent participation in decision-making.

11. A rating of parent participation in learning.

A definition and description of opportunities for parent participation in decision-making and learning activities was included in the letter sent to each of the 94 agency Directors.

Results of Telephone Survey Interview: Set I

Ninety-one of the 94 directors of grantee agencies were contacted. Two agencies were no longer operating Head Start programs, and contact was never successfully made with anyone at one agency, even though the agency was still operating a Head Start program. Of the 91 agencies contacted, two did not cooperate and put off project personnel until a deadline was passed. Twenty grantee agencies did not have any centers that met the criteria for inclusion in the study. Sixty-nine grantee agencies had two to five centers which met the criteria for the study.

A total of 211 Head Start centers, selected as representative centers by 69 grantee agencies, formed the pool from which 40 centers were selected for intensive study. In selecting these 40 centers, consideration was given to whether or not the Head Start programs were operated by grantee or delegate agencies, which geographic region they were in, what their ethnic composition was, and whether their designation was urban, suburban, or rural.

Results of the Telephone Survey: Set II

Letters were sent to the chairman of the center committee and the Directors of the 40 Head Start centers selected following the first telephone survey. The letters included a brief description of the purpose of the study, a copy of the interview schedule which would be used to gather information about parent participation in their Head Start program, and a request for their assistance in helping to conduct the study.

The interview guide for Telephone Survey Set II (Appendix B3) contained 34 questions designed to assess the extent and type of parent

participation in each of the forty centers. A coding scheme was developed to assign a numerical rating to the information obtained on each of the 34 questions -- an index of the 40 centers surveyed during the second set of telephone interviews.

One of the forty centers did not meet the criteria for inclusion in the study when additional information was obtained about the center. One center was atypical in that it was operated primarily for families having one or both parents in college. Another center did not provide enough information during the interview to classify the center. Thirty-seven of the 40 centers provided the information needed to assess the extent of parent participation in decision-making and learning activities.

Results of Telephone Survey Set II are reported in Table D3. The center ratings of parent participation in decision-making activities ranged from a low 77 to a high of 146. Center ratings of parent participation in learning activities ranged from a low of 37 to a high of 96. The center ratings of parent particiption were made by MIDCO's research staff.

Final Selection of Twenty Centers

Based on the information obtained during Telephone Survey II, a total of 20 centers were selected. Table D4 is presented to illustrate and summarize the ratings used to classify the twenty centers into four groups based on extent and type of parent involvement reported in the Set II interviews. Five sites were selected in each of four combinations of high and low parent participation in decision-making activities. Centers were selected not only on the basis of parent participation scores, but with an attempt to balance on geographic area, ethnic composition, rural-urban locale, and grantee vs. delegate agency administration so that these factors would be relatively unconfounded with the parent participation variables.

TABLE D3

Summary of Descriptive Information and Numerical Ratings Assigned to Each Center Based on the Extent and Type of Parent Participation Reported by Center Directors and Chairman of Center Committees

Center	Ratings[1] D.M.	Ratings[1] L.	Rankings D.M.	Rankings L.	Ethnic Composition[2] A	B	C	PR	AI	O	Agency	Locale	Region	Classification for Study	Number of Classrooms
D5	146	70	1	9	2	22	2			3	Grantee	Urban	9	4	2
A4	134	96	2.5	1		220					Delegate	Urban	2	4	5
A5	134	76	2.5	8	21	3					Grantee	Rural	2		3
C6	131	77	4	6	34						Grantee	Rural	5	4	3
A2	128	77	5	6	4	31		3			Grantee	Urban	2		
A7	126	58	6	20	45	3		15			Grantee	Urban	1	3	5
B8	125	66	7.5	14		74					Delegate	Urban	4		
D7	125	89	7.5	2	27		3		2		Publ. Sch.	Urban	8		
D6	124	52	9	30	12	12	6				Grantee	Rural	9	3	2
B13	123	77	10.5	6	36	22					Grantee	Rural	4	4	3
C2	123	67	10.5	11	64	4	9				Publ. Sch.	U-Sub-R	7	4	3
A1	120	82	12	3.5	18	7		9			Publ. Sch.	Urban	3		
D2	119	56	13	23.5	16		22		6	6	Grantee	Rural	10	3	3
A6	117	55	14	25.5	24	11		1		4	Publ. Sch.	Sub	1	3	2
D4	116	66	15	14	7	14	25				Grantee	Rural	9		
B11	112	65	16	16.5	7	29					Grantee	Rural	4		
B4	110	44	17	36		36					Grantee	Urban	6		
B6	109	50	18	32	29	25					Grantee	Urban	4	3	3
B5	108	55	19	25.5	8	32					Grantee	Rural	4		
B3	107	52	20	30	45						Grantee	Rural	6		
C1	106	48	21.5	34	40	5					Grantee	Urban-Rural	7		
B1	106	53	21.5	28	7	33					Grantee	Rural	6		
B9	103	59	23	19	13	42					Grantee	Rural	4		
√ C4	102	61	24	18	1	26	3				Delegate	Urban	3		
D1	100	49	25	33	30		30				Grantee	Rural	10	1	4
C3	99	54	26	27	20	4	7				Grantee	Rural	5		
C8	97	57	28	21.5	31	1					Grantee	Urban	5		

TABLE D3, page 2

Center	Ratings[1] D.M.	L.	Rankings D.M.	L.	Ethnic Composition[2] A	B	C	PR	AI	O	Agency	Locale	Region	Classification for Study	Number of Classrooms
A3	97	67	28	11	18	13					Grantee	Sub-Rur	2	2	2
C7	97	66	28	14	27	1	7				Grantee	Urban	5	2	2
B10	93	32	30	3.5	16	24				1	Grantee	Urban	4	2	2
B14	91	41	31	37		36					Grantee	Rural	4	1	2
B2	88	56	32.5	23.5	33	57					Grantee	Rural	6		
D8	88	65	32.5	16.5	26	40					Publ. Sch.	Urban-Rural	8	2	3
D9	87	67	34	11	5	9	58			1	Grantee	Urban	6	2	3
C5	83	52	35	30	7	39					Grantee	Urban	5	1	2
B7	81	46	36	35	16	24					Grantee	Rural	4	1	2
B12	77	57	37	21.5	47	3					Grantee	Urban	4	1	2

1. D.M. stands for Decision-Making and L for Learner

2. Ethnic Composition:

A	Anglo-other caucasian
B	Black
C	Mexican-American
PR	Puerto Rican
AI	American Indian
O	Oriental

TABLE D4

Numerical Ratings and Distributions of Extent and Type of Parent Participation of the Twenty Centers Selected to Form Four Groups of Centers

Center Classification of Parent Participation in Decision-Making Activities

Center Classification of Parent Participation in Learning Activities

	HIGH		LOW	
	D.M.	L.	D.M.	L.
HIGH	146	70	126	58
	134	96	124	52
	123	77	119	56
	123	67	117	55
	131	77	109	50
	$\bar{X}$ = 131.4	77.4	$\bar{X}$ = 119	54.2
LOW	D.M.	L.	D.M.	L.
	97	67	100	49
	97	66	91	41
	93	82	83	52
	88	65	81	46
	87	67	77	57
	$\bar{X}$ = 92.4	69.4	$\bar{X}$ = 86.4	49

Comparison Groups

The four groups of centers represent four combinations of extent and type of parent participation in Head Start programs. Differences between groups of centers were studied in relation to parent participation, viewed as a total program variable and its effects on program quality and institutional change. The general pattern of overall parent participation varied greatly among the four groups of centers. Two of the four groups of centers (HiHi and LoLo) provide comparisons based on extent of parent participation. Two of the four groups of centers (HiLo and LoHi) provide comparisons based on type of parent participation inasmuch as each group of centers ended to reflect higher parent participation in one role than in the other role.

Comparisons between groups of parents were made based on the variables as laid out in Tables D5 and D6. To study the effects of the extent of parent participation, comparisons were made between two groups of parents, one of which had high involvement in both roles while the other group had little or no involvement in both roles. The measurement of long-term effects necessitated consideration of the current-former status of parents. The effects of extent of parent participation, along with concern about status (passage of time) resulted in a 2 x 2 factorial paradigm for data analysis as indicated in Table D5.

TABLE D5

Extent of Parent Participation

Parent Status (Effects over Time)	High in Both Roles (HiHi)	Low in Both Roles (LoLo)
Current		
Former		

It is important to note that the two groups consisted of parents selected from all four groups of centers, using the same criteria in all four groups. The actual criteria used to select parents will be presented later in this section.

In order to study the effects of type of parent participation, comparisons were made between two groups of parents; each group had high participation in one role but not in the other role. Table D6 contains a factoral paradigm in which type of involvement and status represent the two factors.

TABLE D6

Type of Parent Involvement

Parent Status (Effect over Time)	High in Decision-Making Low in Learning	Low in Decision-Making High in Learning
Current		
Former		

A limited number of subjects were selected to include a third type of parent involvement: paid employment in Head Start programs. Upon examining the parent participation scores of the paid employees it was found that employment was coupled with extensive participation in both decision-making and learning activities; paid employees were very similar to those parents who were highly involved in both roles. Therefore, this group of parents could not be used in studying effects due to type of involvement. Paid employees were used as another comparison group to study extent of parent participation. They were compared with the HiHi group of parents to assess the effects of paid employment vs. the absence of paid employment, with other participation held constant.

Data Collection Teams

Selection

Following the selection of the twenty sites to be studied, it was necessary to recruit paraprofessionals in those communities to assist in handling the on-site data collection. Interviews were arranged at each site through local Head Start staff for three potential "community interviewers" to meet separately with MIDCO field research personnel. Hiring of community interviewers was done at this time, and a selection of an alternate at each site was made in case the first choice was not able to fulfill his agreement.

Each data collection team consisted of two members, a paraprofessional from the local community and a highly trained person in education or the behavioral sciences from outside the community who acted as team leader. Paraprofessional selection procedures took various factors into account, including the ability to work with a professional, distance and cost of travel, ethnic considerations with regard to the local site, knowledge of rural or urban situations (as the site called for), skills in research or survey, rapport with local community people and Head Start parents, and knowledge and experience in Head Start.

To assure finding paraprofessionals of highest calibre, a personal interview was conducted to determine whether applicants met the following minimal criteria:

1. The applicant must have respect and rapport with the community, parents, agency, and staff.
2. The applicant must be able to keep information confidential.
3. The applicant must possess the necessary language skills for talking easily with parents.
4. The applicant must be able to take and follow instructions.
5. The applicant must be representative of the major ethnic group of the Head Start center.

6. The applicant must be willing to work with and coordinate the interviews of the MIDCO child interviewer.
7. The applicant must be reliable, prompt and responsible.
8. The applicant should be free to have three days of intensive training in Denver.
9. The applicant must be free to work during April or May.
10. The applicant must have access to a car.
11. The applicant must have access to a telephone.
12. The applicant should be free to work some evenings.

The other member of each data collection team was the professional who served as the team leader, tested the children, assessed program quality, conducted the Center Committee meeting determining institutional change, and was responsible for the overall data collection for a given site.

Selection of the professional data collector was based on his/her expertise in relating to children and communities, availability, skill in group work and knowledge of data collection procedures.

Training

Pretest experience was invaluable for the purpose of pointing out particular areas which should be incorporated in training the survey teams. Training was geared to meet the needs which would allow each data collector to do an effective job in carrying out assigned tasks. The training was conducted by MIDCO with assistance from professional training consultants. Both the professional and paraprofessional survey team members were brought to Denver for an intensive three day training session to prepare them for on-site data collection.

The training for the paraprofessionals and professionals included information on the project and its overall objectives, the research design and the task of data collection teams, information about the Head Start center, role of the professional team leader and the paraprofessional community interviewer,

procedures for data collection, procedures for reporting and returning data, logistic information, etc. The session included specific training for both paraprofessional and professional team members in interview methods and work on all instruments to be used in the field which called for specific skills or instructions. Considerable time was spent in preparing the data collectors for possible problems to be encountered in the field. (See Appendix for the training program schedule.)

Parent-Child Selection and Classification

In the selection of the subject sample within each center, the primary purpose of the study did not permit the selection of a random sample of parents and children. Rather, parents were selected on the basis of the strength of their involvement in each of the two types of parent participation activities, learner activities and decision-making activities and were studied along with their Head Start children.

Decision-making activities as defined for the purpose of this study, included service on the policy council, policy committee, and center or classroom parent committee or sub-committees. Less formally, they included parent initiated requests for center activities, program changes and program improvements. (Appendix for Decision-Making Activities: Parent Selection Guide.)

Learner activities as defined for this study, included parent participation at the center level as observers, volunteers, and/or paid employees in educational activities, such as helping to prepare and serve food; in the health component, such as accompanying children to the dentist or doctor's office; in the administrative component, such as assisting and record keeping; etc. More informally, but just as important, it included parents as learners who were involved in basic adult education programs, community improvement activities, and home visitation contacts with the Head Start staff. (Appendix C3 for Learning Activities: Parent Selection Guide.)

In each of the twenty centers studied, twenty-four parent-child pairs were selected. From the twenty-four parent-child pairs selected, twelve of the parent-child pairs were "current" parents and "current" Head Start children, if the child was currently in Head Start and had been enrolled in the program since September, 1971. Eight of the parent-child pairs were "former" parents and "former" Head Start children, as defined by the child having been in Head

Start in the academic year preceding the current one, not yet seven years of age, and if he was currently in kindergarten or first grade. The remaining four parent-child pairs were "paid employee" parents and "paid employees" children, if one of the parents was a paid employee of the center and worked at least ten hours per week since the beginning of the current academic year, and so long as that employee's child met the requirements for being either a current Head Start child or a former Head Start child, as defined in the preceding two classifications.

Within each of the two major classifications -- former and current -- parents were further selected on the basis of the degree or strength of involvement or participation in Head Start. More specifically, the parents were selected by the local parent involvement/social services staff member and the MIDCO staff member during the preliminary site visit.

During the initial visit, the MIDCO staff first oriented the local parent involvement/social services staff member with (1) the definition of learner and decision-making roles and (2) decision-making activities/learning activities as presented in the parent selection guide. (Appendix C-1, C-2, and C-3) The local staff member was asked to select parents who would fit into each of the following four categories:

1. High in decision-making activities and high in learning activities.
2. High in decision-making activities and low in learning activities.
3. Low in decision-making activities and high in learning activities.
4. Low in decision-making activities and low in learning activities.

During the selection procedure, the MIDCO staff member checked with the local parent involvement/social services staff member on each parent into the four above categories. Alternates were selected for each of the categories.[9] An attempt was made to obtain four each in the HiHi and LoLo subject categories, and two each in the HiLo (i.e., high decision-maker, low learner) and LoHi

(i.e., low decision-maker, high learner) categories, for current parents. For former parents, two each were obtained in the HiHi and LoLo categories, and two each in the HiLo and LoHi categories.

In addition, efforts were made to balance or select parents on the basis of ethnicity. Attempts were made to maintain ethnic proportion within each of the four cells at each center.

Only one parent was selected for study from each family unit. A selected parent did not have to be a biological parent. The parent who had been most involved with the Head Start program was selected for interview and testing whenever there were two parents in the household.

Criteria Used to Categorize Parents

All parents, exlcuding paid employees, were combined to form a single group, and a distribution of parent participation scores was developed for decision-making scores and for learning scores separately. The distributions were badly skewed in a positive direction. Therefore, the median scores were used as a cutting point in selecting groups of parents. Those parents who were above the median for both roles were put in the HiHi category and were viewed as having high involvement in both roles (N = 136). Those parents who were above the median for decision-making and below the median for learning were put in the HiLo category (N = 51). Parents below the median in decision-making and above the median in learning were assigned to the LoHi category, (N = 30). The remaining group of parents were below the median for both decision-making and learning. This group contained parents who had some participation in one or both roles but less than parents in the HiHi, HiLo, and LoHi categories. A decision was made to select from this group parents with almost no participation. A zero participation score in decision-making and a score of four and below in learning were the criteria used to select the parents low in participation in both roles. It was possible to obtain a score of four in learning activities with minimal effort and participation due to the coding procedure used to assign participation scores for the learning role. A group of parents were selected on this basis to form the LoLo category of parent participation (N = 66).

A total of 45 paid employees were above the median score for both roles. The N of 53 reported in Table D1 contains eight parents who did not meet the criteria for HiHi participation and were eliminated from the paid employee group for data analyses.

The maximum possible scores were 41 for decision-making and 41 for learning. Even though the maximum possible scores were identical the obtained scores were much higher for learning than for decision-making. This was due to the coding

procedures used to assign numbers to parent activities and to the different kinds of questions used to determine decision-making and learning scores. The highest scores obtained by any parent were 28 for decision-making and 37 for learning. It is important to note that both high and low participation scores were found in each of the four groups of centers.

Differences in the two distributions of scores are reflected in the two medians: 2.5 for decision-making and 10.5 for learning. These differences are reflected in the means reported in Table D1. The mean learning score is consistently larger than the mean decision-making score. Obtaining a score above the median in decision-making would require active participation in more than one of the following: (1) center or class committee, (2) policy committee, and (3) policy council. To obtain a score above the median in learning, active participation in several learning activities would be required. The variation in parent participation within each of the four groups of centers was apparent in that it was possible to select parents having high participation scores and parents having low participation scores in each of the centers.

It was difficult to find parents who had a high score in one role and a low score in the other role. This has been reflected in comparatively small numbers of parents in the HiLo and LoHi parent participation categories. The high-low parent participation differences within the HiLo and LoHi groups of parents was much less than the differences between the HiHi and LoLo groups of parents. The lack of large differences between participation scores for the two roles within the HiLo and LoHi group may account for the small number of differences found between these two groups of parents.

Primary Variables and Instrumentation

The major objective for the study was to examine the effects of parent participation in decision-making and learning on: (1) parents, (2) their

children, (3) program quality, and (4) institutional change. This section is designed to present brief descriptions of the independent and dependent variables, the constructs being studied, selection of instruments, and information about each instrument. Results of pretesting and prior experience in use of the instruments is included.

Independent Variables

The two types of parent involvement constituted the major independent variables: (1) participation in decision-making activities, and (2) participation in learning activities. For the purpose of this project, decision-making activities included service on the policy council, policy committee, and center or classroom parent committees. They included parent initiated requests for center activities, program changes and program improvements. Learner activities included parent participation at the center level as volunteers, observers, and in educational activities such as helping to prepare and serve food; in the health component, such as accompanying children to the dentist or doctor's office; in the administrative component, such as assisting with record keeping; etc. More formal learning activities included participation in Head Start sponsored adult education programs, community improvement activities, workshops, and special activities developed for parents to acquire information and a better understanding of consumer buying, nutrition, and health care and needs of young children.

A questionnaire was designed to assess the extent of each parent's participation in both roles. (Appendix E1) Twelve items in the questionnaire were used to assess participation in decision-making activities and eleven items were used to assess participation in learning activities. The actual parent participation scores which were obtained ranged from 0 to 28 for decision-making and from 0 to 37 for learning.

When the questionnaire was pretested, every parent was properly classified as HiHi or LoLo according to the designations provided by the parent involvement coordinator and chairman of the center committee. Classification of parents who were actively involved in one role but not the other was also consistent with the designations of the parent involvement coordinator and chairman of the Center Committee with respect to the relative degree of involvement in the two roles.

Paid employment constituted an independent variable in which parent involvement constituted employment in some aspect of the Head Start program. To be included in the sample of paid employees the parents had to be employed by the center since the beginning of the 1971-1972 academic year and average ten hours or more per week. Employment constituted a third type of parent involvement in addition to decision-making and learning roles.

Dependent Variables

The four dependent variable areas in the present project were Head Start parents, their Head Start children, program quality and institutional change. Parents were tested by using self-report questionnaires covering the areas of general satisfaction and quality of life, alienation and locus of control, attitudes toward education and self-concept. Children were given tests that evaluated several aspects of social, emotional and school adjustment. The assessment of program quality involved separate evaluations of 15 different aspects of the program through surveys of center staff, as well as by surveys of parents and by direct observation. Institutional changes were first identified by a structured group meeting with the center director and parents who had experience on the Center Committee, Policy Committee, or Policy Council. Following that group meeting, community representatives were interviewed as to whether or not the change had occurred and to assess their perceptions of how parents were involved at the different stages of change.

The sections which follow include information about the selection and construction of the instruments used to collect information in each of the four areas of measurement.

Measures to Assess Effects on Parents

The evaluation of the impact of parent involvement is concerned with the degree to which the type and amount of involvement covary with a set of pre-selected measures of the parents in the following areas:

1. General satisfaction with life.
2. Feelings of social isolation and locus of control.
3. Attitudes toward education.
4. Relationship to the community.
5. Self-concept.

An extended questionnaire (Appendix E1) was developed for parents which took from 45 minutes to an hour to complete. The first page was filled out by the interviewer from Head Start records and included basic demographic and background characteristics about the family. Where records were incomplete, the interviewer obtained the data directly from the parent. Questions related to parent participation in learner and decision-making roles, community involvement, and program quality are presented in detail in other sections of this report. The remaining tests and ratings relate to the parents' attitudes, their general satisfaction with life, alienation and locus of control, attitudes toward education and their self-concepts.

General Satisfaction with Life

Several different approaches were taken to measure general satisfaction. The first questions were asked directly by the interviewer. Question one was: "Taking all things together, how would you say things are these days -- would you say you are very happy, pretty happy, or not too happy these days?"

The item was designed to elicit a global feeling of satisfaction or happiness. This type of item is most commonly used by sociologists to assess dissatisfaction in various parts of a population, or by social psychologists as a measure of alienation in particular groups. The item was used by Gurin, et al. (1960), with a sample of over 2,000, and later by Bradburn and Coplovitz (1965) with another 2,000 subjects.

Another very similar questions has also been used in national surveys (Converse and Robinson, 1965; Survey Research Center, 1968): "In general, how satisfying do you find the way you're spending your life these days? Would you call it completely satisfying, pretty satisfying, or not very satisfying?"

The questions are reviewed in Measures of Social Psychological Attitudes by Robinson and Shaver (1969). They point out that questions of this type are

widely useful to social scientists with a variety of goals. In small samples, reliabilities (Kendall's tau) of .42 to .59 were found across four to eight month gaps. Although these reliabilities are somewhat low, less than two percent of respondents select the opposite extreme. The distribution of replies was noted to be remarkably consistent, even through crises such as the Cuban missile crisis.

There were no significant differences across sex, married people were more satisfied than single, and younger people tended toward greater satisfaction. As might be expected, higher social status is related to higher satisfaction. In general, scores go up with income and education. Of greater importance to the present study, persons with high self-esteem tend to have higher scores, as do those with less alienation. Individuals who are actively involved in their leisure time or in the community also tend to show greater general satisfaction. Although the measures are relatively crude, they have been related to a wide variety of variables that are important in considering parent involvement in Head Start, and data are available on large samples.

A similar measure is a ladder scale developed by Cantril (1965), and also reviewed by Robinson and Shaver (1969). This scale was adopted somewhat for the study, asking the Head Start parents to indicate where they were on the scale at present, where they were a couple of years ago (presumably before recent Head Start influences), and where they expect to be in the future (a measure of expectancy for the future or of "hope").

The ladder scale was intended to provide a measure of extent of change and of expected change. However, after examining tentative results from the pilot study and discussing it with review panelists, the panel decided that the ladder raw score for satisfaction and the difference intervals were susceptible to a wide variety of scaling influences, and that they led to serious analytic problems. Instead, a simple change score was adapted for use

with this scale, coding a change for the better over time as a 3.00, and a change for the worse as 1.00; no change was coded as 2.00.

A four-point semantic differential-type rating scale was developed to assess change during the past two years. Pairs of adjectives or phrases were placed at opposing ends, and the same adjectives were rated for "Now" and for "Then" defined as "a couple of years ago". The Now and Then ratings were made next to each other to encourage the parents to show change.

Although a rating by an individual of his feelings as they existed in the past does not indicate where he actually was and is not as good as an actual pretest would be, when combined with a present rating, it does provide some indication of how the parents feel things have changed for them. It is the only course open to obtaining an estimate of direct change in an ex post facto study such as this.

Two sets of scales were used related to general satisfaction. One dealt with affective feelings (i.e., happy family -- sad family), the other evaluated success and skill (i.e., skilled -- not skilled.) In the pilot data, these measures all showed positive correlations with each other, indicating that they were measuring some general characteristic or characteristics. Most of the correlations across different methods were positive but not high, also suggesting the different approaches used to measure, or the characteristics measured, were not identical across all scales.

A further test was made to determine whether the measures had any sensitivity to changing conditions If they weretoo stable, they would not be good measures to assess changing conditions. A small group of disadvantaged had been followed up for the past three years on a project conducted by the Colorado State University Experimental Manpower Laboratory in Denver. A pilot study on twelve employed and 12 unemplcyed persons from this group showed that, on all but one item of the Then and Now Scale, the presently employed group rated

themselves and their current condition higher on Now than on Then. The unemployed group tended to rate themselves as worse off now than they were a couple of years ago, even though they were unemployed then as well. Thus, the one small study on this new measure suggests more than face validity.

Alienation and Locus of Control

Two measures of social alienation have been included in the study. One was developed by Jessor (1968). The other by McClosky and Schaar (Reviewed in Robinson & Shaver, 1969). The McClosky and Shaar scale has been used extensively in large samples and has been found to be related to more different correlates than any of the other alienation scales. Robinson and Shaver (1969) indicate that the scale has been found to "relate to life satisfaction, ... aspects of self-esteem, ... extreme political beliefs, ... aspects of authoritarianism, ... trust in people, ... and some methodological scales ..." Although all of the alienation scales seem to suffer from lack of validation data, this scale has more available information than any of the others, and in relations to them, appears to be about the best available.

One of its major limitations is that it consists of entirely negative items. The alternatives also allow only an "agree" or "disagree" response. The scale also is very general, and seems to tap only a dimension of intense personal insecurity. For the pilot study, Jessor's scale was added. This scale has both positive and negative items in a counter-balanced format. It allows four alternative responses. It also has items that were written specifically for use with disadvantaged populations that are aimed at alienated attitudes toward social and work situations.

It was planned that a choice between these scales, after the pretest data were analyzed, would be made. Those data showed good interitem correlations between the items on each scale and the total score on that scale. The items on

a particular scale did not relate to the total score on the other scale, and the correlation between total scores, while positive, was small. The conclusion was that either the two alienation scales measure different forms of alienation or that the differences in method of measurement are great enough to negate cross scale relationships. There was no basis for selecting one scale over the other. While the McClosky and Shaar scale has considerable published literature, the Jessor scale has been used with far larger numbers of disadvantaged subjects. Both were equally internally consistent. Examining all the data and the differences in items suggested that they may measure different aspects of alienation, general on one hand, and work or social alienation on the other. The difference could also be due to the way questions are asked on the two scales. The best choice appeared to be to retain both of the scales.

The concept of internal vs. external locus of control emerged from Rotter's (1966) social learning theory. The individual with external control feels that he has little control over his life and destiny. He feels that the things that happen to him (and to others like him) are due to fate, or chance, or to some force outside of his control. The greater the sense of internal control, the more the individual feels he might be in control of his own well being, that of his family, and of the institutions that surround him.

Rotter's scale consists of 29 pairs of statements and requires a choice between them. Not only was the scale too long for use in the present study, but many of the items prove quite difficult to read or interpret. Two shorter scales were adapted by Jessor and have been further revised by the Colorado State University Experimental Manpower Laboratory specifically for use with the disadvantaged. These measures and the second alienation scale are part of the Social Access Questionnaire which has been administered to over 2,000 disadvantaged subjects. The first consists of only seven pairs of statements. They are short and quite clear. They also focus on work and social aspects of locus of

control rather than more general attitudes. The second uses a different item format, providing both internal and external statements with five alternatives for each statement from "strongly agree" to "strongly disagree." The items on this scale are more general than those on the first scale.

Again, a choice was to be made after pilot data were analyzed. As with the alienation scale, the items on each of the I-E scales correlated well with total score on that scale and not with total score on the other, and the total scores showed only a low relationship. Once again, either the methods of measurement are so different that they lead to different scores, or the scales are assessing different aspects of internal vs. external locus of control. Since there was no basis for a choice, and both scales appeared equally reliable, both scales were retained.

Attitudes Toward Education

Attitudes toward education was added as a variable based on review panelist recommendations. No adequate scale was available, so a scale was constructed to assess two areas: Value of education, and ability to influence education. The items were built to have high face validity for the parents, and were tested with a few parents to determine whether they were meaningful and could be read and interpreted easily. Six items related to general value and four to the parents' ability to influence the schools.

Three items were also included in the Then and Now Scale related to the parents' role. They consisted of "good parents--bad parents", "can help my children--cannot help my children", and "understand children--do not understand children". It was felt that the parents' involvement in Head Start could make them feel more capable of interacting with their children in positive ways.

Self-Concept

The Miskimins Self-Goal-Other Discrepancy Scale (Miskimins, 1972) was selected to evaluate parents' self-concept. The scale is a brief, highly

reliable measure that has been used extensively with disadvantaged populations. In this test, the person rates himself on a series of scales as he sees himself, as he believes others see him, and as he would like to be. It is then possible to derive six discrepancy scores which indicate the person's level of adjustment. Although the results were not completed at time of selection of the instrument, a study was underway to evaluate self-concept to the disadvantaged. It was hoped that it would provide basic comparison data on self-concept for this study. The study has now been completed and is in process of publication. One major conclusion was that, while a large number of disadvantaged do not show self-concept discrepancies because of disadvantagement, others do have problems. The reaction differs for males and females. Males tend to become hard, interpersonally distant and aloof. Females tend to show depression and withdrawal. Since there is a difference between male and female response to being disadvantaged, the sex groups were to be analyzed separately. However, in the present study the sample of males was too small for adequate analysis, so only female profiles were studied.

Community Involvement

Community involvement of parents was assessed in two different areas. One involved the actual activites of the parent in the community, the other their feelings about their community role.

Activities were evaluated as part of the parent survey. The questions were adapted from the questions used by Educational Testing Service in the Head Start Longitudinal Study. The questions covered clubs and social groups, church groups, neighborhood action, children's education, political action, and job or study groups. Each question asked first for involvement, then how often meetings were attended, and the membership status within the group. The score was the total for level of attendance and membership type. The education question was scored to not consider Head Start involvement,

since, although that is a part of community involvement, it is also an independent variable in this study and would have confounded results. Therefore, the score for parent activities in the community excludes Head Start activities.

Each question was also repeated to obtain a measure of how involved the parents were a few years ago in the same activities.

There are no real reliability or validity data available on these items. They were chosen because they seemed to function adequately in the ETS Study, and were then modified to be clearer and to get a better estimate of total actual involvement. Interitem reliability is meaningless on this scale, since it would only relate to general as opposed to specific involvement. There was no time for a test - retest reliability check. During the pretest, the subjects responded well to the questions, and there were no problems in administration or scoring. The questions have high concreteness and high face validity.

Feelings about community involvement were tapped by three items framed in semantic differential format. The items offered four alternative positions between the following adjective pairs: participate in community -- don't participate in community; have influence in the community -- don't have influence in the community; and accepted by community -- rejected by the community. Each rating was repeated for NOW and for THEN, defined as a couple of years ago.

The items for evaluating feeling of involvement were part of those tested with the samples of disadvantaged who had failed or succeeded in holding jobs. The mean scores showed a decrease for each item in the failed group and an increase in the success group.

Three scores are obtained, one for Now, one for Then, and a change score recommended by review panelists, indicating whether change is positive, neutral or negative.

Measures to Assess Effects on Children

Instrument selection for the child measurement battery involved a number of scientific and practical considerations. The instruments first of all had to relate to the project objectives of assessing the effects on the children of varying types and strengths of parent involvement in decision-making and learner roles. As indicated by the Office of Child Development guidelines, these effects were to be measured in two basic areas: (1) academic achievement, and (2) personal-social adjustment. Since much previous research on Head Start children has been in the intellective and academic areas, a deliberate attempt was made to include more measures of personal-social adjustment status in the present battery.

In addition to the basic requirement of clear and direct relevance to the objectives of the study, the instruments were selected with two basic considerations in mind. These were that, where possible, the instruments possess: (1) basic psychometric properties, and (2) task-relevant administration characteristics.

The psychometric properties that were used as selection criteria were those common to any good psychological measure. Basically, this involved questions of reliability and validity, but also included sensitivity to real differences in the children relative to cultural fairness where appropriate. Selection on this basis limited the range of usable tests and excluded many of the more popular measures. Many commonly used measures have proven only minimally sensitive to change as a result of differing preschool experiences and are biased in favor of the middle class child with English language ability.

Selection criteria related to administration characteristics were determined primarily by project characteristics. Since time limits for completion were placed on the project and the advantages of laboratory conditions

would not be present, the administration characteristics sought in the instruments were: (1) brevity, (2) appropriateness for administration by paraprofessionals, and (3) feasibility of administration under field conditions. These conditions were met in all the instruments selected for direct administration to the children.

Other indirect measures on the children, such as those in which the child's teacher or parents rate certain aspects of his behavior were also included in the battery. There are many problems with this sort of measure. The rating of the child is confounded with rater characteristics, actual child characteristics are confounded with the rater's attitude toward the child, there is a strong likeliness of "halo effects" in the ratings of children of this age, and problems develop in obtaining cooperation from the rater. Despite these problems, it was decided that these sources of data were needed to present a rounded picture of the relationship of parent involvement to outcomes with the children. Even if all that was being measured were attitudinal changes toward the child rather than real changes in the child, this could be a significant outcome in itself.

Although not directly related to psychometric or administration characteristics, other considerations also guided instrument selection. One of these was that each instrument be appropriate to the age range of all the children who would be tested. Since one objective was to compare current and former Head Start children, scores on the same instruments for both groups would make the task of interpreting any differences found much simpler. Another consideration was that where possible an instrument would be chosen that had been or was currently being used in evaluating other Head Start populations. This meant that there would be a pool of normative and comparative data available with which to interpret results from the present project.

