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ABSTRACT

This report, sixth in a series of Child and Family Resource Program (CFRP) evaluations, focuses on CFRP impact on families within outcome domains other than child development after a year and a half of program participation, additionally describing the nature and extent of that participation. Chapter 1 provides an overview of the CFRP evaluation design, including a description of research questions, study components, and data collection procedures. Also presented is a brief profile of the characteristics of families participating in the study and a discussion of sample attrition. Chapter 2 defines CFRP treatment and describes factors concerned with service delivery, including assessment of families' needs and strengths, individualization of program emphasis, referrals, and goals. This chapter also examines the amount of contact families have had with the program and its various activities, reporting on ways in which families are benefited from their involvement. Chapter 3 assesses program impact by comparing CFRP families with a group of families not enrolled with regard to several outcome domains likely to be affected by program participation (use of community services and support, family circumstances, health, and parent/child interaction). Finally, chapter 4 summarizes evaluation results presented in chapters 2 and 3, discussing implications of these findings. Technical support materials for the observation study of parent/child interaction are appended along with F-ratio data associated with the study outcomes. (MP)

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EVALUATION OF THE CHILD AND FAMILY RESOURCE PROGRAM (CFRP)

Phase III Research Report

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FOREWORD

In 1973, the Administration for Children, Youth and Families (ACYF) initiated the Child and Family Resource Program (CFRP) as part of the Head Start Improvement and Innovation planning effort. CFRP was funded as a demonstration program with the intent of developing models for providing services to low-income families with young children--models which could be adapted by different communities serving different populations. There are eleven CFR programs across the country, one in each of the ten HHS (formerly HEW) regions and one representing the Indian and Migrant Division. Each program receives approximately $155,000-$170,000 per year to serve a minimum of 80 families.

CFRP is a family-oriented child development program which provides support services crucial for the sustained healthy growth and development of families who have children from the prenatal period through age eight. It promotes child development and meets children's needs by working through the family as a unit and provides continuity in serving children during the major stages of their early development. CFRP services are offered within the context of three major program components--infant-toddler, Head Start, and preschool-school linkage. Each is intended to serve families with children in a specific age group; all three taken together are intended to provide continuity--especially developmental and educational continuity--across the period of a child's life from before birth to the primary grades in school.

Another distinctive feature of CFRP is its emphasis on a comprehensive assessment of each family's strengths and needs and the development with the family of an individualized plan for services to be obtained through CFRP. Families enrolled in CFRP receive the same comprehensive services that

are offered by Head Start and additional services tailored to the needs of each family. At the same time, CFRR works to reduce fragmentation and gaps in the delivery of services by existing community programs and agencies.

In October 1977, the Administration for Children, Youth and Families funded a longitudinal evaluation to determine the effectiveness of the Child and Family Resource Program. The evaluation is designed to address three major policy questions:

- What is the nature and extent of services that should be provided to families and children in order to meet their needs, enhance their strengths and foster independence?
- What are effective processes for the provision of these services?
- What can be learned about the developmental processes of families and how they relate to the developmental processes of children?

The current evaluation of CFRP was preceded by two other studies of the program, both also funded by ACYF. The first, conducted by Huron Institute in 1974-75, was an effort to determine the feasibility of a summative evaluation of CFRP. A formative evaluation of CFRP was also undertaken in 1974-75, by Development Associates Inc. A follow-up study was conducted by the same contractor in 1975-77.

This is the sixth in a series of CFRP evaluation reports. The first report (February 1979) presented the overall study design. Study implementation and the collection of baseline data on evaluation families were the focus of the second report (February 1979). The third report (February 1980) consisted of three volumes: Volume I documented the first six months of the study and examined initial program

impact on families; descriptive information about CFRP operations at the six evaluation sites was presented in Volume II; the third volume was a summary of the findings presented in the first two.

The fourth report (November 1980) presented descriptive profiles of all eleven CFRPs and a series of anecdotal "success stories" concerning the impact CFRP has had on six families and their children. The report also identified models of certain aspects of CFRP operations that might be adapted or replicated in other communities that wish to provide family-oriented child development services. The fifth report (December 1980) focused on the infant-toddler component of CFRP and examined the program's impact on the development of children approximately a year to a year and a half after they entered the program. This sixth report focuses on CFRP impact on families within outcome domains other than child development, after a year and a half of program participation, and on the nature and extent of that participation.

This report is organized into four chapters. Chapter 1 provides an overview of the CFRP evaluation design, including a description of research questions, study components, and data collection. Also presented is a brief profile of the characteristics of families participating in the study and a discussion of sample attrition. Chapter 2 defines CFRP treatment and describes processes used to deliver services to families, including assessment of needs and strengths, individualization of program emphasis, referrals, and goals. This chapter also examines the amount of contact families have with the program, including levels of participation in various program activities, and ways in which families are benefiting from their involvement in CFRP. Chapter 3 assesses program impact by comparing CFRP families with a group of families not enrolled in the program in several outcome domains which

are likely to be affected by participation in CFRP: use of community services and support, family circumstances, health, and parent-child interaction. Chapter 4 summarizes evaluation results presented in Chapters 2 and 3 and discusses the implications of these findings.

Acknowledgments

This report could not have been completed without the cooperation and assistance of numerous persons and groups. Several of these deserve special recognition for their contributions to this report and the evaluation effort.

We are especially grateful to Dr. Esther Kresh, the ACYF Project Officer for this evaluation, for her continuing guidance, assistance, and support. We also want to express our thanks to Martella Pollard, Director of the CFRP Demonstration, and to Ray Collins, Chief of the Development and Planning Division at ACYF, for their interest, enthusiasm, and guidance.

We wish to acknowledge the valuable assistance the directors and staff at the six impact study sites have provided in the evaluation effort. They have spent numerous hours completing records and responding to questions about the operations of their program and services delivered to families. The families in the CFRP and control/comparison groups at each of the six sites deserve recognition for permitting our staff to collect program impact data. Special thanks go to the 60 families in Oklahoma City and St. Petersburg who participated in a series of in-home observations designed to obtain data concerning interactions between parent and child.

We also wish to thank the National Advisory Panel for their guidance and assistance--Drs. Walter Allen, Tony Bryk Jessica Daniel, Frank DiVesta, and Luis Laosa. In addition, we were fortunate to have Dr. (Ruth) Ann O'Keefe as an ad hoc member of our panel.

Special thanks go to our subcontractor, Research for Children (RFC) of Menlo Park, California, for the key role its staff played in the TIES (Toddler and Infant Experiences System) observation study conducted in the spring. RFC had responsibility for the training of on-site videotaping staff, the coding of videotapes, and review of the observation study results. In particular, we wish to thank Dr. Jean Carew, Jo Rosenberger, Jay Spriggs, and the RFC coding staff.

Finally, we would like to acknowledge the work of Abt Associates Inc. staff and consultants to the project. Special thanks go to Dennis Affholter, former Director of Research, for playing a key role in analytic tasks and for setting the tone for rigorous adherence to standards of scientific evaluation. Responsibility for data processing and analytic work was taken over by Lorie Brush in late fall, with statistical support being provided by Judy Singer. Other staff who assisted with data processing and analytic tasks included Lucy Algere-Knox, David Connell (TIES observations), Lynell Johnson, and Roz Ladner.

The management of the data collection effort was anchored once again by Ilona Ferraro, with the help of Jan Stepto-Millett, Lucy Algére-Knox, and Roz Ladner. Jan Stepto-Millett also was in charge of the ongoing record-keeping system concerning family participation, referrals, and goals, and for liaison with program staff. We also wish to acknowledge the special role of our on-site staff at the six impact study

sites who had responsibility for the tracking of families and spring data collection.

Special thanks go to Lynell Johnson and Jeff Travers, a consultant to the project, for assisting me with data interpretation and report writing tasks. Special thanks also go to our administrative and secretarial staff for the numerous ways in which they assisted project staff in the preparation of this report: Patricia McMillan, Ann Hondrogen, and Kathe Phinney.

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Project Director

Chapter 1

EVALUATION OVERVIEW

This chapter gives a general description of the CFRP evaluation, which is designed to serve as a context for the information reported in subsequent chapters. Section 1.1 describes the research design of the evaluation and the four component studies as they relate to the research questions. Section 1.2 describes the data collection effort--methods of inquiry, instrumentation, and timetable. Section 1.3 presents a brief profile of the characteristics of the sample of families participating in the impact study component of the evaluation. The section also discusses sample attrition--reasons for family attrition, and the effects of attrition on the comparability of the CFRP and control/comparison groups.

1.1 Evaluation Phases and Components

The CFRP evaluation, funded in October 1977 by the Administration for Children, Youth and Families, seeks to provide detailed information about the effectiveness of CFRP as a whole, of individual programs, and of particular program elements or configurations of elements. Such information can aid ACYF in making decisions about the expansion of the program and/or dissemination of its most important and effective features.

The first phase of the CFRP evaluation (1977-79) was devoted to redesign, start-up of the study, and collection of baseline data. In Phase II (1979-80), the evaluation examined CFRP's impact on families after six months in the program, as well as CFRP treatment and processes used to deliver services to families. The major focus of the third phase of the evaluation (1980-81) is on program impact after families have participated in CFRP for a year and a half.

The initial design for the CFRP evaluation consisted of three distinct but interrelated components which address the following four objectives:

- description of CFRPs and their operations;
- identification of program models;
- linking of family outcomes to participation or nonparticipation in CFRP; and
- linking of family outcomes to particular aspects of CFRP treatment (characteristics of staff and program) and to family characteristics.

The three component studies--program, impact, and process/treatment--are complementary ways of viewing the effects and effectiveness of CFRP.

The program study addresses the first two objectives of the evaluation. This component is designed to develop a comprehensive picture of the operations of CFR programs. Information collected during site visits and in interviews with program staff is used to develop profiles of program implementation and to identify models of certain aspects or operations of the program. The program study establishes a descriptive context for the statistical and analytic findings of other components of the evaluation.

The impact study is designed to address the third evaluation objective. The effects of CFRP services on families and children are assessed by comparing CFRP families with a group not enrolled in the program. This study is being carried out at six of the eleven CFRPs: Jackson, MI; Las Vegas, NV; New Haven, CT; Oklahoma City, OK; St. Petersburg, FL; and Salem, OR. These six programs were not randomly selected; they were chosen on the basis of their ability to recruit the requisite number of families for the impact study.

Families entered the evaluation when they had a child less than one year old and were randomly assigned either to CFRP or to a control/comparison group. At entry into the evaluation (fall 1978), there were an average of 39 CFRP and 38 control/comparison families per site. (Sample sizes at each site at various data collection points are presented in Section 1.3.) The evaluation families will be followed until the focal child has completed at least one year of elementary school (1985).

The process/treatment study focuses on the CFRP families who participate in the impact study at five of the six sites.* This study is designed to explore relationships among characteristics of families and staff, interactions between staff and families, services provided, family participation in program activities, and program impact.

A fourth component has been added to the evaluation in Phase III. The ethnographic study, initiated in fall 1980, is designed to provide a more indepth understanding of how CFRP works with families and functions as a child development and family support program. The objective of this study is to develop holistic descriptions of CFRP relationships with, and provision of services to, selected families and their children. It examines what happens within CFRP to bring about changes for different kinds of families, as well as the quality of CFRP as it is experienced on an everyday level by individual families and children. The design calls for following eight families at each of the five process/treatment sites for a period of six months. The study involves different types of families (single- and two-parent families, working and non-working mothers, teenage mothers, and multi-problem or high-risk families). Data collection is scheduled for completion in spring 1981.

*New Haven was excluded from this study in spring 1980 due to high incidence of missing data.

1.2 Data Collection

Data for the CFRP evaluation were collected at several time points during the first year and a half after the study design was implemented in the six programs in fall 1978 (Table 1-1). Data collection for each component study took different forms, as described below.

Program Study

Data for the program study were obtained from interviews with CFRP staff and from observations during three visits to each of the six sites selected for inclusion in the impact and process/treatment studies. These site visits took place in fall 1978, spring 1979, and spring 1980. Brief interviews also were conducted with staff from the five programs not included in the impact study--Bismarck, ND; Gering, NE; Modesto, CA; Poughkeepsie, NY; and Schuylkill Haven, PA--who attended the spring 1980 CFRP conference in Washington, D.C. The findings resulting from the fall 1978 and spring 1979 site visits were presented in Volume II of the Phase II Report (February 1980). Data collected in spring 1980 were presented in the Phase III Program Study Report (November 1980).

Program study data were collected by Abt Associates' Cambridge staff. In addition, demographic data on CFRP families and staff were obtained in fall 1978 using self-administered questionnaires and forms completed from existing program records.

Impact Study

The impact study focuses on five outcome domains likely to be affected by family participation in CFRP:

Table 1-1

Data Collection Timetable

Component	Fall 1978	Spring 1979	Fall/Winter 1979-80	Spring 1980	Fall/Winter 1980-81
Program Study	X	X	-	X	-
Impact Study	X	X	X	X	-
Process/Treatment Study	X	X	-	X	-
Ethnographic Study	-	-	-	-	X
	Baseline	After six months	After a year to a year and a half	After a year and a half	

- family circumstances (e.g., employment, education, and housing);
- maternal and child health;
- parent-child relationships and interaction;
- child development and achievement; and
- capacity for independence (use of community resources, locus of control and coping strategies, affiliation with family and social networks).

Several different methods were used to collect data concerning CFRP's impact on families and children: (1) parent interviews; (2) administration of standardized child development scales; (3) observation of parent-child interaction; and (4) collection of birth records, as well as height and weight data on children. Except for the birth records, all impact study data were collected by on-site research staff.

Parent Interviews--The first parent interview (administered in fall 1978) was designed to collect baseline data on four of the five outcome domains: family circumstances, health, parent-child relationships and interaction, and capacity for independence. In spring 1979, follow-up interviews were conducted to determine CFRP's impact on families in these outcome domains after six months of participation in the program. The data collected were difficult to analyze and interpret. It became apparent that it is highly unlikely that all families would benefit from the program in the same way because of the highly individualized nature of CFRP, which tailors program services to meet specific family needs. This is particularly true in the areas of family circumstances, capacity for independence, and health; CFRP's impact in these three domains can best be demonstrated by linking outcomes to needs. For example, one would not expect change in

mother's employment status as a program impact except in families that indicated a need or desire for such a change. Comparison of the CFRP and control/comparison groups on this dimension--that is, the relationship between needs and outcomes--was not feasible during the first six months of the impact study because data concerning family needs were available only for CFRP families.

In spring 1980, when the third parent interview was administered, data concerning family needs were collected from both groups of families. Among the strategies used to obtain needs data were asking parents about desired changes and about satisfaction with various aspects of their lives--access to services, housing, health status, and so on. Family needs data were not collected on the two remaining outcome domains--child development and parent-child relationship--because all families are expected to benefit from the program in these two areas over time. These domains, in fact, are viewed as central to the overall objectives of CFRP: "to promote the development of children" by improving or strengthening parenting skills and interactions between parent and child.

Assessment of Child Development--CFRP's impact on the development or achievement of infants and toddlers was assessed in fall/winter 1979-80, using the Bayley Scales of Infant Development (BSID).* This measure was selected because it was recently standardized (1969) and because it facilitated comparison of CFRP with other research studies, particularly of the Parent-Child Development Center (PCDC) program. The BSID assesses both the mental and physical development of children. At the time of assessment, CFRP children had been enrolled in the program for a year to a year and a half. Bayley data collection took place over

*A more detailed description of the Bayley Scales of Infant Development, as well as findings of this assessment, can be found in the report on The Infant-Toddler Component and Child Impact (December 1980).

a period of six months (October 1979 through March 1980). Assessment of younger children was delayed until they reached 15 months of age.

Plans for subsequent phases of the CFRP evaluation call for assessing CFRP's impact on child development and achievement at regular intervals. The next assessment is scheduled to take place when the children enter Head Start. At most sites and for most children this will occur in fall 1981, after three years of participation in CFRP. After entry into Head Start, yearly assessments are proposed until children have completed one year of public school (1985).

Observations of Parent-Child Interaction--In order to assess CFRP's impact on parent-child interaction, in-home observations were conducted on a sample of families in spring 1980, using the Toddler and Infant Experiences (TIES) system developed and copyrighted by Dr. Jean Carew. The TIES system focuses on the child's interaction with the physical and social environment, particularly with the mother or primary caregiver. It records information about normal, naturally occurring activities in the home. A parallel coding system was developed by Abt Associates Inc. to obtain information about the caregiver's activities which did not involve the child.

The TIES study was conducted in Oklahoma City and St. Petersburg. Observations took place on two different days in order to assess the stability of the observed behaviors and interactions. Data were collected by an on-site team consisting of a cameraperson who videotaped the behaviors of the child and an interviewer who was responsible for observing and recording the off-camera activities and interactions of the mother or primary caregiver. Research for Children of Menlo Park, California had responsibility for the training of camera staff and the coding of videotapes, under the direction of Dr. Jean Carew.

Birth Records and Height and Weight Measures--At the start of the impact study, steps were taken to obtain birth records on all children who were selected to be the focus of the study. In fall 1978, families were asked permission for the release of such records by state Bureaus of Vital Statistics or local hospitals. Attempts to secure the birth records were successful at four of the six sites: Jackson, MI (where the records had to be obtained from hospitals); Las Vegas, NV; St. Petersburg, FL; and Salem, OR. State permission for the release of birth records could not be obtained in Connecticut (New Haven) and Oklahoma.

Height and weight measures were taken on all focal children in spring 1980. These data serve as rough indicators of the child's physical development and nutritional status.

Process/Treatment Study

The process/treatment study is designed to develop a description of the program as it is experienced by families in the evaluation sample. Data on individual families were collected by various means: interviews with CFRP family workers, self-administered staff questionnaires (used only in fall 1978 and spring 1979), interviews with parents, and an ongoing record-keeping system maintained by family workers. All interviews were conducted by on-site research staff. Interviews with family workers focused on their perception of each family, topics emphasized in working with the family, and the degree of the family's involvement in the program; in the spring 1980 interview, special attention was given to the process of reassessing family needs. Interviews with parents dealt with their perception of the program, including benefits received, and their levels of participation in various program activities. The ongoing record-keeping system collected more detailed data on family participation in program activities, as well as on goals and referrals. The record-keeping system

was modified in spring 1980 in an attempt to simplify the data collection task for family workers.

As noted previously, only five of the six impact study sites are now included in the process/treatment study. New Haven was excluded from this component study in fall/winter 1979-80 due to high incidence of missing data concerning participation, referrals, and goals.

Ethnographic Study

Various data collection strategies are being used in the ethnographic study, which was implemented in fall 1980. They include unstructured interviews with staff and families, observations of program activities and interactions between staff and families, and examination of records maintained by CFRP staff. The study is being carried out by on-site researchers with backgrounds in anthropology or sociology. A detailed description of the ethnographic data collection effort will be included in a report on this component study to be prepared in the next phase.

1.3 Evaluation Sample

The CFRP evaluation sample consisted of 466 families when the impact study was implemented in fall 1978. These families were randomly assigned to either a CFRP or a control/comparison group. Slightly over half of the families (236) entered CFRP; 230 were assigned to the control/comparison group. In this section, a brief profile is presented of the characteristics of CFRP families and children at entry into the evaluation. The characteristics of these families were found to be comparable in most respects to those of the control/comparison families.* In presenting profiles of the

*See the Phase II Research Report (Volume I), February 1980, for a discussion concerning the comparability of the two groups. Differences between the two groups are discussed in this section.

CFRP families, particular attention is paid to differences that exist in the populations served by the six programs.

Next, we present sample sizes at each data collection point of the impact study and discuss reasons for family attrition. Finally, we examine the extent to which the families who have remained in the sample continue to be comparable.

Family and Child Characteristics

At entry into the evaluation, the average age of the infants who are the focus of the study was 4.1 months. The oldest child was 12 months; the youngest child was not born until December 1978. Seven percent of the families entered CFRP before the focal child was born. Slightly over half of the infants (55%) are firstborn children. In Las Vegas, however, almost all focal children (95%) are first-borns. This is due to special efforts by the Las Vegas CFRP to recruit first-time mothers for the study.

About one-third of the infants are white and two-thirds non-white; 47 percent are black, 8 percent Hispanic, and 9 percent of other non-white or mixed ethnic background. Four of the six impact study programs (Las Vegas, New Haven, Oklahoma City, and St. Petersburg) serve a predominantly minority population. Most families in Jackson and Salem are white.

Only one-fourth of the children came from two-parent families; 33 percent of the mothers were single parents living with their extended families, 10 percent were single living in households with unrelated adults, with the remaining 33 percent living alone as single parents. Las Vegas had by far the highest proportion (64%) of single parents in extended family situations, undoubtedly due to the fact that it had the highest proportion of teenage mothers (59%) of all six sites.

The majority of mothers at the six sites were under 25 years of age at entry into the evaluation: 44 percent were under 20, 22 percent under 18, 11 percent under 17, and 5 percent under 16. The youngest mother was 12.5, the oldest 42. The average age of the mothers was 22 years.

Slightly over half of the mothers (52%) had completed high school; 11 percent had gone beyond high school, although none had completed four years of college. Eighteen percent of the mothers were continuing their education, with most of them being enrolled in high school equivalency courses. A higher proportion of mothers in Las Vegas (43%) were continuing their education than was the case at other sites, again due to the high proportion of teenage mothers, many of whom were still enrolled in school.

Total household size ranged from 2 to 12, the number of adults from 1 to 7, and the number of children from 1 to 8. Households averaged 4.6 members--2.1 adults and 2.5 children. Families in Salem had the smallest household size (averaging 3.7 members); Las Vegas ranked highest in total household size, with 5.4 members on the average, due to a disproportionately high percentage of mothers living in extended family situations. Twenty-three percent of the families had preschoolers between the ages of three and five in the household; 38 percent had school-age children. However, only 10 percent of the families had children in all three age groups at entry into the evaluation.

The majority of the families received income or financial support from more than one source. Seventy-three percent obtained some welfare assistance; welfare was the primary source of income for two out of five families. In Las Vegas, a significantly smaller proportion of families relied on welfare support as their primary source of income.

This is probably because many mothers at this site received financial support from their extended families. The families reported a mean gross annual household income of $7,286. Incomes varied from a low range of $3,000-$6,000 to a high of over $21,000. Mean per capita income was $1,622.

The above description of the sample points to several differences in characteristics of families and children across the six sites. These included differences in the proportion of firstborn children, ethnic background, mother's age, proportion of teenage mothers, family composition (single parents living alone and those in extended family situations), household size, and income sources. These site differences were important for data analysis--and for the presentation of results in Chapter 3. All analyses were performed separately by site, as well as for all sites pooled. In addition, statistical tests associated with all overall (pooled) comparisons between CFRP and non-CFRP groups took account of site differences. These precautions were taken in order to avoid drawing misleading or oversimplified conclusions from the pooled data. (Unlike most of our earlier reports, this one emphasizes overall comparisons as much as within-site comparisons. The reason for this emphasis is that overall comparisons potentially allow us to make summary statements about CFRP's effects, based on the largest possible sample with the greatest statistical power.)

