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ABSTRACT

This report, the fourth in a series of evaluations for Home Start planners and administrators, presents an analysis of the Home Start program operation during the fall of 1973 and a description of the data base being developed for the forthcoming cost-effects analysis. The first chapter is an executive summary of the interim findings and future study issues. Subsequent chapters include discussions of the three major program dimensions of demographics, treatment (a typical home visit, most frequent interaction patterns, and methods of determining effectiveness of treatment), and costs. Data collected from interviews, observations and records at the 16 Home Start sites are summarized briefly for each dimension. Data tables and an appendix containing supportive information are included. (ED)

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Dr. Esther Kresh, Project Officer

NATIONAL HOME START EVALUATION

Interim Report IV: Program Analysis

February 28, 1974

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FOREWORD

Organization of This Report -- Spring 1974

This report is divided into four chapters. The first chapter serves as an executive summary of the interim findings and future study issues across three major program dimensions:

- Demographics: Program population characteristics, such as the age, educational level, and ethnic match of program staff and program families.
- Treatment : Home Visitor/family interaction and the referral system (referrals made/services received).
- Costs : Home Start utilization of OCD dollars and of levered resources, plus unit cost projections. Similar data on four Head Start programs are also included.

The Executive Summary concludes on the issue of the generalizability of the six site data -- do the major treatment and cost findings apply to the other ten Home Start sites which are not included in summative testing (based on Spring 1973 data)?

The remaining three chapters of the report are: II. Demographics, III. Treatment, and IV. Costs. While the findings and issues within each chapter are highlighted in the Executive Summary, attention is also given to the rationale for addressing these areas, the methodologies for collecting data, and a systematic study of various intermediate discoveries which lead to the findings included in the Executive Summary.

BACKGROUND

In the Spring of 1974, 16 Home Start projects are in their second year of operation. Funded for three years at approximately $100,000 per year each, these projects are meant to serve approximately eighty families each. Local staffs, usually corsisting of a director, one to three specialists, and about seven or eight Home Visitors, work to improve the environment and development of preschool children (ages 3-5) by working in the home primarily with focal parents. Through these efforts it is expected that parents will develop and improve their unique skills as educators of their own children. Home Start parents are also expected to become familiar with community support agencies as the Home Visitor works with them to utilize these agencies in meeting their individually identified needs.

For readers who are not familiar with previous reports, this is the fourth in a series of evaluations directed to the needs of Home Start planners and administrators. Year I was seen primarily as a formative year, intended to operationalize the national plan and document the level of implementation of that plan. Descriptive case studies were written for each of the local projects. A Program Analysis volume was also included in the second series of reports. This analysis volume examined initial planning documents in order to identify the basic features of the new program. A model of the program emerged.

When initial implementation data were compared to the model, most projects were shown to have reached a satisfactory operational level within a short period of time. Some concerns were identified: Home Visitors were expected to do many things but often received rather low salaries and had limited support and training. A rather unsystematic approach to capturing community services was also noted.

The next Program Analysis volume (Volume III), based on site visit data collected in the Spring of 1973 (the end of the projects' first full year of operation), centered on two implementation issues: the actual dynamics of home visits, and the ways local projects were using their OCD dollars and levered resources in providing services to families. The major treatment finding drawn from an analysis of interview data and home visit observations showed that the home visit had many strong points. Visitations were frequent (one per week), involved a variety of activities, gave the child ample opportunity to do things, showed teaching skills to parents, and provided both parent and child with stimulation in social interaction. Concern was raised, however, regarding the adequacy of the parent treatment. The parent was shown to be a secondary participant with limited involvement in the interaction between the Home Visitor and the child. A recommendation was made that as local directors

were already giving strong verbal support to a parent oriented program, the national office could seek to reorient the home visit toward the adult as a primary interactor by providing hard technical assistance at the training and supervision level.

The cost analysis section of Report III noted that only half of all Home Start salary funds were going to Home Visitors. Such a split could be justified only with an improvement of training and supervision for Home Visitors, coupled with increased effectiveness of the administrative staff at levering more community services for the families.

Thus, as the evaluators prepared for Fall 1973 data collection and analysis, the formative evaluation effort continued to center on the two service delivery mechanisms emphasized in the de facto Home Start model -- Home Visitor interaction and mobilizing community services. Looking toward the future, however, the Fall operation applied all of its resources to a study of the six sites at which summative testing of parent and child outcomes is being conducted. A more intensive approach to home visit observations -- using the teams of local site testers rather than site visitors -- was initiated. In addition, cost data were collected for the four Head Start centers which now have children involved in the overall summative operation. In the next report cost, treatment and outcome data will be integrated with one another in a study of the relative cost effectiveness of various treatment approaches. This report can be read as an analysis of program operation during the Fall of 1973 and the description of the data base being developed for the forthcoming cost-effects analysis.

CHAPTER I: EXECUTIVE SUMMARY

I. EXECUTIVE SUMMARY

Introduction

Major Demographic, Treatment, and Cost findings from these three sections of the report are presented here for rapid review by decision makers and program operators. Findings are followed by "Future Study Issues." These issues flow from the interim findings and are intended to shape a framework for the next phase in the on-going evaluation of the National Home Start Program.

As future reports will increasingly concentrate on complex analyses of cost, treatment, and outcome data collected at the six summative sites, the summary concludes with some tentative observations on the degree to which the six site findings can be generalized to all 16 Home Start Projects.

A. Major Demographic Findings

The following interim findings and future study issues have been identified using information from the Home Start Information System for the quarter ending September 30, 1973. This quarter most closely coincides with the time period during which the field data for this report were collected by site visitors and testers at the six summative sites.

Enrollment

- As of September 30, 1973, all but two of the projects had not yet reached the national guideline of 80 families per project. By December 30, however, the average family enrollment had risen from 69 to 77 with half of the projects meeting the guideline or being within five families of doing so. The sites with lowest enrollment had markedly increased enrollment since September.

  Thus, under-enrollment may have been only a temporary problem. However, because of its serious cost implications continued attention to under-enrollment as a potential problem should be maintained.

Staff/Families Ethnic Match

- Ethnic match is remarkably high for the entire Home Start Program. The fact that the match is so high on a site by site basis indicates that local project directors have been successful in their deliberate efforts to maintain such a match.

Staff/Family Age Mix

- There is a high correlation between the age of the Home Start staff and the age of Home Start parents. Fewer than 10% of either Home Visitors or parents are below the age of 20 years, while approximately half of all Visitors and parents are between 20 and 30 years of age. For both groups roughly 25% are between 20 and 30, and 15% are over 40 years old.

Home Visitor/Parent Education Match

- As of Fall 1973, approximately 92% of the Home Visitors were high school graduates or had at least some college experience, while 78% of the parents had less than a high school education. Fourteen percent of the Home Visitors were college graduates, while 22% of the parents were high school graduates or had some college. This match appropriately reflects a reasonable "teacher-student" gap, yet is not too great as to produce communication difficulties.

B. Major Treatment Findings

This section relies most heavily upon the observation at the six summative sites of more than fifty home visits. Most of the findings here will be drawn from the analysis of those visits. In addition, referral data -- as reported through the Home Start Information System -- have also been studied in order to broaden the picture of the Home Visitor in action.

The Shape of the Typical Home Visit

- The typical home visit occurs weekly, lasts one hour, and usually involves the mother and focal child with a sibling present during one-third of the visits. An average of eight somewhat distinguishable activities occurs, with the Home Visitor usually being the dominant interactor. When the Home Visitor is the dominant interactor, this action involves the child somewhat more frequently than it involves the mother (33% versus 24%).

  Home Visitor parent interaction has increased since the Spring of 1973. While the Home Visitor-child interaction still occupies somewhat more time, Home Visitor-parent activities are now equal in number to Home Visitor-child activities.

The Home Visitor's Mode of Interacting with the Parent and with the Child

- The Home Visitor's primary interaction with the child involves "telling/explaining" and "asking" while the child is primarily "doing" or "listening" and the parent is "watching," "uninvolved," or "listening." The Home Visitor's primary interaction with the parent involves "telling/explaining" while the parent "listens" and the child is "uninvolved" or "listening."

  Thus, interaction with the parent is almost always verbal, while interaction with the child is frequently non-verbal.

The Content of Home Visit Activities

- During Home Visitor-parent interaction a wide variety of activities occurs. In 80% of Home Visitor-child activities, however, education is the content area.

  Thus, the broad range of parent treatments is consistent with the wide variety of parent outcomes which are anticipated. Educational attention for the child is also consistent with outcome objectives which concentrate on school readiness factors.

The Adequacy of the Child Treatment

- Focal child treatment appears satisfactory. Home Visitors are engaging the child in a variety of educational activities. Materials are almost always used. The Home Visitor is occasionally reinforcing the child's efforts with praise. In brief, the child appears to be involved in a rich -- although fairly brief -- atmosphere. If one presumes that some of these activities recur in the home between weekly visits, then it is credible to predict measurement of growth on the appropriate summative instruments.

- Sibling treatment is limited. Although siblings are involved in one-third of the visits, it is not possible to record their individual interaction during each activity. However, their limited involvement time during visits makes their development totally dependent upon the recurrence of these activities between visits.

Thus, treatments, for the focal children have adequate face validity at the summative sites in a manner that will be measurable by summative instruments. Sibling treatment, however, is less quantifiable.

Variations in Referrals

- The 16 Home Start sites exhibit much variation in the number of referrals made, the number of referrals received, the content area of referrals, and the recipients of the referral services. Although some sites have highly developed referral mechanisms, a large number of sites have at best a minimal emphasis on referrals.

- The variations across sites are extreme enough to suggest that the number and types of referrals made at a particular site are dependent primarily on the number and types of services available rather than being true indicators of actual client needs.

C. Major Cost Findings

Allocation of Resources by Function

- There is more consistency among programs in the allocation of OCD dollars across functional categories than in the distribution patterns for levered resources. This is understandable given the fact that Home Start programs with similar objectives would tend to follow comparable OCD expenditure patterns in terms of direct functions. On the other hand, levered resources are typically affected by various site-specific external factors, and thus allocation patterns fluctuate considerably.

- In terms of OCD dollars, the most important functional category is the provision of educational services (21%). When levered resources are combined with OCD dollars, the administrative function assumes greater importance and accounts, on the average, for almost one-fourth of total program resources. The second most important functional categories become Education and Nutrition representing a combined 27% of the total program value.

The impact of levered resources on the distribution of total resources across functions results primarily from the proportionately greater amount of outside resources levered for indirect functions.

Levered Resources

- Projects have been successful to date in securing significant amounts of levered resources. The overall leverage factor is 50 cents on the Federal OCD dollar, which is surprisingly high for social service programs.

- The amount of OCD dollars expended for securing levered resources is not associated with a corresponding rate of return on investment. In fact, there appears to be a negative correlation between funds expended for levering resources and the leverage outcome.

- There are some tentative indications that program success in securing levered resources may influence decisions regarding the allocation of OCD dollars. This issue, however, must be explored with a larger sample and within the context of the more strictly defined levered resource concept. A working hypothesis for further examination could be stated as follows: Home Start projects allocate proportionately higher shares of OCD funds to functional categories in which they have not been able to secure levered resources.

Unit Costs

- The average cost per family is $1,000 in OCD funds, whereas the total value per family including levered resources is $1,600. Four programs are relatively consistent in terms of unit costs. However, the average cost is somewhat lowered by one project whose cost is half the norm. Therefore, typical per family costs to conduct a Home Start program would be about $1,800.

- The average OCD dollar cost per child (in the 3-5 year age range) is $796. When levered resources are included, the average total value per child of Home Start is $1,243. Unit costs for Head Start are remarkably similar to those for Home Start. If the typical Head Start child spends 8 hours per day, five days a

week, 10 months a year in the Head Start program, OCD per child cost would be approximately $820. It should be emphasized, however, that the Head Start "child year" described is only hypothetical. Data on actual child hours of service provided by the Head Start programs must be gathered during the coming year.

D. Future Study Issues

Assessing the Adequacy of the Parent/Child Treatment

Despite a quantitative increase in the frequency of Home Visitor-parent interaction, some concern over adequacy of this treatment still exists. First, the amount of time for Home Visitor-parent interaction is still notably less than for Home Visitor-child interaction. In addition, the concern raised in Report II persists -- the Home Visitor-parent interaction is too exclusively verbal to infer skill transfer, and the parent's involvement during Home Visitor-child interaction is too limited to presume that the parent is internalizing the skills being displayed.

The issue in addressing this finding is two-fold. First, does the evaluation study need to move beyond a mere "statement of concern" as is analyzed in these findings? Second, is there a theoretical framework that can be applied to presently available data so as to support a tentative assessment? In response, this study moves beyond a statement of concern because the Evaluation Work Statement (p. 14) sees treatment assessment as a central formative task: "... do the components and elements have at least face validity as the necessary events by which objectives can be achieved?" Furthermore, the study believes that Modeling Theory offers a framework for asking additional formative questions of the Home Visit observation data included in this report.

Before summarizing this assessment, two matters warrant clarification:

- This report does not take an a priori stand in favor of the Home Visitor as modeler. It uses modeling theory as one way of addressing a question that arises from the data: Can one expect that the parent is internalizing the skills that the Home Visitor is displaying during the most frequent interaction patterns-- Home Visitor to child and Home Visitor to parent.

- This report shares the belief that the best way of determining the adequacy of the treatment is by analyzing the Home Visit observation data against parent outcome data collected during the treatment year. However, until that information is gathered, the "next best" means of assessment is to use a theoretical framework which was itself developed through previous research.

Glazer and Resnick, "Modeling and Observational Learning" (Annual Review of Psychology, 23, pp. 256-258), describe modeling or observational learning as imitating or simply observing the behavior of another individual. They stress that new behaviors learned are primarily a combination of components already in the learners repertoire, and that more than simple imitation is usually involved. They further stress the importance of the learners level of attention and of the highly distinguishable characteristics of the model's performance. Finally, the individual is more likely to perform the new behavior when she is reinforced for doing so, or expects to be so reinforced. (This reinforcement may be vicarious -- the observer identifies with the performer's successes.)

When these guidelines are applied to the observation data, the results are ambiguous: the home and child are part of the parent's repertoire, but the materials are not; the parent may be "paying attention" but is not actively involved; there is considerable evidence that the Home Visitor is conducting distinguishable activities but little indication that the parent is assisted in so distinguishing; and there is some reason to believe that the parent may share vicariously in the successes of the Home Visitor but very little indication that the parent is being encouraged to conduct these activities herself and thereby experience direct satisfaction and reinforcement.

Thus, the issue of an adequate parent treatment during the Home Visit remains. If the treatment remains the same, Home Start's best hope for parent gain may rest on the fact that the parent is not observing a stranger, working with a strange child, in a strange setting, but rather is watching a frequent visitor work with her own child in her own home. If so, Home Start is clearly relying upon its uniqueness.

Measuring Program Output While Allowing for Qualitative Variation

The descriptive analysis presented in this report established a basis for estimating resource requirements associated with an expansion of the program, and the distribution of these resource requirements across "cost centers." By definition, the descriptive approach does not attempt to examine certain hypotheses but is restricted to the most informative display of cost data. The evaluative analysis to be conducted in the next stage of this program is designed to identify the reasons for variations in program efficiency to determine the most cost-effective way of achieving the overall objectives of the program. A particularly important issue to be addressed in this analysis is measuring program output in terms of some meaningful standard such as hours, yet addressing the inherent qualitative variations. Similarly, efficiency cannot be defined in terms of the lowest cost per unit of output but must also be framed within the context of the quality of processes interacting to produce a given outcome.

Further Clarification of the Levered Resource Concept

A second issue which emerges from the present analysis is the concept of levered resources. Variations in leverage patterns suggest that levered resources must be more stringently defined and always considered in light of the local program context. Clearly the localized factors which bear on whether or not a program can lever sufficient and appropriate resources must be analyzed as we proceed to approach broader cost-effectiveness analysis.

To What Extent Can Findings Based Upon a Study of the Six Summative Sites be Generalized to the Other Ten Home Start Projects?

Preliminary analysis of home visit observations at all sites in Spring 1973 suggests that home visits observed at the six summative sites were similar to those observed at the non-summative sites. This similarity holds true on such key variables as "most frequent interaction patterns", "modes of interaction." "content of visit activities," "the tone of interaction" and the "total length of observed visits". Thus, the section on "Observation of Home Visits-Fall 1973" (pp. 22-41) may be read and utilized as a reflection of the state of the home visit treatment across the entire National Home Start Program.

The issue of similarity becomes more complex as Spring 1973 cost data are compared. As presented in the Appendix: Exhibit I-I (page 76) summative site cost data appear to be representative of the overall national program where such cost data reflect the way dollars are allocated, i.e., line item and functional costs. This operational similarity is consistent with the statement about home obervation data presented above: service emphases are similar. As for unit costs and levered resources, the six sites appear to differ from the ten non-summative sites in an important way. The summative sites secure more levered resources (in widely varying ways) than do the other projects.

Because the next report will include a preliminary cost-effects analysis using cost, treatment, and outcome data gathered at the six summative sites, the question of generalizability will become a more significant issue. In brief, the next report will attempt to identify the most cost-effective way of providing various patterns of service to various types of families. If further analysis should indicate that cost effects findings cannot be generalized to the other ten Home Start projects, then it would certainly raise the question of whether the findings would be useful in the expansion of home based projects across the country. If, on the other hand, a satisfactory degree of similarity is found to hold for a significant number of program variables, then the findings of the National Home Start Evaluation Study will have "paid their own way". Since there is overall consistency in the utilization of OCD dollars, the crucial analytic question appears to be: Does a quantitative increase in the amount of services levered result in a qualitatively different program? If the answer is "no," then generalizations will be appropriate. If the answer is "yes," then some generalization will have to be traded for a better understanding of how the six sites have successfully utilized community services.

CHAPTER II: DEMOGRAPHICS

II. DEMOGRAPHICS

Introduction

An overview of the size and shape of the entire Home Start Program is necessary if the reader is to place the following sections on the Home Visit treatment and on program costs (gathered at six sites) in their proper context. There are 16 Home Start projects. All of the technical analysis which follows is meant both to be an evaluation of the entire program and to shape recommendations for program improvement which are helpful to each of the 16 projects.

Table II-1, the "Home Start Profile At-A-Glance is presented on page 11 to provide the reader with the "numbers" needed to get a grasp of the size of Home Start. The table is organized to show the most recent (9/20/73) data compared with the previous four quarters. Following "At-A-Glance", the most important program variable--size of the service population--is graphically displayed for each site. The Demographics section concludes with a presentation of "match" data for each site: ethnicity, age and education. Ethnicity is selected for display and discussion because the Home Start Guidelines presume (or hypothesize) that a high level of cultural sensitivity is a prerequisite for a program which works so intimately with individual families. Staff/Parent age match is also hypothesized as a critical variable for successful program operation. Finally, Home Visitor/Parent Education Match is presented. Here the hypothesis is that a higher, but not too high, level of education for the Home Visitor compared to parents is an indicator of appropriate program "education" transfer function.

The implications of the enrollment data and the match will be briefly discussed. Areas of strength or concern will be identified.

Program Stability -- Fall, 1973

Table II-1 indicates a high degree of demographic stability for the 16 (9 rural, 3 urban, 4 urban/rural) Home Start programs. Along all important participant dimensions (staff, Home Visitors, families, children) the maximum difference in totals and averages is 11% (average number of children 0-5/program) with all remaining between 5% and 9%.

TABLE II-1: HOME START PROFILE AT-A-GLANCE

	Most Recent	Previous Quarters				
	Year II Quarter II (9/30/73)	Year II Quarter I (6/30/73) [1]	Year I Quarter IV (3/31/73)	Year I Quarter III (12/31/72) [1]	Year I Quarter II 9/30/72)	Maximum Difference %
# of Total Staff	185	176	181	183	181 [2]	5
Average	11.6	11.7	12.1	12.2	12.1	5
Range	9-18	6-17	8-18	7-18	10-18	
# of Home Visitors	111	104	104	108	102 [2]	8
Average	6.9	6.9	6.9	7.2	6.8	4
Range	3-10	4-10	4-10	4-14	3-14	
# of Families	1,106	1,042	1,102	1,117	1,072	7
Average	69	69	74	74	71	7
Range	26-157	47-98	50-120	53-135	39-139	
# of Families/ Home Visitor	10	10	10.6	10.3	10.5 [2]	6
Range	6-16	8-17	8-18	4-18	4-20	
# of Focal Children	1,330	1,265	1,342	1,368	1,265	8
Average	83	84	90	91	84	9
Range	27-222	48-143	52-171	62-185	39-192	
# of Children (0-5)	2,099	2,008	2,181	2,200 [3]	2,148 [3]	9
Average	131	134	145	147	143	11
Range	51-322	97-205	103-271	87-293	65-288	
# of Children (0-18)	4,095	3,870	4,092	4,130	3,981	6
Average	256	258	273	275	265	7
Range	138-665	160-429	162-512	135-565	92-595	
		Data for California not included in these Quarters				

1) No data reported for this Quarter from Texas-TMC; data from previous Quarter used to avoid serious distortion.

2) No data reported from West Virginia for this category; data from Year I Quarter III used to avoid serious destortion.

3) Incomplete data reported from Utah for this category.

Program Enrollment--Fall, 1973

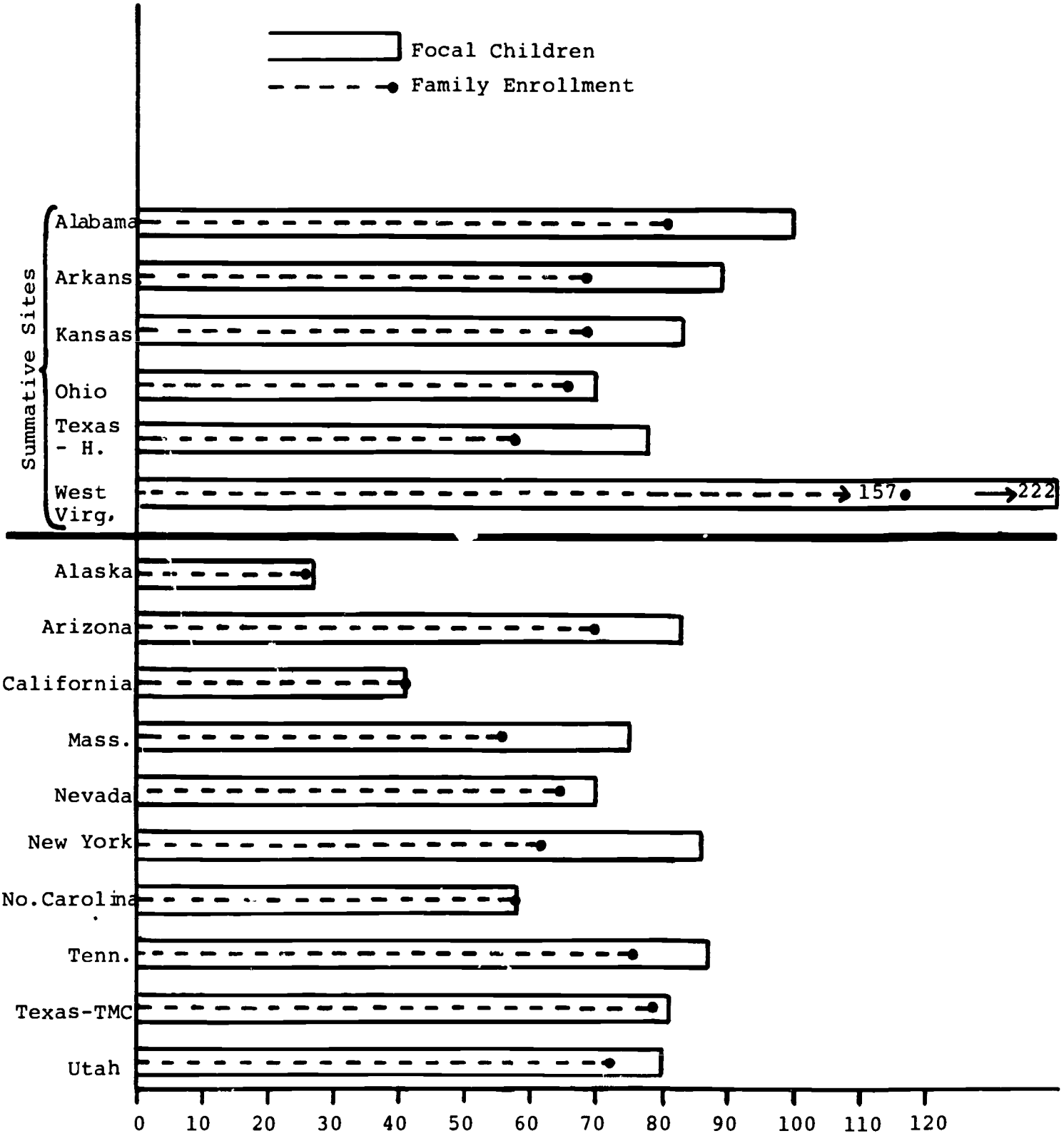
Table II-2, which is presented on page 13, shows that all but two of the projects had not yet reached the national guideline of 80 families per project. Three projects (North Carolina, Massachusetts, Alaska) had previously obtained special permission to enroll fewer than 80 families because of difficulty in identifying eligible families or high operational costs, and another site (California) is now beginning its first fully operational year. These are the four lowest enrollment projects. Another 10 sites are in the 60 to 79 range, while two (Alabama and West Virginia) are using a high level of levered resources to exceed the 80 family guideline. [1]

The reasons for low Fall enrollment are complex. The extent to which the evaluation design places constraints on enrollment is discussed in the summative volume. Other reasons for low enrollment may be site specific (especially California and Alaska). As site visits were not made to non-summative sites during Fall 1973, such information was not collected. Reasons for delay will be investigated during the 16 Spring visits. When such a large potential service population can be presumed, even this temporary delay demands serious attention.

