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ABSTRACT

A longitudinal evaluation of the Child and Family Resource Program (CFRP) was conducted to describe programs and their operations, identify program models, link family outcomes to participation or nonparticipation, and relate family outcomes to aspects of CFRP treatment and family characteristics. An experimental design supplemented by descriptive and qualitative methodologies was employed. This final report assesses the effects and effectiveness of the program's 3-year infant/toddler component, the main focus of the evaluation. Chapter 1 provides an overview of CFRP and the evaluation, while chapters 2 through 4 provide a portrait of CFRP in operation. Chapter 5 deals with the effects of CFRP, and chapter 6 assesses the effects of different degrees of participation within the CFRP group and investigates whether the program had different effects for different types of families with potentially different patterns of need. (Chapters 5 and 6 are nontechnical and are addressed to the general reader.) Chapter 7 summarizes the main findings, conclusions, and implications for policy and program management of the 5-year evaluation. Finally, a methodological appendix addressed to the technical reader amplifies the brief description of the study's statistical methods and results provided in Chapters 5 and 6, specifically providing discussion of measurement instruments and their administrative and psychometric properties, sample attrition and its analytic consequences, and the various statistical approaches used in data analysis. The appendix also presents some representative statistical findings. (RH)

CHILD & FAMILY RESOURCE PROGRAM EVALUATION

THE EFFECTS OF A SOCIAL PROGRAM:

FINAL REPORT OF CFRP's INFANT-TODDLER COMPONENT

Fall 1982

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THE EFFECTS OF A SOCIAL PROGRAM: FINAL REPORT OF THE CHILD AND FAMILY RESOURCE PROGRAM'S INFANT-TODDLER COMPONENT

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FOREWORD

In 1973, the Head Start Division of the Administration for Children, Youth and Families (ACYF) initiated the Child and Family Resource Program (CFRP) demonstration. As part of Head Start, CFRP had as its primary goal enhancing children's development. However, the program represented an innovation within Head Start in four important respects.

First, it served the child through the family rather than in isolation. It was premised on the belief that the best way to promote and sustain the child's growth and development is by supporting families and helping parents become more effective caregivers and educators.

Second, unlike Head Start, which focuses on the preschool years, CFRP served families with children from the prenatal period until the children reached age eight. It was intended to provide developmental continuity to children throughout the early stages of growth.

Third, CFRP was comprehensive in its approach to family services. Rather than confining itself to a limited range of services in a particular area, the program attempted to provide or secure from other sources help in meeting almost all of the family's needs. Through coordination and referral it attempted to reduce fragmentation and gaps in the delivery of services by existing community programs and agencies.

A fourth feature which distinguished CFRP from Head Start was its emphasis on 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. The CFRP treatment thus was not the same for all families enrolled in the program; it depended to a large extent on their individual needs.

The demonstration was designed to develop models for service delivery which can be adapted by different communities serving different populations. CFRP operated in 11 sites, with each program receiving approximately $178,000-$199,000 per year to serve from 80 to 100 low-income families. The CFRP demonstration is scheduled to conclude in fall 1983. All programs are seeking local, state or federal funding to ensure continued provision of family-oriented child development services in their respective communities.

The Evaluation

In October 1977, a longitudinal evaluation of CFRP was initiated by ACYF. The study was designed (1) to describe CFRPs and their operations; (2) to identify program models; (3) to link family outcomes to participation or nonparticipation in CFRP; and (4) to link family outcomes to particular aspects of CFRP treatment and to family characteristics. An experimental design (involving random assignment to a treatment or control group), supplemented by descriptive and qualitative methodologies, was employed.

This final report* assesses the effects and effectiveness of CFRP's three-year Infant-Toddler Component, which has been the main focus of the evaluation. Although CFRP will cease to exist as a separate entity, the CFRP experience contains lessons for future programs with similar goals. We hope that the evaluation report, together with earlier study documents on which it draws, will provide a useful public record of that experience. The federal climate surrounding social service programs has changed dramatically since CFRP and its evaluation began. Nevertheless, programs for children and families will continue to exist, whether under private, local, state or federal auspices. Such programs can potentially learn from CFRP's attempt to broaden the scope of child development services, to support families and to coordinate the efforts of multiple agencies serving low-income populations.

*A list of earlier Abt Associates Inc. evaluation reports, including a brief description of their contents, is presented in Appendix A.

An earlier study conducted by the General Accounting Office[1/] concluded that CFRP was highly effective and recommended the program to Congress as an intervention strategy with great potential for improving the functioning and well-being of low-income families. GAO's conclusions, based on a brief four-site study, were partially confirmed in the current ACYF-sponsored evaluation. However, we also identified several important areas in which the program's operations and effects fell short of expectations.

CFRP benefited families in important ways. It expanded the scope of community services used by low-income families, while simultaneously moving parents into work, school or job training, improving their chances for economic self-sufficiency. It increased parents' feelings of personal efficacy and augmented their knowledge and skills in childrearing. However, its Infant-Toddler Component produced no measurable changes in children's cognitive or social development; its primary direct benefit to children was an increase in the likelihood that they would enroll in Head Start.

The findings also revealed some flaws in program operation that help explain its disappointing effects on child development: low rates of participation were a chronic problem at most sites, and training and supervision of staff was in some instances neither extensive enough nor sufficiently focused on child development.

The positive quantitative findings, together with numerous individual "success stories" in the qualitative data, testify to the talents and dedication of CFRP's staff and to the viability of the CFRP concept when working at its best. The absence of effects on child development and the associated flaws in program operations point to areas where significant improvement is needed if CFRP is to become a program option within Head Start nationally. All of these conclusions must, however, be qualified by pointing out that program operations and effectiveness varied markedly from site to site; one or two of the programs can lay claim to significantly better results than others.

Report Organization

Chapter 1 provides an overview of CFRP and the evaluation. It outlines the program's goals and organization and summarizes the characteristics of the CFRP population. It also outlines the evaluation's research questions, study components and data collection instruments and procedures.

Chapters 2 through 4 provide a portrait of CFRP in operation. Chapter 2 presents some unique features of the program's organization, such as its links to Head Start and to other community agencies and its procedures for individualizing services. Chapter 3 zeroes in on the functioning of the part of the program that received the lion's share of attention in the evaluation, namely the component devoted to serving infants and toddlers. Chapter 4 gives a briefer sketch of the program's services to children as they made the transition into Head Start.

Chapter 5 deals with the effects of CFRP. The chapter summarizes the methods, findings and limitations of the quantitative impact study and highlights some of the main findings from descriptive and qualitative studies of the program's operations and interaction with families. Chapter 6 assesses the effects of different degrees of participation within the CFRP group and investigates whether CFRP had different effects for different types of families with potentially different patterns of need. These two chapters are nontechnical and addressed to the general reader. Chapter 7 summarizes the main findings, conclusions and implications for policy and program management of the five-year evaluation.

Finally, a methodological appendix, addressed to the technical reader, amplifies the brief description of the study's statistical methods and results provided in Chapters 5 and 6. The appendix discusses the study's instruments, their administrative and psychometric properties, sample attrition and its analytic consequences, and the various statistical approaches used in analyzing the data. The appendix also presents some representative statistical findings.

Acknowledgments

This five-year study 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 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. At several time points in the evaluation, she played a central role in helping us address complex methodological issues and redirect the focus of the study. We also want to express our appreciation to other ACYF officials for their interest, enthusiasm, and guidance--Ms. Martella Pollard, Program Manager of the CFRP Demonstration; Dr. Ray Collins, Director of the Office of Program Development; and Dr. (Ruth) Ann O'Keefe, former Director of the CFRP Demonstration who continued to serve as an ad hoc member of the National Advisory Panel after joining the Navy Family Program.

We wish to acknowledge the valuable assistance the directors and staff at the CFRP study sites have provided in the evaluation effort. They gave generously of their time, completing records and responding to questions about the operations of their program and services delivered to families. Special thanks go to the families in the CFRP treatment and control/comparison group for making themselves available to our staff for interviews and observations during the three-year data collection period. Together, they provided invaluable insights into what it means to participate in CFRP and the challenges that program staff face. We also wish to extend our appreciation to the CFRP sites that were not selected for the study but contributed to reports describing the operations of the CFRP demonstration.

The National Advisory Panel provided the staff with guidance, assistance, and support from the start of this five-year undertaking. Several panel members deserve special recognition for their contributions to the study: Ms. Kathryn Hewett, project director of the CFRP evaluation during the first two years. She was responsible for study design and implementation, and continued to assist staff during various critical stages of the project both as a consultant and panel member. Her knowledge of CFRP and

the sense of continuity she provided were a key asset to the staff. Special thanks also go to Dr. Jessica Daniel, who worked closely with study staff during design and implementation phases; the late Dr. Jean V. Carew and the staff at Research for Children, for conducting an observation study of parent-child interaction as part of the CFRP evaluation; and Dr. Tony Bryk, whose review of methodological and analytic strategies employed was invaluable. Other members of the panel were Dr. Walter Allen, Dr. Frank DiVesta, and Dr. Luis Laosa.

Finally, I want to acknowledge the work of numerous Abt Associates Inc. staff and consultants who played major roles in the CFRP evaluation. The quantitative research aspect of the study was directed by Dennis Affholter during the first three years of the evaluation. He set the tone for rigorous adherence to standards of scientific evaluation which were followed throughout the five-year study. In 1980 responsibility for analytic work was taken over by Drs. Lorelei Brush and David Connell. The final phase of the study was under the skillful direction of Dr. Barbara Goodson and Ms. Judith Singer, with assistance being provided by Ms. Catharine Barclay.

The descriptive and qualitative end of the study was guided by Dr. Lynell Johnson until 1980. His research and editing skills contributed significantly to the success of the evaluation. In spring 1980, Dr. Jeffrey Travers, a consultant to the project, took over responsibility for this aspect of the study and provided invaluable guidance to staff in the concluding stage of the project. He played a major role in synthesizing the rich materials contained in CFRP evaluation reports, identifying a set of implications for federal policy, and preparing this final document. Ms. Nancy Irwin worked tirelessly to edit, shape, and refine evaluation reports.

The management of the data collection efforts was anchored skillfully by Ms. Ilona Ferraro, Ms. Jan Stepto-Millett, and Ms. Ruth Wolman, a consultant. We also wish to acknowledge the special role of our on-site staff who collected data on children and their families and interviewed program staff. Special thanks go to five consultants--Ms. Sue Lurie, Dr.

M.L. (Tony) Miranda, Ms. Ellen Robinson, Ms. Vera Vanden, and Ms. Carol Wharton--who implemented an ethnographic study of CFRP with great enthusiasm and skill.

Finally, I would like to express my gratitude to the project's administrative and secretarial staff--in particular Patricia McMillan and Kathe Phinney--for the numerous ways in which they assisted project staff.

For each person or groups of people mentioned above, there were many more who carried out less conspicuous but no less important roles. Each contributed in his or her own unique way to the completion of the work presented here. We are indebted to all for their encouragements and contributions of time and ideas.

Marrit J. Nauta
Project Director
September 1982

CHAPTER 1

OVERVIEW OF CFRP AND THE EVALUATION

In 1973 the Administration for Children, Youth and Families (ACYF), then the Office of Child Development, established an ambitious and innovative demonstration program, attached to Head Start. The Child and Family Resource Program (CFRP) was to be a family-oriented child development program, serving low-income households with children from the prenatal period through age eight.

CFRP operated in eleven sites across the country, one in each of the ten regions designated by the Department of Health and Human Services, and one representing ACYF's Indian and Migrant Division.* Programs originally received approximately $125,000 per year to serve from 80 to 100 families. In recent years budgets were increased to approximately $178,000-$199,000. Some programs have served more than the expected number of families (in part by securing additional outside funding). In 1979, enrollment averaged 147 families, ranging from the mid-eighties in Oklahoma City to over 200 in Jackson. CFRP served a diverse and needy population, as illustrated in a later section of this chapter describing the characteristics of children and families who took part in the program's evaluation. The CFRP demonstration will terminate in fall of 1983, although all of the individual programs plan to seek local, state and other federal support in order to continue operations.

In October 1977 ACYF initiated a longitudinal evaluation of CFRP to describe the program's operations and determine its effectiveness.** The evaluation was completed in fall 1982; this report is a summary of its findings.

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*Programs were located in Bismarck, ND; Gering, NE; Jackson, MI,; Las Vegas, NV; Modesto, CA; New Haven, CT; Oklahoma City, OK; Poughkeepsie, NY; St. Petersburg, FL; Salem, OR; and Schuylkill Haven, PA.

**The current evaluation was preceded by three other studies of CFRP, two of which were 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. The third study was carried out by the General Accounting Office (GAO), and its report was submitted to Congress in 1979.

1.1 The CFRP Approach

CFRP shared many features with other child development programs, including Head Start itself, other Head Start demonstrations, such as the Parent-Child Centers and Parent-Child Development Centers, and privately funded programs, such as the Brookline Early Education Project. What made the program distinctive was the way in which it combined these features.

Four elements characterized the CFRP approach:

1. Emphasis on the Family. While CFRP provided some services directly to children, such as early education and health care, the program stressed helping the child through the family. Abundant research had shown that the child's social environment--principally the family during the early years--is the primary source and support for development. Consequently CFRP provided parent education and parent counseling in matters related to child-rearing, as well as more general family support services.

2. Developmental Continuity. Whereas most child development programs serve children in a fairly narrow age range (e.g., the preschool years), CFRP recognized the importance of continuous support throughout the early years. It recruited pregnant women and mothers with young infants and provided services until the child reached age eight, well into elementary school.

3. Comprehensive Services. Recognizing that the family's ability to foster child development depends on its own cohesiveness, economic security and social ties, CFRP attempted to marshal a wide range of support services, addressing in some fashion virtually every need of low-income households. Some of these services were provided directly; for example, many programs provided counseling about jobs, education, housing and personal finances. However, due to the magnitude of the families' needs and CFRP's fiscal

limitations, most support services were provided through referrals and coordination of other commmunity agencies and organizations. By dealing with the full range of each family's needs, CFRP attempted to bring some degree of coherence to the fragmented system of public and private social services with which low-income families typically must deal.

4. Individualization. CFRP also recognized that each family is unique, despite the common problems that low-income families face. Accordingly the program engaged in both formal and informal processes of needs assessment and goal-setting, in an effort to tailor services to the needs of each individual family and to build on the family's strengths. Thus different families received different services, and each family experienced CFRP in its own way.

CFRP was a direct outgrowth of the 1970 White House Conference on Children. Recommendations that emerged from that conference[1/] called for (a) redirecting delivery systems "to provide services and support through and to the family as a unit with recognition of the different needs, strengths, and weaknesses"; (b) reordering "existing services and programs to fit around desires and aspirations of families";[2/] and (c) establishing Neighborhood Family Centers to "eliminate fragmentation of services."[3/] Centers would serve as the local "one door" entry point for obtaining family services in areas such as health, child care, legal aid, and welfare.

The CFRP demonstration incorporated many of these recommendations in a child development context. It was premised on the belief that there is synergy between social services and child development. By delivering family-oriented services and working through the family, CFRP's aim was to give the child an environment conducive to social, emotional and cognitive growth.

A final important element of the CFRP approach was local variation and innovation. ACYF encouraged programs to adapt to the needs and resources of their communities. As a result, CFRP was "invented 11 times." Despite common goals and common organizational features (described immediately below), the 11 sites differed markedly in the populations they served and

the particular ways they chose to deliver services. These striking site differences make generalizations about CFRP as a whole rather risky--a theme that will be echoed throughout this report.

1.2 Common Program Features

Certain broad features of program organization and operation were common across all sites. These features reflect CFRP's general approach, outlined above, and provide a framework for the more detailed descriptive chapters to follow.

Staffing and Organization

The heart of every CFRP was the family worker (called by various titles at the different sites). Family workers were responsible for assessing families' needs and strengths, helping families set goals and conducting regular visits to homes. Programs typically had 10 to 20 full- and part-time staff members, half of whom were family workers. The remainder were administrators and specialists in such areas as child health and human development.

At most sites CFRP was closely related to Head Start, but the closeness and nature of the relationship varied from site to site. At some sites CFRP was an umbrella agency, with Head Start as one of its components. At other sites, CFRP was a component of Head Start. At still other sites the two programs functioned more or less separately, and in some cases this separation caused problems of coordination, as will be seen in later chapters.

All CFRPs established links with social service agencies in their communities, although these links varied in form and extent. Generally CFRP's network of community contacts was more extensive than that of Head Start. At several sites CFRP was instrumental in expanding the scope of community services to low-income families.

Chapter 2 describes CFRP's organization and staffing in greater detail and discusses the ways in which site-to-site variations were related to the quality of services received by families.

Program Components

CFRP services were offered within the context of three program components--the Infant-Toddler Component, Head Start, and the Preschool-School Linkage Component. Each was intended to serve families with children in a specific age group. All three taken together were intended to provide developmental and educational continuity across the period of the child's life from before birth to the primary grades in school.

The Infant-Toddler Component served families with children from birth to age three. Two main types of program activity were offered to families with children in this age range--home visits and center sessions. (In addition, special services such as crisis intervention, special counseling, assistance with personal and financial problems and the like were offered on an as-needed basis.) Home visits, conducted by family workers, were used for needs assessment and goal-setting, parent education and counseling, and child development activities. Center sessions were generally of two types: parent education sessions, in which parents heard lectures, participated in workshops, and discussed common problems, and infant-toddler sessions, designed to provide children with a group experience or, in some sites, with educational or even therapeutic experiences. In some sites the two types of center sessions were combined; parents worked directly with their own children under the supervision of a child development expert. The frequency, content and quality of both home visits and center sessions varied markedly from site to site.

The Infant-Toddler Component was the primary focus of the evaluation, which followed a sample of families from 1978, when their children were young infants, until 1981, when the children entered Head Start. Chapter 3 describes the operation of the Infant-Toddler Component in detail, covering both home visits and center sessions and emphasizing the variations in form and quality that were observed. Likewise Chapters 5 and 6, which are concerned with the effects of CFRP, concentrate on the impact of the Infant-Toddler Component on children and families in the study sample.

Head Start served families with children from approximately age three until they entered school. During this period children received developmental services through Head Start itself. Parents continued to receive home visits, to attend center sessions, and to receive other support services from CFRP, although the intensity of service varied across sites and in many cases diminished when children entered Head Start. As Head Start took over the child development function, CFRP tended to concentrate on other family needs. This tendency was especially pronounced in some sites, where CFRP was viewed as the social service component of Head Start rather than as a child development program in itself.

The Head Start component was described in an earlier report on CFRP's operations[4/] and is not covered in detail here. The evaluation did not examine the effects of the Head Start component; however, it did investigate the transition into Head Start as experienced by children and families in the study sample. This transition is the topic of Chapter 4.

The Preschool-School Linkage Component was the least clearly defined and least developed of CFRP's three components. All CFRPs established links with the public schools, but the linkage system was generally limited to establishing contact, finding out about registration procedures and informing schools that CFRP children would enter. Some transitional services were provided. These included orientation of Head Start children, their parents and school personnel; troubleshooting in response to requests from parents and school personnel; and tutoring of children either by CFRP staff or by referral to community tutorial services. Other common services included sharing children's records with the schools and assisting in placing children with special needs. In some programs, staff continued to make home visits after children entered school; however, visits were less frequent and less comprehensive than previously. In other programs, visits were made only in response to school-related problems. No center sessions were conducted specifically for parents of school-age children except in one site. Comprehensive followup on school-age children was not possible because of resource limitations.

The Preschool-School Linkage Component was described in an earlier report[5/] and is not discussed further here. No attempt was made to evaluate the effects of this component.

1.3 Objectives and Components of the Evaluation

The five-year evaluation of CFRP was initiated in 1977 by ACYF to provide detailed information about the effectiveness of the program as a whole, of individual programs, and of particular program elements or configurations of elements. The evaluation results are expected to aid ACYF in making decisions about the future direction of family-oriented child development programs and in disseminating the program's most important and effective features to the Head Start community and other agencies concerned with the well-being of children and low-income families. Abt Associates Inc. was selected to conduct the evaluation.

The initial design for the CFRP evaluation consisted of three distinct but interrelated components--the program study, the impact study, and the process/treatment study. Together, they addressed the following four objectives:

- to describe CFRPs and their operations;
- to identify program models;
- to link family outcomes to participation or nonparticipation in CFRP; and
- to link family outcomes to particular aspects of the CFRP treatment and to family characteristics.

The three component studies were complementary ways of viewing the effects and effectiveness of CFRP.

The program study was designed to paint a comprehensive picture of the operations of CFRP. Information collected during site visits and in interviews with program staff and representatives of community agencies was used to develop profiles of program implementation and to identify models of certain aspects or operations of the program. The program study established

a descriptive context for the statistical and analytic findings of other components of the evaluation.

The impact study examined the effects of CFRP services on families and children. Program impact was assessed by comparing CFRP families with a group not enrolled in the program. This study was carried out at five of the 11 CFRPs,* chosen on the basis of their ability to recruit the requisite number of families with a child less than one year old. Families were randomly assigned to a CFRP treatment or a control/comparison group. At entry into the evaluation (fall 1978), there were an average of 40 CFRP and 42 control/comparison families per site. Attrition over the three-year data collection period reduced the sample by approximately one-third (see Section 1.6).

The process/treatment study focused on the CFRP families who participated in the impact study. This study was designed to explore, using statistical analysis, relationships among characteristics of families and staff, interaction between staff and families, services provided, family participation in program activities, and program impact.

A fourth component of the evaluation--the ethnographic study--was initiated in fall 1980 because important aspects of the program's relationship to families were not being captured by our data-gathering techniques. While the impact study's experimental design and quantitative methods provide the most convincing way of determining whether or not the program caused certain measurable outcomes, the ethnographic study was launched to provide additional insights about the scope and nature of program effects and to help us understand why the program produced or failed to produce the desired effects. The study gathered detailed, qualitative information on program operations and on the experiences of selected families at each impact study site. This approach was particularly appropriate for this evaluation because of CFRP's complexity and the enormous variation that existed both across and within sites.

*The five sites were: Jackson, MI; Las Vegas, NV; Oklahoma City, OK; St. Petersburg, FL; and Salem, OR. New Haven, CT took part in the initial phases of the study but was excluded in 1980 due to programmatic difficulties.

1.4 Data Collection

Data for the CFRP evaluation were collected at six time points (Table 1-1). Data bases for the component studies took different forms, as described below.

Program Study

Data for the program study were obtained from interviews with CFRP staff and representatives of community agencies, as well as from observations of program activities during three site visits to each of the sites selected for inclusion in the impact and process/treatment studies. Site visits took place in fall 1978, spring 1979, and spring 1980. Brief interviews also were conducted in spring 1980 with staff from CFRPs not included in the evaluation.

Impact Study

The impact study focused on five outcome domains which are closely linked to the overall objectives of CFRP:

- child development and achievement;
- parent-child interaction and teaching skills;
- maternal and child health;
- family functioning (capacity for independence, locus of control, and coping strategies); and
- family circumstances (e.g., employment, education and use of community resources).

Measures for each of the outcome domains are listed below. (More complete descriptions appear in Chapter 5 and Appendix B.)

1. Child Development: One of the main objectives of CFRP was to promote the social and cognitive development of children. CFRP's impact in this outcome domain was assessed at four time points: pretest (fall 1978),

Table 1-1

Data Collection Timetable

Study Component	Fall 1978	Spring 1979	Fall/Winter 1979-80	Spring 1980	Fall/Winter 1980-81	Fall 1981
Program Study	X	X	-	X	-	-
Impact Study	X	X	X	X	-	X
Process/Treatment Study	X	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		After Three Years

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spring 1979 (six months after entry into CFRP), fall/winter 1979-80 (after a year and a half of participation in CFRP), and again in fall 1981 (at the conclusion of CFRP's three-year Infant-Toddler Component). For both assessments conducted in the first year of the evaluation, data on infant temperament were gathered through parental report. The Bayley Scales of Infant Development (mental and physical) were used in the fall/winter 1979-80 assessment. The final assessment employed three measures: (1) the 32-item Preschool Inventory (PSI), a standardized cognitive test; (2) the High/Scope Pupil Observation Checklist (POCL), a social rating scale completed by data collectors following each testing session; and (3) the Schaefer Behavior Inventory (SBI), a social rating scale completed by parents.

2. Parent-Child Interaction and Parental Teaching Skills: Because CFRP attempted to influence child development through the family, measures of the program's impact on parent-child interaction and parental teaching skills were an integral part of the evaluation. At baseline and six months after entry into CFRP, parents reported on their interactions with the child, comfort with these interactions, and satisfaction with the child's behavior. Data concerning child-rearing practices and expectations for child development were obtained using a modified version of the Maternal Attitude Scale of Cohler, Weiss and Grunebaum (1970).

An in-home observation study was conducted on a subset of families in spring 1980, using the Carew Toddler and Infant Experiences System (TIES). A parallel coding system, developed by Abt Associates Inc., was also used, to capture information about the caregiver's activities which did not involve the child. The TIES study was conducted in two of the five sites (Oklahoma City and St. Petersburg) by Abt Associates Inc. and Research for Children, under the direction of the late Dr. Jean V. Carew.

In fall 1982, teaching skills of parents were assessed through self-report, using Robert Strom's Parent-As-A-Teacher Inventory, a self-report measure dealing with parental attitudes and childrearing practices.

3. Health: One of the goals of CFRP was to safeguard the physical well-being of children. Furthermore, CFRP recognized that health care services should be directed not only toward children but toward other members of the family as well. At entry into the evaluation, data were obtained from parents about the birth circumstances of the child, including complications and health problems of the child. Birth records of children were obtained through State Bureaus of Vital Statistics and local hospitals in four of the five sites. Height and weight measures on children were taken in spring 1980 and fall 1981. Several aspects of preventive health care were assessed through parental report at four time points throughout the study.

4. Family Functioning: A major goal of CFRP was to improve family functioning, as well as the quality of family life, with the ultimate aim of enhancing child development. Two aspects of family functioning were assessed at different time points in the CFRP evaluation: (1) parental independence as measured by the ways in which parents made arrangements for services--on their own, through friends or through public agencies; and (2) parental feelings of efficacy and ability to cope, as measured by a five-item locus-of-control scale administered at baseline and at the conclusion of the three-year Infant-Toddler Component.

5. Family Circumstances: Although improvement in family circumstances was not clearly a part of CFRP's mandate, local program staff in concert with parents addressed themselves to bringing about permanent changes in such areas as continued education, job training, employment, and use of community resources. CFRP's impact in these areas was assessed through parent interviews at four time points.

In addition to these five outcome domains, data were obtained in fall 1981 about the transition from CFRP's Infant-Toddler Component to Head Start which occurred immediately prior to fall 1981 data collection. The perspective of both Head Start teachers and parents was sought to determine what took place in the transition process.

Process/Treatment Study

The process/treatment study was designed to determine how program impact is affected by family characteristics, staff characteristics, specific types of interaction between families and staff, specific services provided to families and the intensity and duration of families' participation in the program. Data on individual families were collected by various means: interviews with CFRP family workers, self-administered staff questionnaires, interviews with parents, and ongoing records maintained by local programs. Interviews with family workers focused on a wide range of topics: their perception of each family (including needs and strengths), assessment and reassessment of needs, development of family action plans, topics emphasized in working with the family, areas of progress, and the degree of the family's involvement in CFRP. Interviews with parents dealt with their perceptions 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 and goal attainment. Process/treatment data were collected through spring 1980 except for the record-keeping system, which was maintained through June 1981 when CFRP's Infant-Toddler Component concluded.

Ethnographic Study[6/]

The ethnographic study described the operation of the program, not as seen from the perspective of ACYF or of local program administrators, but as actually lived by families and staff. The design called for the collection of data over six months on seven to nine families in each of the five sites. Different types of families were included in the sample, because they had different needs and required different program approaches. Equal representation of family types at each site was not attempted, in part because distributions were uneven. Rather, the design took advantage of the fact that some programs had a substantial proportion of CFRP families of certain types; yet, in every case the design provided for a small comparison group of the same type at another site.

Various data collection strategies were employed in the ethnographic study. Trained ethnographers were recruited at each impact study site. They reviewed CFRP records on individual families, interviewed family workers, accompanied family workers on home visits, visited families on their own, interviewed and observed parents at home, observed families at CFRP center sessions, and observed center sessions at which sample families were not present. The ethnographic study produced a set of detailed site case studies, to which we shall refer throughout this report.

1.5 CFRP's Population: The Evaluation Sample

The CFRP evaluation sample in the five impact study sites initially consisted of 409 low-income families with children under age one who were specially recruited for the evaluation.* Families were randomly assigned to either a CFRP or a control/comparison group. Families deemed to be at risk and in special need of CFRP services were identified at the time of recruitment. In most cases, CFRPs were granted special permission to enroll these families in the program. They were excluded from the pool of study families and did not participate in the impact or process/treatment portions of the evaluation. However, high-risk families were included in the ethnographic study.

There was some site-to-site variation in the family recruitment process. In Jackson, Las Vegas, amd Salem almost half of the families were referred by agencies in the CFRP community or through agency client lists. Head Start parents or families enrolled in CFRP did most of the referring in Oklahoma City and St. Petersburg. Other sources were hospitals, clinics and health departments (particularly in St. Petersburg), and door-to-door recruitment.[7/]

At entry into the evaluation, there were 199 CFRP families (40 per site) and 210 control/comparison families (42 per site). The CFRP and control/comparison groups were found to be comparable in most respects in terms of their family characteristics at entry. A brief profile of the

*Data on New Haven families who were part of the original sample but were subsequently excluded are not reported here.

characteristics of CFRP children and their families at the start of the evaluation is presented below. (See Table 1-2 for a statistical summary by site.)

At entry into the evaluation, the average age of the infants who were the focus of the study was 4.0 months. The oldest child was 11 months; the youngest child was not born until December 1978 (four months after startup of the study). On average, children in St. Petersburg were youngest (3.1 months) and those in Salem were oldest (5.2 months). Fifty-nine percent of the infants were firstborn children. In Las Vegas, however, almost all focal children (98%) were firstborns, due to special efforts by the Las Vegas CFRP to recruit first-time mothers for the study.

The ethnic composition of the sample was as follows: 39 percent white, 47 percent black, 4 percent Hispanic, and 10 percent of other nonwhite or mixed ethnic backgrounds. Three of the five impact study programs (Las Vegas, Oklahoma City, and St. Petersburg) served a predominately minority population. Most families in Jackson and Salem were white.

Slightly over one-fourth (28%) of the children came from two-parent families; 35 percent of the mothers were single parents living with their extended families, 7 percent were single living in households with unrelated adults, with the remaining 29 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 five sites.

The majority of mothers were under 25 years of age at entry into the evaluation: 44 percent were under 20, 24 percent under 18, 12 percent under 17, and 6 percent under 16. The youngest mother was 12.5 years old, the oldest 42. The average age of mothers was 22 years.

Half of the mothers had completed high school; 12 percent had gone beyond high school, although none had completed four years of college. Twenty percent of the mothers were continuing their education; most were

Table 1-2

Entry Characteristics of
CFRP Families

	Jackson	Las Vegas	Oklahoma City	St. Petersburg	Salem	Overall
N	40	42	38	40	39	199
Child Characteristics						
Age (Years)	.33	.30	.33	.26	.43	.33
Proportion of Only Children	.63	.98	.42	.38	.51	.59
Proportion:						
- White	.65	.21	.08	.13	.90	.39
- Black	.28	.47	.74	.85	.00	.47
- Hispanic	.03	.08	.00	.00	.08	.04
- Other	.05	.24	.18	.03	.03	.10
Family Characteristics						
Mother's Age (Years)	21.3	19.7	22.0	22.8	22.9	21.7
Proportion - Teenage Mothers	.18	.50	.16	.21	.13	.24
Number of Children in Household	2.2	2.6	3.0	2.7	1.9	2.5
Household Size	4.4	5.4	5.1	4.6	3.7	4.7
Proportion of Two-Parent Families	.33	.19	.39	.10	.38	.28
Proportion of Single Mothers Living Alone	.30	.10	.18	.46	.41	.29
Proportion of Single Mothers Living with Family	.30	.64	.32	.33	.13	.35
Proportion of Single Mothers Living with Unrelated Adults	.08	.07	.11	.03	.08	.07
Socioeconomic Status						
Proportion of Mothers with High School Education	.38	.45	.56	.49	.54	.50
Proportion of Employed Mothers	.29	.24	.29	.35	.17	.27
Proportion of Mothers in School or Employed	.38	.57	.37	.41	.26	.40
Per Capita Income	$1,731	$1,951	$1,787	$1,508	$1,816	$1,766
Annual Income	$6,390	$9,480	$7,800	$6,360	$6,150	$7,290
Proportion with Welfare Income	.77	.83	.62	.56	.90	.74
Proportion with Income from Wages	.69	.86	.79	.78	.79	.78
Mean Number of Wage Earners	.77	.90	.92	.77	.64	.80
Proportion with Welfare as Primary Source of Income	.53	.24	.42	.32	.51	.40
Proportion with Wages as Primary Source of Income	.42	.68	.53	.59	.32	.51

enrolled in high school equivalency courses. A higher proportion of mothers in Las Vegas (43%) were continuing their education than 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 4.7 members--2.2 adults and 2.5 children. Families in Salem had the smallest households (averaging 3.7 members); Las Vegas ranked highest in total household size (5.4 members on the average) due to a disproportionately high percentage of mothers living in extended family situations.

Slightly over one-fourth (27%) of the mothers were employed at entry into the evaluation. St. Petersburg had a significantly higher proportion of mothers in the work force (35%). Employment of mothers was less common in Salem, where only 17 percent of the mothers were working.

The majority of the families received income or financial support from more than one source. Seventy-four 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 as well as supplementary income from AFDC. The families reported a mean gross annual household income of $7,290. Incomes varied from a low range of $3,000-$6,000 to a high of over $21,000. Annual income was lowest for Salem households ($6,150) and highest in Las Vegas ($9,480). Mean per capita income was $1,766, ranging from a low of $1,508 in St. Petersburg to a high of $1,951 in Las Vegas.

The above description of the sample points to several differences in the characteristics of families and children across the five sites. These included differences in the proportion of firstborn children, ethnic background, mother's age, proportion of teenage mothers, family composition, household size, income sources, and mother's employment. These site

differences had important implications for data analysis and presentation of results, as discussed in Chapter 5 and Appendix B.

1.6 Sample Attrition

During the course of the three-year data collection period, 38 percent of the combined CFRP and control/comparison sample was lost due to attrition (see Table 1-3). The rate of attrition for the CFRP group was 6 percent higher than for the control/comparison group. An average of 22 CFRP families and 27 control/comparison families remained in the sample at each site in fall 1981. Overall attrition was highest in Jackson, Las Vegas and Oklahoma City (around 45%) and lowest in St. Petersburg (33%).