Sample Sizes and Attrition

Sample sizes at the four data collection time points are noted in Table 1-2. As is evident from the table, sample attrition was most severe during the first six months of the CFRP evaluation. Attrition was considerably higher in the CFRP group than in the control/comparison group. By fall/winter 1979-80, the attrition rate appeared to have leveled off. This was

partly due to a decision to retain families in the evaluation who decided they no longer wanted to be enrolled in CFRP. There are a total of 23 former CFRP families in the spring 1980 sample (10 in Jackson, 6 in St. Petersburg, 3 in New Haven, and 2 each in Oklahoma City and Salem; no former CFRP families are still in the sample in Las Vegas). Attrition from the CFRP group increased again from fall/winter to spring.

Table 1-2

Impact Study Sample Sizes

	Fall 1978		Spring 1979		Fall/Winter 1979-80		Spring 1980		Attrition	
	CFRP	Control	CFRP	Control	CFRP	Control	CFRP	Control	CFRP	Control
Jackson	40	24	31	20	30	20	31	18	23%	25%
Las Vegas	42	43	32	33	35	29	26	25	38%	42%
New Haven	36	20	28	18	26	14	22	11	39%	45%
Oklahoma City	39	49	32	45	28	43	28	44	28%	10%
St. Petersburg	40	43	34	40	34	38	31	36	23%	12%
Salem	39	51	31	42	34	40	29	43	26%	16%
Total	236	230	188	198	187	184	167	177	29%	23%
Site Average	39	38	31	33	31	31	28	30		
Attrition			21%	13%	.5%	7%	11%	4%		

A total of 69 CFRP families (29%) attrited from the original sample. Major reasons for attrition in this group were dropping out of CFRP (29%), relocation out of the CFRP service area (26%), and inability to locate families due to a move (23%). Most of the 53 attrited control/comparison families were dropped from the study because they could not be located (60%); 23% moved out of the CFRP service area. The refusal rate was relatively low in both groups--13 percent for the CFRP group and 6 percent for control/comparison families. Reasons for sample attrition at each of the six impact study sites are presented in Table 1-3.

Table 1-3

Reasons for Sample Attrition

(percent)

Site	N		Moved/Unable to Locate		Moved Out of Area		Repeatedly Not Home		Lack of Cooperation/ Refusal		Out of CFRP	Other	
	CFRP	Control	CFRP	Control	CFRP	Control	CFRP	Control	CFRP	Control	CFRP	CFRP	Control
Jackson	9	6	33	33	22	11	0	0	0	0	44	0	66
Las Vegas	16	18	38	56	25	33	6	0	6	11	25	0	0
New Haven	14	9	21	67	21	22	14	0	36	0	7	0	11
Oklahoma City	11	5	27	60	18	40	0	0	27	0	27	0	0
St. Petersburg	9	7	11	86	11	0	0	0	0	14	67	11	0
Salem	10	8	0	63	60	13	0	0	0	0	20	20	25
Total/ Site Average	69	53	23	60	26	23	4	0	13	6	29	4	11

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In an attempt to explain further the high attrition that occurred in the CFRP group during the first year and a half of the study, interviews were conducted in spring 1980 with CFRP staff who worked with these families, as well as with families themselves. Data were obtained from CFRP staff on 51 families (74%) no longer enrolled in the program, and directly from 28 families (41%). Staff cited as the main reasons for families leaving the program a lack of interest on the part of parents (39%), and relocation of the family (35%). Over half of the terminations in Las Vegas (67%) and Salem (55%) were due to relocation; at the other three sites, they were mainly due to lack of interest. (At all sites except St. Petersburg, it was the family's decision to leave the program in the majority of cases.)

Over half of the parents who were interviewed indicated that they had dropped out of the program because it required too much of their time. Others had returned to school or become employed, which prevented active participation in the program. Questions about what parents liked most or least about CFRP and suggestions for program improvement yielded mostly vague or "don't know" responses.

Did the families benefit from CFRP in the short period of time they participated in the program? According to staff, about one-third of the families did, although this varied from site to site. Salem and Jackson staff reported positive changes for a higher proportion of families (55 and 44% respectively) than at other sites; a smaller proportion appear to have benefited from the program in St. Petersburg (13%), Las Vegas (17%), and Oklahoma City (25%). Among the benefits that were reported most frequently by staff were changes in parent-child interaction and parenting or coping skills. Other benefits derived from the program included expanded knowledge of social service agencies,

increased family independence, and improvements in the economic status of the family. The majority of the 28 parents who were interviewed disagreed with the staff's view: only 14 percent indicated that changes had occurred as a result of their participation in CFRP. When asked whether CFRP had helped the families obtain services, 18 percent indicated that CFRP had provided assistance in meeting the needs of their children, mostly with respect to health services, food, clothing, and toys. Eleven percent of the families reported that CFRP had helped to provide services directed at adults, such as counseling, continuing education, and housing.

Group Comparability and Effects of Sample Attrition

Although attrition from the CFRP and control/comparison groups has been fairly extensive, it has not created or exacerbated differences in background characteristics between the CFRP and control/comparison samples. In fact, for the overall sample there were fewer significant differences after attrition than before.* In the baseline sample (prior to attrition) there were three such differences: CFRP families were smaller, contained fewer children, and were slightly more likely to contain only a single parent. (There were nonsignificant tendencies for CFRP families to include fewer wage earners and to be more dependent on welfare income than control/comparison families.) After attrition, CFRP families remaining in the sample were still significantly smaller than control/comparison families (5.2 vs. 4.7 members) and had fewer wage earners. There were marginally significant ($p=.10$) tendencies for CFRP families to contain fewer children (1.6 vs. 2.9) and for the CFRP sample to contain proportionately more black families (58% vs. 49%). Across-site impact analyses reported in Chapter 3 controlled for the two significant group differences, as well as for differences among sites.

*See chapter note for a commment on significance testing in the attrition analyses.

Effects of attrition were largely confined to two sites. Attrition caused few differences between the CFRP and control/comparison samples in Jackson, Las Vegas, Oklahoma City, and Salem. In St. Petersburg, one trend in the inital baseline comparison has been exacerbated: the CFRP group now has significantly more families consisting of a single parent and children than does the control/comparison group. Several differences exist in New Haven.* In sum, especially for analyses of data excluding New Haven, the CFRP and control/comparison groups are comparable.

Further checks were done to see if the set of attrited families (regardless of their placement in the CFRP or control/comparison group) differed from those still in the sample. This is essentially a test of whether the evaluation sample is still representative of CFRP-eligible families at these sites. Across sites, although few significant differences were found, the attrited group was composed of mothers who were younger, less likely to have completed high school, and more likely to have only one child. That is, significantly more teenage mothers attrited from the program. This finding, however, is essentially a function of the high attrition rate in Las Vegas, a site with a high proportion of teenage mothers who also fit these additional characteristics. Thus, the findings in this report do not appear to be distorted by dramatic differential attrition rates.

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*The CFRP group now includes more families who initially interacted more with formal organizations; in addition, the CFRP group at this site is still lower on two health measures (child birth weight and family enrolled in Medicaid or other health insurance program), as they were at the outset.

Chapter Note

In attrition analyses for the pooled sample, all background variables that might differentiate CFRP and control/comparison groups were tested separately. Some of these variables were not independent (e.g., family size and number of wage earners). Separate testing, rather than setting a joint alpha level, was a conservative procedure in this case, since it maximized the likelihood of rejecting the null hypothesis, i.e., of concluding that differences exist between the groups. The small number of "significant" differences obtained, despite this deliberate strategy, attests to the similarity of the groups.

Chapter 2

CFRP PROFILES: THE PROCESS/TREATMENT STUDY

The objective of the process/treatment study of the CFRP evaluation is, as its name suggests, to examine the nature of CFRP process (as seen by staff) and treatment (as experienced by families). During Phase III of the evaluation, the process/treatment study was carried out at five sites: Jackson, MI; Las Vegas, NV; Oklahoma City, OK; St. Petersburg, FL; and Salem, OR. In spring 1980, the family workers assigned to each family in the CFRP sample were asked about: the process by which the family's needs were assessed; individualization, the topics emphasized in working with the family; the extent to which the program has been successful in helping the family to meet various needs; areas in which the family has changed and made progress; a current assessment of the family's needs and strengths; and amount of contact with the family, including the degree of the family's participation in various program activities. Each CFRP parent in the sample was asked about: areas in which the family has benefited from CFRP participation; and amount of contact with the program, including level of participation in various program activities and feelings about the frequency and content of those activities. In addition, as part of an ongoing record-keeping system, during the entire period of families' involvement in CFRP information was gathered on referrals made, goals set and progress toward goals, and family participation in the program. Data from these three sources--the staff interview, the parent interview, and the ongoing record-keeping system--are discussed in this chapter. Two findings are of particular interest: one has to do with the focus of program activities, the other with levels of family participation in those activities.

Some concerns have been raised in earlier reports about the focus of CFRP activities and the extent to which they are designed to help parents enhance their children's

they are designed to help parents enhance their children's overall development. At some sites, at least, it appeared that family workers were devoting only minimal attention to parent education or child development issues; helping parents to meet a broad range of family needs--not necessarily related to the child--appeared to receive far greater emphasis. The issue of program focus is reexamined here, and what emerges is a strikingly different profile of CFRP: it appears that child development, parent-child interaction, and parenting skills are in fact a major focus of program activities. According to staff, these topics are emphasized with families more frequently than any other issues or concerns; parents agree, mentioning knowledge of child development and parenting skills most frequently as areas in which they have learned or benefited from CFRP participation.* CFRP family workers also reported that half of the families (53%) had improved in parenting skills as a direct result of their participation in CFRP; in fact, this was the most frequently reported area of change at all sites except Las Vegas, where it was second.

All of this would suggest that CFRP is doing its job with respect to its ultimate objectives of improving parenting skills and enhancing child development. It is clear, however, that no family can expect to reap significant benefit from a program in which it does not participate, or participates only minimally. The findings with respect to participation in program activities are rather discouraging. Only about half of the CFRP evaluation families participate in center sessions even as often as once every three months. Further, those who participate this often receive more--rather than fewer--home visits than those who participate less often; that is, center attendance and home visits are not alternative or complementary ways of taking part in CFRP, but rather go hand in hand. However, it does appear that there are alter-

*It is important to point out that this finding is based on staff and parent report rather than direct observation of what actually occurs. This issue will be investigated in greater depth in the ethnographic study.

native approaches to providing CRFP services: total contact with families is about the same at all five sites, but at two sites (Las Vegas and Oklahoma City) most of the contacts take the form of telephone calls supplemented by brief home visits (of less than 15 minutes), while at the other three sites (Jackson, Salem, and St. Petersburg) there are more regular home visits and far more participation in center sessions.

It is not clear whether it is feasible for a parent education and child development program to be delivered by means of telephone calls and drop-in visits. Further, the low participation levels at all sites raise serious questions about CFRP's potential effectiveness in this domain, at least for the evaluation families.

Section 2.1 of this chapter discusses the reassessment process, individualized program emphases, areas in which CFRP parents feel they have learned or benefited from the program, and help provided by CFRP directly or by way of referrals. Section 2.2 discusses family goals and family progress, including family workers' assessments of the status of the individual families as of spring 1980. Section 2.3 examines contact between CFRP and the evaluation families, including levels of participation in program activities.

2.1 Needs Assessment and Individualization

One of the mandates of CFRP is to individualize and tailor program services to meet specific family and child needs. In order to do so, it is necessary to assess needs periodically, to develop and revise family action plans, and then to make appropriate adjustments to the program on a family-by-family basis. This section describes the reassessment process, the emphases of CFRP staff in working with the evaluation families, parents' perceptions of benefits gained from CFRP participation, and referrals made by CFRP.

Reassessment

In all five CFRPs, the needs of each family are assessed at time of entry into the program; they are also reassessed periodically. A major purpose of reassessment is to evaluate the family's progress--as well as the effectiveness of the program in meeting their needs. Reassessment usually leads to the development of a new family action plan, or revision or extension of the existing plan.

Reassessments are slated to occur once a year in Las Vegas and Salem, and twice a year or more often at the other three sites. In some cases, family workers reported that reassessments will take place on an as-needed basis. Across the five sites, the needs of 84 percent of the families had been reassessed within the calendar year preceding April 1980. All families had been involved in reassessment in Jackson and Salem; reassessments had taken place for 68 to 77 percent of the families in the other three programs.

At all five sites, the reassessment process involves a team of staff, who review the needs data which have been gathered by the family worker. There are some site differences in the types of staff involved. In addition to the family worker, who is always present, the infant-toddler specialist attends reassessment meetings in Oklahoma City and Las Vegas. Program administrators are frequently involved in Oklahoma City, St. Petersburg, and Las Vegas. Representatives from other agencies are included more often in St. Petersburg than elsewhere.

Table 2-1 summarizes the major issues discussed in the reassessment meetings. Health and education predominate overall, although there is wide variation across sites; housing ranks high at four of the five. Issues of child development and personal/interpersonal relationships were more common

Table 2-1

Major Issues Discussed at Reassessment
(percent of families)

	Jackson	Las Vegas	Oklahoma City	St. Petersburg	Salem	Overall
N	21	20	20	17	27	105
Health	14	70	40	29	96	53
Education	43	55	30	35	70	49
Child Development	43	15	20	12	63	33
Housing	33	35	30	18	33	31
Personal/Interpersonal	43	5	15	35	48	31
Program Participation	33	20	50	12	26	29
Employment	24	45	10	35	22	27
Parenting	14	5	5	18	41	18
Job Training	19	25	15	6	11	15
Economic	14	20	25	0	11	14

in Salem and Jackson than at other sites; employment was discussed more often in Las Vegas and St. Petersburg; and program participation was more frequently an issue in Oklahoma City. This last finding is not surprising, given the fact that levels of family participation are low in Oklahoma City (see Section 2.3); in Las Vegas, where participation also is problematic, CFRP staff appear to be less concerned about this issue.

The family action plan resulting from reassessment is the product of mutual agreement between the parent and the family worker. As reported in spring 1980, a new action plan had been devised for 70 percent of the families, although this varied from site to site. In Salem, new plans had been completed for all families; in Oklahoma City, this was true for only 42 percent of the families. In most cases where a new plan had not been developed, staff expected to complete one within the next couple of months.

In describing the content of the action plan, the family workers indicated that they usually chose to focus on the most serious problem areas for the family (68% of the time), although they sometimes focused on areas in which the family had not made strides (33%), areas in which the family had had success in the previous year (24%), or on the priorities set the previous year (30%). One factor that is considered in assigning priorities is whether a specific area is one in which the program can provide help.

Individualized Program Emphasis

One purpose of reassessment and the development of a new family action plan or revision of the old one is to serve as a basis for individualization of program services to meet the needs identified and pursue the goals set. CFRP family workers were asked what issues they emphasized in their work with each family; their responses are shown in Table 2-2. Except in Las Vegas, child development and parenting--the major themes of CFRP--are emphasized for the majority of families at all sites. Regardless of the specific issues which may have come up during reassessment of individual families, it is clear that most of the CFRP family workers responding to the interview view child-related issues as central to the program, and place first emphasis on these with most families.

This does not mean, however, that these workers make no effort to individualize the program to meet specific family needs. Health and education, which ranked first and second as reassessment issues (Table 2-1), ranked third and fourth--after the child-related topics--as program emphases (Table 2-2); further, within most sites, the match between issues discussed in reassessment and topics emphasized in working with the families is fairly good. It seems plausible to assume that housing and economic needs--about which the program can do little directly--are approached by means of

Table 2-2

Program Emphasis
(percent of families)

	Jackson	Las Vegas	Oklahoma City	St. Petersburg	Salem	Overall
N	21	24	24	25	27	121
Child Development	81	21	83	88	82	71
Parenting	81	21	67	88	85	69
Health	76	42	63	68	82	66
Education	48	38	58	80	26	50
Job Training	48	63	50	64	19	48
Community Services	43	42	50	56	22	42
Family Relations	33	21	21	36	67	36
Social Contacts	43	25	33	52	22	35
Child Care Arrangements	5	33	29	64	19	31
Household Management	43	13	25	36	26	28
Financial Management	33	21	38	16	15	24

increasing families' knowledge and use of community resources (as in Oklahoma City). Similarly, an employment need is likely to be dealt with by means of a referral for job training (as in Las Vegas and St. Petersburg).

Parents were also asked for their perceptions of program emphasis, and what they had learned or benefits they had received from their participation in CFRP; their responses are tabulated in Table 2-3. There is variation across sites in the number of topics checked, ranging from a mean of 3 in Oklahoma City to over 6 in Salem. Child development and/or parenting ranks high at all sites (including Las Vegas, to a somewhat lesser degree); it appears, then, that parents agree with staff that these are major overall emphases of the program. In fact, about one-fourth (23%) of the parents indicated that they had learned more about child development and parenting than about any other topic addressed by CFRP. Beyond this, the extent of agreement between staff's reporting

Table 2-3

Benefits from CFRP Participation
(percent of families)

	Jackson	Las Vegas	Oklahoma City	St. Petersburg	Salem	Overall
N	21	26	19	24	28	118
Child Development	86	50	74	79	100	78
Parenting	90	27	11	83	96	64
Health	57	58	32	50	86	58
Social Contacts	48	27	42	68	67	51
Community Services	29	31	42	58	79	49
Child Care Arrangements	33	31	26	50	46	38
Family Relations	19	23	21	33	50	31
Education	10	35	11	50	32	29
Household Management	24	27	21	38	32	29
Job Training	10	31	11	33	11	19
Financial Management	5	4	11	21	14	11

of program emphasis and parents' reporting of benefits gained varies considerably from site to site. At every site, some of the items listed as major emphases by staff were listed as major benefits by parents. However, parents tended to list increased social contacts and help with child care much more often than staff--perhaps because they view these as important program benefits, regardless of whether staff have the same view. On the other hand, where staff ranked education and job training quite high, comparatively few families indicated these as program benefits; this was particularly marked in Oklahoma City and Jackson. It may be that staff have in fact emphasized these issues, but that they are devalued by parents--or, conversely, that parents feel they have not received much concrete help in these areas despite staff efforts.

In the spring interview, CFRP family workers were asked about the extent to which the program had been successful in helping families to meet a variety of problems and needs. They

reported the greatest success in improving parent-child interaction, financial circumstances--presumably reflected in parents' reports of increased knowledge and use of community resources--and access to health care.

Referrals

What does CFRP do to help? Direct services offered are typically only the following: developmental services to children, educational services (dealing mostly with parenting) for parents, and family counseling. The balance of CFRP "treatment" is in the form of referrals, putting families in contact with the agencies that can best meet their needs. "Referral" can have many meanings. At one extreme, it may mean that the family worker gives a parent information about an agency, with the suggestion that the agency might offer the help the family needs. At the other extreme, it means that the family worker takes the family to keep an appointment that the family worker has arranged.

During their second year in the program (July 1979 through June 1980), 75 percent of the study families were referred by CFRP at least once. This ranged from all families being referred in Las Vegas and St. Petersburg to only 42 percent of the families in Jackson, as reported in the ongoing record-keeping system.* There are also site differences in the mean number of referrals made per family during this time period. In Las Vegas and St. Petersburg, the families were referred an average of 6 times; in Oklahoma City, they were referred 3.6 times on average; referral activity was lowest in Jackson and Salem, with 1.7 and 2.1 referrals per family on average. These data may reflect a basic program difference in approach to delivery of family services. Some programs,

*A possible explanation for the small proportion in Jackson is that family workers at this site recorded a referral only if CFRP staff actually made an appointment for the family.

such as Las Vegas, see themselves as being primarily in the business of providing a connection between families and a network of community agencies which offer needed services. Other programs, such as Salem, see themselves as being primarily service-providers, in a direct sense. The Las Vegas CFRP hires no outside people to offer specialized services within the program, but rather refers families "outside" to get such services. The Salem CFRP frequently hires outside personnel to offer specialized services because of its preference for direct service provision--although staff do refer when necessary.

During Year 2, the most common types of referrals across all sites were for clothing, food, and furniture, medical services, and employment. As expected, very few referrals were made for child development services, parenting education, or family counseling.

2.2 Family Goals and Progress

In addition to the more formal approach to identification of family needs and of steps toward meeting those needs represented by reassessment and the development or revision of a family action plan, there is a less formal, ongoing process which usually involves only the parents and the family workers. This is the process of setting goals and working toward their fulfillment--the regular agenda of home visits. The process is a mutual one, in which both the parent and the family worker are key actors. The goals set arise out of family needs as perceived by both, and this dual perspective is reflected in the types of goals set.

A given family will often have a variety of needs, leading to a variety of goals. Thus, the goals must be prioritized. The prioritizing process, like the goal-setting process, usually involves joint decision-making by parent and family workers--although in the event a family goal is unrealistic,

staff will try to help the parent to realize that and subtly redirect her toward other goals. Of course, some problems are so obvious, and even critical, that they are readily recognized as having priority. For example, serious, life-threatening illness takes priority over all other family needs; the most pressing problem must often be addressed first. On the other hand, if there is no critical need, less important goals--those which can be handled easily and quickly--may be addressed first. Sometimes the attainment of one goal is seen as a prerequisite to the pursuit of others.

Types of Goals

The data on goals presented here are derived from the ongoing record-keeping system.* The mean number of goals set by families from the time they entered the program through June 1980 was 7.4. Of this total, 4.7 goals were set in Year 1 (September 1978 through June 1979), and 2.6 in Year 2 (July 1979 through June 1980). As noted in Table 2-4, more goals were set in Salem than at other sites. A number of the Year 1 goals were not attained, and continued to be carried over into the second year; in fact, there were a total of about 6 active goals per family on average in Year 2.

Table 2-5 lists types of goals, with the proportion of families that had set at least one goal of each type over the reporting period. Housing and employment rank highest overall; these are areas of continuing concern for many families in the CFRP-eligible population. Formal education also ranks high, and health would as well, except that this category has been subdivided into the areas of medical, dental, nutrition,

*New methods of recording and processing goal data were instituted in spring 1980. The new methods make it feasible to track progress on specific family goals more accurately than could be done before. The Year 1 data have been reprocessed to ensure comparability over time. Thus, the data presented in this section supersede those included in the Phase II Research Report (February 1980); in that report, a number of goals were double counted if they were active in more than one quarter.