[1] As of December 30, 1973, average family enrollment has risen from 69 to 77. Two more sites (Arkansas and Kansas) are meeting the 80 family guideline. Another three (Nevada, Tennessee, Utah) are within five of that guideline. In addition, California has shown expansion from 41 to 63, Alaska from 26 to 51. Thus, satisfactory enrollment may be a temporary problem only.

TABLE II- 2

FOCAL CHILD/FAMILY ENROLLMENT BY PROGRAM



Staff/Focal Children Ethnic Match

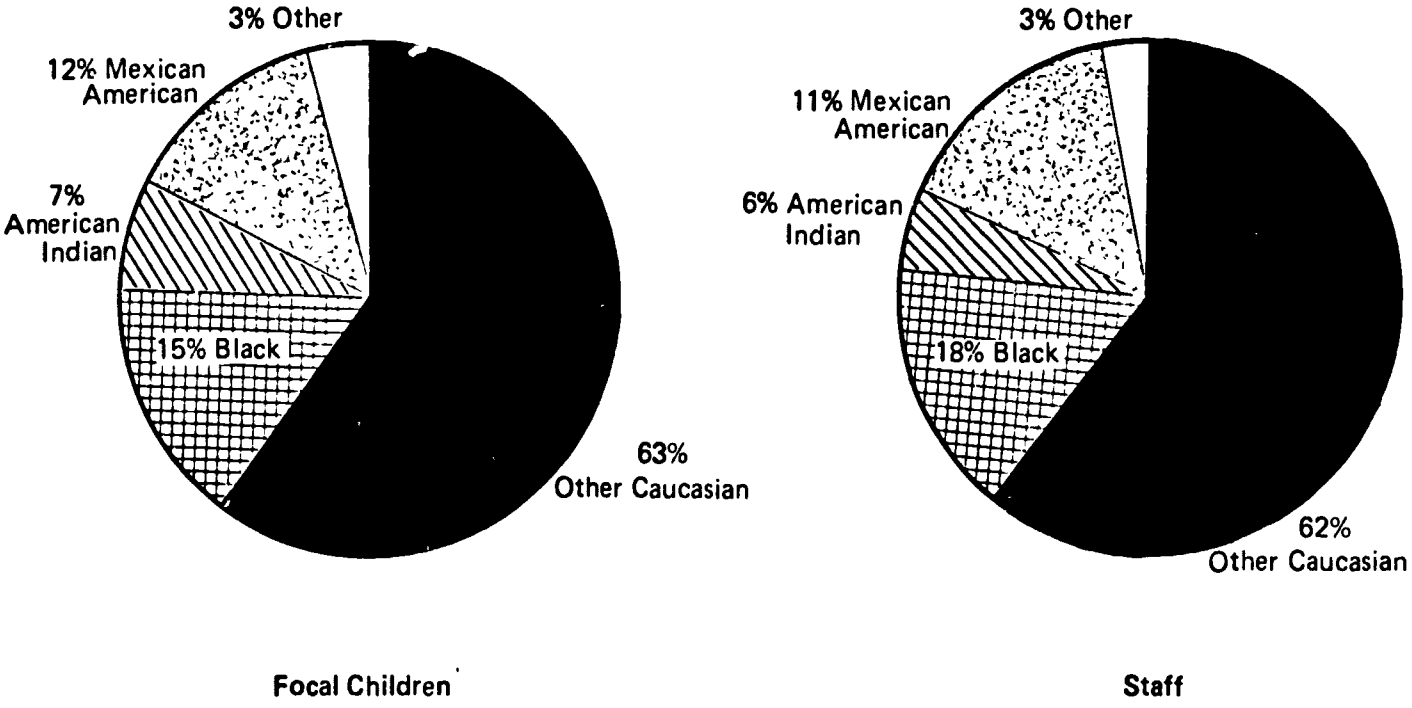
Tables II-3, and II-4 indicate that ethnic match is still remarkably high for the entire Home Start Program. The fact that the match is so high on a site by site basis indicates that local project directors have been successful in their deliberate efforts to maintain such a match.

This high match should be emphasized as a program strength which benefits Home Start in its present implementation and in its capacity to serve as a national demonstration project.

TABLE II-3

ETHNICITY FOCAL CHILDREN – STAFF

FALL 1973



Focal Children **Staff**

Staff/Focal Child Ethnic Match by Site

In order to analyze the ethnic match on a program-by-program basis, Table II-4 below presents ethnic match data on both the six summative sites and the ten non-summative sites with subtotals, together with totals for all 16 sites.

It is hypothesized that ethnic match is critical to successful Home Start treatment for both cultural and, where appropriate, linguistic reasons.

Because of the small numbers involved, percentages are not used. The first two columns show the child enrollment and the total staff as of 9/30/73. The third column, staff "match", is calculated by multiplying the number of children in each ethnic group times the staff/focal child ratio and rounding off to the nearest whole number (since any adjustments would require changing one or more staff members). The boxed number in the fourth column is the absolute change that would be required to achieve a match. It should be noted that for the summative sites all programs except Arkansas would require a minimum change to achieve a match. Arkansas favors minority staff in its imbalance, and this is appropriate for a program predominantly serving white children. For these six sites only a 17% change in staffing would produce a "perfect" match.

In the ten non-summative sites, the overall ethnic discrepancy is even less. For these sites a 14% change in staff would produce a "perfect" match. California's absolute discrepancy of 6 is accounted for by incomplete enrollment in September, 1973. Nevada (like Arkansas) appropriately favors a minority in its discrepancy. Only Utah appears exposed. It would seem wise to add at least one Mexican-American to the staff when the next vacancy occurs.

Finally, when aggregated, the data indicate that the overall Home Start ethnic match discrepancy is only 8% from a "perfect" match.

TABLE II-4: STAFF/FOCAL CHILD ETHNIC MATCH BY SITE (9/20/73)

6 Summative Sites		Children	Staff Current	Staff "Match"	Staff Change to Match
Alabama	Cauc.	51	7	6	-1
	Black	49	5	6	1
		100	12	12	[2]
Arkansas	Cauc.	86	12	14	2
	Black	1	2	0	-2
	Mex-Amer.	1	0	0	0
		88	14	14	[4]
Kansas	Cauc.	36	3	4	1
	Black	38	5	4	-1
	Mex-Amer.	7	1	1	0
		81	9	9	[2]
Ohio	Cauc.	11	3	2	-1
	Black	46	7	7	0
	Puerto Rican	13	1	2	1
		70	11	11	[2]
Texas-H	Black	47	7	6	-1
	Mex-Amer.	31	3	4	1
		78	10	10	[2]
West Va.	Cauc.	222	13	13	[0]
Subtotal Summative	Cauc.	406	38	44	-6
	Black	181	26	20	+6
	Mex-Amer.	39	4	4	0
	Puerto Rican	13	1	1	0
		639	69	69	[12]

TABLE II-4 (cont.)

10 Non-Summative Sites		Children	Staff Current	Staff "Match"	Staff Change to Match
Alaska	Cauc.	14	4	4	0
	Black	-	2	0	-2
	Alaskan	12	2	4	2
		26	8	8	[4]
Arizona	Am.Indian	83	12	12	[0]
Calif.	Mex-Amer.	18	3	4	-1
	Cauc.	3	3	1	2
	Black	9	1	2	-1
	Polynesian	4	1	1	0
	Oriental	4	2	1	1
	Other	3	0	1	-1
		41	10	10	[6]
Mass.	Cauc.	75	9	9	[0]
Nevada	Mex-Am.	6	0	1	-1
	Puerto-Rican	1	0	0	0
	Cauc.	60	11	14	-2
	Black	1	4	0	4
	Am.Indian	1	0	0	0
	Oriental	1	0	0	0
		70	15	15	[7]
New York	Cauc.	77	9	8	-1
	Black	6	0	1	-1
	Am.Indian	1	0	0	0
	Other	2	0	0	0
		86	9	9	[2]
No. Carolina					
	Cauc.	57	11	11	0
	Am.Indian	1	0	0	0
		58	11	11	[0]

TABLE II-4 (cont.)

		Staff			
		Children	Current	"Match"	Staff Change to Match
Tenn.	Cauc.	83	11	10	1
	Black	4	0	1	-1
		87	11	11	[2]
Texas/TMC					
	Mex-Amer.	81	13	13	0
Utah	Mex-Amer.	11	0	3	-3
	Cauc.	68	18	15	3
	Oriental	1	0	0	0
		80	18	18	[6]
Non-Summative Subtotal					
	Cauc.	437	76	74	2
	Black	20	7	3	4
	Alaskan	12	2	2	0
	Am. Indian	86	12	15	-3
	Mex-Amer.	116	16	20	-4
	Polynesian	4	1	0	1
	Oriental	6	2	1	1
	Other	5	0	1	-1
	Puerto-Rican	1	0	0	0
		687	116	116	16
		TOTAL ALL 16 SITES			
	Cauc.	843	114	118	-4
	Black	201	33	28	5
	Mex-Amer.	155	20	22	-2
	Puerto-Rican	14	1	2	-1
	Alaskan	12	2	2	0
	Am. Indian	86	12	12	0
	Polynesian	4	1	0	1
	Oriental	6	2	1	1
	Other	5	0	0	1
		1326	185	185	[15]

Staff/Parent Age and Home Visitor/Parent Education Match

On the next two pages (in Tables II-5 and II-6) two sets of important matches are presented: the staff/parent age match and the Home Visitor/parent education match (as of 9/30 1973).

It is hypothesized that large discrepancies between the ages of the Home Start staff and Home Start parents would produce serious problems in communication (e.g. Home Visitors much younger than focal mothers). Table II-5 indicates a high congruence between the age of staff and the age of parents. Fewer than 10% of either Home Visitors or parents are below the age of 20 years, while approximately half of all Visitors and parents are between 20 and 30 years of age. For both groups roughly 25% are between 20 and 30, and 15% are over 40 years.

It is hypothesized that the education of Home Visitors should be higher than that of focal parents to create an appropriate "teacher-student" gap, but this gap should not be too great. Table II-6 indicates that 92% of the Home Visitors have at least graduated from high school and work with a parent group that has 78% of its membership with less than a completed high school education.

TABLE II-5

STAFF/PARENT AGE MATCH

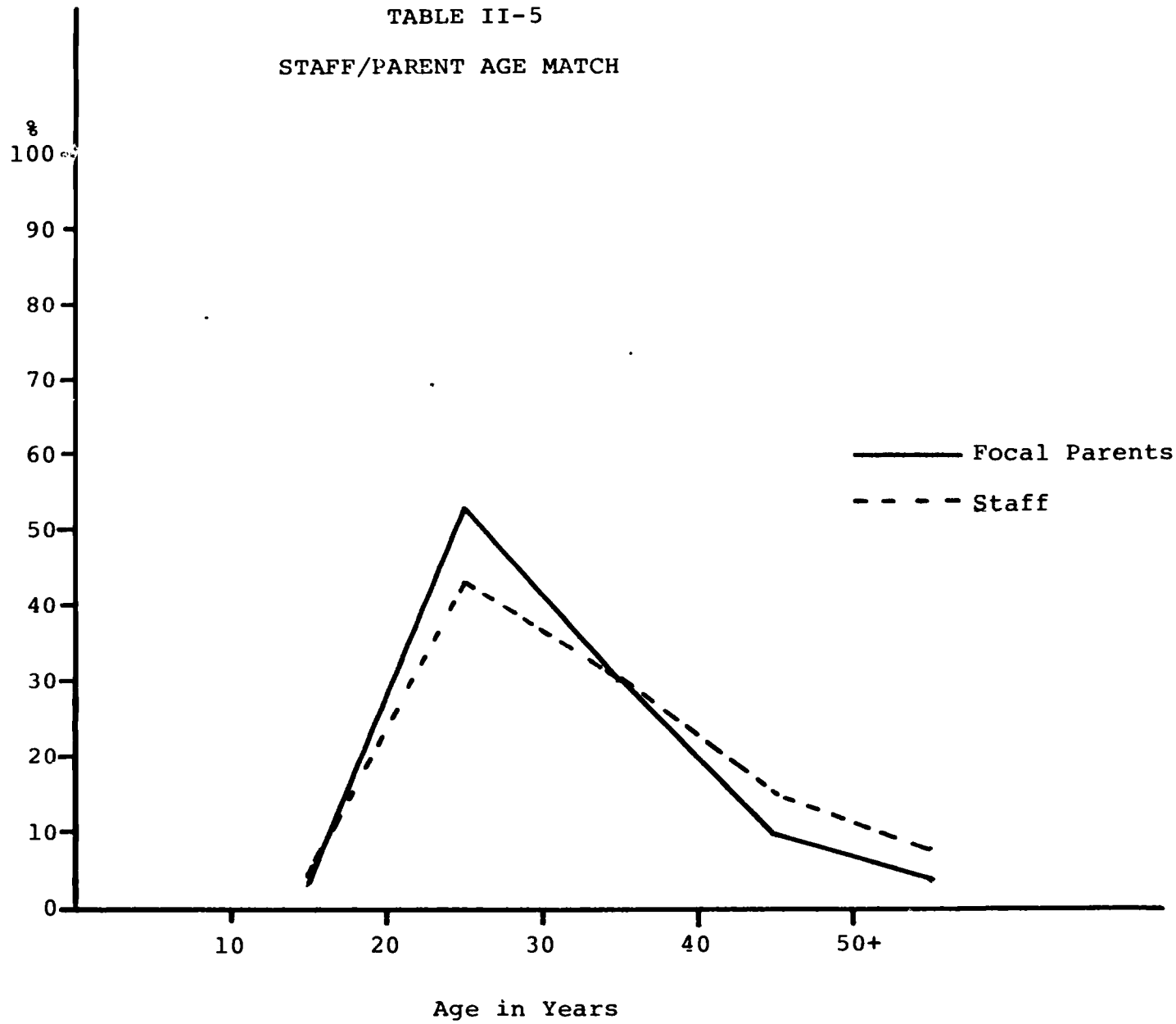


TABLE II-6

HOME VISITOR/PARENT EDUCATION MATCH

	Home Visitor		Parent	
	%	(Cum %)	%	(Cum %)
Bachelors Degree	9	(9)	1	(1)
Associate Degree	5	(14)	0	(1)
Some College	46	(60)	5	(6)
H. S. Graduate	32	(82)	16	(22)
Grades 0-12	8	(100)	78	(100)
	100		100	

CHAPTER III: TREATMENT

III. TREATMENT

Introduction

Our plan for evaluating the Home Start Program through an analysis of data collected in Fall 1973 and Spring 1974 details a logical structure of interrelationships among a large number of components of the Program. The home visit occupies a central position in this structure in that the Home Visitor serves as the fundamental link between Home Start families and the Home Start Program. Through weekly home visits the Home Visitor not only directly provides services such as educational materials and instruction to the focal child and parent or nutrition and health information to the parent, but she also coordinates and makes available through referrals a wide variety of other services associated with the Home Start Program. Given the central role of the home visits (an arrangement which makes Home Start unique among federally-funded education programs), it is important to understand what happens during these home visits to determine the present adequacy of this Home Start service delivery mode. The following two sections present an initial understanding of the Home Start treatment. First, we discuss an aggregate analysis of 53 home visit observations conducted during the Fall of 1973 by field staff from the summative evaluation team. In the second section we describe the referral services provided through Home Start treatment.

A. Observation of Home Visits -- Fall 1973 (For the Six Summative Home Start Sites)

The home visit is perhaps the most complex component of the analysis plan for a number of reasons. First, as previously mentioned, it provides the major interface between the Home Start Program and Home Start families. The inputs, processes, and outcomes tend to converge and become blurred at this point so that it is difficult to separate out the pure treatment aspects of the visit. For example, a highly skilled Home Visitor who has been trained in conducting home visits can be thought of as a particularly important input of the Home Start Program, yet at the same time one can consider the actual activities occurring during the home visit to be part of the processes involved in the Home Start treatment. Finally, the nature of the visits and their frequency can be seen as intermediate outcomes of site specific program characteristics and available funding.

A second major difficulty in analyzing the home visit results from the fact that any method of home visit observation is necessarily obtrusive. Unlike the input data which to a large degree is collected in a non-reactive manner from budgets and other supporting documents, the presence of the observer in the home is by definition a distorting factor during the home

visit. And, unlike the outcome data measurement scheme which is carried out under highly controlled and standardized conditions, the observation occurs in a variable home visit context so that one cannot measure the magnitude or the direction of possible distortion.

However, we have two pieces of information which suggest that the obtrusiveness and distortion created by the presence of an observer may not be as large as one might suspect. First, the home observation data were gathered by the site coordinators and community interviewers after they had previously visited the home on two or three occasions to collect the summative child and parent data. Thus, the observers were not new to the family, and visits were more informal than those observed in Spring 1973 by Abt Associates and High/Scope staff. Secondly, after the observed visit, the Home Visitor was asked by the observer, "Do you think my being along on this visit changed the way you, the parent, or the child acted?" Four of every five Home Visitors answered "No". While this information is subjective, it supports the hypothesis that interactions were not radically altered because of observation.

A third major difficulty in analyzing the home visit arises from the fact that the home visit has a large process component. The tone of the visit, the interactions, and the content of the interactions can and do change from minute to minute in a single visit and can vary from visit to visit. Since we can visit a particular Home Start family only once for observation purposes, we have no evidence that the observed home visit is particularly representative of all home visits made by the Home Visitor to the family during the year. One can respond to this heterogeneous nature of home visits in at least two ways. On one hand, one can recognize that the home visit treatment is a process that changes from minute to minute and from week to week throughout the year and respond by observing all home visits made by all Home Visitors. This is prohibitively expensive and the constant presence of an observer in the home would radically alter the nature of the treatment. A more reasonable response is to accept the continuous and changeable nature of the home visit treatment and to extract identifiable sources of variation which tend to be relatively unchanging over time. We hypothesize that the interaction patterns and activities of Home Visitors follow identifiable patterns and differences since the nature of the home visits was completely random and chaotic between Visitors and over time, one could not attribute outcome gains to particular manipulable aspects of the home visit. For example, one Home Visitor may consistently interact more often with the focal child while a second Home Visitor may concentrate on the Home Start parent. One Visitor may be particularly trained in health and nutrition; a second may have more training in preschool education. Our present analysis presents aggregated

home visit data; this by itself is an insufficient method of understanding the home visit treatment. In the next round of evaluation, we will have up to three (3) home visit observations and up to three self-reported home visit accounts for each summative Home Start family so that we will be able to understand the rich and complex variations of the home visit treatments across Home Visitors and over time.

A final difficulty in analyzing the home visit arises from the fact that the science of observing processes and interactions is not as well developed as the methods of obtaining input information such as cost and output data such as achievement test scores. One can fairly readily obtain estimates of high reliability and validity for these input and outcome components because methods have been developed and refined over the years by a large number of economists and psychologists. Estimates of reliability and validity for observation data are generally more difficult to obtain and are usually much lower. Questions of the consistency and reliability of the home visit observations must be addressed.

At the present time we have no measure of the reliability of the home visit observation instrument. As observations were conducted only after the summative monitors had made their site visits, no data on inter-observer reliability were obtained.[1] Secondly, realizing that the intra-observer reliability over time requires that the observer internalize a number of decision rules, preparation for the administration (using video tapes and role playing) was made a part of each of the six days of training. This allowed for discussion, clarification, and some instrument revision. However, the time between the training and use of this instrument frequently spanned two or three months so that even presuming an initial satisfactory internalization of decision rules during training, this time gap can be expected to have some negative effect on data quality. Fortunately, the time difference between the training and use of the instrument for this Spring's schedule of observations has been reduced.

The observation instrument must necessarily have high intra-observer and inter-observer reliability to be of any use in the Home Start evaluation. In addition, and more importantly, the instrument must collect valid information; the data from the observation must faithfully represent what is actually happening during the home visit. Since any observation method short of video-taping the home visit can obtain only an incomplete,

[1] Since additional people in the home could seriously increase the distortion, no future in-the-home monitoring of this instrument is planned. However, in the Spring we will study the intra-observer reliability of responses to hypothetical, simulated home visits performed during this Spring's training sessions and throughout the data collection period.

fragmented record of a home visit, it is important that at least the most salient features of the home visit be recorded. We feel that we have met this condition. On the following page the reader can find the Home Visitor/Family Interaction Observation Form. It is divided into five major areas. For each identifiable activity, the observer records (A) the interaction patterns and the mode of the interaction, (B) the content of the child or parent activity, (C) a verbal summary of the activity, (D) a description of the materials used in the activity, and (E) an indication of the dominant interaction mode. In addition, we have improved this instrument for the Spring observations by including questions on referrals and the continuity of the activities. Materials used in the training for this instrument can be found in the Appendix: Exhibit III-1.

In weighing the relative question of the difficulty of performing an adequate analysis of the home visit treatment with the absolute need to obtain quantifiable observation data on the primary Home Start treatment -- the Home Visitor in the home -- we present the following analysis of the 53 home visits. First, we present a general overview of the home visit. Secondly, we present an analysis of the most frequent interaction patterns. Finally, we suggest methods for determining the adequacy of the home visit treatment and discuss areas of strength and concern.

An Overview of Home Visits

There are three dimensions to a home visit overview. First, the "size and shape" of the typical visit can be described. Such variables as the actors, the length and frequency of visits, the number of activities per visit, and the location of the visit are included in this "size and shape" dimension. The second dimension of the overview summarizes the observation data on the characteristics of the individual activities which make up the visit. These activity characteristics include interaction patterns, modes of interaction, content, and material utilization. A third dimension of the overview describes the tone of the visits. Qualities of the participants such as alertness, sociability, and confidence are presented.

> The Size and Shape of the Visits. While this information may not appear as varied or interesting as the activity data presented later, questions of visit frequency and variety need to be addressed. The amount of sibling involvement is also described.

HOME VISITOR/FAMILY INTERACTION

OBSERVATIONS

Tester _____ Family _____

Visit #1 2

Program _____ Home Visitor _____

Activity #1 2 3 4 5 6 7 8 9 10 11 12 13 14

Time Started and Stopped: _____ / _____

Location: ___Living Room; ___Dining Room; ___Kitchen; ___Outside; ___Other

A.

HOME VISITOR			FOCAL CHILD			FOCAL PARENT		
Tells/Explains	___FP	___FC	Tells/Explains	___HV	___FP	Tells/Explains	___HV	___FC
Asks	___FP	___FC	Asks	___HV	___FP	Asks	___HV	___FC
Listens	___FP	___FC	Listens	___HV	___FP	Listens	___HV	___FC
Watches	___FP	___FC	Watches	___HV	___FP	Watches	___HV	___FC
Shows	___FP	___FC	Shows	___HV	___FP	Shows	___HV	___FC
Reads/Sings	___FP	___FC	Reads/Sings	___HV	___FP	Reads/Sings	___HV	___FC
Does	___FP	___FC	Does	___HV	___FP	Does	___HV	___FC
Ignores	___FP	___FC	Ignores	___HV	___FP	Ignores	___HV	___FC
Blames	___FP	___FC	Blames	___HV	___FP	Blames	___HV	___FC
Praises	___FP	___FC	Praises	___HV	___FP	Praises	___HV	___FC
Other	___FP	___FC	Other	___HV	___FP	Other	___HV	___FC
Uninvolved	___		Uninvolved	___		Uninvolved	___	

CIRCLE ONE CHECK FOR EACH PERSON

B.