Of the 118 CFRP families remaining in the study, a small proportion (19%) did not participate in CFRP program activities throughout the three-year Infant-Toddler Component. There was a small but steady drop-out after the first six months of the program (Table 1-4). Most of the impact analyses reported here are confined to 111 CFRP families who participated in the program for more than a year.

Chapter 5 and Appendix B examine the effects of sample attrition and discuss its consequences for analyses.

Table 1-3

Sample Attrition

	Number of Families Enrolled (fall 1978)		Number of Families Remaining After								Attrition After 3 Years	
			6 Months (spring 1979)		12 Months (winter 1980)		18 Months (spring 1980)		24-30 Months (winter 1981)			
	CFRP	non-CFRP	CFRP	non-CFRP	CFRP	non-CFRP	CFRP	non-CFRP	CFRP	non-CFRP	CFRP	non-CFRP
Jackson	40	24	38	20	31	20	27	18	23	14	43%	42%
Las Vegas	42	43	41	33	36	29	32	25	23	24	45%	44%
Oklahoma City	38	49	38	45	30	43	30	44	21	34	45%	31%
St. Petersburg	40	43	36	40	30	38	29	36	27	32	33%	26%
Salem	39	51	34	42	34	40	31	43	24	32	38%	37%
ALL SITES	199	210	187	180	161	170	149	166	118	136		
Rate of attrition across all sites	-	-	6%	14%	19%	19%	25%	21%	41%	35%	41%	35%
Pooled CFRP and non-CFRP attrition across all sites			(10%)		(19%)		(23%)		(38%)			

Table 1-4

Length of Participation for Non-Attrited CFRP Families

(N=118)

	Number (and Percent) of Families Remaining After					Total Non-Attrited CFRP Families
	30 Months	24 Months	18 Months	12 Months	6 Months	
Jackson	15 (65%)	17 (74%)	17 (74%)	20 (87%)	23 (100%)	23
Las Vegas	22 (96%)	23 (100%)	23 (100%)	23 (100%)	23 (100%)	23
Oklahoma City	19 (90%)	19 (90%)	19 (90%)	20 (95%)	21 (100%)	21
St. Petersburg	19 (70%)	22 (81%)	23 (85%)	24 (89%)	27 (100%)	27
Salem	20 (83%)	21 (88%)	23 (96%)	24 (100%)	24 (100%)	24
OVERALL	95 (81%)	102 (86%)	105 (89%)	111 (94%) ↑ Analytic Sample of CFRP Families	118 (100%)	118

CHAPTER 2

SOME BASIC FACTS ABOUT CFRP

Before focusing in on the Infant-Toddler Component in Chapter 3, it will be useful to consider some issues that affect CFRP as a whole. First, in Section 2.1 we explore relations between CFRP and the local Head Start programs, which affect not only children's transition from one component to the other (see Chapter 4), but also certain aspects of CFRP's own functioning. In Section 2.2 we describe the staff who make up CFRP: what are their qualifications, and how do they function? Individualization of services--a cornerstone of every CFRP--is the subject of Section 2.3; and social service provision--the realm in which individualization is most obvious--is described in Section 2.4.

2.1 CFRP and Head Start[1/]

The nature of the relationship between Head Start and CFRP varied from site to site, as did the degree to which the two programs were integrated. At one extreme, CFRP and Head Start operated as virtually independent programs. At the other extreme, CFRP and Head Start were fully integrated as one program. Close coordination between Head Start and CFRP appeared to have two benefits--continuity of services to children and families, and a richness of staff resources. Where CFRP and Head Start were separate entities, sharing of facilities appeared to foster coordination between the two programs.

Salem

In Salem's Family Head Start, there was no distinction at all between CFRP and Head Start. Families who enrolled received the full complement of comprehensive services mandated in the CFRP Guidelines, including Head Start classes for preschoolers. As a result of this synthesis, Salem Family Head Start had a core staff of at least 10 people who provided specialized services to families and children. Their expertise was drawn on as the need arose.

Jackson

The Jackson Family Development Program also fully integrated CFRP and Head Start. This site differed from Salem, however, in that it gave parents three options to choose from. Families could

enroll in a Family Development Unit (FDU) and receive the broad range of services typically associated with CFRP, or they could elect to participate in Head Start only, either through a center- or a home-based program. The Jackson Family Development Program offered a broad array of staff resources similar to that in Salem.

Oklahoma City

At the other extreme was Oklahoma City, where Head Start and CFRP until recently operated as virtually independent programs, largely because each was under the aegis of a different delegate agency. Oklahoma City offers an illustration of the way in which resources were strained when coordination with Head Start was less than optimal. Periodic health screenings of CFRP children had been done by a licensed practical nurse in the past; upon cancellation of the LPN's contract and denial by CAP of a request to hire a CFRP health coordinator, the health screenings were consolidated with those for all Head Start children, held downtown during a two-month period, thus pre-empting regular program activities. Nor was the Oklahoma City CFRP able to offer families the range of professional specialists found on the Salem and Jackson staffs: in addition to the family workers, the staff comprised only the Director, the Family Advocate Supervisor, the P-3 Specialist, and the School Linkage Coordinator.

Las Vegas and St. Petersburg

Between the two extremes were the Las Vegas and St. Petersburg programs, where CFRP and Head Start were organizationally linked, but not integrated as in Salem or Jackson. In these two sites CFRP was administered as a component of Head Start. Head Start provided leadership for both programs, resulting in a shared philosophy about working with families and their children. The two programs maintained their own staffs, however, and operated to a large extent as separate entities. In Las Vegas, what coordination there was appeared to result from sharing of facilities--because CFRP and Head Start were located in the same building, staff had easy access to one another. St. Petersburg did not enjoy this advantage.

CFRP's staff in Las Vegas was much smaller than in Jackson or Salem, consisting only of a coordinator, an Infant-Toddler Specialist (whose position was vacant for most of the six-month ethnographic study), five family workers, and a secretary. St. Petersburg's staffing pattern was similar. This did not mean, however, that no resources were shared between Head Start and CFRP in these two programs. For example, there was a nurse on CFRP's staff in St. Petersburg with responsibility for meeting the health needs of both CFRP and Head Start children. The Infant-Toddler Specialist, in addition to helping and advising home visitors in carrying out CFRP's formal infant-toddler program, had responsibilities for operation of Head Start classes.

2.2 Staff Roles, Qualifications, Training and Supervision[2/]

CFRP family workers, in most programs called "family advocates" or "home visitors," were the backbone of the program at all sites. They were the key to all the family's services. To some families these staff were the program, particularly for those who did not venture out of their homes to participate in center activities offered by CFRP.

Family workers wore many hats and had varied and complex responsibilities. They were expected to identify child and family needs, sometimes through the subtlest clues, find services to meet those needs, and often help parents to find their way through bureaucratic red tape. They were supposed to be parent educators, helping parents to strengthen their role as primary educators of their own children, with the ultimate goal of enhancing the overall development of children. They provided emergency aid, sensitive counseling, job assistance, health information, and a host of other supportive services. They ferried families to appointments, and in some sites organized center activities for parents and children as well. As one family worker in St. Petersburg aptly put it, they were "supposed to be everything to everybody, any place, and any time."

The CFRP family worker was required to be in some respects a friend to his or her families and at the same time to function as a helping professional. Family workers were "friends" in that they tried to build trust and rapport with their families. They tried to develop intimate knowledge of their families in order to identify needs and individualize services. They tried to put a human face on an otherwise bureaucratic and remote system of social services and to take the family's side in dealing with other agencies. But intimacy posed certain problems for individual advocates and families--problems of "role conflict," in the sociologist's terms.

A great deal of strain and confusion sometimes resulted. The tension could be seen in the behavior of the family worker in St. Petersburg who unconsciously changed her demeanor and manner of speech as she shifted from the "friendly" to the "professional" portion of her visit. It could be

seen in casually broken appointments. It could be seen in the bewilderment of a mother in Jackson, whom staff saw as resistant, "feeling she was too good for the program," but whom our ethnographer saw as simply not understanding what was being offered. The mother said of her family worker: "She's nice but I don't see what she can do for me." The tension could be seen in one newly hired family worker's confidence to a mother that she didn't really understand what she was supposed to be doing; the mother, who had been in CFRP for several years, explained to her new family worker what her role was and what home visits were like. It could be seen in the dependent relationships that some families developed with family workers. Perhaps most crucially, it could be seen in the sometimes excessive demands that families made on staff and staff made on themselves. There was a clear need to set limits on what the program would offer and what families could ask, to avoid staff "burnout" if for no other reason.

A program's choice of a balance between rapport and professionalism was also reflected in its policies for recruiting staff. Programs had to decide how much emphasis to place on professional credentials--education or training--and how much to place on personal characteristics--sensitivity, maturity, compatibility of background with the families served. (Relevant work experience was a kind of "bridging" qualification that reflected both professional background and personal characteristics.) A particularly important issue was the degree to which programs actively recruited indigenous paraprofessionals, especially former CFRP mothers, in an effort to maximize rapport and provide jobs and upward mobility.

In many respects programs agreed on the mix of skills and personal characteristics they sought in their family workers. There appeared to be general agreement that personal and affective characteristics were of primary importance and that professional credentials were of secondary importance. And, most programs pursued a policy of offering jobs and upward mobility to at least a few mothers who participated in Head Start or CFRP.

Recruitment policies raise the issue of training and supervision. Previous experience with home-based programs in Home Start shows that paraprofessionals can deliver effective developmental services, but only when supported with intensive training and supervision. Thus in choosing to hire paraprofessionals a program assumes greater responsibility for training and supervision than it would if it recruited individuals with relevant training and/or experience. However, little or no relationship was noted between recruitment and training/supervision policies in the CFRPs studied.

All family workers at each site, regardless of academic credentials or previous experience, were required to complete the same pre- and in-service training. The amount of training provided to family workers varied considerably across the five sites, however. A wide range of topics were addressed in in-service training sessions in the five sites, such as early childhood education, social networking, caseload management and skills, family therapy, child abuse and neglect, nutrition, health screenings, and community resources. While this array of topics is impressive, it is difficult to assess what topics received the most emphasis, the quality of the training sessions, or the extent to which they met the needs of family workers.

In general, supervisors did not assess strengths and weaknesses of family workers through direct observation of their work. Some supervisors simply believed that this kind of work cannot be supervised by "standing over" the workers. The method of supervision used most frequently was review of records and progress notes on individual families.

Jackson[3/]

Jackson was the only site with two types of family workers--an approach taken to solve the problem of dealing with both child development and social service issues. Jackson's Family Life Educators (FLEs) helped families deal with their day-to-day problems, coordinating the social services needed. Home Parent Teachers (HPTs), on the other hand, made home visits specifically to teach parents about child development. Many HPTs had BAs or two-year associate degrees in education, sociology, nursing, juvenile services, counseling, or social services. Twenty percent of staff time in Jackson was spent in training--every Monday was a training day. In addition, staff were encouraged to continue taking classes or college courses on issues confronting them in their work.

Although having two kinds of home visitors did take care of the tensions sometimes felt in other sites between child development and social service concerns, there was some anecdotal evidence that it was confusing to parents. Some mothers did not understand the difference between the two positions.

Jackson's two home visitor supervisors had credentials reflecting the different emphasis of FLEs and HPTs; the FLE Supervisor received her training in social service delivery, while the HPT Supervisor had a BA in Elementary Education. The remainder of the Jackson CFRP staff included a range of specialists--a nutritionist, a special needs coordinator, a social services field advocate, a training coordinator, and so on.

Las Vegas[4]

The four home visitors who worked at the Las Vegas CFRP office had a number of characteristics in common with one another and with the CFRP parents they served. All were single mothers--whether never married, separated or divorced--of from one to five children. All had been teenage mothers themselves. All had a high school education and a few additional credits. And all became involved with CFRP through their own children, who were enrolled in CFRP, Head Start, or day care.

Three of the home visitors were black; the fourth was Hispanic. This family worker functioned in the Hispanic community as a surrogate "godmother," capitalizing on a special role that is well established in the community. In this role, she was intensely and personally involved with "her" families.

The program's social service orientation is reflected in the Director's degree in social work. Las Vegas lacked the range of staff specialists found in Jackson and Salem. In addition to the home visitors and the CFRP Director, there was a Home Visitor Supervisor (who worked her way up through the ranks after being hired as a temporary receptionist) and an Infant-Toddler Specialist (a position which was vacant for months at a time).

Oklahoma City[5]

Oklahoma City's family workers were familiar with the communities served most directly by CFRP, having lived in or near Oklahoma City for a major portion of their lives. Their work experience had been mainly in the area of community services, and a few had themselves been welfare mothers.

Overall, this CFRP emphasized social services over child development. The program's director had a degree in social work. The family workers' supervisor came up through the ranks and had considerable expertise in social service delivery. The Infant-Toddler Specialist devoted most of her time to organizing group sessions for parents and children, rather than working closely with family workers in the home. The School Linkage Coordinator had a

bachelor's degree in social work. A secretary and a bus driver completed the CFRP staff in Oklahoma City.

St. Petersburg[6/]

St. Petersburg's four home visitors were the primary functioning unit for CFRP. They worked independently within the very loose framework provided by their supervisor, who had responsibilities requiring him to spend part of each week in a neighboring town. Two of the home visitors were college graduates, and two were high school graduates.

Child development appeared to be the main emphasis here; both the CFRP Coordinator and the Infant-Toddler Specialist received their training in this field. Aside from the Health Coordinator, there was no one on the staff solely concerned with the delivery of social services. Interestingly, St. Petersburg was the one CFRP site that did not promote CFRP mothers up through the ranks of CFRP itself.

Salem[7/]

Salem, like Jackson, had a multidisciplinary staff, and both the child development and social service aspects of CFRP were directed and supervised by professionals with appropriate credentials. A team of specialists provided family workers with assistance and support on a regular basis. Specialists included an education coordinator, a parent trainer, a consultant for the handicapped, a child care coordinator, a health coordinator, a mental health consultant, a nutrition consultant, and a special services advocate.

The six family advocates represented a range of backgrounds and credentials, reflecting the program's philosophy that services should be professional in quality without the requirement that those giving the services have standardized backgrounds. The on-site ethnographer noted that each advocate had made a radical change in her own life which was part of her strength as an advocate.

2.3 Individualization: Needs Assessment and Goal-Setting[8/]

Individualization of services through needs assessment was a key element of CFRP, and it is clear that this individualization was accomplished in every site. What is not clear is that it was always accomplished through the formal needs assessment procedures, which varied widely from site to site. There were, for example, instances of a lack of staff commitment to the formal procedure; in other cases, the assessment procedures seemed somewhat pro forma. Yet even where the formal procedure was less effective

than it might have been, individualization of services did occur through the efforts of the family workers, who appeared uniformly committed to getting families the services they needed. And for many families, the setting of goals--the most visible part of needs assessment--was of great help in giving them a feeling of progress.

There was general agreement across sites about the theory of individualization in CFRP. Needs assessment was seen as the key to individualization--the means by which services were tailored to families. According to a Jackson supervisor, "assessment was the heart of CFRP." Staff members saw this as a special feature of CFRP. One family worker said, "Other agencies don't always understand that you can't force a plan on people. . . . CFRP always worked from the perspective of the family." And parents agreed: "They asked me what I wanted." Assessment was also seen as central by the authors of the Guidelines, who required that assessments be conducted by an interdisciplinary team with expertise relevant to a wide range of family needs. Despite this agreement in theory, there was wide variation in practice across sites, in the conduct of both initial assessments and reassessments.

Jackson[9/]

Jackson had an elaborate initial assessment procedure, in which FLEs gathered information and filled out forms during their first home visits. The process was a gradual one that could take as long as six months, leading at least one mother to conclude that her HPT's job was "to help with the kids" and her FLE's job was "to handle the paperwork." From the FLE's point of view, of course, it was all this information-gathering that enabled her to assess the family's needs. The subsequent setting of goals, done by the family and FLE together, seems to be what parents perceived as assessment.

Reassessments were conducted by individual family workers, usually in the family's home. FLEs reviewed old goals and helped families to set new goals; HPTs conducted child assessments using the Portage Guide, a list of developmental skills and activities appropriate to children of various ages. Ideally, FLEs and HPTs did these reassessments every six months, but on the whole they took place less frequently. There was no team assessment, although families were discussed regularly in staff meetings. Parents were not present; staff felt it would be "too intimidating and too clinical."

Las Vegas[10/]

In Las Vegas, the initial assessment was a team interview either at the center or in the home; the family worker, the Home Visitor Supervisor and the Infant-Toddler Specialist participated. A form called the Family Service Plan was used to guide the interview. In this initial assessment, parents' goals usually related to basic needs.

There appeared to be no schedule for reassessing families on a regular basis; at least one family was reassessed after three years. The reassessment process seemed to be rather mechanical; using a Family Service Plan as a checklist, the family worker asked a series of questions: "Do you have any problems with housing?" "Do you have any problems with employment?" and so on. The mother was often asked to help prioritize her own needs, yet families accepted "almost without question the suggestions of the home visitors in regard to the ordering of their needs."

Oklahoma City[11/]

The program had a three-week pre-enrollment procedure during which family needs were assessed by individual family workers. Decisions about the enrollment of individual families were made by a staff team who reviewed the assessment data. Following enrollment, the family worker conducted a more formal assessment and developed an individualized plan for services.

Team reassessments were the rule. The family worker selected families about whom he/she had special concerns and presented them at a staff assessment meeting. Other staff members then made suggestions, although the main responsibility for determining the family's needs and implementing solutions rested with the family worker.

St. Petersburg[12/]

In St. Petersburg, as in Jackson, initial assessments were conducted in the home by individual family workers. It was a comprehensive interview--in fact, one family worker commented that it sometimes made her feel intrusive.

St. Petersburg's CFRP held monthly reassessment team meetings attended not only by CFRP staff but also by representatives of eight local social service agencies. According to plan, eight families were to be presented by their family workers at each meeting, and each family was to be presented once a year. In fact, eight families were rarely covered; each time, a few families were deferred to the next meeting, and this cycle of delays meant that some families were reassessed as infrequently as every other year. Parents were invited to attend--it was considered "the only right thing to do" in view of the program's commitment to self-determination by families. But in fact parents usually didn't attend, and

when they did, discussion was stilted and took only half as long as it did when parents were not present. The assessment team meeting was not intended to be an isolated event. Pre- and post-assessment home visits were supposed to involve the parent in planning and provide feedback, but in fact these pre- and post-visits were often allowed to fall by the wayside.

Salem[13/]

Initial assessments in Salem were conducted as part of the enrollment process. A home visit was made to each family who might wish to enroll by a family advocate and a CFRP parent. The team gathered data concerning family needs and discussed what the program had to offer, the program's philosophy toward working with families, and commitments families were expected to make to the program. The team prioritized family needs and interests using a point system which guided the enrollment process. Salem was selective in its recruitment, choosing to serve parents whose schedules and attitudes facilitated participation in CFRP. In the words of the site case study, Salem's CFRP was a "culture with a boundary around it." Once a family was enrolled, there was a considerable time lapse before a formal family action plan was prepared.

Salem's reassessments took place on a regular annual basis. Parents regarded them as a sort of anniversary date against which to measure their progress. Previously, all yearly assessments were conducted by a team in the center, but recently, due to financial limitations, many reassessments were conducted at home by the family worker. Center assessments were held only for families with a special needs child, special recognition for progress, a need for coordination among many agencies, or a special problem defined by the family worker. The center assessment team included representatives of the appropriate agencies. Parents were always present and were encouraged to participate fully. Home assessments followed a similar routine except that the family worker acted alone--the family worker reviewed the previous year with the parents, and then she and the parent set new goals and signed the papers in the home.

Important as these variations in formal procedures may be, it must be stressed again that they were supplemented by informal, continuous assessment by family workers. There is simply no doubt that one of CFRP's strongest points, at every site studied, was its largely successful attempt to respond to individual concerns and needs.

Along with this emphasis on individualization, each program also had common goals, mostly of a general nature--promoting independence, stimulating child development and the like. While common general goals were theoretically compatible with individualization of specific services, it was also

quite possible that the profile of services that grew out of give-and-take between families and advocates would not reflect the program's stated priorities. An excellent example was the preemption of child development activities by crisis management and referrals for social services at some sites (discussed more fully in Chapter 3).

This issue translates into one of local program management. Directors and supervisory staff had to decide how much autonomy to allow family workers and how much control to impose. As noted above, there was a laissez-faire attitude toward supervision at most sites, and family workers had substantial autonomy. Program administrators seemed to have chosen to avoid the dangers of intrusion and regimentation and to have accepted the risk that program goals may be diluted or distorted in practice.

2.4 Provision of Social Services[14/]

The CFRP demonstration programs were mandated to establish and maintain an integrated network of linkages to community agencies. The intent was to give families one place where they could turn for help with a variety of problems and to reduce fragmentation of community services. The program study's investigation of CFRP network development showed that these linkages were extensive in every site and went beyond the formal and informal resource and referral systems normally used by Head Start.

The process of building a network may be simply described as one of people meeting people. In most sites, this typically became a system of "interlocking directorates," with CFRP staff sitting on boards or committees of other agencies, agency staff sitting on CFRP or Head Start boards or committees, and both sitting on interagency councils. At some programs, CFRP played an instrumental role in setting up such councils to increase communication and cooperation among agencies.

CFRP served a brokerage function between families and the rest of the social service system, putting families in touch with appropriate agencies and helping them acquire services. Provision of social services was a strength of every site studied.

Services were provided both on an emergency basis, to meet immediate needs, and as part of CFRP's long-term plan for each family. Staff from nearly every program listed counseling among the services they provided directly to parents. It appeared that this counseling ranged from a sympathetic "listening ear" during home visits to professional clinical help. A number of family advocates and home visitors were trained counselors; further, several programs retained the services of mental health professionals who were made available to CFRP families.

The majority of the programs also offered health and nutrition screening and immunizations, and several offered various types of treatment, such as speech therapy or the services of a dental hygienist; these were often provided by people outside the CFRP, who were paid by the program or donated their time and work. Other direct services mentioned included job counseling, legal advice, and recreation opportunities. In some cases services were not provided at the program, but were paid for by CFRP, such as emergency health care or food and clothing.

Staff made parents aware of their eligibility for public assistance and helped them apply for Aid to Families with Dependent Children, food stamps, Medicaid, or other entitlements. They helped families negotiate their way through the welfare system; for example, when AFDC checks or food stamps were stolen, lost or delayed, family workers often vouched for the legitimacy of these claims. Occasionally arrangements were made for emergency financial aid to buy food, or pay heating, utility or housing bills. Staff assisted parents in obtaining adjustments or postponements of charges from public utility or telephone companies, or emergency medical services free of charge. The list of services available or obtained by families through CFRP was almost endless. Whether the need was for transportation, translation, housing, child care, legal aid, or shelter for victims of domestic violence, staff ingenuity and determination were applied to resolve the problem and get needed help.

The most obvious benefit of CFRP/agency linkages was improved access to agency services for CFRP families. However, at times the benefits

of CFRP linkages went beyond the client population and had a broader impact on the community at large. CFRPs at several sites have been strong advocates for change to ensure that resources were made available to low-income families. Some examples of CFRP impact on the community were: helping to set up a community pantry for emergency aid with resources coming from private institutions; developing a well-child clinic with the help of a number of co-sponsors; providing office space so that WIC could be established locally; identifying needs and facilitating a program established by a group of churches to provide materials and labor to help low-income families with home repairs; and establishing infant day care services in the community through CFRP's grantee agency.

There was some variation from site to site in the mix of social services provided directly and by way of referrals. The differences reflect the local situation with respect to availability of resources to meet family needs, as well as the particular strengths of the local CFRP. The variation in richness of staff resources discussed above affected the strategies that the programs used to provide social services to families. Resource-rich programs were able to provide more direct social services than were resource-poor programs, which had to rely almost entirely on referrals to social service agencies to meet the needs of CFRP families. To some extent referrals to other agencies in resource-poor programs substituted for direct provision of services in programs with more specialists on staff.

Jackson[15/]

In most cases, Jackson's CFRP staff acquired social services or informed the family of services available from other social service agencies in the community. The agencies most often tapped were the Department of Social Services, Legal Aid, Social Security, and Catholic Services. Most requests for services were initiated by the family's FLE; she contacted another agency herself, or she asked another staff member for assistance. This effort was coordinated by a Director of Supportive and Social Services, with a staff of six specialists responsible for health services, nutrition, social services, special needs, mental health, and supportive services.

The program put together a resource booklet describing services available in the community, and maintained contact with many groups and agencies. Staff cultivated good relations with these sources, visiting them and explaining the Family Development Program, and providing follow-up feedback on services that had been requested.

Las Vegas[16/]

The Las Vegas CFRP, whose director had a degree in social work, was strongly oriented toward social services. The program was not staffed with specialists; rather, the home visitors arranged social services. (One staff member said that a home visitor there was "basically a social worker.") Certainly much of the home visitors' time and energy was spent in helping families obtain the social services they needed. The program maintained contact with a large number of agencies in the area, and by and large the referral process went smoothly. Some problems were encountered in acquiring services for Hispanic families, because there were no bilingual personnel at some agencies.

Oklahoma City[17/]

Like Las Vegas, the Oklahoma City CFRP assigned primary responsibility for network development and referrals to individual family workers, with some support provided by supervisory staff. Parents in Oklahoma City referred to the program as an "ace in the hole," because it gave them one place to turn for help in times of need. One family advocate and the family advocate supervisor raised the issue of the need for a social services coordinator to compile lists of agencies and handle referrals. The referral system was basically informal--no central, standard file of organizations was kept; rather, individual staff discussed resources with each other as problems arose and their families requested assistance.

St. Petersburg[18/]

In St. Petersburg, formal ties were established with several social service agencies in the community who assisted in the assessment of family needs and in acquiring appropriate services. This was accomplished through a monthly assessment team meeting of family workers, CFRP staff, and agency representatives. It was up to the individual family workers, however, to make referrals and follow-up. Although referrals seemed to be effective (several parents cited referrals as the single most valuable part of the program), there were indications that some CFRP staff were not fully committed to the formal process of acquiring social services.

Salem[19/]

Salem provided a great many social services as direct services, because of the large number of specialists on the staff. For example, as already noted, there was a mental health specialist who provided counseling to parents and children; there was a consultant for the handicapped; there was a nutrition consultant. Salem was unique in offering special group counseling for certain parents--single parents, and parents of handicapped children.

Thus the five programs studied, though they shared goals and certain organizational features, nevertheless varied widely. They were shaped by local conditions--the make-up of the social service community, relations with Head Start--and also reflected the personalities, skills and needs of a large cast of characters--the local program director, the family workers, the families served. These same forces are seen at work in the programs' Infant-Toddler Components, described in detail in the following chapter.

CHAPTER 3

CFRP'S INFANT-TODDLER COMPONENT

CFRP's Infant-Toddler Component was designed to serve families with children under three. A view of the parent as the primary educator of the child was an integral part of the CFRP mandate. It was through the parent, rather than by working with the child alone, that the program expected to enhance the child's growth and development--one of CFRP's primary goals. This chapter describes the general orientation of CFRP's Infant-Toddler Component, and program activities that were carried out. Section 3.1 describes CFRP's approach toward working with families with infants and toddlers. Home visits, including the frequency with which they occurred, are the focus of Section 3.2; Section 3.3 describes center activities and attendance. The concluding section (3.4) outlines some important lessons that emerged from the CFRP demonstration about families who were served well by the program and families who were not. This section examines interactions between program and family characteristics and participation in infant-toddler activities--factors related to the overall effectiveness of CFRP.

3.1 CFRP's Approach

CFRP's ultimate objective was the optimal development of children, but it approached this objective by offering a variety of social services, as well as help and support for the development of families as effective child-rearing systems. It was premised on the belief that conditions of need may inhibit parenting skills by distracting parents, preventing them from "attending to child development." As one home visitor commented: "It's difficult to tell parents that their child should be at this or that stage of development when they're worried about having enough money to pay the rent or buy food." Thus it was frequently necessary for the program to intervene and assist in meeting basic needs before staff could turn to parenting concerns--parents' understanding of child development and their ability to interact effectively with their children, to handle matters of discipline, and so on. As noted in Chapter 2, provision of social services was a major focus of

CFRP--assisting families in crisis, helping them develop long-range strategies for improving their circumstances, and marshalling support from other social service agencies.

CFRP's approach implied that attention would shift from social services provision to parent education and child development, once families had learned to cope adequately with financial and personal problems. However, reality was frequently at variance with this plan. As will become more evident in this chapter, the picture with respect to parent education and child development was considerably less positive than it was in the area of social services. All too often, social service provision preempted child development activities. Family workers were often too busy dealing with families in crisis to spend time with those for whom parent education and child development activities were most likely to be welcome and effective. The balance that programs struck between social service and child development was partly a response to perceived needs and concerns of the families served. However, it also was a direct reflection of the strong representation of social service backgrounds and general lack of child development expertise on the staff.

There was tremendous variation in frequency and focus of infant-toddler activities from site to site. This variability is perhaps not surprising, given that the program Guidelines are sketchy in their prescriptions regarding developmental services to be provided to children under three. The Guidelines say only that CFRP shall be "a resource to parents for the developmental needs of both younger and older children" (p.6) and that developmental services shall include "programs designed to assist parents to promote the total (emotional, cognitive, language and physical) development of infants and toddlers" (p.19). The Guidelines also specify that the whole family--parents, siblings and other relatives--shall be involved in the child's development (p.17). Although examples of developmental services are offered at various points, most of these have to do with health and physical growth--for example, prenatal care and pediatric

screening (p.6). Virtually no specific guidance is given regarding educational activities for children or about the content of parent education in social and cognitive development.

The lack of prescriptions in the Guidelines may be due to the fact that CFRP was designed to allow and encourage local programs to adapt themselves to local conditions. The wise conception underlying this aspect of the program was that local staff are better able than program managers in Washington to evaluate local needs and resources and to structure programs accordingly. An overriding lesson to be drawn is that local programs, when allowed local autonomy, will develop in unexpected ways that may not be fully consonant with national goals and expectations, even if they are well adapted to local needs and the desires of parents.

3.2 Home Visits

Home visits were a key point of connection between families and CFRP. They were a source of continuity in each family's relationship with the program and the vehicle through which many of the program's services were provided, in particular, activities in parent education and child development. However, home visits in many instances did not constitute an adequate basis for a sustained child development program because of wide variations in frequency, amount of time devoted to child development, and the apparent quality of developmental services.

The intensity of parent education and child development activities was limited by the fact that home visits were not devoted exclusively to such activities. Roughly half, and in many cases more than half, of each visit was devoted to other family needs. Home visitors spent substantial time in offering advice and monitoring progress regarding family goals in education, employment, housing, budgeting and financial aid. Crises were common, and when they occurred, parent education and activities with children took a back seat. Again and again a family worker encountered a mother who was understandably preoccupied with an abusive husband or boyfriend, or a lost or

stolen welfare check, or a dispute with housing project managers. Family workers had to deal with these problems, giving practical help where possible and always offering a sympathetic ear, in order to maintain the rapport that was so essential to their functioning. The price paid in foregone developmental activities was nevertheless significant.

Except in Jackson, where the child development and social service functions were split between two family workers, the two functions were mixed in every home visit. However, the balance between the two and the manner in which they were presented was extremely variable, not only across sites, but also across workers within a site and even across families served by a single worker.

There also was great variation in the quality of the developmental activities that were provided. At every site there were some examples of skillful work during home visits. The case studies depict family workers encouraging mothers to speak to preverbal infants in order to stimulate language development and establish social bonds, showing mothers how simple games and toys can be used to improve children's conceptual and fine motor skills, helping mothers establish reasonable expectations about obedience, order, and self-help skills, and teaching effective strategies for discipline. However, there were also examples of didactic, mechanical use of predetermined exercises, with little attempt to capitalize on the interests of the child or the mother, and in some cases with little apparent comprehension of the purpose of the exercise. (Children were sometimes even chased away from interesting activities.)

These variations are illustrated more clearly in brief profiles of home visit activities as they were carried out in the five study sites.

Jackson[1/]

This site employed a home visiting team, consisting of a family life educator (FLE) concerned with family needs and a home parent teacher (HPT) focusing entirely on child development. This team model was developed to ensure that both parent education concerns and family needs received adequate attention in home visits.

In each HPT visit, time was spent talking to mothers about topics related to their children's development and working directly with the children, and often their mothers, in developmental exercises. There was no set curriculum for all families; HPTs planned lessons for each visit using the Portage Guide. Mothers were provided with written materials on child development and with materials for activities with children to try on their own. Detailed records of activities were kept. Visits were often split among several children. For example, one home visit included a half hour in which the mother provided visual and psychomotor stimulation for the infant, followed by half an hour in which the mother read to a two-and-a-half-year-old boy, probing his verbal skills. The HPT also engaged the boy in a ring-stacking task to test and stimulate his ability to make size discriminations.

Visits by FLEs were unstructured, except when an assessment was conducted. The FLE's function was to listen and respond to the family's needs.

Las Vegas[2/]

The job of the home visitor was equated with that of a social worker in this CFRP. The main goal was to train parents to cope better with their daily lives.

At the same time, there was a rather formal procedure for incorporating child development activities into home visits. Approximately one-fourth of the home visit was set aside for such activities. All staff had lesson plans, based on the Portage Guide, which were approved by their supervisor prior to the visit. Children's development was assessed using the Learning Accomplishment Profile; long-range plans were developed for each child based on this information. Mothers were encouraged to work with their child 10 minutes a day on areas where the child was weak. Exercises remained in the plan until the child achieved success. Instructions for independent exercises were written by home visitors and signed by parents. This formal plan was not always followed. When family needs were pressing, child development activities were set aside. On the other hand, an occasional visit was devoted almost entirely to developmental activities.

Oklahoma City[3/]

Families in this site seemed to be primarily concerned with social services. While providing such services, advice and referrals, the program pressed for more attention to child development.

Most developmental activities were provided through modeling. The modeling principle, however, was often unspoken and may have been misunderstood; that is, parents were not always told and did not always understand that they were expected to emulate the activities of home visitors with their children. No formal curriculum was used for home visits. Individual advocates chose activi-

ties, and planning was informal. Despite the absence of a set curriculum, advocates tried to use the same set of activities with all families during a given month. Activities focused on infants and toddlers, but there was an attempt to involve older siblings as well.

St. Petersburg[4]

The emphasis on the parent's role as teacher of infants and toddlers was particularly strong in this site. The slogans "teach the parent so the child may learn" and "if the parent knows, the child grows" capture the program's philosophy. (Relatively little work was done with older children.)