Table 2-4

Number of Goals per Family by Year

	Total			Set Year 1		Set Year 2		Active Year 2	
	N	Mean	S.D.	Mean	S.D.	Mean	S.D	Mean	S.D.
Jackson	21	7.90	2.59	5.06	2.49	2.81	1.81	6.24	1.97
Las Vegas	26	6.04	2.51	3.35	2.13	2.69	1.83	5.23	2.42
Oklahoma City	23	5.74	3.66	3.30	2.18	2.30	2.40	4.83	3.26
St. Petersburg	25	6.12	2.33	4.32	1.70	1.08	1.26	4.44	1.66
Salem	27	11.04	3.90	7.04	1.65	3.89	3.08	8.63	3.40
Overall	122	7.43	3.67	4.66	2.46	2.57	2.35	5.92	3.04

Table 2-5

Types of Goals
(percent of families)

	Jackson	Las Vegas	Oklahoma City	St. Petersburg	Salem	Overall
N	21	26	23	25	27	122
Housing	71	54	78	63	52	63
Employment	48	65	52	72	56	59
Parenting	81	8	48	64	78	55
Formal Education	52	69	35	48	44	50
Child Development	27	50	48	56	19	40
Medical	29	54	9	36	59	39
Job Training	52	39	26	48	22	37
Program Participation	33	0	39	48	33	30
Coping	43	15	9	4	70	29
Dental	5	46	4	8	59	26
Family Relations	24	0	13	16	67	25
Nutrition	24	27	17	0	52	25
Finahcial Aid (nonpublic)	38	15	30	28	11	24
Transportation	33	4	9	4	15	12
Financial Aid (public)	14	23	13	0	4	11
Immunizations	10	31	0	0	11	11
Social Contacts	10	0	0	0	37	10
Legal	0	8	9	4	26	10
Informal Education	10	0	13	0	15	7
Recreation	19	0	0	0	19	7

and immunizations. There are clear parallels in each case with the reassessment issues and program emphases which predominate at each site. That is, it appears that there is considerable congruence of the goal data we have collected with what staff report in interviews about program process. It is interesting to note that improving financial circumstances or obtaining assistance in making ends meet were goals for a fairly small proportion of the families. Needs for this kind of assistance--which may include getting help paying energy or housing bills or extra money to buy food or clothing--often are short-term, and most likely are being addressed through referrals rather than being identified as family goals.

Among types of goals set, parenting and/or child development is again fairly strong at all sites. In this connection, it is possible to interpret the goal data from the various sites as representing alternate program approaches. Salem and Jackson appear to place greater emphasis on parenting skills and parent-child interaction than on child development per se; the opposite is the case in Las Vegas, while Oklahoma City and St. Petersburg seem to give each area about equal emphasis. It should be noted, however, that child development goals include finding day care, so the proportion of families with child development goals may be inflated--particularly in St. Petersburg, where staff list child care arrangements as a program emphasis for 64 percent of the families (Table 2-2). In general, one would expect a greater number of family goals related to parenting than to child development, except where the latter refers to such practical issues as finding child care or getting help for a child with a handicap or some other special need. Child development is, after all, the generalized goal of the entire program, and all specific family goals (in whatever area) may be thought of as being related to it. Parenting has many aspects which could readily be translated into a variety of specific family goals, indicating a concern on the part of parent or staff about the overall parent-child relationship or about a particular behavioral problem and how to deal with it.

What happens in the goal-setting process over time? The profile of family goals set remained relatively constant over the reporting period. The most common goals in Year 1 dealt with parenting, housing, and employment (Table 2-6). Goals were set for fewer families in Year 2, and parenting dropped off dramatically. Looking only at goals set in Year 2 is somewhat misleading, however, in that it does not take into account the goals set in Year 1 that were still actively being worked on in the subsequent year. In fact, the rank-order profile of active goals in Year 2 is almost identical to the Year 1 profile. The site-by-site rankings are also very similar.

Table 2-6

Profile of Goals Over Time
(percent of families)

	Set Year 1	Set Year 2	Active Year 2
N	122	122	122
Major Program Emphases			
Parenting	45	18	53
Child Development	30	14	35
Family Circumstances			
Housing	42	28	51
Employment	39	25	48
Education (formal)	34	17	45
Job Training	24	19	34
Financial Aid (nonpublic)	15	11	21
Financial Aid (public)	8	4	8
Health			
Medical	30	16	34
Nutrition	16	19	20
Dental	15	12	24
Immunizations	8	5	7
Coping and Social Relations			
Coping	24	12	24
Family Relations	15	12	23
Social Contacts	8	2	7
Program Participation	24	7	28

Family Progress

One of the most interesting questions with respect to goals, of course, is the progress that has been made toward attainment of those goals. During Year 2, family workers rated the status of each goal for individual families at the end of each quarterly period.* A scale was used, ranging from (1) indicating no progress to (5) indicating goal completion. These ratings were averaged over the quarters by goal type in order to arrive at an index of progress. One of the main reasons for using this approach is that goal status tends to fluctuate from quarter to quarter. In some cases, no progress is reported for several quarters, and then some progress is made. In other cases, there may be some progress soon after a goal is set, and then a period in which no progress is made.

Overall, the greatest progress was made with goals concerning financial aid from public assistance agencies (such as AFDC and food stamps), social contacts, immunizations, nutrition (mostly enrollment in WIC or obtaining food supplements), child development (including finding day care or enrollment in preschool programs such as Head Start), and medical care (Table 2-7). A number of these goals are of a practical nature and can be fairly easily addressed by way of referrals to other agencies and follow-up by families.

It is interesting to note that the goal area in which the least progress of all was made concerned participation of families in program activities. This may imply that efforts by staff to increase parent interest in CFRP are meeting with only minimal success. In addition, comparatively little progress was made with goals relating to education, family relationships, job training, coping, and employment. Generally speaking, these are goals that are more difficult to attain or that cannot be addressed effectively in the short

*Comparable data were not obtained in Year 1.

Table 2-7

Mean Status of Goals by Type[a]

	Jackson	Las Vegas	Oklahoma City	St. Petersburg	Salem	Overall
Major Program Emphases						
Parenting	3.16	2.50	2.81	2.97	3.36	3.11
Child Development	4.54	3.21	4.08	3.37	3.60	3.61
Family Circumstances						
Housing	3.49	2.65	3.07	2.94	3.48	3.15
Employment	3.23	3.16	3.88	2.30	3.17	3.06
Education (formal)	2.76	2.34	3.57	2.30	2.07	2.46
Job Training	2.52	2.43	3.14	2.70	3.33	2.71
Financial Aid (nonpublic)	3.27	2.75	4.20	2.88	5.00	3.44
Financial Aid (public)	5.00	4.08	4.00	*	5.00	4.29
Health						
Medical	3.88	3.71	3.50	2.71	3.78	3.57
Nutrition	4.25	4.55	4.67	*	3.14	3.76
Dental	2.50	2.70	*	3.75	3.11	2.98
Immunizations	5.00	3.31	*	*	5.00	4.01
Coping and Social Relations						
Coping	3.59	1.83	3.00	3.00	2.58	2.78
Family Relations	2.78	*	2.75	2.13	2.59	2.59
Social Contacts	3.50	*	*	*	4.28	4.20
Program Participation	3.46	*	2.75	1.86	2.13	2.44

[a]Based on a five-point rating scale with (1) denoting no progress and (5) goal completion. * indicates that no goals of this type were set at this site; Ns vary by type and site.

term. Marital problems frequently can take years to resolve. High unemployment levels in some CFRP communities undoubtedly contribute to the relatively little progress that was made toward finding jobs.

Another way of looking at family progress, in addition to the status of goals set by parents and family workers, is to examine areas in which family workers say they have observed progressive change for each family. It is possible that families may have made progress in areas for which no

specific goals were set, or that they have made progress on their own in some areas, without program help. When asked about this, CFRP workers reported that many of the families had in fact made progress in a number of areas--including some where the programs had not been able to offer much practical help, at least as reflected in goal and referral data (Table 2-8). Improvements in parenting skills and parent-child interaction ranked high at all sites. In response to other interview questions, family workers also reported that a substantial proportion of parents were taking more responsibility for the needs of their children (48%) or for meeting their own needs (44%).

There is close congruence between the areas of improvement at each site and the areas of program emphasis reported by staff (Table 2-2)--regardless of whether these were areas in which large numbers of specific goals were set or much progress toward goals reported. There is also fairly

Table 2-8

Areas of Progress (percent of families[a])

	Jackson	Las Vegas	Oklahoma City	St. Petersburg	Salem	Overall
Parenting	57	29	60	54	63	53
Health	33	24	28	25	33	29
Education	5	33	32	46	19	27
Community Services	48	29	24	25	15	27
Family Relations	10	14	16	21	22	17
Housing	19	10	28	8	15	16
Financial Management	10	24	20	4	15	14
Employment	5	24	16	17	7	14
Child Care Arrangements	24	5	12	17	15	14
Social Contacts	24	19	8	4	19	14

[a]Ns vary depending on the item.

good agreement between areas in which CFRP staff perceived progress and areas in which parents felt they had learned or benefited from the program (Table 2-3). In response to an open-ended question, both family workers and parents volunteered a new category of program effects, indicating that a large number of mothers had grown personally as a result of participation in CFRP, although they did not elaborate on what they considered personal growth.

Family Needs and Strengths

In the spring interview, the family workers were asked to report on the current status of the CFRP families in the evaluation. First, they were asked about areas in which each family had particular needs; the results are shown in Table 2-9. It is interesting to note that parenting was mentioned as an area of need with greater frequency in Salem, Jackson, and St. Petersburg, the three sites with the highest levels of family participation in home- and center-based activities (as reported in Section 2.3). At the other two sites, where program contact with families is of a more informal nature (predominantly telephone calls), the family problems perceived by staff appear to be more frequently related to basic, practical issues--not necessarily child-focused.

Table 2-9

Areas of Need
(percent of families[a])

	Jackson	Las Vegas	Oklahoma City	St. Petersburg	Salem	Overall
Health	40	47	55	46	70	53
Housing	52	27	61	52	52	49
Family Relations	40	35	42	32	69	45
Parenting	50	10	32	48	63	42
Job-Related	53	39	38	29	30	36
Child Care Arrangements	33	44	21	48	30	35
Access to Health Care	17	24	13	32	52	29
Employment	25	33	14	40	16	26
Finances	24	24	39	16	19	24
Social Contacts	33	5	8	8	22	15

[a]Ns vary depending on the item.

It is clear that health continues to be a major area of need at several sites, despite the progress reported in this area; doing something about health problems does not necessarily mean that they go away. Housing also ranks high; this appears to be an area where CFRP has not been able to provide much assistance. Site by site, many of the most common problems identified by CFRP family workers--although not all--were listed as major issues for discussion at the time of reassessment, as major program emphases, as areas in which specific goals were set, and even as areas in which significant progress has been made. The message appears to be that many of the problems faced by these families are stubbornly persistent, even though they may be alleviated somewhat--with or without the help of CFRP.

In this connection, it turns out that some of the same areas listed most frequently as family needs were also listed as family strengths (although not usually for the same family). Family workers were asked to list the areas in which each family was particularly strong; the results are shown in Table 2-10. It is interesting to note that social contacts rank highest as a strength, and lowest as a need; that health ranks highest as a need, and quite low as a strength; but also that parenting ranks second as a strength and quite high as a need, and that housing ranks second as a need and third as a strength.

It is clear, then, that it is not appropriate to view family needs and strengths simplistically--nor to take them as a straightforward measure of program success. However, it is encouraging to note that many of the areas perceived by family workers as being those in which families are particularly strong are the same as those in which parents feel they have learned or benefited most from the program.

Table 2-10

Areas of Strength
(percent of families)

	Jackson	Las Vegas	Oklahoma City	St. Petersburg	Salem	Overall
N	21	22	24	25	27	119
Social Contacts	38	46	63	40	26	42
Parenting	48	46	46	32	30	40
Housing	48	50	21	30	56	39
Community Services	48	50	25	24	37	36
Financial Management	29	50	13	20	48	32
Child Care Arrangements	29	18	33	24	41	29
Health	29	27	21	24	30	26
Employment	10	27	21	32	22	23
Family Relations	19	27	0	24	11	16

2.3 Program Activities and Participation

A major objective of CFRP is to enhance the total development of children and to provide continuity across the period of a child's life from before birth to the primary grades in school. The Phase III Program Study Report identified three different approaches that can be used to enhance the development of children: (1) direct intervention with children; (2) parent education to assist parents in their role as primary educators of their own children; and (3) a combination of the two. The second approach appears to have been advocated, particularly for the infant-toddler component, in the national CFRP Guidelines: It is by working through parents and the family as a unit that CFRP expects to influence the development of children. Numerous research studies support this emphasis. The evidence indicates that parent education not only can be an effective strategy in promoting child development, but may be a necessary step if any lasting improvement in the child's functioning is to be attained.

The involvement of the child's parents as active participants is critical to the success of a child development program like CFRP.

In practice, the parent education approach to providing infant-toddler services has been adopted generally by local CFRPs, with some secondary emphasis on direct intervention. Parent education sessions and home visits are the principal parent-focused activities of CFRP. In addition, most of the programs offer some form of group activity for children ("infant-toddler sessions").

This section examines family participation in these program activities, based primarily on data obtained as part of the ongoing record-keeping system. Participation in center sessions is examined first, followed by home visits and then by total participation--including a comparison of Year 1 and Year 2 data, in an attempt to determine how and to what extent participation changed over time. Finally, some factors are identified which appear to contribute to varying levels of participation in program activities; among the factors examined are family characteristics, transportation problems, and family satisfaction with the services offered by CFRP.

Center Sessions

Parent education sessions are intended to provide parents with a basic knowledge of child growth and development and to assist them in developing more effective parenting skills. Infant-toddler sessions are intended to provide children with a group experience, an opportunity to learn to share and get along with others; in addition, some programs emphasize acquisition of skills, such as language, cognitive, motor, social/emotional, and self-help. The primary purpose of center sessions is to enhance the child's overall development and to prepare the child for entry into Head Start.

Family participation in center-based activities is viewed by program staff as being "less than optimal." At the five process/treatment study sites, about half of the CFRP evaluation families (51%) participated in center sessions less than once per quarter on average during the year and a half after they entered the program. Participation in center sessions was particularly problematic in Oklahoma City and Las Vegas, where less than one-third of the families attended center sessions regularly (Table 2-11).* The problems with attendance

Table 2-11

Participation in Center Sessions
(percent of families)

	N	Less Than Once per Quarter	Once or More per Quarter
Jackson	20	20	80
Las Vegas	26	73	27
Oklahoma City	24	83	17
St. Petersburg	24	46	54
Salem	27	30	70
Overall	121	51	49

*These data appear accurately to reflect actual levels of family participation in center sessions. Parent responses to questions concerning frequency of center attendance provide an almost identical profile to that obtained from the ongoing record-keeping system. The majority of families in Oklahoma City and Las Vegas indicated that they never attend center sessions or do so only occasionally. CFRP staff have repeatedly noted that participation of evaluation families is atypical. This is attributed to the fact that different recruiting procedures were used for evaluation families and that, as a result, these families are less committed to the CFRP concept than are those who come to the program voluntarily to seek help. This limits the generalizability of study findings to the population served by CFRP at large. In spring 1980, when staff compared the participation of each evaluation family with other CFRP families, 57 percent of the study families were judged as participating less than average, 22 percent average, and 22 percent above average. In Phase IV of the CFRP evaluation, we plan to collect data on non-evaluation families to examine differences in actual participation rates between the two groups.

in Oklahoma City undoubtedly were partly due to the fact that center sessions were not offered for some time during the first year and a half after families entered CFRP; center-based activities were resumed at this site in winter of 1980. In Las Vegas, problems with center attendance can presumably be attributed to the fact that a large proportion of the mothers in the study attend school during the day and are unable to participate in daytime center activities. Center participation was less problematic in Jackson, Salem, and St. Petersburg, where 54 to 80 percent of the families attended sessions regularly.

Table 2-12 shows participation in center sessions for only those evaluation families who attended at least once per quarter on the average (henceforth termed "center" families). Most of these families (69%) attended one to three sessions per quarter; very few participated in all sessions that were offered by their local programs. The average number of sessions attended by these families was 3.4 per quarter. (The high mean in Oklahoma City is attributable to one participant who attended many center sessions.) Participation of other families in the study (those attending less than once per quarter) averaged .30 sessions per quarter, or one center session every 12 months.

Home Visits

Center sessions are not the only mechanism for educating parents of infants and toddlers. A regular home visiting program can also help parents to strengthen their child-rearing skills and increase their knowledge about child development. Home visits are an integral part of the infant-toddler component. Scheduled frequencies of CFRP home visits range from one to three times per month at the five sites. However, it is evident from program records and discussions with CFRP staff that, at some sites at least, home visits occur less frequently than the schedule called for in local program plans (Table 2-13).

Table 2-12

Center Participation per Quarter
(percent of "center" families)

	Jackson	Las Vegas	Oklahoma City	St. Petersburg	Salem	Overall
Number of sessions offered per month	2	2	2	1[a]	4	--
N of families	16	7	4	13	19	59
Number of sessions attended per quarter						
1	44	43	25	0	37	31
2	19	43	25	38	11	24
3	13	0	25	23	11	14
4	19	14	0	8	5	10
5	0	0	0	8	26	10
6	0	0	0	8	5	3
7 or more	6	0	25	15	5	8
Mean number of sessions attended per quarter (S.D.)	2.75 (1.70)	2.27 (1.01)	4.39 (3.80)	4.21 (2.34)	3.49 (2.08)	3.36 (2.14)

[a]Data for St. Petersburg include weekly study groups as well as monthly parent education sessions.

Table 2-13

Home Visit Participation per Quarter
(percent of families)

	Jackson	Las Vegas	Oklahoma City	St. Petersburg	Salem	Overall
Number of home visits offered per month	3	2	1	varied	varied	--
N of families	20	26	24	24	27	121
Number of home visits received per quarter						
Less than 1	0	4	21	8	0	7
1	0	50	42	21	4	24
2	5	27	25	8	4	14
3	15	15	13	13	30	17
4	15	4	0	21	11	10
5	20	0	0	13	26	12
6	20	0	0	8	7	7
7	10	0	0	4	15	6
8 or more	15	0	0	4	4	4
Mean number of home visits received per quarter (S.D.)	5.68 (1.82)	2.20 (.87)	1.69 (.91)	3.76 (2.14)	5.13 (1.91)	3.64 (2.22)

Another important point is that home visits and center attendance go hand in hand, rather than being alternative or complementary ways in which families take part in CFRP. Families who participate in center sessions less than once per quarter ("non-center" families) receive considerably fewer home visits than families who come to the center regularly. Families in the latter group ("center" families) were visited nearly two times per month on the average, while "non-center" families were seen less than once a month (Table 2-14). Only in Oklahoma City and Las Vegas, the two sites with the lowest levels of center participation, were the two groups of families involved in home visits at approximately the same rate.

These differences in home visiting rates for the two groups are somewhat surprising. One might have expected home visits to occur with greater intensity with families who never come to the center or come only occasionally, in order to ensure that all families receive all of the benefits offered by CFRP. Instead, it appears that "non-center" families are simply less committed to CFRP than other families served by the program, perhaps due to a lack of interest or motivation to participate or, in the opinion of parents, less need for CFRP services.

Table 2-14
Home Visit Rate per Quarter

	"Center" Families			"Non-Center" Families		
	N	Mean	S.D.	N	Mean	S.D.
Jackson	16	6.10	1.70	4	3.98	1.28
Las Vegas	7	2.52	.96	18	2.16	.80
Oklahoma	4	2.18	.18	15	1.93	.86
St. Petersburg	13	4.96	1.75	9	2.70	1.60
Salem	19	5.73	1.88	8	3.68	1.02
Overall	59	5.04	2.09	54	2.54	1.24

Total Program Participation

Figure 2-1 summarizes the data on program participation by evaluation families. Shown are total participation rates (including center sessions and home visits) for both "center" families (those who came to the center at least once per quarter) and "non-center" families (those who participated less frequently in center-based activities). Total participation is consistently lower for "non-center" families. As is evident from the figure, treatment is considerably more intensive in Jackson, Salem, and St. Petersburg than at the other two sites.

It is important to point out that these site differences in level of participation in major program activities do not necessarily mean that staff in Las Vegas and Oklahoma City had less contact with enrolled families. Rather, many of their contacts were simply of a different, more informal nature than the regularly scheduled home- and center-based activities. Data on contacts other than home visits and center sessions (obtained for the first time in the April through June 1980 quarter) show that family workers in Las Vegas and Oklahoma City keep in touch with their families mainly through telephone calls. Total contact with families, counting in telephone calls and brief visits of less than 15 minutes in length, is in fact about the same at all five sites (Table 2-15). On the average, there were about 14 contacts per quarter with each family, a little less than 5 per month. At all sites except Salem, telephone calls occurred with greater frequency than any other type of contact.