Child Activities		Parent Activities	
___ Socializing	___ Self-Image	___ Socializing	___ Educ. Parent
___ Fine Motor	___ Environment	___ Health	___ Educ. FC
___ Gross Motor	___ Health	___ Nutrition	___ Educ. Sibling
___ Basic Concepts	___ Nutrition	___ Employment	___ Interpersonal Problems
___ Language	___ Other Home Start Activ.	___ Legal Services	___ Other Home Start Activ.
___ Musical	___ Uninvolved	___ Welfare & Other Services	

CIRCLE APPROPRIATE CHECKS

C. Summarize Activity: _____

_____

_____

D. Materials Used: ___ None; ___ Provided by Home Visitor; ___ In Home

Describe: _____

E.

___ HV ⟶ FParent	___ FC ⟶ HV	___ FP ⟶ HV
___ HV ⟶ FChild	___ FC ⟶ FParent	___ FP ⟶ FChild
___ HV ⟶ FP & FC	___ FC ⟶ HV & FP	___ FP ⟶ HV & FC
___ HV ⟶ Other & Group	___ FC ⟶ Other & Group	___ FP ⟶ Other & Group

CIRCLE ONLY ONE CHECK

The Actors -- During 61% of the visits the participants included only the Home Visitor, the mother and the focal child. In 35% of the visits a sibling(s) was also involved. The two remaining cases were Home Visitor, father, focal child; and Home Visitor, mother, father, focal child and sibling.

The Length of Visits -- The average visit length was slightly over one hour (64 minutes). The Spring average was 67 minutes.

The Frequency of Visits -- Previously collected interview data indicate most visits are conducted on a once per week basis.

The Number of Activities per Visit -- The typical visit had eight activities. The range of three to ten distinct activities accounted for 80% of all visits. The remaining 20% ranged from 11 to 18 activities. (The average length of an activity was 8.4 minutes.)

The Location of Visits -- Seventy-five percent of all activities occur in the living room. The kitchen (13%) and dining room (10%) are other visit locations. No activity was recorded for "outside" the home. It should be noted that the mechanism of scheduled observation has discouraged the movement of visit activity away from the home. During previous observations several Home Visitors have told field staff that they would have taken the family on some trip -- grocery shopping, doctor, etc. -- if the observer had not been present.[1]

In summary, the typical home visit happened weekly, lasted an hour, and usually involved the Home Visitor, the mother, and the focal child with a sibling present during one-third of the visits. During the visit three to ten activities usually occurred, and the visit generally took place in the living room.

Characteristics of the Individual Activities. As can be seen on the Home Visitor/Family Interaction Observation sheet (page 26), abundant recordings were made for each activity regarding interaction patterns, modes of interaction, content of the activities, and materials used during the activities. For each of these characteristics the observer was trained to begin by checking every item which occurred at least once during the activity. At the completion of the activity the dominant item for each characteristics or checklist box (mode, content,

[1] One visit observed at the local hospital, was not coded because of the unusual setting.

interaction pattern) was recorded. Thus, the observation data reflect both the dominant characteristics of each activity and those secondary characteristics which may seldom dominate individual activities and yet which form an underlying pattern for a large number of diverse activities. For example, it is by examining all of the items marked that we can determine whether the Home Visitor was also listening while being predominantly a talker. Also was the child watching while doing or the parent talking while predominantly listening and watching?)

Interaction Patterns[1] -- Exhibit III-2 in the Appendix (page 99) lists the dominant interactions observed during the Fall 1973 site visits. Column 1, indicates that the Home Visitor is the primary initiator of home visit interaction in 71% of all activities. The child does so in 16% of the activities and the parent initiates the dominant interaction in 13% of all activities. The Home Visitor divides her attention quite evenly between the parent and child.[2] When the parent is the initiator she divides her attention evenly between the Home Visitor and the child. The child is much more likely to initiate activity with the Home Visitor than with his/her mother.

Since the average visit contains approximately eight distinct activities, the fact that the Home Visitor usually initiates about six activities may be a reason for concern. If the Home Visitor is trained to respond to the needs of the focal child and the parent, one may suggest that the Home Start family should be the primary initiator of these activities. However, study of secondary interaction patterns (second column, Exhibit III-2) indicates that the parent and child are not typically passive but rather each initiates at least some of the interaction flow in one-half of all activities. The data presented here cannot completely resolve this problem. One can hope that the configuration of primary and secondary interactions demonstrates a well-prepared Home Visitor who can be flexible in responding to the needs of the Home Start family.

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[1] Dominant interaction refers to the interaction pattern on the bottom of the checklist which best describes the overall flow of interaction. The person on the left side of the arrow is the initiator of the interaction.

[2] When the average time for each type of interaction is taken into consideration, Home Visitor to parent interaction decreases from 32% of all activities to 24% of all visit time. Home Visitor to child interaction shows a corresponding increase from 30% to 33%. Implication of this shift will be analyzed later in this section.

Modes of Interaction -- Exhibit III-3 (See Appendix, page 100) presents the dominant and secondary interaction modes for six major interaction patterns. The dominant interaction mode for the Home Visitor is "telling/explaining" (see first two columns in Exhibit III-2) In 34% of all activities the Home Visitor is in a telling/explaining action mode to the parent and in 16% of all activities she is in this mode with the child.) The predominant parent mode is "listening" - 33% of all activities involve the parent as a listener. The dominant child modes involve "doing" or "listening", with 45% of all child dominant activities containing these two modes. These findings are in agreement with the previous statement that the Home Visitor is the primary initiator of activities.

When one adds the secondary interaction modes to the dominant modes (see parentheses, Exhibit III-3), one sees that the Home Visitor also "asks," "listens," "watches," and "shows" during at least half of all activities. In addition, the Home Visitor is also a "doer" with the child and a "praiser" of the child in one out of every four activities. The parents' secondary modes reflect at least moderate verbal interaction in addition to a dominant role as a listener. The data also show that the child is not "lost" in his/her activity but is often listening to, and watching, the Home Visitor.

Content of Activities -- A parent-related subject was involved in one-half of all activities (52%), and a child-related subject was involved for two-thirds of the activities (66%). As shown in Exhibit III-4 (page 101), the most frequent parent concern within parent-related activities involved eduction of the focal child (36%), other Home Start activities (12%), and nutrition (11%).

The educational content areas dominate child-oriented activities (one-half of all Home Visit activities and 75% of all activities in which the child was involved). Basic concepts are treated most frequently (22%), followed by fine motor skills (19%), and language (9%). This attention to child education is in keeping with the stated objectives of the Home Start Program.

Utilization of Materials -- Exhibits III-5 and III-6 appended on pages 102-103 shows that material utilization occurred during most child content activities (77%) and adult activites (70%). The nature of these materials usually involved the education of the focal child, and almost all of the materials (94%) were brought by the Home Visitor.

In summary, the characteristics of the individual activities profile a Home Visitor who initiates most interaction and divides her attention between parent and child. The Home Visitor is predominently "telling," while the parent "listens," and the child "does." Secondary modes indicate that the Home Visitor is also "listening"; and the child is "listening" and "watching" in addition to doing. The content of most activities involves education of the child using materials brought by the Home Visitor.

The Tone of the Visit. The third dimension of the visit overview concerns the interaction tone projected by each of the actors. While recognizing that this particular observation instrument relies heavily on the subjective judgement of the observer, the following descriptions are presented (see Appendix: Exhibit III-7, page 104).

The Home Visitors -- They are seen as alert, sociable, outgoing, involved, confident, and agreeable. Although they are very infrequently given neutral ratings on "calm, casual, and active," they are quite decisively a structured interactor.

The Parent -- Parents also project a positive tone. When compared to the Home Visitors, however, they are rated "less positive" by at least one scale unit on "sociable, outgoing, active, alert, and confident." As the scores for the Home Visitor and parent are skewed so decisively to the positive, these one-scale unit changes may indicate decisive differences between Home Visitors and parents in tone.

The Focal Children -- While usually projecting a positive tone, the childrens' mean scores move into the neutral rating interval on three bi-polar pairs: sociable/shy, talkative/quiet, and calm/excited.

To summarize, the Home Visitor projects a highly positive tone, the parent is still positive but is sufficiently less so than the Home Visitor to raise analytical concerns. The child frequently tends toward neutral ratings. However, it is unclear whether the child who is shy, quiet, or excited is to be negatively interpreted from a program evaluation point of view.

Determining the Adequacy of the Home Visit Treatment

The preceding overview quantifiably describes the major components of the home visits in terms of their size and shape, the characteristics of the individual activities, and the tone of the visits. However, it is important to move beyond this descriptive work toward more analytical statements about the adequacy of the home visit model. If previous research or program policy had established quantified standards or "success criteria" for the most effective distribution or rate of occurrence for these home visit components, then this overview data could quickly be compare to these standards,and evaluative statements about the home vis could be produced in a straightforward manner.

However, there is no such reality as the "ideal home visit". No expert can describe what a Home Visitor, a parent, or a child should ideally be doing at any single point in time. Beyond vague statements that effective interaction requires a variety of methods and patterns and that active involvement is more desirable than uninvolvement or passive involvement, there is little valid theoretical research that can be directly related to the home visit experience.

One possible strategy for determining the most effective interaction patterns is to evaluate the home visit in a strictly empirical manner. One can try to locate those types of interaction patterns which are "statistically related" to positive gains on the child and parent outcome measures and suggest that these patterns are the most effective components of the home visit. We will be able to do this with next year's data because there is a more comprehensive plan for collecting observation data that will allow us to match home visit interaction patterns with outcome data on a per family basis. However, this future statistical analysis should be placed in a coherent theoretical framework so that any major findings on positive outcome gains can be translated into reasonable program policy recommendations.

The following section suggests a tentative method for arriving at a theoretical framework to evaluate the adequacy of one aspect of the home visit treatment. As previously noted, the average home visit lasts approximately one hour and occurs once a week. Given the fact that the focal child receives only one hour of direct treatment per week from the Home Visitor and given that one of the major objectives of the Home Start program is to increase the parent's ability to select and provide services for her child, one should reasonably hope that the parent can be trained to continue the Home Start treatment in the absence of the Home Visitor. In other words, the one hour of direct treatment provided to the child each week by the Home Visitor should be expanded and continued through the training of the mother. To test this statement, we first

present the results of 24 Home Visitor interviews which describe how they view the effectiveness of the home visit. Secondly, we present a description of how the Home Visitor interacts with the parent and with the child. Third, we describe how the parent interacts with the child. And finally, we take these descriptive data and place them in a theoretical framework which allows us to make tentative judgements as to the adequacy of the treatment.

Home Visitor Interviews. During the fall site visits, four Home Visitors at each of the six summative sites were interviewed about how they worked with parents, especially concerning what particular parent skills they were trying to develop and how they knew that the Home Visitor's actions were effective. Using probing questions, the interviewers sought to discover how Home Visitors felt about the matter of transferring skills to the parent.

Before summarizing those interviews it is important to state why these data are not treated as a primary data source but instead are used to give only a second perspective. First, interview data are generally less reliable than direct observation data. Secondly, and most important to this discussion, the question of intentionality is not central to the question of what actually happens during the home visit. While the intentions of the staff are quite important when asking how best to support staff development, these intentions say little about the actual treatment delivered at any point in time. For this we need direct observation.

Results of the interviews are summarized below:

1) One half of parent emphasis is educational. The remainder is mostly psychological/social.

2) Home Visitor emphasis varies considerably across sites. The emphasis in Arkansas is mostly psychological/social while in Texas-Houston it is mostly educational.

3) When asked how they expect to accomplish skill development in parents, Home Visitor responses were coded as follows:

   - "I show her then have her do it" (32% of responses)
   - "I tell her it's important" (20% of responses)
   - "Based on written information we make plans" (19% of responses)
   - "We do it together" (10% of responses)
   - other modes (19% of responses)

4) When asked how they know whether they had been successful, Home Visitor answers were classified as follows:

   a) I see the effects of her actions (54%)
   b) I see her do it (16%)
   c) I don't know (15%)
   d) She tells me (14%)

5) As for content areas, action modes such as "I show her and have her do it," are emphasized most frequently for developing teaching skills, working more with the child, and child rearing. In the health and hygiene area, "I tell her it's important" is the most frequent responses.

From these responses, one can see that the transfer of skills is seen by the Home Visitors as resulting from a dynamic interaction between Home Visitor and parent (see result #3) which is clearly effective. In 70% of the responses to #4, the Home Visitor states that she can see the parent acting effectively. These statements begin to suggest theories of how Home Visitors can help parents to develop effective skills. It is important to determine if these intentions are validated by direct observations of the home visits.

Observations of Home Visitor to Parent Interactions. Table III-1 presents the interaction modes and subject content of the Home Visitor's interaction with the parent. When the HOme Visitor is interacting primarily with the parent, most of the interaction is verbal in nature, and the child is usually uninvolved. The Home Visitor is not a one-way communicator but is also listening, asking, watching, and showing. However, the lack of emphasis on showing and the complete lack of doing as a dominant mode raises questions on the interaction pattern's appropriateness for skill development of the mother. The lack of praising as a secondary mode is also discouraging; further information on these secondary modes are displayed in the Appendix Exhibit III-3 page 100.

The content of the interaction varies over a wide range of subjects; this range of content areas reflects the variety of potential needs for Home Start services. These results show a close match between the intentions of the Home Visitors and their actions.

Observations of Home Visitor to Child Interactions. Exhibit III-4 (page 101) shows that the education of the child is an important subject area in the Home Visitor's interaction with the parent. Table III-2 (page 35) demonstrates that the education of the child is also the primary subject content of the Home Visitor's interaction with the child. In four out of every five cases, this is the primary content of the interaction. A high level

TABLE III-1

Dominant Interaction: HOME VISITOR TO PARENT

(32% of All Activities
24% of All Visit Time)

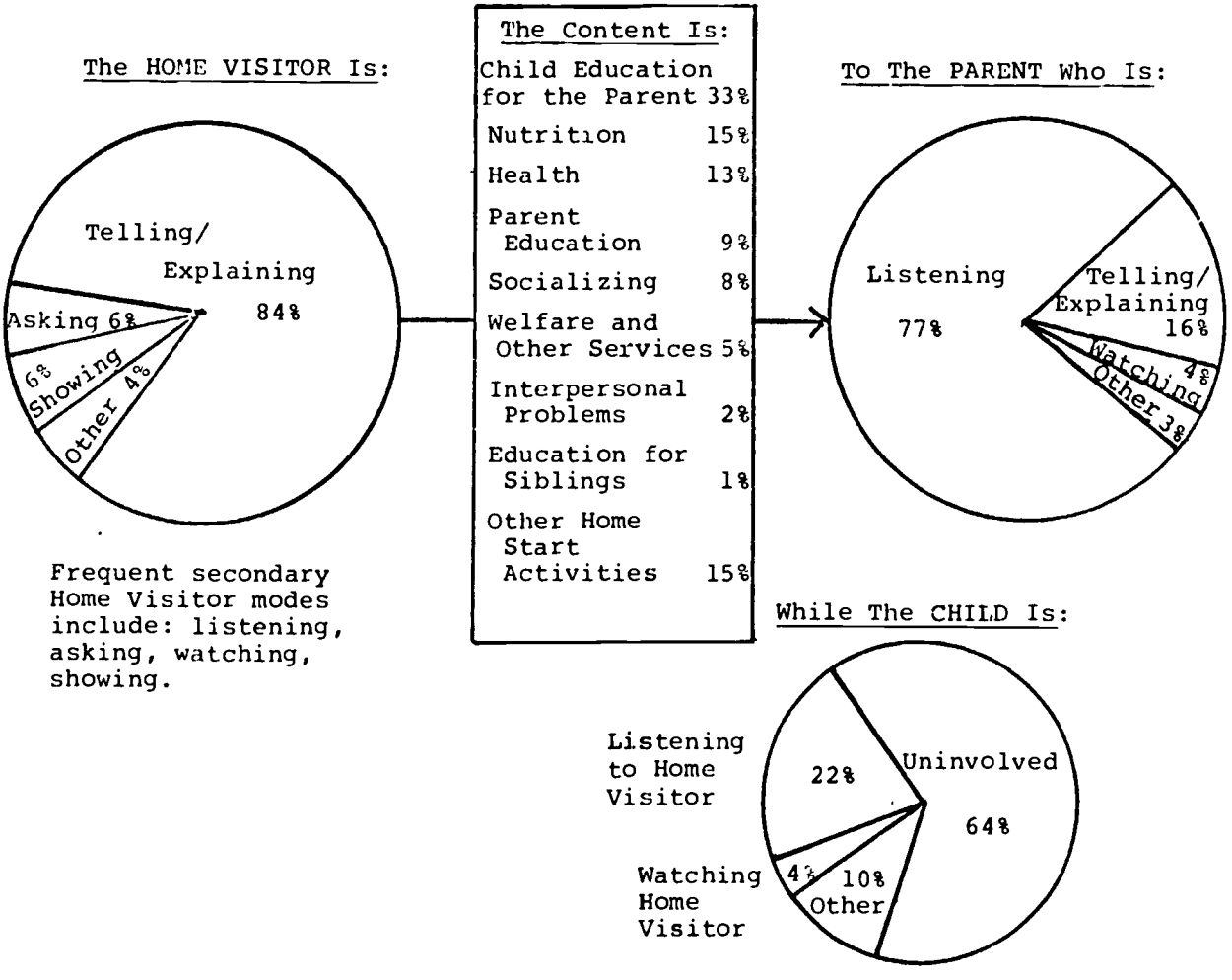
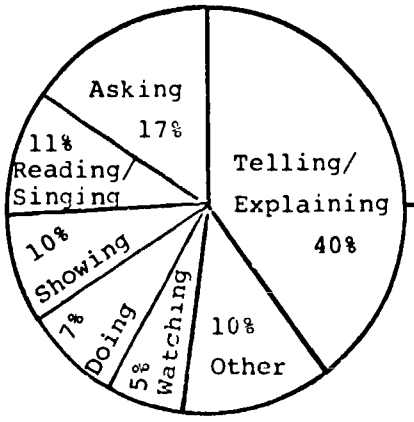


TABLE III-2

Dominant Interaction: HOME VISITOR TO CHILD

(30% of All Activities
33% of All Visit Time)

The HOME VISITOR Is:

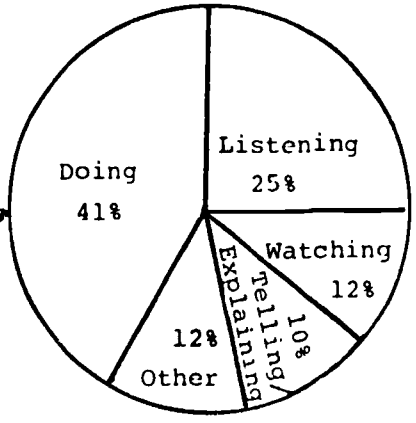


Frequent secondary Home Visitor modes include: watching, listening, asking, showing, doing, and praising (24% of interactions toward the child.

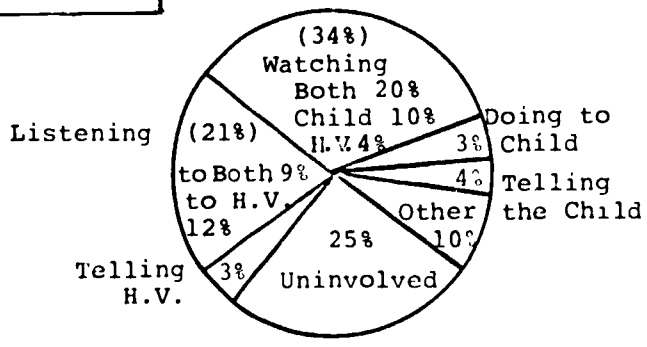
The Content Is:

Education of the Child Including:	
Basic Concepts	35%
Fine Motor	28%
Language	12%
Musical	4%
Nutrition	5%
Health	4%
Self-Image	3%
Socializing	3%
Other	6%

To The Child Who Is:



While the PARENT Is:



of activity is evidence in these interactions. In contrast with the Home Visitor to parent interactions, there is a much greater range of interaction modes and a greater involvement of the third party (the parent is uninvolved in only 25% of the activities compared with a 76% non-involvement of the child in the Home Visitor to parent interactions). The child is doing things or listening to the Home Visitor while the Home Visitor is often reading/singing, showing, doing, and praising in addition to the telling/explaining mode which dominated the Home Visitor to parent interactions. The parent is often watching and listening to what is happening when she is involved.

Observations of Parent to Child Interactions. The previous two sections have demonstrated four major points. First, they show that the actions of the Home Visitors tend to validate their intentions. Secondly, the Home Visitor to parent interactions are almost entirely verbal in nature with very little child involvement. Thirdly, the Home Visitor to child interactions show a much greater variation in activity mode. Finally, the parent is at best only a listener or watcher in either of these two interaction patterns.

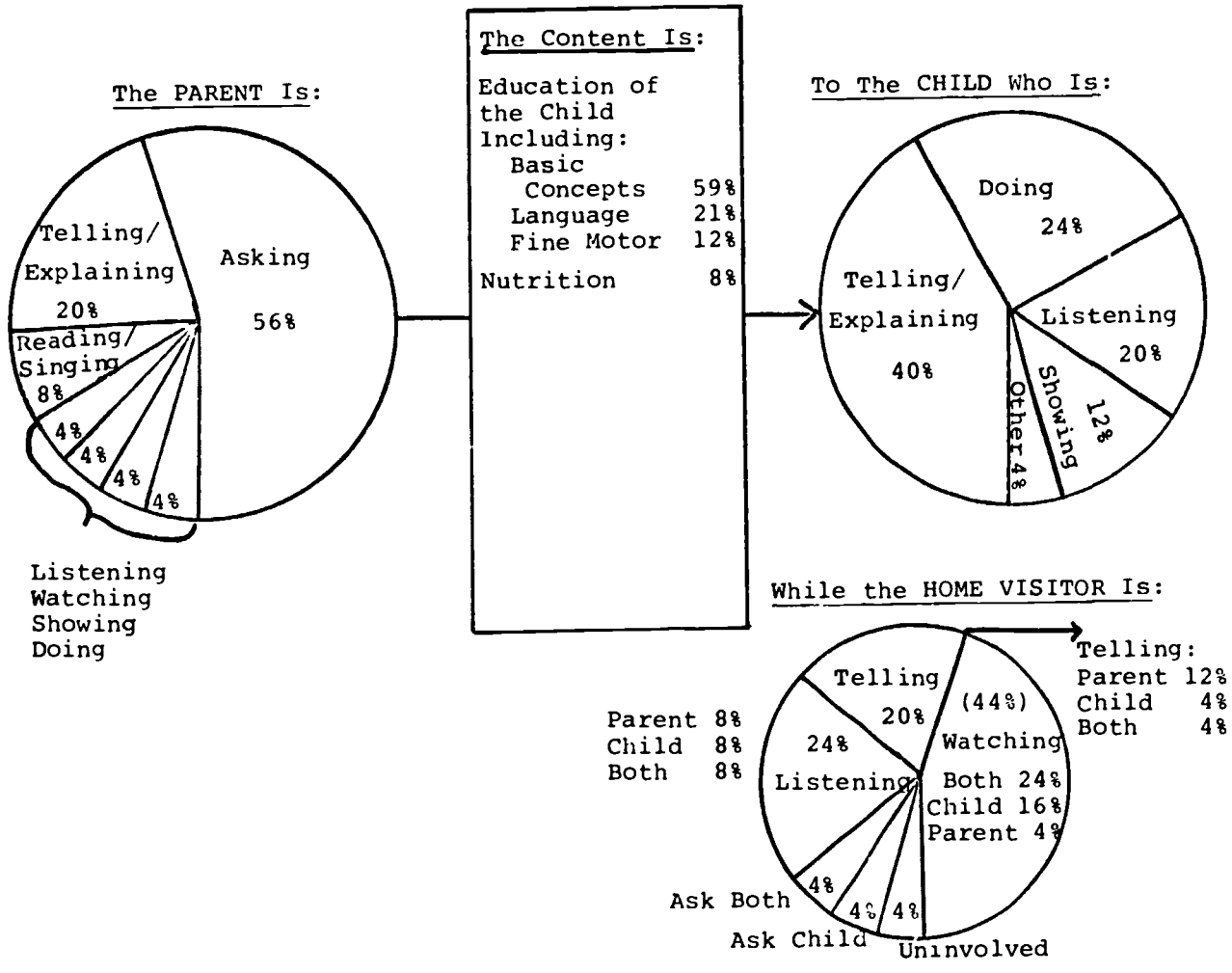
These two interaction patterns comprise the majority of all activities. Given that no other dominant interaction pattern occurred in more than 39 out of the total of more than 400 activities, we feel that we do not have a sufficiently large data base to report the rest of these patterns. However, it is important to present the parent to child interaction pattern to test the intentions of the Home Visitors in transmitting skills to the parent. It is important for the reader to note, however, that a parent to child dominant interaction occurs only in about 6% of all activities or about once in every two home visits.