In practice, the relative emphasis on parent training as opposed to modeling and direct activities with children varied with the worker and mother in question. For example, one worker emphasized parent training with an authoritarian, nonverbal mother and emphasized modeling with a more communicative, less authoritarian mother. The parent-worker dynamic also affected the relative emphasis on child development vs. social services. Despite the program's attempt to shift its emphasis away from family needs toward child development, the need for services continued to command more than half of most home visits.

No formal lesson plan was used. Staff jointly selected one topic (e.g., language development) to emphasize with all families in a given month, as well as an activity intended to foster development in the chosen area. (Puppet-making was the activity for the language development topic.) An attempt was made to leave parents with tasks to perform with the child independently of the home visitor.

Salem[5]

In this program, the child development and social services aspects of home visits were completely integrated. A heavy emphasis was placed on the self-concepts of both mother and child and consequently family workers devoted considerable effort to emotional support for both, blurring the boundaries between services to parent and child.

There was no set curriulum, either across workers or for any one worker. Rather there was a highly individualistic and (in a positive sense) opportunistic matching of services to parental concerns.

For some family workers at several sites, child development services were tied to their professional role, while social services were tied to their role as friends. Some--by no means all--of the accounts of home visits showed a palpable change in the atmosphere of the visit when the

family worker shifted from informal, friendly discussion of the parent's concerns and needs to formal, stilted presentations of child development activities. In contrast, most examples of successful developmental intervention seemed to involve a natural interweaving of developmental activities with the rest of the visit, without a shift of style or tone.

There was no obvious relationship between the degree of curricular structure in the child development activities offered at a particular site and the apparent quality of these activities.

Home Visit Frequency and Participation

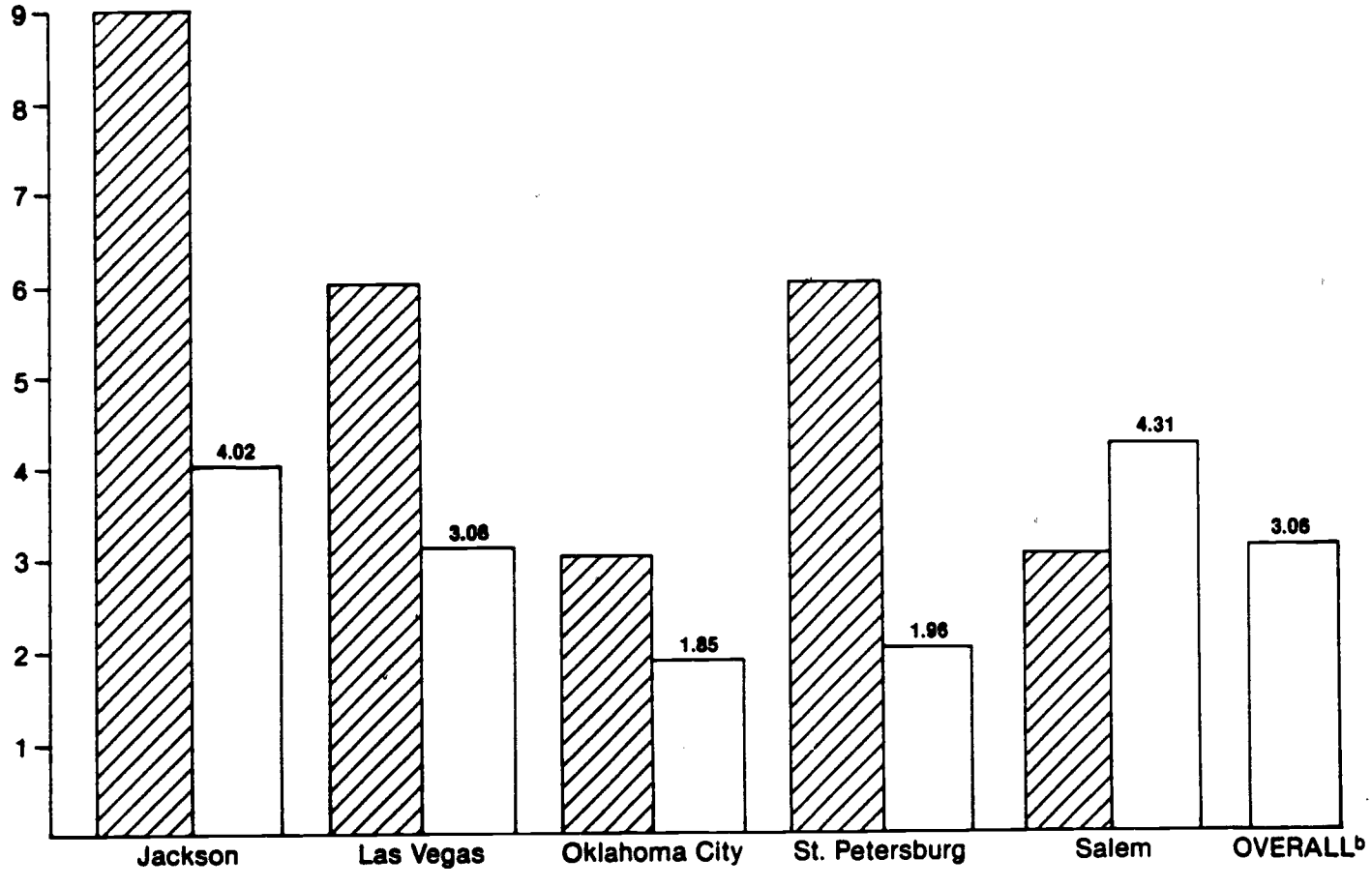
There was significant variation,* both between and within sites, in the frequency of home visits. In most sites an effort was made to schedule home visits on a regular basis. However, cancellations and postponements were common. Across the five study sites, home visits to families in the impact study occurred once per month on average. At most sites, the scheduled frequency of visits was much higher. In a few cases, families received more visits than called for by the schedule, usually because of serious problems requiring constant staff attention.

Home visit frequency was highest in Jackson and Salem, where families were visited four times per quarter on average (Figure 3-1).** However, in Jackson home visit frequency was considerably lower than the

*"Statistical significance" is a technical term referring to the trustworthiness or reliability of results in a purely mathematical sense: Could the observed result have been due to chance? Significance is expressed as a probability; a significance level of .05 means that an observed result would be obtained by chance only five times in 100, or one time in 20. Conventionally, only results significant at the .05 level or lower are viewed as significant. However, so as not to overlook any weak but genuine findings, we discuss "marginally significant" or "near significant" results that might have been obtained by chance 10-15 times out of 100. Precise significance levels for all findings appear in Appendix B, Section 3.

**The data reported below are based on the 111 CFRP families who had participated in the program for at least one year. In some instances, Ns are lower than 111 due to missing data on participation measures. Most findings are based on Ns in excess of 100 families (see Appendix B, Section 3).

Figure 3.1
Number of Home Visits per Quarter[a]
Planned vs. Actual



a) Program staff have repeatedly disputed these figures, claiming that study families participated less than was typical for CFRP families in general. This was attributed to the fact that different recruiting procedures were used for study families and that, as a result, these families were less committed to the CFRP concept than were those who came to the program voluntarily to seek help. Data obtained in the six-month ethnographic study, involving mostly non-study families, contradict this claim. Participants in that study received home visits somewhat less frequently than once per month on average.

b) Site differences in actual home are highly significant (see Appendix B, Section 3).

scheduled frequency, which called for FLEs to visit monthly and HPTs every other week. In contrast, in Salem home visits occurred with greater frequency than the planned schedule. In large part, this is because Salem adopted a policy that participation in home visits was a central obligation of parents and staff, not a casual matter to be put off lightly. Monthly home visits always occurred and were rescheduled if postponed for some reason. (Rescheduling was much less common in the other four sites.) In addition, some Salem families received extra visits because of a particular need. Home visits occurred on an average of once a month in Las Vegas; families in Oklahoma City and St. Petersburg were visited on average about twice in a quarter.

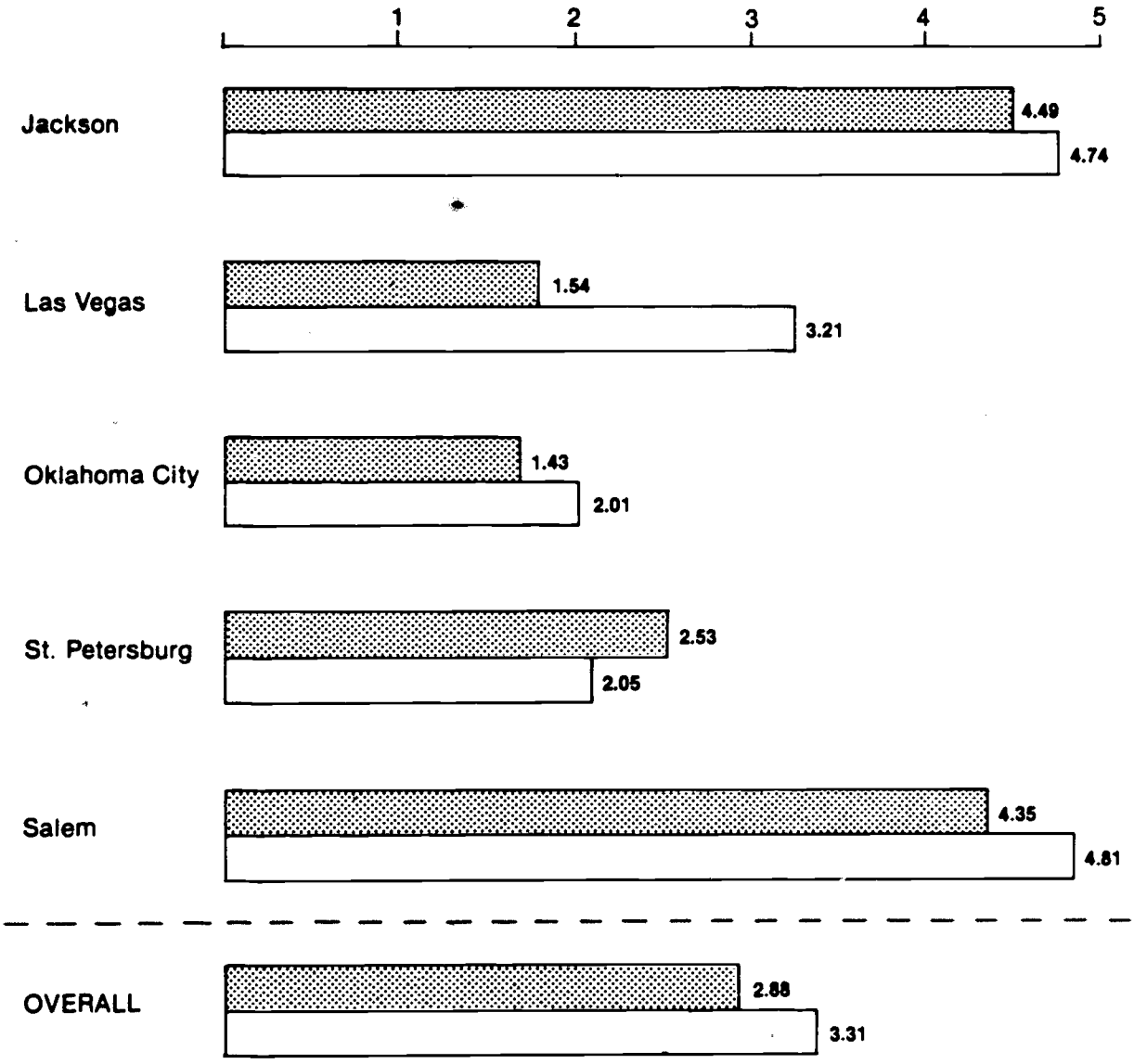
The observed frequency of home visits was significantly lower than that needed to provide an effective child development program in the home, according to findings based on previous Head Start demonstrations. Results of the Home Start evaluation showed that a minimum of one visit per week is required to produce any measurable impact on children's development.[6/] The low frequency of home visits for most CFRP families was undoubtedly linked to family workers' high caseloads. Family workers typically had caseloads of 20 or more, whereas the Home Start study indicated that a caseload of 13 was the maximum feasible in order to maintain an adequate frequency of visits.

FLEs in Jackson had by far the largest caseloads (40 families on average), resulting in frequent cancellations of home visits to families who were not in crisis. In the ethnographic study, some families were visited by the FLE only once every six months to reassess needs. The FLE, of course, was not the only person who maintained contact with families; HPT visits were less sporadic and more frequent.

Participation levels were not consistent over the last two years of the Infant-Toddler Component.* The number of home visits was somewhat higher in Year III than in Year II, 3.3 versus 2.9 visits per quarter on average (Figure 3-2). In part, this resulted from a directive issued to local programs

*Year I data are not reported here because they are not comparable. Year I data are misleading due to double counting of activities by some but not all family workers. Different and more consistent reporting procedures were used in Years II and III.

Figure 3.2
Comparison of Mean Home Visit Frequencies by Year[a]



a) Data in this figure are not directly comparable to those in Figure 3.1. In the earlier figure, to maximize sample sizes we showed Year III data for all families for which such data were available, and Year II data in other cases. Thus the summary data in Figure 3.1 do not represent either Year II or III alone, or an average of the two.

by ACYF, together with provision of workshops and on-site technical assistance, aimed at increasing the intensity of child development services offered in the Infant-Toddler Component. (This directive was in response to early evaluation findings indicating that CFRP had not enhanced the development of infants and toddlers after a year and a half of program participation.)

Increases in home visit frequency were most notable in Las Vegas (where the quarterly rate doubled from Year II to Year III). Home visit frequency decreased somewhat in St. Petersburg; the other three sites had slight increases in home visit frequency.

ACYF's directive, aside from increasing home visit frequency, also influenced to some extent the allocation of staff resources to child development concerns and delivery of social services. As was illustrated in the site case studies, program staff became more concerned about the preemption of child development by the need to provide social services. At two sites, staff, besieged with requests for personal and economic assistance, resolved that the program should focus primarily on child development and communicated this focus to parents, encouraging them to be more independent in seeking solutions to their problems. In at least one site, some families merely tolerated this change in focus and the developmental activities that were provided; they primarily valued referrals and advice concerning social services.

Table 3-1 gives data for other forms of individual contact with families--namely brief home visits (of 15 minutes or less in duration) and telephone calls. These two types of contacts tended to serve similar purposes: they were often used in times of crisis or simply to make arrangements for full-fledged home visits.

3.3 Center Activities

Center activities were, along with home visits, vehicles for providing parent education and child development services. Like home visits, center sessions combined these functions with other family concerns and

Table 3-1

Number of Brief Home Visits and Telephone Calls per Quarter

	Brief Home Visits	Telephone Calls
Site	Mean	Mean
Jackson	1.09	6.12
Las Vegas	.89	9.50
Oklahoma City	1.87	7.40
St. Petersburg	1.62	7.10
Salem	.92	3.61
OVERALL	1.26	6.71

needs. The center-based programs and the quality of developmental activities were variable, and at most sites low participation was a problem.

Center activities offered as part of the Infant-Toddler Component were organized differently across the five sites. Although several programs planned social activities involving both parents and children, only Salem regularly brought parents and children together with a focus on child development. At the remaining sites, center activities for parents and children were separate or focused only on adults.

Parent sessions covered a wide variety of issues. Some dealt explicitly with child development and/or parenting. Others focused on psychological and social problems of parents, home management and other topics of general concern. Some were largely social and recreational.

Center sessions for children included classroom experiences and supervised play. On the whole, however, center sessions were not used as the focus of intensive developmental work with children. At some sites, children's center sessions were largely a convenience for parents--child care provided to enable parents to participate in center activities. Las Vegas offered no sessions specifically for CFRP children but placed them in day care while their parents attended center sessions.

Parent Sessions

Table 3-2 summarizes the different types of center activities for parents at each of the five sites and the focus of these sessions. A brief description of these center-based activities follows.

Jackson[7]

Parent sessions in this site combined parenting and child development. Parent Education was organized into two levels, one for parents in the first year of CFRP, and one for parents in CFRP for a year or more. This split was intended to make sessions less repetitious and more interesting to participants, while still getting basic information across to new enrollees. There was some dissatisfaction with the two-stage design--under an earlier plan, each family life educator (FLE) conducted center sessions for her own families, whereas the new design mixed together staff and families who didn't know each other. There was little cohesiveness in the groups.

Topics covered for new participants included discipline, toilet training, assessing toys, separation, independence, nutrition, and building children's confidence, to name just a few. Sessions for long-term participants covered only a few "required" topics and a large number of topics requested by parents (for example, building adult self-esteem, what to do for entertainment with no money and no babysitter). These examples, as well as classes in macrame and ceramics offered in this site, show the broad interpretation given to issues of "parenting"; nevertheless, the primary aim was education, not recreation.

Las Vegas[8]

Unlike Jackson, CFRP in Las Vegas separated issues of child development and parenting into two distinct center activities for parents. Parent Sessions, in a lecture-and-discussion format, dealt with issues of parenting, many having to do with relationships between parents and children. Sessions were conducted in English by the Infant-Toddler Specialist and in Spanish by a child psychologist who donated his time to CFRP.

The other major center activity for parents was Infant-Toddler Sessions, a series of lectures on child development (conducted in English by the Infant-Toddler Specialist), followed by a question-and-answer period.

Oklahoma City[9]

As in Las Vegas, CFRP offered two center activities for the parents of infants and toddlers. Toddler-Infant-Parent Sessions or TIPS brought children and parents together for a regular activity.

Table 3-2

Center Activities for Parents

Site	Type of Activity		Focus of Activity					
	Parents Only	Parents and Children	Parenting	Child Development	Support	Social Recreational	Special Needs	Other
Jackson	X		X	X		X		X
Las Vegas	X		X	X				
Oklahoma City	X	X	X	X		X		X
St. Petersburg	X	X		X	X			
Salem	X	X	X	X	X		X	

TIPS was primarily social--it gave "parents and children an opportunity to interact in a group setting while learning to make things of interest to preschool children." TIPS sessions were usually organized around holiday themes.

In addition to TIPS, there were P-3 Discussion Groups for parents only. Sessions were led by a consultant social psychologist covering such topics as transactional analysis and stress management.

St. Petersburg[10/]

Two center activities were offered to parents. The Center-Based Program dealt exclusively with child development. Usually the same theme was addressed as in home visits, a design intended to reinforce and expand upon material presented in home visits. Children were sometimes present for the activities depending on the subject of the sessions.

The other center activity was Parent Study, a support group where parents had an opportunity to discuss their problems with other parents. The group was led by a professional family counselor.

Salem[11/]

Salem had a parent group for parents of infants and toddlers and one for parents with Head Start children. The Infant-Toddler Parent Group dealt with issues of child development and parenting; parents regularly worked with their children in what was explicitly a teaching setting. In each session, parents were instructed to concentrate on just one thing in interacting with their child, for example, listening to what your child says or watching what your child wants and chooses to do. Later, when parents were alone, they discussed what happened in the "hands-on" period. Each session ended with "sharing time" in which each parent expressed what was on her mind at the moment. Sharing time reflects Salem's mental health emphasis--the group was about child development and parenting, but it also was explicitly a parent support group.

The Salem program was unique among the sites in offering two support groups for parents with special issues. There was a Group for Parents of Handicapped Children which met weekly year-round and a Single-Parent Workshop that met weekly for a period of five weeks.

Center Sessions for Children

Three of the five sites--Jackson, St. Petersburg, and Salem--organized special activities for children at the center. The Las Vegas CFRP did not; while parents attended group sessions, children were placed in the grantee's

day care center. However, Hispanic parents in Las Vegas, not comfortable leaving their children with non-Spanish-speaking caregivers, often brought their children along to parent sessions. In contrast, Oklahoma City organized TIPS sessions, which involved both parent and child in social interaction at the center (see previous discussion) but did not plan any other special activities for children or offer babysitting.

The center sessions for children in the three sites where activities were arranged specifically for CFRP children are described briefly below.

Jackson[12]

While parent sessions were conducted, children under three attended an Infant-Toddler Session, a classroom experience supervised by a home parent teacher (HPT). It included free play and organized activities, a snack and gym time. There were usually six to eight children per group, sometimes more. In addition, there was a class for three-year-olds, attended by about 10 children and taught by an HPT. Its importance was largely as a group experience to prepare children for Head Start and school.

St. Petersburg[13]

As noted previously, St. Petersburg's center-based program at times involved both parents and children. During Parent Study sessions (or center-based activities not intended for children), a Play Group was held for children by family workers. The focus of the group was supervised free play and organized group activities.

Salem[14]

Children were with their parents for a portion of infant-toddler parent groups (see earlier discussion). While parents met, children were placed in the center's day care program. For children with serious emotional or behavioral problems, a Play Therapy Group was held, involving approximately 12 children.

Frequency of Center Sessions and Participation

There was some variation across the five programs in the frequency of center sessions. Weekly sessions were scheduled in Las Vegas, with different center activities occurring on alternate weeks. In reality, center

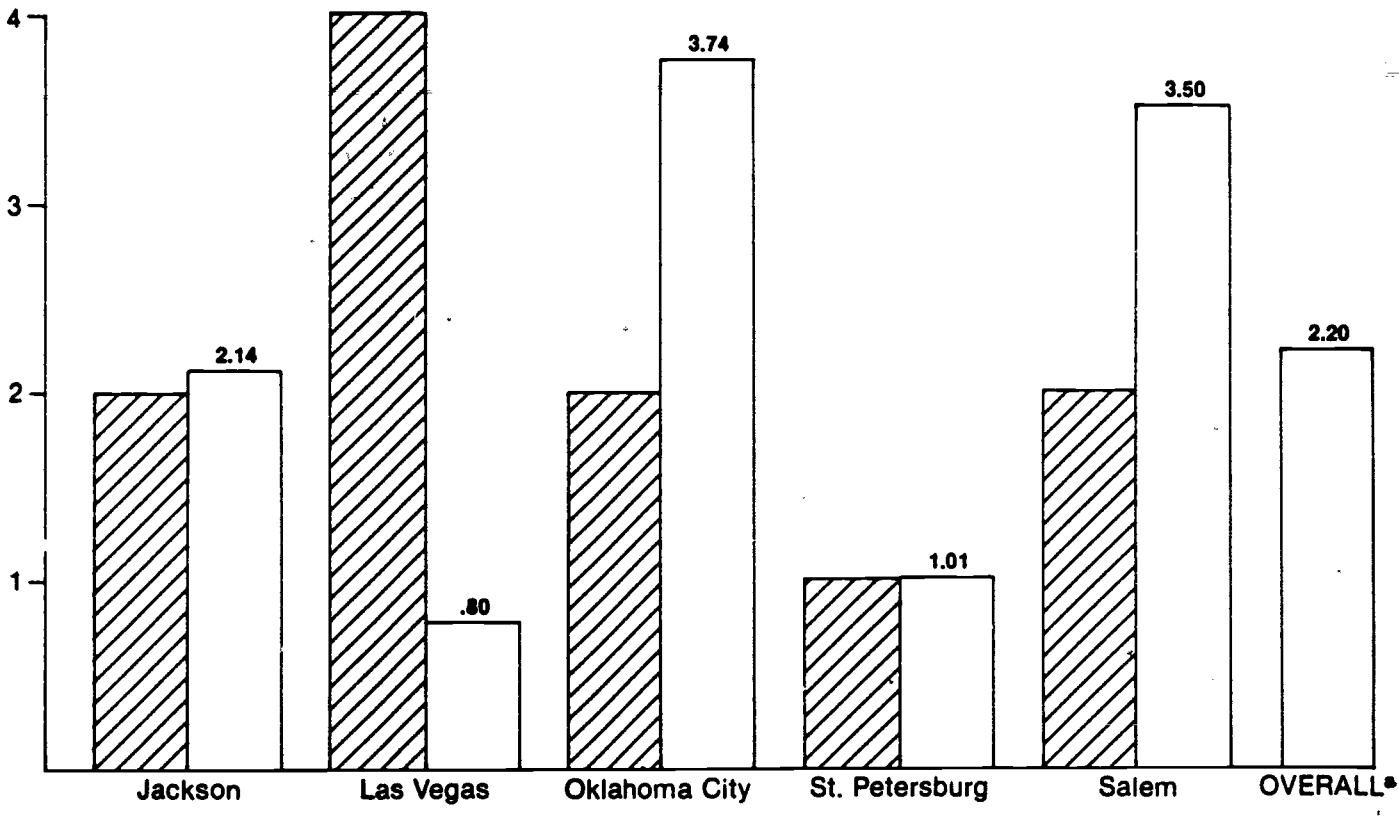
sessions were held less frequently. During the six-month ethnographic study only one infant-toddler session took place because there was no one on the staff to lead the groups. In Jackson, Oklahoma City and Salem, center sessions brought parents together twice a month. In Salem, additional center activities were planned for families with special needs and issues (handicapped children and single parents). Some of these sessions were not held year round and only a limited number of parents could participate. Sessions that were part of St. Petersburg's center-based program occurred once a month. The parent study group met weekly but few parents elected to take part in these sessions. About six parents attended regularly, with others participating only occasionally.

All of the sites had attendance problems and staff viewed parent participation in center sessions as "less than optimal." On average, parents came to two center sessions per quarter, although attendance varied considerably across sites (Figure 3-3). Participation was most problematic in Las Vegas and St. Petersburg, where parents participated in only one session every three months.

The problems encountered with center participation were far greater than is suggested in Figure 3-3. Almost half (49%) of the families attended center sessions only sporadically--less than once per year on average. Regular participants (those who came at least once per quarter) attended at least one session per month (Figures 3-4 and 3-5). Las Vegas and St. Petersburg had the highest proportion of families who did not participate in center activities or attended sessions only sporadically (74% and 52% respectively). Those who attended regularly in these two sites came to the center slightly less than once per month.

Table 3-6 shows the mean number of center sessions attended over the last two years of the infant-toddler program. Participation was relatively stable only in Jackson. Attendance dropped sharply in both Las Vegas (partly because there was no Infant-Toddler Specialist to run the groups for a number of months) and in St. Petersburg. (The decrease in attendance in the latter

Figure 3.3
Number of Center Sessions Attended per Quarter
Planned vs. Actual[a]



a) Site differences in actual center sessions are highly significant (see Appendix B, Section 3).

Figure 3.4
Proportion of Families Participating Less than Once per Quarter in Center Sessions

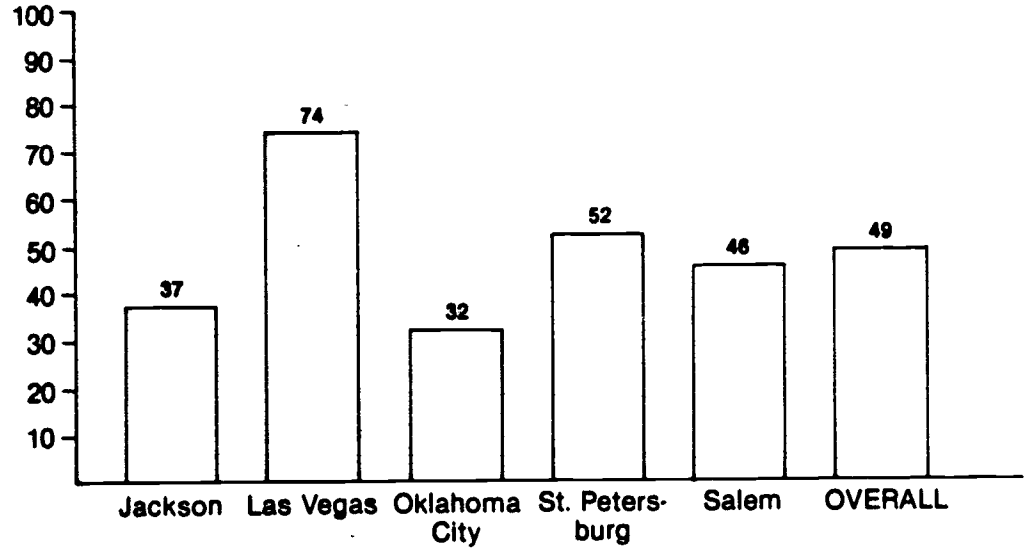
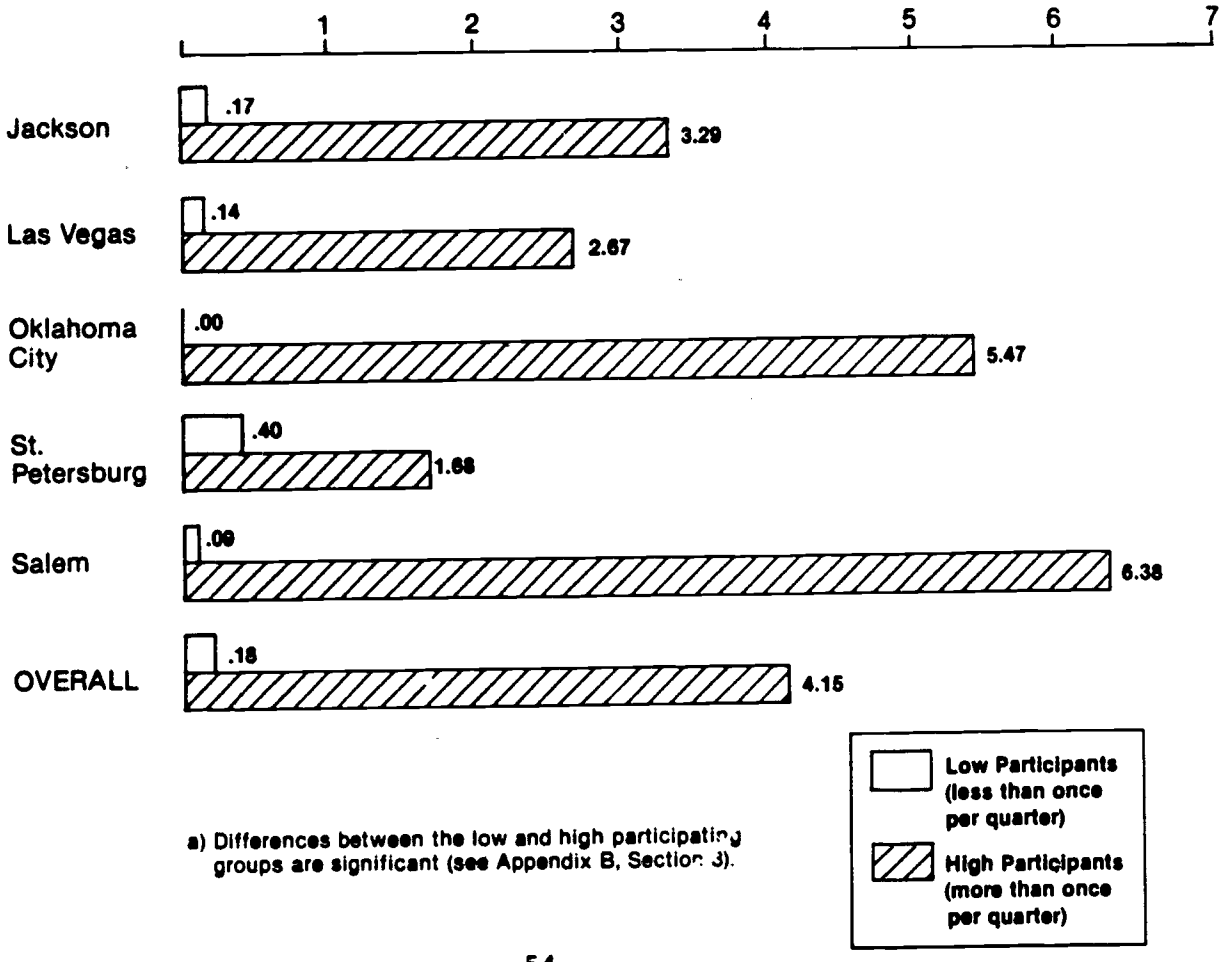
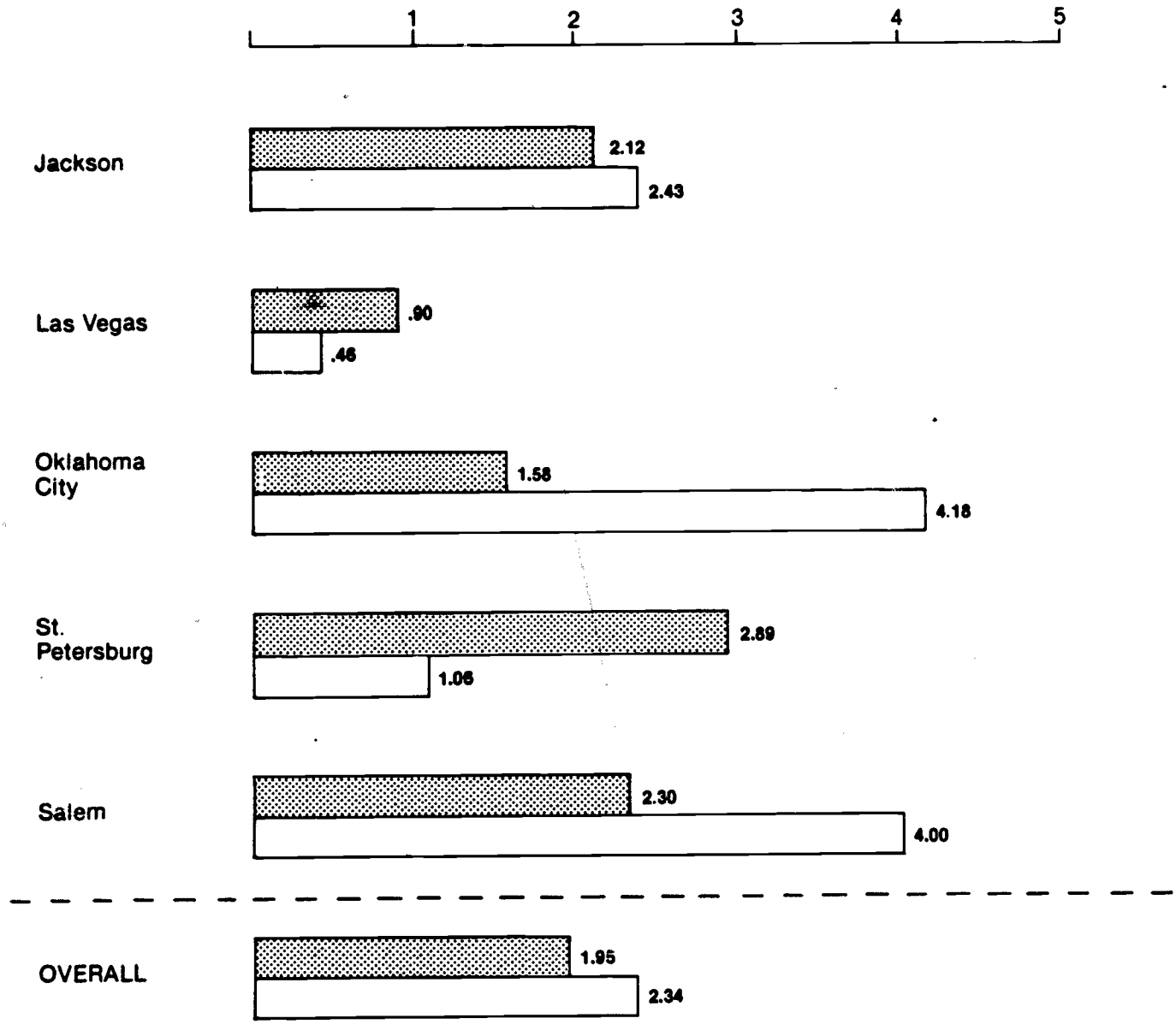


Figure 3.5
Quarterly Center Participation by Low and High Groups[a]



a) Differences between the low and high participating groups are significant (see Appendix B, Section 3).