It is unfortunate that data concerning informal contacts were not obtained over the entire year-and-a-half period. It would have provided us with better insights into different patterns of family participation and contact, as well as changes in participation rates over time. Data from

Figure 2-1

Total Participation per Quarter

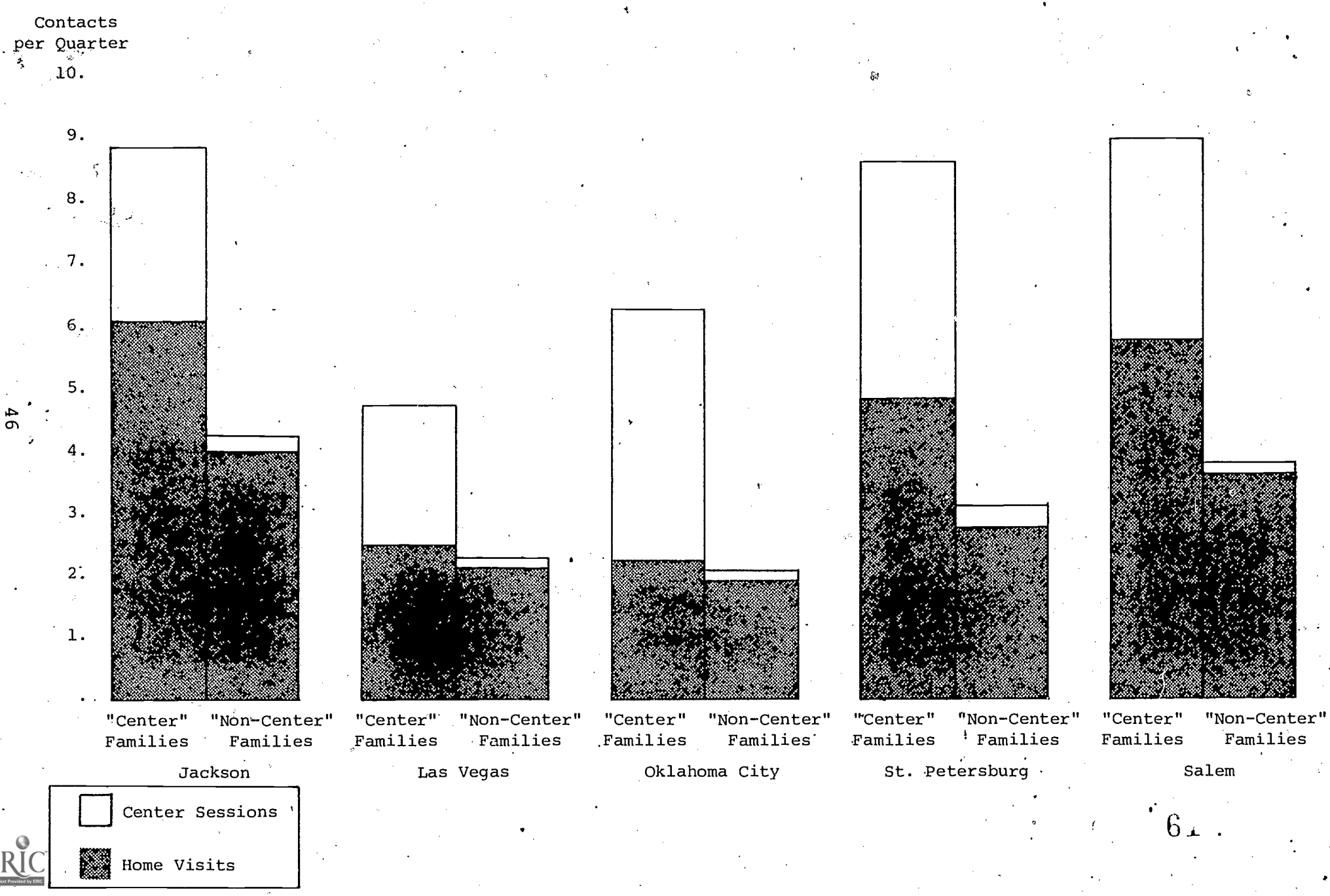


Table 2-15

Mean Total Contact per Quarter

	Home Visits	Center Sessions[a]	Brief Home Visits[b]	Telephone Calls[b]	Total
Jackson	5.68	2.30	.81	6.79	15.58
Las Vegas	2.20	.78	1.46	11.15	15.59
Oklahoma City	1.69	.89	1.35	11.13	15.06
St. Petersburg	3.76	2.46	1.23	5.29	12.74
Salem	5.13	2.50	.56	5.00	13.19
Overall	3.64	1.77	1.09	7.90	14.40

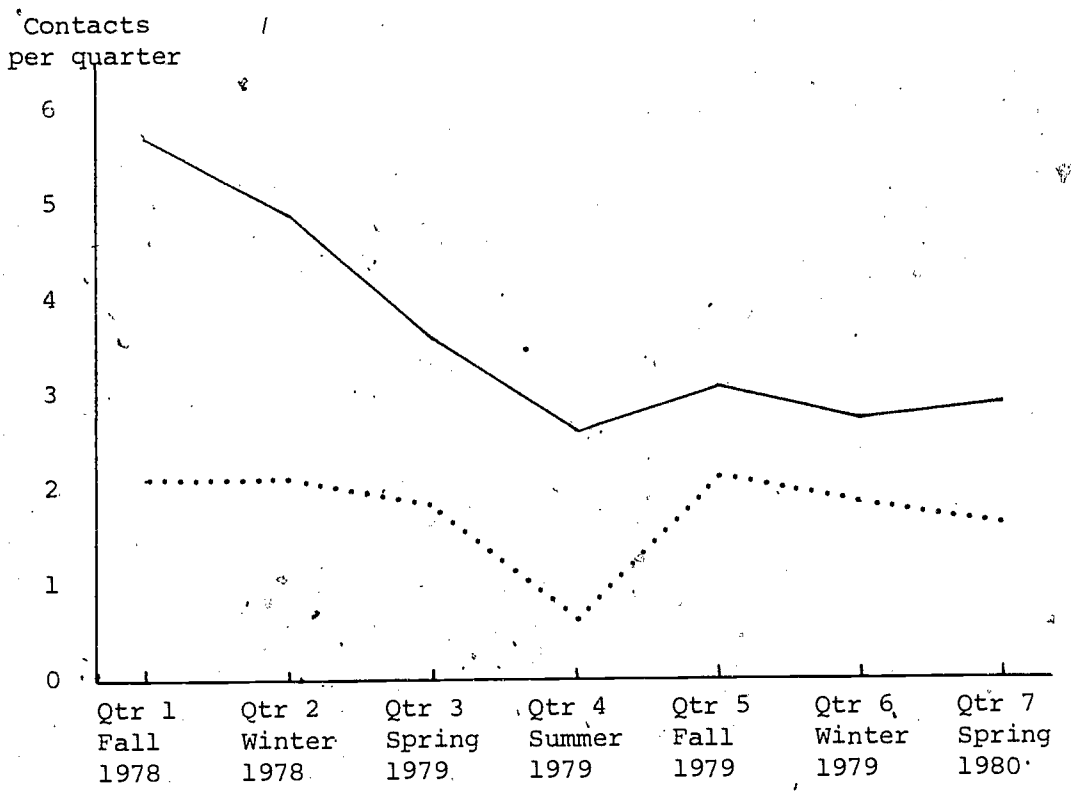
[a]Mean based on data for both "center" and "non-center" families.

[b]Includes data only for April-June 1980 quarter.

the ongoing record-keeping system indicate that total participation in the two major program activities declined during the first year and then leveled off in the second year (Figure 2-2). The steady decrease in mean number of home visits was particularly dramatic, dropping from 5.7 home visits per quarter on average in fall 1978 to 2.7 in the summer of 1979; mean home visit rates then remained virtually unchanged in the three quarters that followed. Center participation rates were generally more stable over the course of the year and a half, except during the summer, when attendance was at an all-time low (less than once per quarter) for "center" families. This is primarily because fewer center-based activities occur during this time of year. In fall, when center sessions resumed on a regular basis, participation increased considerably. It is not clear whether the decrease in total participation in major program activities went hand in hand with a decline in overall contact with families; it is plausible to assume that total contact remained the same, but that it became more informal in nature over time.

Figure 2-2

Quarterly Participation Data
(means across sites)



——— Home visits (includes data on all families)

..... Center sessions (includes only data on "center" families)

Factors in Program Participation

CFRP staff attribute occasional nonparticipation in center sessions mostly to illness, crises, or emergencies that prevent parents from attending. However, chronic nonparticipation on the part of some families represents a problem for all programs. Some mothers simply do not wish to join a group or do not believe they will benefit from being involved. Others consider it "too risky" to attend--in the sense of feeling vulnerable or deficient--or lack the necessary support from husband or family.

Data collected in spring 1980 reveal some family characteristics that distinguish regular participants in center-based activities from those who attend only occasionally or not at all, although these do not apply at all sites. In Jackson, Oklahoma City, and Salem, mothers with more education participate more regularly. In Oklahoma City, participation is also higher for younger mothers and single mothers living with unrelated adults; on the other hand, in St. Petersburg older mothers participate more. It also appears that, in general, participation is lower for working mothers and for mothers who are in school. For these women, schedule problems and limited time are major obstacles to active participation in center sessions, as most of them take place during the day. Some efforts have been made to accommodate program schedules to the schedules of these mothers, but these have been largely unsuccessful.

A variety of approaches are used by local programs in an attempt to increase participation in center sessions. Family workers indicated that they talk about the benefits of the programs (73%); call families (72%) or stop by to remind them (50%); arrange or provide transportation (47%); arrange child care (31%); and change meeting times (20%). Several programs hold their center sessions in more than one location to make them more accessible. According to parents,

however, transportation does create substantial problems. A fairly large proportion of the parents attribute nonparticipation in center sessions to difficulties with transportation; 29 percent report facing such problems most of the time, and 15 percent some of the time. Transportation problems were reported with greater frequency by parents in Oklahoma City, Salem, and Las Vegas than at the other two sites.

Only in St. Petersburg and Salem was any relationship found between family characteristics and home visit frequency. In St. Petersburg, mothers with more education got more home visits; in Salem, it was mothers with lower per capita income. Across sites, single parents living with unrelated adults received the fewest home visits.

When family workers were asked if they experienced problems scheduling home visits, they admitted to such difficulties with 64 percent of the families. Problems in scheduling home visits were cited more frequently in Oklahoma City and St. Petersburg than at the other three sites. Major reasons cited were that the mother worked (44% of the cases), that the family was not home for scheduled visits (36%), or that the family was too busy (30%).

There is no overall indication that low participation in CFRP activities can be attributed to dissatisfaction with the program. Generally speaking, the parents expressed a high level of satisfaction with the activities and services offered by CFRP. The majority indicated that they were somewhat satisfied (30%) or very satisfied (58%) with the program. When asked to comment about the frequency of center sessions and home visits, as well as the extent to which these activities were helpful, most parents indicated being somewhat or very satisfied. However, parents in the Las Vegas and Oklahoma City programs, where participation in center sessions and home visits is lowest, did indicate that they found program activities less helpful than was the case at the other three sites.

Chapter 3

CFRP EFFECTS: THE IMPACT STUDY

The objective of the impact study of the CFRP evaluation is to examine differences between families in the two experimental groups--those assigned to CFRP treatment and those assigned to control/comparison--in several outcome domains: parental coping and independence; family circumstances; health; parent-child interaction; and child development and achievement. Impact in the last of these domains, child development and achievement, was assessed in fall/winter 1979-80 using the Bayley Scales of Infant Development; the results were presented in a report on The Infant-Toddler Component and Child Impact (December 1980). The other four domains were addressed in the spring 1980 data collection.

Parents' independence and ability to cope with family circumstances are difficult to assess directly; however, parents in both groups were asked whether they had received assistance in their efforts to meet a variety of family needs, and where that assistance had come from; CFRP parents were also asked whether their knowledge of and access to community services had increased since enrollment in the program, and CFRP family workers were asked about the relative dependence of each family on the program. With regard to family circumstances, parents were asked about family income, use of public assistance agencies, mother's employment, involvement in job training, mother's education, and housing; in addition, ratings of housing quality were done by on-site interviewers. In the area of health, parents were asked about their own and the focal child's health status, use of preventive and corrective health care, health facilities used, enrollment in health insurance programs, problems in obtaining health care, and satisfaction with

health care; in addition, the current height and weight of each focal child were taken. Finally, as parent-child interaction is even more difficult to assess by means of interview questions than is parental independence and coping, it was decided to employ a more direct measure in this domain, and to videotape the behavior of focal children and their interactions with their parents in 60 selected homes, distributed equally between Oklahoma City and St. Petersburg. The results of analyses of the data collected in spring 1980 are presented in this chapter.

It is still not clear whether CFRP parents cope with their circumstances more effectively than non-CFRP parents. There is evidence, however, that CFRP parents are receiving more help in coping with their circumstances--in particular, more help from agencies, as opposed to help from relatives or friends. This suggests that the program is in fact doing an effective job of putting parents in touch with community resources, a finding which is supported by evidence from the program study (see Phase III Program Study Report, November 1980, Chapter 1). Further, CFRP staff report that the families in the sample are relatively independent of the program, in a positive sense.

The findings with respect to family circumstances and health are not nearly so encouraging. There is virtually no evidence that CFRP has been successful in improving the standard of living for these families. It appears that the program is good at tapping into the community network of agencies on behalf of families, but that neither those agencies nor CFRP itself has been able to effect long-term solutions to families' economic problems. In the domain of health--an explicit part of the CFRP mandate--there are some scattered positive findings, but no indication of an overall impact on health status. Further, it appears that some CFRPs, at least, are falling short of their goal to have all children properly immunized.

The most encouraging findings are in the domain of parent-child interaction, a central concern of CFRP. Resource constraints required that the videotaped observation study be restricted to 60 selected families at two sites; due to complications in the matching process, the final sample was composed of 25 CFRP families, chosen on the basis of their relatively high participation in the program, and 25 families from the control/comparison group--with the focal children matched on a number of variables. Within this subsample, there were a number of important effects: more parent-child interaction in the CFRP group; more interactions involving language information in the CFRP group; more teaching, especially of language, by CFRP mothers; and more attempts at mastery of language and motor skills by CFRP children. These findings are in line with those reported in Chapter 2, to the effect that CFRP really does emphasize parent-child interaction and child development; on the other hand, the fact that the CFRP sample in the observation study included only high-participation families underscores again the suggestion that no program--regardless of its emphasis--can be expected to have an impact on families who do not participate in it, or participate only minimally.

Section 3.1 of this chapter discusses findings with regard to community services and support. Section 3.2 deals with family circumstances. Section 3.3 examines the area of health. Section 3.4 elaborates the findings of the videotaped observation study with respect to parent-child interaction.

3.1 Community Services and Support

CFRP was designed not just to provide developmental services to children and educational services to parents, but also to function in general as a family support program. Support of family development is seen as important because of its implications for child development. In the view of CFRP staff,

family development refers to the increasing ability of a parent to cope with the family's circumstances and meet the family's needs. The ultimate objective of family development is independent coping--the ability of the parent to handle these responsibilities without help from CFRP. During the family development process, however, many parents need CFRP's assistance in learning about the community resources available to them to help meet their needs and in making effective use of those resources. Further, they need a variety of kinds of support--from CFRP, from other agencies, and from informal networks. This section examines CFRP's success in helping to provide the assistance and support families need.

Community Services

While the community services available at the six sites are believed to be generally adequate to meet the needs of families, it is recognized that such services are often not readily accessible, particularly to low-income families. The most common obstacles are lack of transportation facilities to get to agencies and lack of information on the part of families as to what resources are available. Improving access to community services is an important part of the CFRP mandate. Each CFRP has established an extensive network of linkages with social service agencies in order to reduce fragmentation of community services for families enrolled in the program. According to staff, this has given families one place where they can turn for help from a variety of programs.

Interviews with CFRP parents provide some evidence to support this staff view. When asked what they had gotten out of the program, one out of every two parents reported that they had gained increased knowledge of resources in the community; one out of six indicated that they had learned more about resource utilization than about other topics addressed

by CFRP. According to parents, participation in CFRP also appears to have resulted in improved access to community services. Approximately two-thirds (63%) of the families indicated that it has become somewhat or much easier to obtain community services since they enrolled in CFRP (Table 3-1). The Las Vegas program appears to have been particularly successful in its attempts to improve access.

There is other evidence to suggest that participation in CFRP has led to increased utilization of community resources. Significant differences concerning health care were detected between the two groups--in immunizations, treatment of medical problems of the mother, and dental care of the mother; these differences favored the CFRP group (see Section 3.3). Use of two public assistance programs--welfare or AFDC and food stamps--also was significantly higher in the CFRP group (see Section 3.2).

Table 3-1

Ease in Obtaining Community Services Since CFRP Entry (percent of CFRP families)

	N	No Easier	Somewhat Easier	Much Easier
Jackson	21	38	48	14
Las Vegas	21	19	43	38
New Haven	19	32	26	42
Oklahoma City	25	56	32	12
St. Petersburg	24	25	50	25
Salem	27	44	41	15
Overall	137	36	40	23

To what extent can these group differences be attributed directly to family participation in CFRP? With respect to health, a significantly higher proportion of CFRP mothers (52%) than of non-CFRP mothers (42%) reported that they had received help finding health services in the community.* Further, there were differences in the types of help that families received. Thus, a significantly higher proportion of CFRP mothers than of non-CFRP mothers received help from agencies (84% vs. 56%); non-CFRP mothers were much more likely to have gotten help from relatives or friends. In the CFRP group, the help was provided primarily (65%) by CFRP itself. When the non-CFRP mothers did receive agency help, it came most often (21%) from the Department of Social Services or the Welfare Department.

It is not clear, however, whether the proportionately higher use of public assistance programs by CFRP families can be attributed to participation in CFRP. All the mothers were asked whether they had received any help in applying to, or obtaining benefits from, a variety of such programs. While the CFRP mothers reported having received help with slightly more public assistance programs on average than families in the non-CFRP group, this difference was not found to be statistically significant. In this connection, it should be noted that these data were gathered in spring 1980, approximately 18 months after the families entered the program. It is plausible to assume that more help of this kind was provided to CFRP families during their first year in the program. Such help may no longer be necessary to maintain contact with agencies, except in isolated cases.

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*Except where the text indicates otherwise, "significant" relationships discussed in this chapter were at the .05 level or better in analyses which controlled for site, as well as for differences between CFRP and control/comparison families in number of wage earners and family size; relationships termed "marginal" were significant at levels between .05 and .10. F ratios and p-values are presented in Appendix A.

The same pattern holds with respect to the help families received in meeting a variety of other needs. Approximately the same proportions of families in both groups reported having received assistance with finding housing, home improvements, child care, and continuing adult education (Table 3-2). A higher proportion of CFRP mothers had received assistance in finding employment, and a higher proportion of non-CFRP mothers had gotten help with job training; neither difference was statistically significant, however. On the other hand, non-CFRP families did tend to rely more on relatives and friends for help than was the case in the CFRP group.

Lack of transportation is a problem at virtually all sites. Many social service agencies are located in places that are not readily accessible. Low-income families often do not have cars or, at best, have cars that are old and susceptible to breakdown. Many CFRP communities have no public transportation; in others, public transportation is expensive, unreliable, and inconvenient. Transportation to agencies appears to be more of a problem for CFRP families than for families in the non-CFRP group (although the difference is not significant), perhaps because CFRP families use agencies somewhat more. Of the families who had experienced such problems with transportation, a slightly higher proportion of CFRP parents (75%) than of non-CFRP parents (65%) reported having received help with these problems.

Table 3-2

Percent of Families who Obtained Various Kinds of Help

	CFRP		Non-CFRP	
	N	%	N	%
Housing	63	38	61	38
Home improvement	76	43	70	44
Child care	167	38	177	39
Employment	58	53	86	42
Job training	31	55	38	71
Continuing adult education	26	50	30	50

The two groups of families received help from different sources to solve their transportation problems, although this differed somewhat from site to site. CFRP mothers in Las Vegas, New Haven, and Salem received such help mostly from the program; non-CFRP mothers at these three sites called mostly on relatives or friends to help meet their transportation needs. There was considerably less reliance on CFRP for transportation in Jackson, Oklahoma City, and St. Petersburg.

Family Support

The fact that CFRP families tend to rely on CFRP and other agencies for help, whereas non-CFRP families rely more on relatives and friends, may be taken to suggest that--to some degree, at least--the program is replacing the informal support networks typically used by families. By doing so, CFRP might actually be increasing family dependence on the program and on other agencies. CFRP staff would argue the point. According to staff, they continually try to encourage parents, progressively, to: get to agencies on their own; make their own initial contacts and appointments with agencies; find out for themselves where to get the help they need; develop the resources to help themselves. In the short run, parents' dependence on community agencies may be increased, in that CFRP staff make them aware of the services available to them and encourage them to use these services. A more long-term objective of the family development process, and of the efforts of CFRP, is that parents' dependence on agencies be decreased as their ability to meet their own needs without outside help is enhanced.

When asked to comment directly on the degree of dependence of each family on the program itself, CFRP staff saw most families (64%) as usually independent or very independent (Table 3-3); most of the remaining families were seen as varying over time in degree of dependence. In those cases

Table 3-3

Family Dependence on CFRP
(percent of families)[a]

	N	Very Depen-dent	Usually Dependent	Varies	Usually Inde-pendent	Very Inde-pendent
Jackson	21	10	0	19	48	24
Las Vegas	23	0	4	22	17	57
Oklahoma City	25	4	12	40	24	20
St. Petersburg	25	0	4	20	40	36
Salem	27	0	15	26	37	22
Overall	121	3	7	26	33	31

[a]Staff interviews were not obtained in New Haven.

where a family was rated dependent, this status was generally (82% of the time) considered a positive sign; that is, in terms of coping ability, the family was considered to be at a stage where it was good for them to depend on CFRP for help. On the other hand, where families were viewed as independent, this was also seen as positive (68% of the time).

Parents' ability to cope with their living circumstances and meet their needs may be influenced greatly by the extent to which they are affiliated with support systems in the community. When asked about the availability of someone to talk to or count on in an emergency, parents in both groups gave similar responses; over 90 percent reported that such a person is available to them. CFRP mothers do seem to have more social interaction in parent groups than non-CFRP mothers (Table 3-4); this is largely attributable to the fact that some CFRP mothers participate in parent groups offered by the program itself which are not available to mothers in the non-CFRP group. These group sessions are commonly viewed as providing "support" to parents in raising their families. Participation in parent groups was considerably higher in Salem, Jackson, and St. Petersburg than at the other two sites. (A similar picture of participation in CFRP center sessions, based on attendance records, was presented earlier in Chapter 2.)

Table 3-4

Frequency of Social Contact in Groups[a]

	CFRP			Non-CFRP		
	N	Mean	S.D.	N	Mean	S.D.
Groups of friends	167	3.14	1.03	177	3.15	1.05
Parent groups[b]	167	2.23	1.16	177	1.38	.82
Clubs or church groups	167	2.34	1.31	177	2.66	1.28
Groups related to work	158	1.29	.78	166	1.39	.88

[a]Four-part scale: (1) never; (2) less than once a month; (3) once or twice a month; (4) once a week or more.

[b]Overall group difference, controlling for site and two background characteristics, significant at .01.

3.2 Family Circumstances

It is clearly a part of CFRP's mandate to help parents learn to cope more effectively with their family circumstances. Further, in the short term, CFRP staff work to change the circumstances themselves, in that they provide emergency relief in crisis situations. The question remains whether CFRP can--and should--be expected to effect more long-term change in family circumstances. This is not so clearly a part of the program's mandate. On the other hand, one view of CFRP as a "family-oriented child development program" implies that a family's basic needs must be met first if that family is to be an optimal child-rearing environment; over the long term, of course, this means helping parents to do a better job of meeting their own needs. Certainly the family goals reported as part of the ongoing record-keeping system suggest that CFRP family workers, in concert with parents, are endeavoring to address themselves to bringing about permanent changes in family circumstances. This section examines how successful the program has been at this, in three major areas: income and employment; education; and housing.

Income and Employment

CFRP is explicitly mandated to serve low-income families. At the time of baseline data collection (fall 1978), the mean income of the evaluation families was quite low, and was roughly comparable for both groups (CFRP and control/comparison). In spring 1980, mean monthly reported income was significantly lower for the CFRP families than for the non-CFRP group (Table 3-5). The group difference is less apparent (and only marginally significant), however, when monthly income is adjusted for household size.

This negative differential in income is a distressing finding, and rather difficult to explain. That is, it is not clear why CFRP enrollment should result in lower relative income! There are other differences between the two groups which are associated with this income difference, and which may help to explain it, such as higher maternal unemployment and less reliance on earned income in the CFRP group; however, it is also not clear why these differences should necessarily be associated with CFRP enrollment.

Table 3-5

Gross Monthly Income

	CFRP			Non-CFRP		
	N	Mean	S.D.	N	Mean	S.D.
Jackson	29	$583	$394	17	$744	$479
Las Vegas	25	726	452	24	711	439
New Haven	21	530	216	11	650	349
Oklahoma City	24	690	437	40	869	437
St. Petersburg	31	577	294	34	656	361
Salem	29	626	380	43	805	427
Overall[a]	159	622	375	169	761	422

[a]Overall group difference, controlling for site and background characteristics, significant at .05.