Peabody Picture Vocabulary Test

This well-known child measure was added to the child test battery subsequent to a review panel in which it was agreed that some type of verbal measure was needed to adequately assess possible differences in the children due to variations in parental involvement. Although considered an estimate of verbal intelligence based on hearing vocabulary, in the present project it was intended as a measure of the child's verbal capacity. It was also selected for use in interpreting other test outcomes that might relate to intellectual differences, and as an additional measure for those older children who might achieve a perfect score on the Preschool Inventory.

On this test the subject's task is to correctly identify from an array of four pictures the one that corresponds to a word that the examiner has spoken. As the child encounters more difficult items he is asked to choose the one that he thinks is right if he becomes hesitant, but random guessing is not allowed. The test is discontinued when a basal (8 consecutive correct answers) and a ceiling (6 errors in 8 consecutive presentations) are established. Ths child's raw score is the number of correct responses minus errors which can be converted into I.Q., Percentile Score, and Mental Age.

The Peabody Picture Vocabulary Test has a number of administration characteristics that were advantageous for the present project. It is relatively brief (10-15 minutes), has sufficient intrinsic interest to act as a rapport builder, and does not require extensive experience to administer. It's psychometric properties include relatively high reliability (.60 to .80) in the age range with which it would be used and acceptable concurrent and predictive validity coefficients. This test was probably the most thoroughly standardized, reliable and valid of the instruments chosen for the child measurement package.

The Cooperative Preschool Inventory (1970 Revision)

The primary instrument chosen for assessment of academic achievement was the Revised Preschool Inventory (1970). This test was specifically designed for use with Head Start children with the primary purpose being to provide an indication of how much a disadvantaged child had achieved in an area regarded as basic for school success starting at the Kindergarten level. It can be used with children at the pre-reading and writing level and has been successfully administered to several thousand children in the three to six year age range. It is definitely not culture fair, one of its purposes being to highlight the degree of disadvantagement which a child from a deprived background brings to the school experience.

The score obtained on the Preschool Inventory is the number of correct responses out of a total of 64 items with correct response determined by criteria contained in the test manual. Although item content may be divided into areas such as associative vocabulary, personal-social responsiveness, number concepts, sensory attributes, and visual-motor ability, factor analytic evidence is lacking to treat these content areas as distinct subscales.

One of the Preschool Inventory's strengths is its sensitivity to change with scores varying in expected directions due to certain preschool experiences. One of its weaknesses is that it's difficulty decreases with increasing age and discrimination is consequently reduced with older children (above age 6). This feature of the test also apparently shows regional variation with more or less ceiling effects in the six year age range in different parts of the country. However, ceiling effects are not so extensive that the test cannot be used with large groups of older children with regional differences in ceiling effect kept in mind. As a safeguard against the risk that too many children in the former group achieve perfect scores and thus confuse the meaning of group differences, the Peabody Picture Vocabulary Test was included as a measure of verbal ability.

Draw-A-Line Test

This test was selected from among those instruments which purport to measure impulse control in young children. Operationally, the behavior measured is the ability to inhibit motor response when the task calls for it. Its function in the present battery of tests was to provide some indication of possible differences in cognitive style among the sub-groups of children.

The test involves extablishing a baseline for the time taken to draw a line of 8 inches in length (Training Phase) and then imposing task constraints on the child in the form of instructions to take longer to complete the task on each of two successive trials (Trials Phase). The child's score is the time taken to complete the line under each of the three conditions calculated to the nearest 1/10th of a second. The longer the time taken beyond the baseline on each of the inhibition trials the greater the presumed impulse control.

Previous research (Maccovy, Dowley, Hagen, and Deverman, 1965) found that the task was positively correlated with IQ in middle class nursery school children, and a similar correlation was found in a sample of disadvantaged preschool children (Massari, Hayweiser, and Meyer, 1969). However, the correlations reported are in the moderate range (.30 to .50) which indicates that intellectual ability accounts for a relatively small part of the variation in task performance. An alternative explanation suggests that other dimensions, such as reflective-impulsive cognitive style, might account for some of the variation in performance on this measure (Kagan & Kagan, 1970).

The Draw-A-Line test is currently being used as a group of Motor Inhibition Tests in the Educational Testing Service Head Start Longitudinal Study which makes additional data available for interpretive purposes. (Appendix F2 for a copy of the instrument and complete instructions.)

The Self-Social Constructs Test (SSCT)

As its name implies, this is a test of self-concept and social concept. It is a non-verbal measure which emphasizes relations between the "self" and "other" in a variety of social configurations, is designed to measure self-esteem, social interest, identification with significant others, preference for significant others, minority identification and realism to size. Test items consist of symbolic arrays of circles and other figures. Certain aspects of the child's conception of himself and his relations to others are inferred from the analysis of arrangements. The assumption made is that the relations seen in the symbolic arrangements represent relations in the child's life space, and that these arrangements are readily interpretable, containing easily translated, common meanings.

One of the factors that influenced the choice of the Self-Social Constructs Test was the extensive amount of psychometric data available on it. It is easily among the more extensively researched preschool self-concept measures if not the most researched of its kind. It is reasonably reliable (split-half reliability corrected for length on 8 measures ranged from .48 to .85 with a median of .74) and there is considerable evidence of concurrent validity.

An additional advantage of the SSCT was that it had been used previously with Head Start children. Some of the evidence from that research indicated that it showed promise of being sensitive to certain aspects of varied home backgrounds that one would expect to be reflected in test results. This would be a particular advantage because of the way in which the independent variables of the study were being sampled. Personal communication with the test originators also indicated that it was relatively brief in the preschool version and easily administered to young children by testers without extensive testing experience.

The Brown IDS Self-Concept Referents Test

The Brown IDS Self-Concept Referents Test is a measure of self-concept for children in which the self is taken as an evaluative reference point and significant others are taken as external evaluative referents for the self. It is based on the theory that the self-concept develops from the individual's perception of what significant others think of him. The Brown IDS is among the few if not the only self-concept tests for young children that attempts to measure both the subject's self-perception and his perception of how others see him. There is some question that the child of preschool age is capable of assuming the frame of reference of another person relative to himself, but others report confidence in the child's ability to make this distinction.

The original version of the Brown IDS consisted of fourteen bipolar adjectives, but subsequent research experience has increased the number to sixteen. The child's task is to evaluate himself by endorsing one or the other of each pair of the sixteen bipolar adjectives which are asked with himself as the referent (e.g. Is _____happy or sad?), and is also asked to report what he thinks certain significant others (Mother, Teacher, Classmates) think of him (e.g. Does _____'s teacher think that _____ is happy or sad?).

Brown (1966) reports test-retest reliability of .71 and .76 for small samples of preschool black and white children respectively. Significant group differences are also reported between lower SES black children in a day care center and upper-middle class SES white Jewish children in a nursery school. The Jewish children indicated significantly more positive scores on the Self-referent, Teacher-referent, and the Total Self-As-Object scores.

The Brown IDS has been used previously with preschool children in the 1967-68 Head Start evaluation, and is currently being employed as one of the personal-social measures in the Educational Testing Service Head Start Longitudinal Study. This makes data from other sources available for comparatve and interpretive purposes.

The Classroom Behavior Inventory (CBI)

The Classroom Behavior Inventory (CBI) was among those rating instruments chosen to assess certain aspects of the child's behavior as perceived by significant others. It provided another measure of an aspect of general adjustment in the child---social, emotional, and task-oriented behavior in the classroom. The CBI consists of descriptive statements that refer to specific, concerted, and observable classroom behaviors that are rated by the child's teacher. A critical assumption is that the teacher has sufficient observational data on the child to be able to make valid ratings of his behavior.

The original version of the CBI contained 18 items divided into 6 groups of 3 items common to the same dimension. These dimensions were factor analytically derived and represented the universe of social, emotional, and task-oriented bahavior in the classroom. The three original bipolar dimensions included Introversion-Extroversion, Hostility-Considerateness, and Distractibility-Task-Orientedness. Subsequent work with the CBI produced three unipolar dimensions of five items each with two positive scales (Extroveraion, Task-Orientedness) and one negative scale (Hostility). The items are rated on a seven-interval continuum or presence-absence from "Always" to "Never." Several reliability studies based on the items that eventually came to comprise the 15-item version of the CBI indicate that internal consistency, rate-rerate over a four month period, and inter-rater reliability are all within acceptable range.

Individual items may be analyzed for purposes of comparing ratings of different sub-groups. However, combining items into factor analytically derived scales yields a more reliable and potentially more valid rating of the child's bahavior. In the present study the comparisons made will be based on sub-scale scores. Since the 15 item version of the CBI is currently being used as part of the evaluation of Planned Variation in Head Start, data based on other Head Start samples is available to use in interpreting the outcomes of the present study.

The Home Behavior Inventory (Preschool Form)

This measure was among those rating instruments chosen to assess certain aspects of the child's behavior as perveived by his parents. It was developed and refined as a means of tapping parental perceptions of the child's social, emotional, and general adjustment status within the home context. It was developed by Schaeffer (1966) and contains the same dimensions as the earlier versions of the Classroom Behavior Inventory.

The original version of the Home Behavior Inventory contained 30 items divided into six groups of five items each based on the factor structure of the instrument. The factor analytically derived dimensions include three positive scales (Extroversion, Task-Orientedness, Considerateness) and three negative sclaes (Introversion, Hostility, Distractibility)..

This inventory was administered as part of the parent instrument package and the number of items was consequently reduced to three items in each of the six dimensions. This reduced the amount of time taken to complete it yet did not weaken the value of the instrument.

As with the Classroom Behavior Inventory, individiual items may be analyzed for purposes of comparison of different parent involvement groups. However, for the present study the scales listed above will be compared for outcome ratings on the children from the different groups. The interpretation of mean differences on the subscales depends upon the direction of the scale (positive-negative) and the mean item alternative rating. (Appendix F-5 for a copy of the Home Behavior Inventory.)

Child Then and Now Scale

This scale was developed specifically for use in the present project in an attempt to assess changes in the child from the parent's perspective. Without pre-post testing it was about the only means available of tapping changes in the child. It also allowed for an indirect measure of the parent's attitude toward the child. But even if all that was being measured were parent's attitudes toward the child, this could relate to differing parent involvement roles.

The response format of the instrument involves asking the parent to respond to bipolar adjectives (e.g., happy-sad, proud-not proud, etc.) in terms of what the child was like a couple of years ago (Then) and what he is like currently (Now). This obviously involved different time perspectives for the current and former parents. On the Then portion of the scale, current parents would be rating the child before the Head Start experience and former parents would be rating the child at just about the time he was in Head Start. On the Now portion of the scale current parents would be rating the child at the time of the Head Start experience and former parents would be rating the child after the Head Start experience. The difference in time perspective obviously has to be taken into account in any differences that occur.

The items included on the Then and Now Scale were divided into three general categories (Social, Learning and Activity, and Affective) based on a logical analysis of the content. The scores obtained can be analyzed on the basis of comparisons between various sub-groups on Then status, Now status, or the degree of relative change from Then to Now. On the Then to Now portion of the scale scores of 0 to 1.00 indicated a decrease, scores of 1.00 to 2.00 indicated no change, and scores of 2.00 to 3.00 indicated an increase in ratings. Although no psychometric data are available on the reliability or validity of this instrument, it holds promise of providing a means of assessing relative changes when pre-post testing is not possible.

Measures to Assess Effects on Program Quality

Program quality has been evaluated by Head Start monitors and by program administrators using guidelines developed for program planning and evaluation. The data on program quality that have been obtained in the past have been based on evaluation by teams, often consisting of several members who spend considerable time at an individual center. This is obviously a costly process and further, has not led to a reliable procedure for estimating program quality. The use of quality evaluations has, instead, been to provide feedback to the centers themselves to suggest changes.

The first task on this project was to develop a reliable and economical system for assessing program quality that would be relatively standardized for all of the centers to be evaluated. The only approach that seemed feasible was to develop self-report questionnaires for center staff. Although such self-reports may be distorted, it was felt that reliable data could be obtained by using the following controls: (1) Relevant questions were asked separately of center directors, center committee chairmen, teachers and teacher aides to allow comparison of results; (2) Questions were constructed, wherever possible, to ask for direct information or very concrete judgements; (3) The individuals surveyed were carefully informed that the evaluation of their individual center would not be reported to Head Start administrators and that their individual responses would be kept confidential; and (4) Questions were all related to specific areas of the program, instead of broad general questions that would be more susceptible to halo effects.

Later, an evaluation of parents' feelings about the program and its staff and some direct observations of the center and classroom interactions were added.

The first step was to determine the areas of program quality that would be evaluated. Using Head Start guidelines and guidelines for program monitors for

both regular programs and planned variation centers, the following areas were selected: Recruiting, psychological services, social services, health services, nutrition programs, volunteer services, career development, and administration. To this was added a section on curriculum and a check on the existence of a Follow-Through program.

Discussions were then held with Head Start monitors and administrators to obtain information about their conceptions of program quality. Using this information, the guidelines, and adding some additional ideas, a pool of over 300 items or questions was generated. Many of the items had several different forms, depending on who was to be questioned. Each item was specifically related to one of the areas of program quality.

Evaluation of program quality by Head Start monitors included questions on parent participation in several of the areas. Any questions that related to parent participation were removed, because, while it is an aspect of quality, it is the independent variable in this study. Quality, therefore, must be defined in this study as adequacy of the program area exclusive of parent participation.

Research staff then reviewed the items to eliminate those where it was obvious that there would be little or no variability, or where accurate information was doubtful. This yielded 211 items including items to assess parent attitudes. A sample of persons expert in various aspects of Head Start were asked, individually, to rate each of the items as to its importance as an indicator of program quality in its particular area. The sample included three Head Start directors, three selected teachers, four Head Start monitors, and four Head Start parents. Mean ratings were calculated for each group. These were examined and judgements were made for each item, eliminating items with low importance ratings generally and discussing items that had low ratings by only one or two groups. Minority involvement items created a problem since they were

not applicable to all centers. They were finally modified to a more general form or eliminated, so that socres across centers could be comparable.

Final forms for each of the groups to be examined were developed and were administered to the appropriate members of the pilot sample. Items that showed no variability in this sample were eliminated, or the alternatives were modified to encourage greater variablity. One example proved to be the curriculum items. They all, of necessity, required judgements, and it was found that program staff tended to indicate their program was "very effective" in all areas. A "really excellent" category was added to try to get greater variability. The final scales for each area of program quality and for each informant appear in Appendix G.

Direct data on program quality from independent observers was added after one of the final review sessions. The procedure, therefore, could not be tested in the pilot sample. Observers, with the limited time they had available, could not effectively make observations in each of the areas of program quality. They did evaluate the classroom facilities and the nutrition program by observation. A set of items was adapted from the previously prepared items for each of these areas for raters to use. In addition, a set of items was constructed for raters to evaluate teacher-child interactions, teacher aides, and childrens' behavior.

Measures to Assess Effects on Institutional Change

For purposes of this study, an institutional change was defined in two ways:

1. As a major change, within a community or city, which:

   a. Greatly increased the availability of services to low income families,

   b. Significantly improved the quality of services provided for low income families, and

   c. Lead to a major change in policy which resulted in increased opportunities and benefits for low income families in that community of city.

2. As any major change which had a significant impact for low income families as a result of extensive political activity affecting election of officials, legislation, lobbying, and funding for services and programs designed for the benefit of low income families such that the effects may have extended beyond a single community, county or state.

During the pretesting phase of the project it became apparent that parents' perception of significant changes in their community included minor changes resulting in improved services for low income families, improved Head Start programs and institutional changes as defined in the preceding paragraphs. A decision was made to ask parents to identify institutional changes and to accept their perceptions of significant changes even though many of the reported changes would nc meet the criteria of institutional change. Institutional changes have been documented in the excellent report by Kirschner Associates, Inc. The objective for this portion of the study was to examine the effects of parent participation on institutional changes.

It was necessary to define four categories of change for this study. The first category included no significant changes as a result of parent involvement. The second category included significant non-institutional changes which resulted in some benefit to low income families. The third and fourth categories were institutional changes as presented in preceding paragraphs: Major changes within a community or city which increased the availability and/or quality of services to low income families, and major changes stemming from political activity and resulting in changes which extended beyond a single community, county or state.

Examples of an important noninstitutional change and both types of institutional changes will be presented in the discussion of the findings to be presented on parent involvement and institutional change. The types of changes, both significant and institutional, were of interest in relation to degree and type of parent involvement. A general description of the types of changes was selected from the Kirschner Report: A National Survey of the Impacts of Head

Start Centers on Community Institutions. Institutional changes were to include the following general types of changes:

1. Increased involvement of the poor witn institutions, particularly at decision-making levels and in decision-making capacities.
2. Increased institutional employment of local persons in para-professional occupations.
3. Greater educational emphasis on the particular needs of the poor and of minorities.
4. Modification of health institutions and practices to serve the poor better and more sensitively.

The major objective of this aspect of the empirical study was to examine the relationship between strength and type of parent involvement and (1) number of changes reported, (2) types of changes reported, and (3) importance of the two most significant changes reported in terms of the three categories of change, of which two of the three categories were viewed as institutional changes. In order for any change to be included in the report there had to be some evidence of parent participation in bringing about the changes. A large number of changes were noted by parents but were not included because parents were not involved in bringing about the changes.

The major source of information used in developing the interview guide for gathering information about institutional change came from the Kirschner Report and the experiences of MIDCO staff members. The first interview guide was developed and presented to a small group of Head Start parents and staff. During this review, it became apparent that it would be extremely difficult to gather detailed information about each institutional change. A decision was made to limit the detailed study of institutional change to the two most important changes in which parents were involved. Parents, under the direction of the team leader, decided on the two most important changes which had occurred in connection with parent involvement in their Head Start program.

Further discussion among Head Start staff and parents led to a decision

to ask parents to provide information about the institutional changes and to describe parent involvement at each of several stages of change. Additional information about the permanence of change and parent involvement were obtained from administrators, community leaders and representatives of institutions affected by the changes.

The procedure for gathering information about parent involvement and institutional change was pretested at a Head Start center in the Denver area. The group of parents identified 31 changes, eight of which were judged to meet the criteria of institutional change. It was apparent that parents were very much awareof changes and considered what might be rather minor changes (not institutional changes) as being important to low income families, and as an indication of a willingness on the part of the Head Start staff and commountiy leaders to consider parents' ideas and opinions. It was also apparent during pretesting that parents selected Head Start program changes as important changes in addition to institutional changes not directly related to the Head Start program.

Members of review panels expressed uncertainty and concern about reliance on parents as the major source of information regarding institutional changes and parent involvement at different stages of change. The decision to rely on parents as the major source of information was made because of the desire to assess parents' perceptions of the changes and their involvement in bringing about the changes. The enthusiastic response of parents during the pretesting of the questions and procedures to be followed in gathering information about parent involvement and institutional change lead to a decision to use the procedures in the study.

A detailed list of procedures used in gathering information along with a copy of the forms used to record the information are contained in Appendix H. Parents invited to the meeting included current and former parents, representatives

from the policy council and/or the policy committee, the current and past officers of the center committee, and other active parents who would know about the institutional changes which had occurred during the last two or three years.

The forms used to gather and report the information included an example, from the Kirschner Report, which was to be followed in writing a description of each of the two most important changes selected by the parents. A complete listing of all institutional changes, as judged by the interviewer, was to be completed after the meeting by each team leader. Only those institutional changes in which parents had been involved were to be listed.

Parents were asked to report the number of parents involved, and the names of key individuals, at each of six stages of change for each of the two most important changes selected by the parents in attendance at the meeting. This information was reported on forms provided specifically for this purpose. Parents were also asked to identify the institutional representatives and community leaders who were involved at each of the six stages of change. The two or three institutional representatives and community leaders, who were involved in each of the two most important changes, were interviewed by the team leader and asked to respond to the same series of questions asked of the parents. This was necessary in order to obtain others' perceptions of parent involvement at each of the six stages of change.

A form was provided for the team leader to report on evidence of the permanence of each of the two most important changes. This form contained three sections: (1) evidence at the institution which indicated whether or not the change was still in effect, (2) parents' perceptions about the lasting effects of each change, and (3) information, data reports, etc., which documented the extent and permanence of each change.

Each parent in attendance at the meeting was asked to fill out one form

for each of the two changes studied in detail. The form contained five questions about the effects of each change on the parents, children, neighborhood, Head Start program, and other community institutions. Each parent in attendance provided information about his participation in learning and decision-making activities. A parent participation rating was computed for each parent in terms of his involvement in decision-making and learning activities.

The entire procedure for gathering information about parent participation and institutional change proved to be efficient and informative. Many parents commented very favorably about the meetings and procedures and were surprised at the large number of changes which they could identify. One group of parents commented that as a result of the meeting, they had a much better idea of what could be done in bringing about changes and the kinds of changes needed in their community.

Information obtained from parents and from community leaders and institutional representatives, with a few exceptions, tended to be very similar in describing parent involvement at each of the six stages of change. Parents tended to provide specific information which was needed to assess parent participation in relation to institutional change.

PROJECT RESULTS

General Analytic Procedures

Four groups of Head Start centers were selected and categorized on the basis of extent and type of parent participation. These site differences constituted one variable or factor which was of interest in studying effects which may be attributed to parent participation. A second factor was the extent of parent participation irrespective of the site classification. Extent of participation was determined by the number of Head Start related activities in which each parent had participated. A third factor was the type of activities in which parents had participated, including: (1) decision-making, (2) learning, and (3) paid employment. A fourth factor consisted of the status of parents as indicated by current or former designation. It is important to note that with the exception of the factor pertaining to site differences, parent groups were formed by pooling across groups of sites.

The basic analytic procedure used for analyzing data gathered on parents and children was a two-factor analysis of variance using a least squares solution and an adjustment for disproportionality (unequal subclass frequencies.) The first step in the solution was to test for significant interaction. If the interaction was not significant, an adjusted sum of squares was computed for testing main effects. If the interaction was significant, an approximate solution, weighted squares of means, was used.

The combinations of factors used to analyze the parent and child data

have been outlined in Table G1. The reasons for combining the factors have been reported in the right-hand portion of the table. The current-former factor was included for the purpose of attempting to assess time-related changes. There was no random assignment of subjects to treatments. This necessitates caution in interpreting results.

The analytic procedures used to analyze data obtained on the dependent variables of program quality and institutional change involved tests of differences between sites based on single classification analysis of variance. Chi-Square tests of independence and Kruskal-Wallis analysis of variance for ranking data were also used. A descriptive narrative was used to summarize information which could not be quantified.

In order to assess institutional change as it relates to parent participation, the data were analyzed and reported in the following ways:

1. Distributions in contingency tables by type of change (5 types) and site classifications (4 categories); no analysis.

2. χ^2 test of differences between sites with respect to number of changes reported.

3. Distributions in contingency tables by importance of change and site classification; no analysis.

4. Kruskal-Wallis AOV on mean ranking of judges' ratings of importance of change.

5. Mean and standard deviation of parent-participation scores for parents attending institutional change meetings; F tests of differences between sites based on single classification.

6. Six stages of change by site classification; descriptive narrative; no analysis.

7. Parent responses concerning effects of changes by categories and site classification: narrative and a check (x) indicating parent responses; no analysis.

8. Permanence of change by site and change number; descriptive narrative.

TABLE G1

Basic Analytic Procedures Used to Analyze
Parent and Child Data

Site by Current-Former Status (2X4)		
Status of Parents	Site Classification HiHi HiLo LoHi LoLo	To test for differences which may be attributed to current-former status of parents and differences among groups of sites with respect to extent and type of parent involvement.
Current		
Former		
Extent of Parent Participation by Current-Former Status (2X2)		
Status of Parents	Extent of Parent Involvement HiHi LoLo	To test for differences which may be attributed to current-former status of parents and extent of parent involvement, within sites, in terms of little or no involvement and considerable involvement.
Current		
Former		
Type of Parent Participation by Current-Former Status (2X2)		
Status of Parents	Type of Parent Involvement HiLo LoHi	To test for differences which may be attributed to current-former status of parents and type of parent involvement, within sites, in which parents are involved in decision-making or learning, but not in both roles.
Current		
Former		

TABLE G1 (continued)

Special Type of Participation (Paid Employee) vs. Extent of Involvement	
Paid Employees vs. HiHi Parent Involvement (single classification):	Forty-five of 55 paid employees met the criteria for high parent involvement in both decision-making and learner roles, constituting a special HiHi group of parents. Therefore, this comparison was to test for differences between groups high in participation, but differing with respect to employment.

NOTE: The first abbreviation refers to decision-making activities and the second abbreviation refers to learning activities, e.g., LoHi means low involvement in decision-making and high involvement in learning activities.

Basic Characteristics of the Study Population: Relationships Among Variables

The information provided in the following pages is intended to provide basic information on the parent subgroups as well as an empirical basis for the interpretation of research results presented in the later sections of this report. The equivalence or lack of equivalence among the comparison groups should be taken into account in any subsequent interpretation of observed group differences. Whenever random assignment of subjects is not possible, it is important to have some knowledge of the ways in which they are alike and the ways in which they are different. Ideally, the groups will be similar and any differences will be minimal or unrelated to status on criterion measures. This is essential if the variables under investigation (e.g., level of participation) are not to be easily accounted for by the action of unknown factors. Wherever differences in characteristics such as ethnic origin, educational level, number of children, etc., are found to be beyond the tolerance expected via sampling error, and where those variables are also related to criterion measures, the interpretation of dependent data may be qualified.

As noted in the previous discussion of the characteristics of ex post facto research designs, the major problem lies in the possibility that self-selection may have biased the characteristics of the parent groups. For example, parents with more positive self-concepts may be more likely to participate as decision-makers in Head Start programs, and perhaps this characteristic rather than the variables of interest (i.e., participation) accounts for the status of that particular group on other criteria. Those factors can be effectively discounted that are found to be non-significant and attention focused upon those that are reliable indices of group differences. In the present case, concern was with comparisons along two dimensions:

comparability among sites and comparability among parent groups who differ in the extent and type of their participation. In the following analysis, the limit of tolerance was selected as the point at which $p < .10$ for any mean difference. The use of the .10 level is conservative, however, since concern is with the identification of differences that should be considered in interpreting later findings, it seems appropraite to challenge the equivalency of the research groups wherever possible.

In Table G2 is presented a summary of site characteristics according to the extent and type of parent participation. These data provide some indication of the context in which Head Start parent participation took place. It appears that the sites were similar in their general composition. The LoLo site contained a slightly larger rural population and the LoHi site was slightly more urban.

TABLE G2

Summary of Site Characteristics

Site Classification	Grantee/Delegate		Number of Classrooms	Urban/ Rural/Mixed		
HiHi	4	1	15	2	2	1
HiLo	4	1	15	2	2	1
LoHi	4	1	12	3	0	2
LoLo	5	0	12	2	3	0

Table G3 provides a break-out of the basic parent data in terms of each group and subgroup used in the later analyses of differences among the parent and site classifications. As mentioned previously, these data are of importance because the formation of the parent groups and selection of sites according to their existing characteristics leaves room for the operation of any number of

possible selection factors (e.g., demographic characteristics, such as age of the parents that might explain group differences on the dependent measures). These factors must be considered in order to make proper inferences about the results of the tests of differences in each of the four cr... parents, children, program quality and institutional chan... of the project was to point out those differences that may be attributed to parent participation in Head Start, and in order to do that, the number o... possible competing or alternative explanations should be reduced. This t...esents a large amount of detailed information. It is presented at this point to enable the reader to make any comparisons in which he is interested. Summary tables presenting the appropriate tests of statistical significance are provided in the later pages of this section. The reader may wish to turn to these results prior to an extensive examination of group means, etc.

TABLE G3

Demographic Variables and Parent Participation Scores By Parent Classification For Each Site Classification

Site 1 (Low Decision-Making—Low Learning)

	Parent Classification																															
	HiHi			LoHi			HiLo			LoLo			Total (Current & Former)			Current			Former			Alternative to LoLo Classification			Revised Total			Revised Current			Revised Former			Paid Employees		
	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD
Age of Child	25	72.08	9.09	9	73.30	7.04	11	72.42	5.92	52	71.55	9.21	100	72.16	8.62	61	67.63	7.03	38	79.38	5.39	18	73.00	10.86	66	72.91	8.80	39	68.20	7.49	26	79.69	5.26	18	66.42	8.19
Time parent has had children in Head Start	25	2.32	.62	9	2.80	1.07	11	2.17	.38	52	2.25	.81	100	2.29	.77	61	2.18	.78	38	2.46	.72	18	2.26	.65	66	2.31	.70	39	2.1	.73	26	2.44	.64	18	3.00	1.60
No. previous children in Head Start	25	.46	.65	9	.80	1.[illegible]	11	.67	.89	52	.62	1.13	100	.60	.98	61	.50	.72	38	.97	1.29	18	1.11	1.67	66	.73	1.23	39	.63	.81	26	.89	1.48	18	.95	1.31
Age of Interviewed parent	25	32.32	7.31	9	32.83	11.14	11	30.70	8.[illegible]	51	31.25	9.69	99	31.66	9.16	61	31.23	9.96	37	32.37	7.64	18	30.53	6.41	66	31.66	7.99	39	30.28	7.60	26	33.70	8.25	17	34.47	8.61
Last grade completed (Father)	16	9.16	3.35	4	9.11	2.71	8	11.60	3.21	33	9.06	2.86	64	9.29	2.77	42	9.37	2.88	21	9.14	3.01	11	8.56	3.48	42	9.28	2.91	27	9.36	2.91	14	9.13	3.03	11	9.36	3.27
Last grade completed (Mother)	33	10.38	1.69	9	10.80	2.25	10	9.82	2.09	69	9.82	1.88	96	10.06	1.90	56	10.27	1.82	37	9.61	1.93	14	9.37	1.89	63	10.[illegible]	1.94	36	10.46	1.69	26	9.48	2.14	16	10.37	1.64
Employment Stability Index	25	2.81	1.33	9	3.30	1.25	11	3.00	1.35	52	2.45	1.44	100	2.69	1.39	61	2.74	1.37	38	2.63	1.44	18	2.63	1.50	66	2.87	1.36	[illegible]	2.93	1.31	26	2.98	1.45	18	3.79	.54
Birth Order of Child	25	3.04	2.01	9	3.40	2.27	11	3.92	2.39	52	2.92	2.16	100	3.12	2.15	61	2.77	2.79	38	3.67	2.57	18	3.74	2.73	66	3.45	2.31	39	3.00	1.77	26	4.11	2.85	18	3.38	3.01
Total number of children	25	3.44	2.05	9	4.20	2.15	11	4.67	2.15	52	3.58	1.85	100	3.84	1.97	61	3.38	2.69	38	4.26	2.29	18	4.37	2.08	66	4.19	2.06	39	3.90	1.82	26	4.63	2.34	18	4.26	3.03
Years residence in present local.	25	22.12	12.25	9	13.20	8.02	11	25.50	14.53	50	21.63	14.28	96	21.37	13.45	59	20.50	14.12	38	22.72	12.41	17	25.[illegible]	10.62	63	22.32	12.22	36	21.90	12.93	26	22.93	11.33	17	24.17	14.37
Participation as Learner	25	13.42	4.07	9	13.00	2.16	11	8.08	2.27	52	4.12	2.71	100	8.53	3.68	61	9.03	3.74	38	7.74	5.48	18	1.79	3.18	66	9.88	6.42	39	10.68	6.49	26	8.70	6.24	18	17.21	5.69
Participation as Decision-Maker	25	9.35	5.18	9	.20	.42	11	4.67	1.83	52	.47	.58	100	3.23	4.72	61	3.84	3.29	38	2.26	3.48	18	-0-	-0-	66	4.49	5.35	39	3.30	3.56	26	3.60	3.94	18	7.47	5.32
Total Participation	25	23.13	8.38	9	13.20	2.35	11	12.75	2.34	52	4.89	2.92	100	11.86	9.75	61	13.03	10.30	38	10.00	8.22	18	1.79	3.18	66	14.32	10.99	39	14.43	11.69	26	11.70	9.36	18	24.68	10.14

TABLE G3 (Continued)

Site 2 (Low Decision-Making-High Learning)