Figure 3.6
Comparison of Mean Center Sessions Attended by Year[a]



a) Data in this figure are not directly comparable to those in Figure 3.3. In the earlier figure, to maximize sample sizes we showed Year III data for all families for which such data were available, and Year II in other cases. Thus the summary data in Figure 3.3 do not represent either Year II or III alone, or an average of the two.

site was coupled with a slight drop in home visit frequency.) However, attendance more than doubled from Year II to Year III in Oklahoma City and increased substantially in Salem.

3.4 Factors in Attrition and Nonparticipation

The relatively high rate of attrition from CFRP (see Section 1.6), coupled with the low levels of participation of some of the families who remained enrolled in the program, posed serious problems for both the program and the evaluation (see Appendix B.2). An examination of family characteristics that were related to attrition and low participation, however, does reveal something about who the program served best.

There was a strong relationship between race and the likelihood of attrition, with families of the ethnic group that predominated in the local CFRP tending to stay in and families of other ethnic groups tending to drop out.* This pattern was clearly seen in several sites. In Oklahoma City, where blacks are "the most dominant minority locally in federally funded programs" and posters in the CFRP office "proclaim pride in, and goals for, blacks"[15/]-- white families tended to leave the program, and black families tended to stay. A large percentage of black families dropped out of the Jackson Family Development Program even though (unlike Oklahoma City) it had a racially mixed staff. As one staff member commented: "We've turned off black families somehow and we can't figure out why."[16/] (The apparent lack of matching of staff and families on the basis of ethnicity may have been a factor, although black parents, when asked if they would have preferred a black FLE or HPT, said that this was not an issue for them.) In Las Vegas, where blacks and Hispanics are in competition for federal and local funds, the Hispanic group was described as a "program within a program" in the site case study. Not surprisingly, white and Hispanic families, particularly Hispanic families assigned to non-Hispanic workers, were more likely to drop out than blacks. (Even Head Start in Las Vegas was losing Hispanic children because there were no bilingual teachers on the staff.)

*See Appendix B, Section B.2.3 for more detailed discussion.

This finding points to the problem of designing and implementing a multicultural program, particularly a program concerned with parent education and child development. Laosa points out that while "the goal of many parent education programs--producing academically successful children--is widely shared, the preferred means of attaining it varies both among and within the different cultural and socioeconomic groups."[17/] When parent education is directed by a dominant group, this tends to lead to a melting away of the other subcultures and the preponderance of one group over the other. What appears to have happened in CFRP is that parents not of the predominant race did not feel at home in CFRP and felt uncomfortable with the activities and practical advice offered by staff.

The effects of cultural and class differences are not limited to parent education or child development programs. They play an important role in how families set out to satisfy or meet other needs as well. The Las Vegas case study is illustrative on this point. Generally, Hispanic families would rather seek help from their extended families than from a public agency. The idea of "airing their dirty laundry" in public is distasteful, again because they do not want to bring dishonor upon the family name. This family pride has prevented Hispanics from participating in public programs. Despite these cultural differences, the Hispanic family worker at the Las Vegas CFRP encouraged families to join the mainstream of American life and to take advantage of available help and resources.[18/]

It is important to point out that some programs (notably Las Vegas and Jackson) made serious attempts to serve families of different ethnic backgrounds. Both sites had racially mixed staffs to do outreach and provide services to families. Such steps do not ensure, however, that families are served effectively or that they will stay in the program as active participants. In Las Vegas, for example, Hispanic staff resources were limited, resulting in long waiting lists to sign up for the program or necessitating assignment of Hispanic families to black family workers. The single Hispanic family worker simply could not add any more families to an already large caseload.[19/]

In the other three sites, the population served was far more homogeneous, not only in terms of ethnic background but also in the types of families served. In Oklahoma City and St. Petersburg the majority of the families were black, with single-parent families predominating. In Salem, the CFRP population was almost entirely white and most families were headed by single women.

Local CFRPs were only marginally successful--if at all--in providing multicultural services to families with young children. It points to a need for the Head Start Division of ACYF to provide technical assistance to local programs in an effort to strengthen and improve their multi- and crosscultural orientation.

In addition to membership in an ethnic group other than the locally predominant one, there were a number of other factors that contributed to the problem of low levels of participation. CFRP on the whole did not seem to be well organized to serve working mothers. Most program activities took place between nine and five, when working mothers could not participate. While efforts were made to accommodate mothers by scheduling home visits for the end of the working day, mothers and children were often too tired and distracted to get much out of the visits. At most sites, families with working mothers participated in program activities at a significantly reduced rate and were effectively lost to the program.

Student mothers did not seem to experience the same kind of problem with participation. Their attendance was about the same as for mothers not enrolled in school, probably because school schedules allow more flexibility than most working schedules.

Because CFRP tailored program services to needs and strengths of individual families, it has often been assumed that the CFRP treatment would be more intensive for families most in need. This assumption was not supported. For example, families with a high-risk infant or toddler received significantly fewer home visits than other families. (This finding, disturbing at first, may be explained by the fact that particularly needy families

tend to have other sources of support. For example, one family with a severely handicapped child, who participated in the ethnographic study, was only minimally active and did not draw heavily on the resources of CFRP. More than 50 volunteers shared responsibility for the daily therapy sessions for the child. Because of the vast network of contacts in the community, this family did not need to depend on CFRP for support and services.)[20/] Brief home visits also occurred somewhat less frequently to families who were viewed as "most needy" by their family workers. These overall findings do not deny the fact that some multiproblem families were served well by CFRP. There were examples of families in crisis who were visited frequently, an extreme case being a family in Las Vegas in which a grandmother was dying of cancer.

Finally, isolation was a factor in participation as well. For those with limited social ties, the program's support was crucial--CFRP was the family's only friend in a hostile, bureaucratic world of social welfare programs. In response to problems of isolation, staff tended to make home visits somewhat more frequently than to families with extensive networks of support.

CHAPTER 4

TRANSITION TO HEAD START

Head Start was a major component of CFRP. At age three, children left CFRP's infant-toddler program and became eligible for two years of Head Start. Head Start in the CFRP sites was similar to programs anywhere else across the country. What distinguished CFRP/Head Start programs was CFRP's mandate to facilitate smooth transition from the Infant-Toddler Component to Head Start and subsequently from Head Start to public school as part of the School Linkage Component. CFRP's intent was to provide continuity of services to the family through the major stages of the child's early development.

This chapter describes the transition from the Infant-Toddler Component to Head Start based on interviews with parents and Head Start teachers conducted in fall 1981. Section 4.1 looks at Head Start enrollment of CFRP children who participated in the impact study. This section examines reasons why some children were enrolled in Head Start and others were not. Section 4.2 describes approaches used by CFRP and Head Start staff to ensure developmental continuity.

4.1 Head Start Enrollment

The transition process started with the enrollment of children in Head Start. In almost all impact study sites, children who had been involved in the Infant-Toddler Component were guaranteed slots in Head Start or at least given priority for enrollment. This policy resulted in Head Start enrollments of 64 percent of the impact study children.

Seven percent of the families reported that they did not obtain a slot for their child in Head Start because family income exceeded the poverty guidelines or because the child was too young to enter Head Start. Redetermination of eligibility occurred in several sites, although not necessarily at the time of entry into Head Start. The Jackson CFRP, for

example, checked family income at two-year intervals. This practice ran counter to the "once a CFRP family always a CFRP family" concept--a philosophy that implied that families who were eligible for the program at entry would continue to be provided with services regardless of family income. On the other hand it reflects choices programs had to make because demand for services exceeded program funding. Some programs established policies to serve families who were most in need.

Aside from ineligibility, there were a variety of other reasons that 39 of the 109 CFRP children did not enroll in Head Start.* Unavailability of Head Start slots was a problem for 12 percent of the CFRP children; 10 percent of the parents indicated that they didn't want their child to go to Head Start, and some (2%) cited transportation problems as the reason for not enrolling their child.

The fact that Head Start in most sites is a part-day program was a deterrent for some mothers who were employed or attending school. Three percent of the families gave their requirement for full-time child care as the reason for not enrolling their child in Head Start. However, a far greater proportion of children--one out of four--were actually in some type of day care program in fall 1981; ten percent of the children were enrolled in both Head Start and day care. (About 21 percent of the children were not enrolled in any type of preschool program.)

Significant variation* across sites was found in the proportion of CFRP children enrolled in Head Start. In Jackson, Las Vegas and Salem at least 70 percent of the children entered Head Start in the fall (Table 4-1). Head Start enrollments were considerably lower in both Oklahoma City and St. Petersburg.

The CFRP in Oklahoma City encountered considerable difficulties in the Head Start enrollment process. In part this was because Head Start and CFRP operated as virtually independent programs, each under the aegis of a

*See footnote on p. 42.

different delegate agency. Coordination between the two programs was a monumental task, particularly because the 11 Head Start centers in Oklahoma City and surrounding communities were operated not by one but by several different delegate agencies. The fact that children in this site did not enter Head Start until age four further complicated the enrollment process. (Most CFRP children did not meet Head Start age requirements in fall 1981.) A change in bylaws, involving lengthy debates with the Parent Policy Council, was required to facilitate the enrollment of CFRP children in the fall. When the change in bylaws was approved, a number of centers were already filled and could not accommodate additional children. Only 60 percent of the CFRP children obtained a slot in Head Start, due in part to these delays in getting the CFRP group enrolled. (It should be noted, however, that almost no children in the control/comparison group entered Head Start in this site, as reported in Chapter 5. CFRP had a significant impact on the Head Start enrollment of children who were participants in CFRP.)

Table 4-1

Head Start Enrollment
of CFRP Children

Site	Number of CFRP Children	Percent Enrolled in Head Start
Jackson	20	75
Las Vegas	21	71
Oklahoma City	20	60
St. Petersburg	24	33
Salem	24	83
OVERALL[a]	109	64

[a]Site differences are highly significant (see Appendix B, Section 3).

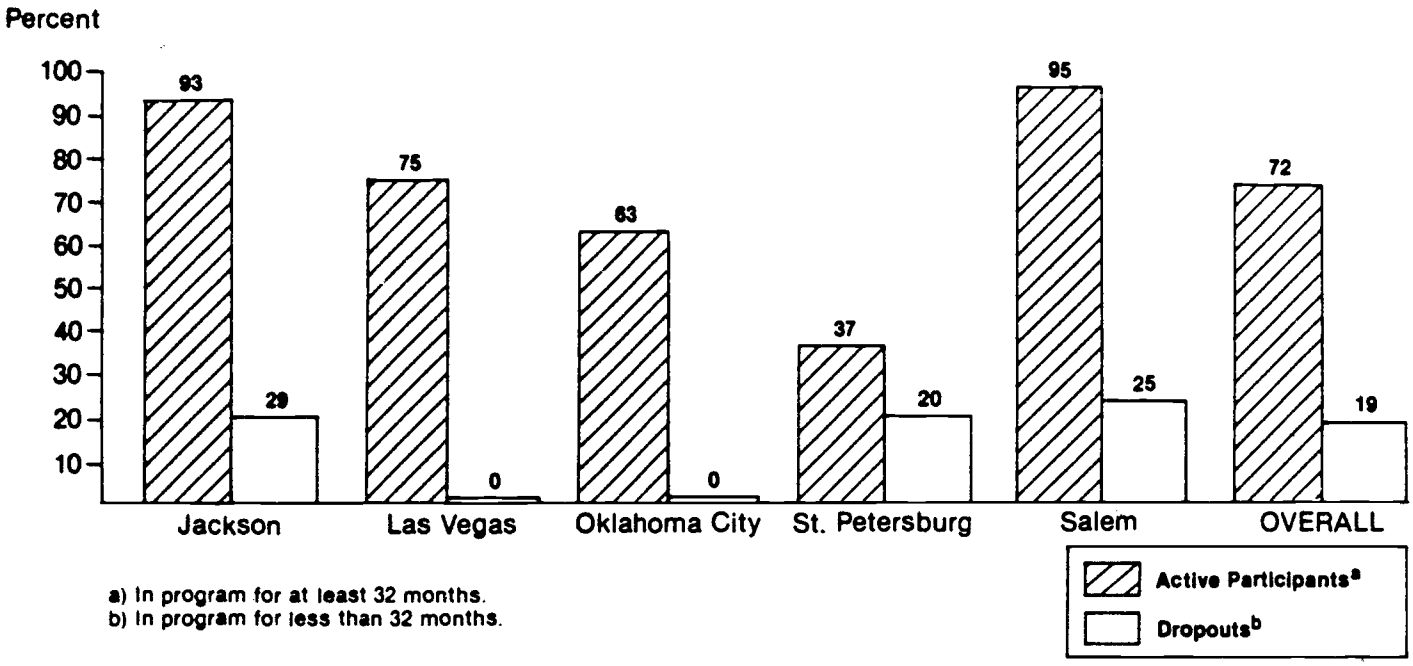
In St. Petersburg, Head Start enrollments were even lower than in Oklahoma City; only one out of three CFRP children obtained a slot. When queried about low Head Start enrollments, program staff put the blame on parents for not getting their children's health checked or for not updating

their immunizations, which are prerequisites for Head Start entry at this site. This explanation is somewhat puzzling because 95 percent of the CFRP families not enrolled in Head Start reported that the child had received a checkup in the previous year. While only limited information was obtained regarding immunizations, data indicate that a similar proportion of the children had received appropriate shots. Furthermore, CFRP was mandated to maintain health records on children and help families obtain the necessary preventive health care for their children. If this mandate had been carried out and CFRP health records had been shared with Head Start, these obstacles to Head Start enrollment could have been eliminated. Comments from parents point to considerable confusion surrounding the enrollment process and enrollment requirements. For example, the majority of the parents reported that they had been told no Head Start slots were available for their children. None mentioned that health checkups and immunizations were required before their children could enroll.

Across all sites, the factor that appeared to have the greatest impact on Head Start enrollments was whether families were still active participants in CFRP. Of the 93 families who remained in the program for at least 32 months, three out of four children obtained a slot in Head Start. In contrast, only 19 percent of the 16 families who dropped out of CFRP (and had participated for less than 32 months), enrolled their child in Head Start (Figure 4-1).

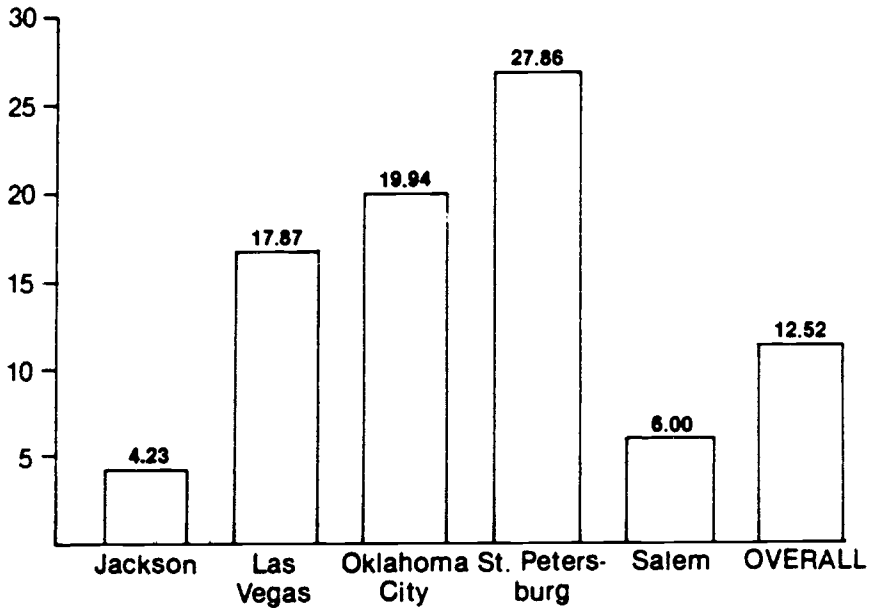
Furthermore, in both Jackson and Salem, families who participated actively in infant-toddler program activities were more likely to enroll their child in Head Start. A high level of participation in center sessions predicted that a child would gain entry into Head Start in Oklahoma City. However, no relationship between participation in Infant-Toddler Component activities and Head Start enrollment was found in Las Vegas and St. Petersburg.

Figure 4.1
Head Start Enrollment of Active Families and Dropouts



a) In program for at least 32 months.
b) In program for less than 32 months.

Figure 4.2
Number of Hours Per Week of Head Start Classes[a]



a) Site differences are highly significant (see Appendix B, Section 3).

There also was great variability across sites in the number of hours per week children attend Head Start classes. This ranged from six or fewer hours per week in both Jackson and Salem to almost 28 hours on average in St. Petersburg (Figure 4-2).

The limited Head Start treatment offered in the Jackson CFRP resulted from an "inclusive" philosophy of family recruitment. This site tried to serve as many families as possible and was willing to dilute services to some extent for everyone. Children were in Head Start only two mornings a week, thereby doubling the number who could enroll. In Salem, because there is no public kindergarten program, Head Start services are provided for a period of three years. As children grow older, the number of hours children go to Head Start is increased. For over one-fourth of the children in Salem (29%), Head Start was supplemented by day care. Enrollment in more than one preschool also occurred in Las Vegas and Jackson, but was less common (Figure 4-3).

4.2 Transition and Developmental Continuity

Interviews were conducted with teachers of 93 percent of the CFRP children attending Head Start classes to obtain information on how the transition process was facilitated for individual children. One of the best ways of finding out whether there was any coordination between CFRP and Head Start staff was to assess the teacher's knowledge about each child's participation or nonparticipation in CFRP. For three out of four children, Head Start teachers knew that the child had been involved in CFRP prior to entering Head Start; in 23 percent of the cases teachers didn't know and 2 percent of the CFRP children were classifed as non-CFRP participants. Teachers' knowledge varied considerably from site to site (Table 4-2). In St. Petersburg, teachers gave a "don't know" response more frequently than in other sites.

Figure 4.3
Preschool Enrollment of Children
(percent)

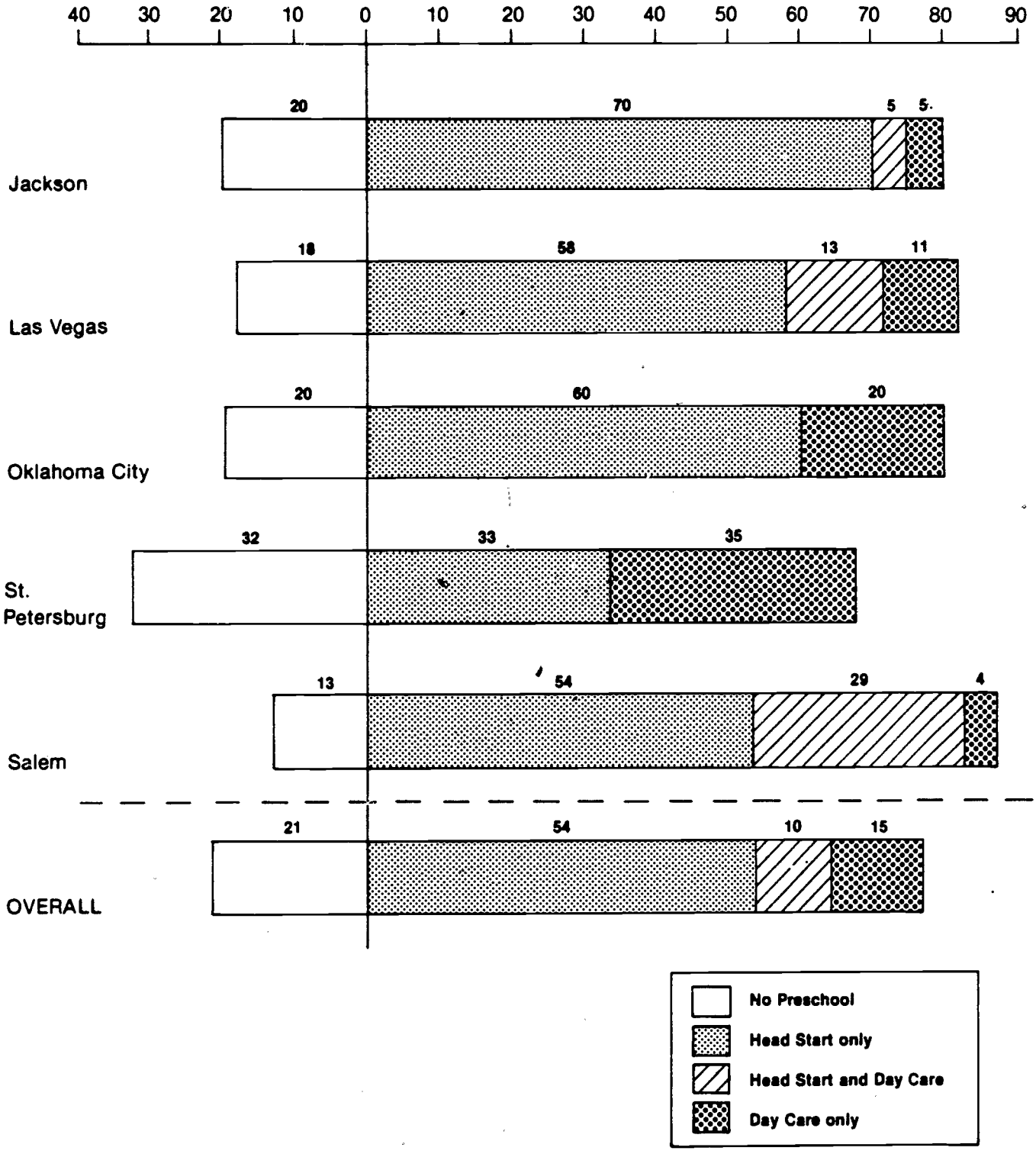


Table 4-2

Head Start Teachers' Knowledge
of Child's Participation in CFRP

(percent)

Site	N	Aware of CFRP Participation	Unaware of CFRP Participation	Gave "Don't Know" Response
Jackson	15	93	-	7
Las Vegas	10	100	-	-
Oklahoma City	12	83	-	17
St. Petersburg	8	25	-	75
Salem	19	63	5	32
OVERALL[a]	64	75	2	23

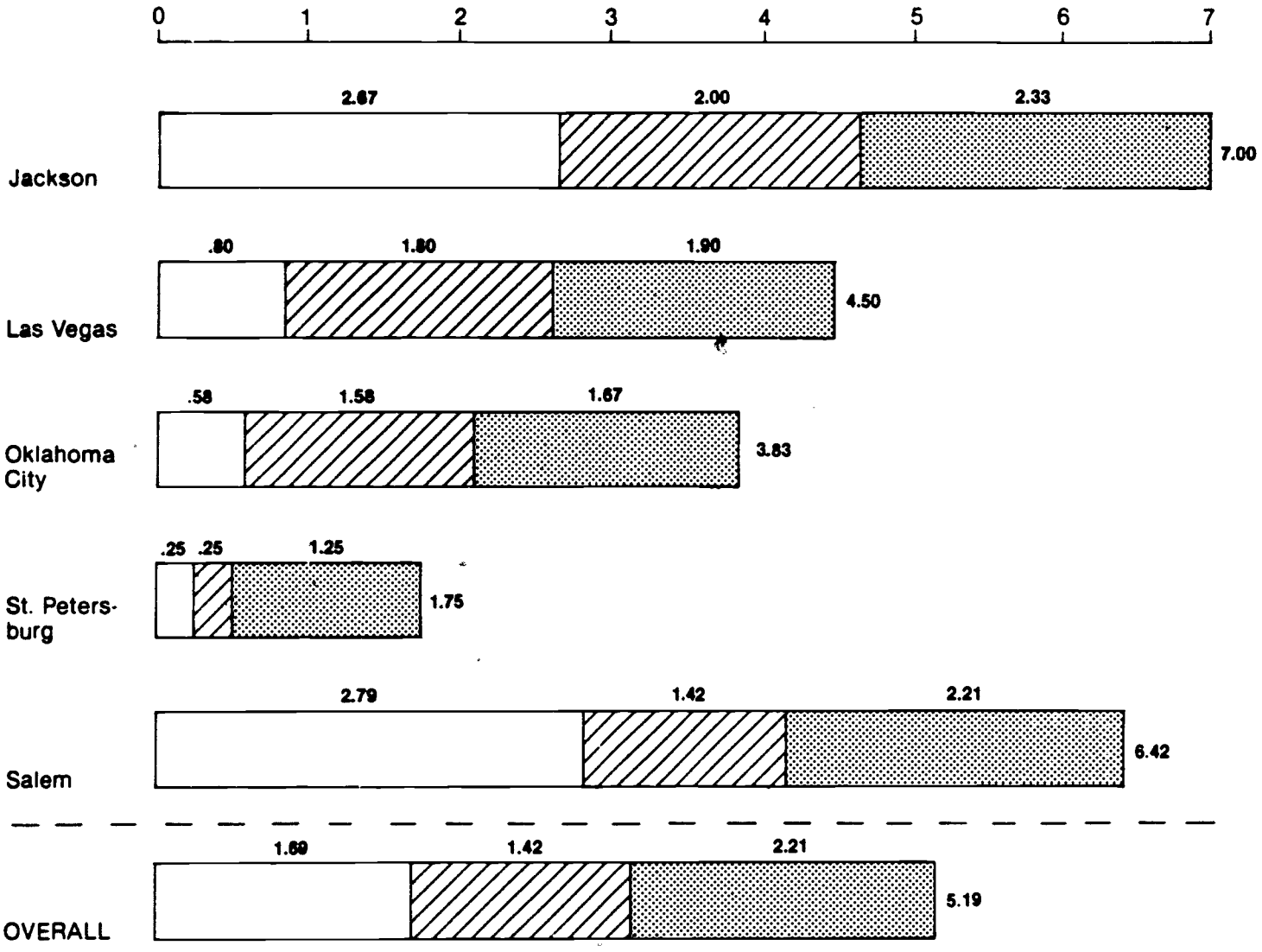
[a]Site differences are highly significant (see Appendix B, Section 3).

Contact between Head Start classroom staff and CFRP family workers prior to or upon the child's entry into Head Start was fairly common in Jackson, Las Vegas and Salem, where meetings were held concerning at least two-thirds of the CFRP children (whose participation in the program was known by Head Start staff). In contrast, meetings involving Head Start and CFRP staff were a rare occurrence in Oklahoma City and St. Petersburg (30% and 50% respectively).

Meetings between CFRP and Head Start staff had two primary functions: (1) to share knowledge about individual children and their families, enabling Head Start staff to individualize classroom activities, and (2) to coordinate activities in sites where both CFRP and Head Start staff maintained contact with families.

Teachers' knowledge about the child's language, cognitive, motor, and social abilities, the child's health, his or her home environment, family background and special problems varied considerably across sites (Figure 4-4). Teachers in Jackson and Salem were far more knowledgeable about the

Figure 4.4
Teachers' Knowledge of Child and Family[a]



a) Site difference regarding child's abilities, child health and total knowledge were highly significant. Site differences on family problems were marginally significant (see Appendix B, Section 3).

children's abilities and the family than those in the other three sites. In Salem, the children's development was assessed at entry into Head Start to enable teachers to tailor classroom activities to the specific needs of individual children. Information about the family came primarily from parents. Head Start teachers in St. Petersburg had received by far the least information about individual children, a direct result of a lack of coordination between Head Start and CFRP in the transition process. Head Start teachers in this site received most of their information (except health records) from parents rather than from CFRP staff. In most of the other sites CFRP was a major source of information about the child, although different data-gathering strategies were used. In Oklahoma City, for example, Head Start social workers were the main source of information about the child's health and to some extent the child's social skills. It is likely that social workers gained this knowledge either from CFRP staff or parents during the course of the Head Start intake interview.

The planned frequency of communications between Head Start teachers and CFRP family workers following the child's entry into Head Start also showed considerable variation across programs. Jackson, Salem and Oklahoma City teachers planned to meet at least once a month with CFRP family workers or other program staff to coordinate program activities. In contrast, only occasional contact was planned in the Las Vegas and St. Petersburg sites to deal with specific child or family problems as they arose (Table 4-3).

Table 4-3

Expected Contact between Head Start and CFRP

Site	Once a Month or More	Quarterly	Occasionally
Jackson	X	-	-
Las Vegas	-	-	X
Oklahoma City	X	-	-
St. Petersburg	-	-	X
Salem	X	-	-

To some extent these variations in planned contact between Head Start and CFRP staff reflect differences in how services were provided to families following the child's entry into Head Start:

Jackson

To maintain contact with families when the child entered Head Start, the Jackson program formed a staff team for each family. Teams often included Head Start classroom teachers, family workers and/or counselors. The team met regularly to coordinate activities. Its members visited the family periodically, usually not as a group but at different times.

Families of four-year-olds in Jackson had a choice between home-based and center-based Head Start. (Families of three-year-olds could opt for a combined program and postpone the choice. If they chose the home-based option, families continued to receive weekly visits from an HPT, as well as periodic visits from their FLE. If they chose center-based Head Start, the FLE continued to visit, but the HPT did not; the Head Start classroom teacher took over the HPT's child development function.)

Las Vegas

In Las Vegas, CFRP family workers had little contact with Head Start children or their families. Service provision became the responsibility of Head Start staff, unless there were younger children in the family, enrolled in CFRP's Infant-Toddler Component. CFRP came into the picture again when the child graduated from Head Start and the family worker followed up on the child until age eight--activities that were part of the School Linkage Component.

Oklahoma

In Oklahoma City the CFRP family worker and the Head Start classroom teacher conducted joint home visits to ensure continuity between home and classroom activities. The teacher reported to the parent on the child's progress in Head Start and worked with the parent on the child's developmental needs. The family worker concentrated on other family needs (e.g., for social services).

St. Petersburg

No formal mechanism for coordinating program services and activities appeared to exist at this site. Continuity was maintained informally by the family worker, who periodically visited families as their children moved through Head Start and entered public school.

Salem

Like Jackson, Salem used a team approach to maintain support of families during the Head Start years. When the child entered Head Start the family got a new family worker, one of several who specialized in working with families of older children. (The infant-toddler family workers were a separate group.) This new family worker, together with the Head Start teacher and perhaps other specialists on the CFRP staff, made up a team that arranged regular visits to the family. As in Jackson, team members usually visited separately.

In general, home visits to Head Start families tended to focus on helping families to meet their basic needs. Somewhat less emphasis was placed on the parent as the primary educator of her own children and on issues related to child development. This was particularly evident in one of the programs not included in the evaluation, where CFRP was viewed as the "social service" component of Head Start.

4.3 Conclusions

In sum, the transition from the Infant-Toddler Component to Head Start showed mixed results. The programs that seem to have been most effective in enrolling CFRP children in Head Start were sites where ties between CFRP and Head Start were strong. Such links also facilitated continuity of services as children reached preschool age. Aside from organizational links, the sharing of facilities by CFRP and Head Start seems to have contributed to a smooth transition process. These two factors combined explain the high Head Start enrollments in Jackson, Las Vegas and Salem and the less effective transition process in the St. Petersburg and Oklahoma City sites.

CHAPTER 5

THE IMPACT OF CFRP

This chapter assesses the effects of CFRP on outcomes in the five domains that were identified in Chapter 1: children's cognitive, social, and physical development; parental teaching skills; child and family health; family functioning; and family circumstances. The chapter begins with an introductory section outlining our analytic approach; this section deals not only with statistical issues (in terms accessible to the general reader), but also with broader strategic and philosophical considerations.

5.1 Analytic Approach

From the outset of the evaluation, ACYF and Abt Associates recognized that assessing the effects of a program as complex as CFRP would be a formidable task. Reasons for this difficulty fell into several categories. Examining the different types of challenges that we faced will make clear many of the considerations underlying our general analytic approach.

The most important challenges were conceptual and philosophical. CFRP was a demonstration program. Its aim was not only to benefit participating children and families, but to provide lessons on which future programs could draw. A program can provide lessons through its failures as well as its successes. Often, failures are due to problems of implementation, rather than to inadequacies in a program's underlying rationale. (Conversely, successes do not necessarily imply that the rationale is a good one.) Thus, evaluators must try to answer two quite different questions: (1) Did this program, as it was actually carried out, achieve its desired ends? (2) What does the program's experience teach us about the soundness of the underlying rationale and about ways of realizing similar goals in the future? In assessing the effects of CFRP, we tried to remain aware of this important distinction. We tried to gauge the program's overall impact, but we also looked for examples--even isolated examples--of strong positive effects when the program was working at its best. Similarly, we tried to determine whether any of the program's failures could be traced to specific, correctable problems of implementation.

The remaining challenges were more technical in nature. They involved issues of measurement, statistical analysis, and sampling. First, because the program's goals and services were so comprehensive, available quantitative measures could not do them full justice. While measures existed (or were developed) for many outcomes within each of the five domains, other desired outcomes were not feasible to measure. (See Section 1 of Appendix B.) Thus, the quantitative portions of the evaluation--the impact and process/treatment studies--were inherently limited in scope. We therefore drew on the ethnographic study, which provided a wealth of qualitative outcome data, to augment the quantitative measures. In addition, the program and ethnographic studies gave insights into the reasons for observed patterns of effects.

Second, the diversity of the programs, as described in previous chapters, necessitated a correspondingly complex set of statistical analyses. Simple, overall comparisons of outcomes for families in the CFRP group versus those in the control/comparison group were important but not enough. Dramatic variations from site to site in program approaches and populations served made it necesssary to pay careful attention to site differences in outcomes. Individualization of services within sites made it necessary to examine patterns of outcomes for different types of families. Wide variation in levels of participation made it necessary to look for differences in outcomes that might be linked to participation rates.