Mothers in both groups reported that lack of money is often or sometimes a serious problem. Not surprisingly, money problems appear to be related to feelings of frustration with home management on the part of mothers.

The group difference in gross monthly income may be partly due to the fact that fewer adults provide earned income in CFRP households than in non-CFRP households (Table 3-6); this difference between the two groups is largely due to attrition (at entry into the program a non-significant tendency was found for CFRP to have fewer wage earners). Among the mothers themselves, 59 percent indicated that they had no paid employment. CFRP mothers were more likely to be unemployed than were non-CFRP mothers (Table 3-7); the trend was especially marked in Jackson. This is hardly surprising, given earlier indications that CFRP is simply not set up to serve working mothers very effectively and that, at some sites at least, CFRP family workers may recommend that mothers quit work and go on welfare so that they can concentrate on parenting (see Chapter 2, Phase III Program Study Report, November 1980). Only in Las Vegas was the trend reversed, with a higher proportion of non-CFRP mothers than of CFRP mothers unemployed. It is interesting to note that in Las Vegas, and especially in St. Petersburg, very substantial proportions (39% and 50%, respectively) of CFRP mothers were employed full-time; as reflected in the ongoing record-keeping system and as reported in Chapter 2, employment is a major focus of the goals set by CFRP mothers and family workers at these two sites.

Earned wages and welfare assistance were listed as major sources of family income by both groups of mothers. As shown in Table 3-8, within the CFRP group the two sources were listed with approximately equal frequency (69% for welfare and 66% for wages); in the non-CFRP group, more mothers reported income from earned wages (79%) than from public assistance (53%). The difference between the two groups in reliance on

Table 3-6

Number of Wage Earners per Household

	CFRP			Non-CFRP		
	N	Mean	S.D.	N	Mean	S.D.
Jackson	30	.70	.79	18	1.17	.92
Las Vegas	26	1.50	1.07	25	1.56	.96
New Haven	22	.59	.73	11	1.00	1.18
Oklahoma City	27	1.22	.89	44	1.39	.87
St. Petersburg	31	1.29	1.04	36	1.53	1.08
Salem	29	.69	.76	43	1.00	.76
Overall[a]	165	1.01	.95	177	1.30	.94

[a]Overall group difference, controlling for site and background characteristics, significant at .10.

Table 3-7

Mother's Employment Status (percent)

	N	Full-Time[a] Outside Employment	Part-Time[a] Outside Employment	In-Home[b] Employment	No Paid Employment
Jackson					
CFRP	31	7	0	7	87
Non-CFRP	18	44	11	6	39
Las Vegas					
CFRP	26	39	0	19	42
Non-CFRP	25	40	0	0	60
New Haven					
CFRP	22	9	0	0	91
Non-CFRP	11	9	9	0	82
Oklahoma City					
CFRP	28	25	7	7	61
Non-CFRP	44	43	5	14	39
St. Petersburg					
CFRP	30	50	3	0	47
Non-CFRP	36	58	3	0	39
Salem					
CFRP	28	18	7	4	71
Non-CFRP	43	14	7	12	67
Overall					
CFRP	165	25	3	6	66
Non-CFRP	177	37	5	7	51

[a]Full-time refers to 20 hours or more per week.

[b]Includes providing in-home child care for which the respondent is paid.

Table 3-8

Income Sources
(percent of families)

	N		Wages		Welfare	
	CFRP	Non-CFRP	CFRP	Non-CFRP	CFRP	Non-CFRP
Jackson	31	18	58	78	81	72
Las Vegas	25	25	84	80	73	44
New Haven	22	11	45	55	67	64
Oklahoma City	28	44	75	82	64	48
St. Petersburg	31	36	74	86	55	50
Salem	29	43	59	74	76	56
Overall	166	177	66	79	69[a]	53

[a]Overall group difference, controlling for site and background characteristics, significant at .01.

welfare was significant. At first glance, it might appear that this finding is directly associated with lower income, fewer wage earners per household, and greater unemployment of mothers in the CFRP group. In this connection, it is informative to examine the Las Vegas data more closely. At this site, 77 percent of the CFRP mothers were receiving some welfare assistance, compared to 44 percent of the non-CFRP mothers; yet mean monthly family income and number of wage earners per household were about equal, and--as noted--a larger proportion of the non-CFRP mothers than of the CFRP mothers were unemployed. The relationships among variables of income and employment are not so straightforward as might be expected. In fact, in Las Vegas, it is entirely likely that the higher participation of CFRP mothers in public assistance programs is a direct result of their enrollment in CFRP. It is plausible to conclude that CFRP staff made these teenage mothers (the predominant group within the evaluation sample at this site) aware of the eligibility requirements for welfare assistance, and urged them to apply if eligible; non-CFRP mothers would tend to be less aware of their eligi-

bility for welfare services. Mothers were also asked about their primary source of family income. Across-site analyses showed a higher proportion of non-CFRP families relying on wages as their primary source of income while the two sources were about equal in the CFRP group; the differences were not significant.

A substantial proportion of the families in both groups reported being enrolled in public assistance programs other than welfare or AFDC to supplement their income. Use of food stamps was significantly higher for the CFRP group in across-site analyses (Table 3-9).

Table 3-9

Use of Public Assistance Programs Other Than Welfare or AFDC (percent of families)

	N	Food Stamps	N	WIC	N	WIN	N	Housing Authority
Jackson								
CFRP	29	72	28	43	29	10	30	3
Non-CFRP	18	50	27	41	17	6	17	0
Las Vegas								
CFRP	24	50	26	69	26	0	24	25
Non-CFRP	24	46	25	84	25	8	22	32
New Haven								
CFRP	21	71	21	62	19	0	20	20
Non-CFRP	11	45	11	55	11	9	10	10
Oklahoma City								
CFRP	26	58	26	46	26	0	26	23
Non-CFRP	41	34	41	17	42	5	37	22
St. Petersburg								
CFRP	29	66	28	17	30	3	30	27
Non-CFRP	33	52	35	20	32	3	31	13
Salem								
CFRP	27	78	29	55	25	4	26	62
Non-CFRP	41	66	42	24	41	0	42	33
Overall								
CFRP	156	66[a]	158	48[b]	155	3	156	26
Non-CFRP	168	49	171	34	168	4	159	21

[a]Overall group difference, controlling for site and background characteristics, significant at .05.

[b]Overall group difference, controlling for site and background characteristics, significant at .10.

In examining issues of income and employment, it is appropriate to raise the question of satisfaction with employment status. It would be inappropriate to assume that a mother who has no paid employment is necessarily dissatisfied with that lot; many mothers, especially with young children, may prefer not to have paid employment. The most straightforward approach to the issue of satisfaction with employment status is simply to determine whether a mother is doing what she says she wants to be doing. In the parent interview, each respondent was asked her preference for working full-time (20 hours or more per week) outside the home, working part-time outside the home, having some paid work she could do at home, or taking care of her children at home full-time. Responses to this question were compared with current employment status (as reported in Table 3-7), and a dichotomous satisfaction variable was constructed: that is, a mother was rated as "satisfied" if her current employment status corresponded with her employment preference, and "not satisfied" if it did not. The results are presented in Table 3-10. In general,

Table 3-10

Mother's Satisfaction with Employment Status

(percent satisfied[a])

	CFRP		Non-CFRP	
	N	%	N	%
Jackson	31	36	18	28
Las Vegas	26	19	25	28
New Haven	22	32	11	18
Oklahoma City	27	11	44	39
St. Petersburg	30	23	36	22
Salem	28	25	43	9
Overall	164	24	177	24

[a]Determined by an exact match between employment preference and employment status.

the mothers responding were not satisfied with their lot, according to this simple measure--and the proportions are essentially similar for CFRP and non-CFRP mothers, although there is some variation across sites. This dissatisfaction largely reflects the many mothers--159, 46 percent of the total responding--who would prefer to have some form of paid employment and were unemployed at the time of the interview. Thus, for this population, dissatisfaction with employment status most typically means dissatisfaction due to unemployment, and there is no evidence that CFRP has been able to bring about substantial change in this area for substantial numbers of mothers. This is attributable, at least partially, to the fact that some CFRPs discourage mothers from seeking employment so that they can devote full time to parenting.

A different kind of measure of employment satisfaction is available for those mothers who had some paid employment: degree of satisfaction with present job. This measure is essentially uncorrelated with the employment status satisfaction measure described above; in fact, most of the employed mothers--however they might have felt about the fact that they were working--reported that they were pretty well satisfied with their jobs. CFRP and non-CFRP mothers were fairly comparable on this measure overall, although in Las Vegas CFRP mothers were much more satisfied with their jobs than non-CFRP mothers.

Education

Employment versus unemployment is not an adequate measure of a family's economic status. It is a documented fact that parental employment may depress the standard of living of a low-income family because of loss of eligibility for a variety of public assistance programs; it may actually be more difficult for working parents to make ends meet than for nonworking parents. This tends to be true in the short run if the job held pays low wages, and even in the long run if it is a low-status job with little chance for upward mo-

bility. Both conditions appear to hold for many of the families in the evaluation sample, as reflected by the low incomes even among the employed mothers, and also by the fluctuation in work status of this population--a typical situation for those holding low-status positions (the "last hired/first fired"). Among the mothers in the sample who had paid employment, 65 percent had had their present jobs less than a year, 19 percent from one to three years, and only 15 percent for more than three years. Among the unemployed mothers, 46 percent had had some paid employment during the previous year. Both of these trends were fairly consistent across sites; at all sites, half or more of the employed mothers had had their jobs less than a year, and from 35 to 62 percent of the unemployed mothers had worked during the past year.

In the long run, it would appear that the most effective means for improving the economic outlook for these families would be to increase their eligibility for better, higher-paying jobs. The most obvious mechanism would appear to be job training. About the same proportions of CFRP and non-CFRP mothers (19% and 22%, respectively) indicated that they had received some kind of job training within the previous year. New Haven was low on this measure (with 6% overall).

An alternative, more long-range approach to enhancing the employability of these mothers would be to upgrade their educational status, which is generally quite low. Among the CFRP mothers, 42 percent have less than a high school education; 42 percent have graduated from high school or obtained a GED; and 15 percent have continued their education beyond high school. (The educational profile of mothers in the control/comparison group is roughly similar.) There is some evidence that more CFRP mothers are planning to continue their education than mothers in the control/comparison group; this trend is particularly strong in Jackson and Las Vegas (Table 3-11).

Table 3-11

Plans for Continuing Education
(percent of mothers)

	CFRP		Non-CFRP	
	N	%	N	%
Jackson	29	76	17	47
Las Vegas	26	85	25	56
New Haven	22	73	11	82
Oklahoma City	28	57	43	65
St. Petersburg	31	90	33	73
Salem	28	86	42	83
Overall[a]	164	78	171	69

[a]Overall group difference, controlling for site and background characteristics, significant at .10.

This encouraging sign is accompanied by the discouraging fact that no more CFRP mothers than non-CFRP mothers reported that they had completed any schooling in the past year or were in school or enrolled in courses at the time of the spring interview. St. Petersburg is an exception; about three times more CFRP than non-CFRP mothers (33% vs. 11%) were in school or taking courses in spring 1980. It is plausible to assume that one of the main reasons many of the mothers in both groups have not pursued their plans for continuing education is the fact that they have young children to care for at home. Day care for children in this age group is scarce and expensive. Perhaps when these children enter Head Start next year more of the mothers will be free to implement their continuing education plans and to take positive steps toward breaking the poverty cycle.

Housing

The problems faced by low-income families go beyond the immediate quantitative concern of trying to make ends meet with not enough money. The quality of their living conditions

is also typically less than ideal, as exemplified most graphically by their housing--which is often substandard in a number of ways, may be overcrowded, and may even be an unsafe environment for young children. It is not surprising that almost two-thirds (63%) of the CFRP families set at least one goal concerning housing during their first year and a half in the program. Is the housing situation of CFRP families better than that of control/comparison families as a result of their participation in the program? The evidence thus far suggests that CFRP has not been able to have a significant impact in the area of housing. Housing quality, in terms of indoor and outdoor space as well as safety factors, was comparable for the two groups according to interviewer ratings following the spring interview.

Also, no differences could be detected between the two groups on level of parental satisfaction with housing. The modal response to this question was "somewhat satisfied," although this varied from site to site. CFRP parents in New Haven and St. Petersburg were least satisfied with their housing situation. At all sites, dissatisfaction was attributed mostly to the house or apartment being in bad need of repair or overcrowded.

Roughly one-third of the families had moved in the past year, with about the same proportion--and the same frequency of moves--in both groups. When those mothers who had moved were asked to compare their current housing situation with the previous one, most indicated it was now somewhat better; again, there were no group differences. Improvements had been made during the past year to 46 percent of the CFRP homes and 40 percent of the non-CFRP homes. The housing situation of the two groups thus has remained comparable; CFRP's impact in this area appears to be negligible.

3.3 Health

One of the goals of CFRP is to safeguard the well-being of children and to promote their physical, intellectual, and emotional development. A wide range of preventive health services are offered by the program. These include periodic assessments of children's health status, including prompt attention to factors which threaten to impair their growth; immunizations against infectious diseases; health education for parents and children; and dental checkups and treatment when children become three years of age (as recommended in guidelines published by the American Academy of Pediatrics*). This section assesses the extent to which CFRP has had a positive impact on the well-being of children and other members of the family since they entered the program in 1978.

Child Health

In spring 1980, mothers' ratings of the health status of their focal children indicated that generally they were in good to excellent health (Table 3-12); no group differences were evident. Twenty-three percent of the CFRP children and 16 percent of the focal children in the control/comparison group were reported to have serious health problems. Most (81%) of the CFRP children who had such problems were receiving treatment for these problems; this compares with 69 percent in the control/comparison group (the difference is not significant). In New Haven and Salem, all CFRP focal children with health problems were receiving treatment.

Only a very small percentage of focal children had been diagnosed as handicapped according to their parents--2 percent in the CFRP group and 4 percent in the non-CFRP group.

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*"Recommendations for Preventive Health Care of Children and Youth," Committee on Standards of Child Health Care, June 1974.

Table 3-12

Rating of Focal Child's General Health Status[a]

	CFRP			Non-CFRP		
	N	Mean	S.D.	N	Mean	S.D.
Jackson	31	2.51	.63	18	2.39	.70
Las Vegas	26	2.46	.51	25	2.56	.65
New Haven	22	2.55	.60	11	2.64	.50
Oklahoma City	28	2.25	.65	44	2.27	.59
St. Petersburg	31	1.94	.68	36	2.28	.66
Salem	29	2.41	.57	43	2.44	.67
Overall	167	2.34	.64	177	2.39	.64

[a]Three-point rating scale: (1) poor or fair; (2) good; and (3) excellent.

Among the most frequently reported handicaps were physical and vision problems. No children were classified as being mentally retarded or emotionally disturbed.

Height and weight measurements of focal children were taken in spring to assess physical growth and to determine possible height and weight differences between the two groups. Height and, to a lesser extent, weight are considered to be general indicators of physical development; large discrepancies from national norms may be related to nutritional status. Figures 3-1 and 3-2 display height and weight data by sex for the two groups of children adjusted for age, as well as national norms*; the children in both groups are so close to the norms that no overall group differences would be expected. CFRP did not have a discernible impact on the general health status of children in the 18 months after they were enrolled in CFRP.

*See chapter note for an explanation of the height and weight computations presented in Figures 3-1 and 3-2.

Figure 3-1

Growth Curves for Height

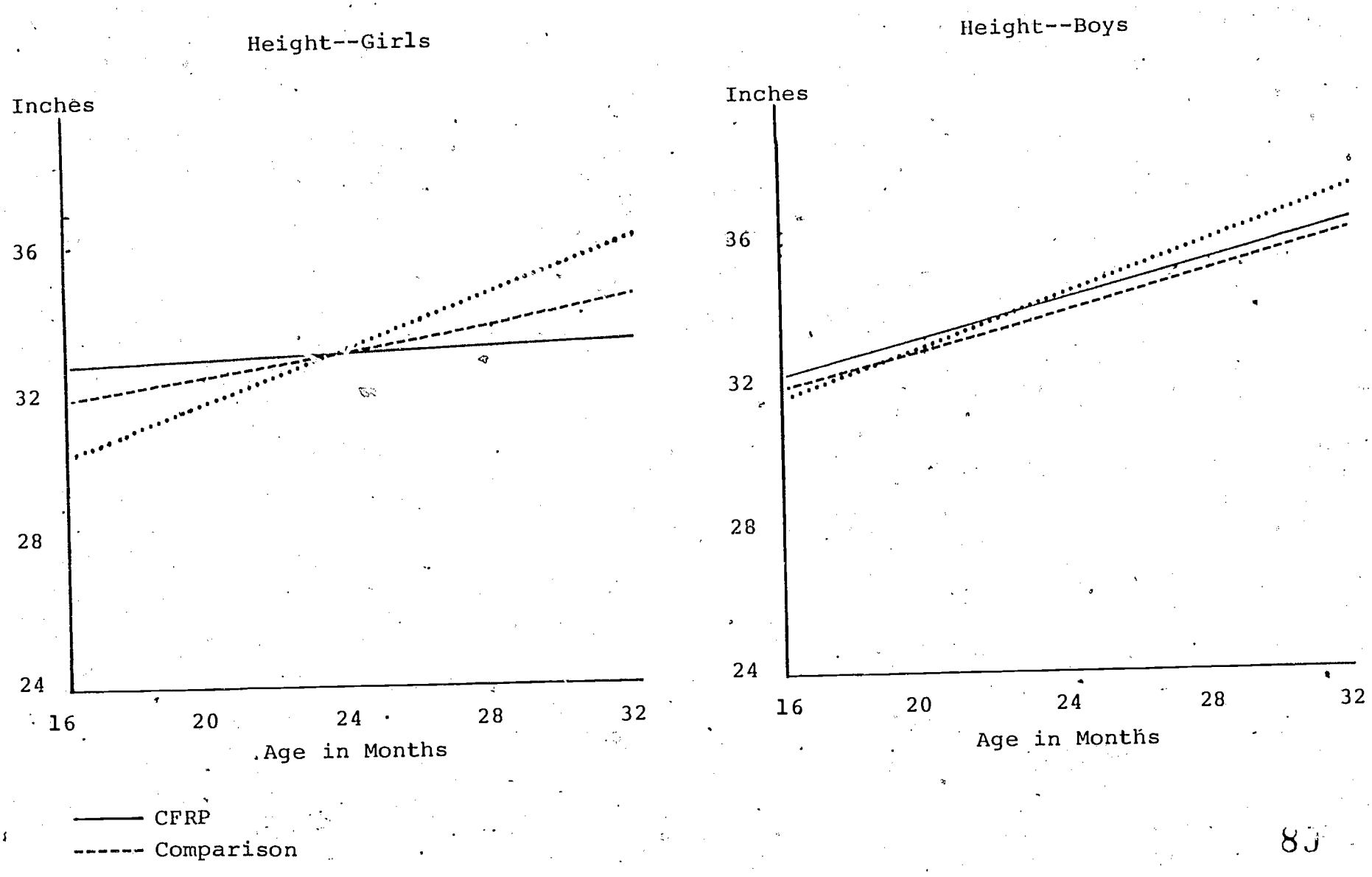
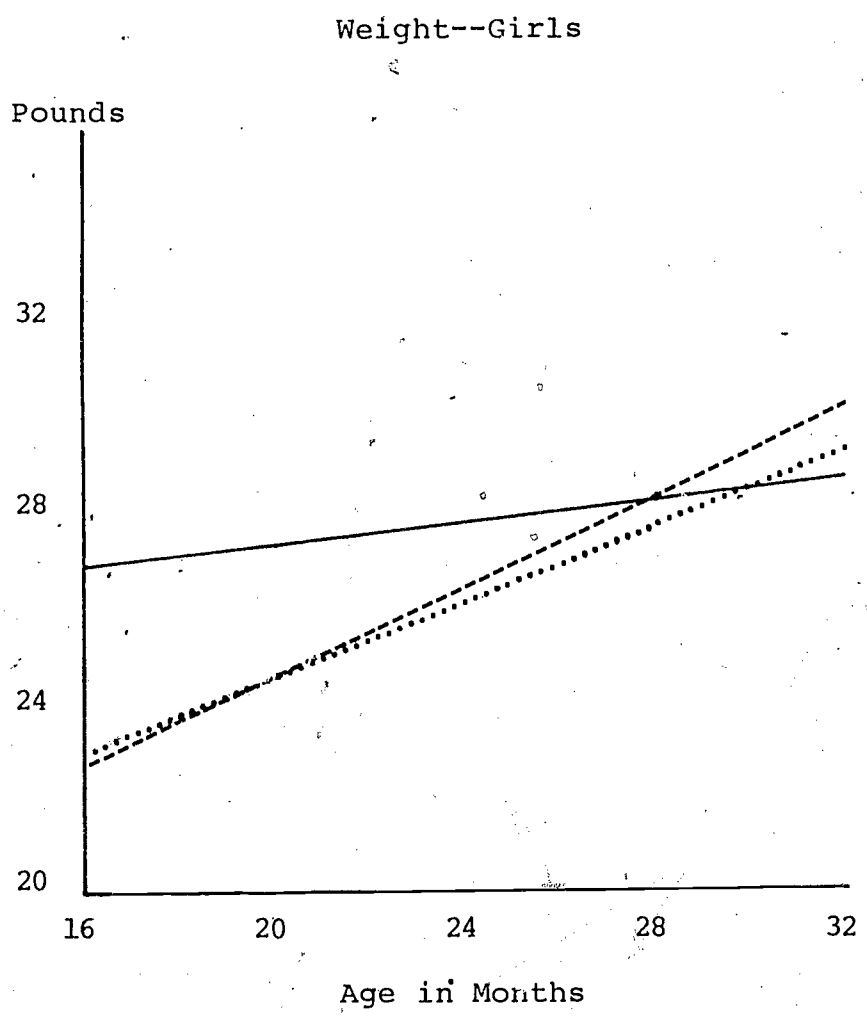
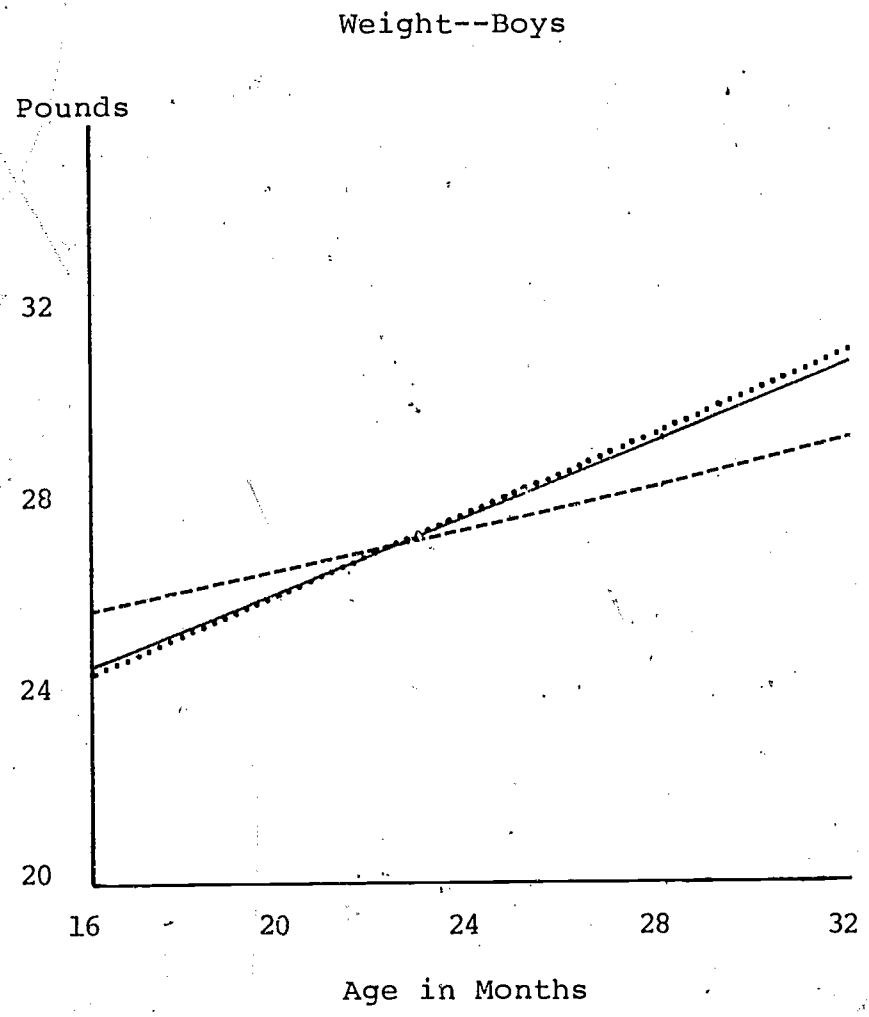


Figure 3-2

Growth Curves for Weight





A positive CFRP impact is evident, however, in terms of some immunizations--a critical part of preventive health care. A significantly higher proportion of CFRP children than of control/comparison children had been immunized against measles, mumps, and rubella (MMR), as shown in Table 3-13.* There were no group differences for DPT (diptheria, pertussis, tetanus) or polio immunizations. The proportion of focal children who had received a TB test was higher in the CFRP group, although not significantly so. There was wide variation on this measure from site to site; within the CFRP group, the proportion of children tested ranged from a low of 27 percent in Las Vegas to a high of 96 percent in Salem. Several CFRPs fall short of the goal to have all children properly immunized, particularly with regard to MMR shots (as in Las Vegas, where only 65% of the focal children had received these immunizations) and the TB test (especially in Las Vegas, Jackson, and Oklahoma City). Parents were also asked whether the focal child had received a sickle cell anemia test; only in New Haven had substantially more CFRP than non-CFRP children (89% vs. 0% of black children) been tested.