	Parent Classification																																	
	HiHi			LoHi			HiLo			LoLo			Total (Current & Former)			Current			Former			Alternative LoLo Classification			Revised Total			Revised Current			Revised Former			Paid Employees		
Age of Child	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD
	28	66.43	8.81	4	65.00	7.07	15	70.49	9.58	49	68.78	9.77	99	68.22	9.37	61	63.29	7.44	37	76.26	6.02	22	69.04	9.47	71	68.10	9.11	29	75.79	5.93	42	62.79	6.93	0	62.33	8.19
Time parent has had children in Head Start	28	2.61	.82	4	1.80	.45	15	1.94	.57	49	2.38	1.32	99	2.29	1.08	61	2.29	1.16	37	2.29	.93	22	2.36	1.37	72	2.22	.89	29	2.40	.89	42	2.09	.87	0	2.67	1.38
No. previous children in Head Start	26	.32	.91	4	-0-	-0-	15	.25	.45	49	.66	1.12	99	.32	.96	61	.96	1.03	37	.43	.83	22	.32	.85	72	.42	.78	29	.47	.98	42	.40	.69	0	.78	1.30
Age of interviewed parent	28	31.14	9.87	4	27.00	6.10	15	29.54	9.28	47	31.27	6.76	97	30.76	7.57	61	29.95	7.02	33	32.18	6.99	21	31.91	6.99	71	30.79	7.45	28	32.83	7.20	42	29.42	7.39	0	30.89	6.99
Last grade completed (Father)	23	10.50	2.88	2	10.00	2.00	13	9.46	3.94	37	9.00	2.82	78	9.63	2.84	47	9.42	2.94	30	10.00	3.27	17	8.28	3.28	58	9.64	3.02	25	10.19	3.46	32	9.21	2.58	0	9 78	3.73
Last grade completed (Mother)	28	11.63	1.78	4	10.88	.84	15	10.38	2.88	48	9.37	2.30	98	10.09	2.28	60	10.31	1.94	37	9.74	2.74	22	9.87	2.60	73	10.18	2.40	26	9.88	2.93	42	10.47	1.93	0 0	11.56	1.01
Employment Stability Index	28	2.72	1.44	4	3.00	1.41	15	2.73	1.34	49	3.02	1.30	99	2.89	1.34	61	2.69	1.36	37	3.21	1.36	22	3.17	1.30	72	2.89	1.36	29	2.27	1.23	42	2.63	1.40	5	3.78	.67
Birth Order of Child	27	2.82	2.18	4	2.00	1.73	15	2.50	1.90	49	3.02	2.06	98	3.13	2.10	60	2.92	1.86	37	3.47	2.44	22	3.74	1.89	71	2.99	2.04	29	3.69	2.46	41	2.55	1.58	6	2.67	1.73
Total number of children	27	4.07	2.18	4	3.40	1.67	15	1.67	3.94	49	4.78	2.15	98	4.37	2.09	60	4.18	1.98	37	4.68	2.24	22	4.96	1.94	71	4.28	1.99	29	4.80	2.31	41	3.90	1.66	8	3.44	1.74
Years residence in present locale	26	17.19	12.01	4	17.40	14.48	15	16.31	13.37	48	14.69	11.23	98	15.80	11.87	61	16.66	12.48	36	14.35	10.93	22	23.61	11.42	72	15.85	12.77	29	12.90	11.04	42	17.91	12.61	8	15.46	10.33
Participation as Learner	26	29.34	6.98	4	13.00	2.92	15	7.00	2.33	49	6.24	2.84	99	9.79	8.31	61	10.87	8.97	37	8.03	6.86	22	2.55	1.64	72	11.25	9.19	29	8.27	7.68	42	11.33	9.66	8	10.47	7.98
Participation as Decision-Maker	28	11.28	3.39	4	1.20	.84	15	3.25	2.45	49	.44	.78	99	6.39	3.71	61	5.32	6.27	37	2.87	4.29	22	-0-	-0-	72	5.71	6.16	29	3.63	4.67	42	7.38	6.62	8	5.67	4.12
Total Participation	26	31.62	10.96	4	14.20	2.93	15	13.25	3.91	49	4.66	3.13	99	14.16	12.29	61	16.19	14.56	37	10.89	10.17	22	2.55	1.64	72	16.96	14.56	29	11.78	11.40	42	28.63	35.47	8	26.33	18.58

TABLE G3 (Continued)

Site 2 (High Decision-Making—Low Learning)

	Parent Classification																																	
	HiHi			LoHi			HiLo			LoLo			Total (Current & Former)			Current			Former			Alternative to Previous Classification			Revised Total			Revised Current			Revised Former			Paid Employees		
	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD
Age of child	34	64.56	10.71	3	67.33	9.71	31	69.20	12.17	40	66.30	10.23	91	65.36	10.70	33	72.73	8.72	33	60.61	9.07	12	66.66	10.13	63	69.10	10.82	35	61.50	10.13	17	72.23	8.52	31	62.42	11.32
Time parent has had children in Head Start	32	3.09	1.31	3	2.73	.50	14	9.33	1.63	42	2.54	1.37	94	2.92	1.33	36	3.06	1.[illegible]	37	2.81	2.39	12	2.69	1.23	64	3.05	1.44	36	3.00	1.41	27	2.11	1.58	11	3.00	1.91
No. previous children in Head Start	32	.76	1.23	3	.50	1.00	14	1.20	1.08	42	.77	.93	94	.82	1.07	36	.64	1.04	39	.92	1.10	12	.69	.63	64	.83	1.08	36	.89	1.20	27	.75	.93	11	.67	1.67
Age of interviewed parent	31	28.78	6.99	3	29.33	4.79	13	29.43	3.63	41	30.68	9.78	91	30.19	6.55	34	32.43	7.19	34	28.53	5.67	12	33.15	7.50	62	30.40	6.71	34	29.03	5.63	27	32.11	7.88	10	34.36	6.09
Last grade completed (Father)	23	11.30	1.84	1	12.50	2.12	11	9.36	3.23	32	10.00	2.78	76	10.41	2.62	27	10.21	2.71	42	10.53	2.39	9	9.48	3.19	47	10.48	2.82	21	10.00	2.94	23	10.81	2.73	8	9.50	4.36
Last grade completed (Mother)	32	11.33	1.46	3	10.23	1.20	14	10.47	3.23	41	9.95	2.36	93	10.61	2.31	36	10.73	2.56	36	10.53	2.15	12	8.85	2.19	64	10.66	2.33	36	10.65	1.87	29	10.71	2.85	11	11.42	2.64
Employment Stability Index	32	3.06	1.22	3	2.00	1.41	14	2.47	1.35	42	2.76	1.23	94	2.69	1.33	36	2.31	1.37	37	2.81	1.34	12	2.08	1.38	64	2.66	1.38	36	2.62	1.42	27	2.71	1.36	11	3.33	.94
Birth Order of Child	32	2.61	2.32	3	3.30	2.08	14	3.93	2.23	42	2.91	1.80	94	2.99	2.09	36	3.46	2.09	37	2.69	2.03	12	3.00	1.96	64	3.05	2.24	36	2.81	2.21	27	3.26	2.28	11	4.67	2.71
Total number of children	32	3.12	2.23	3	4.25	2.22	14	4.86	2.27	42	3.93	1.79	94	3.80	2.18	36	4.32	2.34	37	3.47	1.93	12	4.13	2.12	64	3.78	2.28	36	3.66	2.03	27	4.21	2.39	11	4.92	2.61
Years residence in present locale	32	10.97	9.78	3	10.50	9.74	13	11.57	9.49	42	18.72	13.40	93	14.39	11.66	36	13.92	11.33	36	15.02	11.56	12	14.23	14.56	63	11.73	10.07	35	11.53	10.68	27	12.00	9.41	11	18.67	9.92
Participation as Learner	32	19.48	3.83	3	12.75	1.50	14	7.23	2.45	42	4.33	2.87	94	10.39	7.62	36	9.70	6.65	37	10.83	7.71	12	3.77	1.59	64	12.68	8.36	36	13.97	7.65	27	[illegible]	8.84	11	18.67	9.68
Participation as Decision-Maker	32	11.93	6.17	3	.75	.96	14	7.20	4.87	42	.65	.72	94	5.81	6.51	36	8.33	7.44	37	3.16	3.88	12	-0-	-0-	64	7.77	6.86	36	7.40	6.24	[illegible]	8.16	7.72	11	10.36	6.72
Total Participation	32	31.42	9.36	3	13.50	1.29	14	14.33	6.53	42	4.98	3.19	94	16.00	11.30	36	18.03	14.77	37	13.98	12.40	12	3.77	3.39	64	20.45	13.69	36	21.46	12.39	27	19.11	13.76	11	29.25	13.07

TABLE G3 (Continued)

Site A (High Decision-Making—High Learning)

	Parent Classification											
	HiHi			LoHi			HiLo			LoLo		
	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD
Age of Child	47	83.90	9.22	10	87.45	7.06	7	88.50	8.03	20	80.74	8.50
Time parent has had children in Head Start	47	2.10	.92	10	2.35	1.01	7	3.13	1.25	26	2.33	1.39
No. previous children in Head Start	47	.40	.76	10	.20	.01	7	1.00	1.07	20	.36	.00
Age of interviewed parent	43	32.66	9.06	10	29.90	8.70	7	30.75	8.36	20	31.69	7.03
Last grade completed (father)	37	10.14	2.31	9	10.00	3.66	3	8.33	3.77	19	11.13	2.40
Last grade completed (mother)	44	11.29	1.46	10	10.09	2.30	7	10.30	2.16	20	9.09	2.76
Employment Stability Index	47	2.77	1.36	10	3.43	1.04	7	3.30	1.60	20	.40	1.37
Birth Order of Child	47	2.63	2.47	10	2.72	2.10	7	1.33	3.13	28	3.44	2.28
Total number of children	47	3.32	1.9?	10	3.91	2.33	7	4.00	1.41	28	4.04	2.07
Years residence in present locale	43	19.30	11.36	10	20.36	10.63	7	13.63	10.91	20	18.07	13.36
Participation as learner	47	20.96	6.03	10	14.46	2.73	7	9.00	3.07	20	4.60	3.30
Participation as decision-maker	47	13.43	6.66	10	1.37	.79	7	4.48	1.64	26	.46	.70
Total Participation	47	36.20	11.82	10	19.91	2.06	7	10.66	2.60	36	5.37	3.61

	Total (Current & Former)			Current			Former			Alternative LO LO Classification		
	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD
Age of Child	93	66.91	8.76	36	62.32	7.23	36	74.00	5.63	10	88.91	9.76
Time parent has had children in Head Start	93	2.31	1.26	36	2.05	1.23	36	2.70	1.28	10	2.73	1.15
No. previous children in Head Start	93	.49	.80	36	.42	.80	36	.39	.78	10	.91	1.04
Age of interviewed parent	91	31.85	7.96	33	32.23	8.33	35	32.01	7.37	10	31.36	6.76
Last grade completed (father)	93	10.00	2.70	35	29.64	2.31	33	9.12	2.00	6	9.34	2.27
Last grade completed (mother)	90	10.66	2.31	33	10.93	2.03	36	10.27	2.42	10	9.71	2.35
Employment Stability Index	93	2.74	1.36	36	2.30	1.39	36	3.00	1.29	10	2.27	1.42
Birth Order of Child	93	3.05	2.30	36	3.70	2.29	29	3.34	2.00	10	3.43	1.69
Total number of children	93	3.76	2.33	36	3.44	2.62	36	4.25	2.70	10	4.18	1.77
Years residence in present locale	89	10.69	11.01	36	20.09	12.68	36	19.63	20.43	10	17.09	12.36
Participation as learner	93	14.32	9.00	30	23.42	9.17	36	22.62	8.80	10	9.91	1.45
Participation as decision-maker	93	7.35	7.33	36	7.67	7.40	36	7.38	7.82	10	—	—
Total Participation	93	31.07	19.60	36	23.09	15.30	36	30.00	20.63	10	3.01	2.43

	Revised Total			Revised Current			Revised Former			Paid Employees		
	df	X̄	SD	df	X̄	SD	df	X̄	SD	df	X̄	SD
Age of Child	77	66.50	8.93	47	62.15	7.63	29	73.63	5.80	11	71.92	9.13
Time parent has had children in Head Start	77	2.36	1.32	47	2.10	1.31	29	2.77	1.23	11	2.67	1.30
No. previous children in Head Start	77	.53	.85	47	.44	.85	29	.67	.84	11	.42	.79
Age of interviewed parent	75	31.76	8.06	46	31.77	8.66	28	31.76	7.13	11	33.33	7.49
Last grade completed (father)	40	9.82	2.82	27	10.25	2.70	20	9.26	2.93	5	10.82	1.40
Last grade completed (mother)	76	10.63	2.00	44	10.87	2.04	29	10.77	1.98	11	11.50	2.11
Employment Stability Index	77	2.77	1.37	47	2.66	1.62	29	3.03	1.27	11	3.83	.38
Birth Order of Child	77	2.95	2.49	47	2.73	2.29	29	3.30	2.77	11	3.67	2.02
Total number of children	77	3.72	2.61	47	3.50	2.32	29	4.07	2.74	11	3.75	2.38
Years residence in present locale	73	20.60	11.35	43	18.76	12.36	27	28.34	9.42	11	22.06	11.87
Participation as learner	77	23.84	6.22	47	27.00	9.01	29	13.83	9.34	12	23.69	10.08
Participation as decision-maker	77	8.94	7.34	47	8.96	7.37	29	8.93	7.94	12	12.00	8.31
Total Participation	77	26.77	13.38	47	26.84	13.26	29	22.73	16.13	12	37.69	17.26

TABLE G3 (Continued)

TOTAL (All Parent Groups)

Site Classifications
(Revised Samples — New Lo Lo Classification)

	HI HI			HI LO			LO HI			LO LO			Total		
	df	$\bar{X}$	SD	df	$\bar{X}$	SD	df	$\bar{X}$	SD	df	$\bar{X}$	SD	df	$\bar{X}$	SD
Age of Child	77	66.56	8.93	63	66.20	10.82	72	68.10	9.11	66	72.91	8.80	281	68.39	9.72
Time Parent has had children in Head Start	77	2.36	1.32	64	3.05	1.44	72	2.22	.86	66	2.31	.70	282	2.47	1.17
No. Previous children in Head Start	77	.53	.85	64	.83	1.08	72	.42	.78	66	.73	1.12	282	.62	.97
Age of interviewed parent	75	31.76	8.06	62	30.40	6.71	71	30.79	7.45	66	31.66	7.99	277	31.18	7.58
Last grade completed (Father)	48	9.82	2.82	47	10.48	2.82	58	9.64	3.02	42	9.28	2.91	198	9.81	2.91
Last grade completed (Mother)	74	10.83	2.00	64	10.68	2.33	72	10.19	2.40	63	10.05	1.94	276	10.44	2.19
Employment Stability Index	77	2.77	1.37	64	2.66	1.38	72	2.89	1.36	66	2.87	1.36	282	2.80	1.36
Birth Order of Child	77	2.95	2.49	64	3.05	2.24	71	2.99	2.04	66	3.45	2.31	281	3.10	2.28
Total number of children	77	3.72	2.61	64	3.78	2.28	71	4.28	1.99	66	4.19	2.06	281	3.99	2.26
Years residence in present locale	73	18.68	11.25	63	11.73	10.07	72	15.85	12.18	65	22.32	12.22	281	17.19	12.03
Participation as a learner	77	15.83	9.22	64	12.63	8.36	72	11.25	9.19	66	9.88	6.42	276	12.52	8.68
Participation as a Decision-maker	77	8.94	7.54	64	7.77	6.86	72	5.71	6.16	66	4.49	5.35	281	6.78	6.76
Total Participation	77	24.77	15.58	64	20.45	13.89	72	16.96	14.54	66	14.52	10.99	282	19.34	14.41

TABLE G3 (Continued)

TOTAL (All Parent Groups)

Site Classifications
(Original Samples -- Grand Median Split)

	HI HI			HI LO			LO HI			LO LO			Total		
	df	$\bar{X}$	SD	df	$\bar{X}$	SD	df	$\bar{X}$	SD	df	$\bar{X}$	SD	df	$\bar{X}$	SD
Age of Child	93	66.91	8.76	91	65.36	10.70	99	68.22	9.37	100	72.18	8.62	386	68.26	9.68
Time Parent has had children in Head Start	93	2.31	1.24	94	2.92	1.53	99	2.29	1.08	100	2.29	.77	389	2.45	1.21
No. Previous children in Head Start	93	.49	.80	94	.82	1.07	99	.52	.96	100	.60	.98	389	.61	.96
Age of interviewed parent	91	31.85	7.93	91	30.10	6.55	97	30.78	7.57	99	31.66	9.13	381	31.10	7.88
Last grade completed (Father)	61	10.00	2.76	70	10.41	2.62	78	9.65	2.84	64	9.30	2.77	276	9.84	2.77
Last grade completed (Mother)	90	10.66	2.21	93	10.61	2.31	98	10.09	2.28	94	10.06	1.90	378	10.35	2.19
Employment Stability Index	93	2.74	1.36	94	2.69	1.35	99	2.89	1.34	100	2.69	1.39	389	2.76	1.36
Birth Order of Child	93	3.03	2.50	94	2.99	2.09	98	3.13	2.10	100	3.12	2.15	388	2.07	2.21
Total number of Children	93	3.76	2.55	94	3.80	2.10	98	4.37	2.09	100	3.84	1.97	388	3.95	2.19
Years residence in present locale	89	18.69	11.81	93	14.59	11.66	98	15.80	11.87	98	21.37	13.45	381	16.63	12.48
Participation as a learner	93	14.32	9.08	94	10.39	7.82	99	9.79	8.31	100	8.53	5.68	389	10.70	8.06
Participation as a Decision-maker	93	7.55	7.52	94	5.61	6.51	99	4.39	5.71	100	3.23	4.71	389	5.15	6.35
Total Participation	93	21.87	15.60	94	16.00	13.30	99	14.18	13.29	100	11.86	9.75	389	15.88	13.56

TOTAL (All Sites)

- TABLE G3- (Continued)

	Parent Classification									Alternative Classification			Total Revised (Current & Former)		
	HI HI			LO HI			HI LO			LO LO					
	df	$\bar{X}$	SD	df	$\bar{X}$	SD	df	$\bar{X}$	SD	df	$\bar{X}$	SD	df	$\bar{X}$	SD
Age of Child	134	66.75	9.76	29	69.70	8.21	50	70.31	9.46	65	69.65	10.11	281	68.39	9.72
Time parent has had children in Head Start	135	2.45	1.10	29	2.47	1.28	50	2.59	1.24	65	2.42	1.22	282	2.47	1.17
No. previous children in Head Start	135	.52	.90	29	.47	.86	50	.75	.93	65	.79	1.14	282	.62	.97
Age of interviewed parent	132	31.50	8.44	29	29.80	6.98	49	30.50	7.29	64	31.66	6.10	277	31.18	7.58
Last grade completed (Father)	92	10.38	28	19	10.45	3.12	38	9.44	3.35	46	8.72	3.24	198	9.81	2.91
Last grade completed (Mother)	130	11.1	1.66	29	10.47	1.94	49	10.30	2.64	65	9.18	2.31	276	10.44	2.19
Employment Stability Index	135	2.84	1.33	29	3.13	1.25	50	2.69	1.42	65	2.65	1.43	282	2.80	1.36
Birth Order of Child	134	2.82	2.43	29	2.93	2.07	50	3.35	2.10	65	3.55	2.12	281	3.10	2.28
Total number of children	134	3.60	2.47	29	3.97	2.16	50	4.37	1.94	65	4.50	1.97	281	3.99	2.26
Years residence in present locale	131	17.26	11.69	29	16.16	10.27	49	17.08	13.08	65	17.63	12.85	281	17.19	12.03
Participation as Learner	135	19.40	6.30	29	13.57	2.47	50	7.14	2.55	64	2.00	1.47	276	12.52	8.68
Participation as Decision-Maker	135	11.82	5.96	29	.83	.83	50	5.63	3.00	65	0.00	0.00	281	6.78	6.76
Total Participation	135	31.30	10.62	29	14.40	2.72	50	12.76	3.85	65	2.00	1.47	282	19.34	14.41

TABLE G3 (Continued)

TOTAL (All Sites) CONTINUED

	Original LO LO			Original Total			Original Current			Original Former			Paid Employees		
	df	$\bar{X}$	SD	df	$\bar{X}$	SD	df	$\bar{X}$	SD	df	$\bar{X}$	SD	df	$\bar{X}$	SD
Age of Child	170	68.58	9.81	386	68.26	9.68	236	63.56	8.10	149	75.67	6.96	43	65.75	10.44
Time parent has had children in Head Start	172	2.40	1.27	389	2.45	1.21	238	2.33	1.22	150	2.63	1.17	43	2.91	1.71
No. previous children in Head Start	172	.66	1.03	389	.61	.96	238	.57	.93	150	.66	1.01	43	.77	1.20
Age of interviewed parent	168	31.20	7.77	381	31.10	7.88	234	30.26	8.17	146	32.45	7.22	41	34.93	7.49
Last grade completed (Father)	124	9.46	2.79	276	9.84	2.77	169	9.95	2.63	106	9.66	2.98	30	9.68	3.38
Last grade completed (Mother)	167	9.73	2.67	378	10.35	2.19	228	10.52	2.00	149	10.08	2.45	43	11.02	2.13
Employment Stability Index	172	2.65	1.38	389	2.76	1.36	238	2.71	1.36	150	2.83	1.36	43	3.70	.66
Birth Order of Child	172	3.20	2.07	388	2.07	2.21	237	2.77	1.98	150	3.54	2.47	43	3.91	2.61
Total number of children	172	4.09	2.00	388	3.95	2.19	237	3.67	2.05	150	4.38	2.33	43	4.32	2.68
Years residence in present locale	169	18.33	13.28	381	16.63	12.48	233	17.58	12.90	147	17.70	11.83	43	22.79	12.00
Participation as Learner	172	4.42	2.85	389	10.70	8.06	238	11.47	8.29	150	9.49	7.56	43	21.69	7.40
Participation as Decision-Maker	172	.51	.67	389	5.15	6.35	238	5.46	6.35	150	4.66	6.35	43	10.27	6.33
Total Participation	172	4.92	3.14	389	15.88	13.56	238	16.97	13.78	150	14.15	13.06	43	31.96	12.50

TABLE G3 (Continued)

Explanatory Notes -- [1]The majority of the variables presented in this table are self-explanatory except for the Index of Parents' Employment Stability. This score was derived from the following classification:

Length of Time at Present Job	Number of Jobs Held Last Two Years	Score Score
12 months or more	1 or 2	4
at least 6 months	1 or 2	3
less than 6 months	1, 2 or 3	2
0 months employed or unemployed		1

[2]The revision of the sample of parents who were low in terms of both learning and decision-making participation called for the elimination of 108 subjects. Since this group has been used in a number of the comparisons reported in later sections of this report, the basic data have been presented here along with revised figures for all other affected groupings.

[3]Forty-four of the original sample of 55 paid employees net the criteria for HiHi parent participation classification. These exceptional 10 cases were eliminated from further analyses. The paid employee sample is a high participation group and should be compared most appropriately to the non-paid HiHi sample.

[4]The parent participation and the site classification systems are parallel; that is, high participation and low participation have been identified in the same way. In each case, the first identifier (Hi or Lo) refers to status as a decision-maker or to a site in which decision-making activities are encouraged; the second identifier (Hi or Lo) refers to status as a learner or to a site in which learning activities are encouraged.

As Table G3 indicates, the majority of differences in basic characteristics were not particularly great among the groups to be compared. The results of tests of these differences across both parent and site classifications are presented in subsequent tables; however, the data on three of the basic characteristics could not appropriately be summarized in terms of means and variances. These were ethnic origin, family economic status, and the data on the presence of adults in the home. These data have been presented in Tables G4, G5, G6 and G7 along with tests of the significance of any variation in frequencies or percentages across sites and between the study populations (i.e., former parents and paid employee parents). Ethnic origin has been presented in terms of frequency in each ethnic category; family income has been presented in terms of the percentage in each group that were below OEO poverty guidelines (including those parents who were on welfare and receiving ADC); and the index of parents in the home has been presented in terms of the percentage of cases in which both parents were present in the home.

It is apparent that the separate samples of Paid Employee parents and Former parents were not different from other parents in terms of their ethnic composition. There were differences, however, in the extent to which the various ethnic groups are represented in the parent populations of the sites. The factor that accounted for the significant X^2 was the disproportionate number of Blacks at the HiHi sites and the disproportionate number of Mexican-Americans at the HiLo sites. In both cases, their percentage of the total parent population was higher than would be expected to occur by chance.

The parent groups, however, did not reflect this biasing. As the frequencies in Table G5 indicate, there were three dominant ethnic groups that were spread in fairly equal proportions across the parent involvement participation categories. Even though many characteristics may be associated with ethnic membership, it may be concluded that ethnic factors have not affected comparisons

TABLE G4

Ethnic Origin by Site Classification and Study Populations

Ethnic Origin	Site Classification (HiHi)	(HiLo)	(LoHi)	(LoLo)	Total Current and Former	Current-Former Current	Former	Paid
Black	62	27	29	37	155	89	66	28
Mex. American	2	26	6	5	39	23	16	3
Puerto Rican	0	0	0	2	2	2	0	0
Caucasian	43	45	52	53	193	120	72	21
Am. Indian	0	0	2	0	2	1	1	0
Oriental	0	0	0	0	0	0	0	0
Other	0	2	2	0	4	3	1	2

Across Sites: $X^2 = 54.62$ df = 6 $p. < .001$

Between Current & Former: $X^2 = .95$ df = 2 $p. < .62$

Between Total and Paid: $X^2 = 3.83$ df = 2 $p. < .15$

Explanatory Note -- Because of the great number of zero frequencies, tests on the factor of ethnic origin were performed on the categories of Black, Mexican-American and Caucasian.

TABLE G5

Ethnic Origin by Parent Participation Classification

Ethnic Origin	Parent Classification HiHi	LoHi	HiLo	LoLo	Total	Revised LoLo
Black	56	10	17	63	146	21
Mexican-American	10	1	8	20	38	10
Puerto Rican	2	0	0	0	2	0
Caucasian	63	19	23	85	190	34
American Indian	1	0	1	0	2	0
Oriental	0	0	0	0	0	0
Other	1	0	2	1	4	0

Across Parent Classification: $X^2 = 10.41$ df = 6 $p < .11$

Table G6

Percentage of Parents with Income Below
OEO Poverty Guidelines

Parent Classification	Site 1 (LOLO)	Site 2 (LOHI)	Site 3 (HILO)	Site 4 (HIHI)
HiHi	36/48 = 75%	20/28 = 71%	27/45 = 60%	43/62 = 69%
HiLo	11/14 = 78%	12/17 - 70%	12/15 = 80%	7/8 = 87%
LoHi	10/12 = 83%	7/8 = 87%	3/4 = 75%	9/12 = 75%
LoLo	47/58 = 81%	36/51 = 70%	30/48 = 62%	23/28 = 82%

Across Site Classifications: $X^2 = 6.67$ df = 3 $p < .08$

Across Parent Classification: $X^2 = 3.25$ df = 3 $p < .36$

Explanatory Notes

1 The application of the poverty guidelines as published by the Office of Economic Opportunity (OEO) Instruction (Table) resulted in the selection of parents from the total population of parents who had children in head start programs.

2 In this table, the actual number of parents meeting the "Below" criteria have been indicated above the diagonal; the total number of parents in each cell have been indicated below the diagonal. The data reported also include parents who were on welfare as well as ADC recipients. The sample utilized for this analysis consisted of the current, former, and paid employee parent groups.

TABLE G7

Percentage of Families Where There are Both Parents

Parent Classification	Site Classification (LOLO)	(LOHI)	(HILO)	(HIHI)
HiHi	16/27 = 59%	19/28 = 67%	20/33 = 60%	25/48 = 52%
LoHi	4/10 = 40%	3/5 = 60%	2/4 = 50%	9/11 = 81%
HiLo	8/12 = 66%	11/16 = 68%	9/15 = 60%	4/8 = 50%
LoLo	23/53 = 52%	35/51 = 68%	22/42 = 52%	16/27 = 59%

Across Site Classifications: $X^2 = 4.42$, df = 3, $p < .22$

Across Parent Classifications: $X^2 = .33$, df = 3, $p < .95$

Explanatory Notes

[1]A 2 x 4 classification was used for each X^2. The site and parent classifications were run against a dichotomy of "Both vs. Other." Any coding that indicated that only the mother or father or grandparent or guardian, etc., was in the home was placed into the latter category. The category of "both" indicates homes in which there were two adults who claimed parenthood.

[2]These analyses were run on a total parent sample that included both current and former Head Start parents, but it did not include the paid employee sample.

across the parent participation classification: the factor of ethnic origin can be said to be "inferentially neutral." While it seems unlikely that there are any criterion-relevant effects, the part of ethnic biasing should be kept in mind when evaluating the results of site comparisons.

According to Table G6, there was considerable similarity in economic status across the parent dimension; that is, the income composition of parents did not differ across the parent participation categories. Some differences, however, were observed across the site classification. While the differences could not be considered as extreme, the data indicate that more poverty parents (78%) may be found in LoLo sites than in other sites. The fewest (64%) were found in HiLo centers. As reference to the preceding Table G3 indicates, the LoLo site category had a greater number of rural centers. Even though OEO poverty guidelines attempt to adjust for maintenance differences in urban vs. rural populations, this result may indicate the prevalence of generally lower income levels in centers that serve rural areas.

It is clear from the distribution presented in Table G7 that neither sites nor parent groups were distinguished by greater or less family stability. This finding would seem to be of some importance since a prevalence of broken homes in particular site or parent groups might be expected to influence other parent and child characteristics. The majority of family units contained both parents; however, in comparison to other populations, it seems likely that there are a relatively greater number of families in which at least one parent is absent. This fact, of course, does not prejudice the internal validity of subsequent comparisons.

Each of the remaining variables were appropriate for the analysis of variance. These results are reported in the following four tables. It should be noted that no attempt was made to test all possible comparisons. As stated earlier, concern was with the comparability of the comparison groups of parents

in terms of their basic characteristics across sites, across the parent classification categories, by parent classification categories across sites, and by differences across the parent classifications within sites. These analyses will indicate the extent to which it can be claimed that the comparison groups are equivalent on criterion-relevant dimensions.

The data presented in Table G8 indicates that parents in one site were different in some ways from parents in other sites and that parents characterized by different levels of participation were also different in some of their basic characteristics. The fact that scores indicating the level of parent participation in the roles of learner and decision-maker, as well as total participation scores, differed signficantly across both sites and parent groups is hardly surprising. Since these scores were used to classify the extent to which parents were involved, such results indicate only that the assignments were accurate. In the case of site differences, however, inspection of the direction and magnitude of the mean differences indicates that the criteria used in the classification of sites has considerable validity.

At this point, it may be concluded that the independent variables exist and that they exist in terms of the focus or type of involvement (learning vs. decision-making) and the level or extent of involvement (high vs. low). If these differences had not been found, it would have been extremely difficult to make any further inferences about the impact of parent participation. As mentioned above, the fact that these scores were used in arriving at the parent participation categories makes the result in this area hardly surprising; however, the fact that the actual participation of parent groups covaries with the independently arrived at site classification is an interesting finding that may require further investigation. In particular, it should be noted that the average level of parental participation for those parents who do participate was higher in sites where such participation was encouraged and lower in sites where it was not.

Table G8

Differences in Basic Characteristics of Parents

Variable	Across Sites			Across Parent Classification		
	df	F	p	df	F	p
Age of child	3/383	9.46	.0000	3/278	2.54	.06
Length of time parent has had children in Head Start	3/386	6.62	.0002	3/279	.22	.88
No. of previous children in Head Start	3/386	2.33	.07	3/279	1.67	.17
Age of interviewed parent	3/378	.996	.39	3/274	.63	.60
Last grade completed (Father)	3/273	2.07	.10	3/195	4.09	.008
Last grade completed (Mother)	3/375	2.06	.11	3/273	13.23	.000
Employment Stability Index	3/386	.46	.71	3/279	1.01	.39
Birth order of children	3/385	.09	.96	3/278	1.79	.15
Total number of children	3/385	1.72	.16	3/278	3.00	.03
Years residence in present locale	3/378	5.99	.0005	3/273	.10	.96
Participation as Learner	3/386	9.85	.0000	3/279	236.85	.0000
Participation as Decision-Maker	3/386	8.70	.0000	3/279	134.71	.0000
Total Participation	3/386	10.29	.0000	3/279	240.72	.0000

The age of the enrolled child also varied according to both site and parent groupings. Inspection of the mean ages indicated that the children of parents who were highly involved in both decision-making and learning (HiHi's) tend to be younger than the children of the other parent groups. Interestingly, the average age of the enrolled child and the level at which parent involvement exists across sites appears to covary in a linear fashion. The LoLo sites have the oldest children; next, the sites that stress parents as learners but not as decision-makers have slightly younger children. The youngest children are found in sites that encourage parental involvement in decision-making activities (HiLo and HiHi.)

This may be a factor of major importance in Head Start programs. In centers where parents are involved, parents may enroll their children at a younger age and the greater the involvement, particularly in decision-making, the more likely it may be that younger children will be enrolled. This may be a major effect of parent participation.

The parents in HiLo sites have had the greatest number of previously enrolled children in Head Start and have had children enrolled in Head Start for the longest period of time. This would also mean that the children in HiLo sites would have also had more older siblings with Head Start experience. Since the parents were not older, it is likely that they have had children somewhat younger or have more children in the age range being considered. The fathers in this group also tended to have a higher level of education, as they did in the HiHi sites. The HiHi sites also have the longest term residents as well as the fewest previous children in Head Start.

The parent groups vary along different dimensions. There is a clear educational factor as well as a difference in the total number of children in the home. The lowest educational level (one to two fewer grades completed) was found in the LoLo parent group. Parents with the highest educational levels

were found among parents who were highly involved either in both roles (HiHi's) or only in the learner role (LoHi's), Parent groups involved in decision-making but not learning activities appear to be distinguished by the fact that the mother's educational level is about average while the father's level is slightly below average; however, it should be noted that there was a consistent tendency across all parent participation categories for the mother to have completed more years of schooling.

Perhaps the most distinguishing feature of these data was the lower educational level of both parents among those who did not participate in any sort of Head Start activities. There appeared to be an inverse relationship between the number of children in the home and the overall level of education; that is, parents who are not active participants also have the greatest number of children and the least education. They are followed by those who are involved in decision-making but not learning; and these are followed by those who are involved in learning but not decision-making. Parents who are highly involved in both roles have the least number of children as well as the highest average educational level.

How do parents of the various participation classifications differ across the site categories? Are HiHi (or LoLo) parents the same everywhere? The results presented in Table G9 indicate that, in terms of the majority of variables, parent groups were similar in each site classification; however, there were some important exceptions. The HiHi parent participation classification is the one that is the most clearly different across the sites. The age of the enrolled child was greater in sites having low levels of parent participation -- the children of HiHi's in parent involvement centers are younger than they are at other locations. (It may be noted that the LoLo sample did not vary significantly even though the trend was the same. This finding seems consistent with the earlier observation that the child group in the LoLo site was older).