Third, because the study extended over a three-year period, many families dropped out of both the CFRP and control/comparison groups. The original sample of 409 families was cut to 247; 111 in the CFRP group and 136 in the control/comparison group (averages of 22 and 27, respectively, per site).* Substantial attrition had been expected, and the original sample had been chosen to allow for it. Consequently, though attrition reduced the

*The results reported below are based on fewer than the full set of 247 study participants. The small group of Hispanic, Asian, and American Indian families in the sample was excluded from most analyses, leaving the study's two major ethnic groups--blacks and non-Hispanic whites. In addition, there were missing data on particular measures for some individuals. Most findings are based on n's in excess of 200; the range was from 165 to 243. Appendix B, Section 3, provides detailed information.

study's statistical power (its capacity to detect program effects), the reduction was not catastrophic for comparisons involving the sample as a whole. If CFRP had medium-to-large effects on any of our outcome measures, we could be quite confident of finding statistically significant* differences between the CFRP and control/comparison groups. However, small effects might easily be missed, even for the sample as a whole, and power to detect effects of any size within subgroups and single sites was weak. Therefore, in examining effects for various subsets of the sample, we gave a lot of attention to the direction and consistency of effects and did not confine our interpretation solely to effects that were significant at conventional levels.

Equally important, somewhat different types of families dropped out of the CFRP and control/comparison groups. The groups, which had been randomly selected and were virtually equivalent at the beginning of the study, were no longer equivalent at the end, when most outcome measures were taken. A variety of statistical adjustments were needed to compensate for the nonequivalence of the two groups (see Appendix B, Sections 2 and 3).

Our general approach to assessing CFRP's effects, then, involved several elements. To focus first on the quantitative analyses: We began by looking for overall program effects on each outcome measure--that is, for statistically significant differences between CFRP and control/comparison families, after adjustment for nonequivalence of the two groups. These analyses involved the whole sample. They were performed in several ways to ensure that results were stable in the face of technical variations. (See Appendix B, Section 3, for further details of these analyses and others described below.)

We next looked for evidence of differences across sites in the magnitude and/or direction of program effects, technically called "program-by-site interactions." These analyses also took advantage of the statistical

*See footnote on p. 42.

power of the full sample. Surprisingly, despite the apparent diversity among CFRPs, there were almost no statistically significant differences of this kind. (The one exception was a significant site difference in CFRP's effect on Head Start enrollment.) Nevertheless, we pursued the issue of site variation in another way, examining CFRP-control differences within sites individually. We found a number of outcomes for which CFRP had significant or near-significant effects in some sites, but not others.*

Next, we partitioned the sample in a variety of ways, to determine whether CFRP had different effects for different types of families with potentially different patterns of needs. Finally, we examined the effects of different degrees of program participation within the CFRP group. The findings from these two sets of analyses are reported in Chapter 6.

Supplementing all of the above quantitative analyses, we searched for corroborating or disconfirming evidence in the qualitative data provided by the program study, and especially by the ethnographic study. The qualitative data conveyed very definite impressions of CFRP's general strengths and weaknesses which could be checked against the statistical findings. As indicated earlier, these impressions were based on a wider range of outcomes than could be captured with our quantitative measures. In addition, the qualitative data contained many individual examples of success in areas where CFRP was generally weak, pointing to the program's unexploited potential. The data also contained clues about needed improvements in implementation, many of which were foreshadowed in previous chapters.

*It is important to distinguish these site-specific effects of CFRP from other possible meanings of the term "site differences." "Site differences" might refer to differences in absolute levels of outcomes, for example, differences in developmental scores of children in both the CFRP and control groups from site to site. (There were numerous site differences of this kind, for some developmental scores and many other outcome measures.) Such differences reflect the diversity of populations at different sites, but tell us nothing about the effectiveness of programs. Because this chapter focuses on program impact, such differences are of secondary importance and are not discussed systematically.

5.2 Overview of the Findings

Each of the following sections covers one major outcome domain. Each begins with a brief discussion of the quantitative measures that were used in the designated domain. (More detailed discussion of measures appears in Appendix B, Section 1.) Next appear findings on the overall effects of CFRP, followed by a discussion of site-specific effects. Finally, each section concludes with a discussion of the qualitative data and the insights they add to the quantitative findings.

Outcomes are discussed in an order that roughly parallels the chain of causality assumed by CFRP: The program provides support services in order to improve family functioning, and to ensure physical well-being; those improvements, together with parent education, provide an improved context for child development, which is the ultimate aim of the program.

We focus first on CFRP's effects on the concrete circumstances of the family--education, employment, income, and the like. Although improvement in family circumstances was not formally part of CFRP's mandate, many of the program's support services addressed needs in this area. Results were encouraging: CFRP mothers were more likely than control mothers to be working, in school, or in job training. CFRP families also used a wider range of community services than did control families.

We next examine, in order, CFRP's effects on family functioning, child and family health, parental teaching and caregiving skills, and child development. In the area of family functioning, CFRP had significant positive effects on parental feelings of efficacy and ability to cope. The program had only modest effects at best on measures of preventive health care for children and families, and no effects on measures of children's growth. CFRP did influence parental attitudes and childrearing practices, but these changes did not carry over into measurable effects on children's social and cognitive development. However, participation in CFRP significantly increased children's chances of enrolling in Head Start.

5.3 Family Status and Circumstances

Local programs recognized that it was often necessary to meet a variety of pressing needs in order to strengthen the family internally and to create an atmosphere in which the family would be receptive to education in child development. Obviously, CFRP did not have the resources to provide education, jobs, housing, or income supplements directly. However, as shown in Chapter 2, the program engaged in extensive counseling and referral to put families in touch with existing resources relevant to their economic needs.

We attempted to measure CFRP's effectiveness in improving family circumstances through a series of interview questions at several time points throughout the evaluation, including the final parent interview conducted when the study families had completed the Infant-Toddler Component (fall 1981). Data collected at that time covered the following topics:

1. Employment: Was the mother employed in fall 1981?

2. Education: Was the mother in school in fall 1981? Had she been in school during the three years of the study?

3. Job Training: Was the mother in a program of vocational training in fall 1981? Had she received vocational training in the three years of the study?

4. Sources of Income: Were wages the family's primary source of income? What other income sources did the family have?

5. Public Assistance: Did the family receive benefits from AFDC, food stamps, WIC, or Medicaid?

In the discussion below, we treat the first three measures jointly, as a composite index of economic self-sufficiency in the long and short run. While employment alone may appear to be a measure of self-sufficiency, it is in fact a misleading indicator for low-income families. It is well documented

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 mobility. In the long run, it appears that the most effective means for improving the economic outlook for these families is to increase their eligibility for better, higher-paying jobs. The most obvious means for attaining this objective is job training or an upgrading of mothers' educational status. Thus, we look at CFRP's effects on work status not in isolation, but in concert with measures of education and/or job training.

Overall Effects of CFRP

To assess CFRP's effects on family circumstances, we compared the status of the CFRP and control groups on each of the above measures at the end of the Infant-Toddler Component (fall 1981), adjusting statistically for differences that had existed at the beginning of the study ("baseline," or fall 1978). The results can be illustrated by graphs showing proportions of CFRP and control mothers who fell into various categories at baseline and the end of the study.

Figure 5-1 depicts the situation for employment and training. ("Training" here includes both formal education and vocational training.) The figure shows a dramatic increase in employment and/or training for both CFRP mothers and controls. The percentage of CFRP mothers who were employed, in training, or both employed and in training jumped from 37.1 percent in 1978 to 74.3 percent in 1981--an increase of 37.2 percent. The corresponding increase for control mothers was 28.5 percent. The difference--CFRP's overall effect--was marginally significant.

Figure 5-2 gives a closer look at the transitions made by individual mothers. Among those who initially were neither working nor in training,

Figure 5.1
Percent of Mothers Employed and/or in Training at Baseline and End of the Evaluation (CFRP vs. Controls)

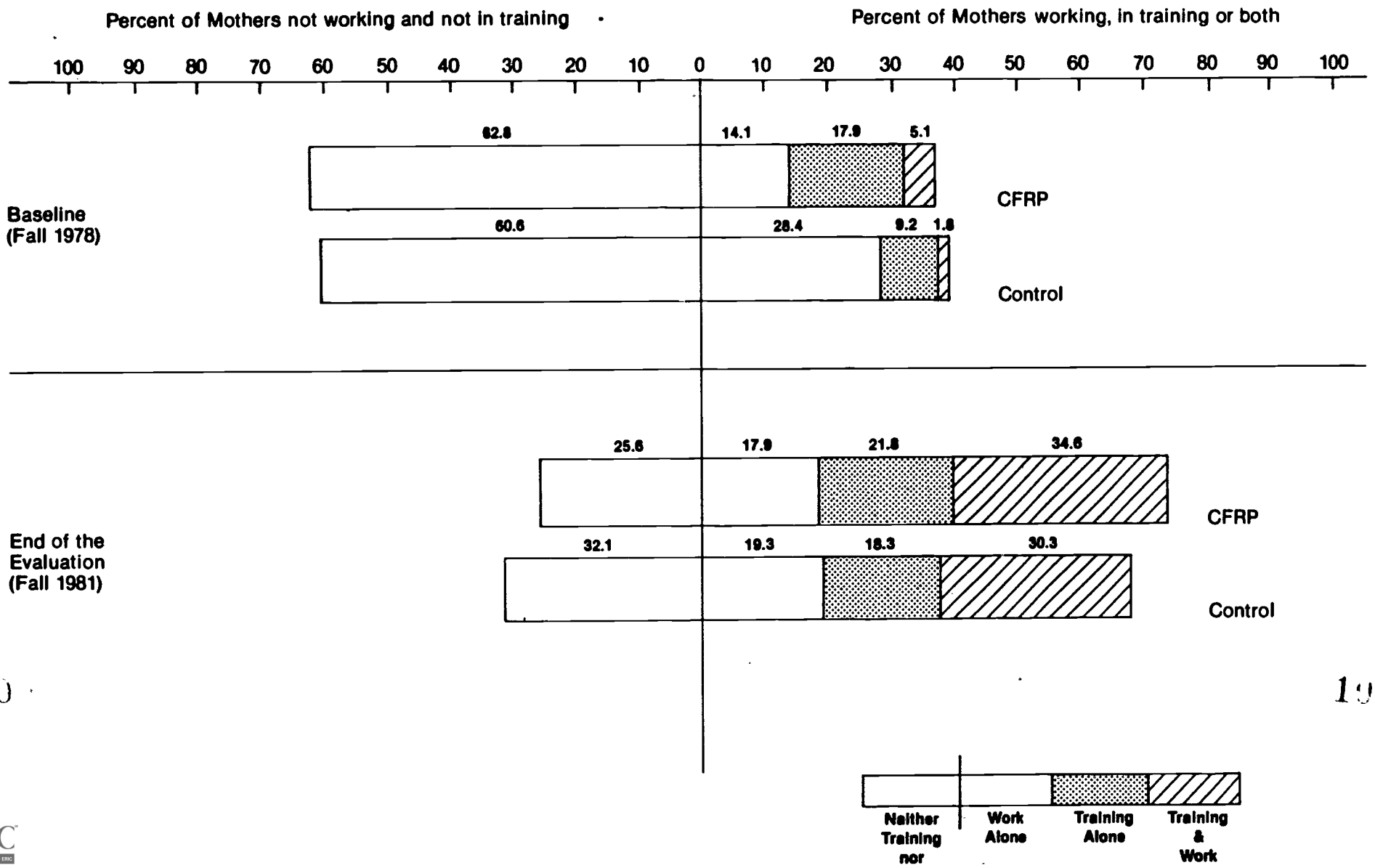
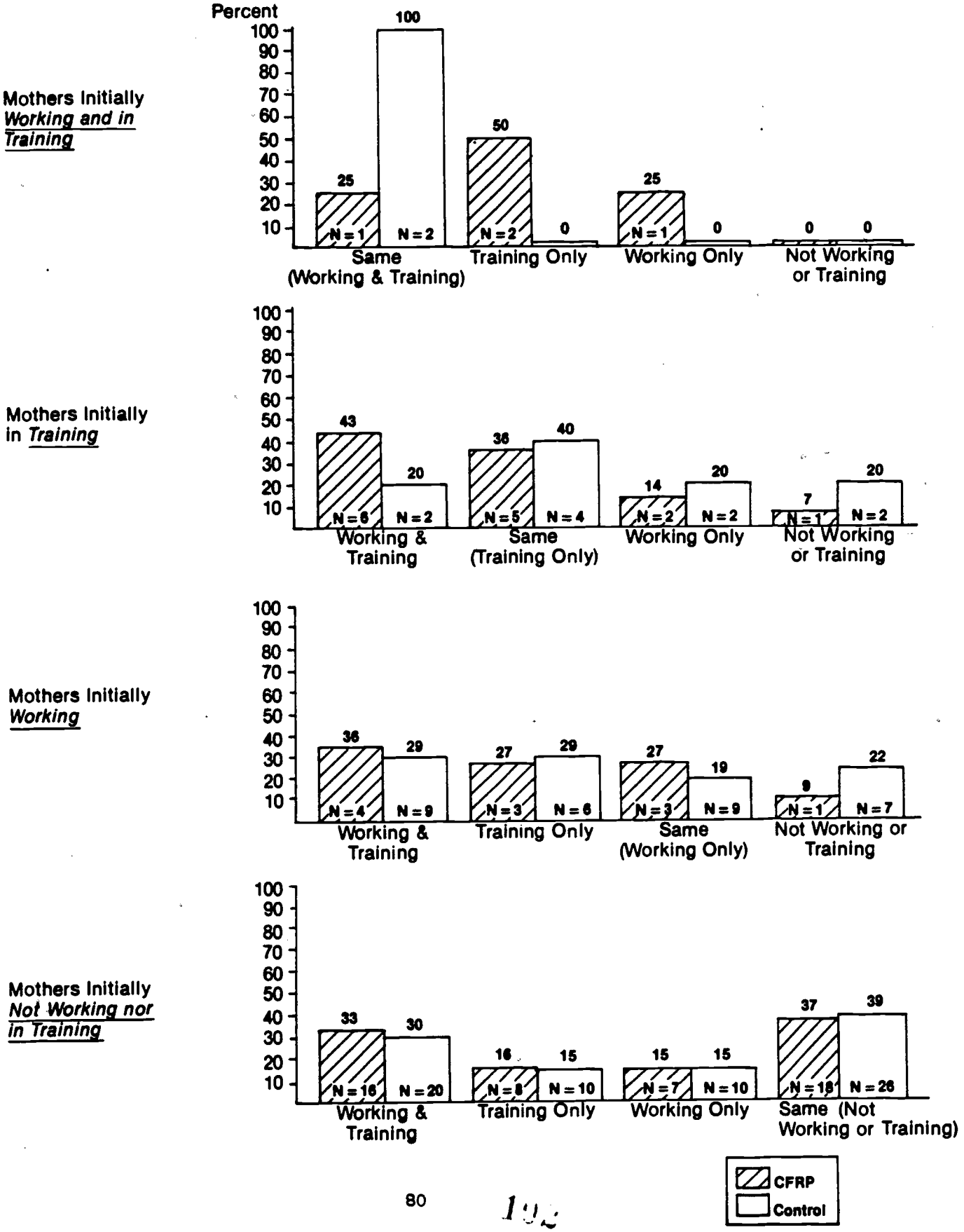


Figure 5.2
Change in Mother's Working Status from Baseline to End of Evaluation (CFRP vs. Controls)



nearly two-third moved to work, training, or both. The pattern of transitions in this group was quite similar for CFRP and control mothers, showing only a very slight advantage for CFRP. CFRP's benefits were more pronounced among the groups who initially were either working or in training. Numbers in these groups were small, but trends were fairly clear: CFRP mothers who were working in 1978 tended to keep their jobs, whether or not they went into training, more than control mothers. CFRP mothers initially in training tended to get jobs as well. (Numbers of mothers who were initially at work and in training were too small to permit meaningful comparisons.) In addition, among the relatively few mothers who stopped working during the program, nearly all of the CFRP mothers obtained some training, compared with about half of the control mothers.

Figure 5-3 shows the shift in distribution of income sources for CFRP and control families from 1978 to 1981. For both groups, there was a shift away from reliance on assistance (including AFDC and other non-wage sources of income) toward reliance on wages. There was relatively little change in the proportion of families in both groups who depended exclusively on assistance; however, there was a decline in both groups in the proportion of families who relied on a combination of wages and assistance, and a corresponding increase in the proportion of families who reported exclusive reliance on wages.

The shift toward reliance on wages was more pronounced in the control group than the CFRP group. (The difference was marginally significant.) Related to this finding is the fact that CFRP families used more sources of public assistance (AFDC, food stamps, WIC, and Medicaid) than did controls. This difference was also marginally significant. Increases in use of public assistance within the CFRP group may have offset increases in wages for some of its members, so that the group as a whole did not shift toward primary or complete reliance on wages as much as the control group did. Most of the difference between CFRP families and controls was found among families which relied on a mix of wages and assistance (see Figure 5-4). Also related is the fact

Figure 5.3
Income Sources at Baseline and End of the Evaluation
(CFRP vs. Controls)

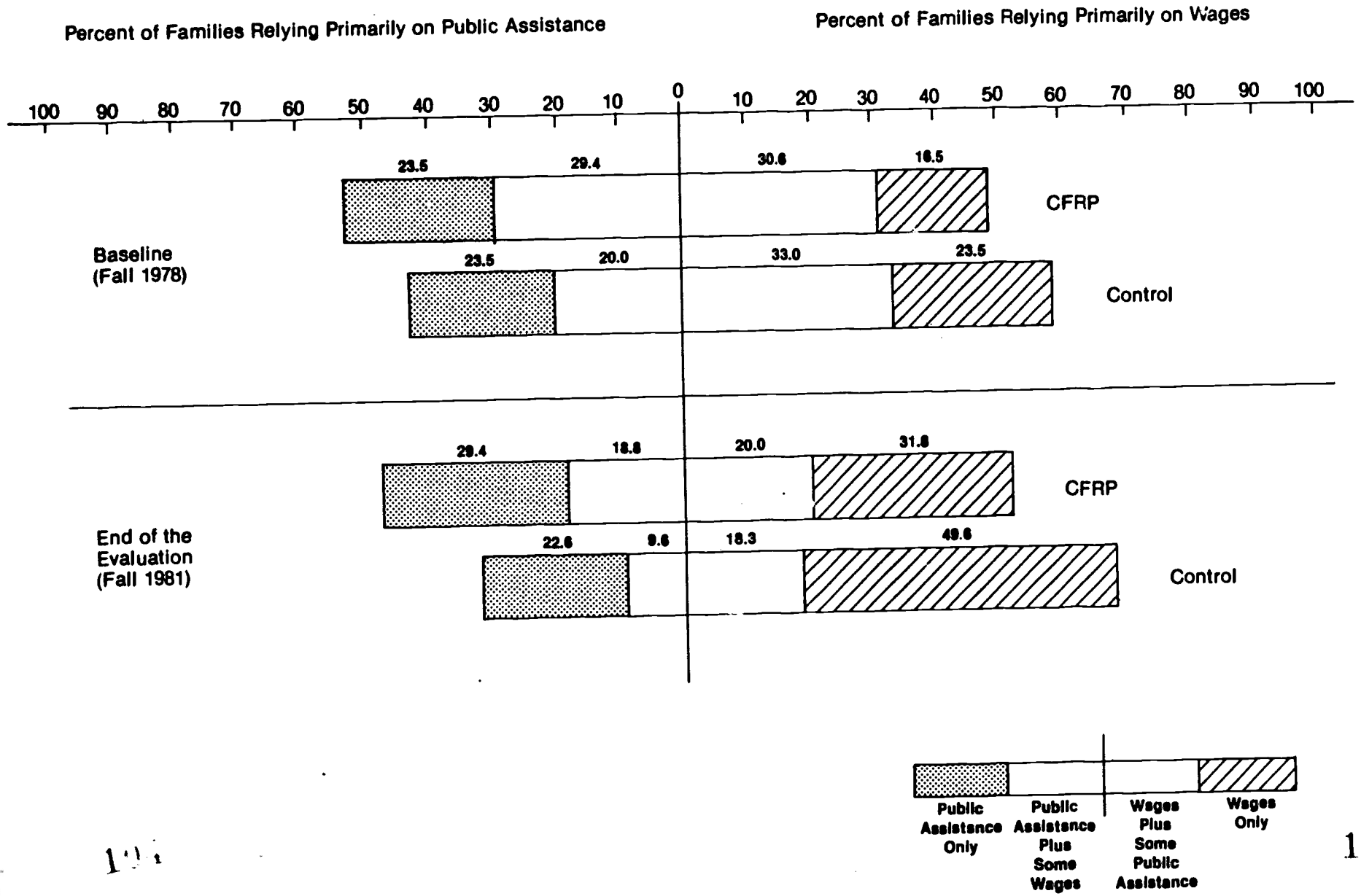
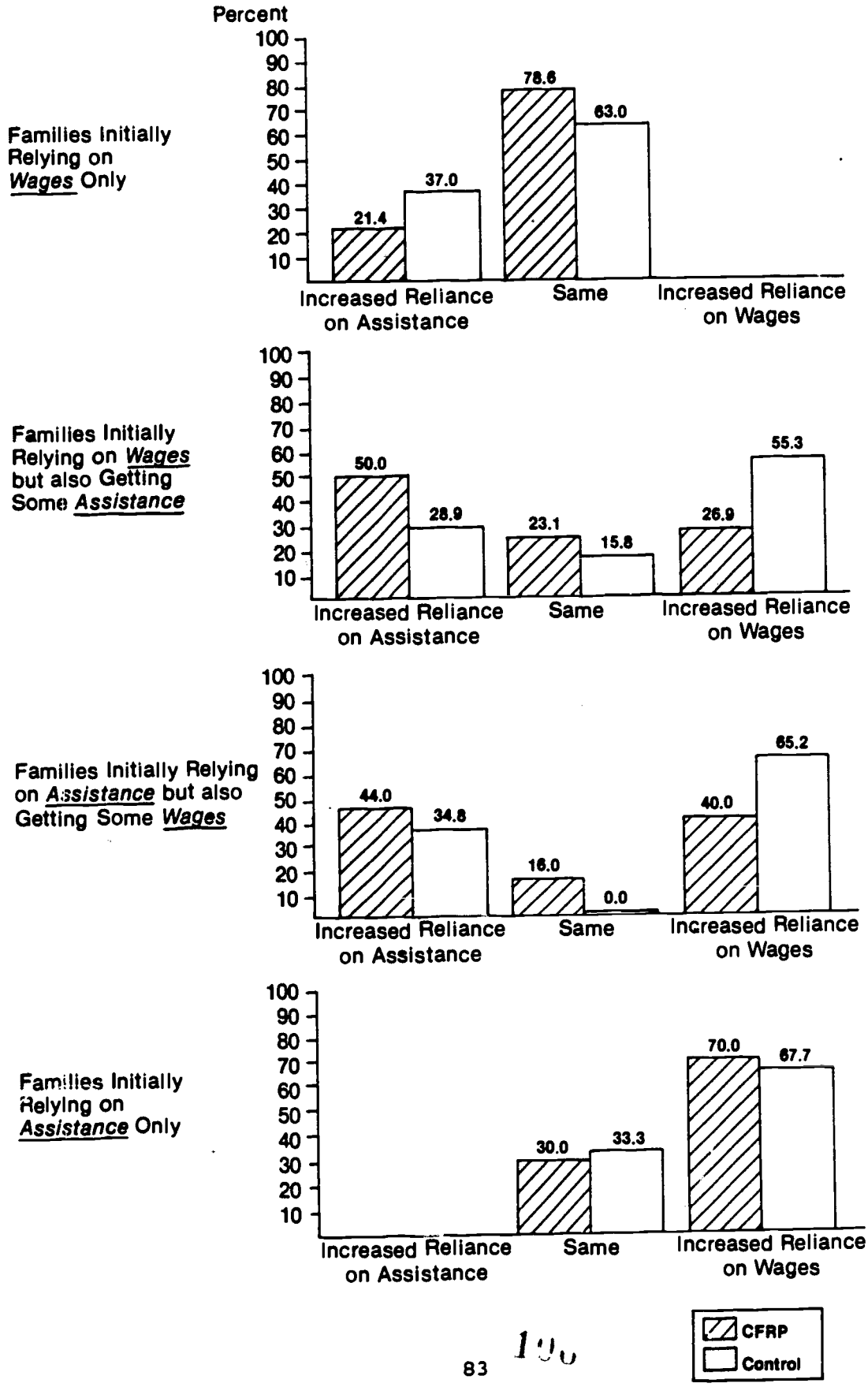


Figure 5.4
Change in Income Sources from Baseline to End of Evaluation (CFRP vs. Control)



that, among working mothers, those in CFRP were more likely to work part-time than those in the control group (35 versus 26%).*

Site-Specific Effects

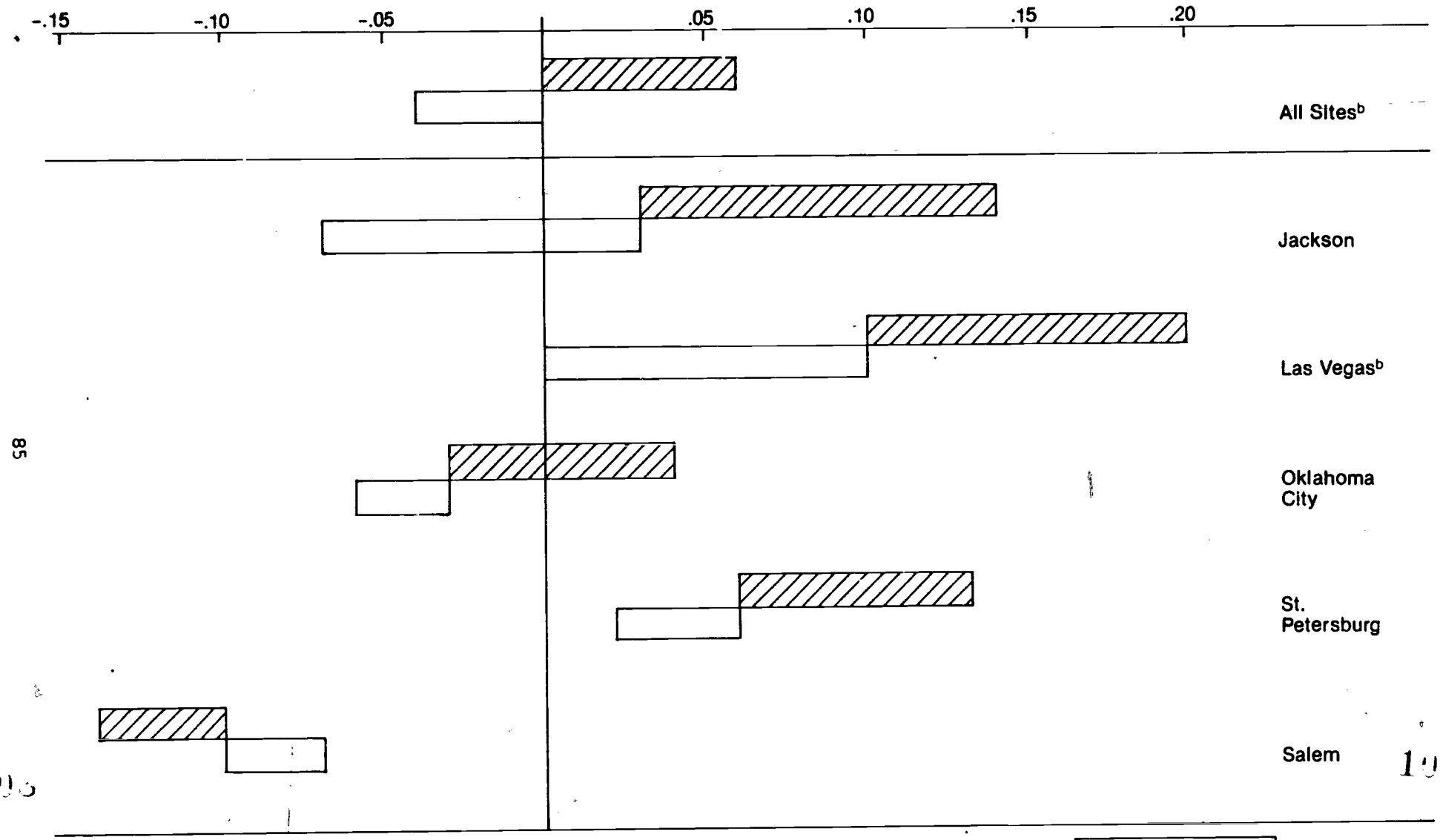
Site profiles for the family circumstance measures differed appreciably and, in some cases, within-site effects were statistically significant. At one extreme was Las Vegas, where CFRP families were much more likely than controls to be employed, to rely on wages, and to be in school or training. (All these differences were significant or nearly so.) At the other extreme was Salem, where CFRP families relied less on wages in 1981 than in 1978 and also relied less on wages than did controls (a significant difference). Salem CFRP families also showed a (nonsignificant) tendency to become unemployed over the course of the study, counter to the general trend toward increased employment. Other sites fell between these extremes.

Figure 5-5 illustrates the pattern of CFRP's effects on mothers' employment and training combined, by site. The program's positive effect on employment/training was found at all sites but Salem. The effect was largest in Jackson and Las Vegas and, as already implied, was statistically significant in Las Vegas. Salem was not only the one site where CFRP mothers were less likely to be in school and/or training than controls, but it was also the site in which by far the fewest mothers in both groups were employed or in training.

Reliance on wages showed a more complex pattern across sites (see Figure 5-6). Two sites showed a net increase in reliance on wages for all families, while three showed a net decrease, presumably due primarily to local

*We checked whether part-time work was associated with enrollment in school or job training, but found it was not. If anything, mothers working full-time were more likely to be in school or training than those working part-time. We also checked whether the change in reliance on wages could be explained by a change in the number of wage earners in a family. Reliance on wages was indeed related to the number of wage earners, but CFRP families and control families showed identical small increases in number of wage earners from 1978 to 1981; thus, this factor could not explain the group difference in reliance on wages.

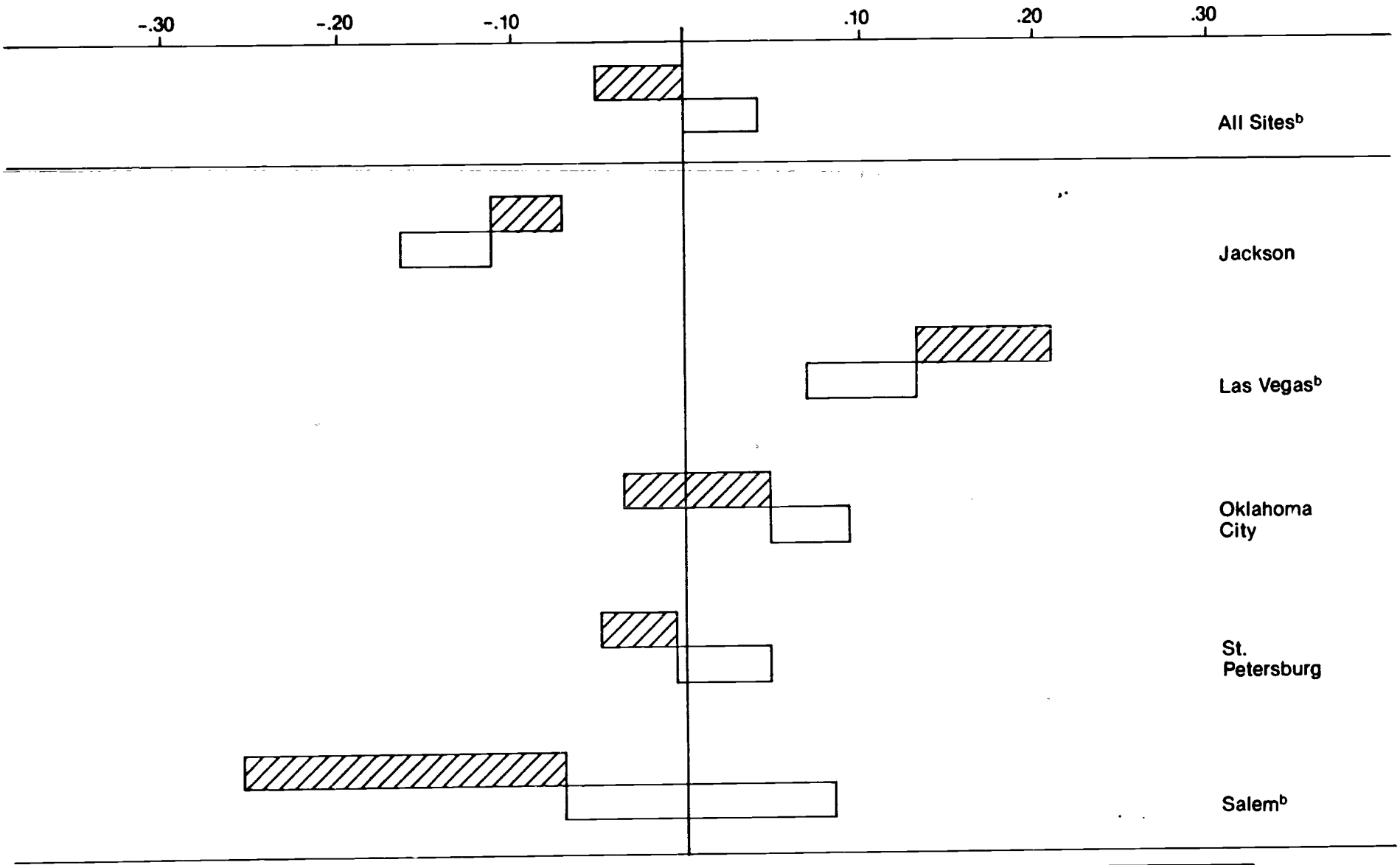
Figure 5.5
Change in Mother's Employment/Training from Baseline to End of the Evaluation, by Site (CFRP vs. Controls)



a) Change scores were calculated by a method explained in Appendix B, Section 3. Horizontal bars show negative or positive distance of CFRP and control groups from the site mean. Vertical line shows the mean for all sites.

b) Denotes a statistically significant or near-significant difference between CFRP and control groups.

Figure 5.6
Change in Reliance on Wages from Baseline to End of the Evaluation, by Site (CFRP vs. Controls)[a]



a) Change scores were calculated by a method explained in Appendix B, Section 3. Horizontal bars show positive or negative distance of CFRP and control groups from the site mean. Vertical line shows the mean for all sites.
b) Denotes a statistically significant or near-significant difference between CFRP and control groups.

economic conditions. The overall finding that control families relied more on wages than CFRP families was reflected in Oklahoma City, St. Petersburg, and Salem. The difference was large and statistically significant only in Salem. Jackson and Las Vegas ran counter to the general trend: CFRP families relied more on wages than did controls at both of these sites, though neither difference was significant.