Another measure of preventive health care is the frequency of assessments of the child's health status--of checkups. There is no evidence to suggest that CFRP mothers place more emphasis on this type of preventive care; focal children in both groups had received their last medical checkup about four months prior to the interview on the average.

Maternal Health

CFRPs recognize that health care services should be directed not only toward children, but toward other members of the family as well. It is unlikely that a child will remain healthy in a home where health problems of other family members--particularly the mother or other primary caregiver--are undetected or neglected. A number of questions

*Immunization data are based on parent reports and therefore are of questionable reliability.

Table 3-13

Immunizations

(percent of focal children)

	N	DPT	N	Polio	N	MMR	N	TB
Jackson								
CFRP	31	100	31	100	25	88	26	35
Non-CFRP	18	100	18	100	18	78	16	44
Las Vegas								
CFRP	24	96	24	92	23	65	22	27
Non-CFRP	23	96	24	92	23	61	22	14
New Haven								
CFRP	21	90	22	100	20	95	22	86
Non-CFRP	11	100	10	100	10	90	9	89
Oklahoma City								
CFRP	27	93	28	93	27	89	20	45
Non-CFRP	42	98	42	95	41	76	40	25
St. Petersburg								
CFRP	28	100	29	100	28	96	27	78
Non-CFRP	36	97	35	97	36	83	34	76
Salem								
CFRP	29	100	29	100	28	96	28	96
Non-CFRP	43	98	43	98	40	80	40	75
Overall								
CFRP	160	97	163	98	151	89[a]	145	63
Non-CFRP	173	98	172	97	168	77	161	52

[a]Overall group difference, controlling for site and background characteristics, significant at .05.

in the parent interview addressed issues of maternal health. Mothers rated their own general health status somewhat lower, on average, than that of the focal children (Table 3-14). The ratings were comparable, however, and did not distinguish between the two groups. Continuous health problems were reported by 23 percent of the CFRP mothers and 18 percent of the non-CFRP mothers. About three-fourths of the CFRP mothers with such problems indicated they were receiving treatment for these problems, compared with only 42 percent in the non-CFRP group; this group difference is significant. Only in Jackson did a higher proportion of mothers in the non-CFRP group than in the CFRP group report receiving treatment for medical problems.

Data also were obtained concerning the preventive health care of mothers. At first glance, it appears that there is a CFRP impact on dental care (Table 3-15). On average, CFRP mothers had been to the dentist approximately a year and a half prior to the interview; it had been over two years on average for mothers in the non-CFRP group. However, given that the CFRP mothers had only been in the program for 18 months, it is probably inappropriate, in general, to view

Table 3-14

Rating of Mother's General Health Status[a]

	CFRP			Non-CFRP		
	N	Mean	S.D.	N	Mean	S.D.
Jackson	31	1.94	.57	18	1.83	.62
Las Vegas	26	1.92	.63	25	2.04	.68
New Haven	22	2.05	.72	11	2.00	.77
Oklahoma City	28	1.96	.64	44	1.98	.66
St. Petersburg	31	1.61	.62	36	1.89	.78
Salem	29	1.76	.58	43	2.07	.59
Overall	167	1.86	.63	177	1.98	.67

[a]Three-point rating scale: (1) poor or fair; (2) good; and (3) excellent.

Table 3-15

Number of Months Since
Mother's Last Dentist Visit

	CFRP			Non-CFRP		
	N	Mean	S.D.	N	Mean	S.D.
Jackson	27	16.67	16.37	18	25.33	24.11
Las Vegas	23	10.43	12.41	19	29.47	30.89
New Haven	19	22.63	30.12	10	29.70	36.32
Oklahoma City	24	19.38	25.88	31	17.90	27.50
St. Petersburg	28	18.68	26.35	31	39.71	42.01
Salem	24	15.38	22.23	35	13.51	13.84
Overall[a]	145	17.08	22.66	144	24.81	30.68

[a]Overall group difference, controlling for site and background characteristics, significant at .01.

this as a program effect. Length of time since the last medical checkup was about the same for the two groups--about 8 months on the average.

Finally, mothers who had given birth after the focal child was born were asked about the prenatal care they received; such care is critical in ensuring the well-being of newborns. Of the 27 CFRP mothers in this category, almost all (96%) had received medical care during pregnancy and had visited the doctor one or more times per month. The first prenatal visit took place, on average, in the thirteenth week of pregnancy. The prenatal care received by mothers in both groups appears to be comparable.

Family Health Care

Parents in both groups were asked to comment about other aspects of the medical care they receive. CFRP families reported using an average of 2.6 different health care

facilities to meet their needs, although this varied somewhat from site to site; non-CFRP families use approximately the same number of facilities. At three sites (Las Vegas, St. Petersburg, and Salem), the families rely mostly on private physicians for their health care; clinics are used predominantly in New Haven and Oklahoma City, and group practice in Jackson. These differences appear to be primarily a function of differences in the availability of various kinds of health care services at each of the sites. This is supported by the fact that CFRP and non-CFRP families within each of the sites tend to use the same types of health care facilities.

In Jackson, Las Vegas, and St. Petersburg, health care services were provided or supplemented by EPSDT for 47 percent of the CFRP children. Use of EPSDT was the same for the two groups of families at these sites. (EPSDT is not available in the other three CFRP communities.)

Seventeen percent of the CFRP mothers and 19 percent of the non-CFRP mothers reported having experienced problems obtaining health care services. Among the problems noted were the high cost of health care, unavailability, and transportation. About one-third of the families in both groups had been able to get these problems resolved. Most, but not all (87%), of the CFRP families are enrolled in some form of health insurance plan, either Medicaid or a private plan; approximately the same proportion of non-CFRP families had medical insurance.

Overall satisfaction with the medical care families are receiving is generally high; most parents indicated that they were somewhat or very happy with the services. The level of satisfaction was about the same for the two groups of families at all six sites. There is no indication that CFRP has had a major effect on overall family health care.

3.4 Parent-Child Interaction

The ultimate goal of CFRP is to maximize child development. An important part of the program's strategy for enhancing the development of children is encouraging parents to interact with infants and toddlers and to structure the home environment in ways that are likely to stimulate intellectual and social growth. The parent-child interaction portion of the impact study was designed to determine whether CFRP focal children and their parents actually behave differently, in natural, everyday settings, from children and parents in the control/comparison group. In spring 1980, videotaped observations of children's behavior were conducted in selected homes. The videotapes were coded using the TIES system. Parents' behavior was also coded "live," with a supplementary system of adult behavior codes. The results of analyses of these data are presented in this section. (Additional technical supporting material appears in Appendix B.)

The Observation and Coding Systems

TIES (the Toddler and Infant Experiences System) was developed by Jean V. Carew to record the natural behavior of children between the ages of one and three in home settings.* TIES is organized (a) to trace the development of various social, language, expressive, reasoning, fine motor, and gross motor competencies as these are manifested in the child's observable behavior; and (b) to specify the forms of environmental stimulation that the child receives and that are likely to promote these competencies. Observations focus on an individual child. The child's activities and/or interactions are observed for 3 seconds and coded over the next 17 seconds--a complete observation sequence every 20 seconds.

*For a more thorough discussion of the rationale and structure of TIES, see Carew, J.V. et al. Toddler and Infant Experiences System Coding Manual. Oakland, CA: TIES Project, 1978.

The 12 major coding dimensions of TIES are shown below. In all, 74 codes are available for use in the 12 coding categories.

- Activity. The activity codes include behavior relevant to social-emotional development (distress, affection, control, negative, aggressive); behavior relevant to intellectual development (learning language, fine motor spatial, fine motor exploratory); and general behavior (gross motor, physical needs, monitoring, and transitional activity).
- Caregiver location. The caregiver location is coded as near (3-4 feet from the child) or far/absent.
- Identity of interactor. If the child is engaged in social interaction, the interactor (mother, father, other adult, other child, group) is identified.
- Interaction type. Interactions are coded as convergent (shared focus for the interactors), divergent (different focus/purpose), or borderline (minimal involvement by one of the interactors).
- Interaction source. The active individuals during interactions are identified (child, interactor, or both).
- Interaction facilitation. Modes through which the interactor facilitates the child's activity are identified (teach, play, help, direct, conversation, look/listen).
- Interaction control. The mode and strength of interactor control of the child's behavior is recorded (explain, routine, strict).
- Interactor language. (present, present but unintelligible, not present)
- Interactor emotion. (happy, sad, angry, neutral).
- Child emotion. (happy, sad, angry, neutral)
- Child mobility. (unrestricted, held, confined)

A set of adult codes were developed to supplement TIES by recording the behavior of the mother when not interacting with the child. Because the videotape camera followed the child, the

mother was often off-camera; hence a second coder was necessary to complete the adult codes "live." The adult codes included (1) types of solitary activities (read/write, watch/listen, housework); (2) objects of social interaction (adult, older child, infant/toddler, or focal child); (3) types of social interaction (control/manage, teach, help, play, talk/listen); and (4) numbers of adults and children present. Interactions or activities were coded in two ways: a simple checklist for presence of an activity during a 30-second period, and an indicator of the dominant activity for each 30 second period. The codes were primarily intended to give a general picture of the proportion of time the adult spent in proximity to children and interacting with children. Most of the data reported below are based on TIES coding of child-focused videotapes; data from the adult codes play a supplementary role.

The Pilot Study

In May 1979 a pilot observation study was conducted to assess feasibility, refine instruments and procedures, estimate reliabilities of observation measures, and gather preliminary information on behavioral differences between CFRP and control/comparison families.* The study was conducted at two sites, Oklahoma City and Salem. At each site, the sample was divided evenly between CFRP and non-CFRP families (N=7 for each group in Oklahoma City; N=9 for each group in Salem--a total of 32 families in all). All of the Oklahoma City families were black; all of the Salem families were white. All children were between 11 and 14 months of age, inclusive.

Pilot study results suggested that there were important behavioral differences between CFRP and control/comparison families:

*The pilot study is described in the Phase II Report, Volume I, Appendix E, February 1980.

- CFRP mothers interacted more with their children than did non-CFRP mothers.
- CFRP mothers devoted proportionately more of their interactions with children to expressing affection, and proportionately less to controlling children's behavior and ministering to physical needs.
- CFRP children spent more time involved in fine motor exploration than did control/comparison children.

Interpretation of these results was hindered somewhat by sampling issues and by the appearance of a number of behavior differences related to site, the causes of which were ambiguous given the ethnic, regional, and program differences between the two participating sites.

The Phase III Study

In the study conducted in spring 1980, the focal children were videotaped in their own homes for one hour on each of two mornings. Those portions of the mother's behavior that involved interaction with the focal child were captured on the videotapes, which were subsequently coded using the TIES system. The remainder of the mother's behavior was recorded by a "live" coder.

Because of the time and expense involved in collecting and analyzing observation data, resource constraints dictated that the study be conducted with a limited sample of not more than 60 families (30 CFRP and 30 control/comparison) at not more than two sites. Several steps were taken in order to maximize the amount of information yielded by this small sample. First, to eliminate the ambiguities introduced by the confounding of ethnicity and site in the pilot study, only black families were observed. Oklahoma City and St. Petersburg, sites which offered adequate numbers of families meeting the requirements of the design, were selected for the study.

Second, a careful matching procedure was used to pair CFRP and control/comparison families, minimizing any need for statistical adjustments. A multivariate matching technique was used which involved assigning each family a set of scores, one for each of eight variables, and computing global "distance" measures between all possible pairs of families, taking account of all the descriptor variables at once. The pairs of families selected were those separated by the shortest "distances"--those most alike on all descriptors taken in combination. The descriptor variables were: focal child's age (as of May 1980, with an overall range of 20-26 months); sex of focal child; mother's age (as of May 1980); number of children in the household; per capita annual household income; number of parents present in the home; mother's education (whether or not she had completed high school as of fall 1978); and mother's employment status as of spring 1979. It proved to be possible to establish 25 extremely well-matched pairs of CFRP and control/comparison families--13 pairs (that is, 26 families, half CFRP and half non-CFRP) in St. Petersburg and 12 pairs in Oklahoma City. Thus, the matching came close to providing the 30 pairs that had been sought. Because the matching was so close, there was no need for statistical adjustments to compensate for nonequivalence of groups; in the results presented below, frequencies of various behaviors in the two groups are compared directly, by means of simple matched t-tests.

The third step taken to maximize information from the sample was essential to the success of the CFRP-control comparison but entailed a refocusing of the study's major questions. As indicated earlier, program participation is highly variable, both across sites and across families within sites. Therefore a representative sample of CFRP families would be certain to include some who had very

little contact with the program. There was no reason to expect that nonparticipating families would show patterns of parent-child interaction that differed from control/comparison families. Moreover, there was reason to fear that inclusion of nonparticipating families would dilute any overall effects of CFRP to the point of statistical non-significance, even if there were effects for participating families. (Precisely this pattern of results was obtained in earlier study of program impact on children's developmental scores on the Bayley Scales.) Accordingly, a decision was made to include only active CFRP participants. This decision implied that the study would no longer address the question "Does CFRP on average affect parent-child interaction?" Rather, the study would now address the question: "Can CFRP affect parent-child interaction when families participate actively?" The latter is an important question. If the program as presently operated can have positive effects when families participate, then it makes sense to try to increase participation rates and see whether those effects are then observed for other families as well. If the program has no effect even on active participants, there may be little point in increasing participation unless parent education can be improved. (Including only active families of course made it likely that the sample would not be typical of the CFRP population as a whole. However, given the careful matching of CFRP and control families, it was unlikely that this selection bias would lead to spurious results in favor of CFRP. Rather, the results would describe the effects of the program for an important subset of its families.)

Results

Table 3-16 portrays the configurations of persons surrounding the child during the observations. These config-

Table 3-16

Persons Present During Observation

	CFRP	Non-CRFP	Matched t-test (n=25)
Mean number of adults present	2.2	1.7	1.48
Mean number of children present	2.3	2.3	-0.12
Percent of time father present	12	12	0.00

urations were similar for the CFRP and control/comparison groups. Thus, none of the qualitative differences in interaction patterns reported below are artifacts created by gross differences in numbers of adults or children present.

The upper portion of Table 3-17 shows the proportions of time spent by the child in solitary activity and in interaction with others. The table confirms a finding of the pilot study: it shows that CRFP children spent significantly more time interacting with their parents than did control/comparison children (26.6 vs. 14.3 percent). The adult codes, shown in the lower portion of Table 3-17, provide further confirmation from the parent's perspective. For both CFRP and control/comparison parents, the adult codes show percentages of time spent interacting with children that are strikingly similar to the percentages reported for the child-focused (TIES) codes. In addition, the adult codes show tendencies for CFRP parents to spend more time interacting with all of their children (not just the focal child), and they show that CFRP mothers engaged in solitary activity significantly less often than non-CFRP mothers.

Table 3-17

Distribution of Activity Types
(percent of all codes)

	CFRP	Non-CRFP	Matched t-test (n=25)
TIES Codes			
Child-parent interaction	26.6	14.3	3.40***
Child-other adult interaction	4.5	6.1	-1.05
Child-other child interaction	5.5	8.0	-1.19
Solitary child activity	62.2	70.4	-2.11**
Adult Codes[a]			
Parent-focal child interaction	25.2	15.6	2.10*
Parent-infant/toddler interaction	7.4	3.3	1.67*
Parent-older child interaction	8.9	5.6	1.54
Parent-other adult interaction	10.3	5.8	1.67
Solitary activity	48.0	69.7	-2.46**

[a]Dominant activity for a coding period.

***Significant at .01 or better.
**Significant at .05.
*Significant at .10.

Table 3-18 focuses on the most critical comparisons: between CFRP and non-CFRP families for those observation sequences in which parents and children were interacting. Only a few significant differences emerge, but these are conceptually related to each other and central to the goals of CFRP. In contrast to control/comparison mothers and children:

Table 3-18

Frequencies of Interaction Types
(percent of child-parent interactions)

	CFRP	Non-CFRP	Matched t-test (n=25)
Negative	8.1	9.9	-0.72
Control	13.5	17.1	-0.96
Distress	2.6	2.9	-0.26
Attention Seeking	3.9	5.1	-0.63
Affection	6.3	7.9	-0.57
Language Information	4.2	0.7	2.14**
Fine Motor Dexterity	3.3	2.1	0.59
Fine Motor Exploratory	8.9	8.8	0.05
Gross Motor	3.1	1.7	0.90
Physical Needs	10.7	9.8	0.28
Conversation	5.6	5.4	0.10
Directs/Is Directed	12.6	10.1	1.09
Monitoring	2.6	4.4	-1.59
Transition	9.9	12.6	-0.49
Caregiver Nearby	81.0	76.0	0.96
Child Attempts Mastery	12.2	5.0	2.43**
Convergent Interaction	88.5	87.5	0.50
Teaching Interaction	6.5	0.8	3.68***
Play Interaction	8.0	9.4	-0.56
Help Interaction	22.7	19.6	0.82
Direction Interaction	15.6	18.9	-0.81
Conversation Interaction	8.4	8.1	0.14
Look/Listen Interaction	20.4	18.7	0.44
Routine Control Interaction	13.9	16.2	-0.63
Child Source of Activity	29.1	33.9	-1.30
Interactor Source of Activity	43.0	40.8	0.48
Child Uses Language	12.3	9.2	1.10
Interactor Uses Language	49.8	50.6	-0.15
Child Happy Affect	8.3	7.8	0.17
Interactor Happy Affect	7.7	6.8	0.35
Child Angry Affect	5.7	7.1	-0.78
Interactor Angry Affect	1.9	3.0	-0.74

***Significant at .01 or better.
**Significant at .05.

- CFRP mothers and children engaged in more interactions involving language information.
- CFRP mothers did more teaching, most frequently of language skills, but also of fine motor dexterity.
- During interactions with their parents, CFRP children showed more attempts at mastery of language and motor skills (including fine motor spatial, fine motor dexterity, and gross motor).

The language-related differences in Table 3-18 carry over, in part, to Table 3-19, which gives a profile of behavior for observation sequences in which the child is interacting with someone other than the parent--a child or other adult. The frequency of use of language by the child differs by a near-significant amount between the CFRP and control/comparison groups. In addition "convergent interactions"--interchanges in which the child shares a common focus of attention with another child or adult--appear to be somewhat more frequent in the CFRP group. CFRP and control/comparison children show no differences in behavior when engaged in solitary activity.

In short, for a carefully chosen sample of black families who participate actively in CFRP, there appears to be a highly selective program effect. Specifically, these parents appear to interact more with their children in a teaching role, focusing especially on language skills. Stimulation of this type has been consistently shown to contribute to the child's intellectual development and achievement; thus, at least for this subset of families, the program may ultimately prove effective in meeting its child development goals.*

*In this connection, it is worth noting that while CFRP and control/comparison children did not differ in scores on the Bayley Scales of Infant Development after 18 months in the program, there were hints that Bayley scores were improved for children from actively participating families. See The Infant-Toddler Component and Child Impact, December 1980.

Table 3-19

Frequencies of Interaction Types
(percent of child-other interactions)

	CFRP	Non-CFRP	Matched t-test (n=25)
Negative	11.6	15.1	-0.65
Control	11.1	7.5	1.58
Distress	1.8	1.8	0.05
Attention Seeking	1.7	4.3	-1.90*
Affection	16.3	16.7	-0.09
Language Information	1.7	1.0	0.52
Fine Motor Dexterity	1.3	1.0	0.37
Fine Motor Exploratory	8.5	9.1	-0.20
Gross Motor	2.1	4.1	-1.38
Physical Needs	7.4	4.0	1.33
Conversation	11.3	3.4	1.42
Directs/Is Directed	8.3	6.1	0.80
Monitoring	3.7	7.1	-1.23
Transition	11.3	17.5	-1.35
Caregiver Nearby	27.4	21.1	0.98
Child Attempts Mastery	6.5	4.5	1.02
Convergent Interaction	94.7	89.1	1.89*
Teaching Interaction	2.0	1.6	0.37
Play Interaction	25.3	23.2	0.38
Help Interaction	17.7	16.7	0.17
Direction Interaction	11.6	10.1	0.46
Conversation Interaction	12.7	5.5	1.33
Look/Listen Interaction	15.9	23.8	-1.63
Routine Control Interaction	7.9	10.8	-0.73
Strict Control Interaction	3.5	6.5	-1.03
Child Source of Activity	24.3	28.5	0.83
Interactor Source of Activity	31.1	31.5	-0.06
Child Uses Language	16.8	5.5	1.80*
Interactor Uses Language	39.5	35.0	0.77
Child Happy Affect	14.3	15.0	-0.14
Interactor Happy Affect	16.3	15.0	0.30
Child Angry Affect	7.1	12.6	-1.16
Interactor Angry Affect	3.8	5.3	-0.57

*Significant at .10.