Table G9

Differences in Basic Characteristics By Parent Groups Across Sites

Variable	PARENT CLASSIFICATIONS											
	LO LO			LO HI			HI LO			HI HI		
	df	F	p	df	F	p	df	F	p	df	F	p
Age of child	3/62	1.184	.32	3/47	.359	.78	3/26	3.190	.04	3/131	3.586	.02
Length of time parent has had children in Head Start	3/62	.678	.56	3/47	5.388	.003	3/26	.541	.66	3/132	6.078	.001
No. of previcus children in Head Start	3/62	.973	.41	3/47	3.310	.03	3/26	1.051	.39	2/132	1.104	.35
Age of interviewed parent	3/61	.488	.69	3/46	.588	.63	3/26	.177	.91	3/129	.74	.53
Last grade completed (Father)	3/43	.291	.83	3/35	.260	.85	3/16	.281	.84	3/89	3.491	.02
Last grade completed (Mother)	3/62	.627	.60	3/46	.153	.93	3/26	.278	.84	3/127	2.618	.05
Employment Stability Index	3/62	2.079	.11	3/47	.357	.78	3/26	1.482	.24	3/132	.419	.74
Birth order of children	3/62	.398	.75	3/47	1.649	.19	3/26	.621	.61	3/131	.155	.93
Total number of children	3/62	.658	.58	3/47	.689	.56	3/26	.164	.92	3/131	.852	.47
Years residence in present locale	3/61	3.777	.01	3/46	2.817	.05	3/26	1.372	.27	3/128	5.630	.001
Participation as Learner	3/61	.672	.57	3/47	1.107	.36	3/26	1.106	.36	3/132	5.049	.002
Participation as Decision-Maker	3/61	--	--	3/47	2.192	.10	3/26	4.443	.01	3/132	2.839	.04
Total Participation	3/61	.672	.57	3/47	1.627	.20	3/26	2.157	.12	3/132	4.574	.004

Explanatory Note.--Decision-making scores for parents in the LO LO Classification were all zero.

HiHi parents also differed across the sites in terms of the length of time they have had their children enrolled. The shortest amount of time was found in the HiHi sites and the longest period of time was associated with the HiLo sites. It is apparent that the context of involvement (i.e., the site emphasis) interacts with the type and degree of parent participation. HiLo parents at HiLo sites have had children enrolled for the longest period of time. Where the HiLo group is incompatible with the site emphasis -- that is, at the LoHi site -- they have had children enrolled for a relatively short time.

As previously noted, HiHi parents generally had higher educational levels. This was not true, however, of such parents in LoLo sites. The HiHi parents of all other site categories had completed more years of school, and at the LoLo site, highly involved parents were not noticeably better educated than were the other parent groups.

Nearly all of the parent groups in LoLo sites (except for the LoHi's) were different from their identically labeled groups in other sites in terms of the amount of time thay they have resided in the community. In general, parents in the LoLo sites have lived there longer. The group that has resided for the greatest length of time appears to be a group that is high on decision-making but low on learning activities.

Given the fact that HiHi's and LoLo's present almost total contrast in other characteristics, it seems interesting that the HiHi sites have the next most stable population. This finding does not seem to be readily interpretable, but one might speculate that the reasons underlying the resident stability in the two populations may be quite different.

There were striking differences in the levels of participation of so-called HiHi parents across the various sites. In all cases (i.e., participation as learners, decision-makers, and total participation), the HiHi's in HiHi sites

participate more than they do at other locations. By far the greatest difference, however, may be observed in the radically lower participation scores for the HiHi group at the LoLo sites. This was found even though the same median was used in all site groups to select parents high in participation. Apparently, in such a context, a small amount of involvement makes a parent relatively more prominent than at sites where parent participation is more common. At any rate, the HiHi group appears to be distinctly less active at LoLo sites than at sites where any form of parent participation is encouraged. The decision-making scores of two other groups reinforce this general impression in that the LoHi group (supposedly low on decision-making anyway) has an even lower score at the LoLo sites. The HiLo group was somewhat different in that apparent decision-making was nearly equally low in both the LoLo and HiHi sites while being considerably higher in the other two conditions. It seems possible that in sites where high involvement in both areas is encouraged, those parents who are not involved in learning are less likely to be responsible for making decisions than they are in si s where only one form of participation is encouraged. Their scores are, in fact, much higher in sites where decision-making is emphasized and learning is relatively deemphasized.

In Table G10, tests of differences among the parent groups as they were found within each site are presented. These data show the significance of parent differences on basic variables as an apparent function of site classification and participation level.

The most immediately apparent differences among parent groups within each site classification were in the participation scores. It is clear that distinct parent participation groups were formed within as well as across the sites. Since the site samples were intended to contain four distinct parent groups, and since parents were selected within each center on the basis of their participation scores, these results were as expected. The mean differences that

Table G10

Differences In Basic Characteristics of Parent Groups Within Site Classifications

Variable	Site 1			Site 2			Site 3			Site 4		
	df	F	p	df	F	p	df	F	p	df	F	p
Age of child	3/63	.37	.78	3/69	1.02	.39	3/60	.63	.60	3/74	.63	.60
Length of time parent has had children in Head Start	3/63	.76	.52	3/69	1.42	.24	3/61	.52	.67	3/74	1.92	.13
No. of previous children in Head Start	3/63	1.24	.30	3/69	1.02	.39	3/61	.82	.49	3/74	2.19	.10
Age of interviewed parent	3/63	.31	.82	3/68	.59	.62	3/59	.93	.43	3/72	.36	.78
Last grade completed (Father)	3/39	1.34	.27	3/55	2.01	.12	3/44	1.78	.16	3/45	.67	.57
Last grade completed (Mother)	3/60	1.60	.20	3/69	4.15	.01	3/61	5.14	.0031	3/71	2.24	.09
Employment Stability Index	3/63	.57	.64	3/69	.54	.66	3/61	2.21	.096	3/74	1.54	.21
Birth order of children	3/63	.53	.67	3/68	1.87	.14	3/61	1.28	.29	3/74	.59	.63
Total number of children	3/63	.49	.69	3/68	1.50	.22	3/61	2.21	.096	3/74	.21	.89
Years residence in present locale	3/62	2.76	.05	3/69	.39	.76	3/60	.34	.80	3/74	.25	.86
Participation as Learner	3/63	84.98	.0000	3/69	66.99	.0000	3/61	76.76	.0000	3/70	.37	.77
Participation as Decision-Maker	3/63	34.91	.0000	3/69	41.08	.0000	3/61	21.81	.0000	3/74	43.50	.0000
Total Participation	3/63	67.48	.0000	3/69	71.95	.0000	3/61	61.23	.0000	3/74	36.67	.0000

underlie the extremely high probability levels are in the expected directions: parents who were high both on learning and on decision-making had the highest socres for both activities as well as the highest total participation score; parents who were high on learning but not on decision-making had the next highest scores for learning activities, and the next to the lowest score for decision-making activities, as well as the next highest total participation score; parents who were high on decision-making but not on learning had the second highest decision-making scores, the third highest learning scores, and the third highest total participation scores; and parents who are low on both types of participation generally had the lowest scores on everything.

There were no differences on other characteristics within the LoLo site classifications. The parent groups within LoLo sites appear to be otherwise very similar; however, there were some additional differences among the parent groups within the other three site classifications. The most consistent of these differences (i.e., in three of the four sites) was the amount of education completed by the mother. HiHi mothers averaged about two years more schooling than did the LoLo mothers. Mothers in the two middle categories of parent involvement were simply between these extremes. This tendency was minimally (and not significantly) apparent for the mothers at LoLo sites.

In general, it could be stated that mothers who participate at a high level in Head Start programs are more likely to have graduated from high school, and that mothers who have very low levels of participation are likely to have stopped after graduating from the ninth grade. It may be observed that there was a tendency for the father's educational level to approximate the same pattern, but the differences were much less pronounced. In general, the highly-involved father had about one more year of education than the father who has not involved. Perhaps parents who have cared enough to acquire "surplus" (i.e., not mandatory) education are also more likely to be interested in

educational enterprises of any sort. That is, it seems that educational experiences may be a significant factor in later participation.

The few remaining differences appear to be random; at least, they are of doubtful importance. For example, in the HiLo sites the least involved and the most involved parents have the least children; and the LoLo parents have the longest residence among the parent groups in the HiLo sites. Where so many comparisons are involved, the interpretation of isolated (i.e., not appearing as part of a logical pattern) differences is highly questionable. While such differences do exist, they have little inferential power.

In order to provide further information on the extent to which differences in the basic characteristics of parent groups may have accounted for significant criterion differences on both parent and child variables, all scores which indicated differences either by parent or site classifications were tested for their relationship to all dependent measures. While this procedure cannot eliminate the effects of self-selection and the possibility that some variables other than parent participation may be causally effective, the case for the most obvious competing factors can be supported or eliminated.

As Table G11 indicates, those factors which were found to differentiate parent s. roups were correlated with all relevant criterion variables. Although the entire set of variables wa' involved, only those comparisons yielding significant relationships have been reported. Even though a particular parent group may be different in terms of a given characteristic, that trait cannot be said to account for other observed differences in criterion status unless it is related to the criterion.

The results indicate that differences in basic characteristics were related to very few of the dependent variables, and in cases where there were statistically significant relationships, they were moderate to very low. Individually, they are not very meaningful (i.e., a correlation of .20 accounts for

Table G11

SIGNIFICANT CORRELATIONS BETWEEN DEMOGRAPHIC CHARACTERISTICS AND PARENT STATUS ON PARENT CHILD CRITERION MEASURES ($r > .20$)

Characteristics	Community Involvement Now	Community Involvement Then	Alienation #1	Alienation #2	PPVT-IQ	Preschool Readiness	Brown IDS Self Subscore
Age of Child						.45	.22
Length of Time Parent Has Had Children in Head Start							
Number of Previous Children in Head Start							
Father's Educational Level					.27		
Mother's Educational Level	.26	.30	.35	.23	.23		
Total Number of Children							
Years in Residence							

only 4% of the common variance even though it is indicative of some "real" -- non chance -- relationship).

The greatest relationship was found between age of the child and preschool readiness. This finding was hardly surprising. Older children tend to be more "ready." This relationship would undoubtedly be much higher if there were not such extreme restriction in the age range of the child population used in this particular study. Age was also related to increasingly positive ratings of the self -- older children seem to rate themselves more positively.

The most striking feature of the table is the consistency with which the educational level of the child's mother was related to community involvement, alienation, and the measured intelligence of the child. (The father's educational level shows the same pattern, but the relationships are less consistently significant.) The more educated mother is apparently more likely to be involved in the community, less likely to feel any sort of alientation, and she is likely to have a somewhat brighter child.

The parent participation measures were strikingly unrelated to either parent or child criteria except for past and current community involvement (i.e., the higher the learner or decision-making scores, the higher the involvement). The type of participation made no difference (e.g., Learner X Community Involvement. r = .43; Decision-Maker X Current Community Involvement, r = .44).

The majority of the other correlations were very close to zero. These results indicate that there is no linear, one-to-one relationship between the indices of parent participation and status on any of the other dependent variables. This may not be true within particular settings or particular parent subgroups, but where significant relationships are not found, the possibility that such characteristics can be involved in explaining other results is greatly decreased.

It should be observed that such a finding does not mean that there are no differences between any of the comparison groups in their average status on any

of these criteria. Overall levels (as indicated by mean scores) may be quite different between groups distinguished by varying extent and type of participation or by site policies; but, it is clear that there is no simple relationship between parental activity in Head Start programs and the measured social, attitudinal, and ability factors used as indices of the status of parents and children of different site and parent groupings.

Those differences that were found to characterize specific parent and site groupings may be of interest in that they may illuminate some of the factors that influence program emphases and parent activities, but it should be noted again that non-correlated differences are unlikely to be responsible for effects that appear to be associated with parent participation. For example, length of residence -- even though it is greater at LoLo and HiHi sites -- appears not to be related even to such obvious traits as the degree of social integration felt by the parent. Such a variable, therefore, does not provide a factor with competitive explanatory power. Tests presented later in this report will establish whether the factor of alienation (non-integration) is present or not present to an unusual extent in any particular parent group. To any such observation, it may now be added: And where it is present, it cannot be because of a relationship between this variable and the stability of the resident population; therefore, that particular factor cannot challenge the hypothesis that the level of participation is the major factor. The actual establishment of causality would demand experimental manipulation, but while such an analysis does not provide an answer to the question of causality, it does reduce the questions to a manageable size by pointing to those variables that are actually involved. While it cannot be said, for example, whether parent participation causes an improved self-concept or whether people with higher self-concepts have higher levels of participation it can be said that the two effects are reliably associated; and, of equal importance, other things are not.

Specifically it may be stated that even though the magnitude of the relationship between basic characteristics and the criterion variables -- where it existed at all -- was not large, it is possible that the interpretation of some of the results reported in later sections should be modified by the following information: Where older children are found higher preschool readiness and a tendency toward higher self-concept scores will also be found. Where there is a higher degree of parental education, particularly for the mother, there will be greater community involvement, a greater sense of social integration, and children with higher IQ's. Parents who participate in Head Start programs also are likely to participate to a greater extent in other community activities.

Summary and Conclusions

All available measures of variables which were considered to be essential characteristics of the site and parent categories were compared in order to determine the extent to which any of the comparison groups might differ. There were two concerns. One was simply to gain a greater understanding of the groups that were to be analyzed. The second concern was with eliminating or calling attention to factors that might differentiate the groups in such a way as to prejudice the straightforward interpretation of other results. An attempt was made to establish the significance of any observed differences by parent participation categories within and across each of the site classifications as well as the differences that might exist among the parent categories themselves. Several specific questions were dealt with:

1. To what extent are parents different between site categories?
2. To what extent are parents different between the participation categories?
3. To what extent are parents of a given participation category different between the site classifications?
4. To what extent are prents of a given category different within a site classification?

5. To what extent are any observed differences related to the parent - child criterion variables that will be used to establish the effects of type and extent of parent participation?

These questions have been answered. The results indicate that there are substantial differences among the parent groups for each of the dimensions and that some of these differences are related to the outcome measures. These differences, however, do not appear to be sufficient to neutralize or call for extensive qualification of later analyses.

The total levels of participation differed markedly across the sites, and the high decision-making sites were highest overall. These differences should not be ignored in the interpretation of project results. At a LoLo site, for example, a highly-involved (HiHi) parent is in fact much less active than a highly-involved parent at a HiHi site. Both groups are legitimate members of the involved-parent population, but comparisons between the two should make note of this fact as well as any other differences.

The covariation in the characteristics of parents and sites -- primarily in the areas of educational level, level of actual participant activitiy, and characteristics of the enrolled children -- points to the possibility that the character of any particular Head Start program may be greatly influenced by the needs and attitudes of the parent population it serves. It is possible that staff at LoLo sites do not encourage parent participation primarily because very few of their parent group are interested; on the other hand, staff at HiHi sites, confronted by their relatively well-educated and community-oriented parent group, may have little choice.

The complete data have been presented in the previous pages of this section and will not be repeated here. However, in general it appears that there are two types of sites and three basic types of parents: There are sites in which parent participation is not encouraged in any form (i.e., LoLo sites); and there are parents who do not participate in any available role (i.e., LoLo

parents) and others who participate extensively (i.e., HiHi parents).

LoLo parents and LoLo sites were quite different from the other groups in terms of their basic characteristics. The other groups were less extremely distinguished; nevertheless, among those sites where the fullest form of participation (i.e., decision-making) is encouraged, and among parent groups who participate in these ways, there seems to be a distinct pattern of characteristics that hints at the possibility of some sort of parent - program evolutionary sequence.

HiHi parents have the fewest and the youngest children, and the HiHi sites have parents with the fewest number of previous children in Head Start. The parent and child populations of the two decision-making site categories (HiHi and HiLo) are quite similar. Educational levels and participation levels are high for both groups. Decision-making sites in general have the youngest child populations. The primary exceptions to this pattern are the facts that parents have had children in Head Start for the longest period of time at HiLo sites and that parents at these sites had (not surprisingly) the greatest number of previous children in Head Start.

These results may indicate that sites in which decision-making activities are encouraged but where learning is relatively deemphasized are simply programs in which an active parent population was initially concerned with both roles, but became less concerned over time with learner activities while retaining their decision-making function. Such changes could trigger program modifications -- the site may shift its emphasis in order to accomodate the needs of its more experienced parent group. Additional support for this hypothesis may be found in the fact that HiLo parents (as well as sites) are more experienced in being Head Start parents across both of the high decision-making site classifications.

LoHi parents and LoHi sites were not distinguished by any consistent pattern of differences. Even though such parents are involved in the relatively

passive learner roles and such centers presumably encourage only that limited type of involvement, they bear greater resemblance to the decision-making groups than they do to the LoLo's. Perhaps such sites have not quite enough parents who insist on being involved to promote the development of active (decision-making) participation as compared with more passive (learner) roles.

Reference to earlier tables indicates that substantial numbers of LoHi parents were obtained only in those sites in which both types of participation were stressed (i.e., HiHi sites). In the other sites, few such parents could be located. It does seem likely that parents who care enough to become involved in learning activities will have some interest in decision-making activities as well.

The correlational analyses that were performed as a final step in the selection of basic characteristics which could compete with parent participation in the explanation of status on the selected outcomes, indicated that these characteristics were not strongly related to any of the criterion measures. The variable most consistently related to outcome criteria, such as community involvement and the sense of social involvement (as indicated by lower alienation scores), was the education of the mother. Level of education is associated with both parent participation levels and the degree to which participation is encouraged by center personnel. This characteristic of education seems to be a major associate of participation as well as other variables, and participation is related to general involvement in the community.

Even though the relationships were not large, comparisons involving subgroups in which one contains more highly-educated parents (particularly mothers), should consider the possibility that some observed differences may be due as much to level of education as to level or type of participation. Nevertheless, in general, the analysis of the basic characteristics of the parent population suggests that the effects on criterion measures of differences

among the various groupings should be very slight. In no case are the results seriously compromised by any differences in measured characteristics.

In brief, it may be stated that the differences that appear to characterize the various parent and site classifications are important because they illuminate the dynamics of some Head Start programs. Examination of the data provides some very strong indications that parent and site characteristics interact; that is, high-participation parents may produce sites that encourage participation and sites that encourage participation may produce participant parent populations. Conversely, it would also be possible to state that sites with parent populations that tend toward non-participation are less likely to encourage it, and that parents are less likely to become participants in sites where such activities are not encouraged. Participation may well be both an outcome and a cause. In addition, a strong case can be made for the existence of a participant "type." Characteristics such as level of education are most clearly implicated as critical to the development of site emphases as well as to levels of parental involvement.

The Impact of Parent Participation on Parents

I. Parent Participation in Head Start and Parent Attitudes

A major part of the survey questionnaire filled out by parents of children in Head Start dealt with their attitudes and feelings. Three broad areas were covered: general satisfaction with life, alienation and internal-external locus of control, and attitudes toward education.

Differences in responses between parents in different site classifications and between parents with different extent and type of parent participation have been analyzed. The first section discusses differences across site classifications. The next sections consider differences between parents with high and low extent of involvement, and with different types of involvement.

Parent Attitudes and Site Classification

There is no direct way of assessing quality of life. The best measures are the indirect reflection of quality of living which might be revealed through the feelings and attitudes of the individuals involved. A wide variety of different measures were used to evaluate the general happiness, satisfaction, and feelings of competency of Head Start parents.

The first measures used were straightforward questions which asked whether the person is generally "very happy", "pretty happy", or "not too happy", and whether life is "completely satisfying", "pretty satisfying", or "not very satisfying". These questions have been used in extensive national surveys. Responses to the questions are related to income, socio-economic status, and similar variables. General dissatisfaction is also

related to low self-esteem, alienation, and lack of trust in others. All of these characteristics should be related to the perceived quality of life as viewed by Head Start parents.

There were no significant differences across site classifications. The response of all groups of Head Start parents indicated that they were generally quite satisfied with life. The average was above the "pretty satisfied" point and almost identical to general population means in previous studies. Low income and low education groups in past studies have usually had lower scores on these scales.

The next set of questions involved a ladder scale aimed at determining perceived or expected changes. The parents were asked to indicate where they were now on a ladder ranging from the worst to the best possible life, where they were then, i.e., a couple of years ago, and where they expect to be in the future, a few years from now.

The difference between Now and Then is an indication of whether parents feel conditions have gotten better for them. There were no significant differences across sites. The difference between Now and Then was analyzed for direction only. A score of 1 was assigned if parents indicated they were worse off than in the past, 2 if there was no change, and 3 if things had improved. The mean score was 2.60, indicating that most parents felt conditions had improved for them.

The same kind of scoring was used to determine the difference between Now and Future. This score would be a measure of the parent's hope for improvement in the future. Here again, the scores were very high as shown in Table P1. A significant interaction suggests that the former parents in centers where there was low learner involvement may have somewhat less hope for the future than current parents in these sites, but

all of the mean scores were so high that the difference was difficult to interpret.

Another approach was also used to assess Head Start parents' feelings of general satisfaction and success. Parents were asked to rate themselves on a four-point bipolar scale with phrases or adjectives at each end. They rated both where they feel they are on the scale Now, and where they were Then, i.e. a couple of years ago. There were no significant differences between site classifications, either for ratings involving general satisfaction or in how skilled and successful parents felt they were.

The overall results indicated that there are probably no differences in general feelings of satisfaction of the parents across different site classifications.

Table P1

Analysis of Variance and Mean Change in Satisfaction: Present to Future*

Mean Change Score by Site Classification				
	HiHi	HiLo	LoHi	LoLo
Current	2.75	2.81	2.72	2.97
Former	2.87	2.61	2.73	2.67

Analysis of Variance			
Source	df	F	p
Site	3	.82	n.s.
Current-Former	1	3.60	.06
Interaction	3	2.77	.05
Error	274		

*3 = anticipate positive change
2 = no change
1 = anticipate change for worse

Alienation and Locus of Control

Feelings of alienation are related to general satisfaction, but are more deeply rooted. The scales were designed to identify real isolation from others in society. Two alienation scales were used, one that evaluates general alienation, and a second oriented to work and social alienation. There were no significant differences between parents at different groups of sites, but the interaction between site classification and current and former parents was significant on the second of the two scales. In current parents, but not in former parents, there was less alienation in those sites where parents were highly involved in decision-making.

Locus of control is a measure of the extent to which a person feels he is master of his own circumstances, as opposed to a victim of fate. The first scale used was job-oriented; the second scale was a more general measure of locus of control. The first scale used Rotter's format, where a choice between statements is made. The second allows finer distinctions, with a five-point Likert scale for each statement ranging from "strongly agree" to "strongly disagree."

Table P2
Analysis of Variance and Mean Alienation Scores of Parents
Work and Social Alienation

Mean Score by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	33.46	33.68	31.79	31.85
Former	31.33	32.39	33.60	31.58

Analysis of Variance

Source	df	F	p
Site	3	1.05	n.s.
Current-Former	1	.77	n.s.
Inter-action	3	2.66	.05
Error	274		

If parent involvement changes attitudes of parents, it could make them feel that they have greater control over what happens to them. There was a significant difference between site classifications on the second scale, as shown in Table P3. Parents had higher scores in sites where there is higher involvement, especially where parents were involved in decision-making. The overall means were well toward the end of the scale indicating that the parents in all groups felt in control of their lives. However, those parents in sites lowest in parent involvement may have felt somewhat less control over their lives.

The overall mean scores on both alienation and locus of control scales indicates that there was little alienation or fatalism in these parents. All of these scales have been used with other groups of out of work disadvantaged and scores are generally much lower in low education or income groups. The results agree with the findings on general satisfaction in suggesting that this group of parents has surprisingly positive attitudes for people who have been having financial difficulties.

Table P3

Locus of Control: General

Mean Score by Site Classification				
	HiHi	HiLo	LoHi	LoLo
Current	30.13	30.59	29.51	29.23
Former	30.23	31.54	30.40	27.46

Analysis of Variance			
Source	df	F	p
Site	3	2.85	.04
Current-Former	1	.01	n.s.
Inter-action	3	1.06	n.s.
Error	274		

Attitude Toward Education

One effect of Head Start involvement should be to sensitize parents to the educational needs of their children and to their own roles as parents. Two questionnaire-type scales were used to evaluate attitudes toward education, one covering items relating to value of education and the other to the parents' ability to influence the education of their children. The parents' feelings about their ability to help and to understand their children were also evaluated by having them rate themselves, both Now and Then (a couple of years in the past) on paired adjectives on a four-point scale.

Neither the attitudes of parents toward the value of education nor their feelings about their ability to help their own children were significantly different across site classifications. Parents' feelings of being able to influence education did vary across sites as shown in Table P4. The parents in centers with low parent involvement felt less able to influence the schools or the education of their children.

Table P4

Parents' Feelings of Being Able to Influence Education

Mean Score by Site Classification				
	HiHi	HiLo	LoHi	LoLo
Current	13.98	13.32	13.49	12.95
Former	13.43	12.36	14.17	12.58

Analysis of Variance			
Source	df	F	p
Site	3	3.04	.03
Current-Former	1	.86	n.s.
Interaction	3	1.31	n.s.
Error	274		

Parents Attitudes and Extent of Parent Involvement

To determine the relationship between parent attitudes and extent of involvement, parents who were highly involved (above the median) in both learner and decision-making roles were compared with parents who were not involved in either role.

General Satisfaction with Life. There were no significant differences between parents who differed in extent of involvement on either of the general questions relating to satisfaction. Mean scores of both groups were slightly above the "pretty satisfied" rating. There were also no differences on the ladder scale, on which parents rated where they saw themselves Now, Then, and in the Future. As in the previous se tion, the mean scores indicated that they generally felt conditions were better now than in the past, and that they had considerable hope that conditions would improve in the future.

The ratings of satisfaction on a different instrument, the four point semantic differential-type scale, did show significant differences between parents high and low in extent of involvement. These results are shown in Table P5. Those parents who were high in extent of involvement were not different from low-involvement parents on their ratings of where they were in the past, but indicated that they were more satisfied Now. On the items relating to feelings of success and skill, they felt more successful Now than they did Then, and the parents high in extent of involvement were significantly higher both Now and Then.

Although the differences were not significant on the first happiness and satisfaction items, the mean scores on these items showed the same general pattern, with high-involvement parents having more positive attitudes.

Table P5

Parent Ratings of General Satisfaction and of Success and Skill by Extent of Parent Involvement

General Satisfaction

Present

Mean Score by Extent of Involvement

	HiHi	LoLo
Current	13.64	12.87
Former	13.58	12.83

Analysis of Variance

Source	df	F	p
Level	1	4.68	.04
Current-Former	1	.03	n.s.
Interaction	1	.00	n.s.
Error	197		

Past

Mean Score by Extent of Involvement

	HiHi	LoLo
Current	11.33	12.03
Former	12.44	11.67

Analysis of Variance

Source	df	F	p
Level	1	.01	n.s.
Current-Former	1	.63	n.s.
Interaction	1	2.48	n.s.
Error	197		

Table P5, cont.

Success and Skill

Present

Mean Score by Level of Involvement			Analysis of Variance			
	HiHi	LoLo	Source	df	F	p
Current	12.90	12.17	Level	1	12.82	.01
Former	13.49	12.00	Current-Former	1	.46	n.s.
			Interaction	1	1.48	n.s.
			Error	197		

	HiHi	LoLo	Source	df	F	p
Current	11.36	10.93	Level	1	4.14	.04
Former	12.53	11.19	Current-Former	1	4.52	.05
			Interaction	1	1.19	n.s.
			Error	197		

These items probably were assessing the same general dimension of satisfaction but are less reliable then the rating scales. Overall, parents high in extent of involvement in Head Start seemed to have a higher opinion of their success and skill level to begin with, but increased more in general satisfaction than low involvement parents.

Alienation and Locus of Control. The previous discussion suggested that the parents generally were neither alienated nor did they feel victims of fate. Scores in all groups tended to be positive, and there were no significant differences in the locus of control scores.

However, parents high in extent of involvement did show more positive attitudes on both of the alienation scales. The only significant difference was on extent of involvement on the work and social alienation scale, but the overall comparison of the mean scores and the approach to significance of the other differences suggests that a real difference probably exists on both scales, and that it was limited to the current parents. These result are shown in Table P6.

Attitude Toward Education. There were no significant differences between parents on the value they placed on education, the way they felt about their ability to influence education, or their own ability to help their children.

Parent Attitudes and Type of Involvement

To determine differences in parents with different types of involvement, those parents who were above the median on decision-making, but below the median on the learner role were compared with parents who were above on learner, but below on the decision-making role.

Table P6

Analysis of Variance and Mean Alienation Scores of Parents*

General Alienation

Mean Score by Extent of Participation			Analysis of Variance			
	HiHi	LoLo	Source	df	F	p
Current	13.19	11.87	Level	1	3.41	.07
Former	12.56	12.57	Current-Former	1	.01	n.s.
			Inter-action	1	3.58	.06
			Error	197		

Work and Social Alienation

Mean Score by Extent of Participation			Analysis of Variance			
	HiHi	LoLo	Source	df	F	p
Current	33.38	30.53	Level	1	5.13	.03
Former	32.53	32.26	Current-Former	1	.40	n.s.
			Inter-action	1	3.48	.07
			Error	197		

*Lower scores in Table P6 are an indication of alienation.

There were no significant differences between parents who were involved in decision-making but not learner roles, and those involved in learner but not decision-making activities. Parent attitudes appeared to be related to either the general parent extent of involvement or the program, but not to type of involvement. Lack of any apparent differences between types of involvement may have been due to the fact that the parents in the two groups who were classified as involved in one role but not in the other

were not as different as the classification suggests. Those involved in decision-making, while not high in the learner role, did tend to have some learner involvement, and those involved in learner roles tended to have at least some decision-making functions. With a much larger sample of parents it might have been possible to isolate groups that were less similar in type of involvement, and in that case some differences might have emerged.

Parent Attitudes and Current-Former Status

There were some significant differences between current and former parents. Former parents in HiHi and LoLo centers seemed lower in general satisfaction, while current parents in these centers were higher in this variable. Former parents indicated that they felt more successful and skilled in the past than did current parents, although there were no differences in ratings of present sucess. The difference in scores on the alienation scales between parents high in extent of involvement and those low in involvement occurred only for current parents and not for former parents.

These few differences did not lend themselves to any consistent interpretation suggesting major differences in attitude between current and former parents.

Summary: Attitudes of Parents and Head Start Involvement

There were no differences across site classifications in general satisfaction, and probably not in alienation. Even though one alienation scale showed a significant interaction with site and current-former status, that difference did not lend itself to a clear interpretation. The only real difference across sites was probably in the feelings that the parents have about their own ability to control their environment. The locus of control

scale scores were generally high, indicating that parents did feel in control, but were somewhat higher in the sites where parents were involved in Head Start. The results were very similar on the scale measuring parents' attitudes toward being able to influence the educational system. In sites where parents were involved in Head Start, they felt better able to influence their environment generally and the school system in particular. The section of this report on institutional change shows that parent involvement was actually related to getting things done in the community, and the feelings of parents in these settings may have been a very realistic assessment of their actual influence.

Parents who were high in extent of involvement indicated that they felt somewhat more successful and skilled than low-involvement parents. Their ratings of skill level were higher in the past than those of low-involvement parents, and stayed higher even though both groups increased somewhat. These parents were also slightly better educated, and the higher level of feeling of success was probably a function of general characteristics of the high-involvement group; i.e., it was probably a function of those things which may have helped bring them into involvement in the first place.

These same high involvement parents showed a greater increase in general satisfaction than parents who were low in extent of involvement. This increase may have been a result of their involvement in Head Start. The current high-involved parents showed a better score on the alienation scale as well. This scale may be measuring a general feeling of social acceptance and involvement. If so, the high involvement of these particular parents in Head Start would make the higher score reasonable. The difference disappeared for former parents when they wereno longer immediately involved.

Overall, the general satisfaction of parents may have been related to their extent of involvement. There was a greater increase in satisfaction

in parents who were highly involved. These parents also felt more successful and skilled, but this was true before their Head Start involvement as well. The effect of the type of parent involvement in the site was different. Parents in different sites did not show differences in satisfaction but did show greater feelings of being able to influence their environment in those sites where they have been involved in Head Start--particularly in decision-making roles.

II. Paid Employees

The paid employee sample scores were very high on the measures of parent involvement in both learner and decision-making roles. In fact, the mean scores were so similar to those of highly involved parents that a detailed examination of the learner and decision-making classifications was made for the paid employees. Of the sample of 55 paid employees, all but 10 were classified above the median of the other parents on both the learner role and the decision-making role. At this point it was clear that the paid employee sample, in terms of parent involvement, was comparable only to the group of parents classified as having high extent of involvement on both learner and decision-making roles, and that to make meaningful comparisons, they should be compared with that group in order to determine whether being paid had a differential effect.

Since a few paid employees could not be classified as high involvement on both independent variables, to make the groups completely comparable, these were eliminated from the sample. The paid employees who were eliminated provided too small a sample for separate analysis.

All of the comparisons between paid employees and parents with high extent of involvement have been placed in one table for convenience (Table P7). The first part of the table compares background characteristics, the remainder deals with parent attitudes and community involvement.

The paid employees were somewhat different in basic characteristics. Those parents averaged 3 1/2 years older, their employment stability was considerably higher, and they had been in the community about five years longer. It is possible that Head Start programs tended to select slightly older and more stable residents as employees, although the employment stability could be a direct result of employment by Head Start. The only differences between highly involved parents and paid employees were in birth order of the child who was in Head Start and having had children in Head Start over a longer period. These were probably related to age, and may have also indicated that paid employees had been selected from those involved in Head Start longer.