Qualitative Evidence on Family Circumstances

The ethnographic and program studies give some insights into the reasons for the observed pattern of quantitative findings. They also underscore the existence of a tension built into CFRP, which was mentioned in Chapter 3.

One of CFRP's goals was to encourage independence and self-reliance. Parents could take an important step toward achieving this goal by going to school, enrolling in a training program, or getting a job. But, if they took that step, they moved away from the program and its other potential benefits. Field research by Abt staff during the program study gave a strong early signal that CFRP was not well organized to serve working mothers or those in school. Program activities generally came at inconvenient times and presented new obligations to mothers who were already overburdened. These early findings were reinforced by the ethnographers' field observations.

This tension was even more painful for the mothers themselves. Many wanted to work or attend school and break out of poverty, but had to depend on welfare and postpone their educational aspirations in order to fulfill their obligations as parents and providers for small children. Lack of day care or transportation exacerbated the tension for many CFRP mothers.

For example, a mother in Oklahoma City was determined to return to college, but found it necessary to work double shifts in a bakery to support her son and grandmother, who helped out with babysitting.[1/] Another Oklahoma mother had to stop her education when she could no longer afford it due to the

birth of her first child. She requested help from CFRP in getting educational loans, but found it necessary to work instead.[2/] In St. Petersburg, a mother planned to get more training in order to get a better job, but was forced to resume her old job because of an economic crisis in her family.[3/] These examples could be multiplied.

Individual CFRPs took different approaches to the tension between work/career advancement and parental responsibilities. Some encouraged work by helping mothers find jobs or training, as well as by providing necessary support services, such as day care. In Jackson, for example, a mother said that the program had stimulated her interest in going to college. Before enrolling in CFRP, she had never considered college--she thought she was "too dumb" and did not know there were financial aid programs to help with tuition.[4/] Other CFRPs openly encouraged mothers to leave jobs and go on welfare in order to reap the benefits of the program. One staff member was quoted as saying that she felt "punished" when a mother left the program to go to work.[5/]

Not surprisingly in light of the quantitative findings, Salem was the site that emphasized program participation most strongly, whatever its consequences for maternal employment or training. Our ethnographer put the matter delicately, stating that the program did not discriminate against working mothers but in favor of those who could participate actively.[6/] Since Salem CFRP participants were mostly single parents, who had no possible sources of wage income other than their own labor, a high degree of reliance on public assistance was inevitable.

Several factors combined to make Las Vegas unique in the opposite direction. Jobs were relatively plentiful in the local economy. The program had a strong "social work orientation," in contrast to Salem's "mental health orientation"; thus, the program tended to put relatively strong emphasis on tangible improvements in family circumstances. Finally, and perhaps most important, the program served many teenaged mothers and made an effort to help them complete school. Most of these teenagers lived in extended families and were supported partially or entirely by wages of others in the family. Thus,

it is not surprising that Las Vegas showed a high percentage of mothers working and/or in school, or relying on wages rather than on other sources of income.

Perhaps the ideal case for CFRP would be the one in which the mother "graduated" to school or work after having participated actively and gaining the full benefits of CFRP's program of parent education. The ethnographic study highlighted cases of this sort--for example, a 21-year-old Salem mother of two, in CFRP for four years, who had found a job as a swimming instructor at the local "Y" and was about to enter nursing school. "At the end of two-and-a-half years," she said, "I'll be a nurse and finished with welfare forever!"[7/] The quantitative data suggest that examples like this one were not isolated; at the same time, the example illustrates vividly the human meaning of the quantitative finding that CFRP was moderately successful at moving its participants into work or training.

The qualitative data also provide abundant support for the quantitative finding that CFRP tended to expand the scope of services received by the program's participants. The ethnographic study documents countless instances in which program staff helped parents to secure particular forms of public and private assistance--not only AFDC, food stamps, Medicaid, and WIC, about which we asked in the parent interview--but also short-term assistance with special problems, such as lost or stolen welfare checks, disputes over rent or phone bills, emergency needs for extra money for food, medicine, or even furniture, and referrals for health care, housing, day care, job training, and employment.

In addition, there was other evidence, obtained from public and private agencies in CFRP communities, that the program was an effective broker of social services. Agency views of CFRP were generally positive, as illustrated in the following comments:[8/]

- CFRP is a program that ensures that families do not "fall in the cracks" between the jurisdictions and mandates of more specialized agencies.

- In a community that is seriously deficient in delivery of services to the poor, "without CFRP people would have nowhere to go."

- CFRP is "an ombudsman for people who don't have a voice"; it is a program that takes advantage of available resources in the community, and in turn makes them available to families.

- CFRP "works just as effectively as you could possibly imagine," given its funding.

The last remark was by far the most common response of agency personnel to a question as to how CFRP might be improved: increase its funding and its coverage; and have more slots available for families that are referred to CFRP by community agencies, especially those in crisis situations or those with special needs.

The quantitative findings on public assistance, like those on employment and wages, are amplified and brought alive in the qualitative data. As one program director noted, CFRP helped "families to feel they're part of a community, that they can go to an agency--they have a right, the agency is there for them." As an important afterthought, she added, ". . . also, that CFRP will stand behind them."[9/]

5.4 Family Functioning

As noted earlier at several points, CFRP was premised on the belief that child development is best fostered within a secure family environment. A major aim of the program was to improve family functioning, which in turn was expected to mediate child development and other outcomes.

To determine whether the program affected family functioning, we explored a large number of family measures during early phases of the study (see Appendix B, Section 1). By the end of the evaluation, we had narrowed our focus to two closely related concepts: coping and independence. Coping and independence together define three stages in the development of family functioning within CFRP:

(1) The non-coping family is at the mercy of its environment. It fails to recognize problems that need to be dealt with, and it cannot deal with problems it does know about. Such a family usually lacks adequate support systems and has little knowledge of available resources which might be brought to bear on its problems. In relationship to CFRP, such families were highly dependent, expecting the program to do for them rather than to help them do for themselves.

(2) In the intermediate stage, the family is beginning to be aware of options and alternatives and of its own potential strengths, and to make choices. (Where CFRP was concerned, this was the beginning of separation--and sometimes, even, of rebelliousness on the part of the family.)

(3) The coping family sets goals and plans and works toward them. It is in the process of forming its own support system. (Coping families were relatively independent of CFRP, but were able to contribute to the program and even to offer help to other families.)

Questions intended to measure independence and coping were included in the fall 1981 parent interview:

(1) Independence: Did the parent know about and arrange for necessary services (public or private) on her own, or did she need help in finding and arranging services ("Independence A"--a two-point scale)? If help was needed, did the parent rely on public agencies, particularly CFRP itself, to arrange services, or did she turn to a friend or other private sources ("Independence B"--a four-point scale)?

(2) Coping: Did the mother feel confident about her ability to control events (internal locus of control), or did she feel passive and victimized by outside forces (external locus of control)? Locus of control was assessed by five interview items which required the parent to agree (on a five-point scale) with statements such as, "No matter how hard a person tries, she can't do much about what happens," and "when I make plans, I'm almost certain I can make them work." Responses to the five items (scored so that higher values represented a more internal locus of control) were combined to form the measure that we call coping in the tables below. (The coping measure had a potential range from zero to three.) In addition, because the locus-of-control items had been administered at baseline (fall 1978), as well as at the end of the study, we were able to measure change in coping over the course of CFRP's three-year Infant-Toddler Component. We computed a scale that distinguished mothers whose locus of control became less internal, mothers whose locus of control basically did not change, and mothers whose locus of control became more internal. (Appendix B, Section 1, contains more detailed discussion of this change measure.)

Overall Effects of CFRP

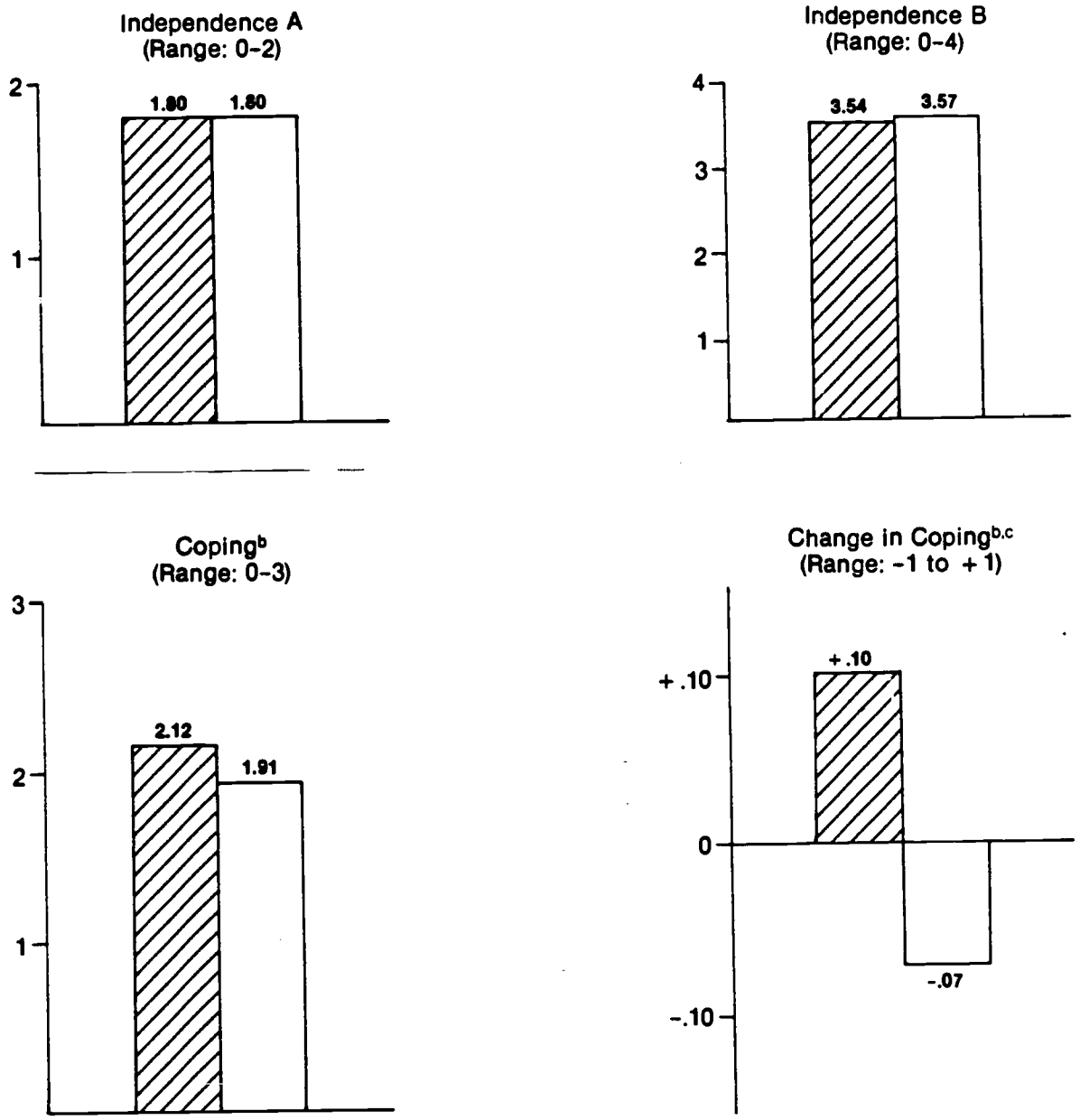
The effects of CFRP on independence and coping, as reported by parents, must be understood against a backdrop of the program's effects on tangible family circumstances. We have seen that CFRP helped parents move toward economic self-sufficiency through employment and/or training, and that it tended to increase the range of types of public assistance used by families. The questions of interest here are (1) whether improved circumstances were accompanied by enhanced feelings of personal efficacy, and (2) whether parents grew dependent on CFRP and other government agencies or instead learned to secure services for themselves.

Early findings[10] (after 18 months) suggested that--to some degree, at least--the program was replacing the informal support networks typically used by families. CFRP families tended to rely more on CFRP and other agencies for help in finding services, whereas non-CFRP families relied more on relatives and friends. One interpretation of this early finding was that CFRP might actually be increasing family dependence on the program and on other agencies. CFRP staff disputed this interpretation. Parents' dependence on community agencies might have increased in the short term because CFRP staff made them aware of the services available to them and encouraged them to use these services. However, staff claimed, in the long run parents' dependence would decrease as their ability to meet their own needs without outside help grew.

The two measures of independence (administered after three years in the program) partially confirm this hypothesis. There were no differences between the CFRP and control/comparison groups on the two measures. CFRP thus avoided the negative effects of increasing dependence. Neither, of course, did CFRP make participants more independent in securing social services (see Figure 5-7).

A more clearcut finding was that CFRP increased parents' feelings of efficacy, or ability to control events. After three years in the program, CFRP parents had significantly higher coping scores (Figure 5-7) than control/

Figure 5.7
CFRP's Effects on Family Functioning
(Adjusted means – CFRP vs. Controls)[a]



a) Scores are adjusted to take account of pre-existing differences between CFRP and control groups due to attrition.
b) Denotes a statistically significant or near-significant difference between CFRP and control groups.
c) Change scores were calculated by a method described in Appendix B, Section 3.

comparison parents. CFRP parents also showed more positive change in feelings of efficacy than did controls over the three-year period of the evaluation. These findings had further ramifications, as we demonstrate in Chapter 6.

Site-Specific Effects

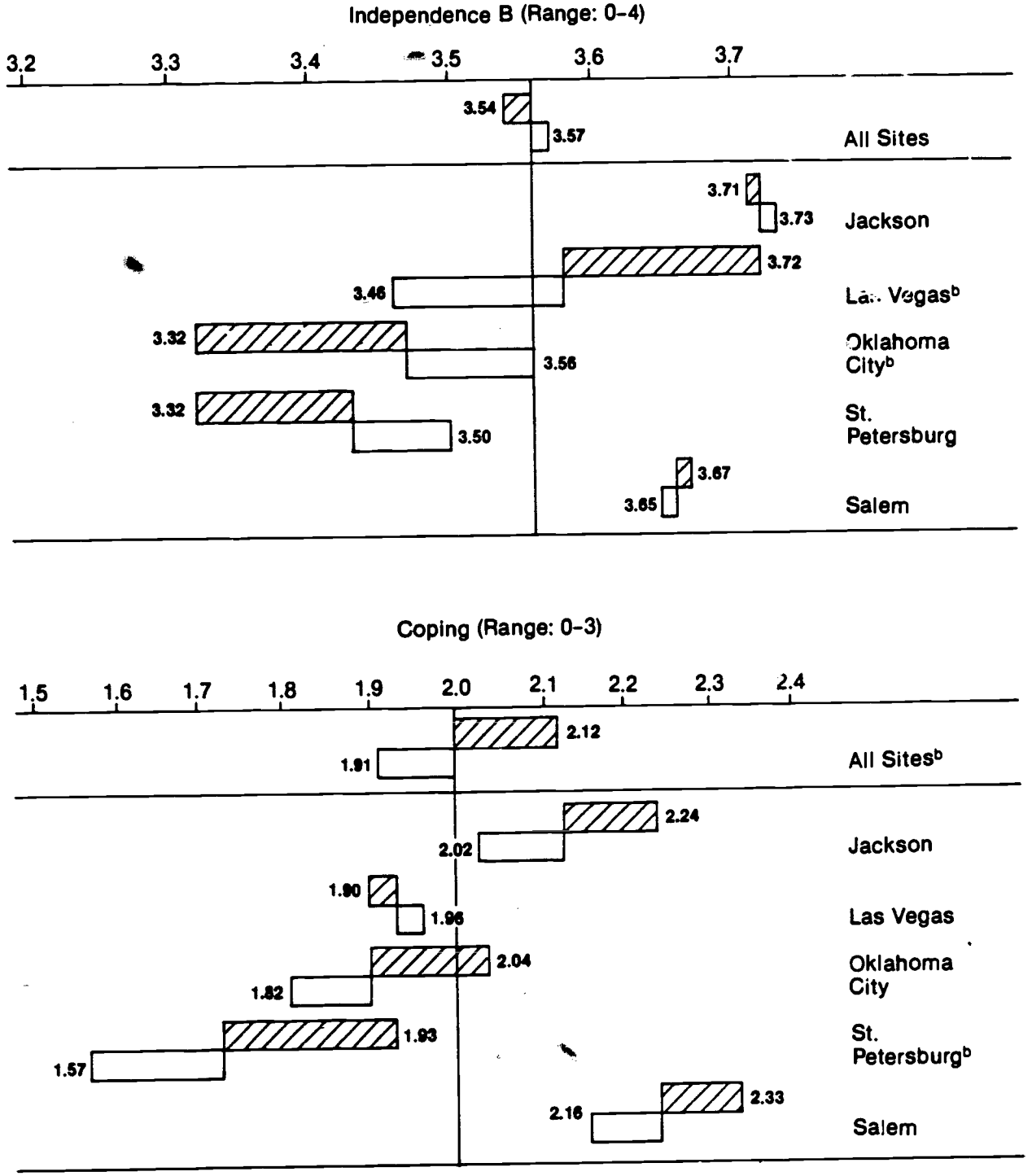
The pattern of CFRP's effects on the family functioning measures did not differ greatly from site to site. However, effects varied in magnitude--not usually in direction--from site to site, and there were some scattered, marginally significant within-site effects (Figure 5-8). In Las Vegas, independence scores were higher for CFRP parents than for controls. In St. Petersburg, scores on coping and change in coping were higher for CFRP parents than for controls.

Qualitative Evidence on Family Functioning

The ethnographic study was particularly rich in evidence regarding CFRP's effects on family functioning. On the whole this evidence accords well with the quantitative findings. The ethnographers were charged with the task of portraying the program as it was seen and lived by families. Their reports provided a wealth of information on the intangible but crucial shifts in attitude that took place in parents who were often badly demoralized at the start. Their accounts are highly individualized. Each mother had her own way of describing the changes that she had experienced; each ethnographer also had a unique way of perceiving and describing these changes. It was gratifying and a little surprising to find that these varied and subtle shifts were captured to some extent by such a simple measure as our "coping" scale.

Improvements in coping and other aspects of family functioning were prominent among the stated goals of all CFRPs--more so, in fact, than some of the aspects of child development that were important to the program's national managers and that we tried to measure. Salem's "Family Head Start Philosophy Statement 1980-81" is clear in its emphasis on parental (and

Figure 5.8
Selected Family Functioning Measures by Site[a]
(CFRP vs. Controls)



a) Scores are adjusted to take account of pre-existing differences between CFRP and control groups, due to attrition. Horizontal bars show positive or negative distance of CFRP and control groups from the site mean. Vertical line shows the mean for all sites.
b) Denotes a statistically significant or near-significant difference.

child) feelings of self-worth as ends in themselves.[11] First among its "positive characteristics of an effective family" the statement lists:

> Family members have a positive attitude toward themselves.
>
> Some effects of this quality can be:
>
> Self-awareness
> Self-acceptance
> Taking responsibility for own feelings and actions

Most programs linked the subjective aspects of coping to tangible effectiveness in dealing with family needs. In Las Vegas, for example, our ethnographer observed:

> The home visitors see the major goal of CFRP as being to teach or train families who are having problems coping with their daily lives. Advocacy is also part of their goal; they educate families concerning their rights to receive aid from the various programs available.[12]

At every site, testimony from mothers and staff members, as well as observations by the ethnographers, gave substance to the bare quantitative findings. In Salem a mother told how staff helped her to feel competent in dealing with a physically debilitated child:

> [They] helped me in accepting the problems I have with Jerry, and being able to make changes and follow through with them. I felt so helpless with him. If I hadn't made changes, he wouldn't be able to make the changes he had.[13]

Another Salem mother, faced with seemingly insurmountable problems--a serious blood disorder, drinking, a concern about a possible hearing impairment in her child, lack of sleep, a troublesome husband on parole after a conviction for drug offenses--said "I have Family Head Start and I can go on."[14] In Jackson, a family worker's written report proudly describes the "astounding progress" made by one mother:

> Three years ago [Sally] was living in a run-down apartment house. Her relationship with her children was very poor. She was taking so much nerve medicine that she had a very low response level. She did not take care of herself or her children very well, and she felt isolated from any type of social contact and stayed much of the time at home.

> Today, Sally has a job, has lost several pounds and looks good. She has bought her own home and takes pride in decorating it. She discusses her children's progress in school with good humor and much pride. Her eyes are clear and alert, and she rarely takes any nerve medication.[15]

In St. Petersburg, a mother of eight, beset by crises, at one point was so depressed that she wished to be reincarnated "as a rock." But our ethnographer watched her progress and later reported that she had "become more positive about herself and her future. She openly discussed her feelings about her life and her children . . . and . . . made some steps toward beginning vocational training. She also has volunteered to participate in some CFRP program activities and has been able to follow through on these commitments."[16]

These examples, which could easily be multiplied, illustrate the many faces of improved "coping" in CFRP. (See also the "success stories" in the 1980 Program Study Report.)

The qualitative data also confirm the more equivocal findings regarding "independence." While we have pointed out that CFRP did not increase certain forms of dependence among its participants, neither did it make them more independent--and independence was an explicit goal at some sites. The ethnographic study includes cases of families that did become self-sufficient. The Jackson mother described above is an example, and there were equally good examples at other sites. However, the case reports also make it clear that some families came to depend on CFRP and showed little sign of moving toward independence. The tension between the program's goal and the attitudes of some families was graphically illustrated in an argument between a mother and her family worker, who had urged the mother to arrange services for herself: "You're getting paid to get me these things," said the mother. The worker had to explain patiently that the larger purpose of her job was to help the mother stand on her own feet.[17] In Oklahoma City and St. Petersburg the issue of independence became the focus of intense discussion among staff, who found themselves besieged by requests for help. At

both sites staff decided that there was a need to re-emphasize to parents that CFRP's purpose was not merely to act as a brokering agency for services but to foster self-sufficiency and promote child development.

5.5 Child and Family Health

Health services for children and their families were specifically mandated in CFRP's Guidelines and were among the most important of the support services provided (directly or through referrals) by the five impact study programs. Measures of health care and health status were taken at several points in the evaluation. We focus here primarily on final health measures taken at the end of the Infant-Toddler Component (fall 1981), with secondary attention to measures taken earlier, after families had been in CFRP for 18 months (fall 1980).

The winter 1979-spring 1980 health data included parental reports on use of dental and medical care by children and families, on health status of children and parents, and on child immunizations. Also included were data on children's height and weight. Height and weight are considered to be general indicators of physical development: marked deviation from normal growth patterns may indicate nutritional or other physical deficits or disorders.

In fall 1981 six measures were used to assess the program's impact on children's health. Two of these were measures of preventive health care, collected in the 1981 parent interview: "Child Medical Checkups" (whether the child had a checkup in the last 12 months) and "Child Dental Checkup" (whether the child had ever been to a dentist). The remaining measures were indices of potential physical development based on children's status relative to national norms by age and sex: "At risk for height" (below the 5th percentile for height), "At risk for weight" (below the fifth percentile for weight), "Underweight" (below the 5th percentile in weight for height) and "Overweight" (above the 95th percentile in weight for height). Immunization measures were not repeated, because immunizations were required for entry into Head Start at most sites; it was therefore assumed that CFRP children would be properly immunized.

Also in fall 1981, three measures were used to assess CFRP's effects on health care for the mother and family. All were based on questions included in the parent interview: (1) Had the mother had a dental visit in the past year? (2) Did the family have health insurance? (3) Had the family experienced difficulty in obtaining health services--for example, unaffordable services, unavailability of services or lack of transportation?

Overall Effects of CFRP

CFRP had almost no effect on any of the health measures either in 1979-1980 or 1981. In 1979-1980, when children had been in the program for 18 months, some of the immunization measures (measles, mumps, and rubella) showed a significant program-control difference. The remaining immunization measures, as well as measures of preventive health care and children's stature, showed no difference.[18/]

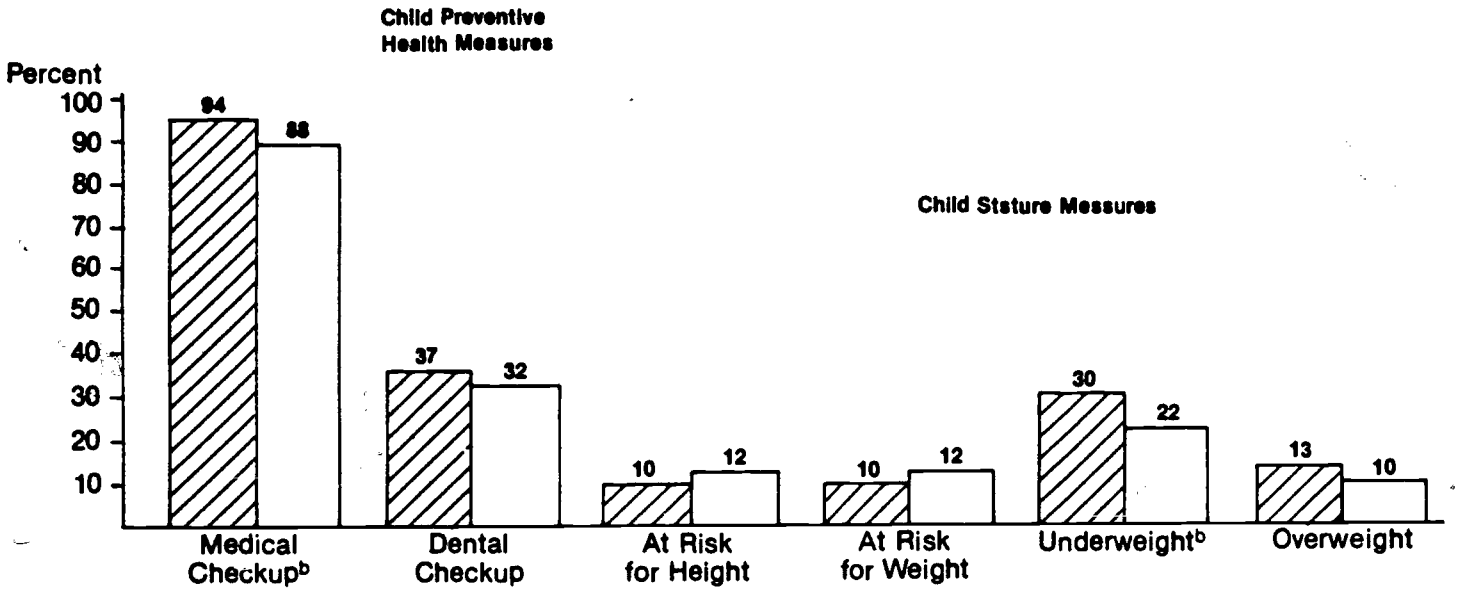
In 1981, at the end of the Infant-Toddler Component, CFRP children were slightly more likely than control children to have had recent medical checkup. (The difference was marginally significant; see Figure 5-9.) On the remaining service measures (dental care for children and mothers, health insurance, and difficulty obtaining health services), CFRP families were a little better off than controls, but none of the differences was statistically reliable. The stature measures showed no positive differences favoring CFRP. There was one anomolous, marginally significant difference favoring the control group.

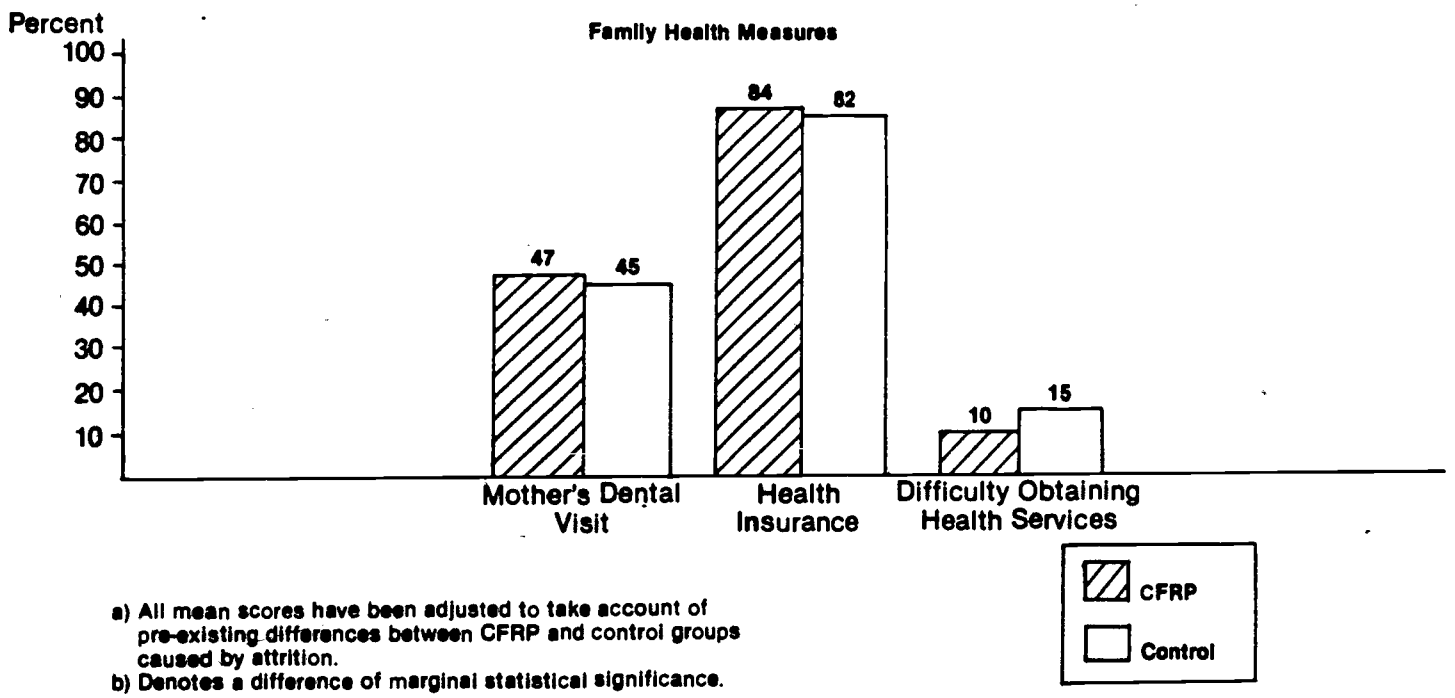
Site-Specific Effects

There were only modest variations in CFRP's effects on health services from site to site. Figure 5-10 displays data for two health measures which showed significant effects within particular sites.

CFRP's effects on dental checkups for mothers varied across site because of an anomolous situation in Las Vegas, where 72 percent of controls, but only 38 percent of CFRP mothers, had visited the dentist in the past year. In all other sites, CFRP mothers were more likely than controls to have received dental care in the past year.

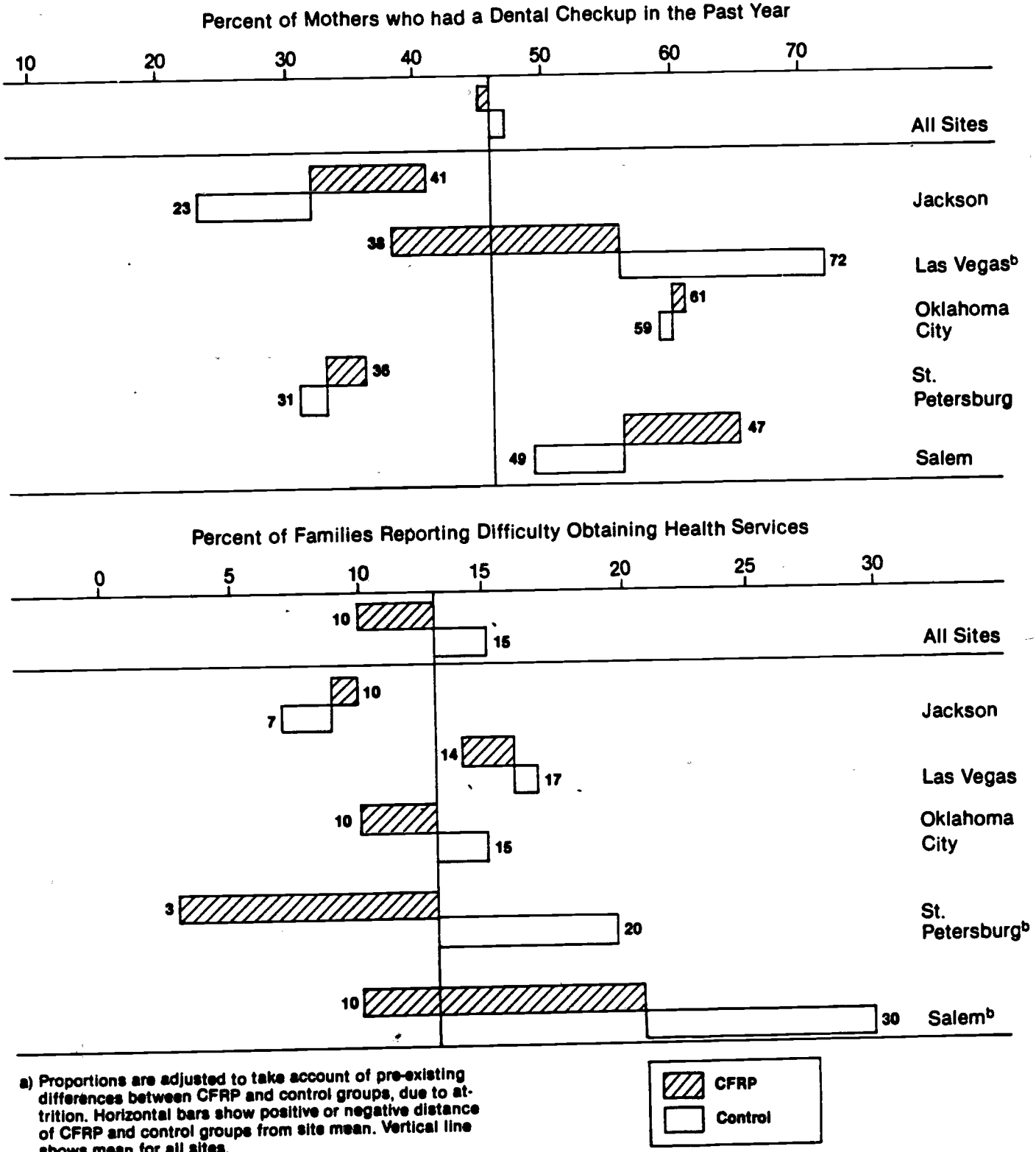
Figure 5.9
Overall Effects of CFRP on Child and Family Health (Adjusted Mean Scores on Health Measures, CFRP vs. Control)[a]





a) All mean scores have been adjusted to take account of pre-existing differences between CFRP and control groups caused by attrition.
b) Denotes a difference of marginal statistical significance.