Table III-3 (page 37) displays the content and mode of interactions in which the parent and child are dominant actors. There are four points to make about this information. First, the content of the interaction is almost exclusively educational in nature. This finding parallels the results of the Home Visitor to child interactions. Secondly, the first dominant parent mode is "asking" and the second dominant mode is "telling/explaining." These two modes are in reverse order in the Home Visitor to child interactions. Thirdly, in response to the "asking" mode of the parent, the child is much more often in a "telling/explaining" mode than in the Home Visitor to child interactions with a corresponding decrease in "doing" behavior. Finally, the Home Visitor is almost constantly involved as a third party in the interactions with dominant behaviors of "watching," listening," and "telling." It is important to note that the parent and Home Visitor use different tactics in their interactions with the child and the child's actions reflect these differences.

TABLE III-3

Dominant Interaction: PARENT TO CHILD

(6% of All Activities
5% of All Visit Time)



A Framework for Judging the Adequacy of the Home Visit Treatment

The previous discussion of the Home Visitors' conception of the home visit and the descriptions of three interaction patterns involving the Home Visitor, the parent, and the child can be analyzed to determine the adequacy of the home visit treatment. The following major statements can be made about that treatment.

- Focal child treatment appears satisfactory. Home Visitors are engaging the child in a variety of educational activities. Materials are almost always used. The Home Visitor occasionally reinforces the child's efforts with praise. In brief, the child appears to be involved in a rich -- although fairly brief -- situation. If one presumes that some of these activities recur in the home between weekly visits, then it is credible from a theoretical point of view to predict measurement of growth on the appropriate summative instruments.

- Sibling treatment is limited. Although siblings are involved in one third of the visits, it is not possible to record their individual interaction during each activity. The limited amount of direct treatment time for the focal child (one half hour to 45 minutes per week) already encourages the presumption that the educational activities introduced by the Home Visitor must recur in the home during the remainder of the week. As the siblings are involved in only one third as many visits as focal children, the question of adequacy of treatment for siblings rests wholly upon the determination of whether the focal parent internalizes the Home Visitor's actions and repeats them upon her own initiative.

- The amount of parent treatment appears to have increased but some concern over adequacy still persists. Home visit observations conducted in the Spring of 1973 (See Interim Report III, Program Analysis Volume, pp. 30-31) recorded almost twice as much Home Visitor to child interaction as Home Visitor to parent interaction. This lack of emphasis on adult interaction was identified as an area of major concern. Report III went on to raise the question of whether the parent could not be afforded sufficient opportunity to acquire skills by being a secondary participant during the extensive Home Visitor to child interaction.

Report III could not answer this question positively for two reasons. First, the parent's involvement during Home Visitor to child interaction appeared too passive to infer that the parent was internalizing the skills being displayed. Second, Home Visitor to parent interaction was too exclusively verbal in nature to assume transfer of practical skills.

Inspection of the Fall 1973 data displayed above indicates that the amount of Home Visitor to parent interaction has increased from approximately 22% of all activities to 32% of all activities so that Home Visitor to parent and Home Visitor to child interactions now occur with the same frequency. While it is here recognized that the observational instruments and techniques involved are open to fairly large errors in measurement, the national Home Start Program staff shares the concern over lack of parent emphasis, and has been stressing the need for increased parent emphasis when it interacts with local programs either at national conferences, during site visits, or in on-going correspondence. In light of the program staff's positive action, it is reasonable to assume that the Fall data reflect real impact on the implementation of home visits.

Despite this quantitative increase in the frequency of Home Visitor to parent interaction, some concern over adequacy of this treatment still persists. First, when the length of the typical Home Visitor to parent interaction is taken into account the amount of home visit time devoted to this interaction decreases to 24% of total visit time. (Home Visitor - child time is 33%.) Second, Report III's other concerns persist (i.e., the Home Visitor to parent interaction is too exclusively verbal to infer skill transfer, and the parent's involvement during Home Visitor to child interaction is too limited to presume that the parent is internalizing the skills being displayed).

This last question, "Can one expect that the parent is internalizing the skills being displayed," is so central to ascertaining the adequacy of the parent treatment that this report will seek to describe on the next few pages a framework for addressing this question in more detail. For want of a better term, we shall ask, "Is modeling occurring (for the parent) when the Home Visitor is interacting with the child?" To answer this question we have abstracted the following guidelines on modeling from a recent article by Glaser and Resnick, "Modeling and Observational Learning," (Annual Review of Psychology, 23, pp. 256-258).

1) Definition: Modeling or observational learning is the process of acquiring new responses by imitating or simply observing the behavior of another individual.

2) Complex behaviors are developed primarily by the combination of components already in the learner's repertoire.

3) Through modeling a generalized class of behaviors rather than specific direct imitation the model can be learned.

4) The extent of learning depends on the learner's level of attention to the model and on the degree to which the model's performance makes the characteristics of the behavior to be learned highly [distinguishable].[1]

5) When reinforcement plays an indirect role in learning, performance of new behaviors is governed by the laws of reinforcement; the individual is more likely to perform the new behavior when he is reinforced for doing so, or expects to be so reinforced. This reinforcement can be vicarious, that is, the observer can be shown what to do and observe the effects of the performance of others.

Is the Home Visitor a modeler to the parent? Applying the home observation data to a simplification of the above guidelines, the following interpretations can be made:

- Home Visitor interaction is part of a parent's repertoire in the fundamental sense that the visit occurs in the parent's home and that the parent's own child is usually the focal "material" of the modeling activity. Although this observation appears so self evident and may be taken for granted, this does not diminish the contribution that the home instruction may be making to this learning process.

- The repertoire issue has one negative dimension in this case. Most materials used during the visit are brought by the Home Visitor rather than supplied from the collection or repertoire of things in the home.

- The fact that modeling involves more than direct imitation of the model leaves open the possibility that parents are still learning even though the observation data do not tend to document a rigid "I do it, you do it" teaching style by the Home Visitor.

- The learning level of attention is important. The observation data indicate that there is room for improvement on two counts. First, as illustrated

[1] Glaser and Resnick use the term "discriminable." However, that term has such an unacceptable social connotation, the substitution with the synonym "distinguishable" is made.

in the Home Visitor to child diagram, the parent is fairly passive during Home Visitor to child interaction. Second, the measurement of the participants' tone suggests that the parent (while being rated positively) is notably less sociable, out-going, confident, and active than the Home Visitor. In 40% of the visits the parent received a neutral or negative rating on the confident/nervous pair.

- It is difficult to determine whether the Home Visitor's actions are highly distinguishable. The fact that the Home Visitor uses a variety of interaction modes including explaining, showing, doing, and praising would indicate that efforts to clarify and draw attention to specific actions is occurring. The highly "structured" rating given to most Home Visitors could also indicate a successful effort to introduce a specific set of distinguishable activities.

- As for reinforcement or the expectation of reinforcement, the observation data indicate that the Home Visitor is not frequently praising the parent. However, if the parent can internalize a skill and be reinforced by experiencing the visible success that the Home Visitor is having in working with the child, then it is reasonable to assume that a moderate amount of such reinforcement is occurring.

In summary, the observation data are ambiguous on each of the modeling guidelines: the home and child are part of the parent's repertoire, but the materials are not; the parent may be "paying attention" but is not actively involved; there is considerable evidence that the Home Visitor is conducting distinguishable activities but little indication that the parent is assisted in so distinguishing; and there is some reason to believe that the parent may share vicariously in the successes of the Home Visitor but very little indication that the parent is being drawn to conduct these activities herself and thereby experience direct satisfaction and reinforcement.

Thus, if the adequacy of the parent treatment rests on "modeling", significant parent growth, while possible, cannot be assumed to occur. And if one were to say that modeling is a necessary precondition for continuity of child treatment, one would be supported in predicting child gain only in the educational content area, for there is little activity occurring in other areas such as health and nutrition.

B. Referrals Made/Services Received

The Home Start model of weekly contacts with the participating family may be an ideal method of delivering referral services for a number of reasons. As the Home Visitor is in the home so frequently, she is in a unique position to assess the changing needs of the family. Due to her on-going contact with a limited number of families she also is able to acquire the deeper understanding of the family's attitudes and perceptions towards various professional care givers. Thus, she is able to match individual families with a variety of service options in a more effective manner. In addition, the Home Visitor can coordinate a number of Home Start resources which can assist the family in actually utilizing the services identified. Finally, the Home Visitor can follow-up on the referral and encourage the family members to continue the types of preventative behaviors often prescribed as part of the treatment.

From the beginning, Home Start planners have seen the referral system as central to the success of Home Start. The economic constraints which were a necessary aspect of setting up a comprehensive service system for a large number of families meant that the projects could not be expected to allocate any sizeable amount of their budgets for the direct purchase of services. Further, the involvement of the parent in an on-going utilization of community resources is an intentional aspect of the Home Start system. It is through the practice of actual utilization that the parent is expected to grow in her own role as the primary care provider for her children.

The Size and Shape of the Referral System

Before reviewing the analysis of our primary data source on referrals -- the Information System, the reader is referred to the cost section of this report. Staff-time analysis indicates that the six summative sites spend only a modest amount of their salaried resources for referral related activities: four percent for referrals as such, four percent for transportation (usually related to referrals,) and four percent for agency-wide coordination.

The reader can also inspect the analysis of levered resources for the six summative sites. Although these projects have been moderately successful in securing additional resources, it must be noted that the bulk of these resources supported indirect services such as administration and occupancy.

For several reasons the Information System data for the quarter ending September 30, 1973, should be interpreted using some amount of restraint. First, since the typical program has approximately forty new families each Fall, the system is seasonal in nature. The totals of "screenings", therefore. will be exceptionally high during the Fall and Winter quarters. Secondly, the value of a referral is ambiguous beyond a certain point; that is, there should come a time when the parent becomes a self-initiator in the utilization of community agencies. An information system could thus be reflecting project success by reporting lower referral totals. The Information System itself is not intended to be so sophisticated as to interpret such a subtle nuance.

Finally, a good referral reflects individual need. As the Information System must necessarily group such data, it can not be used to reflect the appropriateness of the referral. In response to the analytical need for individual family referral data, all home visit observations during Spring 1974, will record any referral activity which takes place in the home during the visit. When these data are statistically integrated with other indicators of family need, some assessment of the responsiveness of the referral system may be possible. In addition, Parent Interview data can also be analyzed for subjective and objective indications of responsiveness.

Within the framework of these constraints, the following portrait of the Home Start referral system -- September 1973 -- is presented to give the reader an overview of the size and shape of the system. Emphasis will be placed on the types of services provided and on the recipients of the services.

TABLE III-4: REFERRALS MADE/RECEIVED BY HOME START SITE

	Referrals[1]		Total Referrals[2]		Family Referrals[3]	
	Made	Received	Made	Received	Made	Received
Alabama	11	3	.02	.005	.14	.04
Alaska	149	97	.67	.43	5.73	3.73
Arizona	219	157	.58	.42	1.13	2.24
Arkansas	157	162	.50	.51	.28	2.35
California	34	29	.17	.14	.83	.71
Kansas	91	14	.26	.04	1.32	.20
Massachusetts	158	58	.30	.30	1.04	1.04
Nevada	32	29	.15	.14	.49	.45
New York	14	14	.05	.05	.23	.23
North Carolina	312	199	1.47	.94	5.38	3.43
Ohio	281	281	.96	.96	4.26	4.26
Tennessee	303	263	1.00	.87	3.99	3.46
Texas - Houston	206	149	.73	.53	3.59	2.57
Texas - TMC	39	241	.09	.55	.49	3.05
Utah	3	3	.01	.01	.04	.04
West Virginia	122	122	.14	.14	.78	.78
TOTAL	2,033	1,821	.38	.34	1.84	1.65

[1]Based on data obtained from the Home Start Information System for Quarter II, Year II (July 1 - September 30, 1973).

[2]Total based on total number of children (age 0-17 years) plus total number of focal parents.

[3]Total families enrolled at end of quarter.

Major Dimensions of Referrals

Variation Across Sites. The table on the preceding page displays the number of referrals made and the number of services received at each of the 16 Home Start sites. Inspecting the first two columns, one can see a large site to site variation in the number of referrals made and in the number of referrals received. The number of referrals made ranges from a low of 3 to a high of 312 with an average number of 127 per program. However, this wide variability makes the average number per site a somewhat misleading figure. The number of referrals made at each of the seven least active sites is always less than 60 while the number made at each of the five most active sites is greater than 200.

The number of referral services actually received (column 2) shows a similar wide variability across sites. Two sites delivered only 3 referral services during the quarter while in each of three other sites the number of referrals received exceeded 240. The average number of referral services received per site was 114.

In general, the site to site variations in the number of referrals made and the number of services received closely parallel each other. However, two of the sites produce interesting contrasts. The Kansas Home Start site made a total of 91 referrals during the quarter, yet these referrals produced only 14 services received. This result is reversed in the Texas-TMC Home Start site. Although only 39 referrals were made at this site, they resulted in a total of 241 services received, most of which involved lab tests and immunizations.

These variations across sites are partially confounded with the size of the sites. To standardize the referral data, we have presented the referral data on a per capita and per family basis in the last four columns of the table. The base for columns 3 and 4 is defined as the total number of focal parents plus the total number of children less than eighteen years of age. Since the Home Start program is designed to provide necessary referral services for the entire family, we feel that this adjustment is necessary. Columns 5 and 6 present the referral data adjusted for the total number of families enrolled in the sites at the end of the quarter.

From these adjustments one can see that referrals are not necessarily related to the size of the center. For example, Alaska, a very small center (26 families enrolled) has approximately 50 times the number of referrals as Utah, a somewhat larger than average site (73 families enrolled). Therefore the Alaska Home Start site is producing 139 times as many referrals on a per family basis as the Utah Home Start site.

Content of the Referrals. The large site to site variation is referrals also hold within the content areas of the referrals. Table IV-5 (page 47) presents these results. By far the greatest number of successful referrals are in the Health area (59% of all services received). The referrals for Education, Psychological/Social services, and Nutrition comprise the rest of the total. However, some sites show deviations from this general pattern. For example, in the Arizona Home Start site, every one of the 157 successful referrals was made in the health area. Contrast this to the Ohio situation in which only 35 of the 281 successful referrals were in the Health area while 236 dealt with educational services.

These differing referral content emphases pose important policy questions. The large variation suggests that these differences result from differences in available services across sites. Site A may have many more successful referrals in Health than the number in Site B not because the client health needs are greater in Site A but because Site A is more successful in levering health resources and services. The fact that certain Home Start centers are less than successful in making referral services available suggests that some improvements can be made in certain content areas. This table indicates possible areas of impovement.

The Recipients of the Services. As can be expected, the emphas is on providing referral services for the focal child. However a large number of focal parents and related members of the families receive referral services. Table III-6 (page 48) lists the recipients of each type of successful referral. One can see that focal children are the primary recipients of Health services; the focal parents are the primary recipients of Psychological/Social and Nutrition services; and all three groups equally participate in the Education referral services. During the analysis of next year's data, we should be able to determine if this distribution of services closely parallets the distribution of actual referral needs for each content area and group.

TABLE III-5: SUBJECT AREAS OF SUCCESSFUL REFERRALS BY SITE

	Health	Education	Psych./Social	Nutrition	Total
Alabama	3	0	0	0	3
Alaska	30	27	3	37	97
Arizona	157	0	0	0	157
Arkansas	84	10	46	22	162
California	17	2	9	1	29
Kansas	4	3	7	0	14
Massachusetts	15	18	10	15	58
Nevada	0	1	23	5	29
New York	3	9	2	0	14
North Carolina	136	30	5	28	199
Ohio	35	236	10	0	281
Tennessee	258	0	5	0	263
Texas-Houston	72	33	39	5	149
Texas-TMC	231	1	8	1	241
Utah	0	1	2	0	3
West Virginia	43	4	41	34	122
Total	1088 (59%)	375 (21%)	210 (12%)	148 (8%)	1821 (100%)

TABLE III-6: RECIPIENTS OF REFERRALS BY CONTENT AREA

	Focal Child	Focal Parent	Other	Total
Health	827	120	141	1088
Education	122	123	130	375
Psych./Social	24	158	28	210
Nutrition	41	92	15	148
	1014	493	314	1821
	(56%)	(27%)	(17%)	(100%)

CHAPTER IV: COSTS

IV. COSTS

Introduction

The analysis of Home Start program costs presented in this chapter is largely descriptive. A strict analytical approach is excluded by current data limitations and especially by restricting the sample size to six projects. However, the tentative analysis of several important issues associated with program cost and resource allocation suggests that useful insights can be derived from a more focused analysis of data to be gathered during the next round of project visits. Major issues to be addressed are identified in Chapter I.

The cost of providing Home Start services is important to the Federal policy-maker for three major reasons. In the first place, cost information is required to assess the resource requirements (inputs) for a national program. These resource requirements can be expressed in three ways: cash costs to OCD, resources levered by the local projects, and finally, total monetized value (OCD dollars plus levered resources) of services provided. Secondly, an analysis of the distribution of these resources across the different functions carried out by Home Start projects provides a basis for approaching the issue of the operating efficiency of service delivery. Alternative patterns of resource allocation across common functions are expressions of the different methods (or processes) used. It is possible -- although by no means certain in view of external factors affecting programs -- that differences in allocation patterns may reflect differences not only in local program objectives but also in program efficiency. Clearly, for example, administrative costs which exceed 30% of total program value must be examined closely to determine whether such heavy concentration results in additional meaningful service delivery or unnecessary administrative overload. Finally, if appropriate ranges for unit costs can be determined, information on the number of eligible families can be used to estimate the cost implications of expanding the program from its present scope. The table below summarizes overall results of this descriptive analysis of resources and average unit costs for the six summative sites.

TABLE IV-1: SUMMARY OF PROGRAM RESOURCES AND UNIT COSTS

	Total Federal $*	Total Levered Resources	Total Value
Average Monetized Inputs	$ 85,156 (64%)	$ 47,838 (36%)	$133,011 (100%)
Average Unit Costs Per Child 0-5	$ 535 (64%)	$ 311 (36%)	$ 836 (100%)

* Totals are averaged across the six sites and therefore are not additive.

Given the framework in which the present analysis takes place, the question of efficiency cannot be addressed explicitly. This occurs primarily because output descriptors for the project do not allow for adjustments for qualitative differences (see page 65). However, the following analysis of cost data for the six projects visited in the Fall of 1973 provides a basis for developing a set of hypotheses to delineate further analysis and data requirements.

The results of four analysis components are discussed in this chapter. Section A deals with Home Start Costs and examines resource allocation patterns for the six projects across functional categories. Findings concerning the performance of the six projects in terms of levered resources are summarized together with an assessment of the impact of levered resources on the relative distribution of OCD dollars. Unit costs are then presented in terms of resources and functional breakdowns. Section B summarizes similar cost data for four Head Start projects.

A. Home Start Costs: Resource Allocation

Twelve functional categories have been used to describe the complete spectrum of activities carried out by the Home Start Projects. In examining the distribution of project costs across functional categories several cost concepts are addressed:

- total OCD (cash) costs per functional category
- total levered resources per functional category
- total value per functional category, including OCD costs and levered resources

An across program comparison of the resulting distributions will allow for specific conclusions about the variability in expenditure patterns, the variability in levered resources patterns, the volume of resources levered compared to the paid staff effort required to capture those resources, and finally, an analysis of the impact of levered resources on the allocation of OCD funds among functions.

Allocation of OCD Costs

Table IV-2 presents a graphic description of the distribution of OCD salary costs across functional categories.[1] The averages for all six projects are shown by the figures next to the bars, while the shaded portions indicate the ranges of resource allocation across projects for each category. The upper edge of the bars describes the highest percentage of OCD salary costs in each functional category for any of the six projects.

An inspection of this graph indicates that the most important functional category is the provision of educational services to Home Start families. On the average, more than one-fifth of total cash costs are allocated to this function. The second most important category is administration, which accounts for 18 percent of total costs. This latter figure lies within an acceptable range,[2] although as can be seen in the next section, the percent of total resources allocated to administration rises significantly when levered resources are added to costs.

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[1] Since salaries (plus fringe benefits to staff) account for approximately 82% of total OCD funds spent by the six projects, a clear picture of the allocation patterns can be obtained by examining the functional distribution of OCD salary costs only. It is clear that salaries serve here as a descriptor of the most important resource of the program: its staff.

[2] For example, in several OEO-funded projects, the allowance for administration amounted to 25-30% of the local grants.

An analysis of relative range provides an indication of the consistency with which a given function is treated across projects.[1] A high value indicates considerable variability across the six projects, while a low value implies that the relative importance of that function is similar from one project to another. The analysis indicates that there is considerable variability among projects with respect to the functions of Securing Levered Resources and Transportation of Children. On the other hand, there is substantial regularity across programs in the treatment of the Public Information functions and Staff Training and Travel (from and to homes of participating families). These differences reflect regularities and problems across projects. While functional categories with low relative ranges are treated fairly consistently, those with high values suggest that projects differ more with respect to access to resources outside of the program.

The first six functional categories can be regarded as "indirect" services (Administration, Securing of Levered Resources, Public Information, Staff Training, Occupancy and Travel). They are the necessary inputs into the delivery of direct services, but are not immediately consumed by families in the program. These "indirect" activities account for 52% of total salary expenditures in the six projects. The breakdown of salary costs between "indirect" and "direct" services shows considerable variation, with "indirect" services receiving between 39 and 69 percent of the staff resources. The ranges shown in Table IV-2 are indicative of this variation among projects.

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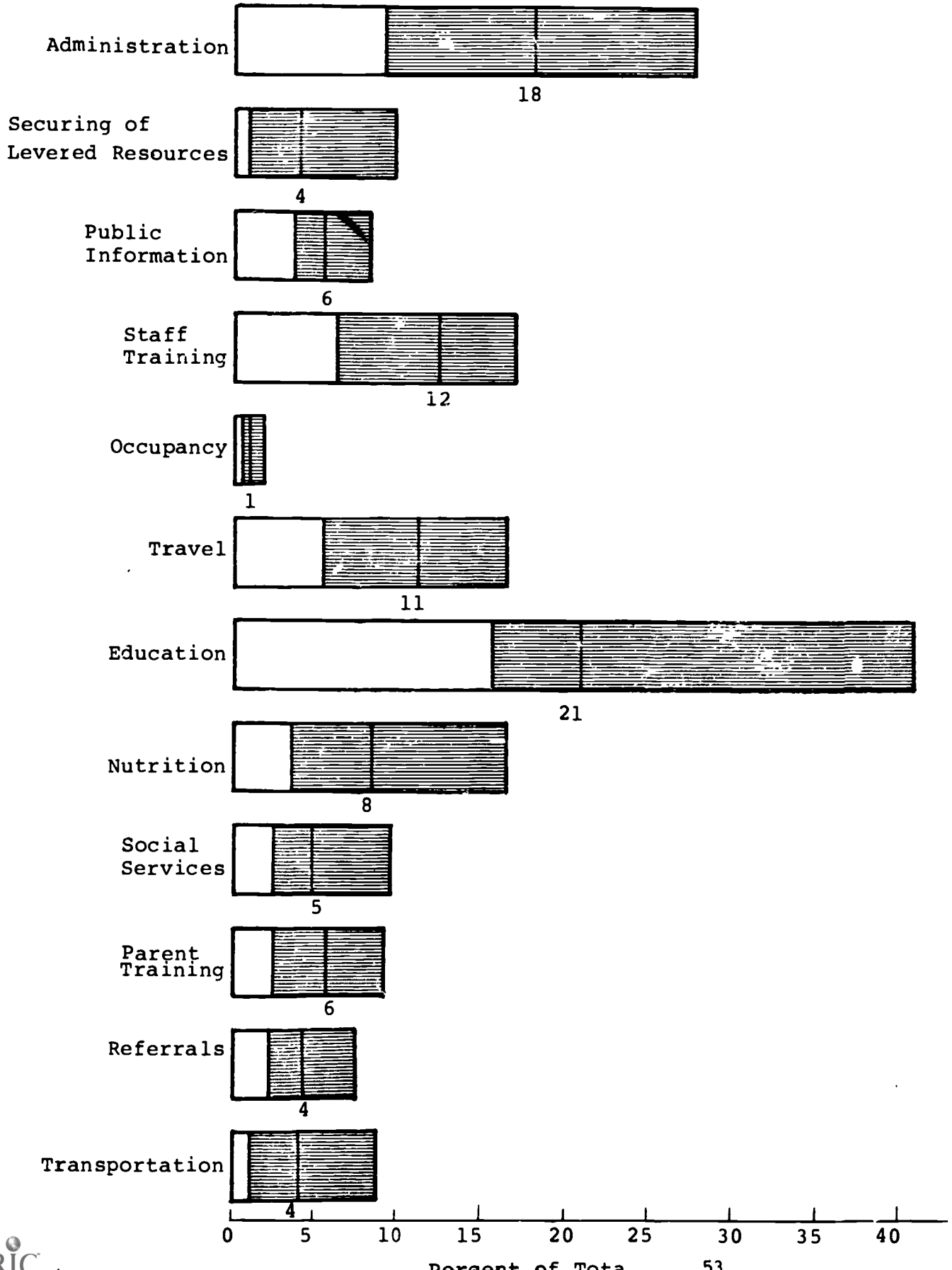
[1]Relative range is calculated by dividing the numerical range within each functional category by the average for the corresponding category.