Aside from these background characteristics, there were no significant differences between paid employees and other parents highly involved in both learner and decision-making roles. Being a paid employee was one way of being involved. Being a volunteer, highly involved parent was another. Both seeemed to have effects on the parents, but it was the high level of involvement that seemed to be critical, not the fact of being paid.

III. Parent Participation in Head Start and Community Involvement

One of the goals of parent involvement in Head Start is to increase parents' involvement not only in the education of their children, but generally in their community as well. Two measures of community involvement were developed. One was based on the questions used by Educational

Table P7

Comparison of High Involvement Parents and High Involvement Paid Employees

Characteristic	High Involvement Parents			High Involvement Paid Employees				
	n	$\bar{X}$	SD	n	$\bar{X}$	SD	F	Significance
Child's Age	135	66.75	9.76	44	65.75	10.44	.335	n. s.
Ethnic Origin*							Chi-square necessary	
Family Income	136	4142.88	2668.06	44	4125.84	1851.25	.002	n. s.
Length in Head Start	136	2.45	1.10	44	2.91	1.71	4.339	$p < .05$
Children in Head Start	136	.52	.90	44	.77	1.20	2.166	n. s.
Age of Parent Interviewed	133	31.50	8.44	42	34.93	7.49	5.529	$p < .05$
Father--Last Grade	93	10.38	2.28	31	9.68	3.38	1.689	n. s.
Mother--Last Grade	131	11.13	1.66	44	11.02	2.13	.118	n. s.
Index-Employment Stability	136	2.84	1.33	44	3.73	.66	18.187	$p < .001$
Index-Parents in Home	136	2.54	.63	44	2.52	.63	.016	n. s.
Birth Order	135	2.82	2.43	44	3.91	2.61	6.393	$p < .05$
Total # Children	135	3.60	2.47	44	4.32	2.68	2.686	n. s.
Years Lived in Locale	132	17.26	11.69	43	22.79	11.99	7.177	$p < .01$
General Satisfaction	136	4.24	1.08	44	4.18	1.08	.081	n. s.
Improvement from Past	136	2.63	.68	44	2.55	.76	.516	n. s.
Expectation of Future	136	2.76	.51	44	2.91	.77	2.052	n. s.
Learner Role	136	19.40	6.30	45	21.69	7.40	4.07	$p < .05$
Decision Making Role	136	11.82	5.96	45	10.27	6.33	2.237	n. s.
Total Participation	136	31.30	10.62	45	31.96	12.50	.117	n. s.

(Table P7 Con'd)

Community Activities Now	135	7.83	6.58	45	8.89	6.06	.909	n. s.
Community Activities Then	135	6.30	6.16	45	7.96	8.10	2.073	n. s.
Community Activities Now-Then	135	2.23	.92	45	2.07	.96	1.031	n. s.
Att. to Ed.--Influence	136	13.27	2.81	45	13.07	2.79	.181	n. s.
Att. to Ed.--Value	136	23.54	3.32	45	22.76	3.55	1.811	n. s.
General Alienation	136	12.98	2.42	45	13.22	2.11	.365	n. s.
Work and Social Alienation #2	136	33.10	4.79	45	34.00	3.88	1.294	n. s.
Job Oriented Locus of Control #1	136	12.39	1.43	45	12.31	1.41	.103	n. s.
General Locus of Control #2	136	30.10	4.50	44	29.50	5.09	.48	n. s.
Satisfaction Now	135	13.62	2.24	45	13.69	2.23	.03	n. s.
Satisfaction Then	135	11.70	2.94	45	11.78	2.74	.022	n. s.
Satisfaction Now-Then	135	2.46	.76	45	2.64	.65	2.150	n. s.
Parent Role Now	135	18.42	2.02	45	18.33	1.72	.07	n. s.
Parent Role Then	135	16.67	3.00	45	16.89	2.49	.188	n. s.
Parent Role Now-Then	135	2.47	.68	45	2.58	.66	.92	n. s.
Feelings of Community Involvement Now	135	8.77	1.97	45	8.84	1.95	.048	n. s.
Feelings of Community Involvement Then	135	7.58	2.20	45	7.87	2.11	.595	n. s.
Feelings of Community Involvement Now-Then	135	2.43	.66	45	2.38	.65	.209	n. s.
Feelings of Success and Skill Now	135	13.10	1.92	45	13.40	1.99	.831	n. s.
Feelings of Success and Skill Then	135	11.75	2.68	45	12.20	2.18	1.046	n. s.
Feelings of Success and Skill Now-Then	135	2.39	.68	45	2.51	.63	1.203	n. s.

*Number of Black, Mexican American, and Caucasions were not large enough to test. (Chi-square = .795, d.f. = 2, n. s.).

Testing Service in their survey of Head Start programs. These questions asked parents specifically about their involvement in church groups, politics, edcuation, social groups, etc. The questions were modified for use in the present study to obtain greater detail, particularly in activity level within organizations. They were also rephrased to determine not only what parents are doing now, but what they were doing a couple of years ago, so that changes in community involvement that were related to Head Start involvement could be assessed.

A second set of indices involved ratings on four-point semantic differential-type scales indicating how parents felt about participation in the community, their influence in the community, and how well they were accepted by the community. These items were designed to assess parents' feelings about community involvement.

Community Involvement and Site Classification

The amount of activity in the community did not show a significant difference across site classifications for either the past or the present, but the change from past to present was significant. There was a significant current-former difference and a significant site classification difference (Table P8). The former parents increased in community activity from the time when they had children in Head Start to the present. Among current parents there was an increase from before their children were in Head Start to the present, and the parents in HiHi centers showed a decrease, with less involvement.

In terms of the parents overall feelings about being involved in the community, there was again a change from past to present (Table P8). In this case, both current and former parents, in centers where parents were highly involved in decision-making, showed more positive change in their feeling of being involved.

Table P8

Community Involvement by Site Classification

Difference in Amount of Activity, Past to Present

Mean Difference by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	-1.27	1.04	-.18	.29
Former	.02	1.58	1.00	1.63

Analysis of Variance

Source	df	F	p
Site	3	2.76	.05
Current-Former	1	4.29	.04
Interaction	3	.119	n.s.
Error	376		

Change in Feelings of Being Involved, Past to Present*

Means Score by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	2.42	2.39	2.19	2.15
Former	2.33	2.25	2.07	2.15

Analysis of Variance

Source	df	F	p
Site	3	2.70	.05
Current-Former	1	1.25	n.s.
Interaction	3	.15	n.s.
Error	273		

*3 = positive change
2 = no change
1 = negative change

The difference in these two results could have been an effect of high involvement directly in Head Start. The measures of community activities did not include involvement in Head Start, since this was the independent variable in this study, so the measure was of community involvement outside of Head Start. In centers

where parents were highly involved in Head Start, outside activities seemed to drop off. At the same time, the feeling of being involved in the total community increased in these centers, particularly where parents were involved in decision-making. The pattern suggested that parents in HiHi centers got more deeply into Head Start, and dropped off in their other community activities. It was not clear if their total involvement, including Head Start, was higher, but their feeling of being involved certainly was.

The former parents, on the other hand, increased activities outside of Head Start. When their children were out of Head Start, they increased other community activities. But the former parents did not feel more involved overall than current parents.

Community Involvement and Extent of Parent Involvement in Head Start

There were significant differences in community activities between parents who were high in extent of involvement in Head Start and non-involved parents (Table P9). The mean differences were very large both at present and in the past. Parents with high extent of involvement were more involved in community activities.

There was also a significant current-former difference in present activities in the community. Former parents showed a higher level of activity outside of Head Start than did current parents. Current parents actually dropped off in activity, while former parents increased once their children were out of Head Start.

Regarding feelings of being involved, parents who were highly involved in Head Start felt more involved in their communities both now and in the past (Table P9). The change scores were also significant, and parents who had a high extent of involvement felt as though they had changed over time.

Table P9

Community Involvement by Extent of Parent Involvement
Community Activities of Parents

Present

Means Score by Extent of Involvement			Analysis of Variance			
	HiHi	LoLo	Source	df	F	p
Current	5.78	1.20	Level	1	40.50	.01
Former	8.05	1.91	Current-Former	1	4.64	.04
			Interaction	1	.86	n.s.
			Error	196		

Past

Mean Score by Extent of Involvement			Analysis of Variance			
	HiHi	LoLo	Source	df	F	p
Current	6.03	1.33	Level	1	28.90	.01
Former	5.82	1.94	Current-Former	1	.01	n.s.
			Interaction	1	.26	n.s.
			Error	196		

Table P9 (Cont.)

Parent Feelings About Community Involvement

Present

Means Score by Extent of Involvement

	HiHi	LoLo
Current	8.73	6.87
Former	8.84	6.86

Analysis of Variance

Source	df	F	p
Level	1	36.40	.01
Current-Former	1	.05	n.s.
Interaction	1	.03	n.s.
Error	197		

Past

Mean Score by Extent of Involvement

	HiHi	LoLo
Current	7.37	6.97
Former	8.00	6.58

Analysis of Variance

Source	df	F	p
Level	1	7.18	.01
Current-Former	1	.14	n.s.
Interaction	1	2.25	n.s.
Error	197		

Table P9 (Cont.)

Mean Score by Extent of Involvement — Change*

	HiHi	LoLo
Current	2.48	1.93
Former	2.33	2.08

Analysis of Variance

Source	df	F	p
Level	1	17.08	.01
Current-Former	1	.00	n.s.
Interaction	1	2.34	n.s.
Error	197		

*3 = positive change
2 = no change
1 = negative change

Parents who were highly involved in Head Start were clearly the same ones who were also involved in other activities in their communities in the past. Low involvement parents had very low involvement in other activities as well, either in the present or in the past. It was clear that Head Start did not create the involvement of those parents who were involved--they were already actively involved in their communities. But when the parents developed a high extent of involvement in Head Start, they may have dropped off somewhat in other community activities for the time being. At the same time, their feeling of total involvement in the community was likely to increase, a reasonable result since Head Start activity would be a part of that total involvement. When these parents became former parents, their activity level in the community outside of Head Start was likely to return to its original level or even to increase somewhat, and their feelings of being involved remained high.

Community Involvement and Type of Involvement in Head Start

There were no significant differences in either activity or feelings about community involvement related to type of involvement.

Summary: Community Involvement and Parent Involvement in Head Start

Former parents showed increased activities outside of Head Start, suggesting that later, when their children left Head Start, they increased their community involvement somewhat. But their feelings of total involvement in the community were not greater than those of current parents.

In sites where parents were highly involved in Head Start in both decision-making and learner roles, there may have been a slight decrease in other activities in the community. The parents may have been busy with Head Start, and reduced their involvement somewhat in the rest of the community. Former parents in these sites seemed to have returned to their previous level of other activity. Both former and current parents in sites where parents have been involved highly in decision-making tended to feel more involved in the community.

Those parents who tended to be high in community involvement in the past were likely to be the ones who developed a high extent of involvement in Head Start. Their other activities in the community may have been reduced slightly while they were involved in Head Start, but after their children left Head Start, these parents either returned to their original level of activity or even increased it somewhat. These highly involved parents showed a pattern of increasing their feeling of being involved when their children entered Head Start, and retaining this high level of feeling after their children left Head Start. Parents who had a low extent of involvement started out with lower community involvement, and did not show any changes either in activity or in their feeling of being involved, either over the period when their children were in Head Start or after they left.

Parent involvement in Head Start may have been related to community involvement. There were some indications that Head Start programs where parents were highly active may have helped to develop feelings of community involvement, but the changes seemed more likely to occur in those parents who were involved. They were more likely to experience and feel increased total involvement over the period that their children were in Head Start, and this was likely to continue after their children enter school.

IV. Participation in Head Start and Self-Concept of Head Start Mothers

The Miskimins Self-Goal-Other Scale (MSGO) was selected for measurement of self concept. The test includes a validity measure which assesses either a negativistic attitude to the test or random responding. The directions for the test are somewhat difficult to interpret to the subject, and some of the parents did not complete it accurately. Some tests included blank items, and on others the validity scale was too high, indicating invalidity. In all, approximately 250 accurate profiles were available for analysis.

A recently completed study showed that male and female responses to being disadvantaged are very different, and that it is necessary to interpret their responses separately. There were only 23 male profiles in the sample of valid profiles--too few for analysis--so these were eliminated and only female profiles were considered.

Self-Concept of Parents and Site Classification

There were no significant differences for the main effects across site classifications, but there were three significant interactions between current-former status and site. These occurred on the total score, on scale 3 and on scale 5. Results appear in Table P10.

Table P10

Self-Concept Measures of Parents by Site Classification

Total Score: Negative Self-Concept

Mean Score by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	24.98	35.76	28.78	27.39
Former	28.61	25.42	27.93	29.45

Analysis of Variance

Source	df	F	p
Site	3	.69	n.s.
Current-Former	1	.55	n.s.
Interaction	3	2.70	.05
Error	294		

Scale 3: Overvaluing Others

Mean Score by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	3.10	6.87	3.85	4.80
Former	5.77	4.13	3.18	4.68

Analysis of Variance

Source	df	F	p
Site	3	1.51	n.s.
Current-Former	1	.11	n.s.
Interaction	3	2.92	.04
Error	294		

Table P10 (Cont.)

Scale 5: Globally Critical of Others

Mean Score by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	1.18	1.76	1.31	1.33
Former	1.48	.63	2.04	2.24

Analysis of Variance

Source	df	F	p
Site	3	1.22	n.s.
Current-Former	1	.67	n.s.
Interaction	3	3.21	.03
Error	294		

An examination of the mean scores showed that the current parents in the HiLo sites had higher scores on the total and on Scale 3. High scores on these two scales would occur because of a mild rejection of the self, or self-denigration. A more extreme version of this pattern would occur in people who were severely depressed and felt really worthless. Actually, even these significantly higher scores would be near the mean of the general population on this test, so the difference cannot be considered a large or very meaningful one, even though statistically significant. Further, there was no evidence from the measures evaluating general satisfaction that current parents in HiLo centers were more unhappy or dissatisfied than other groups. There was a somewhat larger percentage of Mexican-Americans in the HiLo group, and for some reason these current parents may have responded to this particular test by indicating lower self-esteem, but the lack of other differences that should have occurred to support this finding would still suggest that this particular finding was not meaningful.

Former parents, in sites where parents were not involved in decision-making, score higher on scale 5. This scale indicates that these parents had relatively high self-esteem, but that they felt others were critical of them in very basic ways--saw them as less intelligent, less successful, etc. The difference in this case, while it appeared small, placed the higher group a full standard deviation above the mean on the test norms, and suggests that the difference might be important.

Self-Concept of Parents and Extent of Parent Involvement

The only significant difference related to extent of parent involvement was one significant interaction on scale 5. The former parents who were low in extent of involvement felt criticized by others (Table P11). Again, the mean score was a standard deviation above the mean on the test norms. Individuals high on this scale would not only tend to feel others were critical of them, but would tend to be cautious and more suspicious of others, and would be less likely to form deep and meaningful relationships because they feel others do not value them highly.

Self-Concept of Parents and Type of Involvement

There were no significant differences associated with type of involvement.

Summary: Self-Concept and Parent Involvement

The differences found in relation to the total score and scale 3, suggesting there might be slightly higher dissatisfaction and lower self-esteem in the current parents in HiLo sites, did not seem meaningful. The differences found in relation to scale 5 may be a different matter. These suggested that some parents have feelings of being looked down on by others, and that they might tend to be suspicious and less able to form meaningful relationships. The score was high enough to be of concern. Parents with children in Head Start did not have these feelings, but the former parents

Table P11

Self Concept Measures of Parents by Extent of Involvement

Scale 5: Globally Critical of Others, Parent Involvement

Mean Score by Level of Involvement

	HiHi	LoLo
Current	1.23	.96
Former	1.03	2.09

Analysis of Variance

Source	df	F	P
Level	1	1.43	n.s.
Current-Former	1	1.99	n.s.
Inter-action	1	4.07	.05
Error	151		

in some situations did. These former parents were the ones who either came from sites where parents had not been involved in decision-making or were not personally involved in Head Start.

The finding here was somewhat isolated, and needs further confirmation, but finding the difference only in former parents across both sites and extent of involvement, and the actual size of the mean difference (a full standard deviation above the mean on the original scale) suggested that it may have been a real difference. The implications are very serious. The section of this report on community involvement indicated that parents with high involvement in Head Start were also involved in the community in other ways, and continued that involvement after their children left Head Start. These parents continued to feel accepted. The fact that they tended to return to their other community activities and felt even more involved in the community after Head Start may help explain why. If they had not been involved in the community or in Head Start, during the time they had children in Head Start they seemed to feel accepted. But later, when the

children left, these parents began to feel rejected by others. This may just be a coincidence. The parents were getting older, and the parent types who were not involved may have begun to develop feelings of rejection with time. But it is also possible that even their child's attending Head Start had helped make them feel part of the community. When that ends, the change may have begun to occur.

V. Factors Which Effect Parent Participation

An indication of reasons for parent involvement or non-involvement in Head Start was obtained by examining and categorizing parents' responses to the following questions:

> Do you feel that you have been actively involved in Head Start? _____Yes _____No. If you answered Yes, why were you or are you actively involved? If you answered No, why haven't you been more actively involved in Head Start?

After a perusal of the responses to these questions, several response categories were developed for the predominant reasons given for involvement or non-involvement. A tally was then made of all responses with minor modifications of the response categories occuring as needed to summarize the information. No statistical analysis was performed other than a ranking of the response categories from most to least frequently occurring responses. In many cases, one person would give more than one reason for either becoming involved or not becoming involved in Head Start. In such cases, all reasons listed would be tallied in the appropriate response category. Many parents failed to adequately explain their reasons for involvement or non-involvement. The parents would either fail to answer the questions, give an answer which was inappropriate to the questions, or give an answer which was so general as to defy categorizing.

The reasons given by parents for not becoming involved in the Head Start program were more substantive than the reasons given for becoming involved in that they were more frequently related to a specific, identifiable factor. The most frequently given reason for not becoming involved was that other responsibilities in the home, generally those resulting from the presence of other children in the family, prevented them from becoming active in the program. Employment was the next most frequently occurring reason given for not being involved. This reason was given only slightly fewer times than home responsibilities. Illness or personal problems, transportation, and difficulty in finding a babysitter were given as reasons for not becoming involved. The frequency was very similar for these three reasons. Numerous other reasons for not becoming involved were given, but none were given frequently enough to merit consideration as an important factor.

Reasons given for participating in Head Start were less substantive and, therefore, proved more difficult to place in general response categories for the purpose of summarizing parents' responses. Evidence of this is shown by the parents who responded. "(I became involved) because I think it is a very good thing." However, responses did fall into five response categories frequently enough to be indicative of the major reasons given for becoming involved by those parents who answered the question. The benefits to be incurred by the child or the community from participation in Head Start was put forth most frequently as a reason for becoming involved. Such reasons for becoming involved as "because Head Start has done so much for my son" were typical of the responses listed in this category. The next most frequently occuring reason could be attributed to a parent's interest in working with children, either her own or others. The opportunity for personal development through parent participation and the opportunity to volunteer in some activitiy were given as reasons an equal number of

times, and were next in frequency of occurrence. Finally, the chance to become involved with other adults was the least frequently occurring response in the five response categories that were felt to have enough responses to warrant mention.

Parent Participation and Child Measurement Outcomes

Analysis of the child measurement data involved looking at differences in the child dependent variable outcomes based on: 1) site classification, 2) parent participation classifications (extent and type), 3) paid employee role, and 4) current-former status.

The first series of analyses dealt with differences among the children based on differing site classifications. This involved comparisons of dependent variable outcomes based on pooling the subjects from each of the four site classifications. Since there was a fairly large number of subjects in each site classification, comparison of the children on a current-former basis was also included in this analysis and resulted in a two-way analysis of variance with four levels of site classification and two levels of time status, i.e., current and former.

The second series of analyses involved comparisons of the children on dependent variable outcomes related to the extent of parent participation. Here the children were divided into those whose parents had high scores on the decision-making and learner roles (HiHi) and those whose parents had low scores on the same roles (LoLo). Current-former status was also included, resulting in two-way analyses of variance. The current-former variable was included in these analyses because of the possibility that significant interactions between the extent of parent participation and current-former status might occur.

The third series of analyses involved comparisons of the children on dependent variable outcomes related to the <u>type</u> of parent participation.

In these analyses the children were divided into those whose parents had high scores only on the decision-making role, and those whose parents had high scores only on the learner role. Current-former status was also included to allow for the analysis of possible interactions between the type of parent participation and time factors. This resulted in two-way analyses of variance, with two levels of parent participation type and two levels of time status for each measure.

The final series of analyses involved comparisons of those children whose parents were paid employees of the Head Start center and those who were not. Inspection of the parent participation scores for the paid employees indicated that the great majority fell into the high decision-making and learner classification. Consequently, to test the relationship of the paid employee role to child dependent variable outcomes, a comparison was made only between those children whose parents were in the high decision-making and learner classifications, and those children whose parents were high in both of those roles, and also were paid employees. This is the same procedure as that followed in analyzing the parent data.

A number of current-former status main effects occurred where site classification, extent of parent participation, or type of parent participation were also significant. These results are reported in a separate section devoted exclusively to current-former differences. If an interaction occurred between current-former status and any of the variables of primary concern (site classification, extent of parent participation, type of parent participation), it is discussed in the appropriate section.

Analysis of Site Classification Results

This section reports results of outcomes on the child dependent variables based on a classification of sites according to decision-making and learner dimensions. Comparisons are made between the children in the HiHi, HiLo, LoHi, and LoLo sites without regard for the parent participation classification. Time dependent effects are also included in the analysis and make it possible to analyze interactions where results may be best explained by a combination of site and current-former characteristics.

The dependent variables have been grouped into logical areas for presentation in tables. Each table will present a summary of the analysis of variance for the dependent measures with F-test, significance levels, and means by site and current-former status. Typically, the .05 level of significance will be taken as a reportable difference, but strong trends in the data will also be indicated.*

All outcomes in which an interaction between sites and current-former status occur must be interpreted with caution. The current-former differences reported here are not based on a longitudinal study of the same children compared at two different points in time, but rather on cross-sectional data where two different age groups are compared at the same point in time. Caution is especially needed where "sleeper effects," in which a particular outcome is described as emerging after a period of time, are suggested. Without some assurance of the equivalence of the current and

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*Instead of using the conventional .05 or .01 significance levels for reporting results, the tables report all significance levels that reach .10 or better. As a pilot study, it is important that strong trends in the results be reported for the benefit of future research. To report non-significance based on the conventional standards might prematurely eliminate certain variables which, if defined or measured in other ways, could be extremely important for future studies to consider.

former groups on significant dimensions it becomes difficult to attribute the emergence of an effect to the passage of time. Many other things which could have produced the same outcome also change over time and may interact with site classification factors.

Verbal Intelligence

As Table C1 indicates, a highly significant site difference occurred on the Peabody Picture Vocabulary Test, a measure of verbal intelligence based on hearing vocabulary. Inspection of the means indicates that children from the HiHi and LoHi sites have the highest scores, but the major difference occurs between the children in the LoLo sites and those in other site classifications. The greatest difference thus appears between the sites with low parent participation in both roles and those with high participation in at least one role. The negligible difference between the HiHi and LoHi sites suggests that a high classification on the learner role may be a more important factor in the higher verbal intelligence of the children.

Table C1
Means and Analysis of Variance of
Peabody Picture Vocabulary Test Scores:
Site Classification and Current-Former Status

Mean I.Q. Score by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	93.42	90.09	92.82	86.19
Former	95.71	92.92	95.75	86.51

Analysis of Variance

Source	df	F	p<
Site	3	4.93	.002
Current-Former	1	1.45	n.s.
Interaction	3	.13	n.s.
Error	362		

Motor Inhibition Tasks

Analysis of the results of performance on the Draw-A-Line Test, a measure of the ability to inhibit motor response when the task calls for it, is presented in this section.

Significant site classification differences occurred on the Draw-A-Line Test Trial I and Draw-A-Line Test Trial II, and are reported in Tables C2 and C3, respectively. In both cases, the pattern of group means was for the HiLo site children to have the highest time, while the HiHi site children had the lowest time. Although the group means indicate a difference in the ability to inhibit a response when the task calls for it, the interpretation of the difference is less clear.

Table C2

Means and Analysis of Variance of Draw-A-Line Trial I Scores: Site Classification and Current-Former Status

Mean Score by Site Classification				
	HiHi	HiLo	LoHi	LoLo
Current	13.60	21.07	15.30	19.78
Former	17.81	32.35	23.38	20.53

Analysis of Variance			
Source	df	F	p
Site	3	6.05	.001
Current-Former	1	10.87	.001
Interaction	3	1.56	n.s.
Error	377		

Table C3

Analysis of Variance for Draw-A-Line Trial II Scores:
Site Classification and Current-Former Status

Mean Score by Site Classification				
	HiHi	HiLo	LoHi	LoLo
Current	21.21	28.54	19.72	28.83
Former	27.78	49.89	34.05	37.11

Analysis of Variance			
Source	df	F	p
Site	3	4.50	.004
Current-Former	1	18.35	.001
Interaction	3	1.28	n.s.
Error	377		

Conceived of as an indication of the child's standing on a reflective-impulsive dimension, the higher mean scores could indicate a more reflective approach to tasks and a greater ability to inhibit impulsive behavior. However, the literature also suggests that greater response time may be indicative of a fear of failure. Lower mean times would then suggest that the child feels free to respond without fear of failure or the reaction it might bring from others. Since these same children scored best on the Picture Vocabulary test, this latter interpretation may be the better one. This could mean that the children in the HiHi and LoHi sites would be more spontaneous in a learning situation and less sensitive to the prospect of failure. As with the results for the Peabody Picture Vocabulary Test the strength of the learner role may be the more important factor in the differences.

Self-Concept

The Brown-IDS was used as the primary instrument for assessing self-concept differences. It is probably the only self-concept measure for preschool children that provides a measure of self-perceptions and perceived perceptions of the self by socially significant others. Its advantage in this battery was to provide a measure of self-concept and some indication of the child's feelings about how others see him.

The Self-referent and the Teacher-referent were used in this study. As described in the section on instrumentation, the Self-referent involves the child's endorsement of bipolar adjective pairs based on what the child thinks of himself. The Teacher-referent involves the child's endorsement of the same items based on what he thinks his teacher thinks of him.

A Chi-square analysis was used for analyzing the results. The dichotomous yes-no scoring system with the restricted range of scores and the skewness of the distribution for the items makes the use of conventional analysis of variance inappropriate. In addition, each of the sixteen items is analyzed separately rather than being combined into a total mean score for the Self or Teacher referent.

Table C4 reports the results of the Chi-square analysis by classification only for those items which reached a significance level of .10 or better on either the Self or Teacher referent. Three items on the Self-referent are reported: Clean-Dirty, Good looking-Ugly, and Likes to play with other kids-Doesn't like to play with other kids. For the Clean-Dirty difference the pattern is for a higher percentage of the high decision-making site children to endorse

the negative alternative than the children from the other sites. For the terms Good Looking-Ugly, the pattern is for a higher percentage of the high learner site children to endorse the negative alternative. For the terms Likes to play with other kids-Doesn't like to play with other kids, the pattern is for a higher percentage of the high decision-making site children to endorse the negative alternative.

The only significant site difference for the Teacher-referent occurred on the Smart-Stupid item. In this case, the pattern is for a higher percentage of the low decision-making and learner children to endorse the negative alternative.

Table C4

Chi-Square Analysis of Brown-IDS Responses for Self and Teacher Referent Based on Site Classification

	Items	χ^2	p
Self Referent	Clean-Dirty	8.78	.03
	Good Looking-Ugly	7.48	.06
	Likes to Play with other kids-Doesn't Like to play with other kids	6.59	.09

	Item	χ^2	p
Teacher Referent	Smart-Stupid	11.11	.01

There does not appear to be a clear interpretation of the differences on the Self-referent that relates directly to site classification. Children from the high decision-making sites do tend to evaluate themselves more negatively on a cleanliness dimension, and on the basis of liking for play with other children. But it is difficult to find a logical explanation for these differences that relates to the site classification from which the children come. Similarly, children for the high learner sites evaluate themselves more negatively on a physical attractiveness dimension, but the site classification from which they come offers little in the way of explanation for this difference. Lacking more substantial evidence for a direct relationship between these outcomes and site classification the safest general interpretation is that these differences are attributable to factors other than site classification.

The Smart-Stupid item difference on the Teacher Referent where the children from low decision-making and learner sites endorse the "Stupid" alternative more frequently does appear to have some logical connection to site classification. Again the difference is between those sites with high parent participation in at least one of the decision-making or learner roles and those sites with minimal participation in both roles. The picture vocabulary results also show lower scores for children in sites with minimum parent participation. The children in these sites feel that teachers do not view them as favorably and at the same time are showing poorer performance on vocabulary. That both of these occur in sites with low parent participation may be meaningful.

Self-Social Constructs

Although there is some overlap between the Brown-IDS and certain of the dimensions measured by some of the subscales of the Self-Social Constructs, it was felt that a separate presentation of the data would allow for a better understanding of the outcomes. The nature of the test stimuli and certain of the characteristics measured by this test can be seen as aspects of self-concept but they can also be confused with self-concept measures, which they are not. In addition, each subscale actually constitutes a test in itself and can be interpreted individually but meaningful interpretation often depends on the results for other subscales.

Self-Esteem. Significant site differences occurred on the Self-Esteem subscale (Table C5). The pattern of means across sites was for the HiHi group to score the highest, and the HiLo group to score lowest. The current-former difference reported in Table C5 indicates that self-esteem on this scale increases as age increases. The HiHi site children are among the youngest group of children, being almost six months younger than LoLo children. That the HiHi children should have higher self-esteem scores than the other sites makes the difference even more significant in terms of the influence of site classification as a context variable.

Table C5

Means and Analysis of Variance of Self-Esteem Scores:
Site Classification and Current-Former Status

Mean Score by Site Classification				
	HiHi	HiLo	LoHi	LoLo
Current	12.53	10.50	12.05	11.67
Former	14.00	12.46	13.41	13.32

Analysis of Variance			
Source	df	F	p
Site	3	3.24	.02
Current-Former	1	13.62	.001
Interaction	3	.09	n.s.
Error	379		

Social Interest. The Social Interest Subscale also showed a significant site difference (Table C6). In this case, the HiLo sites showed the highest score, followed by the LoLo sites, and finally by the HiHi and LoHi site classifications. The Social Interest scale presents a problem in interpretation. It has been seen as both a measure of interest in others and as in indication of dependency in younger children. The interpretation that is chosen depends somewhat on certain other characteristics of the subjects. Since the LoLo children attained a relatively low self-esteem score it may be possible that an interpretation of their high score on this test reflects a higher dependency. On the other hand, the high self-esteem score of the HiHi children could mean that their relatively high score on social interest may be reflective of greater social response to others. The lower score of the LoHi group corresponds to the lower score on the self-esteem scale, and may reflect a lower interest in others. Although the context variable of of site classification appears directly related to the social interest score of the children from within those sites, interpretation is difficult.

Table C6

Means and Analysis of Variance of Social Interest:
Site Classification and Current-Former Status

Mean Score by Site Classification				
	HiHi	HiLo	LoHi	LoLo
Current	3.84	3.98	3.84	3.97
Former	3.83	4.00	3.86	3.95

Analysis of Variance			
Source	df	F	p
Site	3	2.57	.05
Current-Former	1	.00	n.s.
Interaction	3	.05	n.s.
Error	379		

Individuation. A significant site effect also occurred on Individuation, (Table C7), a subscale closely related to self-esteem and social interest. Individuation is taken to be a measure of the degree to which the child feels a separate identity from others, with higher scores indicating higher level of individuation. The pattern of mean differences is for the HiLo site to have the highest score followed by the LoHi, HiHi and LoLo sites. The mean difference between each of the sites in this order is roughly equal. The pattern of means for this subscale is somewhat puzzling based on the pattern of scores of the Self-Esteem and Social Interest subscales. It would appear that the sites ranked as having parent participation of some kind are all different from the sites that did not, but the ordering of means within the participation sites does not lend itself to a direct logical explanation.

Table C7

Means and Analysis of Variance for Individuation Scores: Site Classification and Current-Former Status

Mean Score by Site Classification				
	HiHi	HiLo	LoHi	LoLo
Current	.72	.84	.71	.67
Former	.53	.89	.81	.42

Analysis of Variance			
Source	df	F	p
Site	3	2.90	.04
Current-former	1	.94	n.s.
Interaction	3	1.36	n.s.
Error	379		

Identification with Significant Others. The subscales which measure identification with significant others show a remarkable consistency. Site classification effects occurred on three of the four scales: Identification with Mother, Identification with Father, and Identification with Friends (Tables C8, C9, and C10). Although the Identification with Teacher subscale did not show a significant main effect of site classification, a significant interaction between site and current-former status also occurred on this subscale. Equally remarkable is the consistent pattern of mean differences that occurred on each of the subscales. The HiHi sites tend to show the most identification, with the HiLo sites showing similar scores. Sites where parents are low in decision-making, the LoLo and LoHi sites, show the least identification. The children in the high decision-making sites show the most identification with significant others and those in low decision-making sites show the least.