Figure 5.10
CFRP's Effects on Selected Health Measures, by Site[a]



a) Proportions are adjusted to take account of pre-existing differences between CFRP and control groups, due to attrition. Horizontal bars show positive or negative distance of CFRP and control groups from site mean. Vertical line shows mean for all sites.

b) Denotes a statistically significant or near-significant difference between CFRP and control groups.

In St. Petersburg and Salem, CFRP parents reported less difficulty obtaining health services than control parents. Salem CFRP families were also somewhat more likely to have health insurance than control families--a difference not shown in Figures 5-9 and 5-10. All of these differences were marginally significant. At most other sites, CFRP families also fared better than controls on these measures, but by very modest amounts that did not approach significance. For other measures of health care, the pattern also was one of small, nonsignificant differences favoring CFRP at most sites.

Qualitative Evidence on Family Health Services

The general weakness of program effects on child and family health measures is somewhat surprising. Both the program study and the ethnographic study show that CFRP staff devoted considerable energy to referring families for needed services of all kinds, and in some cases to providing the services directly. Health was high on the list of services provided.

One possible reason why there were few appreciable treatment/control differences on health measures is that all families give health a high priority; thus control families may have made special efforts to secure health services for themselves, or they may have been helped by other public agencies. Several of the health measures indicate that families in both the CFRP and control groups were fairly well served. For example, almost all children (88 to 96%, depending on the site) had recent medical checkups. Most families (77 to 97%) had health insurance. Few families (9 to 21%) reported difficulty obtaining health services. Given this generally satisfactory level of service in some health areas, there was little room for CFRP to show an advantage.

5.6 Parental Teaching Skills

Because CFRP was committed to helping the child through the family, one of its primary strategies for enhancing child development was parent education. "If the parent knows, the child grows"--a slogan in St. Petersburg--captures a philosophy that prevailed at all sites.

A variety of instruments were used to measure parents' childrearing attitudes, knowledge, and practices throughout the study. Two are discussed here. First, Dr. Jean Carew's Toddler-Infant Experiences System (TIES), a system for coding parent-child interaction in natural settings, was used in a small-scale observational study in 1980, when families had been in CFRP for about 18 months. The study was conducted in two sites--St. Petersburg and Oklahoma City. It compared the behavior of 30 CFRP parents, 15 at each site, all of whom were highly active participants in the program, with 30 carefully matched control parents.

Second, at the end of the three-year Infant-Toddler Component, the full sample of CFRP and control parents completed the Parent-as-a-Teacher (PAAT) scale as part of the 1981 parent interview. The PAAT was developed by Dr. Robert Strom of Arizona State University and recently was recommended for use in evaluating parent education programs by the U.S. Department of Education.

The PAAT has 50 items, each of which requires the parent to agree or disagree (on a four-point scale) with statements about his or her own attitudes and practices relevant to childrearing. For example:

"I get tired of all the questions my child asks."

"I try to praise my child when we play."

"I feel able to give my child the proper preschool experience at home."

The author divides the PAAT into five domains of ten items each, as follows: (1) Creativity--encouragement of the child's imagination and curiosity; (2) Frustration--absence of frustration or irritation with the child's demands for attention and other commonplace behaviors; (3) Control--willingness to allow the child choice and initiative, rather than attempting to structure the child's behavior; (4) Play--understanding of the developmental function of play and willing participation in play with the child; and (5) Teaching--confidence in the parent's role as a teacher and understanding of learning processes in young children.

Overall Effects of CFRP

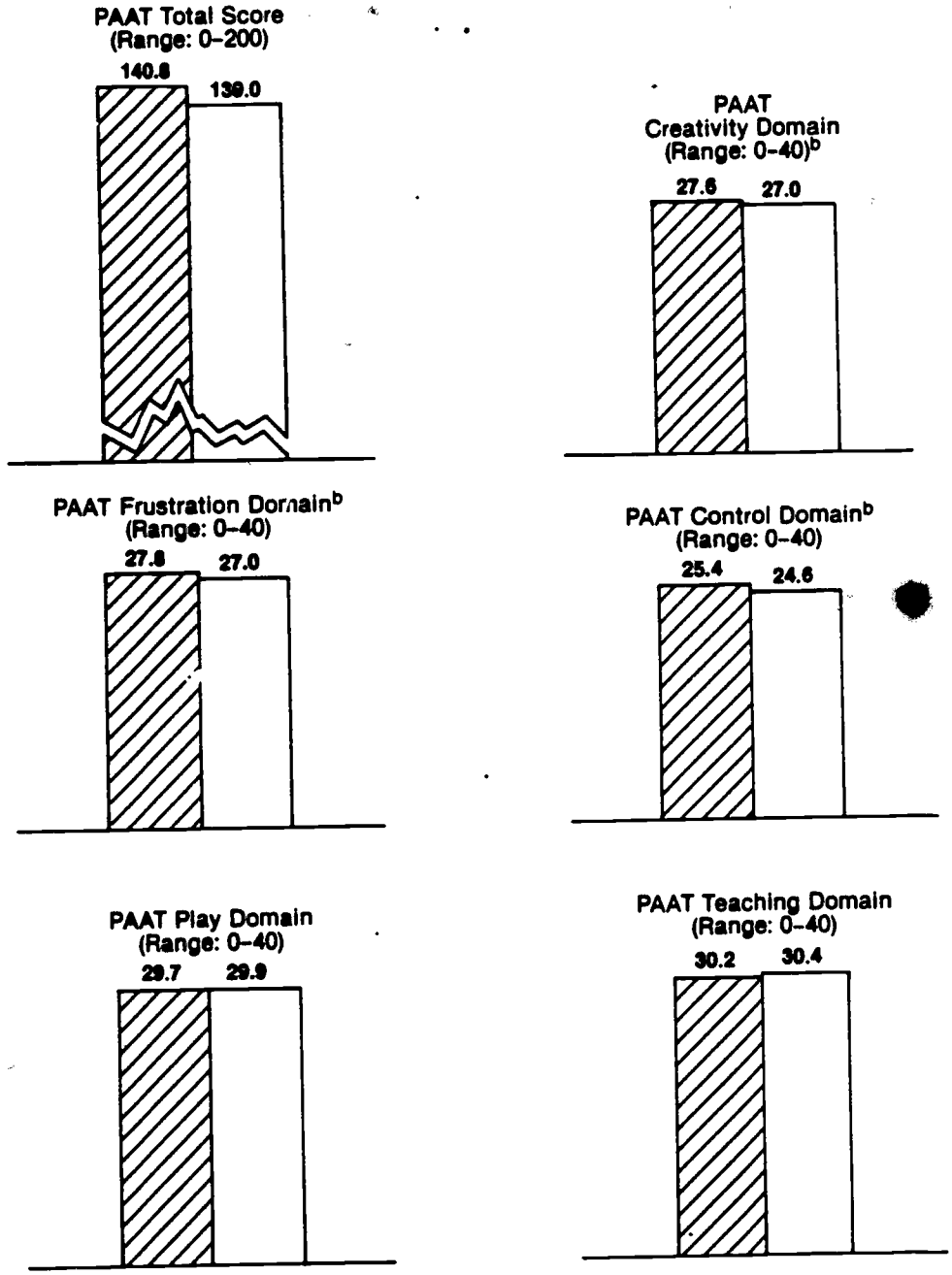
CFRP parents scored higher than those in the control/comparison group in three of the five domains of the PAAT. Results, based on a sample of 214 parents, are shown in Figure 5-11. The program's effects on scores in the Frustration and Control domains were large enough to be statistically significant, and the result in the Creativity domain was marginally significant. (As a consequence, CFRP's effect on the total PAAT score, summed across all domains, also was marginally significant.) CFRP mothers expressed less frustration with potentially irritating aspects of children's behavior, and greater willingness to give children freedom to make choices, than mothers in the control/comparison group.

Self-reports may not always reflect accurately what parents really do; we did, however, find some confirmation in the two-site observational study. After 18 months, the sample of high-participating CFRP parents, observed in their homes, interacted more with their children and devoted more of their interaction to teaching, especially of language and mastery skills, than the closely matched group of parents in the control/comparison group.

Site-Specific Effects

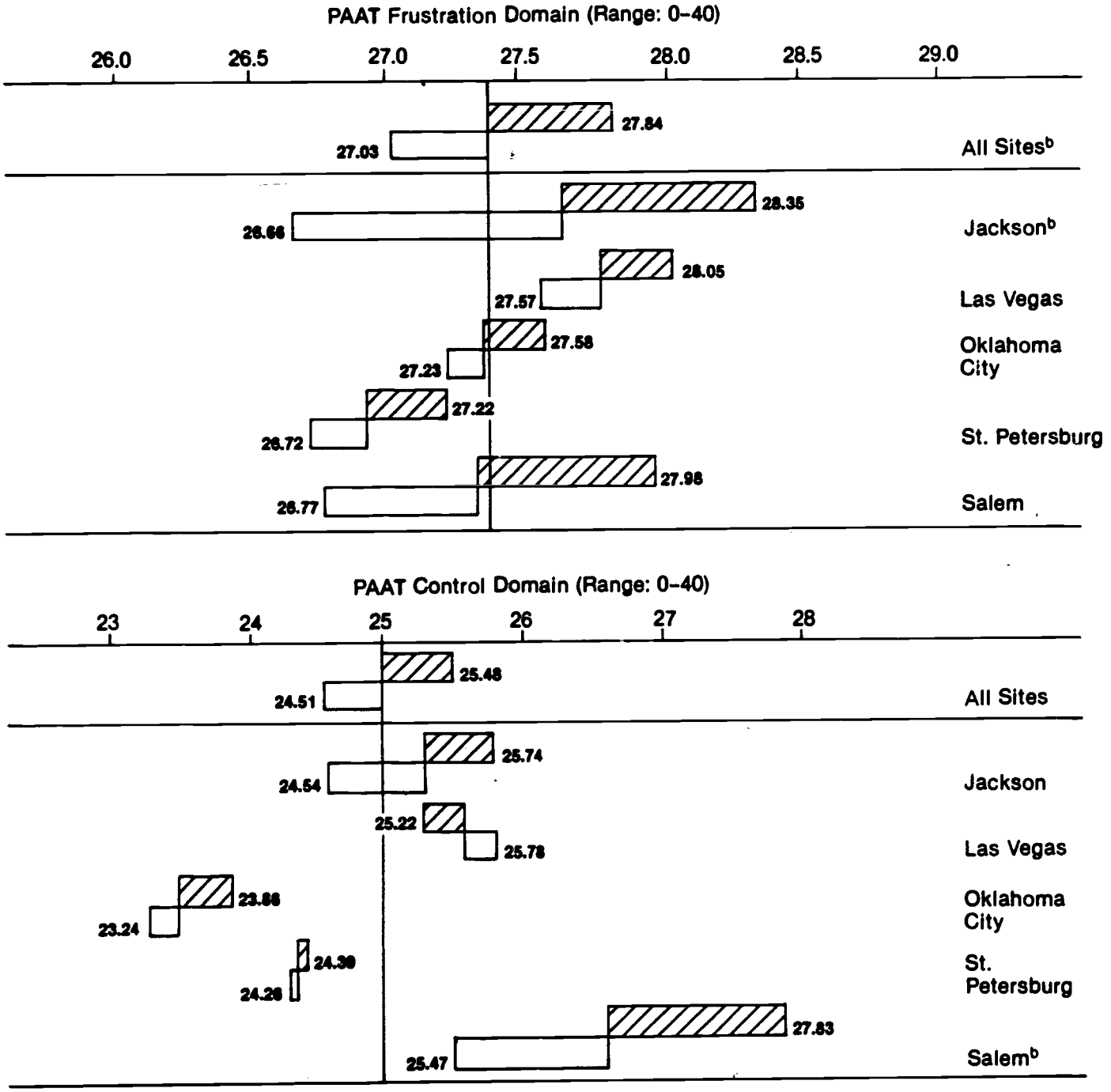
CFRP's effects on PAAT scores were generally similar from site to site, although there were site differences in the absolute level of scores, among both CFRP and control/comparison families, with scores in Salem conspicuously higher than at other sites. Effects of CFRP on PAAT scores were large enough in some sites to be statistically significant despite the small within-site samples. PAAT control scores were significantly higher for CFRP parents in Salem than for control/comparison mothers. In Jackson, the CFRP group scored significantly higher in both the Creativity and Frustration domains. Figure 5-12 shows illustrative data for the Contro.. and Frustration domains.

Figure 5.11
Overall Effects of CFRP on Parental Teaching Skills (Adjusted mean scores on the PAAT – CFRP vs. Controls)[a]



a) Scores adjusted for pre-existing differences between groups due to attrition.
b) Denotes a statistically significant or near-significant difference.

Figure 5.12
Selected Parent-as-a-Teacher (PAAT) Scores, by Site[a]
(CFRP vs. Controls)



a) Scores are adjusted to take account of pre-existing differences between CFRP and control groups due to attrition. Horizontal bars show positive or negative distance of CFRP and control groups from site mean. Vertical line shows mean for all sites.
b) Denotes a statistically significant or near-significant difference between CFRP and control groups.

Qualitative Evidence on Parental Teaching Skills

Scattered throughout the site reports is abundant evidence confirming the PAAT results. Parents at several sites attested that CFRP had opened their eyes to their roles as educators of their children. In St. Petersburg, for example, a mother explained how the program helped her to understand and stimulate language development in her young infant:

> At first, I thought it was a lot of garbage . . . but now I understand what it's about. . . . I read those handouts that they give you and they work pretty well. . . . Like they said don't talk baby talk to them, and I used to always do that. Now I don't, and it's like he's trying to talk back . . . and when I talk to him, he watches and always grabs at my mouth.[19]

Another St. Petersburg parent described how a group discussion helped her to realize that "talking to children can help as much as beating them"[20] in getting them to behave. The remark illustrates starkly how much the mother had to learn; for such a mother, even very basic information imparted by the program is likely to have had a profound effect on her thinking. One Jackson mother commented about the staff: "They have lots of ideas that I've never thought of . . . like different ways to discipline children that I've tried with success."[21]

Numerous comments by mothers show that the program made them aware of important aspects of development that they might otherwise have taken for granted. As a result they learned to take pride in their children's achievements. In Las Vegas, a mother struggling with grave family health problems found some solace in the precocious accomplishments of her five-month-old son: "He claps his hands. He responds when you talk to him. He looks at objects that are very, very small"--all behaviors characteristic of a considerably older infant.[22] In Salem, a mother said proudly of her two-year-old: "He's ahead in sharing. Children don't voluntarily share until they're five or six, and he's only two. Before, nothing was more important than [himself]. It's a great step."[23] The program gave parents an idea of what to expect of their children as they grow and made parents aware of different viewpoints on child development. In the words of a Jackson mother, CFRP "helped me understand myself and my children better."[24]

In sum, the qualitative and quantitative data suggest that CFRP raised parents' consciousness about child development and their own role in their children's growth. Moreover, there was evidence from both the observational study and from parental reports, given in informal remarks and through the formal mechanism of the PAAT, that altered awareness was translated into behavior.

There was even some evidence, noted in the Las Vegas case study, that "the effects of the program are ranging beyond just the families in it, and out into the community."[25/] One mother, for example, passed along much of the advice and counsel she had received from CFRP staff. It also was not uncommon for families, at least in this site, to invite their friends and neighbors to center activities. (These families were waiting in line to sign up for CFRP, but the program could not take on anymore than those already served.)[26/] Diffusion of this kind is highly desirable, in that it increases the impact of the program on the local community. Ironically, however, diffusion may influence families in the control group and thus diminish the difference between program families and controls. It is possible that the measured effects of CFRP (CFRP-control differences) would have been larger if program families had been less effective in "spreading the word."

The crucial question to be addressed in the next section is whether CFRP's effects on parental attitudes and behavior translated into measurable effects on children's development.

5.7 Child Development

CFRP's ultimate goal was to enhance the social, cognitive and physical development of children from low-income families. Services such as family support and parent education, though important in themselves, were means to this ultimate end.

Unfortunately, for many aspects of development there is a widely recognized lack of quantitative measures that are valid and reliable for

young children from a variety of ethnic backgrounds and subcultures. After consultation with ACYF and with expert advisors to the project, we selected the four measures listed in Chapter 1. These covered a number of important developmental areas and had been used successfully in applied research with populations similar to that of CFRP:

(1) The Bayley Scales of Infant Development (BSID) were administered in fall/winter 1979-80, when participating children were between 15 and 22 months of age, and most had been in CFRP for approximately 18 months. The BSID, which consists of separate mental and physical development scales, is among the most widely used measures of development for infants and toddlers.

(2) The 32-item version of the Preschool Inventory (PSI) was administered in fall 1981 at the end of CFRP's three-year Infant-Toddler Component. Developed by Bettye Caldwell for the Educational Testing Service, the PSI is a measure of knowledge and skills thought to be relevant for later success in school. In the ETS-Head Start Longitudinal Study it predicted achievement in mid-elementary school years. The PSI has been used as an outcome measure in several large-scale program evaluations and policy studies, and it has demonstrated its sensitivity to program effects.

(3) The High/Scope Pupil Observation Checklist (POCL) was also administered in fall 1981. The POCL is a rating scale that was completed by testers after each PSI testing session. It consists of a set of bipolar adjective pairs describing children's social behavior. It has two subscales--test orientation and sociability. It has been used in several ACYF-sponsored evaluations and policy studies.

(4) The Schaefer Behavior Inventory (SBI) was also administered in fall 1981. The SBI obtains ratings from parents regarding 15 descriptive statements about children's social behavior. It has three subscales; task orientation, introversion-extraversion and hostility-tolerance. In the National Home Start Evaluation the SBI showed significant effects due to a home-based parent education program similar in some respects to CFRP.

Overall Effects of CFRP

Overall, CFRP had no significant effects on any of the developmental measures. Results on the BSID were reported in detail earlier.[27] Results for the remaining measures are shown in Figure 5-13. In all cases, differences in scores of CFRP and control/comparison children were small and not statistically significant.*

Site-Specific Effects

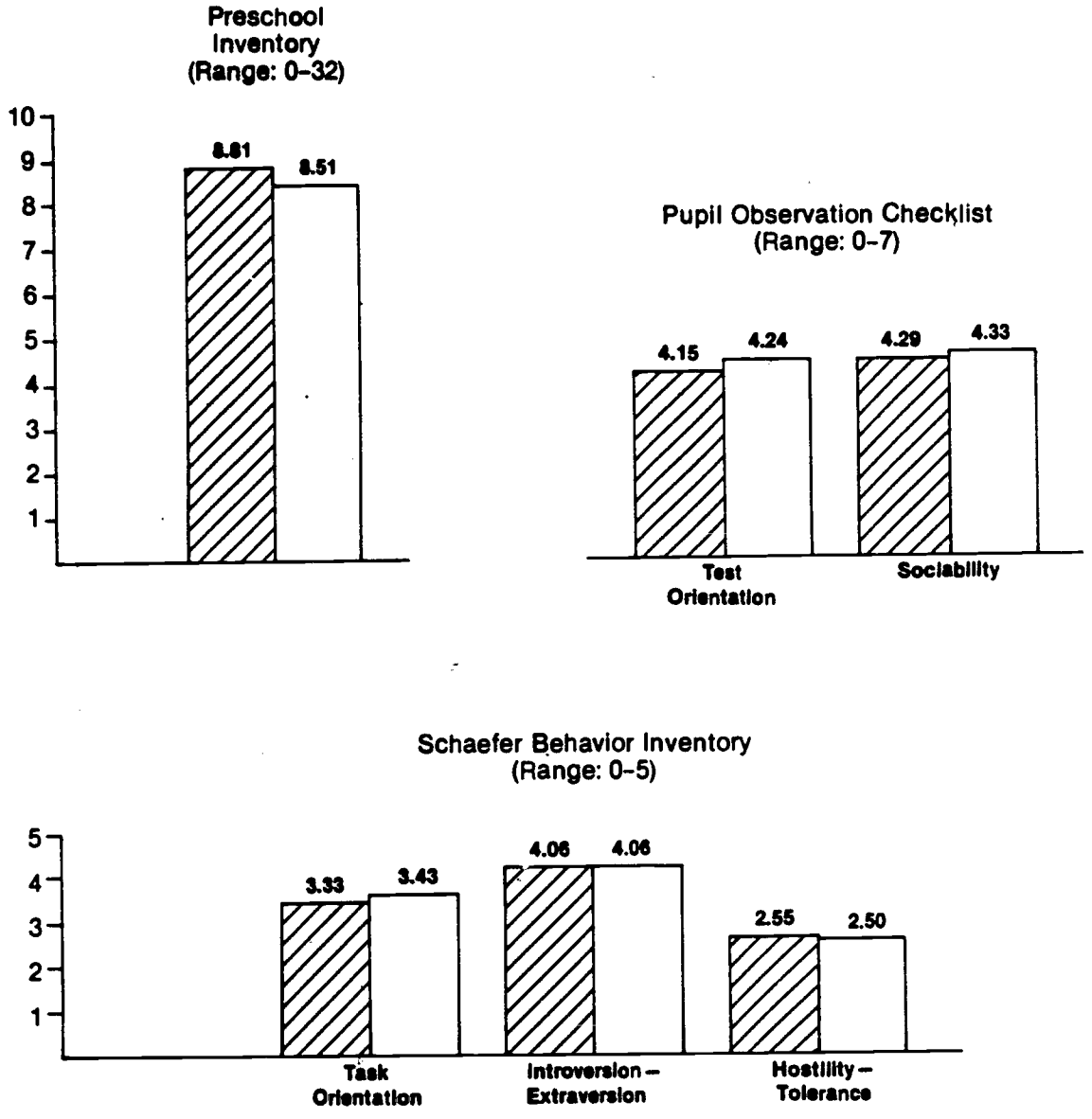
Strong developmental effects were essentially absent at all sites. Early in the study there was a hint that one site might differ from the others: program effects on the BSID after 18 months were positive and marginally significant in Salem but not elsewhere.[28] However, at the end of three years there was no statistical evidence that CFRP's effects differed significantly in direction or magnitude across sites. Within sites, there was only one effect that was both positive and statistically significant: Salem CFRP children scored higher on the Schaefer introversion-extraversion scale than controls. Significance aside, no site showed CFRP-control differences that were consistently larger or more positive than the other sites.

Qualitative Evidence on Child Development

The quantitative findings appear to show that CFRP had virtually no effect on children's development; for some reason the program's effects on families and parents did not translate into benefits for children, as CFRP's basic rationale assumed they would. How well does this bleak conclusion accord with qualitative data from the ethnographic and program studies? There are two places to look for an answer--at accounts of the progress made by individual children, and at descriptions of the developmental activities offered in home visits and center sessions.

*PSI scores for the entire sample were lower than in other studies, averaging fewer than nine points out of a possible 32. This result was due to the fact that children in the sample were younger than those tested in previous studies. In fact, the sample as a whole was at the lower end of the age range for which the test is appropriate. The absence of effects may be due partly to floor effects or other distortions created by this age distribution.

Figure 5.13
Overall Effects of CFRP on Child Outcomes
(CFRP vs. Control)[a]



a) All mean scores have been adjusted to take account of pre-existing differences between CFRP and control groups caused by attrition.

Evidence of the first kind is somewhat scarce, since neither the ethnographic nor the program study included intensive observations of individual children over time. However, the ethnographic study did provide a limited amount of relevant information. Throughout its five site case reports there were abundant observations of children's behavior in home visits and center sessions. There were also references to children's performance on developmental tests, sometimes observed directly and sometimes reported by staff and parents. Of primary interest, however, were the few cases in which enough history was available to give some indication of the specific role played by CFRP in facilitating child development.

Not surprisingly, there was wide variation in development and social adjustment among children in the sample. There were cases of children who performed far above the norms for their ages on cognitive and motor tasks, and of children who were affectionate, outgoing and comfortable with peers and adults. There were also cases of physical disability, developmental delay--especially in cognition and language--and of social maladjustment. These observations are useful primarily in conveying a sense of the range of developmental needs confronted by CFRP's staff. They do not in themselves indicate whether the program was effective in meeting those needs.

In a small number of cases, informants--mothers or CFRP staff--gave testimony that did allow some assessment of the program's role. In Oklahoma City, for example, one mother got useful advice from her family worker when her child's development was set back by a period of hospitalization.[29/] Another was helped to secure special services for a speech-delayed child.[30/] In Salem, CFRP arranged for testing and therapy for a child whose development had been delayed by a previously undiagnosed physical ailment.[31/] In short, there are some "success stories" in the area of child development.

Some of these individual examples of program success involve outcomes that we did not consider in our quantitative analyses, specifically, outcomes affecting children with special needs. Many "success stories" involved children with physical handicaps or developmental delays, who received services via CFRP. Some programs placed special emphasis on these

children; Salem, in particular, operated a special program for handicapped children and their parents, and it offered play therapy for mentally disturbed children. Our quantitative outcome measures were not tailored to special needs groups; thus the program may have had benefits that we failed to measure.

However, it must be stressed that success stories do not in themselves prove the effectiveness of the program. We have no qualitative data on the experience of children in the control/comparison groups, with or without special needs. Thus the qualitative data show that CFRP worked for some children, but the data cannot rule out the possibility that those children would have had an equal or better chance of being served outside the program.

Evidence from the ethnographic and program studies on the nature and intensity of developmental activities is much richer than the evidence on developmental outcomes, and it bears a much clearer message. There were serious flaws in this aspect of CFRP's operation that may well explain the program's meager effects on developmental outcome measures--even if the basic conception of early intervention via the family is sound. Most of these flaws were foreshadowed in Chapter 3.

First, CFRP's home visits and center sessions did not occur frequently enough to make a difference, according to the results of previous studies. Even families near the high end of the participation spectrum did not receive the weekly home visit that earlier research has shown to be the minimum necessary for measurable results. (Weekly visits would have been utterly impractical, given the family workers' high caseload, which greatly exceeded the caseload of 13 previously found to be the maximum consistent with weekly visitation.)

Second, neither home visits nor center sessions focused consistently on child development. Given CFRP's broad goals and its emphasis on family support, much time was devoted to other family concerns. This expenditure of time paid off in a number of outcomes for families, discussed

earlier--but it diluted CFRP's already limited allocation of time to developmental activities.

Third, the developmental activities that were provided relied too heavily on talk. Opportunities for modeling and hands-on work with chidren were neglected. Only Salem consistently brought children and parents together in center sessions. At other sites, center sessions for parents were usually lectures or discussions. Sessions for children were often merely supervised play, while the parents attended separate group meetings. The developmental portions of home visits sometimes consisted wholly or in part of discussion between the family worker and parent, although joint activities involving the child were much more common than in center sessions. While there is surely nothing wrong with discussion per se, this approach implicitly places great reliance on the parents' willingness and ability to translate their new insights into action--and at several sites family workers expressed reservations about the likelihood that this would occur.

Finally, some family workers lacked prior background in child development and the program sometimes failed to provide the in-service training and supervision that might have allowed them to function effectively as parent educators. To be sure, there were many examples of sensitive and skillful developmental work, as noted in Chapter 3. Several programs had well thought out approaches, and some made systematic use of aids such as the Denver assessment instrument and the Portage Guide. Many family workers were adept at using such aids to inform parents and enlist their participation, and many were flexible in adapting their plans to the needs and opportunities of the immediate situation in the home.

On the other hand, there were unfortunate incidents revealing lack of insight into the purpose of developmental activities involving parent and child, and lack of sensitivity to children's needs and interests. A few vignettes from the ethnographic study underscore these points: In one site a child development specialist suggested making Christmas ornaments as an activity to draw the family together, involve the children and provide some practice in fine motor skills. Our ethnographer watched a family worker

dutifully teaching a mother how to make ornaments while a toddler watched and an interested four-year-old and six-year-old were kept out of the way. The worker later said she wished the older children had been sent out of the room, so she could get on with her job without interruption.[32] At another site, during a similar activity, the mother left the room while her children worked. It had not occurred to the family worker to explain the importance of the mother's involvement or the developmental value of the activity. In fact she told the mother, "They can work that way all evening--it will keep them out of the way." Later the worker described the mother as "uncooperative," and the mother, asked what value the activity had for one child, said, "He learned how to make paper chains and he didn't know how before."[33] These were isolated and somewhat extreme examples, but they illustrate the superficial understanding that characterized child development activities in some cases.

On balance, then, the qualitative data lend support to the quantitative findings. They make it clear that CFRP was not organized to provide the intensive developmental services that previous research on Head Start demonstrations and other early intervention programs indicates is necessary to produce measurable effects. However, it is possible that CFRP's developmental effects are "sleepers." The documented improvement in parental teaching skills may lead to changes that will manifest themselves much later in the child's development, as effects of some other early intervention programs reportedly have done.

5.8 Enrollment in Head Start

CFRP was intended to be closely linked to Head Start, and Head Start for preschoolers was an important component in CFRP's plan to provide developmental continuity for children throughout the early years. However, as shown in Chapters 2 and 4, links between CFRP and Head Start were less than ideal at several sites, and the transition to Head Start from CFRP's Infant-Toddler Component was not always well handled. Therefore, rather than being an automatic consequence of enrollment in CFRP, enrollment in Head Start became an important program outcome that varied significantly from site to site.

Overall Effects of CFRP

Overall, 62 percent of CFRP children were enrolled in Head Start, compared to 32 percent of children in the control/comparison group. (The percentages are adjusted to take account of background differences between the two groups.) This large difference was highly significant statistically.

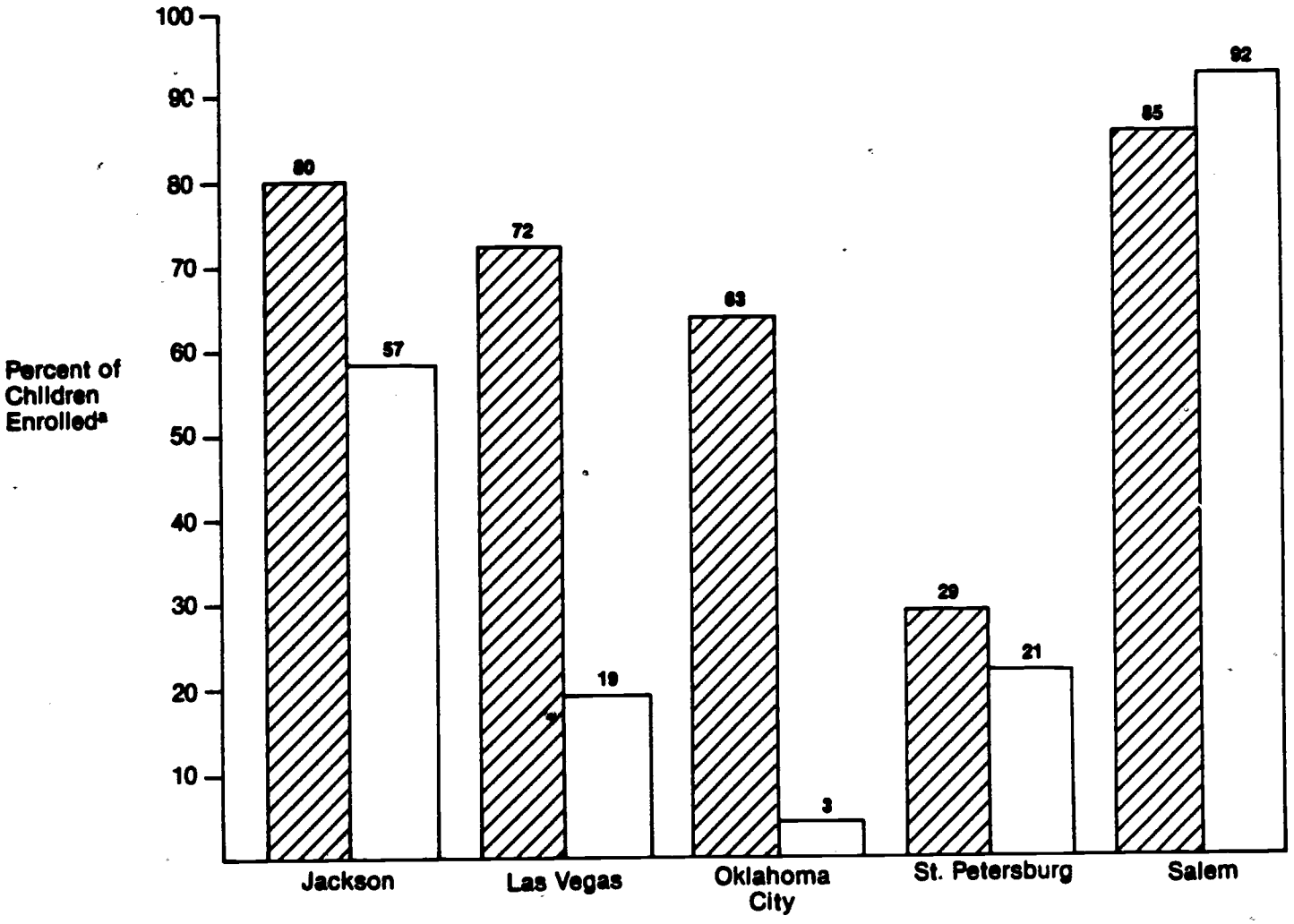
Site-Specific Effects

There were dramatic differences from site to site, not only in the overall proportion of children (CFRP children and controls) who entered Head Start, but also in the margin of advantage that CFRP children had over controls (Figure 5-14).

At most sites the margin of advantage for CFRP children was large. One exception was St. Petersburg, where the margin was modest and the overall enrollment of children from both groups quite low. Another apparent exception was Salem, where controls actually showed a small advantage over CFRP. However this outcome does not reflect negatively on the Salem program; the percentage of children enrolled in both groups was very high, probably exhausting the pool of applicants--and the program made a special effort to assist the evaluation by facilitating enrollment of both groups so that their progress could potentially be followed in the future.

A final point of interest is the outcome for Oklahoma City. CFRP in that site experienced many problems in coordination with Head Start. In fact, Head Start's eligibility standards, which required children to be four years old in order to enroll, would have ruled out almost all of the CFRP children and controls, who were roughly three years of age. By a last-minute special effort CFRP was able to persuade Head Start to relax this standard. The result was enrollment of 63 percent of the Head Start children--low compared to most other CFRPs, but very high compared to controls in Oklahoma City, who were excluded almost entirely.

Figure 5.14
Effects of CFRP on Head Start Enrollment by Site (CFRP vs. Control)



a) Figures for the CFRP group differ slightly from those in Chapter 4. The figures in Chapter 4 were based on the whole CFRP population at each site, whereas the figures here are based on the analytic sample, which excluded a few children for reasons discussed in Appendix B. Site differences, CFRP-control differences and the program by site interaction are all statistically significant.