TABLE IV-2: DISTRIBUTION OF SALARY COSTS ACROSS FUNCTIONAL CATEGORIES



Levered Resources

Home Start projects are expected to develop a role as "broker" of other public and private services available free of charge to the families served.[1] In other words, they are expected to reduce or remove barriers that keep these families from using services available in the community. Projects also are encouraged to reduce the cost of their operation (or extend the scope of operation at given cash costs) by using donated space or other goods and services that allow for a greater concentration of OCD resources in critical areas of need. This section examines the performance of the six projects with respect to total amount of levered resources and overall allocation patterns. It should be stressed that levered resources here represent the value of additional services made available to Home Start families as the result of indirect intervention on the part of Home Start staff. Also included are donated goods and services directly incorporated into the program's operations(i.e., volunteers, donated space). Both should be regarded not as additional cash-equivalent resources but as additional value associated with the Home Start services. It is clear at this point that a sample of six does not allow for stringent tests of possible patterns. Therefore, the analysis is largely judgemental, and conclusions are necessarily tentative.

Table IV-3 (page 55) is a graphic display of the levered resources secured by the six projects in each of the twelve functional categories. As in Table IV-2, the averages for all six projects are indicated by the number next to each bar, while the shaded portion represents the range of levered resource allocation across projects for each category. The upper edges of the bars define the highest percentage of levered resources in each category for any of the six projects.

As can be seen in the table, levered resources are not typically captured in those functions associated with the leverage effort per se (Securing Levered Resources, Referrals, and Transportation). None of the six projects has levered resources in any of these categories. Sixty-one percent of total levered resources were captured for indirect functional activities

[1] In the analysis of levered resources, the figures used are projected resources. The projection method consisted in doubling the figures for the six months preceding the field visits. It is clear that actual performance in the second half of the year used for measuring levered resources may exceed these projections.

TABLE IV-3: DISTRIBUTION OF LEVERED RESOURCES ACROSS FUNCTIONAL CATEGORIES

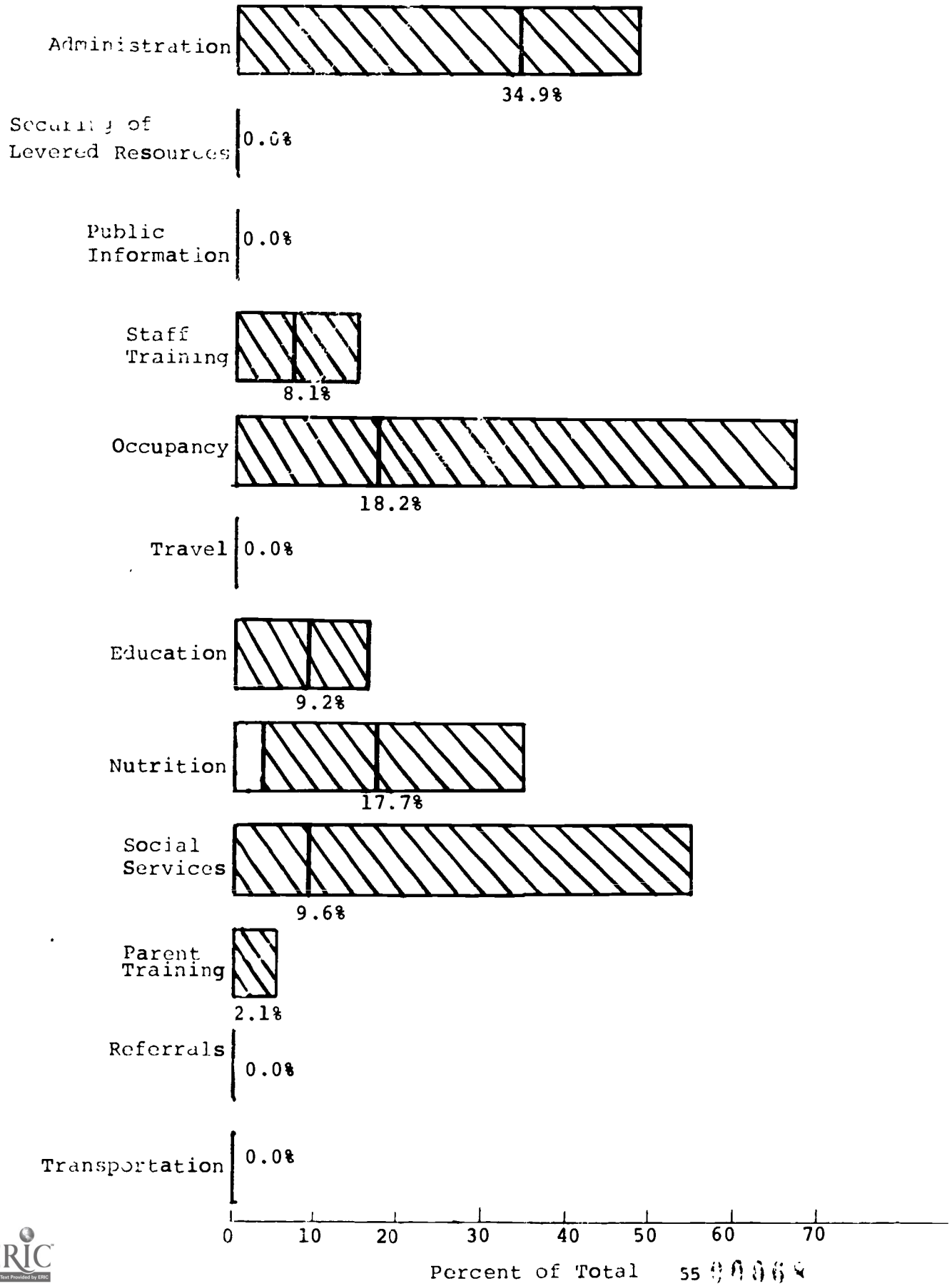


TABLE IV-4: DISTRIBUTION OF LEVERED RESOURCES ACROSS FUNCTIONAL CATEGORIES

Functional Category	Average For Six Projects	Low	High
Administration	35.0	0	49.5
Levering	0	0	0
Public Information	0	0	0
Training	8.1	0	14.2
Occupancy	18.3	0	68.2
Travel	0	0	0
Education	9.2	0	15.2
Nutrition	17.7	2.4	36.0
Social Services	9.6	0	56.4
Parent Training	2.1	0	5.0
Referrals	0	0	0
Transportation	-	0.4	0
	100%		

including Administration, Training and Occupancy, while 39% resulted in increased Educational, Nutritional and Social Services to Home Start families. These average figures provide a rough approximation of resource allocation patterns; however, given the limited sample of six projects, these figures should also be considered in terms of the variability across projects.

Home Start programs tend to be quite different in terms of their geographical location, local needs of the families serviced, community environment, and access to or local availability of needed supplementary services and resources. These uncontrollable externalities are reflected in the relatively wide variation among projects with respect to levered resources -- the pattern is much more erratic than for OCD dollars. Relative range indicates the greatest variability with respect to Parent Training and Occupancy. The largest consistency or stability is shown with respect to Administration, Education and Training. These indicators, however, do not demonstrate the relative importance to individual projects of certain levered resources.

While, on the average, the greatest portion of levered resources is earmarked for administrative activities (34.9%), this heavy concentration can be accounted for by three projects whose levered resources equal or exceed OCD dollars expended for the same function. Two projects have considerably less than 25% of their levered resources allocated for Administration, while one has captured no resources in this area. On the other hand, Occupancy is consistently treated as a critical leverage point by five out of the six programs: levered resources account for 50-90% of their total occupancy costs. Similarly, all six programs have levered resources in the Nutrition function and (with one exception) these resources represent a one-third to one-half increase over OCD cash allocations (see Exhibit IV-1, page 108 for individual project data). All but one project also tend to rely moderately on levered resources to supplement OCD paid-for Social Services.

Clearly, the six Home Start projects are levering substantial resources in the community, although the leverage patterns vary considerably (see Table IV-8 on page 63). One method to express the scope of the leverage effort is to examine the resources levered in terms of a "rate of return on investment."

Three of the functional categories used to delineate the total spectrum of activities of Home Start projects are directly related to the securing of levered resources: Securing of Levered Resources itself, Referrals, and, to some extent, Transportation. Referrals can be interpreted as attempts to identify sources of assistance to children and families outside of the program. Transportation is a service to enable the

children and families to receive such outside assistance. Table IV-5 presents the dollars and percentages of OCD funds allocated for levering resources, the total value of resources subsequently levered, and finally the "rate of return" on OCD dollars expended for levering in terms of the dollar value of resources captured.

As indicated in Table IV-5, four of the six projects are performing similarly in terms of rate of return on investment: they are capturing between $2.30 and $3.90 in resource value per OCD dollar expended. Upon closer examination, however, the data tend to suggest that relatively greater emphasis on securing levered resources is not associated with a higher rate of return. A ranking by program of OCD leverage dollar input compared with a ranking of the value of resources generated indicates that, in fact, the two projects with the least emphasis on levering have captured the two highest rates of return.

These data suggest that the levered resources concept must be viewed cautiously, and that in terms of future data collection and analysis efforts, the levered resources must be examined within the specific local context. The variations among projects in terms of leverage can partially be explained historically. Those projects which were well established in the community prior to Home Start funding may have already developed firm linkages with other service agencies. In some respects, one could consider the Home Start/OCD dollars not as a leverage factor but, in fact, as a resource levered by an already dynamic local operation. Leverage must also be viewed in the context of locational/geographical factors -- factors far more complex than a simple urban-rural dichotomy. The "wealth" of the "larger" Home Start community in terms of counseling services, pre-natal care, well-baby clinics, legal services, public health nurses, and the like will influence both the level of effort required to secure "free" services and the "value" of the services finally captured. Finally, very careful delineation must be made regarding what constitutes a legitimate levered resource. In particular, the difference between "transferred resources" and "levered resources" must be carefully defined. There are several issues that must be addressed.

- Should other federal funds channeled directly or indirectly to the Home Start program (i.e., OEO funds, shared Head Start resources) be considered levered resources or alternatively shared costs or transfer costs?

TABLE IV-5: LEVERED RESOURCE PERFORMANCE

Project	Percentage of OCD Funds Spent On				Levered Resource Performance	
	Levering Resources	Referrals	Transportation	Total	Total Value of Resources Levered	Rate of Return Per OCD $ Invested In Leverage
Alabama	$ 1024 1.2%	$ 1524 1.8%	$ 3834 3.9%	$ 6382 6.9%	$ 65,041	$ 3.91
Arkansas	$ 2021 2.0%	$ 3169 3.2%	$ 3351 3.4%	$ 8541 8.6%	$119,000	$ 18.60
Kansas	$ 5726 8.2%	$ 2249 3.2%	$ 2328 3.3%	$10203 14.7%	$ 28,252	$ 3.31
Ohio	$ 6018 6.3%	$ 1933 2.0%	$ 1409 1.5%	$ 9360 9.8%	$ 22,755	$ 2.43
Texas (Houston)	$ 491 .7%	$ 4477 6.1%	$ 726 1.0%	$ 5694 7.8%	$ 28,300	$ 4.97
West Virginia	$ 1624 1.9%	$ 6625 7.6%	$ 8343 9.5%	$16592 19.0%	$ 23,708	$ 2.30
MEAN	$ 2817 3.3%	$ 3330 3.9%	$ 3272 3.8%	$ 9479 11.0%	$ 47,842	$ 5.92

- Should a distinction be made between donated goods and services directly integrated into the Home Start operations and those services provided to program participants as a result of indirect Home Start intervention?
- Are there different degrees of intervention?
- Are there gradations in terms of the value of services received by the Home Start families?

These and other questions which have emerged from the present analysis will be used to shape an analytic plan for the plan for the coming year which is sensitive and responsive to major concerns.

To bring additional perspective to the leverage issue, the data can also be presented in terms of leverage ratios calculated on the basis of total OCD dollars (levered resources/OCD funds). In this case, the value of levered resources is not matched against the dollars allocated to the leverage effort, but against the total OCD funding. Table IV-6 below indicates that total leverage ratios vary between .24 and .69 -- i.e., Home Start projects have attracted between 24 and 69 cents for each OCD dollar. The overall leverage ratio for the six projects is .50, a rather favorable figure for a social service program.

TABLE IV-6: LEVERAGE FACTORS

	"Indirect" Services	"Direct" Services	Total
Alabama	.49	.20	.69
Arkansas	.27	.30	.57
Kansas	.12	.22	.34
Ohio	.17	.07	.24
Texas	.20	.19	.39
West Virginia	.44	.30	.74
Mean	.29	.21	.50

Total OCD Costs Plus Levered Resources

Perhaps the most important breakdown of cost among functional categories concerns total program "value" including OCD expenditures and levered resources. Differences among projects in terms of the allocation of OCD funds across categories may reflect deliberate tradeoffs between OCD funds and levered resources. On the other hand the "impact" of levered resources on the distribution of OCD dollars may be fundamentally unrelated to judicious program planning and decision-making. Levered resources are not "predictable" in the sense that a Home Start Director can design a resource allocation plan and subsequently develop a reasoned OCD dollar distribution scheme. In other cases, there is simply no margin for reallocation of OCD dollars. For example, given that considerable space will be donated for Home Start operations, the budget limitations consequently would be established within that framework. Therefore, the project simply can not "save" occupancy dollars for use elsewhere.

It is nevertheless of descriptive value to compare the OCD dollar allocation by function with the allocation patterns which emerge with the addition of levered resources. Given below for each project are the total value of services provided broken down in terms of OCD dollars and levered resources. On the average 64% of the total value is accounted for by OCD funds while 36% is attributed to levered resources. One project, however, deviates considerably from this proportional distribution in that its levered resources account for almost 60% of the total project value.

Table [illegible]-7: TOTAL COSTS BY PROGRAM

	Total Fed.#	Total Levered Resources	Total Value
Alabama	85,701 (41.9%)	119,000 (58.2%)	204,701
Arkansas	99,812 (78%)	28,252 (22%)	128,064
Kansas	70,047 (74.7%)	23,708 (25.3)	93,755
Ohio	94,885 (80.7%)	22,754 (19.3%)	117,639
Texas	73,012 (72.1%)	28,300 (27.9%)	101,312
W. Va.	87,582 (57.5%)	65,014 (42.7%)	152,596
MEAN	85, [illegible]8 (64%)	47,838 (36%)	133,011

Table IV-8 (page 63) shows the distribution of total program costs/value across the twelve functional categories in graphic form. The same information is presented in percentage form in Table IV-9. The most important category now is Administration, which accounts for almost one-fourth of total costs. It is followed by the two major direct services, Education and Nutrition, which together account for 27 per cent of total program costs. Ten per cent of all resources are spent on Staff Training.

The importance of levered resources in providing inputs into the operation of the program is reflected by the fact that the share of "indirect" services increases from 52 per cent for OCD staff expenditures to 58 per cent for total costs.

Although the relative ranges for the total cost figures lie generally above those for the salary costs alone, a chi-square analysis indicates that the distribution of total costs across functional categories is more similar among projects than is the distribution of salary costs. This implies that, as would expected, projects tend to allocate less of their OCD funds to functional categories in which levered resources are higher, or make particular efforts to supplement insufficient OCD funds in selected categories by levered resources.

TABLE IV-8 AVERAGE ALLOCATION OF RESOURCES BY FUNCTIONAL CATEGORIES:

A Comparison of OCD Cost Distribution With
Total Cost Distribution

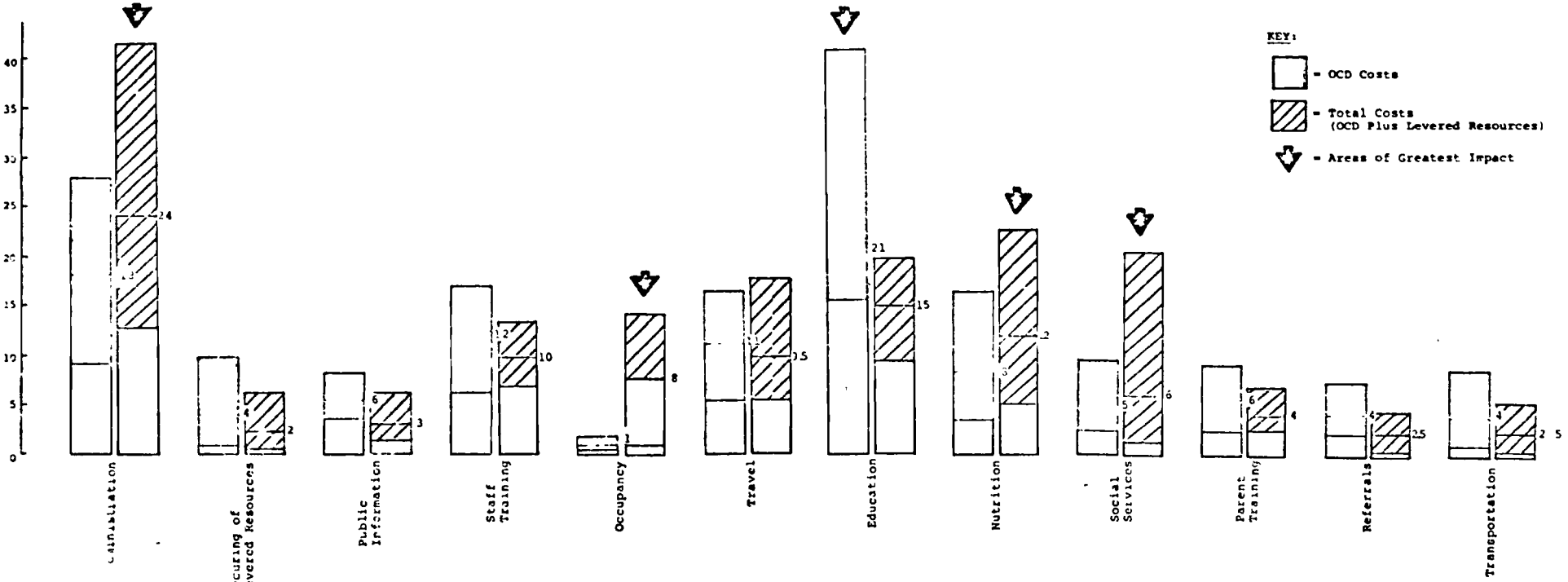


TABLE IV-9:

DISTRIBUTION OF TOTAL COSTS AND LEVERED RESOURCES AMONG FUNCTIONAL CATEGORIES (In Per Cent)

Average Costs by Function

Function	OCD	Levered	Total Value	Low	High
Admin.	11.8%	12.6%	24.2%	12.4	42.1
Levered Res.	2.1%	-	2.1%	.5	6.1
Public Info.	3.2%	-	3.2%	1.4	6.1
Training	7.1%	2.9%	10.0%	6.4	12.9
Occupancy	1.8%	6.5%	8.3%	1.0	1.0
Travel	9.5%	-	9.5%	5.6	18.1
Education	11.8%	3.3%	15.1%	9.8	19.8
Nutrition	5.7%	6.4%	12.3%	5.3	22.7
Social Services	2.8%	3.5%	6.3%	1.8	21.0
Parent Training	3.2%	.8%	4.0%	2.8	7.0
Referrals	2.5%	-	2.5%	.7	4.4
Transportation	2.5%	-	2.5%	.7	5.5
TOTAL	64. %	36. %	100. %		

Home Start Costs: Unit Costs

The concept of unit cost is derived from economic theory, where it is assumed that the output of a program can be defined and measured in an unambiguous way. In such cases, the unit cost of the program is simply the total cost divided by the quantity of output. If there are different techniques for producing that output, it can be said that the technique having the lowest unit cost is the most efficient.

Unfortunately, in the evaluation of social programs, it is usually impossible to define a single measure of program output which indicates, in a meaningful way, the output of a program. Invariably, the total program cost is simply divided by the number of program participants. The fundamental problem with this measure is that no adjustment is made for differences in quality among projects. Thus, in comparing the unit costs of various projects, it is not valid to conclude that lower unit costs indicate greater efficiency in service delivery; they may simply indicate lower quality of service.

Even if an unambiguous measure is impossible to define, it is useful to calculate and compare measures of unit cost. These provide one way of describing differences among programs. Such measures, together with indicators of service quality, may be used to make informed judgements about relative program efficiency. For example, if Project A has a lower cost per family than Project B, and there is little discernible difference in the quality of service delivery, one may conclude that Project A is more efficient. Or, if Project B is viewed as providing a higher quality of service, one may ask whether the higher service quality is worth the additional cost.

Even if the above comparisons are impossible at this stage of analysis, measures of unit cost provide summary information on the monetary implications of operating the Home Start Project. Further, they can provide an answer to one basic question: on the average, how much of a limited project budget is devoted to each program participant or treatment unit? Thus only the descriptive function is served by the measures of unit cost presented here, and caveats about reaching conclusions concerning the relative efficiency of programs must be kept in mind in interpreting these figures given below. Further work in the present study will identify more functional relationships between service delivery methods and unit cost implications. Such relationships require refined output measures which will be developed in the next stage of analysis.

Table IV-10 (page 66) presents the costs of program operation for different measures of the population served. For each family, approximately $1,000 are spent out of OCD funds by the projects over a period of one year; this figure is complemented by almost

TABLE IV-10: UNIT COSTS, OCD PORTION

	Average	Low	High
Per Family	$1,022	$558	$1,447
Per Child:			
0-5 Years	$ 535	$272	$ 847
3-5 Years	$ 796	$395	$1,356
Per Focal Parent	$ 914	$487	$1,386

UNIT COSTS, LEVERED RESOURCES

	Average	Low	High
Per Family	$574	$344	$735
Per Child:			
0-5 Years	$301	$176	$419
3-5 Years	$447	$286	$595
Per Focal Parent	$513	$271	$640

UNIT COSTS, TOTAL PROJECT COSTS

	Average	Low	High
Per Family	$1,596	$972	$1,856
Per Child:			
0-5 Years	$ 836	$474	$1,058
3-5 Years	$1,243	$688	$1,681
Per Focal Parent	$1,427	$848	$1,779

$600 in levered resources for a total of $1,600. The total cost figures are relatively consistent across projects; four of the six projects have total unit costs per family between $1,750 and $1,850 -- a relatively surprising similarity. The lower overall average can be attributed to Kansas and West Virginia. The latter project in particular "disturbs" overall measures, since it serves a much larger number of families and children as a result of a complementary OEO grant. West Virginia's cost is almost half of this "typical" figure (less than $1 000); this special case already accounts for a large portion of the lower overall average. Kansas' total unit cost per family lies halfway between the figures for West Virginia and the other four projects. Based on this evidence, it appears that the typical program cost per family would be roughly $1,800.

On the average, there are slightly fewer than two children in the age range 0 to 5 years in the families served. Consequently, the unit cost per child in this age range is approximately one-half of the figures given for participating families. Approximately $500 are spent per child out of OCD funds, complemented by $300 of levered resources for a total of more than $800.

Aside from this specific estimate, both standard deviation and relative range indicate that projects are more similar to each other in terms of unit costs per family than in terms of unit cost per child in the 0-5 years of age bracket.[1]

By applying the percentage distribution of total costs across functional categories to individual unit cost figures, we can estimate the cost of providing individual services to different types of clients. These estimates are shown in Table IV-11 (page 68). In absolue terms, these estimates indicate that the cost of providing a child in the 0-5 year age bracket with educational services in the Home Start program costs approximately $126 on the average, plus "overhead", while the corresponding cost figure for nutrition services is $101. The direct service costs per child in the 0-5 year age bracket are $355 or 42.5% of the total unit cost, while $481, or 57.5% of the unit cost, are required for indirect services or "overhead" associated with direct service delivery.