Table C8

Means and Analysis of Variance of Identification with Mother Scores: Site Classification and Current-Former Status

Mean Score by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	3.81	3.38	4.19	4.10
Former	3.78	4.11	4.54	4.66

Analysis of Variance

Source	df	F	p
Site	3	2.33	.07
Current-former	1	3.05	.08
Interaction	3	.50	n.s.
Error	379		

Table C9

Means and Analysis of Variance of Identification with Father Scores: Site Classification and Current-Former Status

Mean Score by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	3.93	3.84	4.37	4.57
Former	3.94	4.41	5.19	4.74

Analysis of Variance

Source	df	F	p
Site	3	2.39	.07
Current-former	1	2.34	n.s.
Interaction	3	.52	n.s.
Error	379		

TABLE C10

Means and Analysis of Variance of Identification with Friends Scores: Site Classification & Current-Former Status

Mean Score by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	3.71	3.57	4.55	4.11
Former	3.94	4.62	5.19	4.18

Analysis of Variance

Source	df	F	P
Site	3	2.94	.03
Current-Former	1	3.61	.06
Interaction	3	.70	n.s.
Error	379		

Interpretation of the identification with other subscales also depends on other characteristics of the subjects. The consistently higher identification score for the sites with high decision-making could indicate a greater liking and feeling of closeness for others. However, none of the site means could be interpreted as reflecting disidentification with others; rather the scores are reflective of more or less of a relatively close degree of identification. It is difficult to determine what might be too close identification with others in this age group (i.e., indicative of inappropriate dependency and lack of self-identification). This sort of interpretation would seem to be largely dependent on age and situation variables. Since the children in the HiHi and HiLo sites are both younger than the children in the other two sites, the higher degree of identification with others could indicate greater dependence or it could simply relate to greater felt acceptance by others. The consistency of the findings across different identification figures lends weight to a conclusion that the children from sites with high decision-making may enjoy a closer and more secure relationship with their parents and peers.

The only significant interaction of site classification and current-former status occurred on the Identification with Teacher subscale (Table C11). The pattern of mean differences is for the children in the HiHi and LoLo sites to show greater identification with teacher as time status changes from current to former while the children in the HiLo and LoHI site categories show less identification occurs in the LoLo sites and the decrease in identification in both HiLo and LoHi sites is rather substantial. This interaction is difficult to interpret in light of other site and current-former differences. It may very well be a random outcome without significant meaning.

TABLE C11

Means and Analysis of Variance of Identification with Teacher Scores: Site Classification and Current-Former Status

Identification with Teacher

Mean Score by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	4.12	3.73	4.02	4.71
Former	4.00	4.86	5.54	4.47

Analysis of Variance

Source	df	F	P
Site	3	1.70	n.s.
Current-Former	1	5.58	.02
Inter-action	3	3.36	.02
Error	379		

Preference for Significant Others. The only other site effect on the Self-Social Constructs Test occurred on the Preference for Friends subscale (Table C12). Inspection of the means across site classifications indicates that children in the LoLo sites showed the highest preference for friends, followed by the HiHi, LoHi, and HiLo site children.

The greatest mean difference is between the LoLo sites and the other three site categories, or between the sites with the least parent participation and those with a high degree of parent participation in one or both roles.

TABLE C12

Means and Analysis of variance of Preference for Friends Scores: Site Classification and Current-Former Status

Mean Score by Site Classification				
	HiHi	HiLo	LoHi	LoLo
Current	1.55	1.27	1.40	1.62
Former	1.61	1.51	1.51	1.79

Analysis of Variance			
Source	df	F	P
Site	3	2.34	.07
Current-Former	1	2.36	n.s.
Interaction	3	.17	n.s.
Error	379		

Interpretation of this outcome would depend somewhat on the level of preference for friends that is considered appropriate for children of this age level. Comparison of the site means for other preferences (Mother, Father, Teacher) and the Preference for Friends means indicates that the mean scores are not that discrepant. This means that the LoLo site childrens' preference for friends does not occur to the exclusion of others, but it does indicate that they are more interested in peers than are the children from other sites. Since the LoLo site children are slightly older than those from the other sites, it may be that they are at a developmental stage in which peers take on added significance in their social relationships.

Behavior Ratings in the Classroom Environment

The results presented in this section are not for measures on which the children perform, but are rating scales which are responded to by their teachers.

The instrument used to obtain these ratings was the Classroom Behavior Inventory which consists of Task-Orientation, Extroversion and Hostility subscales.

The only significant main effect of site classification occurred on the Extroversion subscale (Table C13). Inspection of the means for each site classification indicates that children at the HiHi and LoLo sites received the lowest ratings. Although these differences suggest that the children in these sites are less extroverted than those in the HiLo and LoHi sites, the differences are not that great. Converting the means for these groups into item ratings by dividing by five (the number of items on each subscale) yields a mean descriptive response of "Frequently" for the rated alternatives for all groups. Although statistically significant, the meaning of the differences between sites classifications does not seem to be of major concern.

TABLE C13

Means and Analysis of Variance for Extroversion Subscale Cores: Site Classification and Current-Former Status

Mean Score by Site Classification				
	HiHi	HiLo	LoHi	LoLo
Current	23.10	27.36	26.10	24.32
Former	26.39	26.29	27.58	25.11

Analysis of Variance			
Source	df	F	P
Site	3	3.28	.02
Current-Former	1	2.80	.09
Interaction	3	1.76	n.s.
Error	370		

As Tables C14 and C15 indicate, significant interactions occurred between site classification and current-former status on the Hostility and Task Orientation subscales.

On the Hostility subscale, current LoLo subjects are given the lowest ratings, but the former LoLo subjects are given the highest ratings. On the Hostility

subscale, current subjects are rated as less hostile than former subjects if they are in LoLo sites, but receive higher hostility ratings than former subjects if they are in HiHi sites. Actually, none of the mean scores in sites in either current or former status reflect a truly negative level of hostility for any of the groups. The mean ratings vary from a descriptive alternative of "Almost Never" to "Occasionally" for such items as "Slow to forgive when offended." Clearly, this should not be interpreted as a major difference between groups.

TABLE C14

Means and Analysis of Variance of Hostility Subscale Scores: Site Classification and Current-Former Status

Mean Score by Site Classification				
	HiHi	HiLo	LoHi	LoLo
Current	15.84	13.85	13.30	12.74
Former	13.05	13.88	11.58	14.92

Analysis of Variance			
Source	df	F	P
Site	3	1.41	n.s.
Current-Former	1	.63	n.s.
Interaction	3	2.29	.10
Error	370		

The pattern of site classification means is somewhat similar on the Task-Orientation subscale in that the former HiHi site children are rated higher than current HiHi site children. All other site classifications show a decrease in task-orientation from current to former status. Children from HiHi sites as a group thus tend to receive higher task-orientation ratings as they grow older, while the children in other sites show a decrease under the same conditions.

Table C15

Means and Analysis of Variance of Task-Orientation Subscale Scores: Site Classification and Current-Former Status

Mean Score by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	22.14	25.22	23.77	22.10
Former	24.97	22.09	21.94	21.03

Analysis of Variance

Source	df	F	p
Site	3	1.73	n.s.
Current-Former	1	1.18	n.s.
Inter-action	3	3.01	.03
Error	370		

The mean differences in ratings would appear to be different on a meaning as well as a statistical basis. Conversion of subscale means to item means indicates tha the former children in the HiHi sites were more typically rated in the descriptive category of "Frequently" for such items as "Stays with a job until he finishes it." The former children in the other sites would typically be rated closer to a descriptive category of "Half the Time" on the same items. This suggests that real differences exist between the children in the HiHi sites and those in other sites on a Task-Orientation dimension.

Behavior Ratings in the Home Environment

As with the ratings on the children in the classroom, the measures reported in this section are not those on which the children perform, but rather are ratings of them by parents, and in this case primarily mothers. The instrument used to obtain these ratings was the Home Behavior Inventory which consists of six subscales: Introversion, Extroversion, Task-Orientation, Distractibility, Hostility, and Considerateness.

The only significant site classification difference was on the Hostility subscale (Table C16). Inspection of the means indicates that the high decision-making sites received the highest ratings. Although this is a statistically significant difference, the children from the different sites would not actually appear to be very different on this rating dimension. Converted to item means, the ratings for HiHi and LoHi sites would be close to a descriptive rating of "Almost Never" for items such as "Stays angry for a long time after a quarrel." The descriptive rating for HiLo and LoLo sites would be closer to "Occasionally" for similar items. This difference may be suggestive for future studies, but does not appear to contribute to significant conclusions for present purposes.

Change Ratings of the Children by Their Parents

This section reports the results of an attempt to measure relative change in the children by having their parents rate the social, emotional, and learning-activity behaviors of their children at the present time, and as the children were a couple of years ago. The instrument for these ratings was the Then and Now Scale which was developed specifically for this project. For each content area rated, it is possible to obtain a Then score, based on ratings of the children as they are currently, and a Now-Minus-Then score, which reflects increase, decrease, or no change in ratings based on a time framework.

Table C16

Means and Analysis of Variance of Hostility Subscale Scores: Site Classification and Current-Former Status

Mean Score by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	5.69	7.05	5.44	6.36
Former	5.59	6.00	5.63	5.81

Analysis of Variance

Source	df	F	p
Site	3	2.70	.05
Current-Former	1	1.34	n.s.
Interaction	3	.78	n.s.
Error	273		

A significant main effect occurred on the Now-Minus-Then Social subscale and is reported in Table C17. The mean scores for the LoLo sites were lowest indicating that greater change occurred in those sites with a high level of parent participation in one or both roles than it did in the sites with generally low parent participation levels. This difference should not, however, be taken to indicate that no changes took place in the LoLo sites. All of the mean scores across sites were at a level which indicated that changes had occurred in the children's social behavior from approximately two years ago to the time of the current rating.

A significant interaction between site classification and current-former status also occurred on the Social Now-Minus-Then subscale and helps in interpreting overall results on this measure. The pattern of means indicates that children from the HiLo, LoHi, and LoLo sites received lower change ratings going from current to former status while those in the HiHI sites received higher change ratings under the same conditions. Children

Table C17

Means and Analysis of Variance of Social Now-Then Subscale Scores: Site Classification and Current-Former Status

Mean Score by Site Classification

	HiHi	HiLo	LoHi	LoLo
Current	2.46	2.61	2.71	2.55
Former	2.57	2.36	2.53	2.19

Analysis of Variance

Source	df	F	p
Site	3	2.73	.04
Current-Former	1	7.42	.007
Interaction	3	2.64	.05
Error	273		

in the LoLo sites in particular showed the sharpest drop. In sum, the pattern of this interaction and the main effects reported above indicate that children from those sites with a high level of parent participation in either or both decision-making and leaner roles receive the greatest change ratings on social behaviors as rated by their parents.

This result could indicate that the parents at the sites where children were rated as changing are more sensitive to changes in their children, have children who actually changed more, or both factors were involved in the outcomes. Even with the difficulties inherent in attempting to assess change by this means, it would appear that there is a tendency for parent involvement to be related to changes in Head Start children's social behavior.

A significant interaction between site classification and current-former status also occurred on the Affective Now subscale. The pattern of means indicates that the low decision-making sites showed an increase

in affective rating from current to former status while the high decision-making sites showed a decrease. This rating pattern is difficult to interpet in a way that makes sense in terms of the site classifications. One might conclude that the children of parents from sites where parents are highly involved in the decision-making role rate their children lower on affective status as they grow older than do parents from sites where parents are minimally involved or involved only in the leaner role, but it is difficult to see how this outcome relates directly to a site classification variable. This result may have meaning in an overall interpretation of site differences, but as an isolated finding it seems unrelated to meaningful site classification differences.

Table C18

Means and Analysis of Variance of Affective Now Subscale Scores: Site Classification and Current-Former Status

Mean Score by Site Classification				
	HiHi	HiLo	LoHi	LoLo
Current	14.69	14.33	14.24	14.05
Former	13.70	14.07	14.87	14.37

Analysis of Variance			
Source	df	F	p
Site	3	.61	n.s.
Current-Former	1	.11	n.s.
Interaction	3	2.58	.05
Error	273		

Summary of Site Classification Differences

Differences occurred between the children of different sites on intelligence, motor-inhibition tasks, self-concept, self-social constructs, behavior ratings in the classroom, behavior ratings in the home, and

ratings of social, learning-activity, and affective status by the children's parents. There is an almost bewildering array of patterns of mean differences, some of which are logical based on site classification, and others which appear to be random results that have little logical connection to site classification. One of the difficulties in interpreting patterns of mean differences is that site classification is a molar variable. It is an "atmosphere" dimension that very likely has a significant relationship to the activities within the centers, but it is hard to identify what it is that makes the difference.

What is clear is that site classification does relate directly to the outcomes on certain child measures. This strongly suggests that the context variable of site classification is a significant factor in itself. The safest conclusion seems to be that a high level of participation in one, or both parent roles in Head Start Centers leads to better outcomes on the dependent variables than does minimal participation. What is difficult to establish is the direct causal relationships between something as vague as site classification and the performance of the children within that site classification on the child measures.

There are significant differences between site classifications on a number of demogramphic variables which have a direct bearing on the interpretation of site differences. The most critical difference for the child outcome measures is the older age of the children in the low decision-making and learner sites. The age means for the children by sites indicates that the children in the low decision-making and learner sites are approximately six months older on the average than the children from the other sites (HiHi = 66.56 months; HiLo = 66.20 months; LoHi = 68.10 months; and LoLo = 72.91 months). This makes finds of difference based on participation in one or both roles versus minimal participation in both roles

even more significant because many of the differences found (e.g., self-esteem, behavior ratings in the classroom and home) should favor the LoLo site children on the age-correlated nature of the measure alone. That differences occurred favoring parent participation, despite age differences which might have been expected to neutralize the site classification effect, suggests that the relationship between site variables and outcomes on child measures may be a potent one.

Another factor that is critical in the interpretation of site results is the percentage of parent participation by site classification. For example, there are nearly 50% more HiHi parents in HiHi sites then there are in the LoLo sites. The analysis of variance for extent of parent participation demonstrates that this variable does influence child outcome measures. Site differences could thus be directly influenced by a different extent of parent participation within the sites. This suggests that interactions between extent of parent participation and site classification may explain many obtained differences better than the moderator variables that relate to main effects. Unfortunately, the limited number of subjects that would have resulted in some of the cells if a factorially complete analysis had been used precluded examination of this interaction.

Two other demographic variables, the length of time parents have had children in Head Start and number of previous children in Head Start both show differences across sites, but do not appear critical to the interpretation of results. In both cases, the high decision-making sites had the highest score with little difference between the other three sites. The role of these differences in explaining various dependent variable outcomes does not appear to be that important except in those cases where the pattern of mean differences indicates that certain characteristics of the parents in high decision-making sites may have influenced results.

Analysis of Extent of Parent Participation Differences

This section presents the results on child measures based on comparisons related to extent of parent participation in decision-making and learner roles. The comparisons involved are between those children whose parents had high scores on both decision-making and learner dimensions (HiHi) and those children whose parents scored low on both of these dimensions (LoLo).

Verbal Intelligence

Table C19 presents the analysis of variance for outcomes on the Peabody Picture Vocabulary Test based on comparisons related to extent of parent participation. A significant main effect occurred with the pattern of mean differences being for the children of high involvement parents to have higher scores than LoLo children. The interpretation is obvious. The children of parents who are high in extent of involvement are brighter or at least more verbal, than the children of parents who are low on decision-making and learner roles.

Table C19

Means and Analysis of Variance of Peabody Picture Vocabulary Test Scores: Extent of Parent Participation and Current-Former Status

Mean Score by Extent of Participation

	HiHi	LoLo
Current	93.89	82.90
Former	97.09	87.63

Analysis of Variance

Source	df	F	p
Participation Strength	1	17.65	.001
Current-Former	1	2.55	n.s.
Interaction	1	.10	n.s.
Error	189		

Academic Achievement

A significant difference occurred on the Preschool Inventory for extent of parent participation and is reported in Table C20. The pattern of mean differences is for the children whose parents have a high extent of involvement to have higher scores than the low decision-making and learner children. This outcome is all the more important, however, because the children in the HiHi group are approximately five months younger

Table C20

Means and Analysis of Variance of the Preschool Inventory Subscale Scores: Extent of Parent Participation and Current-Former Status

Mean Score by Extent of Participation			Analysis of Variance			
	HiHi	LoLo	Source	df	F	p
Current	46.91	42.97	Participation Extent	1	10.11	.001
Former	56.44	51.26	Current-Former	1	44.69	.001
			Interaction	1	.19	n.s.
			Error	195		

than those in the LoLo group. Prior Head Start research, as well as the highly significant current-former difference reported in Table C20, establish that older children consistently do better on the Preschool Inventory than younger children. Since the younger children in the HiHi group exceeded the performance of the older children in the LoLo group, there is a strong suggestion that the parent's level of participation in decision-making and learner roles is directly related to their children's academic achievement.

These results must be qualified in light of the differences found on verbal intelligence in the previous section. Differences on the Peabody Picture Vocabulary Test indicate that, at least for this sample, the correlation between it and the Preschool Inventory would be moderately positive. Thus, the difference on the Preschool Inventory may be partially attributable to intellectual differences between the two groups. The inter-correlations of intellective measures and the Preschool Inventory have been high but not overwhelming (approximately .40 in the present total sample of Head Start children). This means that a considerable amount of the difference between the two groups cannot be accounted for by common factors, but may be attributable to differences in extent of participation of the parents of the children.

Motor Inhibition Tasks

The only difference related to extent of parent participation occurred in an interaction between extent and current-former status on Draw-A-Line Test Trial I. The pattern of means as indicated in Table C21 suggests that the LoLo subjects, although lower initially, increase their mean times greatly from current to former status, while the HiHi subjects show little change in mean time under the same conditions. While parent participation strength does relate to the children's ability to inhibit motor responses or to fear failure, it would appear that the current or former status must also be considered. The tendency for the former LoLo children to increase their times considerably might also be interpreted as a "sleeper-effect" in which these children either become more fearful or less impulsive after they are out of Head Start, but the real difference is probably due to the age differences between the groups.

Table C21

Means and Analysis of Variance of Draw-A-Line Trial I Scores: Extent of Parent Participation and Current-Former Status

Mean Score by Extent of Participation			Analysis of Variance			
	HiHi	LoLo	Source	df	F	p
Current	19.03	12.90	Participation Extent	1	.20	n.s.
Former	20.49	24.00	Current-Former	1	4.60	.03
			Interaction	1	2.72	.10
			Error	197		

Self-Concept

Table C22 presents the Chi-Square analysis for the Brown-IDS items which were significant at or below the .10 level for Self and Teacher referents based on extent of parent participation. The only significant item difference on the Self Referent occurred on the Like School-Not Like School item. The pattern of group differences was for a higher percentage of the children of the parents high in extent of involvement to endorse the positive alternative of "Like School." On the Teacher referent the only difference was on the Smart-Stupid item. The pattern of group differences was for a significantly greater percentage of the HiHi children to endorse the positive alternative of "Smart." These two item differences, both of which relate to the intellective-academic area, suggest that the children of the high decision-making and learner parents have a greater attraction to the Head Start experience and also feel that their teachers evaluate their intellectual ability at a higher level.

Table C22

Chi-Square Analysis of the Brown-IDS for Self and Teacher Referents Based on Extent of Parent Participation

	Item	X^2	p
Self Referent	Like School-Not Like	3.92	.05
Teacher Referent	Smart-Stupid	3.05	.08

Self-Social Constructs

As Table C23 indicates, a significant interaction also occurred between extent of parent participation and Identification with Teacher. The pattern of mean differences for the groups indicates that the current children have the closest identification with their teacher (a lower score) but show a distinct decrease in identification in the former status. The LoLo children show little variation in their identification from current to former status but are less identified than the current HiHi children and more identified than the former HiHi children. An obvious interpretation is that the children of parents with high extent of involvement are more strongly identified with their teacher, and possibly with the Head Start experience in general, while in Head Start but lose some of this identification once the experience ends. The validity of this interpretation would, of course, have to be tested by a longitudinal study of similary classified children.

Again, a question arises regarding the appropriate degree of identification for this age level. Since the mean scores do not reflect disidentification but rather are within the positive end of the dimension, it is plausible that the closer degree of identification for the HiHi children

Table C23

Means and Analysis of Variance of Identification With Teacher Subscale Scores; Extent of Parent Participation and Current-Former Status

Mean Score by Extent of Participation			Analysis of Variance			
	HiHi	LoLo	Source	df	F	p
Current	3.89	4.53	Parent Participation	1	.01	n.s.
Former	5.06	4.36	Current-Former	1	2.08	n.s.
			Interaction	1	3.75	.05
			Error	197		

while in Head Start provides the security necessary for more independence from one's teacher after the Head Start experience. This interpretation would also require longitudinal study for verification.

Behavior Ratings in the Classroom Environment

A significant main effect for extent of parent participation also occurred on the Task-Orientation subscale and is reported in Table C24. The pattern of means was for the HiHi children to have higher ratings than the LoLo children. The mean ratings indicate that this difference is significant on a logical basis as well as a statistical basis.

A significant interaction on this subscale also indicates that the current or former status of the child is involved in strength of parent participation differences. The pattern in this instance is for the LoLo children to have lower ratings in the former status, while the HiHi children, who are already rated higher on a current basis, receive even

Table C24

Means and Analysis of Variance of Task-Orientation Subscale Scores: Extent of Parent Participation and Current-Former Status

Mean Score by Extent of Parent Participation			Analysis of Variance			
	HiHi	LoLo	Source	df	F	p
Current	24.11	22.10	Parent Participation	1	13.83	.001
Former	25.34	19.54	Current-Former	1	140	n.s.
			Interaction	1	3.26	.07
			Error	193		

higher ratings in the former status. This suggests that the relationship between a high level of parent participation in both decision making and learner roles and their children's Task-Orientation ratings may be even greater with the passage of time. Unfortunately, current-former comparisons in this study are based on cross-sectional samples and a longitudinal study would be necessary to substantiate this interpretation.

Behavior Ratings in the Home Environment

Differences depending on extent of parent participation occurred on Introversion and Task-Orientation and are reported in Tables C25 and C26, respectively. On the Introversion subscale the pattern of group means indicates that the HiHi children may be less introverted than the LoLo children. On the Task-Orientation subscale the pattern of group means indicates that the HiHi children are more task-oriented than the LoLo children.

Table C2

Means and Analysis of Variance for Introversion Subscale Scores: Extent of Parent Participation and Current-Former Status

Mean Score by Extent of Participation		
	HiHi	LoLo
Current	4.99	5.63
Former	4.3	4.91

Analysis of Variance			
Source	df	F	p
Parent Participation	1	2.84	.09
Current-Former	1	3.87	.05
Interaction	1	.01	n.s.
Error	196		

Table C26

Means and Analysis of Variance for Task-Orientation Subscale Scores: Extent of Parent Participation and Current-Former Status

Mean Score by Extent of Parent Participation		
	HiHi	LoLo
Current	11.84	10.47
Former	11.67	11.14

Analysis of Variance			
Source	df	F	p
Parent Participation	1	6.49	.01
Current-Former	1	.11	n.s.
Interaction	1	1.23	n.s.
Error	196		

In combination these results suggest a positive relationship between a high level of parent participation on both decision making and learner roles

and the children's ratings in social and task related areas. It also appears that parents and teachers are in close agreement in rating HiHi children as more task-oriented than LoLo children, which strengthens conclusions regarding the influence of extent of parent participation and behavior ratings of the children in classroom and home environments.

Significant interactions occurred between extent of parent participation and current-former status on the Considerateness and Hostility subscales. (See Tables C 27 and C 28). On the Considerateness subscale the pattern of group means indicates that the HiHi children received lower ratings in the former status while the LoLo children receive highe ratings in the same status. On the Hostility subscale the pattern of group means was for the HiHi children to receive higher ratings in the current status than LoLo children but lower ratings than LoLo children in the former status.

Table C27

Means and Analysis of Variance for Considerateness Subscale Scores: Extent of Parent Participation and Current-Former Status

Mean Score by Extent of Participation			Analysis of Variance			
	HiHi	LoLo	Source	df	F	p
Current	12.49	10.93	Parent Participation	1	1.24	n.s.
Former	11.82	12.54	Current-Former	1	1.58	n.s.
			Interaction	1	9.18	.003
			Error	196		

Table C28

Means and Analysis of Variance for Hositility Subscale Scores: Extent of Parent Participation and Current-Former Status

Mean Score by Extent of Participation			Analysis of Varia			
	HiHi	LoLo	Source	df	F	p
Current	6.16	5.17	Parent Partici-pation	1	.41	n.s.
Former	5.20	6.14	Current-Former	1	.46	n.s.
			Inter-action	1	3.41	.07
			Error	196		

This variability in ratings based on different combinations of parent participation and current-former status indicates that certain aspects of the home environment ratings relates to both age and extent of parent participation factors. However, it should be noted that the group means are well within the positive end of the dimensions being rated, and this in turn indicates that the children in both groups are quite well-adjusted. What the results do strongly suggest is that the HiHi children may possess an even higher level of behaviors in areas in which they and the LoLo children have both received positive ratings.

Change of Ratings of Children by Their Parents

As Tables C29 and C30 indicate, a significant main effect for the extent of parent participation occurred on the Learning-Activity Now and the Learning-Activity Then subscales. On both scales the pattern of group means was for the HiHi children to receive higher ratings than the LoLo children.

The HiHi children not only receive higher ratings for learning-activity behaviors as of approximately two years ago but also receive higher ratings for the same behaviors as of the present time. Thus, HiHi parents attribute more learning-activity to their children than do LoLo parents regardless of the time perspective in which the rating is made.

Table C29

Means and Analysis of Variance for Learning-Activity Now Subscale Scores: Extent of Parent Participation and Current-Former Status

Mean Score by Extent of Participation		
	HiHi	LoLo
Current	21.88	20.63
Former	20.67	20.67

Analysis of Variance			
Source	df	F	p
Parent Participation	1	17.30	.001
Current-Former	1	2.01	n.s.
Interaction	1	.96	n.s.
Error	197		

Table C30

Means and Analysis of Variance for Learning-Activity Then Subscale Scores: Extent of Parent Participation and Current-Former Status

Mean Score by Extent of Participation		
	HiHi	LoLo
Current	17.86	16.30
Former	20.36	17.58

Analysis of Variance			
Source	df	F	p
Parent Participation	1	11.99	.001
Current-Former	1	12.38	.001
Interaction	1	.98	n.s.
Error	197		

It is difficult to determine if HiHi parents are simply more alert to learning-activity behaviors in their children, whether their children actually engage in more of these types of behaviors, or both factors combine to yield higher ratings. Results from other sections (e.g. Verbal Intelligence, Academic Achievement, Likeing for School) indicate that the HiHi children are a brighter or more verbal and more achieving group than the LoLo children, which suggests validity for the parent ratings. Again, the better ratings, despite the younger age of the HiHi children, indicates that they real . are quire different from LoLo children and that this difference may be associated with the level of their parents' involvement in Head Start.

The only interaction between extent of parent involvement and current-former status occurred on the Affective Now-Minus-Then subscale (Table C31). The pattern of group means indicates that LoLo children's ratings change minimally from current to former status, while HiHi children's ratings decline significantly under the same conditions.

Interpretation of these results follows much the same logic applied to interactions in the section on site and current-former differences. The time perspective which the rating is made becomes critical to the interpretation of the resu. One way to look at the o'tcome is to attribute greater change in affective status to the children of HiHi parents as a result of Head Start experience. On the current basis the HiHi children are given the greatest change ratings, which indicates that they have increased in affective status more from a pre-Head Start period to the present. On a former basis the HiHi children have the lowest change ratings which indicates that they have increased in affective status more from a pre-Head Start period to the present. On a former basis the HiHi children have the

lowest change ratings which indicates that they showed less increase in positive affective status since Head Start. (Any change score above 2.00 indicates an increase in the behavior rated.)

Table C31

Means and Analysis of Variance for Affective Now-Then Subscale Scores: Extent of Parent Participation and Current-Former Status

Mean Score by Extent of Participation

	HiHi	LoLo
Current	2.53	2.33
Former	2.24	2.39

Analysis of Variance

Source	df	F	p
Parent Participation	1	.03	n.s.
Current-Former	1	.58	n.s.
Interaction	1	3.96	.05
Error	197		

Summary of the Analysis of Extent of Parent Participation Differences

There were a number of differences in child measures that related to the extent of parent participation. Those children whose parents were highly involved in both decision making and learner roles did better than the children of parents who were minimally involved in the same roles on verbal intelligence, academic achievement, self-concept, behavior ratings in the classroom, behavior ratings in the home, and change ratings on learning and activity dimensions by parents.

Age differences between the children in the two groups were also present in these comparisons. This age difference, with the HiHi children being younger by approximately 3 months, makes the better performance of the HiHi children

seem even more significant. But the rather substantial intellective differences may make some of the obtained differences suspect on this basis. The correlation between academic achievement and verbal intelligence, for example, is well established and suggests that the Preschool Inventory differences between the groups may be attributable primarily to intellective differences. It could also be that the teacher and parent ratings, particularly those on Task-Orientedness, are related to this factor. The children rated may be different on this dimension because they are more capable of understanding a task and consequently develop greater involvement with it.

The converse of these relationships are also possible. Thus the children in the HiPi parent participation group might do better on intellective measures because they are more task-oriented and achieving. This would make extent of parent participation directly relevant to how the children performed on the dependent measures.

Some of the differences between these two groups on demographic characteristics suggest that explanations based on these variables may be important. For example, there are significant differences on Father's Last Grade Completed and Mother's Last Grade Completed, with the HiPi group having more education in both cases. The parents of the HiPi children may place more emphasis on more educationally oriented behaviors and reinforce them in their children. Based on the parents ratings of the items in the learning-activity subscale of the Child Then and Now, there were differences between the groups before Head Start and after Head Start. Whether the differences are real or perceived is not as important as the fact that the parents saw them as different. This could also represent a basic tendency for the HiPi parents to be more sensitive to behavioral changes, to expect that changes will occur, and to reinforce them when they do.

Analysis of Type of Parent Participation Differences

This section presents results on child measures based on comparisons related to type of parent participation in decision-making and learner roles. The comparisons involved are between those children whose parents had high scores only on the decision-making dimension and those children whose parents had high scores only on the learner dimension. There were few differences and they were confined exclusively to the Self-Concept and Self-Social Constructs areas.

Self-Concept

Table C32 presents the Chi-Square analysis of the Brown-IDS for type of parent participation for only those items of the Self Referent which reached a significance level of .10 or better. No significant item differences occurred on the Teacher Referent. The Happy-Sad and Bad-Good items were both different for the Self Referent. The pattern of group differences was for a higher percentage of the children with high learner parents to endorse the positive alternative. Thus, the children of high learner parents think of themselves as happier and better than those of high decision-making parents. This difference if particularly important in terms of the parent's own feelings about themselves and what this might mean to their children. It is possible that the model the high learner parent offers his child leads to a more positive self-evaluation on the child's part.

Table C32

Chi-Square Analysis of the Brown-IDS for Self Referent Based on Type of Parent Participation

	Item	X^2	p
Self Referent	Happy-Sad	7.08	.008
	Bad-Good	3.47	.06

Self-Social Constructs

Identification with Significant Others. Identification with Mother is related to type of parent participation as indicated by the significant interaction between type and current-former status reported in Table C33. The pattern of group means indicates that the high decision-making children increase their level of identification with mother from current to former status while the high learner children decrease under the same conditions. These differences could be interpreted as a tendency for the high decision-making children to be more identified with their mothers with increasing age while the high learner children tend to be less identified on their mothers under the same circumstances.

Table C33

Means and Analysis of Variance for Identification With Mother Scores: Type of Parent Participation and Current-Former Status

Mean Score by Participation Type			Analysis of Variance			
	HiLo	LoHi	Source	df	F	p
Current	4.45	3.50	Participation type	1	.17	n.s.
Former	3.63	5.04	Current-Former	1	.41	n.s.
			Interaction	1	1.60	.04
			Error	76		

The age range of the children and the generally positive level of identification with mother reflected by the mean scores are important in interpreting these differences. It is possible that the high decision-making mother responds to and encourages more response from her children as they

grow older. On the other hand, the high learner mother presents a model of, and encourages more, independence from herself under the same age conditions. It would be necessary to know more about the child rearing attitudes in general of the two different types of mothers, but it is not implausible that they emphasize different styles of interaction between themselves and their children at different ages. The present results do not, of course, provide an answer to the cause-effect relationship between type of parent participation in Head Start and child rearing attitudes, but this could be tested by longitudinal study.

Preference for Significant Others. The significant main effect reported in Table C34 indicates that type of parent participation is related to Preference for Friends. The pattern of mean differences is for the high learner children to have lower preference scores than the children of high decision makers. An obvious interpretation is that peer attraction is greater among children of high decision-making parents than it is among the children of high learner parents. A convincing explanation of this difference does not suggest itself, but is may be that the high decision-making parents provide a more socially oriented role model and encourage more friendships for their children than do high learner parents.

Table C34

Means and Analysis of Variance for Preference for Friends Scores: Type of Parent Participation and Current-Former Status

Mean Score by Participation Type			Analysis of Variance			
	HiLo	LoHi	Source	df	F	p
Current	1.77	1.04	Participation type	1	6.38	.01
Former	1.63	1.42	Current-Former	1	.92	n.s.
			Interaction	1	1.26	n.s.
			Error	76		

There was a significant interaction between parent participation type and current-former status on the Preference for Mother subscale. (See Table C35.) In this case the pattern of group means was for the high learner children to start with the lowest preference score but to increase their preference choice until the former high learner children always chose the Mother when paired with the Father, Teacher or Friend alternatives. The high decision-making children start with relatively high preference scores and only decrease their preference for Mother slightly in the former status. Again, it is difficult to explain these differences on the basis of the decision-making or learner participation scores of the children's parents. What this outcome demonstrates primarily is that type of parent participation relates to the children's preference for their mother, but the mean scores for the other preference figures in separate analysis indicates that no alternative is completely excluded.