Chapter Note

Sample estimates for focal children's weight and height at particular ages were generated from regressions of weight and height on age at measurement. Within this age range, such a straight line is a reasonable approximation of the functional form of normed growth curves.

Chapter 4

SUMMARY OF FINDINGS AND FUTURE STUDY ISSUES

This report has depicted the CFRP evaluation at a point that is not quite midstream. It has described in some detail the staff's perceptions of the program, as well as parents' perceptions of their experiences during their first 18 months in the infant-toddler component. It has examined data on program participation, and presented findings about the program's impact on families and children in four of five outcome domains--community services and support, family circumstances, health, and parent-child interaction. What emerges is a mixed picture of the effects and effectiveness of CFRP as a family-oriented child development program. However, it is important to point out that the picture presented in this report is incomplete; it will be filled in during later phases of the study, as the focal children enter Head Start and elementary school. Section 4.1 highlights the major findings presented in the report. Future study issues are identified in Section 4.2.

4.1 Summary of Eighteen-Month Findings

Findings of the CFRP evaluation to date have served to identify several areas in which the program is particularly strong, as well as several in which improvement is needed. This section presents an interpretive summary of the strengths and weaknesses of CFRP as it is now implemented, along with the major findings on which that summary is based.

What are CFRP's major strengths and weaknesses?

There is convincing evidence that CFRP is accomplishing many of the objectives it set out to achieve. Among the program's major strengths are:

- Effective tailoring of program services to meet the needs of individual families.

- Assisting parents to set goals for themselves and to achieve those goals.

- Establishing networks of linkages with community service agencies, resulting in increased parental knowledge of resources in the community, improved access, and in some instances increased utilization of services.

- Providing a child development program that is oriented toward the family, with strong emphasis placed on parents as educators of their own children.* This has resulted in positive changes both in amount and types of parent-child interactions.

Some program weaknesses also have been identified in the 18-month evaluation. Findings to date suggest that the program could be strengthened considerably in the following areas:

- Increasing family participation in home visits, and particularly in center sessions. The "less than optimal" levels of participation by study families severely weaken the program's potential effects in the areas of parenting skills and child development.

- Shifting program contact in some sites from telephone calls and brief home visits to major program activities. The former types of contact may not be conducive to achieving overall program objectives.

- Strengthening the health component of CFRP to ensure, at a minimum, that all children are immunized.

- Exploring ways to improve the financial circumstances of families and to help parents break the poverty cycle in the long run.

*This finding is based on staff and parent reports rather than direct observation of what actually occurs. This issue will be investigated in greater depth in the ethnographic study.

- Finding ways to serve working mothers more effectively so that they can benefit from the services offered by CFRP. Attempts thus far have met with only limited success. Working mothers either become inactive participants, drop out altogether, or are encouraged (in some programs at least) to quit work in order to devote full time to parenting.

What processes are used by CFRP to deliver services?

There is convincing evidence that program services are individualized and tailored to meet specific child and family needs, as mandated in the CFRP Guidelines. This is accomplished through assessments of family needs at the time of entry into CFRP and periodic reassessments, which occur at least once a year. The reassessments usually lead to the development of a new family action plan or revision of an existing plan; the plan serves as a basis for individualization of program services to meet the needs identified and pursue the goals set. According to family workers, major emphasis with most study families was placed on child development and parenting skills, the major objectives of the program. However, in Las Vegas more emphasis was placed on job training than on child development and parenting concerns; perhaps this is attributable to the fact that a large proportion of the mothers in the Las Vegas CFRP sample are teenagers seeking to upgrade their employability.

In addition to the more formal approach to identification of family needs and of steps towards meeting those needs represented by reassessment, there is a less formal ongoing process of setting goals and working toward their fulfillment. The goals set arise out of family needs as perceived by the parent and the family worker. This dual perspective is reflected in the types of goals set.

Parenting and/or child development was a common focus of goals at all sites. There were some site differences, however, which can be interpreted as representing alternate program approaches. In Salem and Jackson, more families had goals in the area of parenting skills and parent-child interaction than in that of child development per se; the opposite was the case in Las Vegas, while in Oklahoma City and St. Petersburg there were about equal numbers of families with goals in each area.

It is of interest to note that improving financial circumstances or obtaining assistance in making ends meet were goals for a fairly small proportion of the families. Needs for this kind of assistance--which may include getting help paying energy or housing bills or extra money to buy food or clothing--often are short-term, and most likely are being addressed through referrals rather than being identified as family goals. CFRP was most successful in helping families to attain goals concerning financial aid from public assistance programs, social contacts, immunizations, nutrition, child care or child development, and medical care. Comparatively little progress was made with goals relating to education, family relationships, job training, coping, and employment. Generally speaking, these are goals that are more difficult to attain or that cannot be addressed in the short term.

All CFRPs have established an extensive network of linkages with social service agencies in order to reduce fragmentation of community services for families--to give them one place where they can turn for help from a variety of programs. In addition, some services are provided to families directly by CFRP staff--mainly developmental assessments and services for children, educational services concerning parenting, and counseling. CFRP staff differ from site to site in the degree to which they prefer to provide services directly as

opposed to referring families to other, more specialized agencies to receive services. Some programs, such as Las Vegas, see themselves as primarily providing a connection between families and a network of community agencies which offer needed services. Other programs, such as Salem, see themselves as direct service-providers. These differences in perspective are reflected in the frequency of referrals made at the various sites, as reported in the ongoing recordkeeping system.

How frequently do families participate in program activities?

According to staff, child development, parenting skills, and parent-child interaction are a major focus of program activities. This suggests that CFRP is doing its job with respect to its ultimate objective of improving parenting skills and enhancing child development. It is clear, however, that no family can expect to reap significant benefits from a program in which it does not participate, or participates only minimally. The findings with respect to participation in the two major types of program activities--home visits and center sessions--are rather discouraging. Home visits occurred about once a month on average. However, only about half of the study families participated in center sessions even as often as once every three months. Further, those who attended center sessions this often received more--rather than fewer--home visits than those who attended less often; that is, center attendance and home visits are not alternative or complementary ways of taking part in CFRP, but rather go hand in hand.

However, it does appear that there are alternative approaches to providing CFRP services: total contact with families is about the same at all five sites (14 on average per quarter, or 4.7 per month). At two sites (Las Vegas and Oklahoma City) most of the contacts take the form of telephone

calls supplemented by brief home visits (of less than 15 minutes), while at the other three sites (Jackson, Salem, and St. Petersburg) there are more regular home visits and far more participation in center sessions. Attempts by family workers to increase family participation in program activities have been unsuccessful to a large extent.

It is not clear whether it is feasible for a parent education and child development program to be delivered by means of telephone calls or drop-in visits. Further, the low participation levels at all sites raise serious questions about CFRP's potential effectiveness in this domain, at least for evaluation families. An earlier report* provided hints that active participation in program activities results in higher child development scores. Other studies also support this notion.

Is there evidence of program impact after 18 months?

CFRP appears to have had a positive impact on parent-child interaction, and has helped parents to make use of community resources of several kinds. However, it has had only scattered effects on family health, and no measurable impact on income, employment, education, or housing.

Parent-Child Interaction: CFRP parents interact more with their children than do non-CFRP parents. They are more likely to teach language and other skills to their children. More of their interactions with children involve exchange of language information, and their children show more attempts at mastery of language and motor skills. These differences appear to be directly related to the strong emphasis on parent-child interaction that was reported earlier. They also

*The Infant-Toddler Component and Child Impact, December 1980.

may represent another hint of a relationship between participation and impact, as all families selected for the observation study were active program participants. The positive effects on parent-child interaction may eventually lead to enhanced child development, which is CFRP's major goal. Group differences on the Bayley Scales of Infant Development were not yet discernible when children were tested a year to a year and a half after they entered CFRP, although there was some evidence of an effect for higher levels of program participation.

Health: CFRP provides a wide variety of preventive health services to children and families. CFRP mothers report receiving more medical care for health problems than mothers in the control/comparison group. Furthermore, a higher proportion of CFRP than non-CFRP children had been immunized against some infectious diseases. It is sobering to note, however, that many children in the program still had not received all recommended immunizations. There were no discernible overall health differences between CFRP and non-CFRP children, based on parents' reports and height and weight measures.

Community Services and Support: Parents report that CFRP has increased their knowledge about community resources and improved their access to public services. Particularly with respect to health services, CFRP parents reported receiving help from the program and from agencies in the community, whereas non-CFRP families tended to rely on friends and relatives. In the long run, however, staff encourage parents to become independent from the program and from public services.

Parents' ability to cope with their living circumstances and meet their needs may be influenced greatly by the extent to which they are affiliated with support systems in the community. There is some evidence of a CFRP effect in

this area. CFRP mothers have somewhat more social interaction with parent groups than non-CFRP mothers, largely because such opportunities are offered by the program. CFRP parent group sessions are commonly viewed as providing "support" to parents in raising their families.

Family Circumstances: CFRP families make more use of public support such as AFDC and food stamps than do non-CFRP families. Perhaps because the program is not well adapted to the needs of working mothers, fewer CFRP parents are employed, and fewer report wages to be their primary source of income than is true of parents in the control/comparison group. CFRP families actually have somewhat lower incomes than non-CFRP families; however, this income differential is largely associated with differences in family size and number of wage earners. There is no evidence that CFRP parents have improved their housing, gained employment, or received further education as a result of program participation, although more of them plan to continue their education than is true of non-CFRP mothers.

What do CFRP parents and staff say about program effects?

CFRP parents checked an average of three to six topical areas in which they had learned or benefited from CFRP participation. About one-fourth (23%) indicated that they had learned more about child development and parenting than about any other topic. Health also ranked high, followed by education. Family workers agreed, indicating that they had observed progress with many of these families in the areas of parenting, health, and education. Parents' satisfaction with the services and program activities offered by CFRP was generally high.

4.2 Future Study Issues

The 18-month findings suggest several areas of inquiry that should be pursued in subsequent phases of the CFRP evaluation. Future study issues are identified and discussed below.

Infant-Toddler Component. The infant-toddler component has been the major focus of the CFRP evaluation to date, in accordance with the design specified for the study. This has been particularly appropriate in light of the fact that in a number of programs the infant-toddler component is viewed as one of the major features that distinguish CFRP from Head Start. In some programs, the infant-toddler component is in fact synonymous with CFRP; in most, it is the most fully implemented program component.

The picture obtained thus far is incomplete, however, in that the most recent data were collected when families had participated in only 18 months of the infant-toddler program, which typically spans three years. Much has been learned during this time period about the processes used to deliver services, the treatment itself, and impact on families and their children. In order to gain a more complete understanding of CFRP as a family-oriented child development program, it will be necessary to continue to study this component in the next phase of the evaluation. In particular, we must examine changes that occur over time in program processes, treatment, and effects--issues addressed in both the process/treatment and impact studies of the CFRP evaluation.

One of the issues to be examined in Phase IV is whether CFRP affects families in different ways as they progress through the program. Many family goals are necessarily long-term in nature, and it may take some time--perhaps

considerably more than 18 months--for program effects to show up. It is not unrealistic to assume, for example, that the entry into Head Start of focal children in fall 1981 will provide parents with new opportunities to pursue some of the goals that were set earlier and on which little or no progress has been made to date. Mothers may implement their plans to further their education, become enrolled in job training programs, or join the work force in an attempt to decrease their dependence on public assistance programs and improve the financial circumstances of the family. Continuing to collect data on goals will increase the chances of detecting CFRP effects.

We also propose to continue the collection of data on family participation in program activities. The rationale for this is two-fold: (1) links have been found both in the CFRP evaluation and in other studies between high participation levels and positive outcomes, particularly in the areas of child development and parent-child interaction; and (2) it appears that participation of study families is consistently lower than for non-study families enrolled in CFRP. These issues warrant further investigation, particularly since child development outcomes will be a major focus of Phase IV. A post-infant-toddler and pre-Head Start assessment will be conducted in fall 1981, when most children are expected to make the transition from infant-toddler to Head Start. In addition, we plan to collect participation data on all CFRP families enrolled in the infant-toddler component at the five process/treatment sites in an attempt to verify staff reports that participation is significantly lower for study families because they were recruited for the evaluation and did not seek out the program for help. This substudy will take place in spring, prior to the entry of the children into Head Start. If staff reports are substantiated in this substudy, it will weaken the generalizability of evaluation findings. Further-

more, it will provide important information about the types of families that are most effectively served by a program like CFRP.

While the major focus of the impact study in Phase IV will be on child development--and perhaps on parental teaching skills--plans call for the continued collection of data, by means of parent interviews, in other outcome domains: health, family circumstances, and community services and support networks. Limiting the focus of Phase IV to child development assessments would provide too narrow a view of the potential effects of CFRP. Furthermore, the examination of the family development process begun in Phase III with the collection of data on family needs and strengths would be left incomplete if no more information in these other domains were forthcoming. In addition, interviews with CFRP parents and family workers will continue to deal with such issues as levels of program participation, the program's emphases with each family, areas in which the family has benefited from program participation, and the degree of the family's dependence on CFRP and on other agencies; these data will yield information on changes in program processes and treatment, as well as on changes in families.

Finally, the results of the ethnographic study currently being carried out in the five process/treatment programs will contribute significantly to gaining a complete understanding of the infant-toddler component of CFRP as it is experienced by eight families at each site. Data are being collected over a six-month period, with a report to be issued in summer 1981.

Infant-Toddler/Head Start Transition. The transition from the infant-toddler component to Head Start will be another major focus of Phase IV of the CFRP evaluation. Little is known to date about the processes used by CFRP to ensure

developmental continuity during the major stages of the child's development (from before birth to early grades in elementary school). Preliminary findings from the program study raise some questions about CFRP's ability to fulfill its promise to afford such continuity at the point of transition from the infant-toddler component to Head Start, and even more so at the point of entry into elementary school. This issue will be explored in greater depth in fall 1981, when the focal children enter Head Start. Preliminary plans call for conducting interviews with Head Start teachers, family workers, and parents to gain a better understanding of how developmental continuity is attained.

An important question to be addressed in the CFRP evaluation is what incremental benefits families and children derive from participation in CFRP, compared to a group receiving only Head Start services. In order to examine this issue, the research design calls for the entry of both CFRP and control/comparison children into Head Start in fall 1981, or when the children meet age guidelines established by Head Start. The design will be implemented at five of the six sites; in Salem, a lack of Head Start slots prevents the control/comparison children from entering the program.

Thus, there will be a major shift in the focus of the impact study component of the evaluation. In the first three phases, the effects of CFRP were determined by comparing a group of families enrolled in CFRP with a group receiving no program services. In subsequent phases, comparisons will be between two groups of families both enrolled in Head Start. The CFRP group will have participated in the program for three years prior to entry into Head Start and will continue to receive the broader set of services offered by CFRP. In contrast, the control/comparison group will not have received any program services prior to entry into Head Start, and the Head Start services offered to these families

at some sites will be less extensive in nature than those provided to families enrolled in CFRP.

In order to assess the incremental benefits of CFRP, it is critical not only to have a complete understanding of the treatment families received in CFRP's infant-toddler component, but also to determine similarities and differences in the Head Start experiences of the two groups of families. For example, is more contact maintained with CFRP families than with the Head Start-only group? Are the services provided to CFRP families more comprehensive than those offered to Head Start families? In subsequent phases of the evaluation, we plan to address this issue by continuing to collect some information on the processes used to deliver services and the Head Start/CFRP treatment, and particularly on the participation of families and children in program activities offered by CFRP and Head Start.

Appendix A

F Ratios Associated with Outcomes

	Main Effects CFRP	Main Effects Site	Two-Way Interaction
DOMAIN: COMMUNITY SERVICES			
Help with:			
Health care	10.253***	1.536	.133
# of public assistance agencies	.714	12.168***	1.003
Housing	.004	2.720*	.976
Home improvements	.006	.547	1.299
Adult education	.061	1.800	1.335
Child care	.099	3.150***	.993
Employment	.283	2.683*	1.290
Previous employment	.561	.748	.751
Job training	.189	2.777*	1.963
Transportation	2.124	1.106	.726
Agency help with:			
Health care	14.309***	2.377*	.314
Housing	5.521*	.179	.396
Home improvements	.035	1.295	.395
Adult education	21.529***	1.357	1.089
Employment	.886	2.590*	.380
Previous employment	.409	.975	2.065
Job training	1.949	1.893	.902
Transportation	50.523***	5.677***	2.352*
Frequency of problems with transportation	2.594	.830	.450
DOMAIN: FAMILY NETWORKS			
Someone to call in emergencies	.000	2.191	.408
Someone to talk to	.576	1.422	.973
Frequency of meetings with:			
-clubs/church groups	2.598	1.697	1.291
-groups related to work	.152	1.270	2.175
-parent groups	55.767***	3.477***	1.700
-groups of friends	.103	1.789	.799

***Significant at <.01
**Significant at .01
*Significant at .05

F Ratios Associated
with Outcomes
(cont'd)

	Main Effects		Two-Way
	CFRP	Site	Interaction
DOMAIN: INCOME AND PUBLIC ASSISTANCE			
Monthly gross income	4.637*	1.951	.561
Per capita income	3.021	1.710	1.404
Frequency lack of money is serious problem	.376	2.085	1.746
Income sources:			
-wages	1.839	2.999**	.506
-welfare	6.131**	2.733*	.614
Primary income sources:			
-wages	2.469	6.718***	1.273
-welfare	1.522	5.804***	.863
Number of wage earners	3.200	5.089***	.547
Use of other public assistance programs:			
-food stamps	5.286*	1.571	.267
-WIC	3.267	12.110***	2.503*
-WIN	.535	.910	1.212
-housing authority	1.436	.961	.038
Number of agencies:			
-contacted	1.490	9.764***	.989
-provided assistance	1.218	10.706***	.957
-providing assistance now	1.040	11.419***	.973
DOMAIN: MATERNAL EMPLOYMENT			
Mother's employment preference	.487	1.422	1.974
Mother's employment status	.386	1.418	1.830
Mother's satisfaction with employment status	3.334	7.175***	2.148

***Significant at <.01
**Significant at .01
*Significant at .05

F Ratios Associated
with Outcomes
(cont'd)

	Main Effects		Two-Way
	CFRP	Site	Interaction
DOMAIN: MATERNAL EMPLOYMENT (cont'd)			
Employed mothers-- job satisfaction	.025	1.317	2.403*
Employed mothers-- duration of job	.064	1.090	.292
Employed mothers-- changed jobs in past year	.657	1.233	.160
Unemployed mothers-- worked during past year	.529	1.018	.785
Mother had job training	.203	1.368	.700
DOMAIN: EDUCATION			
Mother's education	1.123	1.721	.528
Currently in school	1.721	2.056	1.224
Further education plans	3.425	2.548*	2.216*
DOMAIN: HOUSING			
Satisfaction with housing	1.503	3.319**	.810
Moved	.012	1.485	.588
Comparison of housing now and before	1.072	.617	1.050
Home improvements	.429	3.966***	.361
DOMAIN: HEALTH			
Prenatal care			
Regular checkups	.531	1.031	1.104
Frequency of checkups	.778	2.169	1.444
# weeks pregnant-- 1st doctor visit	.768	5.759***	2.273

***Significant at <.01
**Significant at .01
*Significant at .05

F Ratios Associated
with Outcomes
(cont'd)

	Main Effects		Two-Way
	CFRP	Site	Interaction
DOMAIN: HEALTH (cont'd)			
Maternal health			
Health rating	2.473	1.477	.931
Continuous health problems	1.178	.787	.483
Treatment for problems	14.587***	1.137	3.581**
Months since last checkup	.015	1.345	.889
Months since last dentist visit	6.447**	2.036*	1.770
Child health			
Health rating	1.812	4.270***	.710
Serious health problems	1.463	.414	2.379
Treatment for health problems	.309	1.557	1.240
Handicaps	1.749	.947	1.556
Months since last checkup	.019	1.372	1.051
Immunizations:			
-DPT	.777	1.654	.949
-Polio	.088	.883	1.234
-MMR	5.631*	3.722***	.392
-TB	2.343	.964	2.146
Sickle cell test (blacks only)	.515	2.268	2.198
Health care			
# facilities used	2.962	5.752***	.886
Satisfaction with medical care	.479	2.861*	.946
Problems obtaining health care	.000	1.489	.726
Problems resolved	.724	.961	.104
Medical insurance	.542	1.605	.905
Medicaid	9.872***	4.048***	.736

***Significant at <.01
**Significant at .01
*Significant at .05

Appendix B

Observation Study of Parent-Child Interaction

Section 3.4 summarizes observation data on interactions between selected children and parents in the CFRP and control/comparison groups in Oklahoma City and St. Petersburg. The data on these carefully matched samples suggest that CFRP parents and children interact more than do those in the control/comparison group, and that their interactions involve more exchange of language information, more teaching on the part of the parent, and more attempts at mastery on the part of the child. This appendix provides additional technical detail on the observation study, supporting the conclusions reported earlier. Specifically, the appendix deals with seven issues: (1) site selection; (2) sample selection and matching; (3) the supplementary caregiver activity coding system; (4) observer training; (5) data collection procedures; (6) data quality and reliability; and (7) detailed results, including frequency profiles, breakdowns by site and type of interaction.

Site Selection

A major goal in site selection was eliminating the ambiguity that had clouded the pilot results, caused by the confounding of ethnicity and site. To this end, two alternative designs were explored. The first alternative was to return to Oklahoma City and Salem and add a third site with equal numbers of black and white families. While the Las Vegas, New Haven, and Jackson programs each enroll both black and white families, Jackson was the only site where there were sufficient numbers of both groups that such a design might be possible. However, discussions with

Jackson staff and a review of the available families revealed that a black sample would be difficult to select and maintain in both the CFRP and the control/comparison group. There simply were not sufficient numbers to complete the design. Therefore, the second alternative, which required selection of two sites with all black families, was adopted. Oklahoma City and St. Petersburg were selected as the sites with the largest available pools of black families.

Sample Selection and Matching

CFRP families in Oklahoma City and St. Petersburg were ranked by total participation in home visits and center sessions during the previous data collection period. "High-participation" families were then matched with comparison group families using a multivariate pair-matching technique. The pairing was based on eight variables: (1) child sex, (2) child age, (3) number of children in the household, (4) number of parents in the household, (5) mother's age, (6) employment status, and (7) high school graduation status, and (8) per capita income in the household.