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[1]The standard deviation for unit cost per family is $374, that for unit costs per child $306, corresponding to coefficients of variation of .23 and .37, respectively. These coefficients imply that unit costs per child vary relatively more among projects than unit costs per family. The relative ranges are .55 and .69, supporting this conclusion.

TABLE IV-11: UNIT COSTS BY FUNCTIONAL CATEGORY

Functional Category	Per Family	Per Child		Per Focal Parent
		0-5	3-5	
Administration	389	204	303	348
Levering of Resources	34	18	26	30
Public Information	51	27	40	46
Staff Training	160	84	124	143
Occupancy	132	69	109	118
Travel	152	79	118	136
Education	241	126	188	216
Nutrition	193	101	150	173
Social Services	101	53	78	90
Parent Training	64	33	50	57
Referrals	40	21	31	36
Transportation	40	21	31	36
Total[1]	1,596	836	1,243	1,427

[1]Columns may not add to totals because of rounding.

B. Head Start Costs

Head Start projects at four of the six Home Start Summative Sites were visited in Fall 1973 to begin collecting comparative cost information on the two national programs. While a brief review of the total and unit costs of Head Start projects can provide a better perspective for interpreting the findings on Home Start program costs, a strong caveat is required concerning a direct comparison of cost estimates between Head and Home Start. While the ultimate goals of the programs are very similar, both employ different means to reach these goals. Thus, even if the analysis would indicate that there are significant differences in unit costs, or any other efficiency measure, the interpretation of these differences must account for basic differences in approach.

Resource Allocation

The different approach taken in the Head Start program is reflected in the distribution of OCD and total costs across functional categories. In the first place, there are slight changes in the definition of functional categories, i.e., the elimination of Travel as a separate category, and the introduction of Food Services. Since non-labor costs are more important in Head Start than in Home Start, the functional breakdown of OCD costs shown in Table IV-12 (page 70) includes all costs paid for out of OCD funds. The most important category is Education, which accounts for more than one-fourth of total OCD funds. This corresponds largely to the findings for Home Start projects. The second most important category is Occupancy. This result differs from that for Home Start projects where Occupancy was a relatively minor cost element. The difference is, of course, attributable to the different approaches used in the two programs. The Head Start share for Administration lies slightly below that observed in the case of Home Start projects; however, the difference does not appear to be significant in a substantive sense. Food Services account for almost 15 percent of total OCD expenditures.

Head Start projects show the greatest variation in the categories of Securing Levered Resources and Parent Development. However, they are similar in terms of the percentages of OCD resources allocated to Administration, Education and Food Services. In other words, in three of the most important categories, Head Start projects show considerable similarity with respect to the allocation of resources.[1]

[1]The next lowest relative range can be obtained for Occupancy. Together, the four categories with the lowest relative ranges account for more than three-fourths of total OCD funds examined here. This finding implies a great deal of consistency across the four Head Start projects.

TABLE IV-12: FUNCTIONAL BREAKDOWN OF OCD COSTS FOR HEAD START PROJECTS (IN PER CENT)

Functional Category	Average for Four Projects	"High"	"Low"
Administration	13.9	15.1	8.8
Securing Levered Resources	1.2	4.2	.6
Public Information	1.7	4.1	.9
Staff Development and Training	4.6	12.2	2.2
Occupancy	21.5	26.0	3.0
Transportation	6.3	20.9	4.5
Education	26.4	42.5	22.2
Nutrition/Health	5.1	14.8	1.8
Social Services	2.2	3.9	.2
Parent Development	1.4	6.3	1.1
Referrals	.8	2.1	.6
Food Services	14.9	20.7	12.1

Table IV-13 shows the corresponding breakdown among functional categories for total Head Start costs, including OCD funds and levered resources. The level of expenditures and, thus, the relative importance of the four most important categories remains virtually unaffected by the introduction of levered resources, which account for almost one-fourth of the total program costs (24.2%). Occupancy gains somewhat in terms of importance, undoubtedly reflecting some donated space, while Administration and Food Services decline. However, these changes are small compared to those resulting from the introduction of levered resources as observed in Home Start projects.

The introduction of levered resources does alter the consistency of resource allocation among projects, though. This result is reflected in the increased values of relative ranges. The four functional categories accounting for the majority of total funds (Administration, Occupancy, Education and Food Services) continue to show rather low relative ranges. The respective values range from .81 for Occupancy to 1.06 for Education. This finding implies that, although differences in resource allocation increase among Head Start projects once OCD and levered resources are considered together, the relative consistency across functional categories remains stable. In other words, Head Start projects tend to be fairly similar with respect to expenditure patterns, regardless of whether OCD funds or total expenditures are considered.

Unit Costs

Unit costs in Head Start programs are much more difficult to compute than in Home Start. The main difficulty is that projects differ considerably with respect to the number of children served and the "intensity" of service, i.e., the time that children spend per day in the program. The measure used to compute unit costs is therefore the total number of "children-hours" served per year. The average OCD and total costs per children-hour are shown in Table IV-14 (page 73). These figures are not comparable to the unit cost figures shown for Home Start projects. However, it is possible to use these data to estimate the total annual cost per child on the basis of certain assumptions. For example, if the typical child spends 8 hours per day, five days a week, ten months a year in a Head Start program, the OCD cost would be approximately $820, and the total cost $1,082. While these figures are not precise, it appears that the total unit cost per child served is quite similar in both Home and Head Start. This comparison deserves careful attention during the next phase of the study.

TABLE IV-13: FUNCTIONAL BREAKDOWN OF TOTAL COSTS FOR HEAD START PROJECTS (IN PER CENT)

Functional Category	Average for Total Projects	"High"	"Low"
Administration	11.7	16.7	6.6
Securing Levered Resources		2.2	.5
Public Information	1.5	2.1	.7
Staff Developing and Training	4.1	10.0	1.6
Occupancy	26.9	39.6	17.7
Transportation	5.2	17.0	2.0
Education	26.3	35.6	7.8
Nutrition/Health	6.3	18.8	1.9
Social Services	2.4	10.0	.8
Parent Development	1.1	2.6	.9
Referrals	.6	1.5	.5
Food Services	12.8	15.8	4.2

TABLE IV-14: COST PER CHILD-HOUR PER YEAR, HEAD START

	Average	"High"	"Low"
OCD	$.50	$1.32	$.09
OCD Plus Levered Resources	$.66	$1.72	$.29

V. APPENDIX

CHAPTER I: EXECUTIVE SUMMARY

EXHIBIT I: 1-3

ARE THE SIX SUMMATIVE SITES REPRESENTATIVE OF THE OTHER TEN SITES FROM A HOME VISIT AND COST VIEWPOINT?

The analyses in the previous sections are based upon Fall 1973 data collected only at the six summative sites. The data were restricted to maximize the amount of cost and service data that could be compared to the outcome or summative data already being collected at these six sites. While this decision to concentrate on six sites is a good long range analytic strategy, it means that one cannot automatically assume that the key formative questions addressed in this report are, in fact, reflective of the entire national Home Start effort.

If it can be ascertained that the six site data are representative of the 16 Home Start projects, then the report can be used by the national staff in working with all of the projects. To determine representativeness, a data base which contains both home observation data and cost data for all 16 projects must be studied. The field data collected during the previous series of field visits (Spring 1973) provide an appropriate base. Presuming that the six sites had not changed in a manner different from the other 10 projects during the Summer of 1973, we will assume that examining the Spring 1973 data for representativeness will give us an estimate of the representativeness of the Fall 1973 data.

- Are the Six Sites Representative of the Other Ten Home Start Projects Regarding Home Observations?

The six sites are representative regarding dominant interaction patterns. The following table illustrates the high level of match.

EXHIBIT I-1

Dominant Interaction	Percent of Activities (Spring 1973)	
	Mean for 6 Sites	Mean for Other 10 Sites
Home Visitor to Parent	20%	24%
Home Visitor to Child	45%	36%
Parent to Child	16%	13%

The six sites are representative regarding the dominant modes of interacting. When the frequency with which the Home Visitor was "explaining," "watching," and "asking," are compared, explaining was the most frequent, watching the second most frequent, and asking the third most frequent for both the six sites and the other 10 sites.

As for the parent's interaction modes, "listening" and "watching" are the two most frequent modes for both site subsets. While these two modes reverse order for the two subsets, the content or meaning of these two modes is so close (both imply passive attention rather than active involvement) that one can still assume rough similarity of the two subsets.

As for the child's mode of interaction, "doing" is by far the most frequent mode for both the six site and 10 site data.

The six sites are representative regarding the content of home visit activities. In both the six sites and the other 10 sites, "teaching the child" was the most frequent opportunity provided for the parent. With both subsets "ways of using elements of the child's typical environment as teaching tools" was the second most frequent parent opportunity.

The six sites are representative regarding the length of visits. Average visit length for all 16 sites was 67 minutes. The six summative site average was only three minutes less (64 minutes).

The number of activities per visit was somewhat higher (6.0) for the six sites than for the other 10 (5.1). While this difference merits further attention in later reports, it is doubtful whether this difference is of practical significance in determining the adequacy of the Home Start treatment.

The six sites are generally representative regarding the tone of interaction. Preliminary measurement of tone had the observer rate the three participants on several bi-polar pairs of descriptive adjectives. While most pairs were skewed too positively to separate out the two subsets of Home Start sites, the pair "relaxed/nervous" is less skewed and also has high practical significance. Such data are presented on the following page.

EXHIBIT I-2

		Frequency	
		Relaxed	Nervous
Home Visitor	6 sites	24	1
	10 sites	28	0
Parent	6 sites	17	4
	10 sites	14	3
Child	6 sites	20	4
	10 sites	13	3

The number of "nervous" ratings are highly proportional for both the summative and non-summative sites: 4% to 0% (HV), 23% to 21% (Parent), and 20% to 23% (Child).

In summary, the Spring 1973 home visits observed at the six summative sites were similar to those observed at the non-summative sites. Thus, the section on "Home Visits -- Fall 1973" may be read and utilized as a reflection of the state of the home visit treatment across the entire national Home Start program.

- Are the Six Summative Sites Representative of the Other Ten Projects Regarding Cost Analysis?

Spring 1973 cost data for the 16 projects was categorized four ways: by budget line item, by various direct and indirect service functions, by unit cost, and by amount of levered resources secured. Comparison of the six site and 10 site means for these categories shows that the six sites are not as representative from a cost viewpoint as from the home visit viewpoint discussed above.

First, the six site data are roughly representative regarding major line item proportions. Six site means for salaries, consultant services, and travel are 67.5%, 6.2% and 9.2% respectively. Corresponding 10 site means are 65.5%, 14%, and 10.8%. The high match on salaries is most significant as this is where two of every three OCD dollars are spent.

Second, the functional spending pattern for four direct service areas (health, nutrition, psychological/social services, and eduction) is also very similar for both site subsets. Exhibit I-3 illustrates the match.

EXHIBIT I-3

Functional Area	Mean Percent of Total Functional Budget	
	Six Sites	Other Sites
Health	14.3%	12.0%
Nutrition	6.2%	6.2%
Psychological/Social	11.6%	10.3%
Education	23.8%	22.1%

Third, unit costs for the six sites are not representative of the other ten. The average or mean unit cost per focal child is $970 at the six summative sites versus a mean of $1,370 for the other ten sites. With a $400 difference between these means it is not acceptable to generalize national program cost per child or family from the unit cost data presented in the cost analysis section.

Fourth, the six summative sites are not reflective of the other ten regarding the levering of community services. While the six summative sites secure approximately $40,000 each (over their $100,000 grants), the ten other sites were projecting a securement of only one half that amount ($20,000).

To summarize, summative site cost data appear to be representative of the overall national program where such cost data reflect the way dollars are allocated, i.e. line item and functional costs. This operational representativeness is consistent with the home observation data presented above, that is, service emphases are similar. As for unit costs and levered resources, the six sites are not clearly representative. On the contrary, the six sites spread their OCD dollars across more children and secure more levered resources than do the other projects. The findings regarding these cost variables must therefore be applied with caution.

CHAPTER II: DEMOGRAPHICS

No exhibits are appended for Chapter II.

CHAPTER III: TREATMENT

Exhibits III: 1-9

EXHIBIT III-1·

INSTRUCTIONS

HOME VISITOR/FAMILY INTERACTION
OBSERVATION

Observations of typical home visits have been added to the battery of information collected from Home Start families. Observations will not be done with all families in the sample. Rather, two Home Visitors assigned to families in your sample will be selected by random sampling procedures. You will accompany each of the Home Visitors on a home visit to a family you have previously visited.

The purpose of the observation is to collect information about how Home Visitors, parents and children typically react to each other in a normal Home Start environment: the Home Visit.

The observation instrument records information on the kinds of interactions which take place during the home visit, who interacts with whom, and what topics or activities are part of the visit. In addition, you will be recording what the Home Visitor generally thought of the visit, as well as your impressions of the attitudes or behaviors you observed during the visit.

There are three major parts to the Home Visit Observation instrument:

Home Visitor Interview (Pre- and Post-Visit)
Observation Sheets (14 sheets)
Impressions

Generally you will use the instrument in the order in which it is assembled, except for the Post-Visit section of the Home Visitor Interview.

The following instructions explain how to use the instrument for the home visit observation.

I. HOME VISITOR INTERVIEW (Pre-Visit)

Arrange to meet the Home Visitor prior to the visit to the family. At that time you will want to:

- Fill in the information at the top of the first page: name of family, date, name of Home Visitor, your name. Circle #1 or #2, depending on whether this is your first observation or your second.

- Ask Home Visitor the two Pre-Visit questions:

A. PRE-VISIT

1. What are you going to do during your visit today? _____

_____

2. Have you brought anything with you to take into the home?

NO ___; YES ___

If YES is checked: What have you brought with you? _____

You needn't press for many details about what the Home Visitor plans to do in the home. You simply want to know how she has planned for the visit and what materials, if any, she has brought with her. This conversation should help you anticipate the number of activities you will be observing for which you will fill out observation sheets. During the home visit there may be more activities or different ones from those the Home Visitor plans so you must be ready to recognize unanticipated activities.

II. HOME VISITOR INTERVIEW (Post-Visit)

The Post-Visit questions should be asked of the Home Visitor after the home visit is ended and you have left the family.

B. POST-VISIT

1. Was this visit like previous ones with this family?

YES ____; NO ____

If NO is checked: Why? _____

2. How much was this family like your other families?

____ Very Much; ____ More or Less; ____ Very Unlike;

(____ They Are All Different)

If VERY UNLIKE is checked: How is it different? _____

3. Do you think my being along on this visit changed the way you, the parent, or the child acted? ____ YES: ____ NO

If YES is checked: How? _____

After asking Question #2 above, read three responses to the Home Visitor: "Very Much", "More or Less", "Very Unlike". Do not read "they Are All Different" to the Home Visitor as a response, but if she gives this response, mark it.

III. OBSERVATION SHEETS

You will be filling out one Observation sheet for each activity you observe during the home visit. There may be from 6 to 12 activities during any home visit but you have been provided with extra observation sheets. These sheets are the only forms you will fill out while you are in the home with the family.

After you have greeted the family, explain to the mother or focal parent that you will only be watching during this home visit and that you would like for them to take part in the home visit as usual as if you were not there.

Explain that we are interested in seeing how Home Visitors work with parents and children and what kinds of activities are part of the home visit. You may explain that you will not be scoring anyone for performance or right answers; you will simply record what happens.

Find an unobtrusive place to sit where you can see and hear what is happening, but where children will not be tempted to draw you into the home visit activities.

How to begin

- Be sure you have completed the names of the family, the program, the Home Visitor at the top of the page, and whether this is visit #1 or #2.
- Indicate the time you begin observing
- Fill out the time started at the top of each new activity page, but you need not indicate time stopped until the end of the last activity of the home visit.
- When an activity begins circle the number of the activity
- Check the location of the activity

EXAMPLE:

OBSERVATIONS

Tester _____ Family _____

visit #1 2

Program _____ Home Visitor _____

Activity #1 2 3 4 5 6 7 8 9 10 11 12 13 14

Time Started and Stopped: ____ / ____

Location: ___Living Room; ___Dining Room; ___Kitchen; ___Outside; ___Other

Who to Watch

In the family you visit, there may be more than one child or more than one adult present (in addition to the Home Visitor) during the home visit.

For this observation, you will only watch the actions of three people: Home Visitor, Focal Child, and Focal Parent.

Focal Child: regardless of the number of children present, record only the actions of the child who is listed on your sample as the Focal Child.

Focal Parent: regardless of the number of adults present, record only the actions of the Focal Parent which appears on your list.

How to Recognize Activities

An activity is generally defined as a set of actions concerning a particular game or project, or a conversation on a general topic. For example, one activity might center around the making of a number chart; it might last for 15 minutes or more. Another activity might be a conversation between the mother and the Home Visitor about employment; it might last only 2 or 3 minutes.

You will begin to record on a new observation sheet each time a different activity begins. Not only is it important to know what kinds of topics, or activities, take place during a home visit, but dividing home visits into activities helps you to look at what is going on between parent, child and home visitor.

An activity must involve at least two individuals from among the basic three actors in the home visit: the parent, the focal child and the Home Visitor.

How to Use the Observation Sheet

The Observation Sheet is divided into three sections:

A. Interactions among Home Visitor, Focal Child and Parent

B. Child Activities; Parent Activities

C. Summary of Activity

On each sheet for each activity you will:

- Check as many interactions as you observe for each of the three principle people in the home visit.
- Circle the one interaction which occurred most often for each of the three persons. Do this at the end of the activity.
- Check as many topics for children and parents as you observe.
- Circle the one topic that was the major emphasis of that activity. Do this at the end of the activity.
- Summarize the activity briefly.

Section A. Interactions

In Section A, you will be able to check not only what each person is doing during the activity, but with whom the person is interacting.

- For each of the three people involved in the activity check what they are doing (asking, etc) and make the check on the line next to the person with whom they are interacting. Do this for all three columns.

EXAMPLE: If the Home Visitor is explaining to the parent how to play a particular game with her child while the child watches and listens, you would check:

A.

HOME VISITOR			FOCAL CHILD			FOCAL PARENT		
Tells/Explains	✓FP	___FC	Tells/Explains	___HV	___FP	Tells/Explains	___HV	___FC
Asks	___FP	___FC	Asks	___HV	___FP	Asks	___HV	___FC
Listens	___FP	___FC	Listens	✓HV	___FP	Listens	✓HV	___FC
Watches	___FP	___FC	Watches	✓HV	___FP	Watches	✓HV	___FC
Shows	___FP	___FC	Shows	___HV	___FP	Shows	___HV	___FC
Reads/Sings	___FP	___FC	Reads/Sings	___HV	___FP	Reads/Sings	___HV	___FC
Does	___FP	___FC	Does	___HV	___FP	Does	___HV	___FC
Ignores	___FP	___FC	Ignores	___HV	___FP	Ignores	___HV	___FC
Blames	___FP	___FC	Blames	___HV	___FP	Blames	___HV	___FC
Praises	___FP	___FC	Praises	___HV	___FP	Praises	___HV	___FC
Other	___FP	___FC	Other	___HV	___FP	Other	___HV	___FC
Uninvolved	___		Uninvolved	___		Uninvolved	___	

CIRCLE ONE CHECK FOR EACH PERSON

Most of the interaction categories are self-explanatory, with the possible exception of the following:

Tells/Explains -- statements that generally describe the how and why of actions, materials, meetings, events, etc.

Shows -- demonstrating an activity or material; usually involves talking

Uninvolved -- uninvolved should be checked if the person is present but not participating and not watching, or if the person is not in the room at all

Blames -- parent or home visitor reprimands or criticizes child for incorrect responses or poor performance. Generally, this category should not apply to attempts by home visitor or parent to modify behavior such as asking child to sit still or stop hitting siblings

Praises — Praise may be checked when parent or Home Visitor indicates approval of the child, either by direct statements such as "That's very good" or by indirect support such as "That's Right" or by non-verbal behavior such as hugging, smiling, nodding, etc.

Does — may be a variety of active situations usually those in which no specific asking, telling, listening or watching is taking place, but one or all people are doing something. The child may be working on a puzzle while mother and home visitor simply watch or all three may be making paper hats watching each other but little conversation of any kind occurs.

When the activity is drawing to a close, circle the interaction for each person which has occurred most frequently or which was important. Circle the person to whom the interaction was directed when making the final circle. Do not circle the interaction (asks, shows); the appropriate interaction will be indicated by the line on which the circle is made.

EXAMPLE: At the end of an activity you might have the following set of circles:

HOME VISITOR			FOCAL CHILD			FOCAL PARENT		
Tells/Explains	___FP	___FC	Tells/Explains	___HV	(✓ FP)	Tells/Explains	___HV	___FC
Asks	___FP	___FC	Asks	___HV	___FP	Asks	___HV	(✓ FC)
Listens	___FP	___FC	Listens	___HV	___FP	Listens	___HV	___FC
Watches	(✓ FP	✓ FC)	Watches	___HV	___FP	Watches	___HV	___FC
Shows	___FP	___FC	Shows	___HV	___FP	Shows	___HV	___FC

A coding pattern like this would mean that during the activity the Home Visitor mostly watched the focal child and focal parent. The focal parent was asking questions of the focal child and the focal child was mostly telling, answering questions, or explaining to the focal parent. These would indicate the major interactions during the activity, regardless of how many other interactions for each person you had observed and checked.

B. Child Activities; Parent Activities

In this section you will be checking topics that are covered in a single activity.

- Check all the topics in the following section which you observe as part of the activity recorded on this page.

Usually, there will be more than one topic during each activity. Mark topics that concern the Focal Child and those that concern the Parent.

EXAMPLE: Suppose the child is pasting autumn leaves on a paper and the Home Visitor is talking with her about fall. The mother mentions that she's worried about it getting cold because the landlord has refused to fix the heating. Home Visitor suggests they make plans to talk with legal services to learn about tenant organizations and tenant's rights.

B.

Child Activities		Parent Activities		CIRCLE ONE RESPONSE CHECKS
___ Socializing	___ Self-Image	___ Socializing	___ Educ. Parent	
✓ Fine Motor	✓ Environment	___ Health	___ Educ. FC	
___ Cross Motor	___ Health	___ Nutrition	___ Educ. Sibling	
___ Basic Concepts	___ Nutrition	___ Employment	___ Interpersonal Problems	
___ Language	___ Other Home Start Activ.	✓ Legal Services	___ Other Home Start Activ.	
___ Musical	___ Uninvolved	___ Welfare & Other Services		

When the activity is nearly complete, circle the topic which has been most emphasized during the activity, whether it was primarily with the child or primarily with the parent.

Additional examples of Child and Parent Activities appear on the following pages.

Brief descriptions of child and parent activities are:

Child Activities

Socialization - conversations with child about everyday events; conversation which does not specifically relate to any home visit activity or topic

Fine Motor - cutting, coloring, pasting, finger play, painting, building blocks

Gross Motor - exercises, active games, outdoor play, balancing, walking in a straight line

Basic Concepts - identification of letters, colors, numbers, words, sounds, shapes, prepositions, matching, comparisons

Language - activities specifically intended to develop child's use of language; while all verbal communication can be said to be practice of language, this topic refers only to games or exercises which have been planned for language development: Reading a story, talking about pictures.

Musical - singing, playing instruments, listening to records

Self-Image - discussions or games about how children see themselves, identifying body parts, emotions

Environment - activities concerning nature, community, local people like firemen, policewomen; taking walks, planting seeds

Health - discussion or activities that discuss with the child simple health measures such as brushing teeth, washing hands, etc.

Nutrition - activities which involve children in talking about eating, and foods like cutting out breakfast foods, talking about likes and dislikes and whys

Other Home Start Activities - reference to other Home Start sponsored activities such as trips to zoo, picnics, in which the child has participated or may participate

Parent Activities

Socialization - conversations with parent which do not relate specifically to home visit activities or any of the topics below

Health - general preventative information, specific treatment plans, or discussions regarding general health of family

Nutrition - general information on meal planning, food buying, family eating habits

Employment - all aspects of present or prospective employment for parent or member of family

Legal Services - same as above

Welfare and Other Social Services - same as above

Interpersonal Problems	- for parent or family member
Education/ Parent	- classes, workshops, formal or informal training that might be considered by parent
Education/ Focal Child	- other than specific remarks about the child which take place in the course of a particular activity; general discussion with parent about child's needs, problems, etc
Education/ Sibling	- same as above but for sisters or brothers of the focal child
Other Home Start Activities	- reference or planning for Home Start activities other than home visits in which parent has participated or may participate

For any single activity, several topics from the above lists may be checked. There may be only child-related topics in an activity, only parent-related topics, or both.

NOTE:

Attention to topics being covered within an activity is your best guide to when one activity ends and another begins.