Table C35

Means and Analysis of Variance of Preference for Mother Scores: Type of Parent Participation and Current-Former Status

Mean Score by Participation Type			Analysis of Variance			
	HiLo	LoHi	Source	df	F	p
Current	1.77	1.18	Participation type	1	.45	n.s.
Former	1.67	2.00	Current-Former	1	3.59	.06
			Interaction	1	5.95	.02
			Error	76		

Summary of Analysis of Type of Parent Participation

Differences on child dependent measures related to the type of parent participation were mush less numerous than those for extent of parent participation. The most important results for type of participation dealt with more positive self-evaluation and greater peer attraction for those children whose parents were highly involved in the learner role.

Type of parent participatien does seem to make a difference in the outcomes on child dependent measures, but the relationship is far less extensive than that for extent of participation. The direction of the differences found also has meaning in light of the model being presented by the parents of the respective types. The high learner role thus seems to show the strongest relationship to positive social outcomes in the children, but once again the differences are those of more or less of the positive end of the dimension.

Moderator variables also enter into an interpretation of these differences. Of particular significance is the greater number of children previously in Head Start of the high learner parents. In addition to the greater experience of these parents in having children in Head Start, the children themselves have probably been exposed to more siblings who have undergone the experience and possibly provided positive models for them. Regardless of the explanations for the difference, the type of parent involvement does relate to differences in the children that are plausible in light of the parents involvement role.

Analysis of Paid Employee Differences

This section presents the results for comparisons designed to provide information on the effects of the role of the paid employee. Initial analysis of the parent participation scores on the decision-making and learner roles indicated that paid employees, with few exceptions, fell in the HiHi category. Those few subjects who fell into different parent participation categories were dropped, and the subsequent analyses was run between the children of regular HiHi parents and HiHi parents who are also paid employees.

Table C36 presents the analyses of variance for all dependent variable areas. Out of all the comparisons only two differences occurred at the $p < .10$ level or better. One difference was on the Distractible subscale of the Home Behavior Inventory. The pattern of means indicates that the children of HiHi parents were rated as more distractible than the children of HiHi paid employees. However, the descriptive meaning of the rated alternative would differ little with both groups rated closest to "Almost never" on such items as "Gives up on what he's trying to do if it takes

more than a short time." The other difference was on the Draw-A-Line Training score. The lack of clarity of meaning of a difference on this score by itself, together with apparent heterogeneity of variance, suggests that it is not a meaningful difference.

Perhaps the most significant finding with regard to the paid employee role is that the parents in this group are almost all in the HiHi category on decision-making and learner scores. Comparison of the children of the parents in the regular HiHi and paid employee HiHi categories would thus not be expected to be great. Results from the previous section indicate that the extent of involvement in decision-making and learner roles is related to differences among the children of such parents. Adding the factor of being a paid employee does not appear to strengthen the relationship to any great degree.

Summary of Differences Related to Being a Paid Employee

The differences that relate to being a paid employee were minimal. The only main effects that occurred had little maaning in terms of real differences between high decision-making and learner paid employees and regular high decision-making and learner parents. The most significant finding with regard to the paid employee role is that these parents, with few exceptions, are in the high decision-making and learner category. Although there are clear differences among the children based on the extent of parent involvement, adding the factor of being a paid employee contributes little to the relationship.

TABLE C36

Comparison of Children of High Involvement Parents and High Involvement Paid Employees

Characteristic	High Involvement Parents n	$\bar{X}$	SD	High Involvement Paid Employees n	$\bar{X}$	SD	F	P
Peabody Picture Vocabulary Test	128	95.02	15.99	44	91.14	17.23	1.85	.18
Preschool Inventory	134	50.11	10.34	44	51.93	7.79	1.15	.29
Draw-A-Line (Training)	135	17.33	13.89	45	35.33	129.14	2.81	.10
Draw-A-Line (Trial I)	135	19.52	17.24	45	30.02	76.05	2.25	.14
Draw-A-Line (Trial II)	135	31.41	31.82	45	46.09	111.94	1.88	.17
Self-Esteem	135	12.40	4.17	45	12.67	3.94	.14	.71
Social Interest	135	3.88	.59	45	3.96	.21	.69	.41
Majority-Minority Identification	135	.76	.67	45	.78	.79	.03	.89
Size Realism	135	4.31	1.30	45	4.24	1.25	.09	.76
Identification With Mother	135	3.72	2.04	45	3.89	2.24	.22	.64
Identification With Father	135	4.26	2.40	45	3.87	2.18	.94	.33
Identification With Teacher	135	4.28	2.29	45	4.04	2.41	.35	.55
Identification With Friends	135	4.03	2.42	45	3.84	2.40	.20	.66
Preference For Mother	135	1.48	.92	45	1.67	.83	1.43	.23
Preference For Father	135	1.50	.95	45	1.44	.97	.10	.75
Preference For Teacher	135	1.50	.90	45	1.47	.89	.06	.81
Preference For Friends	135	1.53	.89	45	1.42	.92	.45	.50
Extroversion*	133	24.52	6.63	45	23.51	7.01	.76	.39
Task-Orientedness*	133	26.17	6.25	45	25.93	5.10	.05	.82

Hostility*	133	14.05	7.30	45	15.09	6.81	.70	.40
Introversion	135	4.77	2.32	45	4.33	1.62	1.34	.24
Considerateness	135	12.26	2.46	45	11.66	2.47	1.56	.16
Hostility	135	5.83	2.53	45	5.84	1.99	.00	.99
Task-Orientedness	135	11.79	2.41	45	11.11	2.75	2.46	.12
Distractibility	135	7.36	2.57	45	6.56	2.40	3.38	.07
Extroversion	135	11.82	2.64	45	11.13	2.76	2.29	.13
Social Now	135	11.28	1.15	45	10.95	1.22	2.62	.11
Social Then	135	9.64	2.39	45	9.95	1.88	.63	.43
Social Now-Then	135	2.54	.51	45	2.46	.54	.82	.37
Learning and Activity Now	135	22.14	2.21	45	21.64	2.24	1.68	.20
Learning and Activity Then	135	18.68	3.87	45	18.53	3.76	.06	.81
Learning and Activity Now-Then	135	2.73	.47	45	2.71	.45	.08	.78
Affective Now	135	14.32	2.01	45	14.40	1.71	.05	.82
Affective Then	135	12.89	3.24	45	13.15	2.82	.23	.63
Affective Now-Then	135	2.43	.59	45	2.35	.52	.67	.41

Current-Former Comparisons

The results for comparisons of current and former children are reported in this section. Main effects of current-former status essentially provide additional evidence for the already established fact that certain pre-school measures (e.g., Preschool Inventory) are age-correlated. By presenting these results in a separate section it was possible to concentrate on those findings that had the most bearing on the primary questions of the study. Where a significant interaction occurred between current-former status and a primary variable (site classification, extent of parent participation, type of parent participation) it has been reported in the appropriate section.

It should be pointed out that only those current-former differences that occurred when the total current and the total former samples were compared are reported here. This provides results based on considerably larger samples than were available when current-former comparisons were made after the subjects had been divided on extent or type of parent participation.

Academic Achievement

Highly significant current-former differences occurred on the Preschool Inventory as indicated in Table C37. As would be expected, the former children as a group had higher mean scores for number of items correct than did the current children. The abilities measured by the Preschool Inventory are, of course, age-correlated, making current-former differences highly probable if the age of the two groups differed by much.

Early in the course of the project, during a review panel, it was suggested that older children in the former group might achieve perfect scores on the Preschool Inventory. Not one child in the total sample attained a perfect score on this measure.

Table C37

Means and Analysis of Variance of Preschool Inventory Scores: Current-Former Differences and Site Classification

Mean Score by Site Classification					Analysis of Variance			
	HiHi	HiLo	LoHi	LoLo	Source	df	F	p
Current	45.61	45.11	46.21	48.40	Site	3	.93	n.s.
Former	53.78	56.14	54.63	54.76	Current-Former	1	76.94	.001
					Interaction	3	1.01	n.s.
					Error	376		

Motor-Inhibition Tasks

Current-former differences were significant for the Draw-A-Line Training, Draw-A-Line Trial I, and Draw-A-Line Trial II. On each of these measures, the former children as a group had higher mean scores than the current children. Previous research has established that these measures are age-correlated with older children typically taking longer to complete the drawing of a line under "slower" instructions. These results indicate that older children can slow down line drawing more when "even slower" instructions are used.

Self-Concept

Table C38 presents the results for Chi-Square analysis for current-former comparisons for those statistically significant Self-referent items of the Brown-IDS. Significant differences occurred on the following bipolar items: Happy-Sad; Clean-Dirty; Likes to Play with other kids-Doesn't like to play with other kids ; Bad-Good; Smart-Stupid; Scared of a lot of things-Not scared of a lot of things; Likes the way his/her clothes look-Doesn't like the way his/her clothes look; and Sick-Healthy. In every case, the pattern was for the current children to endorse the negative item of the pair more frequently than the former children.

Table C 38

Chi-Square Analysis for Significant Self-Referent Items of the Brown-IDS for Current-Former Groups

Item	χ^2	p
Happy-Sad	7.57	.006
Clean-Dirty	6.48	.01
Likes to Play with Other Kids-Doesn't Likes to Play with Other Kids	6.30	.01
Bad-Good	4.83	.03
Smart-Stupid	7.15	.008
Scared of a Lot of Things-Not Scared of a Lot of Things	12.02	.001
Likes the way his/her clothes look-Doesn't like the way his/her clothes look	6.24	.01
Sick-Healthy	6.39	.01

Previous research with Head Start populations has also found significant age differences in the endorsement of positive alternatives, yielding a higher mean score for the older subjects. However, it is difficult to reach firm conclusions about the positive or negative nature of the child's self-concept based on age differences. Although older children endorse more positive alternatives, the type of alternative they endorse must be taken into account as well as the point at which age differences occur and the age level at which positive self-referent endorsement reaches asymptote. Rather than any interpretation of self-concept differences based on age-related factors, it might be productive to look at the characteristics of those younger children who endorse a significantly greater number of negative alternatives. It could be that self-concept differences are being attributed to age differences that are really a comprehension factor association with younger age, or certain of the negative endorsement items (e.g., Scared of a lot of things-Not scared of a lot of things) could be realistically evaluated by younger children. These and other factors definitely have to be considered in evaluating current-former differences of Head Start population children. At any rate, current-former differences alone are not critical to the questions of the study and need not be focused upon here.

Current-former differences also occurred on a number of the items for the Teacher-referent. Significant differences occurred on the following items: Happy-Sad; Likes to play with other kids-Doesn't like to play with other kids; Bad-Good; Smart-Stupid; Likes the way clothes look

and Healthy-Sick. As with the Self-referent results, the pattern of differences was for the current children to endorse the negative alternative more frequently than the former children.

Table C39

Chi-Square Analysis for Significant Teacher-Referent Items of the Brown-IDS for Current-Former Groups

Item	X^2	p
Happy-Sad	11.05	.001
Likes to Play with Other Kids--Doesn't Like to Play with Other Kids	5.26	.02
Bad-Good	5.63	.02
Smart-Stupid	11.02	.001
Likes the Way Clothes Look--Doesn't Like the Way Clothes Look	3.43	.06
Healthy-Sick	6.29	.01

Self-Social Constructs

Self-Esteem. A significant main effect for current-former differences occurred in the self-esteem subscale of the Self-Social Constructs Test. Inspection of the means for current and former groups as a whole indicates that former subjects as a group had consistently higher self-esteem scores than current subjects. Previous research has established that self-esteem scores vary as a function of age, so current-former differences are expected. Future research on Head Start populations should thus take age factors into account in the design of pre-post and ex post facto studies which use this

instrument. For the present study, the most significant aspect of this difference is its role in the interpretation of site differences.

Identification with Significant Others. Current-former differences occurred on the Identification with Mother, Identification with Teacher, and Identification with Friends subscales. In each instance the mean differences for the current and former groups is for there to be a decrease in the level of identification with increasing age. Previous research on Head Start populations has also found this difference, as well as differences in identification with ethnic origin. However, the greatest value of current-former differences in this study is to clarify the site differences discussed above.

Preference for Significant Others. The only other significant current-former main effect was on the Preference for Father subscale. The pattern of mean differences by group in this case was for the subjects in the former group to show less preference for father than the current group. This difference has not been observed in previous research on Head Start population, but may need to be taken into account in future research. For the present study it appears to be a clearly age-correlated measure that may have a role in the interpretation of other results.

Behavior Ratings in the Classroom Environment

The only significant main effect for current-former differences on the Classroom Behavior Inventory occurred on the Extroversion subscale. Former subjects as a group score higher on this scale than current subjects. What this difference probably reflects is the greater social interest and ability to relate to others that accompanies increasing age in this particular age range.

Behavior Ratings in the Home Environment

Significant main effects for current-former differences occur on both the Introversion and Distractibility subscales of the Home Behavior Inventory. These results are shown in Tables C40 and C41. On both subscales the former subjects as a group received lower ratings than the current subjects. Since these are both negative scales, a lower rating is interpreted as a positive difference between current and former groups. The rating of less introversion and less distractibility both correspond to the often observed and measured increases in socially oriented interpersonal behaviors and attention span with increasing age.

Table C40

Means and Analysis of Variance: Current-Former Differences on the Introversion Subscale of the Home Behavior Inventory

Mean Score by Site Classification				
	HiHi	HiLo	LoHi	LoLo
Current	4.75	5.59	4.81	4.97
Former	3.93	4.36	4.63	5.07

Analysis of Variance			
Source	df	F	p
Site	3	1.29	n.s.
Current-Former	1	3.94	.05
Interaction	3	1.22	n.s.
Error	273		

Table C41

Means and Analysis of Variance: Current-Former Differences on the Distractibility Subscale of the Home Behavior Inventory

Mean Score by Site Classification					Analysis of Variance			
	HiHi	HiLo	LoHi	LoLo	Source	df	F	p
Current	7.56	7.73	6.74	8.10	Site	3	1.36	n.s.
Former	6.66	7.00	7.13	7.22	Current-Former	1	2.88	.09
					Interaction	3	1.05	n.s.
					Error	273		

Change Ratings of Children by Their Parents

Significant current-former differences occurred on the following subscales of the Child Now and Then Scale: Social Then, Social Now-Then, Learning and Activity Then, Learning and Activity Now-Then, and the Affective Now-Then. On the Social Then and the Learning and Activity Then subscales the pattern is for the former children to receive higher ratings from their parents. This means that former parents perceived their children as having higher levels of social behavior and in more learning and activities than did the current parents. A critical aspect of the interpretation of these differences is the time perspective involved for current and former parents. Both groups of parents were to rate their children as t hey are at present (Now) and as they were a couple of years ago (Then). For the current parents this involved a time perspective that included a pre-Head Start period for the child on the Then rating. For the Former parents the time perspective would probably include the period when their children were in Head Start.

Regardless of the time perspective, the current parents were rating children approximately a year younger on the average than were former parents. This alone could have influenced the ratings since many of the items would be expected to be rated differently at different ages. But it is also possible that the ratings reflect the influence of Head Start involvement for the children. The ratings on the former children in the Then period would place many of them in Head Start for the time period being rated by the parents. Ratings for the current children based on the same time difference would place many of them in a pre-Head Start rating period for the parents. This could mean that the former children were rated at a time when their parents perceived them as being very active, learning a lot and developing social skills . . . all of which was related to their attendance in Head Start. Since current children had yet to enter the Head Start experience they received lower ratings for the same behaviors.

Non-signficant differences on the Now subscales of the Social Then and Learning and Activity Then actually contribute to an understanding of this difference. The current-former mean difference on both of these scales is negligible, but both current-former group means are above those for the Then subscales. Thus, the children who are now completing their first year of Head Start experience are little different on the ratings that their parents give them in these two areas, but are different from the ratings given when the time perspective for the ratings was two years in the past, when the former group would have been in the Head Start experience but the current children would have not yet experienced it.

The current-former differences on the Social Now-Then, Learning and Activity Now-Then, and Affective Now-Then scales all follow a pattern for the

former subjects to show less increase in the level of rating from the Then to Now scores. This means that current subjects as a group were rated as changing more in social,emotional, and learning-activity areas over the past two years than were former subjects as a group. Again, the time perspective used in the ratings may have a direct bearing on the interpretation of these results. The lower level of change in former children could be related to the fact that for them change did occur at the time of Head Start and has been sustained. For the current children, change as a result of Head Start experience had just occurred and gave them higher Now ratings, which resulted in a larger discrepancy between Then and Now ratings. The fact of different ages between current and former groups could also influence the ratings. Younger children do have more developing to do than older children, but the age range for the children rated here places both groups in a rapid development period. Equally plausible is a current-former difference based on the particular time when the Head Start experience occurs.

Summary of Analysis for Current-Former Differences

Main effects for current-former differences were all very likely due to the approximately one year age difference between these two groups. In addition, where differences were found, the age-correlated nature of the measure had typically already been established by previous research. Some of the results do help in interpreting site classification differences, or extent and type of parent participation outcomes. However, it is the interactions between current-former status and the primary variables reported in other sections that are of greatest importance to this study.

Parent Participation and Program Quality

Head Start guidelines were used to determine the areas of program quality that would be evaluated. Nine areas were originally taken from these guidelines. Since curriculum was not covered in the guidelines it was added to the list.

By interviewing Head Start administrators and other personnel, and by using the guidelines for both regular and planned variation centers, a large pool of items was constructed. These items were selected for administration to Head Start staff and parents. They were evaluated by experts, and final forms were tested in a pilot study. The final outcome was a series of questionnaires, one for each group of informants, covering recruiting, psychological services, health services, nutrition, volunteer services, career development, administration, and curriculum.

True program quality, of course, can only be reflected in its outcome -- the benefits to children, parents and, in a larger sense, society. An attempt has been made to assess some of the program effects on parents, children, and institutions. All of these are aspects of program quality, and are dealt with elsewhere in this report. The characteristic of programs evaluated in this particular section are those that Head Start has felt would be related to the ultimate goals of Head Start. Informants included Head Start teachers, teacher aides, center directors, and the chairmen of the center committees. Parents were asked questions about the value of the program, the quality of the staff, and how their children liked Head Start.

Evaluation of Program Quality by Center Staff: Site Differences

Separate questionnaires were developed for center directors, center committee chairmen, teachers, and teacher aides. The questions asked of each group consisted only of those questions which were judged as being appropriate for each group of informants. The length of each questionnaire varied from group to group.

The statistical analyses were not very powerful for the center directors' and committee chairmen's ratings, since there could only be one rating for each center. With the low N involved, applying a non-parametric test was considered, but such tests are generally less powerful than parametric tests. Since there were only two statistically significant differences obtained in 18 analyses, nine for center directors and nine for chairmen of center committees, using non-parametric analyses would not have added meaningfully to the conclusions reached. A more important point in interpreting these ratings was an examination of consistency across raters and across areas. All of the teacher ratings and half of the teacher aide ratings were significant. There was a very high level of agreement between these two sets of ratings and those of the center directors and center committee chairmen, suggesting that the differences found were real, even though not statistically significant because of the low N involved.

Ratings by Teachers

Table PQ-1 contains mean scores for each area of program quality as evaluated by teachers grouped according to site classifications. All of the differences across sites were significant. There was also considerable consistency for the different areas. The teachers in HiHi centers rated their programs highest on all but two areas, and the ratings on these two are very close to the highest ratings by teachers in other groups. Teachers in the LoHi groups, where parents are involved only in learner roles and not in decision-making roles, tended to view their programs more negatively than those in other centers, and do so quite consistently across all program quality areas.

Ratings by Teacher Aides

Table PQ-2 contains scores for each area of program quality as evaluated by teacher aides. Four of the differences across sites were significant based on the ratings of teacher aides. Aides in HiHi centers rated their centers higher

TABLE PQ-1

Teacher Ratings of Program Quality by Site Classification:
Mean Scores and F Value

Area	Site Classification				F	df	P
	Hi Hi	HiLo	Lo Hi	Lo Lo			
Recruiting	10.07	7.66	7.00	9.72	10.56	3/46	.001
Psychological Services	4.29	1.57	1.08	4.00	13.31	3/47	.001
Social Services	13.71	11.23	5.85	12.18	17.60	3/47	.001
Health Services	15.71	14.64	13.69	13.73	2.89	3/48	.05
Nutrition Program	31.58	31.21	25.00	19.45	8.79	3/48	.001
Volunteer Services	12.86	10.93	9.93	12.55	7.10	3/48	.001
Career Development	15.07	13.23	10.85	15.73	17.17	3/47	.001
Administration	22.14	19.57	16.38	22.18	5.99	3/48	.01
Curriculum	42.07	38.14	32.77	38.27	10.31	3/48	.001

TABLE PQ-2

Teacher Aide Ratings of Program Quality by Site Classification: Mean Scores and F Value

Area	Site Classification				F	df	P
	Hi Hi	Hi Lo	Lo Hi	Lo Lo			
Recruiting	10.36	7.00	8.07	9.25	9.77	3/49	.001
Psychological Services	1.79	0.33	0.13	1.67	10.97	3/49	.001
Social Services	7.71	7.72	3.53	6.08	14.33	3/48	.001
Helath Services	5.41	4.41	4.93	4.33	1.41	3/49	n.s.
Nutrition Program	24.29	24.67	22.20	24.83	3.96	3/49	.05
Volunteer Services	(Teacher aides were not asked to evaluate volunteer services)						
Career Development	11.50	10.00	9.00	11.42	2.16	3/49	n.s.
Administration	10.07	7.41	9.07	9.17	2.06	3/49	n.s.
Curriculum	36.57	33.50	33.20	33.58	0.83	3/49	n.s.

than aides in other centers on six of the nine areas. Aides in HiHi centers gave ratings for nutrition which were very close to the highest ratings. As with the teachers, the LoHi centers were rated poorly by the aides across most of the program quality areas.

Ratings by Center Director

Table PQ-3 contains mean scores for each area of program quality as evaluated by Center Directors. Only two of the ratings are significantly different across sites, those for social services and curriculum. The Center Directors were not quite as consistent as teachers in evaluating HiHi centers as best across all areas, but five of the ratings were highest for the HiHi centers including the two areas involving significant differences. HiHi center director ratings placed their centers second in two other areas.

Ratings by Committee Chairmen

Table PQ-4 shows mean scores for each area of program quality as evaluated by Committee Chairmen. None of the differences across sites were significant based on committee chairmen ratings, but five of the eight program quality areas were rated higher by chairmen in the HiHi centers, and two others were second highest. Again, the LoHi centers tended to be rated poorly in comparison with the other site groups with the ratings in six of the eight areas being the lowest obtained and second lowest in the other two.

Summary: Ratings of Program Quality by Center Staff

At least in the opinion of their staffs, HiHi centers have a generally higher level of program quality. The LoHi centers have the lowest level of quality, followed by the HiLo centers.

There was remarkable agreement between the ratings of the four different categories of center staff. Even though the center chairman and center director ratings tended not to be significantly different across sites, their ratings generally agree with those of the teachers and teacher aides, where significant

TABLE PQ-3

Center Director Ratings of Program Quality by Site Classification: Mean Scores and F Value

Area	Site Classification				F	df	P
	Hi Hi	Hi Lo	Lo Hi	Lo Lo			
Recruiting	10.50	8.40	9.20	9.20	1.55	3/14	n.s.
Psychological Services	4.75	1.40	3.40	2.80	2.61	3/14	n.s.
Social Services	11.75	9.60	8.60	9.00	5.97	3/14	.01
Health Services	16.75	17.40	17.80	15.00	0.80	3.14	n.s.
Nutrition Program	28.75	29.60	26.60	31.40	1.35	3.14	n.s.
Volunteer Services	14.50	11.60	11.20	11.60	2.46	3/14	n.s.
Career Development	21.75	20.80	20.60	22.40	0.14	3/14	n.s.
Administration	18.00	17.60	17.00	19.40	1.34	3/14	n.s.
Curriculum	43.50	34.00	34.00	35.60	4.93	3/14	.05

TABLE PQ-4

Committee Chairman Ratings of Program Quality by Site Classification: Mean Scores and F Value

Area	Site Classification				F	df	P
	Hi Hi	Hi Lo	Lo Hi	Lo Lo			
Recruiting	8.80	8.25	7.60	10.00	0.85	3/15	n.s.
Psychological Services	(Center Chairmen were not asked to rate psychological services)						
Social Services	13.40	12.25	9.60	13.00	1.07	3/15	n.s.
Health Services	12.00	10.25	11.20	11.50	0.40	3/15	n.s.
Nutrition Program	17.20	16.50	13.60	16.00	1.67	3/15	n.s.
Volunteer Services	11.40	8.75	8.00	8.75	2.45	3/15	n.s.
Career Development	19.00	19.00	12.40	20.00	1.04	3/15	n.s.
Administration	23.20	22.50	18.00	23.50	0.79	3/15	n.s.
Curriculum	3.20	3.00	3.00	2.50	0.24	3/15	n.s.

differences were obtained. Different staff were selected for informants because they had high exposure to everything that goes on in the center, and they should have had different cultural, educational and training backgrounds and different functions in the program. When teachers and teacher aides show high agreement and significant differences across sites in most areas of program quality, and when center director and center chairman ratings parallel closely the order of ratings across site classifications, it suggests that the ratings actually are a reasonably valid assessment of program quality at a gross level of measurement.

Alternative interpretations are that the responses would include the possibility that ratings were consistent across staff because they measure only general morale within a center, or that there was a prior agreement of some kind about the rating by the staff within a center. If there is a staff morale component, this might be a strong indicator of program quality in and of itself, but there are other reasons to believe that this was not the case. A general "halo" or morale effect should show up in all areas, not just some, and there were many centers where one aspect of the program was rated highly and another poorly.

Prior agreement about ratings also seems unlikely. The center staffs were carefully informed that their individual evaluations would not be communicated to anyone, and this should have reduced at least somewhat the need to be defensive. Further, the staffs of most centers were not entirely positive about everything in their program. They were critical of some aspects of programming. In addition, a general agreement should have led to almost no differences in attitude of different staff. While the agreement was exceptionally high, there were areas where different types of staff disagreed. One notable example was the attitudes of teachers and teacher aides to the nutrition program. Teachers in the LoLo centers felt their nutrition program

was much worse than those in other centers. Aides in the same LoLo centers ranked their programs higher than aides in other groups of centers.

The overall conclusion is that the ratings of staff do represent to some extent the quality of the program and that HiHi centers are likely to have relatively high program quality across almost all areas, while the LoHi centers are more likely to be lower in quality.

The LoLo centers did not rank as high in the ratings as HiHi centers, but the staffs of these centers did rank their programs as having generally high quality in most areas. One aspect of program quality, according to Head Start guidelines, is parent participation, and the LoLo centers would rank at the bottom of the group on this characteristic. In these ratings, the remaining areas of program quality are at least moderately correlated -- if one is high, then many of the others are likely to be high. It is interesting that, in the opinion of staff in LoLo centers, the other areas of program quality are not at all related to this low level of parent participation.

Comparisons of Site Classifications in Individual Areas of Program Quality

Although the results suggest that program quality tends to be a general factor and that a program high in one area is likely to be high in others as well, there were some differences across individual areas.

Recruiting

Overall, according to their staffs, HiHi centers had done the best job of recruiting. The mean scores indicate they rated recruiting as "good" to "excellent," the most severely disadvantaged children were well represented, and parents were generally well informed about the Head Start program. Recruiting quality was evaluated as nearly this high in LoLo centers*, but in the other

*Although the staff in LoLo centers evaluate recruiting as quite good, the data on age of children suggests that they may not be recruiting as great a percentage of younger children as other centers. However, there are a few more rural centers in the LoLo group, and travel may be a problem in recruiting younger children.

centers where parents were involved in only one role, ratings drop off to the fair to good range.

Psychological Services

All of the HiHi centers provided psychological consultants with reasonable to excellent credentials. Teachers and teacher aides both indicated that classroom visits were at least somewhat useful, and teachers indicated that referral for treatment averaged between "not very valuable" and "somewhat valuable." While two of the LoLo centers did not provide psychological services, the others apparently had excellent service. The teacher aides particularly felt that the classroom visits of the psychological consultant were very useful, a rare response in any other centers. Two of the HiLo centers provided no psychological consultant, and most of the centers in the LoHi and HiLo groups who provided service either had no classroom involvement or poorly qualified consultants, and felt generally that referrals resulted in little help.

While the HiHi centers clearly provided the best general psychological services, even there the evaluation of the psychologist's ability to actually help children with problems was not very high, at least in the teachers' opinion. There is no way to evaluate the reasons for this based on present data, but a thorough examination of type and effectiveness of psychological services offered in Head Start is indicated.

Social Service

Again, there is a high general agreement among the four groups of raters in a given type of center, and the differences across site classifications are significant for all but the center chairman ratings. The HiHi centers evaluated social services well above others. The LoHi centers evaluated social servites as quite poor. No teacher rating in a LoHi center averaged above "somewhat valuable," and most were negative. Many of the teacher aides in these centers

saw their social services as "not at all" valuable. While the LoHi group had generally poor ratings in other program quality areas, the quality of the social service programs in LoHi centers tends to be particularly poor.

Nutrition

In general, the HiHi centers again appeared to have good programs, and the LoHi centers were somewhat weak. However, there was more disagreement among different types of raters on quality of the nutrition program than on any other area of program quality. The biggest disagreement was in the LoLo centers. Teacher aides and administrators in those centers felt their program was good, while teachers felt it was poor. These same teachers rated other parts of their program very highly, so their feelings were reflected specifically toward what they viewed as an unsatisfactory nutrition program. There may have been a difference in attitude as to what makes up a good program, but many of the items were rather specific, such as whether children helped prepare snacks, and differences among staff should not have been this great.

Medical

The ratings of medical and dental services were quite high in all centers. The lowest ratings suggested a reasonably adequate service. There was a significant difference in the teacher ratings for different site classifications although this is the smallest proportional difference obtained for teachers. Programs where parents were involved in decision-making, i.e., the HiHi and HiLo centers, reported slightly higher ratings of medical and dental services than the other two groups of centers.

Medical and dental services provided to Head Start children are probably quite good. They are aimed at giving children the basic health and dental care they need, and the items that were selected to assess quality of the service pertained only to these basic services. There was no attempt to measure exceptional services provided. Based on the informants' ratings, all

four types of centers appeared to be doing a good job of providing basic health care.

Curriculum

The items used to assess quality of curriculum included some specific questions about availability of materials and classroom conditions, but were mostly items calling for judgements of quality of different aspects of the program. There was little variability across centers on the specific questions about materials and conditions. These seemed reasonably adequate in most centers. The other questions, while difficult because responses called for value judgements on the part of the raters, did result in some differences. Once again, the HiHi centers indicated they had the better programs. The center directors in HiHi centers felt their programs were particularly strong in the area of curriculum.

Even though there were differences, all ratings were at the high end of the scale. Nearly all of the staff seemed to feel that their programs were "very effective." But this was found in the pilot study sample so a further category was added, "really excellent," above it. The HiHi center directors evaluated their program as somewhere between "very effective" and "really excellent."

The items used to evaluate quality asked the raters to evaluate the impact of their program on children in eight different areas. If programs with different types of parent involvement had different philosophies and emphasized different aspects of curriculum, there should have been differential responses to these items. A careful examination of the ratings does not show this type of difference. The highest ratings for all types of centers were typically on their ability to provide success experiences for the children and on helping children develop self-expression. The lowest ratings were on teaching children self-discipline. The HiHi staffs rated their programs higher

on all areas, and the LoHi staffs rated their programs lowest, but still in the "very effective" range. Head Start staff are obviously proud of their programs and feel they are doing an effective job.

Career Development

The LoLo centers appear to have the edge in career development, although the HiHi centers rank a close second. The LoHi group again viewed their programs as considerably below the others. The average score of teachers in the LoHi group indicates that they see the program as only "somewhat effective," while the other groups generally view it as "very effective," but not excellent.

Administration

In administration, the LoLo centers also appear to have a slight edge, with HiHi centers a close second. The LoHi centers again scored lowest on administration.

Parent Attitudes Toward Program Quality

The parents' attitudes did differ depending on the site classification. Parents in HiHi sites felt the quality of the center staff in their programs was higher. There were no differences in their feelings about the value of the program to their children, or in their feelings about how their children liked the program.

One reason why there were no differences in parent ratings of value of service and child's liking for the program was probably the very high level of all the ratings in these areas. The parents generally felt that Head Start is a good program and that their children like it very much, regardless of the extent of parent participation in that program. These results are presented in Table PQ-5.

TABLE PQ-5

Parent Attitude Toward Program Quality by Site Classification: Means and F Tests

Area	Site Classification HiHi	HiLo	LoHi	LoLo	F	df	P
Quality of Personnel	5.82	5.16	5.45	4.31	3.23	3/452	.05
Value of Service	16.31	15.76	15.60	16.69	.85	3/456	n.s.
Child's Liking for Program	9.73	9.68	9.49	9.52	1.09	3/456	n.s.

Observer Ratings of Program Quality

There were only five program quality areas where it appeared likely that observers could obtain, in a brief period of time, reasonable data on program quality. Team leaders examined the facilities and the nutrition program, and then observed the classroom in operation to evaluate teacher/child interactions, the teacher aides, and the childrens' behavior. Since a maximum of five ratings for each type of site are available, tests of significance are not very powerful, and none of the differences across sites were significant. Table PQ-6 shows the means for each site classification.

Once again, despite the lack of significant differences across site groups, the consistency with which HiHi centers rank higher in program quality is readily apparent. However, there is a major difference between observers' ratings and those of program staff. The observers rated the LoLo centers poorest, where their staff rate them nearly as well as HiHi centers.

Despite their agreement with staff ratings in assigning higher quality to HiHi centers, the observer ratings should probably be discounted as providing support for major differences across site groups. Their exposure to the program and classroom was far too short to assume much reliability of the

ratings, and there was too much opportunity for contamination of their ratings by their knowledge of the extent of parent participation. They were in charge of collecting data that would make the purpose of the study fairly apparent and the extent of parent participation in a given center equally apparent.