The Mahalanobis metric* was used as a global "distance" measure to compute the similarities of possible pairs of families on all eight variables simultaneously. Initially, the comparison family "nearest" each CFRP family was noted, and alternative choices were ranked. Acceptable alternatives were required to have a squared Mahalonobis distance of less than 9.0. Where there was one acceptable match and no alternatives existed, pairs were considered established. Where several alternatives were available, the closest match was chosen, except in cases where the best alternative for one family was also the first choice for

*Mahalonobis, P.C., "On the Generalized Distance in Statistics." Proceedings of the National Institute for Science in India, 2: 49-55, 1936.

another pair. (Even in Oklahoma City and St. Petersburg, the sampling strategy left few replacement families in either the CFRP or the control/comparison group). In such cases, the next-closest match was paired with the first family in order to make available an acceptable match for the second.

Using this technique, 15 CFRP and 15 control/comparison familes were matched at each of the two sites. Nine of the assigned matches were not actually observed, due to dropping from the program (2), refusal to be videotaped (5), and family moves (2). Substitutions were made in the field, and four of these alternative pairings proved to be acceptable matches by the original criteria and were included in the analysis of 25 matched pairs (13 in Oklahoma City and 12 in St. Petersburg). Comparisons of the matched sample families are shown in Table B-1.

Caregiver Activity Coding System

The study employed two observation systems, used simultaneously. The child-focused TIES coding system, developed by Jean V. Carew for a study of black children in Oakland, California, was used for the videotape recordings. A supplementary system, developed for this evaluation, was used to provide a general profile of the caregiver's activities, including activities during periods when she was not directly involved with the child.* A live observer recorded the latter information, using the coding sheet shown in Figure B-1. The live observer remained near the cameraperson and generally out of camera range. The observer moved only when necessary and did not follow the parent when she was out of sight, but did continue coding if

*Details of the caregiver activity coding system and procedures are presented in Appendix A of the Supplement of Field Procedures Manual: Procedures for the TIES Observation Teams, Spring 1980.

Table B-1

Matched Sample Characteristics
by Site and Group Membership

	Mother Age (Years)	Child Age (Months)	Number of Children	Yearly Per Capita Income	Percent 2-Parent Families	Percent High School Graduates (Mothers)	Percent Employed (Mothers)
Oklahoma City (n=13)							
CFRP	22.9	24.0	2.8	$1800	31	54	38
Comparison	23.1	24.0	3.0	$1750	31	61	46
St. Petersburg (n=12)							
CFRP	23.4	24.0	2.9	$1550	17	50	42
Comparison	23.0	23.5	3.2	$1650	17	50	42

Figure B-1

Parallel Coding Sheet

Conditions at beginning of observation

Persons Present _____

Target Child: _____

Site: _____ Time: _____

Date: _____ Tape # _____

	NON-SOCIAL ACTIVITIES					SOCIAL INTERACTIONS				INTERACTION TYPE						CAREGIVER EMOTION			CLOSEST DISTANCE				MOTHER NOT PRESENT	
Min.	Read/ Write	Watch/ Listen	Solitary Play	House-work	Oth.	Tel.	Adult	Older Child	Inf./ Todd.	Focus Child	Control Manage	Teach	Help	Play	Talk/ Listen	Phys. Needs	Holds/ Cuddles	Watch Only	None	Anger	Distress	Affection	0	I	N	C		Notes
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she was relatively certain of the caregiver's activity (e.g., housework, telephone conversations, bathroom visits, etc).

The coder observed the caregiver's behavior for 20 seconds and then coded for 10 seconds. The coding was primarily in checklist form. Multiple activities/interactions within a coding period were checked as they occurred. In addition to the checklist, the dominant activity during the coding interval was circled. Four general types of information were recorded:

(1) Non-social activities and social interactions. If the caregiver engaged in activity other than social interaction, one or more of the 4 general non-social activities was checked (read/write, watch/listen, solitary play, housework). If non-social activities and social interactions occurred simultaneously, both were checked. For example, if the caregiver was washing dishes (housework) and talking to her mother (social interaction-adult; interaction type-talk), each of the appropriate codes was checked.

(2) Types of social interaction (control/manage, teach, help, play, talk/listen, hold/cuddle). If a social interaction was circled, appropriate interaction types were checked and the dominant interaction type for that interaction was circled.

(3) Caregiver emotion. Only strong positive or negative affect was scored if either occurred. Otherwise, "neutral" emotion was checked.

(4) Distance between caregiver and focal child. The closest distance between caregiver and focal child was recorded during the 10-second coding period.

Observer Training

Caregiver activity observers and child videotape camera staff were trained during a 5-day session in Oklahoma City. Two teams from each site participated. Training was

conducted by staff from AAI and from Research for Children, Inc. of Palo Alto, California. The training included detailed discussions of the coding systems, coding from videotape, and several opportunities for observation practice for the caregiver activity observers and similar activities for camera staff.

TIES coders were given three weeks of intensive training in the coding system in Palo Alto. Training activities included detailed presentation of the coding system and review of videotapes, coding practice, and reliability coding for the trainees. Coders were then given study videotapes for coding and expected to code 20 hours in addition to attending a coding review session each week.

Data Collection Procedures

The observation data, a parent interview, and anthropometric measures (weight and length) for the focal children were collected during three visits structured in the following manner:

Visit #1	Parent interview and child measures completed if possible. Parent introduced to videotape equipment and procedures for videotaping demonstrated (including 5-minute practice tape and immediate play-back of the tape so mother could watch). Mother's agreement to participate in observations obtained.
Visit #2	A 60-minute videotape made of the child in his/her natural activities at home. During the videotaping the activities of the mother coded.
Visit #3	A second 60-minute videotape of the child's activities made, accompanied by parallel coding of the mother's activity:

Quality and Reliability of the Videotape Data

Videotapes for 60 children were completed, potentially yielding 120 one-hour tapes. Of these, 114 tapes were sent to Palo Alto for coding; 4 tapes were of less than 15 minutes duration because of equipment problems (1), child sleep (2), or parent illness (1); 2 cassettes were physically damaged in transit.

TIES staff rated the quality of the tapes on a 3-point scale for several dimensions throughout the coding process. As indicated in Table B-2, the quality of the St. Petersburg tapes was markedly below that of Oklahoma City, primarily due to low light levels and occasionally poor camera angles. Also, coding intervals were flagged as questionable far more often in St. Petersburg; frames identified with the flags shown in Table B-3 were not included in data analysis.

Additional information on the quality of the TIES data is provided by a reliability (generalizability) study performed during the pilot phase. A generalizability study allows a researcher to determine what portion of the variation in a score is due to the person or group observed, the observer, the particular occasion of observation, and other sources. The TIES "g-study" showed that observer variation was minimal (less than two percent of variation for most codes), attesting to the effectiveness of TIES training procedures. Variations from occasion to occasion were large, and variations from family to family were also substantial. When scores were averaged across observers and occasions to produce family averages, these averages--the data of interest for comparing CFRP and control families--showed reasonable generalizabilities (roughly equivalent to traditional reliabilities) in many cases. The range over the 22 codes (for averages based on two 30-minute observation

Table B-2

TIES Coder Ratings of Videotape Quality
(percentage of tapes coded)

	Audio			Video			Overall		
	Problematic	Adequate	Good	Problematic	Adequate	Good	Problematic	Adequate	Good
Oklahoma City (59 Tapes)	19	54	27	14	36	51	7	59	34
St. Petersburg (53 Tapes)	21	66	13	51	37	11	40	45	15

Table B-3

TIES Edit Code Usage
by Site and Group

	Technical Problems	Child Out of Camera Range	Coder Unable to Interpret Activity with Confidence	Apparent Acting for Camera
Oklahoma City (59 Tapes)				
CFRP	3.5	0.1	0.3	0.1
Comparison	3.2	0.2	0.2	0.2
St. Petersburg (53 Tapes)				
CFRP	9.7	1.4	0.1	2.9
Comparison	12.1	1.2	0.2	3.2

periods on two separate days) was from .10 to .87, with a median of about .6, indicating that about 60 percent of the variation in a typical code was reliably linked to the family being observed, and not due to momentary fluctuations in behavior, observer bias, or other sources of error. Based in part upon consideration of these data, observation time and TIES coding periods were increased for the present study.

Results

The results of the matched comparisons are presented in Tables B-4 through B-11 for the entire 25 pairs and for each site separately. As described in the summary section, few group differences emerge. Nevertheless, the significant results suggest important differences in parent-child interaction between the CFRP and control/comparison groups. The number of people in the home during the observation were similar for both groups of families (Table B-4). Nevertheless, CFRP parents spent more time in interaction with children (particularly the focal child) than non-CFRP parents. This result is found in both the checklist coding and in the dominant activities coding of the caregiver activities observations (Tables B-5 and B-6), as well as in the distribution of child interactions from the TIES coding (Table B-7). As a related result, both parents and children in the control/comparison group spent more time in solitary activity. The finding that CFRP children spent significantly more time interacting with their parents is a replication of one result of the pilot study.

Apart from the differences in frequency of social interaction, few comparisons of caregiver activities approached significance. A tendency to spend more time in conversation (particularly in Oklahoma City) is found in the

dominant activity coding (Table B-6) and a pattern of stronger affect in comparison group caregivers (anger, distress, and affection) is found in the checklist coding (Table B-5).

Table B-8 contains the proportions of various child activities broken down by TIES interaction situation for the focal child (that is, child-parent interaction, child-other interaction, and solitary play). Tables B-9 through B-11 provide comparisons for the most frequently occurring codes (greater than 1.0 percent of the base) in each of the TIES interaction situations. Again, few significant differences emerge, but these are generally conceptually related to each other and central to the goals of CFRP. As noted in the text:

- CFRP mothers and children engaged in more interactions involving language information.
- CFRP mothers did more teaching, most frequently of language skills, but also of fine motor dexterity.
- During interactions with their parents, CFRP children showed more attempts at mastery of language and motor skills (including fine motor spatial, fine motor dexterity, and gross motor). The difference in teaching is clearly evident at both sites, separately and combined. The language and mastery results are consistent indications across sites, but achieves significance only when the samples are pooled.

The language-related differences in Table B-9 carry over to Table B-10, which gives a profile of behavior for observation sequences in which the child is interacting with someone other than the parent--a child or other adult. Frequency of use of language by the child differs by a near-significant amount between the CFRP and control/comparison groups. In addition, "convergent interactions"--interchanges in which the child

shares a common focus of attention with another child or adult--appear to be somewhat more frequent in the CFRP group, primarily in St. Petersburg. CFRP and control/ comparison children show no differences in behavior when engaged in solitary activity (Table B-11).

Table B-4

Persons Present During Observation

	CFRP	Comparison	Matched t-tests: Overall (n=25)	Matched t-tests: Oklahoma City (n=13)	Matched t-tests: St. Petersburg (n=12)
Number of Adults Present	2.2	1.7	1.48	1.67	0.37
Number of Children Present	2.3	2.3	-0.12	-0.43	0.39
Percent of Time Father Present	12.0	12.0	0.00	0.56	-0.36

Table B-5

Caregiver Coding Summary--Checklist
(Percentage of All Coding Periods)

			Matched t-tests		
	CFRP	Comparison	Overall (n=25)	Oklahoma City (n=13)	St. Petersburg (n=12)
Solitary Activities					
Read/Write	2.3	1.2	0.76	-0.94	1.41
Watch/Listen	26.4	31.8	-1.23	-0.33	-1.34
Solitary Play	2.0	3.7	-1.10	-1.70	-0.48
Housework	16.2	19.4	-1.07	-1.65	0.19
Other (personal needs, etc.)	7.5	10.3	-1.14	-0.20	-1.48
Telephone	1.8	1.7	0.12	-0.78	0.60
Social Interaction (object)					
Older Adults	14.0	10.4	1.09	0.54	0.94
Older Children	17.8	11.0	2.06**	1.84*	0.97
Infants/Toddlers	9.6	5.7	1.12	0.25	1.26
Focal Child	40.5	25.0	2.76**	3.37***	0.60
Social Interaction (type)					
Control/Manage	5.1	5.4	-0.30	0.91	-2.78**
Teach	3.9	2.3	1.18	1.43	-0.31
Help	4.0	4.5	-0.35	0.85	-1.67
Play	6.6	6.0	0.27	1.22	0.61
Talk/Listen	52.7	48.0	1.02	2.51**	-0.33
Physical Needs	6.4	5.3	0.63	0.70	0.19
Hold/Cuddle	4.9	6.7	-0.99	0.15	-1.70
Watch Only	11.5	14.6	-0.84	-1.90	0.96
Caregiver Emotion					
Anger	0.2	1.2	-1.59	-1.34	-1.71
Distress	0.3	0.8	-1.81*	-1.30	-1.45
Affection	4.6	6.8	-1.75*	-1.02	-2.11*
Caregiver-Child Distance					
Contact	13.1	15.0	-1.21	0.78	-0.89
Out of Sight	23.8	22.2	0.50	0.04	0.68

***Significant at .01
**Significant at .05
*Significant at .10

Table B-6

Caregiver Coding Summary--Dominant Activities
(Percentage of Coding Periods)

	CFRP	Comparison	Matched t-tests: Overall (n=25)	Matched t-tests: Oklahoma City (n=13)	Matched t-tests: St. Petersburg (n=12)
Solitary Activities					
Read/Write	2.2	0.9	1.08	-0.85	1.69
Watch/Listen	11.2	17.0	-1.72*	-0.66	-1.80*
Solitary Play	1.6	2.8	-0.80	-1.31	-0.55
Housework	12.9	15.6	-1.04	-2.06*	0.59
Other (personal needs, etc.)	3.9	6.3	-1.41	-0.14	-1.85*
Telephone	1.5	1.7	0.16	-0.38	0.61
Social Interaction (object)					
Older Adults	10.3	5.8	1.67	0.47	1.71
Older Children	8.9	5.6	1.54	1.33	0.75
Infants/Toddlers	7.4	3.3	1.69	0.89	1.43
Focal Child	25.2	15.6	2.10*	2.20**	0.78
Social Interaction Category					
Control/Manage	2.7	1.9	1.26	1.36	0.19
Teach	1.6	0.9	1.02	2.30**	-0.88
Help	1.5	1.5	-0.02	0.79	-1.42
Play	4.3	3.6	0.47	0.79	0.10
Talk/Listen	38.7	29.6	2.02*	2.38**	0.79
Physical Needs	4.4	3.0	0.94	0.79	0.56
Hold/Cuddle	2.8	2.8	-0.03	1.22	-0.67
Watch Only	10.6	11.9	-0.41	-1.53	0.96

**Significant at .05
*Significant at .10

Table B-7

Distribution of Interaction Types
(Percentage of All Coding Periods)

	CFRP	Comparison	Matched t tests: Overall (n=25)	Matched t tests: Oklahoma City (n=13)	Matched t tests: St. Petersburg (n=12)
Child-Parent Interaction	26.6	14.3	3.40***	3.18**	1.97*
Child-Other Adult Interaction	4.5	6.1	-1.05	-0.20	-2.19**
Child-Other Child Interaction	5.5	8.0	-1.19	-1.61	-0.42
Solitary Activity	62.2	70.4	-2.11**	-1.13	-1.80*

***Significant at .01
**Significant at .05
*Significant at .10

Table B-8

Percentages of TIES Activity Codes by Interaction Type
(CFRP and Control/Comparison Samples Pooled)

	Child-Parent Interaction	Child-Other Adult/Child Interaction	Solitary Activity
Negative	9.0	13.3	1.5
Control	15.3	9.3	0.0
Distress	2.7	1.8	0.5
Attention-Seeking	4.5	3.0	1.2
Prosocial	0.1	0.1	0.0
Affection	7.1	16.6	0.0
Dramatic Play	0.6	0.6	0.6
Language Information	2.5	1.3	0.2
Music	0.3	0.1	0.2
Experimentation	0.0	0.0	0.1
Creative-Artistic	0.4	0.1	0.2
Fine Motor Spatial	0.7	0.7	0.5
Fine Motor Dexterity	2.7	1.1	1.7
Work	0.2	0.2	0.3
Fine Motor Exploratory	8.8	8.8	22.4
Gross Motor	2.4	3.1	5.4
Physical Needs	10.3	5.7	11.3
Conversation	5.5	7.3	0.0
Directs/Is Directed	11.3	7.2	0.0
Television	0.9	0.3	2.6
Monitoring	3.5	5.4	25.6
Transition	11.3	14.4	22.7

Table B-9

Comparative Percentages of Selected TIES Codes
(Child-Parent Interaction Situations)

	CFRP	Comparison	Matched t-tests: Overall (n=25)	Oklahoma City (n=13)	St. Petersburg (n=12)
Negative	8.1	9.9	-0.72	-0.34	-0.63
Control	13.5	17.1	-0.96	-1.23	0.04
Distress	2.6	2.9	-0.26	0.86	-0.74
Attention Seeking	3.9	5.1	-0.63	1.41	-1.39
Affection	6.3	7.9	-0.57	-1.43	1.17
Language Information	4.2	0.7	2.14**	1.68	1.84*
Fine Motor Dexterity	3.3	2.1	0.59	1.28	-0.35
Fine Motor Exploratory	8.9	8.8	0.05	-0.97	1.20
Gross Motor	3.1	1.7	0.90	-1.69	2.21**
Physical Needs	10.7	9.8	0.28	0.73	-0.55
Conversation	5.6	5.4	0.10	-1.01	1.29
Directs/Is Directed	12.6	10.1	1.09	0.80	0.75
Monitoring	2.6	4.4	-1.59	-2.50**	-0.32
Transition	9.9	12.6	-0.49	0.82	-1.31
Caregiver Nearby	81.0	76.0	0.96	-0.03	1.43
Child Attempts Mastery	12.2	5.0	2.43**	1.63	1.74
Convergent Interaction	88.5	87.5	0.50	0.80	-0.04
Teaching Interaction	6.5	0.8	3.68***	2.39**	2.75**
Play Interaction	8.0	9.4	-0.56	-0.29	-0.47
Help Interaction	22.7	19.6	0.82	1.17	-0.39
Direction Interaction	15.6	18.9	-0.81	-0.35	-0.72
Conversation Interaction	8.4	8.1	0.14	-1.11	1.08
Look/Listen Interaction	20.4	18.7	0.44	0.11	0.57
Routine Control Interaction	13.9	16.2	-0.63	-0.94	0.20
Child Source of Interaction	29.1	33.9	-1.30	-1.13	-0.67
Interactor Source of Interaction	43.0	40.8	0.48	-0.08	0.73
Child Uses Language	12.3	9.2	1.10	0.11	1.66
Interactor Uses Language	49.8	50.6	-0.15	-0.25	0.07
Child Happy Affect	8.3	7.8	0.17	1.08	-0.53
Interactor Happy Affect	7.7	6.8	0.35	-1.22	-0.52
Child Angry Affect	5.7	7.1	-0.78	-0.49	-0.61
Interactor Angry Affect	1.9	3.0	-0.74	-0.48	-0.53

***Significant at .01
**Significant at .05
*Significant at .10

Table B-10

Frequency of Selected TIES Codes
(Child-Other Adult/Child Interation)

Activities	CFRP	Comparison	Matched t-tests: Overall (n=25)	Matched t-tests: Oklahoma City (n=13)	Matched t-tests: St. Petersburg (n=12)
Negative	11.6	15.1	-0.65	0.03	-0.77
Control	11.1	7.5	1.58	2.38**	1.49
Distress	1.8	1.8	0.05	-0.35	0.37
Attention Seeking	1.7	4.3	-1.90*	-0.16	-2.28
Affection	16.3	16.7	-0.09	-0.72	0.71
Language Information	1.7	1.0	0.52	1.16	-0.74
Fine Motor Dexterity	1.3	1.0	0.37	2.19**	-1.45
Fine Motor Exploratory	8.5	9.1	-0.20	-0.26	0.08
Gross Motor	2.1	4.1	-1.38	-1.92*	-0.11
Physical Needs	7.4	4.0	1.33	1.01	0.83
Conversation	11.3	3.4	1.42	1.18	0.79
Directs/Is Directed	8.3	6.1	0.80	-0.40	1.27
Monitoring	3.7	7.1	-1.23	-0.64	-1.08
Transition	11.3	17.5	-1.35	-1.55	-0.25
Caregiver Nearby	27.4	21.1	0.98	0.64	0.71
Child Attempts Mastery	6.5	4.5	1.02	1.09	0.11
Convergent Interaction	94.7	89.1	1.89*	-0.06	2.32**
Teaching Interaction	2.0	1.6	0.37	1.67	-0.70
Play Interaction	25.3	23.2	0.38	0.66	1.43
Help Interaction	17.7	16.7	0.17	0.02	0.29
Direction Interaction	11.6	10.1	0.46	-1.27	1.93*
Conversation Interaction	12.7	5.5	1.33	1.01	0.83
Look/Listen Interaction	15.9	23.8	-1.63	-0.25	-1.92*
Routine Control Interaction	7.9	10.8	-0.73	-0.05	-0.76
Strict Control Interaction	3.5	6.5	-1.03	-0.56	-0.91
Child Source of Interaction	24.3	28.5	-0.83	0.15	-1.36
Interactor Source of Interaction	31.1	31.5	-0.06	0.33	-0.36
Child Uses Language	16.8	5.5	1.80*	1.52	0.96
Interactor Uses Language	39.5	35.0	0.77	0.67	0.52
Child Happy Affect	14.3	15.0	-0.14	-0.74	0.68
Interactor Happy Affect	16.3	15.0	0.30	-0.90	2.16*
Child Angry Affect	7.1	12.6	-1.16	-0.70	-0.97
Interactor Angry Affect	3.8	5.3	-0.57	0.10	-0.87

**Significant at .05
*Significant at .10

Table B-11

Comparative Percentages of Selected TIES Codes
(Solitary Activity Situations)

Activities	CFRP	Comparison	Matched t-tests: Overall (n=25)	Oklahoma City (n=13)	St. Petersburg (n=12)
Negative	1.6	1.4	0.62	1.36	-0.66
Attention Seeking	0.8	1.6	-1.49	-1.55	-0.39
Fine Motor Dexterity	2.1	1.4	1.06	0.83	0.69
Fine Motor Exploratory	22.8	22.0	0.23	1.00	-0.75
Gross Motor	4.6	6.3	-0.82	-1.68	0.62
Physical Needs	12.1	10.5	0.69	-0.51	1.10
Television	2.1	3.2	-0.55	0.09	-0.64
Monitoring	23.2	28.0	-1.30	-1.09	-0.75
Transition	24.7	20.7	1.55	1.45	0.71
Caregiver Nearby	35.6	30.7	0.92	1.32	0.07
Child Attempts Mastery	5.5	4.9	0.57	-1.51	3.27***
Child Uses Language	3.5	3.6	-0.08	-0.75	0.69
Child Happy Affect	3.0	3.1	-0.14	-1.79*	0.77

***Significant at .01
*Significant at .10