Often, it may appear to you that two activities are taking place at once. This may happen when the child is continuing an activity and the Home Visitor and Parent talk about another topic. The observation sheet is designed to allow you to code the minor interaction and topic between the Parent and Home Visitor as part of the the major activity with the child.

Should such an interaction between the Mother and Home Visitor continue for a long time, say, 10 minutes or longer, you should probably consider it a separate activity and fill out another Observation sheet for it.

There is no way to make a rigid rule about defining when one activity ends and another begins. The more familiar you become with the instrument and with the examples and films used in training, the more you will be able to trust your judgement in using the Observation sheets.

The following examples illustrate how to indicate topics for Child and Parent Activities.

An activity may concern topics primarily for the child
EXAMPLE: The Home Visitor suggests that they make a breakfast food chart for the child to hang on the refrigerator. She has brought a blank sheet of paper and scissors; she and the child cut pictures of breakfast food out of magazines in the home. The child pastes the pictures on the paper while the Home Visitor talks with him/her about what (s)he likes for breakfast, why milk is important, where orange juice comes from, how food help child grow, how tall child is, how child has grown or changed.

This would be a single activity, filled out on a single observation sheet. The categories checked in Section B would include:

B.

Child Activities		Parent Activities		CIRCLE APPROPRIATE CHECKS
___ Socializing	✓ Self-Image	___ Socializing	___ Educ. Parent	
✓ Fine Motor	___ Environment	___ Health	___ Educ. FC	
___ Gross Motor	___ Health	___ Nutrition	___ Educ. Sibling	
___ Basic Concepts	✓ Nutrition	___ Employment	___ Interpersonal Problems	
___ Language	___ Other Home Start Activ.	___ Legal Services		
___ Musical		___ Welfare & Other Services	___ Other Home Start Activ.	
	___ Uninvolved			

Fine Motor - cutting, pasting
Nutrition - food values, choosing good foods
Self-Image - relation of food to growth, changes in child's body (arms longer, feet bigger)

In the example above, the chief topic could have been either Nutrition or Fine Motor skills. If most of the Home Visitor's conversation with the child focused on cutting, pasting, choosing pictures, the major topic was probably Fine Motor. If, however, the Home Visitor talked most about food and why it is important and where it comes from, the chief topic would be Nutrition.

An activity may concern topics primarily for the parent

EXAMPLE: Suppose, instead, that the Home Visitor has started the focal child on building blocks or putting together a puzzle and you have coded that activity. Then the Home Visitor suggests to the parent that they make a food chart that will help the parent keep track of what the family, and especially the focal child, eat for one week. The Home Visitor has brought some nutrition materials and together they make a simple food chart for the family. While they are making the chart they talk about the family eating habits; they talk about the surplus food program which the parent has never used and isn't eager to apply for. The Home Visitor tells her about the application process and mentions that families of another Home Visitor have met in one home to try some surplus food recipes. They talk about the possibility of organizing a similar group meeting among the families of this Home Visitor.

This activity with the parent would be considered a separate activity from that of the child and would be coded on a new Observation sheet. Topics checked would include:

B.

Child Activities		Parent Activities		CIRCLE APPROPRIATE CHECKS
___ Socializing	___ Self-Image	___ Socializing	___ Educ. Parent	
___ Fine Motor	___ Environment	___ Health	___ Educ. FC	
___ Gross Motor	___ Health	✓ Nutrition	___ Educ. Sibling	
___ Basic Concepts	___ Nutrition	___ Employment	___ Interpersonal Problems	
___ Language	___ Other Home Start Activ.	___ Legal Services	✓ Other Home Start Activ.	
___ Musical		✓ Welfare & Other Services		
	___ Uninvolved			

Nutrition
Welfare & other Services - Food Stamps is an "Other Service"
Other Home Start Activities - Discussion of group meetings with other Home Start families

The major topic in this activity would be nutrition, since even the other areas discussed related primarily to nutrition. Nutrition, then would be circled as the major topic.

NOTE: For this activity the child would be scored in Section A. Interaction as "Uninvolved.

An activity may concern topics for both parent and child but only one topic can be a major topic whether it be for child or for parent.

EXAMPLE: Let's go back to the first activity described. Suppose the Home Visitor is making the food chart about breakfast foods with the child and talking about food and growth. During the cutting and pasting the Home Visitor talks with the mother about the child's eating habits and mentions application for the Surplus Foods program. The parent is active in the discussion with the Home Visitor about nutrition while she watches the Home Visitor and the child make the food chart. Although the parent is involved in the activity, the focus of the activity is still on the child.

The activity would be scored as follows:

B.

Child Activities		Parent Activities		CIRCLE APPROPRIATE CHECKS
___ Socializing	___ Self-Image	___ Socializing	___ Educ. Parent	
√ Fine Motor	___ Environment	___ Health	___ Educ. FC	
___ Gross Motor	___ Health	(√) Nutrition	___ Educ. Sibling	
___ Basic Concepts	(√) Nutrition	___ Employment	___ Interpersonal Problems	
___ Language	___ Other Home Start Activ.	___ Legal Services		
___ Musical		√ Welfare & Other Services	___ Other Home Start Activ.	
	___ Uninvolved			

Because the child remained the focus of the activity, the chief topic of the activity would probably be Nutrition, as circled. Again, the major topic is determined by the emphasis of the conversation. If the child was the primary focus of the activity but there was a good deal of conversation between the parent and Home Visitor about nutrition, then circle Nutrition for Parent as well and place a #2 beside the circle. In most activities there should be only one chief topic, but whenever there were clearly two major topics and you feel they have been treated nearly equally, rank them as #1 and #2. THERE WOULD NEVER BE MORE THAN TWO MAJOR TOPICS CIRCLED FOR ANY ACTIVITY ON AN OBSERVATION SHEET.

C. Summary of Activity

This section is for you to describe briefly the activity you are observing, and the materials used. The last categories allow you to mark the interactions you have observed throughout the observed activity and to circle the single interaction that occurred most frequently.

Most activities you will observe take 10 minutes or more. There will be times when little is happening that you must code or when interactions reoccur which you have already coded. During this time you may

fill in the brief summary of the activity and the materials used. These summaries should be done with as few words as possible; they will be used to assist in tabulating the observation sheets.

EXAMPLE: Let us return to the example of the Home Visitor and the child making a food chart with pictures cut from magazines in the home. In that example the Home Visitor brought scissors, paste and blank paper. The first two items in Section 2 might be filled out as follows:

Summarize Activity: cutting, pasting pictures from magazines to make breakfast food chart
Materials Used: __None; ✓Provided by Home Visitor; ✓In Home
Describe: scissors, paste, paper by HV - magazines in home

If materials are toys or games and you are not sure whether or not they were supplied by the Home Visitor, make a note to check it with the Home Visitor after you have left the home.

Final Summary of Interaction

The twelve categories at the bottom of the page are to be checked and a single major interaction circled, just as you did in Section A and B. In the first column, check all the interactions that you observed during the activity for the Home Visitor; do the same in the next column for the Focal Child, and the same for the Focal Parent in the final column.

Finally, circle the single one interaction which best describes the major or most frequent interaction you observed during the activity.

In the example we have used, of the Home Visitor and child making a food chart and the Home Visitor discussing nutrition with the parent, the major interaction would probably be:

✓ HV ⟷ FParent	✓ FC ⟶ HV	✓ FP ⟶ HV	CIRCLE ONLY ONE CHECK
(✓) HV ⟶ FChild	___ FC ⟶ FParent	___ FP ⟶ FChild	
___ HV ⟶ FP & FC	___ FC ⟶ HV & FP	___ FP ⟶ HV & FC	
___ HV ⟶ Other & Group	___ FC ⟶ Other & Group	___ FP ⟶ Other & Group	

EXAMPLE:

___ HV ←——→ FParent	___ FC ——→ HV	___ FP ——→ HV
___ HV ——→ FChild	___ FC ——→ FParent	___ FP ——→ FChild

Check the above categories for interactions which have taken place between two people only, such as Home Visitor to F(ocal) Child

___ HV ——→ FP & FC	___ FC ——→ HV & FP	___ FP ——→ HV & FC

Check the above categories for interactions from one person to two people together, such as a Focal Child who interacts equally with both Focal Parent and Home Visitor.

___ HV ←——→ Other & Group	___ FC ——→ Other & Group	___ FP ——→ Other & Group

Check this last category if there are more than the Home Visitor, Focal Parent, and Focal Child present during the home visit and interaction by one or all of the three principle people is to an "Other" person, or to the entire group of people taking part in the the visit. You might check this category when there are three children involved in the home visit and the Focal Parent interacts with them all as a group. An "Other" person may be another child, or another adult. Do not consider yourself as an "Other" while you are observing the home visit.

DO NOT FORGET TO RECORD THE TIME STOPPED FOR THE FINAL ACTIVITY OF THE HOME VISIT.

IV. IMPRESSIONS

After you have completed the Post-Visit Interview with the Home Visitor, complete the impressions checklists for the Home Visitor, Focal Parent, and Focal Child. A sample of these two final pages is attached. (See pages 16 and 17.)

The checklists in this section were modeled after the Pupil Observation Checklist (POCL) which you will have completed previously on the Focal Child. Fill out this checklist for the Focal Child, based on your observation of him/her during the home visit. The child behavior may be different in these different situations; this part of the instrument should indicate some of those changes, if they occur.

Using the same procedures you learned in administering the POCL, check the box on the scale between each item which best represents the behavior and attitudes you observed during the visit.

After the Visit

Double check the entire observation instrument to make sure you have filled out all appropriate blanks. Review the observation sheets to make sure you have indicated with a circle a major mode of interaction for each of the three participants in Section A.

Check to see that you have circled the major topic (or in a few cases, the major two topics, ranked #1 and #2) for the Child and Parent Activities in Section C.

Check to see that you have briefly described the activity, and materials used in the activity.

Check to see that you have indicated a single major interaction, which characterized the activity on the Observation sheet.

C. IMPRESSIONS

This section should be completed as soon as possible after the home visit.

1. Who was involved during the Hom _____

_____

_____

2. Participant Checklists

Please complete a checklist for each of the three major participants in the home visit, the Home Visitor, Focal Parent, and Focal Child. Procedures developed for the Pupil Observation Checklist (POCL) should be used for completing these checklists.

a. HOME VISITOR

ALERT	( )	( )	( )	( )	( )	( )	( )	TIRED
SHY	( )	( )	( )	( )	( )	( )	( )	SOCIABLE
OUTGOING	( )	( )	( )	( )	( )	( )	( )	WITHDRAWN
INVOLVED	( )	( )	( )	( )	( )	( )	( )	INDIFFERENT
CONFIDENT	( )	( )	( )	( )	( )	( )	( )	NERVOUS
CASUAL	( )	( )	( )	( )	( )	( )	( )	FORMAL
CALM	( )	( )	( )	( )	( )	( )	( )	EXCITED
DEFENSIVE	( )	( )	( )	( )	( )	( )	( )	AGREEABLE
ACTIVE	( )	( )	( )	( )	( )	( )	( )	PASSIVE
STRUCTURED	( )	( )	( )	( )	( )	( )	( )	UNSTRUCTURED

(over)

b. FOCAL PARENT

ALERT	( )	( )	( )	( )	( )	( )	( )	TIRED
SHY	( )	( )	( )	( )	( )	( )	( )	SOCIABLE
OUTGOING	( )	( )	( )	( )	( )	( )	( )	WITHDRAWN
INVOLVED	( )	( )	( )	( )	( )	( )	( )	INDIFFERENT
CONFIDENT	( )	( )	( )	( )	( )	( )	( )	NERVOUS
CASUAL	( )	( )	( )	( )	( )	( )	( )	FORMAL
CALM	( )	( )	( )	( )	( )	( )	( )	EXCITED
DEFENSIVE	( )	( )	( )	( )	( )	( )	( )	AGREEABLE
ACTIVE	( )	( )	( )	( )	( )	( )	( )	PASSIVE
STRUCTURED	( )	( )	( )	( )	( )	( )	( )	UNSTRUCTURED

c. FOCAL CHILD

RESISTIVE	( )	( )	( )	( )	( )	( )	( )	COOPERATIVE
SHY	( )	( )	( )	( )	( )	( )	( )	SOCIABLE
OUTGOING	( )	( )	( )	( )	( )	( )	( )	WITHDRAWN
INVOLVED	( )	( )	( )	( )	( )	( )	( )	INDIFFERENT
DEFENSIVE	( )	( )	( )	( )	( )	( )	( )	AGREEABLE
ACTIVE	( )	( )	( )	( )	( )	( )	( )	PASSIVE
GIVES UP	( )	( )	( )	( )	( )	( )	( )	KEEPS TRYING
QUIET	( )	( )	( )	( )	( )	( )	( )	TALKATIVE
ATTENTIVE	( )	( )	( )	( )	( )	( )	( )	INATTENTIVE
CALM	( )	( )	( )	( )	( )	( )	( )	EXCITED

EXHIBIT III-2:

MAJOR HOME VISIT INTERACTIONS
OBSERVED DURING FALL '73 SITE VISITS

MAJOR INTERACTIONS Actor — Acted Upon	Percent of All Activities During Which Interaction Is Dominant	*Percent of Activities during Which Interaction Occurs at least Once	Average Length of Activities (Minutes)
Home Visitor to Parent	32%	43%	6.3
Home Visitor to Child	30%	44%	9.4
Home Visitor to Parent & Child	8%	14%	8.4
Home Visitor to Other & Group	1%	1%	12.7
	TOTAL 71%		
Parent to Home Visitor	6%	50%	6.6
Parent to Child	6%	19%	7.2
Parent to Home Visitor & Child	1%	17%	18.3
Parent to Other & Group	0%	4%	11.0
	TOTAL 13%		
Child to Home Visitor	10%	47%	10.5
Child to Parent	2%	11%	10.5
Child to Home Visitor & Parent	3%	16%	12.2
Child to Other & Group	1%	6%	20.5
	TOTAL 16%		

*This column is not based upon a mutually exclusive coding system but is instead a representation of the total number of activities during which the mode occurred. Thus, more than one mode may be tallied within the same activity, and percentages will total more than 100%.

EXHIBIT III-3

INTERACTION MODES FOR 6 INTERACTION PATTERNS

A. The first number in each column represents the percentage of activities in which a dominant mode occurs.

B. Parentheses include modes which occurred at least once during an activity but may or may not have been dominant modes.

	THE HOME VISITOR TO:		THE PARENT TO:		THE CHILD TO:	
	the Parent	the Child	the Home Visitor	the Child	the Home Visitor	the Parent
Tells/Explains	(A) 34% (B) (63%)	16% (55%)	12% (37%)	4% (23%)	6% (34%)	5% (16%)
Asks	2% (33%)	8% (47%)	1% (30%)	5% (21%)	1% (26%)	- (8%)
Listens	4% (46%)	3% (49%)	33% (77%)	2% (34%)	18% (67%)	2% (28%)
Watches	- (30%)	6% (50%)	4% (63%)	6% (37%)	6% (57%)	- (21%)
Shows	2% (28%)	5% (41%)	- (5%)	2% (17%)	2% (28%)	1% (12%)
Reads/Sings	.5% (6%)	4% (10%)	.5% (4%)	1% (3%)	2% (5%)	- (2%)
Does	- (10%)	3% (28%)	- (5%)	2% (13%)	22% (39%)	3% (12%)
Ignores	-	- (2%)	-	- (2%)	- (2%)	- (2%)
Blames	-	- (1%)	-	- (2%)	-	-
Praises	- (4%)	1 (24%)	- (2%)	.5% (12%)	-	-
Other	-	- (1%)	-	- (3%)	-	-
Uninvolved	.5% (1%)		11% (11%)		26% (26%)	

EXHIBIT III-4:

DOMINANT CONTENT OF PARENT AND CHILD ACTIVITIES

(Parenthesis Include Content Areas Which Were Part Of An Activity But May Or May Not Have Been The Dominant Content Area.)

Parent Activities	Percent of Parent Activities during Which This Content Was Dominant*	Percent of Parent Activities during Which this Content Played Some Part
Socializing	14%	(20%)
Health	15%	(20%)
Nutrition	11%	(9%)
Employment	-	(-%)
Legal Services	1%	(-%)
Welfare & Other Services	2%	(4%)
Education of Parent	6%	(7%)
Education of Focal Child	36%	(26%)
Education of Sibling	1%	(4%)
Interpersonal Problems	2%	(3%)
Other Home Start Activities	12%	(12%)

*A DOMINANT PARENT ACTIVITY WAS RECORDED FOR 52% OF ALL ACTIVITIES

Child Activities	Percent of Child Activities during Which This Content Was Dominant*	Percent of Child Activities during Which This Content Was Included
Socializing	6%	(14%)
Fine Motor	19%	(23%)
Gross Motor	2%	(2%)
Basic Concepts	22%	(34%)
Language	9%	(14%)
Musical	2%	(4%)
Self-Image	2%	(6%)
Environment	2%	(6%)
Health	6%	(8%)
Nutrition	4%	(5%)
Other Home Start Activities	2%	(2%)
Uninvolved	24%	(25%)

*A DOMINANT CHILD ACTIVITY WAS RECORDED FOR ONLY 66% of ALL ACTIVITIES

EXHIBIT III-5:

RELATIONSHIP BETWEEN USE OF MATERIALS AND DOMINANT CONTENT OF CHILD RELATED ACTIVITY

	NUMBER OF ACTIVITIES		
Child Related Activities	Materials Brought by Home Visitor (276 Activities)	Materials Already in Home (18 Activities)	No Materials Used (90 Activities)
Socializing	5	2	13
Fine Motor	67	2	1
Gross Motor	6	1	1
Basic Concepts	67	10	3
Language	29	0	1
Musical	4	1	4
Self-Image	6	0	2
Environment	6	0	1
Health	9	0	5
Nutrition	11	0	0
Other Home Start Activities	4	0	4
Child Uninvolved	44	2	43
	TOTAL: 276 (72% of Child Related Activities	TOTAL: 18 (5% of Child Related Activities	TOTAL: 90 (23% of Child Related Activities

EXHBIT III-6

RELATIONSHIP BETWEEN USE OF MATERIALS AND DOMINANT CONTENT OF PARENT RELATED ACTIVITY

	NUMBER OF ACTIVITIES		
Parent Related Activities	Materials Brought by Home Visitor	Materials Already in Home	No Materials Used
Socializing	13*	1	14
Health	15	1	14
Nutrition	15	0	4
Employment	0	0	0
Legal Services	1	0	0
Welfare and Other Services	2	0	3
Education of Parent	8	1	3
Education of Focal Child	58	3	8
Education of Sibling	3	0	0
Interpersonal Problems	1	0	4
Other Home Start Activities	10	0	16
	TOTAL: 130 (64% of Parent Activities)	TOTAL: 6 (3% of Parent Activities)	TOTAL: 66 (33% of Parent Activities)

*While a certain content area may be recorded as dominant, other content areas may also be included during an individual activity. For example, while socializing may be dominant, the Home Visitor may also be placing child materials on the table or floor for the child's inspection.

EXHIBIT III-7

TONE OF INTERACTIONS

Number of Responses
(Mean Score in Parenthesis)

	7	6	5	4	3	2	1	
SOCIABLE								SHY
Home Visitor (6.6)	36	12	4	0	0	0	0	
Parent (5.3)	15	15	7	5	5	4	1	
Child (4.7)	16	8	7	3	8	4	6	
OUTGOING								WITHDRAWN
Home Visitor (6.4)	29	17	6	0	0	0	0	
Parent (5.2)	11	18	8	7	3	5	0	
Child (5.1)	14	10	10	8	6	4	0	
INVOLVED								INDIFFERENT
Home Visitor (6.5)	30	17	4	0	0	0	0	
Parent (5.6)	18	12	14	4	1	3	0	
Child (5.4)	13	20	5	8	3	2	1	
AGREEABLE								DEFENSIVE
Home Visitor (6.2)	27	17	3	3	1	1	0	
Parent (5.8)	22	16	5	2	7	0	0	
Child (5.5)	13	20	5	5	6	2	0	
ACTIVE								PASSIVE
Home Visitor (6.0)	17	23	9	2	0	0	1	
Parent (5.0)	7	14	16	6	4	5	0	
Child (5.4)	12	19	10	5	3	3	0	
ALERT								TIRED
Home Visitor (6.2)	29	13	6	1	1	1	1	
Parent (5.1)	14	13	10	3	4	6	2	
CONFIDENT								NERVOUS
Home Visitor (6.3)	28	17	6	1	0	0	0	
Parent (4.7)	8	12	11	7	7	5	2	
CASUAL								FORMAL
Home Visitor (6.1)	24	16	7	3	2	0	0	
Parent (5.6)	13	21	9	4	3	1	1	
CALM								EXCITED
Home Visitor (5.9)	17	21	6	6	1	0	0	
Parent (5.4)	11	18	13	5	3	2	0	
Child (4.6)	7	16	7	9	3	5	5	
UNSTRUCTURED								STRUCTURED
Home Visitor (2.4)		3	5	2	9	16	17	
Parent (4.0)	4	11	5	11	5	12	4	

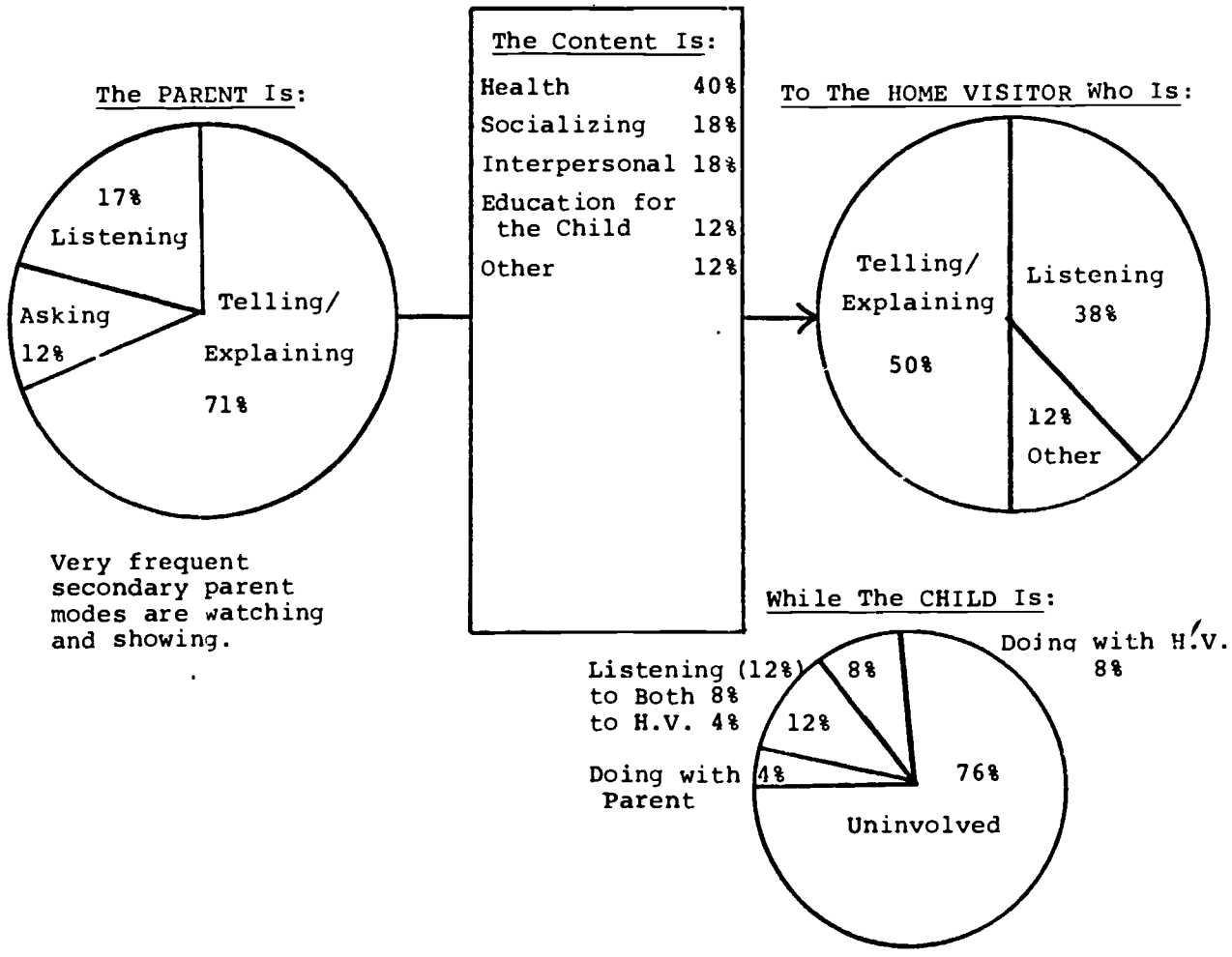
Other CHILD Indicators Include:

COOPERATIVE (5.4) / RESISTIVE
KEEPS TRYING (5.2) / GIVES UP
TALKATIVE (4.2) / QUIET

EXHIBIT III-8:

Dominant Interaction: PARENT TO HOME VISITOR

(6% of All Activities
13% of All Visit Time)

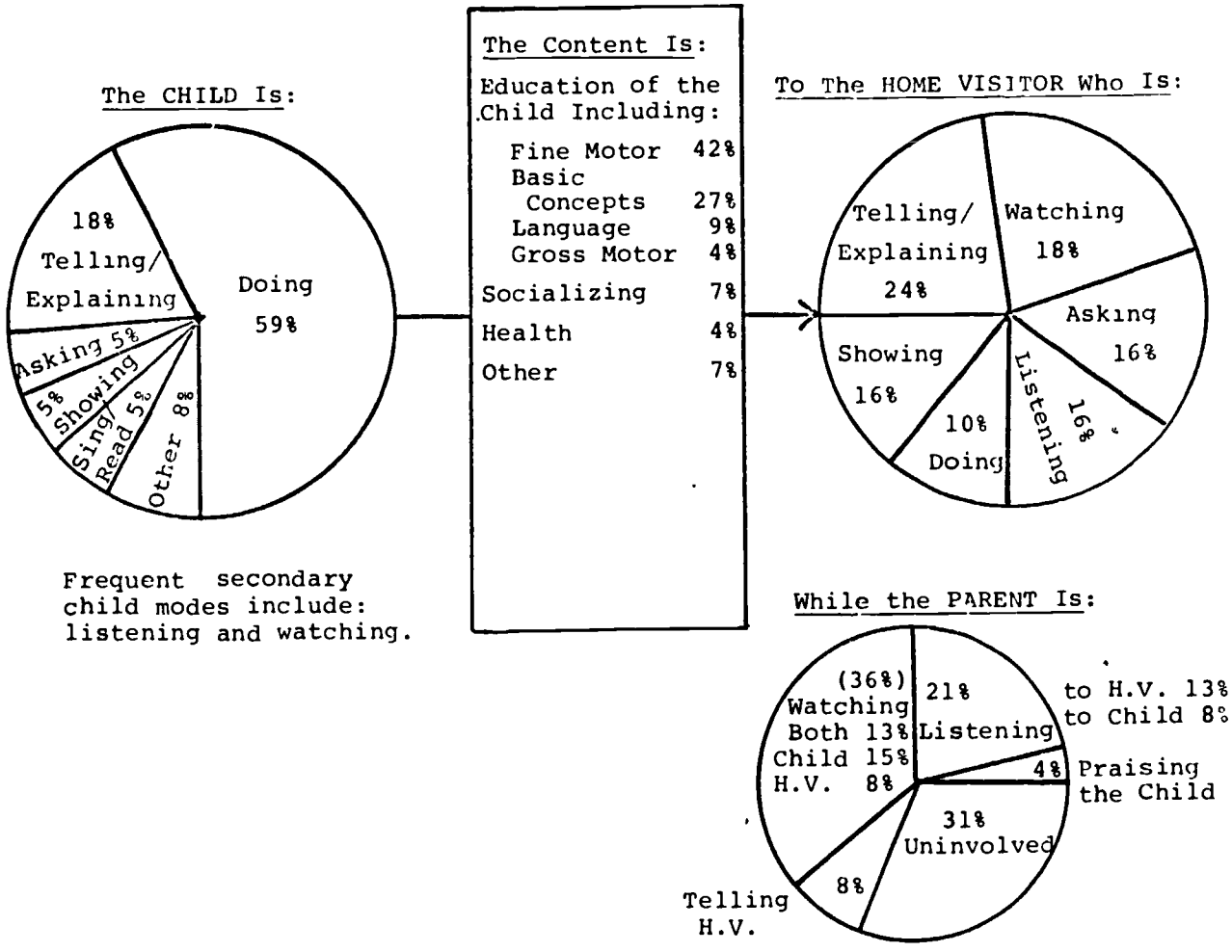


During a typical visit, one of the eight dominant interactions is initiated by the parent. The mode is verbal rather than active. Health is a notably frequent content of discussion, and education for the child is seldom a topic brought up by the parent.

EXHIBIT III-9:

Dominant Interaction: CHILD TO HOME VISITOR

(10% of All Activities
13% of All Visit Time)



The child periodically dominates an interaction with the Home Visitor. Both child and Home Visitor utilize a variety of interactions modes, while the parent's participation appears to be quite limited. Education is the prevailing content area.

CHAPTER IV: COSTS

Exhibits IV: 1-6

EXHIBIT IV-1:

DISTRIBUTION OF TOTAL OCD COSTS AND LEVERED RESOURCES ACROSS FUNCTIONAL CATEGORIES

ALABAMA

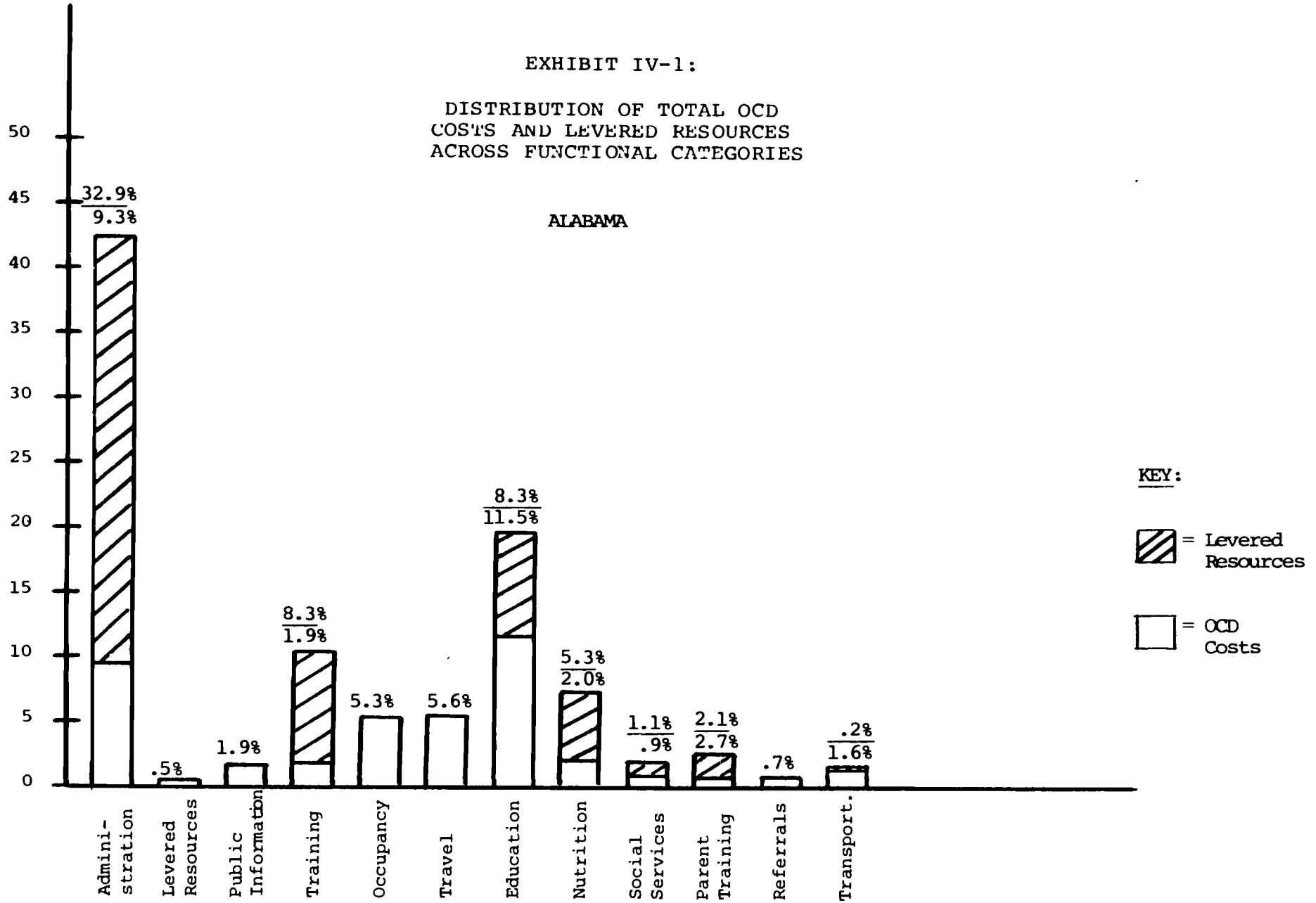


EXHIBIT IV-2:

DISTRIBUTION OF TOTAL OCD COSTS AND LEVERED RESOURCES ACROSS FUNCTIONAL CATEGORIES

ARKANSAS

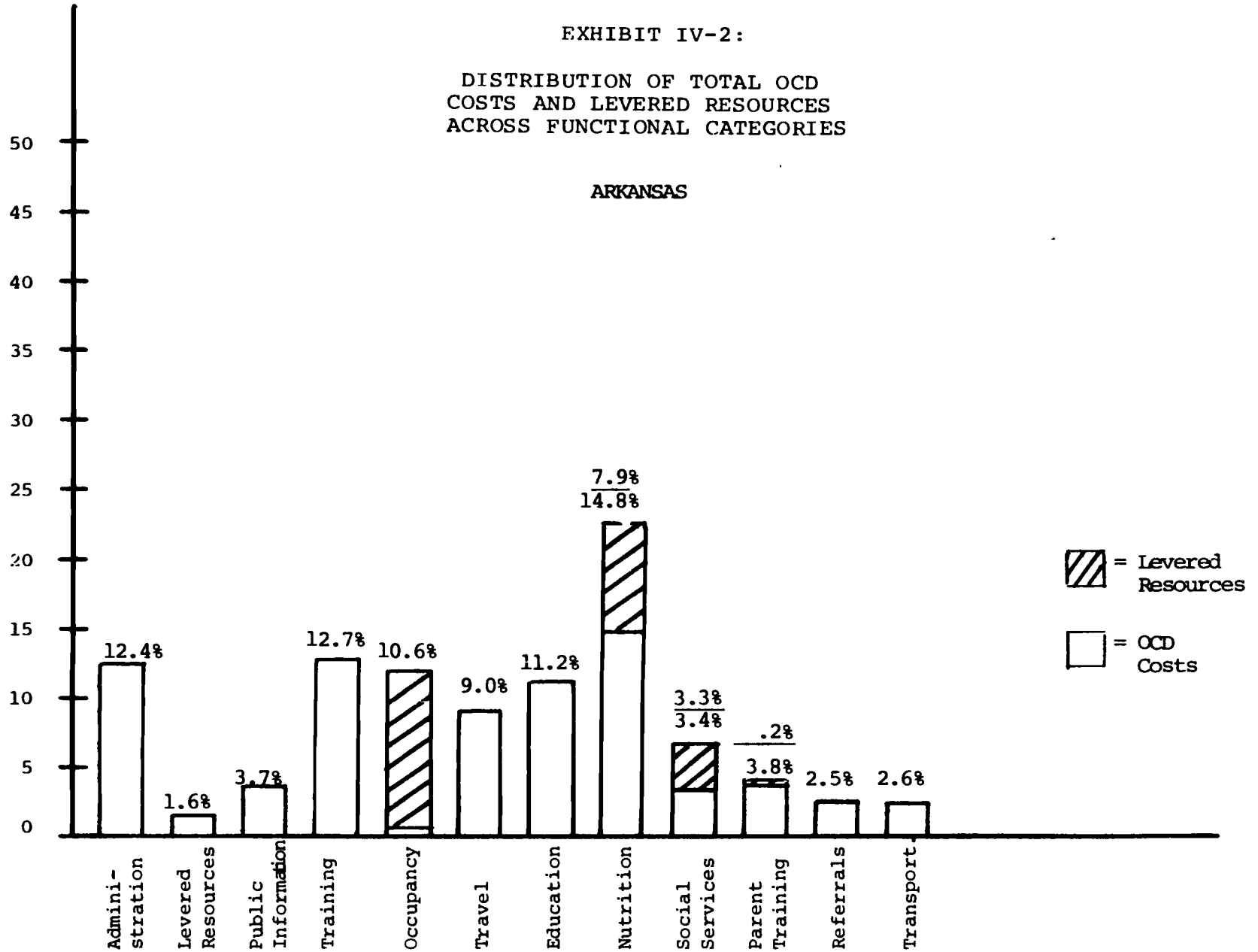


EXHIBIT IV-3:

DISTRIBUTION OF TOTAL OCD COSTS AND LEVERED RESOURCES ACROSS FUNCTIONAL CATEGORIES

KANSAS

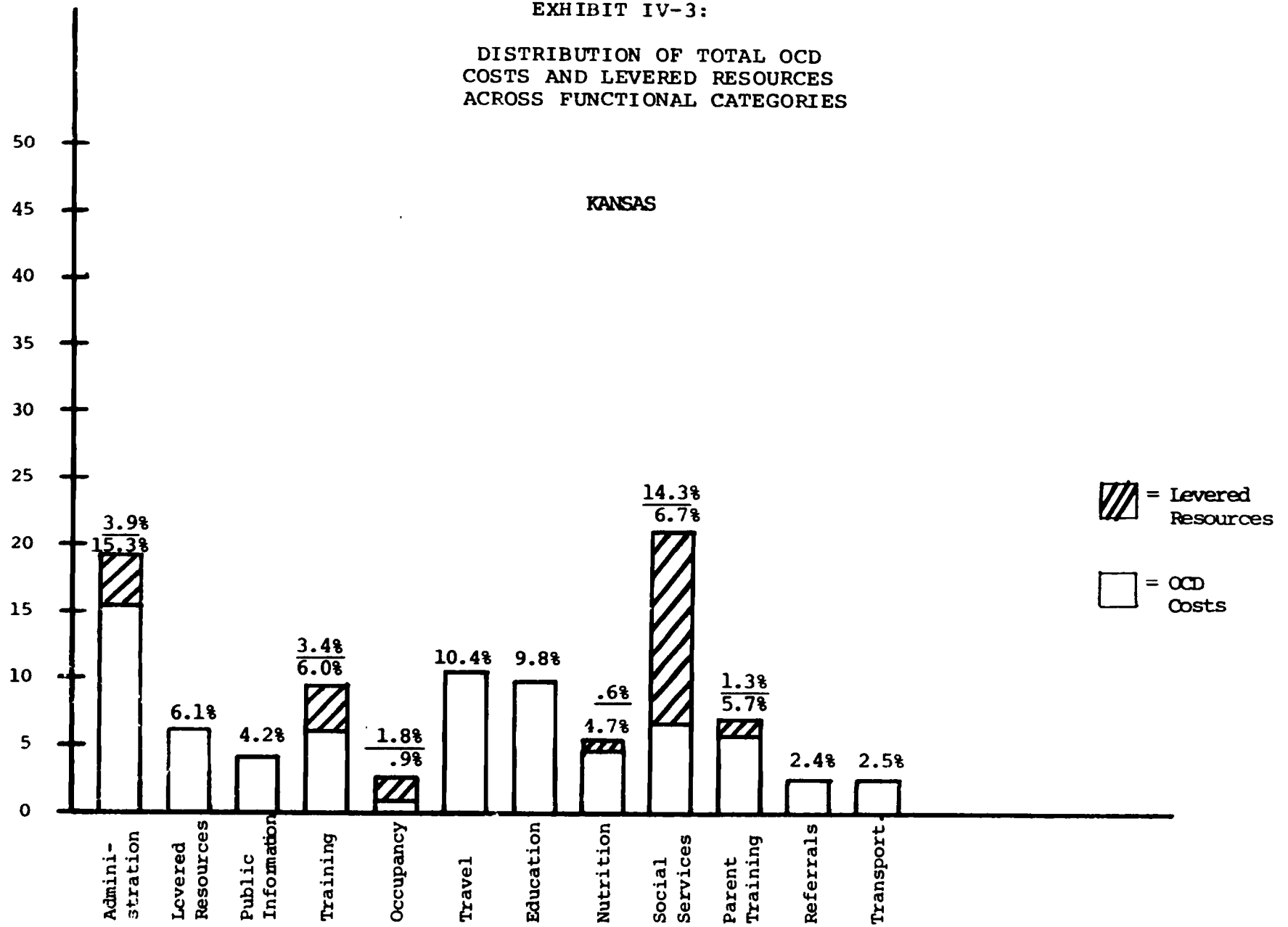


EXHIBIT IV-4:

DISTRIBUTION OF TOTAL OCD COSTS AND LEVERED RESOURCES ACROSS FUNCTIONAL CATEGORIES

TEXAS

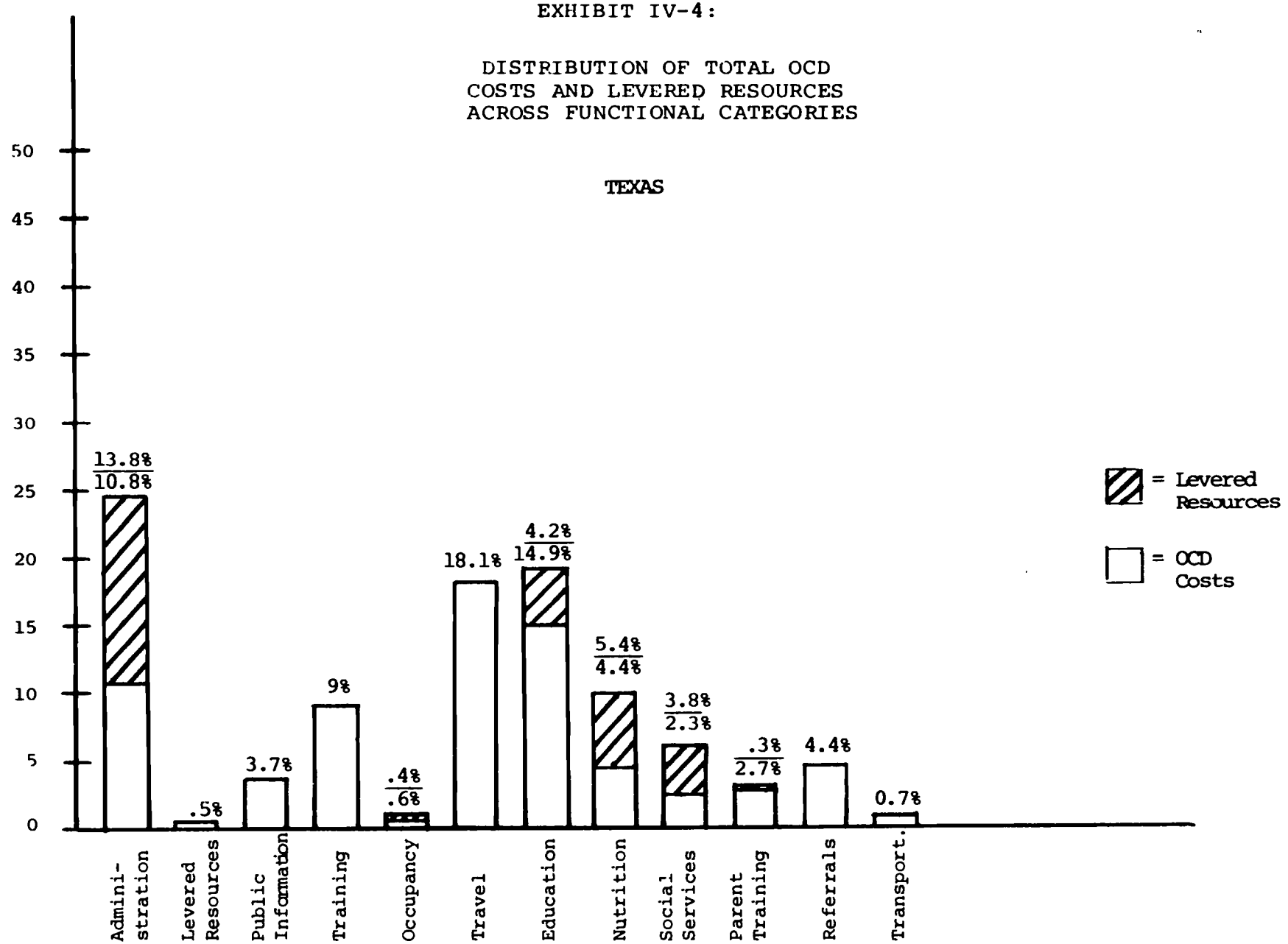


EXHIBIT IV-5:

DISTRIBUTION OF TOTAL OCD COSTS AND LEVERED RESOURCES ACROSS FUNCTIONAL CATEGORIES

OHIO

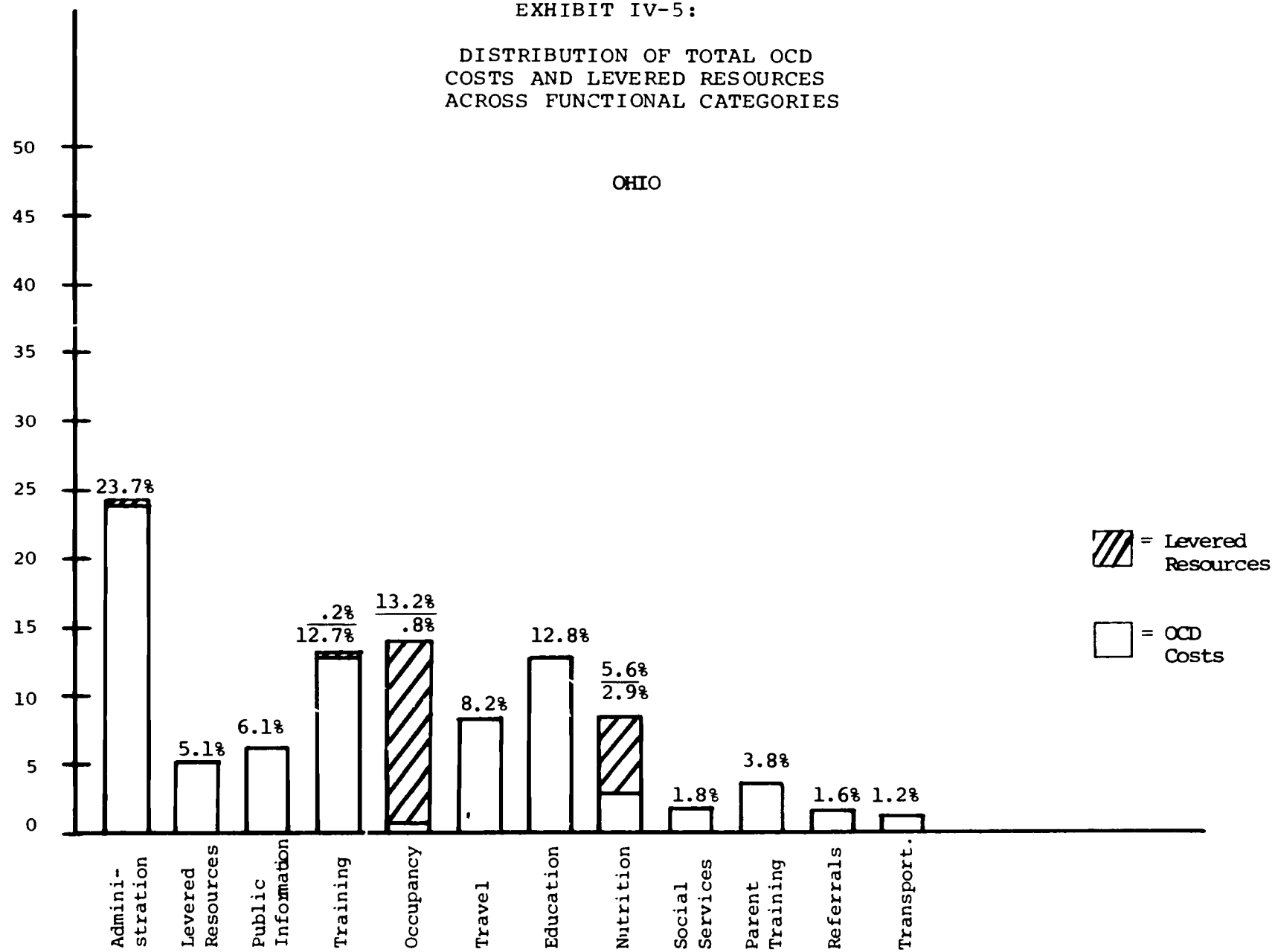


EXHIBIT IV-6:

DISTRIBUTION OF TOTAL OCD COSTS AND LEVERED RESOURCES ACROSS FUNCTIONAL CATEGORIES

WEST VIRGINIA