TABLE PQ-6

Observers Ratings of Program Quality:
Means and F Values

	HiHi	HiLo	LoHi	LoLo	F	df	P
Classroom Facilities	26.75	22,60	24.60	21.40	.17	3.15	n.s.
Nutrition Program	19.50	17.20	16.20	18.80	.51	3.15	n.s.
Teacher/Child Interactions	25.00	24.80	24.60	21.40	.81	3.15	n.s.
Teacher Aides	6.50	6.60	5.80	5.80	.75	3.15	n.s.
Childrens' Behavior	26.00	24.60	22.80	21.60	1.00	3.15	n.s.

General Conclusions on Program Quality

The ultimate major goal of Head Start is to benefit disadvantaged children, and the only true measure of program quality must lie in that long term influence. However, there are some aspects of the day to day running of the program that can be assumed to be realted to that long term goal. These are the characteristics of the program that Head Start planners have tried to implement and Head Start evaluators have tried to assess. As such, they provide one set of criteria for assessing program quality.

Although there were many measurement problems, and statistical significance was not present in many cases, the general pattern among the findings was surprisingly consistent. Centers that were high in parent involvement in both

learner and decision-making roles were also high in nearly all areas of program quality. The overall consistency of results makes this conclusion very difficult to reject.

The evidence is not as strong for the further conclusion that, if parents are only partly involved, program quality is higher where they are involved in decision-making rather than learner roles. But throughout the data, the HiLo centers tended to be somewhat above the LoHi centers, and, in fact, the LoHi centers were usually those with the lowest ratings of program quality.

Thus far, parent participation, particularly in decision-making roles, seems an important adjunct to program quality, but there is a contradictory finding. The LoLo centers tended to rate their centers as having higher quality programs, at least in the opinions of their staffs, than those centers where parents were involved in only one role. There is no available information or data that indicates why staff in LoLo centers rated their programs as high as they did. One possibility is that the LoLo centers actually have poor quality programs but that their staffs were defensive and rated the programs higher than actual quality warranted. This seems quite unlikely, since the LoHi centers and the HiLo centers also have limitations in parent involvement that do not meet Head Start guidelines, and should have shown some of the same defensiveness. Instead, the LoHi staffs were critical of their own programs.

One of the more tempting and reasonable hypotheses is that LoLo centers may have an administration and staff that do not agree with Head Start guidelines on parent participation, and feel that the program can best be run by professionals. With this attitude, they have built what they view as excellent programs. And, in fact, the programs may be excellent, even though limited in meeting some of the goals and objectives of Head Start, such as involvement of disadvantaged parents.

When we then consider the other programs, where some attempt has been made to involve parents, the broad pervading nature of program quality in Head Start centers becomes an important variable in explaining results. A generally positive relationship across all of the areas of program quality was noted. With some exceptions, when quality was high in one area, it was likely to be high in others. While parent participation is an independent variable in this study and program quality was presumably a dependent variable, parent participation is actually only one of the many characteristics of program quality that are major objectives for Head Start programs. The HiHi programs are apparently high quality programs generally, and the fact that they are also high in quality of parent participation is not surprising. The parent participation itself may be a reflection of the ability of the administration and staff of these centers to build quality programs in every area.

The difference between HiLo and LoHi programs does add to the possibility that parents may have a direct impact on program quality. Parents are involved in both site classifications, HiLo and LoHi, but in a passive role as learners in one and a far more active role as decision-makers in the others. Where they are assisting in decisions, the programs tend to be stronger. This could, of course, still be related to the existence of more capable administration and staff in HiLo centers -- sufficiently able so that they can encourage and allow decision-making, while the LoHi centers have staff thay may not be as comfortable with parents except in more subservient learner roles. But if so, one wonders why the staffs of HiLo centers have not also strengthened the learner role in their centers.

Although the evidence cannot be completely conclusive, it is possible that parent involvement, particularly in decision-making roles, does have an influence on program quality. It is fairly certain that parent involvement is, at a minimum, related to program quality, except in those centers where parent

participation is almost entirely lacking. When parent participation is essentially lacking in a center, as in the LoLo centers, the program may still be strong in other areas.

The Impact of Parent Participation on Institutions

Changes Reported by Parents

Meetings were held at each of the 20 Head Start centers and parents were asked to identify and list all of the institutional changes which had occurred in their community as a result of parent involvement in Head Start. A total of 249 changes were reported by the 173 parents who attended the meetings. The reported institutional changes were then evaluated and classified by type of change. Only 132 of these changes met the criteria for changes involving Head Start parents. Table IC1 contains a summary of the number and types of changes reported by the parents. Types I through IV in Table IC1 are the same types of changes reported in a previous study of institutional changes in Head Start (A National Survey of the Impacts of Head Start Centers on Community Institutions, by Kirschner Associates, Inc.). Type V was added because some groups of parents believed that very important changes in their communities occurred involving parents in fund raising or in the Head Start program.

The number of reported changes was significantly greater in centers where parents were highly involved ($X^2 = 32.67$, 3 df, $p < .001$). The number of changes reported at each center ranged from 0 to 18, and varied according to the center's classification. The five sites with low parent involvement in decision-making and learner roles reported a total of only eight changes. The five sites with high parent involvement in learning but not in decision-making reported a total of 31 changes. A total of 40 changes was reported by the five sites with high parent involvement in decision-making but not in learning, and the five centers with high parent involvement in both decision-making and in learning reported a total of 53 changes. In general, the greater the involvement of parents, the more institutional changes were reported. The largest difference was between the sites with involvement of some kind and the sites with low parent involvement. More than four times the number of changes were reported in each of

TABLE IC1

Frequencies of Institutional Changes Reported by Parents At Each of Twenty Head Start Centers Grouped According to Extent and Type of Parent Participation

Type of Change	Site Classification			
	High Decision-Making/High Learner	High Decision-Making/Low Learner	Low Decision-Making/High Learner	Low Decision-Making/Low Learner
	Site 1 2 3 4 5	Site 6 7 8 9 10	Site 11 12 13 14 15	Site 16 17 18 19 20
Increased Involvement of Poor with Institutions Type I	2 1 9 2 9 Total = 23	6 1 4 4 3 Total = 18	1 6 5 3 2 Total = 17	3 2 Total = 5
Increased Institutional Employment of Poor Type II	2 1 1 Total = 4	1 1 Total = 2	1 Total = 1	Total = 0
Greater Educational Emphasis on Needs of Poor Type III	2 2 4 5 6 Total = 19	2 2 2 2 Total = 8	3 2 Total = 5	2 Total = 2
Modification of Health Institutions Type IV	1 2 2 Total = 5	4 2 3 Total = 9	1 1 Total = 2	Total = 0
Fund-Raising and Changes in Head Start Type V	1 1 Total = 2	1 2 Total = 3	1 3 1 1 Total = 6	1 Total = 1
Total Number of Changes Involving Head Start Parents	8 4 14 9 18 Total = 53	14 1 8 9 8 Total = 40	5 7 8 6 5 Total = 31	6 2 Total = 8

the three site groups where parents were involved in comparison to changes reported in the site group with low involvement.

The types of institutional changes reported by parents at the center meetings are presented by site group in Table IC1. The LoLo site group with only eight reported changes had five of those changes in the category of increased involvement of the poor with institutions (Type I). The LoHi site group also had more than one-half of their 31 changes in this category and six changes involving increased fund-raising and parent involvement (Type V). Site groups where parents were involved in decision-making, the HiHi and HiLo sites, had a higher number of changes in the Type I category, but these changes were not more than half the total as was the case with the LoLo site groups and LoHi groups where parents were not involved in decision-making. For the HiLo group, eight changes led to greater educational emphasis on the particular needs of the poor (Type III), nine changes involved modification of health institutions (Type IV), and only three changes were reported involving fund raising or increased parent involvement.

The five centers having high parent participation in both decision-making and learning indicated that 42 of the 53 changes were in the categories of increased involvement of the poor with institutions and greater educational emphasis on the particular needs of the poor.

Where parents were not actively involved in Head Start, institutional change involving parents appeared to be minimal. The few changes reported indicated primarily increased involvement of the poor in institutions. Much more change appeared to have occurred with increased parent involvement, but when involvement was only in the learner role, most changes tended to be in the Type I category. Where parents were involved in decision-making, Type I institutional changes were still frequent, but changes in employment of the poor and improvement of medical services were much more likely to occur as well.

. Kirschner and Associates found that 50 percent of institutional changes in their sample were Type III and 26 percent of the changes were Type IV. In this study approximately 50 percent of the changes were Type I and 25 percent were Type III changes. Several reasons may contribute to this difference. The studies were made during different time periods, and changes in policy of the Head Start program may have resulted in different emphases within the program. Another contributing factor may have been a different sampling of centers -- this sample was stratified to cover equally the different types of parent involvement. And there were different respondents used for reporting and listing changes.

Two Most Significant Changes

The parents were also asked to select the two most significant changes which had occurred in their community as a result of parent involvement in Head Start. This created a potential list of forty changes. The objective was to identify the most significant institutional changes which had occurred in each community. Results are summarized in Table IC2. Each of the changes selected by parents as important was evaluated by two criteria. First, was it an actual institutional change? Second, how important actually was that change to low income families? The following three examples illustrate how these judgements were made:

--An important change but not an institutional change. A Head Start center was in need of equipment and supplies, so the parents organized a massive fund-raising campaign for the center's improvement. Through rummage and bake sales and canvassing for donations, the parents were successful in raising two thousand dollars over one and one-half years. The funds were primarily used to purchase craft supplies, playground and audio-visual equipment for the center.

--An institutional change with continuing benefits. The Head Start nurse explained to the parents that the medical services provided for the community's low income

TABLE IC2

Summary of the Two Most Significant Institutional Changes Identified at Parent Meetings

Site Classification	No Significant Changes Due to Parent Participation	Important Change But Not an Institutional Change	Institutional Changes With Continuous Benefits	Institutional Changes With Significant Impact
Higher Decision Making High Learner	2	1	2	5
High Decision Making Low Learner	2	2	4	2
Low Decision Making High Learner	1	5	3	1
Low Decision Making Low Learner	7	1	2	0
Total	12	9	11	8

families were inadequate. Head Start parents then arranged meetings with local medical professionals to obtain health and nutrition information and to increase the professionals' awareness of the needs of low income residents. Working together, the local doctors, nurses, and the parents initiated community preventative health programs and increased the availability of services to low income families.

--An institutional change with significant impact. Head Start parents organized over 500 community residents to sign petitions and write letters to put political pressure on state representatives to maintain funding for a day care center that was to be closed due to lack of funds. These funds were forthcoming and the day care center remained open. Since interest and involvement by the parents and other residents continued, the day care center was expanded

and became a community center for low income and migrant families. It provided infant and old age facilities, a library and literacy classes, emergency food and clothing supplies, a rescue mission, and a community social worker. The center had become the hub of continued institutional intervention and change with new plans including such action as migrant labor reform.

Three of the twenty centers reported no changes, one center reported only one change, and five of the reported institutional changes were classified as being either not sufficiently important to warrant inclusion or not involving parents. This means that 12 changes were classified in the category of no significant change: six from the three centers reporting no change, one from the center reporting only one change, and five rated as unimportant. Nine of the other changes reported by parents were relatively important, but were not institutional changes.

Of the 19 remaining changes, each of which was judged as an institutional change, both from the point of view of the judges and from the point of view of the parents, 13 occurred in centers where parents had a high involvement in decision-making. These results suggest that the decision-making is not only critical in relation to amount and type of change, but is also related to how important institutional changes will be.

The conclusion reached was important enough to warrant further test of the relationship between type and extent of parent involvement and importance of change. A further check was made using both expert and naive judges to test the conclusion.

Judges' Ratings of Importance of Changes

Six judges were asked to rank brief descriptions of the 33 changes in order of importance as institutional changes from least important to most important. All six judges had experience in some aspect of Head Start programs or evaluation of Head Start.

The highest and lowest ranking on each institutional change was eliminated following the procedure described by Dawes ( ). A mean ranking was computed on the four remaining ranks. The mean rankings were then ranked and the ranks used to compute a Kruskal-Wallis one-way analysis of variance across the four different groups of sites. There was a statistically significant difference between the four site classifications with respect to the importance of the institutional changes ($H = 10.55$, 3 df, $p < .02$). Sites classified as providing high opportunities for involvement in both roles were judged to have reported the most important institutional changes. Sites classified as high in opportunities for decision-making and low in opportunity for learning activities were judged to have reported the next most important changes. Sites having low parent involvement in decision-making and high involvement in learning activities had the third most important changes. Sites classified as having low parent involvement in both roles reported the least important changes.

Ranking of the 33 changes was also obtained from four naive judges who did not have any experience with Head Start. The highest and lowest rankings were not eliminated due to the small number of judges. A Kruskal-Wallis one-way analysis of variance on the ranking of mean rankings was significant ($H = 22.26$, 3 df, $p < .001$). The order of importance of the changes was identical to the order obtained from the six professional judges. The order of importance agreed upon by all ten judges, was highest for sites with high parent involvement in both roles, followed by high involvement in decision-making and low involvement in learning, then low involvement in decision-making and high involvement in learning, with the least important changes occuring in sites classified as having low parent involvement in both roles.

The professional judges were not as consistent as the naive judges in their ranking of the changes. The correlation between the six professional judges' ratings ranged from .36 to .84 (mean = .59). Correlations between the four naive

judges' ratings ranged from .71 to .87 (mean = .82). This may be attributed to the professional judges responding to extraneous cues or to attributing a degree of significance to a change beyond that warranted by the information provided in the brief descriptions.

Parent Participation Scores of Parents Reporting Institutional Changes

Table IC3 contains the mean parent participation scores of parents participating in the meetings to report on institutional changes. The scores are reported by site classification and type of role.

An analysis of variance, single classification, was run among the four score groups on the decision-making score (F_3, 169 = 8.13, $p < .001$), learning score (F_3, 169 = 3.95, $p < .01$) and total or combined parent participation score (F_3, 169 = 6.85, $p < .001$). Significant differences were obtained among the four site groups with respect to parent participation scores for the 173 parents who reported on institutional changes. The standard deviations are large in relation to the mean scores and indicate a wide range of parent participation for those parents attending the meetings. The differences among the four groups of sites confirm the selection of sites having certain characteristics and are of the magnitude and direction expected as a result of the selection procedure used.

The mean parent participation scores for parents attending the meetings were substantially higher than the mean scores of other parents included in the study. These data may be interpreted as indicating that most of the parents who reported on institutional changes had extensive experience in their Head Start programs, and had the kind of experience that would make them knowledgeable about institutional changes and parent involvement in those changes.

Table IC3

Means and Standard Deviations
Of Parent Participation Scores by Site

Site Classification		Parent Participation Scores By Roles					
Decision Making	Learning	Decision Making Mean	S.D.	Learning Mean	S.D.	Total Mean	S.D.
High	High	12.4	7.9	20.4	8.4	32.9	14.8
High	Low	11.9	7.6	18.3	9.9	30.2	15.9
Low	High	9.0	7.6	16.9	8.6	25.9	15.3
Low	Low	7.3	8.8	11.5	9.0	18.8	16.7

The Role of Parent Involvement in the Stages of Institutional Change

There are six stages of change in which parents can be involved. Table IC4 indicates the involvement of parents in each of these stages. One problem in Table IC4 is that there were few changes in LoLo centers and the involvement of parents can be examined only in terms of four actual changes.

The first stage involves how parents learned of the need for the change. There were only minor differences, with parents learning about the need from other parents in about half the changes reported. There is a slight indication that where parents are not involved in decision-making roles, they are a little less likely to have indicated the need for the change.

The second stage relates to who urged the parents to take an interest in the change. In the HiHi site parents took the initiative in involving other parents in seven of the ten changes. This did not occur at all in the LoLo sites and only twice in each of the other types of sites. The high level of

Table IC4

Narrative Description of Parent Involvement at Each of Six Stages of Change Within the Four Groups of Sites

Stages of Change	Site Classifications: HiHi	HiLo	LoHi	LoLo
	Number Applied to Responses Below			
	All of the ten possible changes	Nine of the ten possible changes	All of the ten possible changes	Four of the ten possible changes
Stage I: How did the parents learn of the need for the changes?	The director, staff, and the policy council pointed out the need for the changes in half of the cases. Parents saw the need and initiated the changes in the other half.	In half of the changes, the Head Start directors pointed out the need. Parents learned of the need from other parents.	Parents learned of the need for two-thirds of the changes from the Head Start directors, staff, and councils upon which parents sat; one-third of the need for change from other parents.	Parents learned of the need from the director of the community action program (CAP) and the Head Start staff in two of the four changes. They learned of the need from one another in the remaining two changes.
Stage II: Who urged the parents to take an interest in the changes?	In three cases, the Head Start officers and the	In seven cases, the directors, local professionals,	In eight of the changes, the director[illegible] Head	The Head Start director, staff, and policy council

Table IC4 (Cont.)

	HiHi	HiLo	LoHi	LoLo
	staff urged the parents. In the remaining seven cases the parents provided some or all of the urging of other parents to take an interest in the changes.	social service workers, and the policy council urged the parents. In the remaining two changes, the parents urged each other to take an active interest.	Start, CAP, and Federal Programs, and persons in the community urged the parents. In the remaining two changes, the parents urged other parents themselves to take an active interest.	urged the parents to take an interest in the changes.
Stage III: Who suggested the solution to the problems?	In four of the changes the solutions were suggested by CAP and Head Start directors, staff, or other concerned non-parents. In the remaining six changes, the parents themselves generated the solutions.	In five of the changes the Head Start directors, staffs, or policy councils suggested the solution, sometimes collaborating with the directors and policy councils. In the remaining four the solutions were generated by the parents.	The Head Start directors, staffs, or center committees generated the solutions for six of the changes. In the remaining four the solutions were generated by the parents themselves.	Three solutions were generated by the director of CAP, and by the regional training officers. One solution was suggested by the parents.
Stage IV: Who provided support for the parents?	More financial support and less support in the form of time was given to the parents in six of the changes by the directors of Head Start and CAP, the	The Head Start directors, staffs and non-parents in the community provided time, financial and moral support for the parents.	In three cases support for the parents was not necessary because they were not involved in the actual changes. In the remaining changes the Head	The director of CAP, the parent coordinator and parent groups provided financial, publicity, and moral support.

Table IC4 (Cont.)

	HiHi	HiLo	LoHi	LoLo
	staff and other non-parents. In the four remaining changes most of the support for parents came from other parents.		Start directors, and other non-parents provided time and moral support to the parents.	
Stage V: What brought about the changes? How many parents were actually involved?	One change was brought about with the approval of a proposal. Two changes were brought about through negotiations between parents and other concerned parties. Seven changes were brought about by increased parent involvement, motivation, or pressure. In five changes many or a large percentage of parents were involved, and in two other changes the percentage was reported at 60%.	In six of the changes decisions at administrative levels brought about the changes with little parent involvement. The three remaining changes were brought about by considerable parent involvement.	Most of the changes were brought about when proposals written by the directors or staff were accepted. In most of the changes parents were involved initially to some extent, but less involved in the actual implementation.	The changes were brought about by approval or by orders from Head Start administrators. Parent involvement was minimal throughout all of the stages of the changes.

Table I[illegible] (Cont.)

	HiHi	HiLo	LoHi	LoLo
Stage VI: Once agreed on was the change put into effect?	The changes were put into effect with delays due to funding, pending legislation and administrative procedures in three cases. Parents have continued to press for increased change in half of the cases.	The changes were put into effect with delays due to a lack of communication, funding, and administrative procedures in three cases. Parents have continued to press for increased change in half of the cases.	The changes were put into effect with a delay on only two cases. Both delays were due to funding.	The changes were put into effect with delays in three of the four changes due to administrative procedures.

involvement of parents in the HiHi sites seems to lead to increased interest in change and involvement by parents. This may have resulted from the greater opportunities for communication among parents in the HiHi sites.

The third stage involves parent involvement as related to the source of solutions. In the LoLo centers three of the four solutions were suggested by professional staff. In the other three groups of centers parents were more likely to have suggested the change. Where they did not do so individually they were likely to be involved through the center committees or policy councils, which were often instrumental in suggesting changes. Development and presentation of ideas for solutions by parents was highest in the HiHi centers.

The fourth stage involves provision of support for the parents involved in trying to institute the change. There is some evidence that parents in HiHi centers were more independent and received less outside support involving professional staff time. Parents in HiHi centers reported four cases in which support came only from other parents, something which did not occur in any of the other sites. In the other sites, where parents were involved, support was generally provided by professionals or other community groups.

The fifth level is concerned with what brought about the changes and how many parents were actually involved. The HiHi centers once again show a high degree of parent independence. Changes there were likely to occur through the initiative of parents and to involve large numbers of parents. In the HiLo centers, where parents were involved in decision-making, they were also involved in bringing about some of the changes, although most of the changes were handled at administrative levels. In centers where parents were low in decision-making they were almost never directly involved in bringing about the change.

In those sites where parents were involved in decision-making they also tended, in many instances, to press for continued improvements and increased change. This did not occur in centers where parents had low involvement in

decision-making.

High parent participation in both roles is reflected in involvement of parents at all of the stages of institutional change. Where parents are highly involved in either role they are likely to play an important part in initiating the ideas for change, and in suggesting solutions to problems. Parents are a little more likely to be influential, and much more likely to press for further improvement, if their center involves them in decision-making roles rather than learner roles. When parents are highly involved in both roles, their function in institutional change is likely to be the greatest. They are much more likely to take the initiative in involving other parents, functioning with greater independence and less need of administrative staff support. Solutions are more likely to come directly rather than through committees, and a large number of parents are likely to be involved not only in the change but in pressing for continued improvement.

Parent Perceptions of the Effects of the Changes

Parents responded to open-ended questionnaire items concerning the effect of the change on: (1) themselves, (2) their child in Head Start, (3) the neighborhood, (4) the Head Start program, and (5) other community institutions.

There were differences between the site groups in the number of differing responses made by the parents. The LoLo group made a total of 13 different responses while the HiHi group made a total of 50. Both of these groups' total number of different responses may be underestimated because there were fewer significant changes for which parent response questionnaires were completed than the other site groups. The LoLo site group had only four significant changes reported, but had parent response questionnaires for all of these changes. The HiHi group on the other hand, had ten significant changes but parent response questionnaires were completed for only six of the ten changes.

The dominant theme running through parent response concerning the effects of the significant changes was one of significant personal benefit and increased awareness and understanding of many things affecting the parents themselves, their families and community institutions. Many parents indicated that they had acquired a better understanding of themselves, felt more independent, and had gained a sense of purpose. Parents in the HiHi centers reported several areas of personal benefit as a result of the changes. Some were able to obtain employment or further education. They also felt that they learned more about their communities and gained increased understanding of the importance of other people's ideas and opinions. In the political area, parents reported an increased understanding of the goals and operation of Head Start, a new awareness of the effects of legislation on Head Start, and direct experience with the function of leadership.

Parents in the three site classification groups reporting parent involvement reported a greater understanding of the needs of children, including health needs, and an increased ability to raise children more effectively. There were very few comments from parents in the LoLo site group. In commenting on the effects of the changes on their children, parents stressed the improvement of learning experiences and opportunities and expressed a belief that their children were learning more as a result of the changes. Parents also perceived several effects in the area of social relationships. Children were felt to be getting along better with other children, learning to respect each other's property and to understand better each other's culture. In centers where the significant changes involved health institutions, parents frequently expressed relief and appreciation for the much better health enjoyed by their children. They were grateful for the elimination of discouragement and pressure of trying to pay for all of the medical services they had received through Head Start. In many instances parents reported a marked improvement in their childrens' health and disposition as a result of some of the changes.

Neighborhood changes reported by parents to be a result of the changes included an increased interest in Head Start, improved medical services, increased pride in the neighborhood, safer neighborhoods, and increased social interactions and friendships. A few parents reported an increased awareness of the needs of the neighborhood and of the importance of communication, cooperation and the sharing of ideas.

Parents report that many of the important changes were directly related to improved Head Start programs. These changes were highly consistent with the goals and objectives of Head Start in designing and implementing high quality programs for children and parents.

The effects of the changes on other community institutions included increased community interest and awareness of the needs of low income families, additional funding and financial support, increased use of agencies and services, and increased parent involvement in community organizations other than Head Start.

One of the more striking bits of information was the paucity of comments from parents in the LoLo sites. Parents in the HiHi sites tended to provide more information and more favorable comments than parents in other sites.

There were a few instances in which the effects reported were not positive. Those mentioned were creation of a negative attitude toward Head Start and contribution toward a feeling of insecurity and uncertainty for a child. However, the overall impression formed from the parents' comments concerning the effects of the changes was very positive. Parents believe the effects to have been beneficial in many ways.

Permanence of the Two Selected Changes

Parents at the center meeting discussed three additional questions concerning the two selected changes. Had there actually been a change? Was the change still in effect? How did the parents feel about the change? The

answer to the first question was affirmative at the sites where a total of 33 changes had been reported. (Three centers in the LoLo site group reported no changes and one center in the HiLo site group reported only one change.) The answer to the second question, about the permanence of the change, was affirmative for 32 of the 33 reported changes. The remaining change, reported at a site in the LoLo site group, was still in effect, but future continuation of the change was uncertain. Similarly, in answer to the third question, parents were described as feeling "positive," "better," "pleased," or "enthusiastic" about 25 of the changes, feeling "that the change would expand" with respect to two changes, feeling "continued concern" about one change, and "important" about one other change. One of the remaining changes, at a center in the LoLo site group, was a change about which the parents did not care. There was no information concerning how parents felt about the other change which was reported at a center in the LoHi site group.

The parents reported that in fact, there had been definite changes. All but one of the changes were still in effect, and they tended to view the changes positively.

Summary and Discussion

There appears to be a pattern which indicates that number and importance of institutional changes were related to extent and type of parent involvement and in the context of Head Start programs. Where parents had minimal involvement or were not involved in either learner or decision-making roles, few changes were reported.

Where parent participation was evident (e.g., HiHi, HiLo, and LoHi sites) institutional changes were readily apparent and could be documented by parents and institutional representatives. The significance and importance of the changes appeared to be greater where parents were involved in decision-making roles rather than learner roles. However, the largest number of changes and the

most important changes appeared to occur in those sites where a majority of the parents were highly involved in both learning and decision-making activities.

Some of the changes reported by parents were perceived as being significant by the parents, but were not institutional changes. Parents, in sites having parents involved in decision-making, appeared to be able more readily to identify and describe institutional changes which had a significant and lasting impact on large numbers of low income families.

Extensive parent involvement in Head Start centers appeared to be related to involvement of parents at all stages of institutional change. When parents were involved in either role or in both roles they were more likely to initiate the ideas for change and to suggest solutions to problems than where there was little or no parent involvement. It appears that parents were a little more likely to be influential in initiating changes, finding solutions to problems, and pressing for further changes if they were in centers which involved them in decision-making activities rather than learner activities.

When parents were highly involved in both roles their function in institutional change at all stages appeared likely to be far greater than if there was no involvement, or involvement in only one of the two roles.

Support for this conclusion was based on the information which indicated that parents were much more likely to take the initiative involving other parents, function with greater independence, and to need less support from professional staff in initiating and bringing about changes. Furthermore, parents in HiHi sites appeared more likely to produce solutions directly instead of through committees, to involve larger numbers of parents, and were more likely to press for further improvement and changes than parents in the other two site groups which involved parents (HiLo and LoHi).

Parents reported many beneficial effects resulting from the changes. These benefits were evident in terms of effects on parents, their children, neighborhood, Head Start, and community institutions. Permanence of the changes was readily apparent, and parents voiced a uniformly positive response to approximately two-thirds of the changes.

Significant and critical institutional changes appeared to result from a combination of factors. The ideal combination appeared to be parents who were interested in the welfare of their families, Head Start staffs who provided opportunities for parent involvement in both roles, staffs who provided continued support and encouragement, community leaders who were responsive to the needs of low income families, and federal and state policies and funding which provided a support base and climate conducive to bringing about change for the benefit of low income families. Failure to provide one or more of the four factors appeared to curtail the extent and effectiveness of institutional change.

CONCLUSIONS

What can be concluded about the impact of parent participation in Head Start programs from this study?

The reader is reminded again that the study is a post hoc effort. At best one can identify a number of noteworthy and valuable relationships. However, the temptation to carry them into definitive statements or conclusions as to cause and effect is a matter of informed speculation and cannot be based on the data from this one brief study. To produce hard, data-based conclusions about cause and effect with regard to parent participation is the task of future research.

General Conclusions

1. Results on all four dependent variables favor high participation in both roles. Parents scoring high in both decision-making and learner roles:
   a. Appeared most satisfied, showed more self-confidence, had greater sense of internal locus of control, and greater assurance about their future.
   b. Had children who did best on both intellective and task-oriented measures.
   c. Were more involved in more efforts to change community institutions.
   d. Were more prevalent in programs having high quality.

2. Strength in the decision-making role appears to be more highly related to positive or desirable findings in the parents, children, institutional change, and program quality than strength in the learner role.
3. Parents have very positive feelings about Head Start and view it as very beneficial to self, children, and changing other institutions.
4. Highly participative parents continue or increase their participative style after children leave Head Start.
5. Centers with younger parents seem to have higher participation in both roles.
6. Centers with more repeating parents (second, third child in Head Start) appear to give preference to the decision-making role.
7. Centers with low participation in both roles fared poorest throughout the study.
8. There is a selective factor relating to parent participation. Parents with more education and some previous history of involvement were more frequently those showing participation in Head Start. The presence of such parents in the families served by Head Start seems to contribute to the level of participation and to the related effects on selves, children, programs, and community.
9. There is heterogeneity in the strength and extent of parent participation by individual parents and in centers as units. Differences can be identified and classified reliably.
10. There is a group of parents not involved in Head Start. Main reasons appear to be working parents and other young children in the home.

The Impact on Head Start Parents

1. Parents who were high in participation, especially those high in decision-making, were also high in feelings of ability to control their environment.

Feelings of ability to control their environment were high for all Head Start parents, suggesting that mere identification with Head Start may be an asset to parents.

2. Parents who were high in participation also viewed themselves as more successful, more skillful, and better able to influence their environment.
3. Parents rating high in participation also reported higher pre-Head Start involvement. Further, their involvement in Head Start appears to reduce other activities temporarily. Those parents participating actively in Head Start report their level of participation in activities after their Head Start experience is as high or higher than before or during. Former parents generally increased their activities outside Head Start, suggesting greater community involvement.
4. Head Start appears to have had less or no effect on the uninvolved parent.
5. Head Start involvement appears to lead to an increase in personal self-esteem. Where involvement was lower, self-esteem was lower. Highest self-esteem was in high decision-making sites.
6. Former parents report reduced self-esteem. The data do not provide sufficient information to identify cause. One conclusion might be that the high esteem of Head Start parents has a time limited dimension. Another possibility, which is more likely, is that the whole dimension of support for parents is radically lacking in most institutions with which parents must relate after Head Start, especially public schools. This absence of support for parents may result in the reduction of one's self esteem. Certainly there is more evidence in general writings, observations, and personal reports for this conclusion.

The Impact on Head Start Children

1. The extent of parent participation is a critical variable to the benefits

derived by the children from their Head Start experience.

2. There is a strong relationship between high participation by parents and better performance on intellective and task-oriented measures. The children of parents with extensive participation in both roles produced better scores on verbal intelligence, academic achievement, self-concept, behavioral ratings in classrooms and at home, and change ratings in both learning and activities.

3. The children of parents in centers which were classified as high in one or both roles scored better on child measures than did children at centers which were classified as low or minimal in both roles.

4. The children in LoLo centers were older, and might have been expected to score better on age correlated measures, yet they did not perform as well as the younger children from centers classified as high in one or both roles.

5. The children of paid employees were very similar to children of HiHi parents (a parallel result to finding that paid employees performed much as HiHi parents).

The Impact on Program Quality

1. Program quality varies from component to component as well as from center to center.

2. Centers with high participation in both roles also fared best in program quality assessment.

   a. Staff at these centers reported better quality.

   b. Parent chairmen reported quality higher than chairmen at other centers.

   c. Evaluation team leaders assessments concurred with staff and chairmen.

3. Some components of program quality show comparatively low ratings in most or all centers. One concludes that some very large permeating forces are

affecting such situations. Though participation may have been high, and general program quality high, some components did not necessarily receive high ratings. In fact, generally, the same component, psychological services, was lowest. Overall, the quality of classroom, administration, medical/dental and recruiting were reported as positive. Social services, nutrition and career development fluctuated.

4. Centers classified as low in both roles were reported as the second strongest in program quality by local staff and chairmen. Tea leaders, however, reported the same programs as poorest. Though many hypotheses have been formulated, no clear explanation has been generated. The reliability of the data are questioned, and its use for any purpose beyond consideration for further study is discouraged.

The Impact on Community Institutions

1. Both the greatest number of changes and the more significant changes were reported in centers rated high in both decision-making and learner activities.
2. The centers which reported the most significant kind of institutional changes were those where decision-making was strongest of the two roles.
3. There was a direct relationship between the extent of parent participation and the ability of parents at a center to recall and document changes. Centers with high participation provided extensive information while at LoLo centers few changes could be reported.
4. The extent to which parents from centers participated in all six stages of changes was directly related to the extent of parent participation. When the parents were high participants in both roles there was greater involvement across the six stages than where there was little involvement, or when there was high participation in only one role.
5. Significant and important institutional changes appeared to be associated

with number of factors:

a. Parents who were interested in the welfare of their families.

b. Head Start staffs who provided opportunities for parent involvement in both roles.

c. Staffs who provided continued support and encouragement.

d. Community leaders who were responsive to the need of low income families.

e. Federal and state policies and funding which provided a support base and climate conducive to bringing about change for the benefit of low income families. Failure to provide one or more of the factors appeared to curtail the extent and effectiveness of institutional change.

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