Qualitative Evidence on Head Start Enrollment

Qualitative data on links between CFRP and Head Start and on the transition from the Infant-Toddler Component to Head Start were discussed extensively in Chapters 2 and 4. The data there confirm and help to explain the site differences in outcomes noted above.

CHAPTER 6

WHO BENEFITS MOST FROM CFRP?

Chapter 5 established that CFRP as a whole benefited families in several domains: employment and/or job training, access to public services, feelings of personal efficacy, and knowledge, attitudes and practices relevant to childrearing. Aside from any indirect or long-term consequences that these family effects may have for children, CFRP benefited children primarily by increasing their chances of getting into Head Start. Some of CFRP's effects were found, in varying strength, at all sites; other effects were found primarily at one or two sites.

This chapter asks whether there were particular types of families who benefited more from CFRP than others. Two kinds of family characteristics were investigated: demographic or background characteristics, such as ethnicity, education, employment and family structure; and behavioral or psychological characteristics, namely program participation and "coping." The latter characteristics proved to be more powerful than the former as mediators of the effects of CFRP.

6.1 Analytic Approach

To investigate how participation, coping and demographic characteristics mediated the impact of CFRP, we looked for how program effects differed in selected subgroups of the overall population. Below we present a rationale for and description of the subgroups in each of these areas.

Participation

As shown in Chapter 3, low rates of participation were a chronic problem at most CFRP sites, despite substantial recent improvements in some sites. In effect, many families received very little "treatment." To investigate the effects of participation, we asked whether program effects

were stronger for the CFRP families who actually participated, that is, who actually received the CFRP "treatment." We excluded CFRP families with low participation, and then compared outcomes for the subset of high-participating CFRP families with outcomes of the entire control group. This line of analysis was deliberately designed to favor CFRP, by restricting the CFRP group to children and families who received substantial treatment.

We defined high participation in two ways. First we investigated intensity of participation. Several different measures of intensity were used, including average quarterly rate of participation in home visits, center sessions and both combined. Second, we investigated duration of participation, quantified as number of months of participation. The analysis produced clearcut and revealing results for both intensity and duration of participation, which are described in this chapter.*

Coping

Chapter 5 shows that one of CFRP's most important effects was to increase parents' sense of control over events. In a supplementary inquiry we turned this finding around and asked whether mothers who were "good copers"--who expressed a strong sense of personal efficacy--also benefited the most from the program. We addressed this question by partitioning the CFRP and control mothers into groups who scored high and low on the coping scale and looking for program-control differences within the high- and low-coping groups to determine whether the "high copers" benefited more. We looked at coping ability both at baseline (before the CFRP group had received any treatment) and at the end of the Infant-Toddler Component. In both cases, we found strong effects related to coping ability.

Demographic and Background Characteristics

As shown in Chapter 1, CFRP served a diverse population. Different CFRP families had very different needs and strengths. To determine whether

*Before pursuing this line of analysis, we looked within the CFRP group only to determine how intensity and duration of participation affected outcomes. Sufficient links between participation and outcomes were found to warrant further exploration.

the program was more effective in meeting certain patterns of need than others, we partitioned the sample in a number of ways and examined program-control differences within the resulting groups. Specifically, we compared:

1. families headed by single women versus two-parent families;

2. families with one child versus families with several children (this partition was motivated by the hypothesis that mothers of first-borns might be more receptive to the program's influence than experienced mothers);

3. families in which the mother had graduated from high school versus those in which she had not; and

4. black versus white families.*

In addition, for dependent measures of child development, we compared effects for:

5. children who had experience in day care versus those who had none (this partition was motivated by the assumption that control/comparison children in day care might receive some services paralleling those offered by CFRP).

Finally, for dependent measures of parental teaching skills, family health, family functioning and family circumstances, we compared effects for:

6. mothers who were employed and/or in school or job training versus mothers who were at home.

Participation, coping and demographic characteristics of families are discussed in separate sections below. Where appropriate, the quantitative findings are supplemented by qualitative data from the ethnographic and program studies.

*Small groups of Hispanic families and families of other ethnic origins were excluded from the quantitative analyses reported in Chapters 5 and 6.

6.2 Participation Effects

Intensity of Participation

High-participating CFRP families differed from low participants in a number of salient respects, outlined in Chapter 3. Most notably, they were members of the predominant ethnic group at their particular sites. In addition, mothers who were frequent participants tended not to be working. Program staff also made more visits to families who lacked social ties outside the program. On the other hand, families who participated more tended not to have high-risk infants and toddlers. When this subset of higher-participating CFRP families was compared to the control families, they tended to benefit more from the program than the entire CFRP group as a whole.

More specifically, when low-participating families were excluded from the CFRP sample, program effects--differences between control families and the remaining moderate-to-high CFRP participants--increased for most of the 26 outcome variables (compared with program-control differences for the entire sample). Eighteen outcome measures showed increased program effects for high participants; another five variables showed no change; only four showed reduced effects for the active participants. Although, as noted earlier, this comparison deliberately favors the CFRP group, the predominance of positive over negative participation effects suggests that intensity of participation did make a difference.

Some of the outcome domains were more strongly affected by participation levels--family circumstances, family functioning, and Parent-as-a-Teacher measures. There were no effects on the measures of child development. On the other hand, no one type of participation seemed most important. In some cases, frequency of home visits appeared to be the salient factor; in other cases, frequency of group sessions; in still other cases, both types of participation appeared important. The specific participation effects discussed below include all three types.

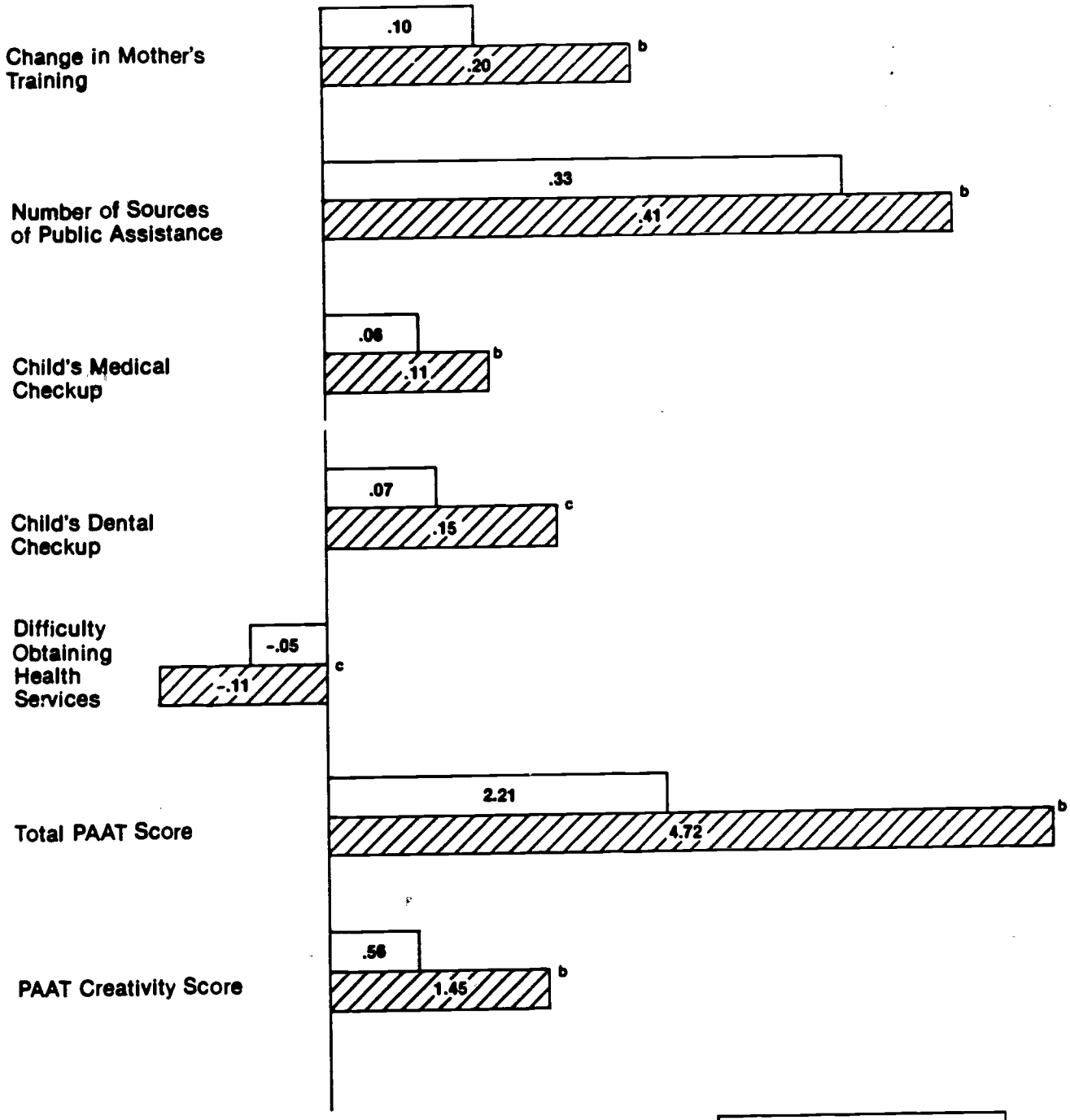
Figure 6-1 displays results for the seven outcomes that showed the most substantial change in program effects when low-participating families were excluded. The training component--the mother's enrollment in school or vocational training--showed a larger program effect for high participants, although neither maternal employment nor the composite employment/training variable discussed in Chapter 5 was affected by participation. In the health domain, the advantage of the CFRP group roughly doubled on three measures--the proportion of children who had a medical checkup in the last 12 months (which had shown a marginally significant program effect for the CFRP group as a whole), the proportion of children who had ever visited a dentist, and the proportion of families reporting difficulty obtaining health services (both of which previously showed no program effect). Finally, two Parent-as-a-Teacher scores showed enhanced effects among moderate-to-high participants; CFRP's advantage increased dramatically for the Creativity subscale and for the Total PAAT Score, when low participants were dropped.

Duration of Participation

We also looked at length of participation as a measure of treatment and found somewhat increased benefits for longer participation. We looked at outcomes for CFRP families who participated less than one year, one to two years, and more than two years. The outcomes for the CFRP families tended to increase with length of time in the program. We in fact excluded from all of the main effects analyses the few CFRP families who participated for less than a year, since it could be argued that these families actually received no treatment. Removing these CFRP families enhanced the program effects reported in Chapter 5 for the "full" CFRP/control comparison.

We then asked whether program effects were further enhanced by also eliminating CFRP families who participated for less than two years. The answer is a tentative yes. We found that program effects increased for about half of the outcome measures when these long-participating CFRP families (more than two years of participation) were compared to the entire control

Figure 6.1
Comparison of Group Differences Before and After Low CFRP Participants Were Removed [a]



a) Scores are adjusted to take account of pre-existing differences between CFRP and control groups due to attrition.
b) A marginally or nonsignificant effect for all families and a significant effect for high participants (see Appendix B, Section 3).
c) A nonsignificent effect for all families and a merginally significant effect for high perticipants (see Appendix B, Section 3).

11.)

sample. The outcomes most strongly affected by excluding shorter-term participants were the measures of Parent-as-a-Teacher and of family circumstances.

The issue of program participation and its consequences was discussed extensively in both Chapters 3 and 5. From the outset of the study we have reported that low participation was a serious problem for CFRP, although acknowledging some major improvements during the final year of the study. Program staff disputed our findings, claiming that low participation was a problem mainly for families who were recruited for the evaluation and would not otherwise have volunteered for CFRP. Nevertheless, in program study interviews, staff also admitted that participation was "less than optimal." The ethnographic study, which took an intensive look at many families who were not recruited specifically for the evaluation, confirmed the seriousness of the problem. Actual frequencies of home visits at most sites were much lower than scheduled frequencies; broken appointments and rescheduling were the norm. One Jackson mother was not visited for six months because of her FLE's heavy caseload of crisis-prone families.[1/] Center sessions were often poorly attended.

Salem was the site that was most effective in maintaining both a high frequency and long duration of participation. It is noteworthy that Salem staff felt that a period of six months to a year of active participation was required before a family could even begin to realize the benefits of CFRP. One Salem mother's testimony confirmed this view; she recounted how she had spent an anxious year attending center sessions, afraid to participate in discussions, before she gradually came out of her shell.[2/]

The qualitative data, then, gave reason for concern, but the data in themselves could not prove that low rates of participation affected program outcomes. The quantitative findings reported above, tentative though they are because of various statistical limitations, suggest that intensity and duration of participation are indeed factors in the effectiveness of the program and should be a focus of renewed efforts by staff.

Finally, it should be noted that no participation effects were found in the domain of child development. This absence of findings may appear to be at odds with our conjecture in Chapter 5 that low participation was an important constraint on CFRP's effectiveness in this area. However, none of the CFRPs was able to provide child development activities with a frequency even approaching the minimum shown in previous studies to be necessary for developmental effects (once per week). Therefore the lack of participation effects within the range that prevailed in CFRP (rarely more than once per month) is not surprising.

6.3 "Coping" as a Mediator

Experienced observers of social programs like CFRP have often noted that certain participants stand out. Though they may be facing severe economic or personal problems, they show a kind of confidence, energy and determination that distinguishes them from other participants who seem passive and demoralized. Typically, these standout mothers seem to be the ones who get the most out of the program and make the most tangible gains, for example in improving their skills, getting jobs and providing for their children. Sometimes a mother will undergo a dramatic personal change, moving from passivity or resistance to an active effort to take advantage of the opportunities offered by the program.*

This observation motivated our efforts to determine whether parents' coping ability affected how much they benefited from CFRP. We looked at mothers who started out as high copers--that is, had high coping ability at baseline--and mothers who ended up as high copers at the end of the evaluation. This analysis clearly showed that positive feelings of personal efficacy went hand-in-hand with improvements in other outcome domains, especially family circumstances and parental teaching skills.

Even at baseline, before CFRP mothers had been exposed to the program, "high copers" in both the CFRP and control groups were different

*We are indebted to our project officer, Dr. Esther Kresh, for calling this observation to our attention and pressing for the line of analysis reported in this section.

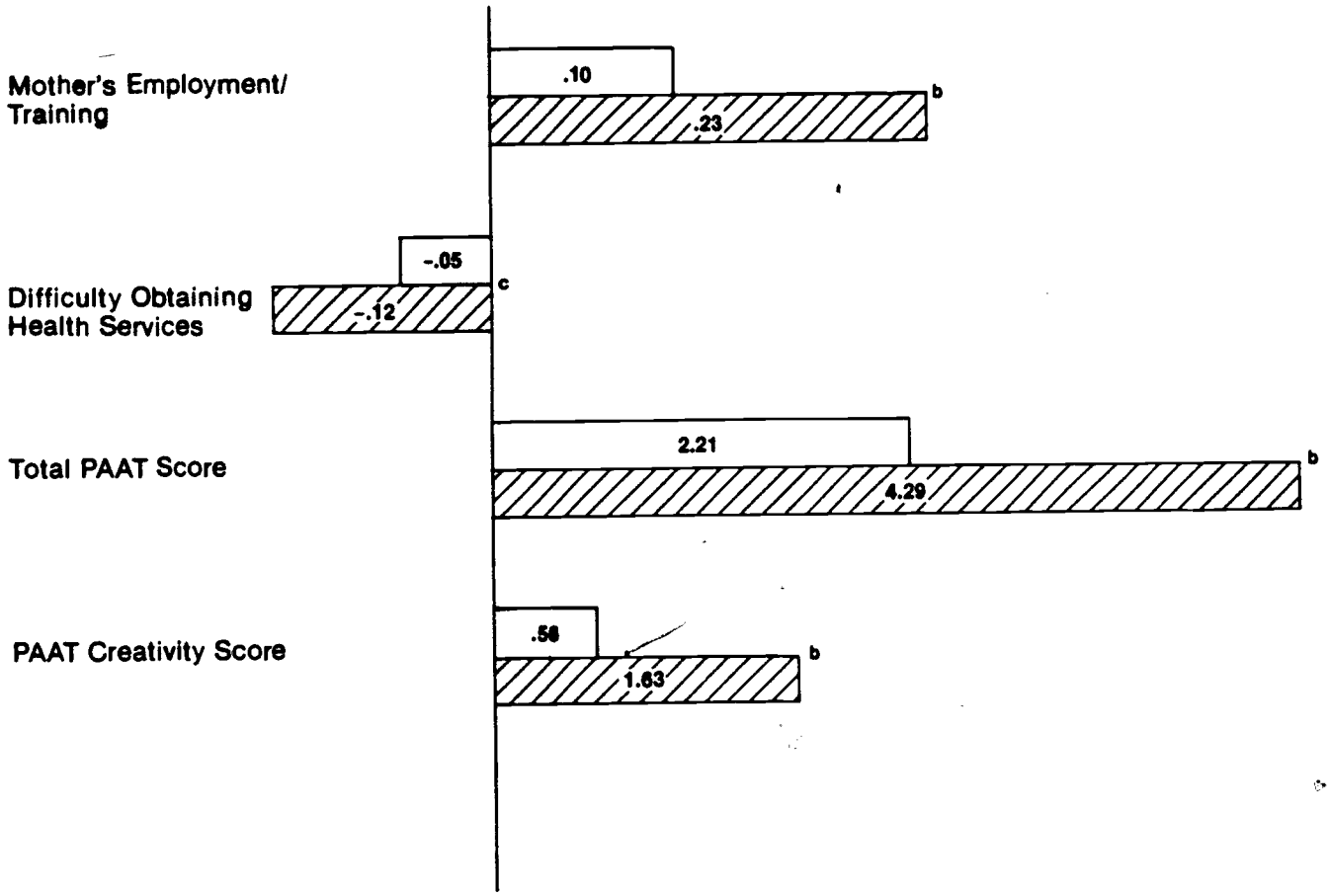
from other mothers. They were more likely to be high school graduates, and they tended to be older. (These two findings are related, since many of the youngest mothers were still in school, particularly in Las Vegas.) High copers also were more likely to be employed at baseline, and they were slightly more likely to have a network of family and friends outside the program.

High copers in the CFRP group also were more active participants in the program than low copers (when factors such as employment and outside social ties, which worked against participation, were taken into account). They also benefited more from CFRP in a number of ways.

When low copers were excluded from both the CFRP and control groups, program effects (treatment-control differences) for the high copers were stronger for 18 of the 26 outcome variables than the effects shown in the entire sample. Effects remained about the same for one outcome and decreased for 7 outcomes. One outcome--children's PSI scores--showed a particularly anomalous negative program effect in the high-coping group.

Figure 6-2 displays results for the four outcomes on which CFRP-control differences changed most substantially for the higher copers. The program's effect on mother's enrollment in school or job training, which was marginally significant in the full sample, was doubled and became highly significant in the subsample of high copers. The program also alleviated difficulties in obtaining health services for the high-coping group. In the full sample, the difference in the proportion of CFRP and control mothers reporting such difficulties was nonsignificant; among high copers, the program-control difference more than doubled and became near-significant. CFRP's effects on PAAT Creativity and Total PAAT Scores increased dramatically among the high copers; program-control differences in both cases were statistically significant in the high-coping group. Finally, one of the developmental measures--the Schaefer Introversion-Extraversion Scale--which showed absolutely no difference between the full CFRP and control groups--showed a difference that began to approach significance among children of high-coping mothers.

Figure 6.2
Comparison of Group Differences Before and After Families with Initially Low Coping Scores Were Removed [a]



a) Scores are adjusted to take account of pre-existing differences between CFRP and control groups due to attrition.
b) A marginally or nonsignificant effect for all families and a significant effect for initially high coping families.
c) A nonsignificant effect for all families and a marginally significant effect for initially high coping families.

The results just reported might create the misimpression that CFRP was effective only for families who were not far from "success" when they entered the program--families who just needed a little added "push" of encouragement, "the opportunity to do well." CFRP did not limit its services to these "easy" families. The program enrolled families who were not nearly so strong; a number of these were multi-problem families in need of services and support. It also was true that mothers with higher coping scores at the end of the evaluation, regardless of their initial coping ability, benefited more from CFRP. These high-coping mothers had consistently higher outcomes than the low-coping mothers, and consistently higher outcomes than their control counterparts.

The qualitative data provide many examples to suggest that changes in mother's personal sense of efficacy accompanied a variety of more tangible benefits from the program. A particularly powerful illustration is provided by one mother in Oklahoma City:

> This single parent of a toddler and three older children went from "being almost totally withdrawn to being a community activist." Reflecting back on the time she enrolled in CFRP, this mother commented: "I was locked up in my house five days a week, chasing kids, slowly going crazy. . : . CFRP made a big difference to me and it's made a whole lot of difference to my kids. They showed me I could do something other than doing housework, watching soap operas, and chasing children, that I could be independent, that I could take care of myself." It took two years, however, to get her out of the house and to a parent group at the center, even though CFRP was only three blocks from her home.
>
> As the CFRP director commented: "The change in her really started when she started coming to parent groups. She began to interact with other parents, to talk about common problems and common goals. She began to volunteer, and then became very interested in policy, how it's made, what we do with families and why." This mother became chairperson of the city-wide Head Start/CFRP Board and chairperson of the Head Start/CFRP parent group, as well as a member of the community action agency board and the city-wide area council.[3/]

The data on participation and coping together suggest that the key to success in CFRP was parents' desire and willingness to change, to take

control of their lives and to invest time and energy in the program in order to achieve these personal changes and reap the program's more tangible benefits. CFRP staff recognized the importance of these psychological factors, and they pointed to some concrete indicators that identified particular families who were likely to succeed:[4/]

- They see something in CFRP that matches their need.
- They ask a lot of questions, and are open in sharing information about themselves.
- They show up for appointments and follow through on referrals.
- They are persistent and do not give up easily if what they want does not happen immediately.

These findings, obtained despite statistical factors which worked against uncovering effects in the sample of high copers (i.e., smaller sample sizes), provide at least a strong hint that mothers with a certain kind of positive attitude were better able than others to take advantage of the opportunities offered by CFRP.

6.4 Demographic Characteristics of Families

In contrast to the behavioral and psychological characteristics of families, their demographic and structural characteristics bore little relationship to their gains from CFRP. Whereas we can state with some confidence that CFRP worked better for active participants and "high copers," we cannot say that, overall, it worked better for single-parent versus two-parent families, families with one child versus families with several, more versus less educated mothers, black versus white families, children who had day care experience versus children who had none, or mothers who were working or in school versus mothers who were at home. (The last is a some-

*In all of these analyses, the samples being compared were quite small, which worked against statistical significance.

what surprising finding, given our observation that CFRP was not well organized to serve working mothers.)

When we partitioned the sample into these various groups and examined CFRP's effects within each, we found only isolated instances where CFRP-control differences were enhanced for outcomes in the domains of child and family health, family functioning and parental teaching skills. In the remaining domains--family circumstances and child development--there were two noteworthy findings:

1. A number of the demographic characteristics altered CFRP's effects on employment, training and wages. The program tended to increase employment, enrollment in school or vocational training and/or reliance on wages for single mothers, mothers of first-borns and black mothers more than for mothers living with other adults, mothers with several children and white mothers, respectively. These findings are interrelated: the program served a number of young, black, single mothers with one child, particularly in Las Vegas. (Fully 93% of the Las Vegas mothers had only one child, and 81% were single parents.) The Las Vegas CFRP, as noted earlier, was particularly effective in helping these mothers stay in school and/or find jobs.

2. Children's day care experience mediated the effect of CFRP on some developmental measures. In children with day care experience, those in CFRP had higher POCL Sociability scores than those in the control group. Program children without day care experience did worse than controls on the POCL Sociability and Schaefer Task Orientation scales.

CHAPTER 7

SUMMARY AND POLICY IMPLICATIONS

This chapter summarizes our findings about the operation and impact of CFRP and draws implications for program management and public policy.

7.1 Summary of Findings

The evaluation's findings fall into two major categories--findings concerning the overall impact of CFRP and findings concerning the types of families who profited most from the program. Overall findings include the following:

1. CFRP was an effective social service program that improved families' circumstances. CFRP succeeded in coordinating the services of other agencies and bringing them to bear on the needs of individual families. CFRP staff were intimately familiar with families' needs and were energetic and effective in securing for families all public benefits, such as AFDC, food stamps, WIC and Medicaid, to which they were legally entitled. At the same time CFRP succeeded in moving families into jobs, school or vocational training, enhancing their prospects for achieving economic self-sufficiency.*

2. CFRP increased parents' feelings of personal efficacy. Mothers in CFRP scored higher than controls on a scale of "coping" or "locus of control"--the perceived ability to influence events. This piece of quantitative evidence was much amplified by qualitative data from the ethnographic and program studies, both of which document instances of dramatic personal progress.

*It was a conscious intent of CFRP's designers that the program improve social service in the community generally, thus benefiting all needy families, not just program participants. There is evidence in the ethnographic and program studies that the program helped to make local agency personnel more sensitive to the needs of low-income families, and thus it may have succeeded in this goal. Such "spillover effects" may have benefited members of the evaluation's control group and thereby reduced the apparent size of various program effects, for example in the area of health services discussed below.

3. CFRP had no effect on measures of physical growth and modest effects on measures of preventive health care for the child and family. The CFRP group had a slender advantage over the control group in the proportion of children who received a medical checkup in the past year. On all other health measures there were no differences favoring CFRP. Effects on physical growth had not really been expected, since these are usually found only for programs providing nutrition and health services to severely malnourished children. The weak effects on preventive health care are more puzzling, because CFRP staff devoted considerable effort to securing such services for participating families. Apparently, parents in the control/comparison group made special efforts to arrange health care for their families, thus reducing the advantage of the CFRP group. For some indices of preventive care (health insurance, medical checkups for the child), both groups were well served, and there was little room for CFRP to show an advantage.

4. CFRP increased parents' awareness of their role as educators of their children and promoted childrearing practices associated with positive social and cognitive development. CFRP parents scored significantly higher than those in the control/comparison group in several domains of the Parent-as-a-Teacher scale. In addition, qualitative observations from the ethnographic study highlighted many cases of increased insight and change in parental attitudes and practices.

5. CFRP's Infant-Toddler Component had essentially no measurable effects on children's development at age three. There were a few scattered hints of changes, both positive and negative, among participating children, on various scales of social and cognitive growth, but no convincing evidence of an overall effect. The program's only measurable developmental benefit for children was a dramatic increase in their likelihood of enrollment in Head Start.

The lack of developmental effects may be explained by a combination of factors. Family participation in the program's activities was not sufficiently frequent and sustained. Even for families who participated

actively, much of the program's effort was devoted to general family support rather than child development activities. The activities that did occur made insufficient use of modeling and hands-on practice. Also, some of the activities were unsystematic, poorly conceived or poorly understood by family workers.

It is possible, however, that children benefited in ways that were not captured by the study's quantitative measures,* or that change in children may not manifest itself for some time (sleeper effects). There may also be later benefits for other children in CFRP families. However, these possibilities do not alter the facts that the program did not concentrate its resources in the area of child development and that it failed to affect developmental measures that have been influenced by other programs in the past.

CFRP's effects were not evenly distributed across all families in the program. Some families were affected more than others by their contact with CFRP. Two kinds of families showed relatively strong program effects:

1. Families who participated actively. Among the CFRP group, families who participated frequently in home visits and center sessions, and/or who remained in the program for relatively long periods, showed the greatest changes in childrearing attitudes and practices. Active parents were more likely than inactive ones to enter school or training and at the same time to receive a wider range of public benefits. Active participants also showed an advantage over controls on several measures of preventive health care. Participation--which was viewed as less than optimal by staff at most sites--was an essential ingredient in CFRP's success. Participation was markedly higher for members of the predominant racial group at each site, whether black or white. Members of the local minority group--black or white--tended to participate less and were likely to leave the program.

*PSI scores for the entire sample were lower than in other studies because children in the sample were younger than those tested in previous studies. In fact, the sample as a whole was at the lower end of the age range for which the test is appropriate. The absence of effects may be due partly to floor effects or other distortions created by this age distribution.

2. Families with mothers whose "coping" scores were high or became high. Among CFRP mothers, those whose initial feelings of personal efficacy --before participation in CFRP--were high gained more from the program than initially "low copers." Also, those whose scores were high at the end of program participation also gained on other measures. The psychological variable that we have called "coping" seems to have mediated the program's effects in important ways: the mothers who gained from the program were those who began with a positive attitude or acquired one along the way.

7.2 Implications for Program Management

In drawing implications from the above findings, we are guided by the fact that CFRP was a demonstration program within Head Start. Its primary purpose has been to inform Head Start policy and national program management. Whatever the future of CFRP itself, its approach may be incorporated into Head Start guidelines and thereby affect local practices in Head Start and other child development programs.

The evaluation's findings have implications for program management, having to do with practices that contribute to the effectiveness of the CFRP approach as currently conceived; these implications are discussed immediately below. The findings also raise broader policy questions, about the basic assumptions underlying CFRP and the desirability of extending the CFRP approach as an option for all of Head Start. These policy questions are discussed in Section 7.3.

The findings point to one major weakness in CFRP's current mode of operation: failure to provide effective ways of translating CFRP's benefits for families--improvement in economic circumstances, parental feelings of efficacy and childrearing skills--into tangible gains for children. A major element in this failure was an inability of most programs to maintain adequate intensity and duration of participation by CFRP families. In addition, the findings point to some secondary flaws: (1) a failure (in some sites) to coordinate effectively with Head Start, both in pooling resources and in providing continuity of experience for children; and (2) a failure to find

ways of serving working mothers--leading to a tension between the goals of promoting family strength through economic self-sufficiency and of educating parents and promoting child development. The findings, together with those of previous studies, also put us in a position to make specific recommendations regarding program management, designed to help correct those weakneses if the CFRP approach is adopted more widely within Head Start:

1. Establish detailed program guidelines for child development. The natural evolution of programs has not led to the balance between child development and other services that ACYF wanted and expected. According to informed sources in Head Start's national office, social services and child development were seen as mutually reinforcing, rather than competing activities when the CFRP Guidelines were written. A deliberate decision was made not to impose a great deal of structure on local programs in the area of child development; it was assumed that the central importance of this goal would be recognized.

The result, unfortunately, was some confusion and misperception on the part of local programs. The programs responded to the emphasis on social services that they saw as Washington's intent, and they also responded to the clear need for social services in the populations they served. Many programs saw CFRP essentially as an expansion of Head Start's social services component and not as a child development program in itself. CFRP's Infant-Toddler Component, in particular, was not conceived (at most sites) as an intensive early intervention program, analogous, for example, to the Parent-Child Development Centers (PCDCs). Families were typically recruited on the basis of their need for services and desire for psychological and social support--not their desire for parent education or for a program of developmental activities, though these may have been an added inducement. (It is noteworthy that this situation is not confined to CFRP or to federal programs; a similar tension between social/support services and parent education/child development has been observed in programs operated under nonfederal auspices, such as the Brookline Early Education Project.)

If child development is ACYF's paramount goal for CFRP, the agency has the responsibility to communicate this goal clearly to local program administrators. (These administrators in turn have the responsibility to communicate this goal to staff and to ensure that staff communicate it to parents.) The first step from Washington must be to strengthen CFRP's guidelines. The relative emphasis to be placed on child development, parent education, personal counseling, crisis management and social service referrals must be spelled out, at least in broad terms. Programs should know what is expected of them, and where they are free to exercise their own judgment. Developmental goals should be spelled out, and evaluations should be linked to these goals so that programs do not feel they are being judged capriciously.

Midway through the present evaluation, ACYF was alerted to the relatively weak emphasis being placed on child development and responded with a clear directive to local programs. This directive produced marked changes in program operations, notably increases in the frequency of home visits and increased emphasis on developmental activities. To achieve compliance with its directive, ACYF provided training and technical assistance. Such support will be necessary to implement this first recommendation, and is discussed further in recommendation #3.

2. Provide guidelines for caseloads and home visit frequencies. To reinforce the child development guidelines it is important that ACYF specify minimum frequencies of home visits and maximum caseloads for family workers. Drawing on the previous experience of Home Start, weekly visits appear to be necessary. The caseloads of 13 found to be workable in Home Start might have to be even lower, given the additional duties of the CFRP family worker in the area of social services. Reduction of caseloads entails either a reduction in the number of families served or an increase in staff costs--both admittedly unappealing options--or a reduction in other program costs. (Recommendation #4 provides one suggestion for cost reduction.)

3. Provide guidelines and resources for training and supervision. Another step necessary to reinforce the increased emphasis on child development services is improved supervision and training of family workers, the key

service providers in CFRP. Training and supervision are particularly important when programs recruit indigenous paraprofessionals for the job of family worker. The evaluation findings show that training and supervision were relatively loose at most sites; the result was wide variation in the nature and quality of services delivered in home visits. In contrast, the Home Start experience showed that effective developmental services can be delivered to children of preschool age, even by paraprofessionals, if local program managers support their staffs through in-service training and active supervision in the field.

As a first step, guidelines are needed to tell local Head Start administrators what kind of staff training and supervision should be provided. Realistically, Washington will also have to provide concrete support to help programs comply with the guidelines. ACYF has long supported CFRP with training and technical assistance. This support program should be at least partially refocused to concentrate on strengthening CFRP's child development services through improved staff training and supervision. Materials should be provided to programs--for example, effective infant-toddler curricula that draw on the experiences of the more successful CFRPs and other early intervention programs. Local expert consultants could be used not only to train staff but also to provide continuous support to directors and staff. ACYF's program managers need to visit programs personally, to gather information and to oversee implementation of Washington's directives.

A final suggestion for strengthening CFRP's staff training is pooling of resources with Home Start. In opening the home-based option for preschoolers to Head Start generally, ACYF established six regional training centers to assist programs in converting to home-based models. The programs of the regional training centers might be expanded to cover topics relevant to children younger than preschool age, to support local Head Start programs interested in adopting the "CFRP" option.

4. Coordinate with Head Start and other agencies. The findings suggest that local CFRPs that were closely tied to Head Start shared resources and provided greater continuity of experience for the child and family.

If "CFRP" becomes a program option within Head Start, the problem of linkage between separate programs should not arise; however, program guidelines should give direction as to how resources may be shared between the "CFRP" portion of Head Start and the rest of the program, and how duplication of functions may be avoided, in order to maximize cost-effectiveness.

In addition, the findings show that all CFRPs were able to exert leverage through referrals to other community agencies. This kind of networking should be explicitly encouraged as another device for improving cost-effectiveness. National program managers can help by providing local Head Start administrators with suggestions and guidelines based on the experience of CFRP, which was generally more effective than Head Start in building relationships with local agencies. Also, where other agencies are federally funded, Head Start's national management may be able to establish ties at the federal level with managers of other programs and enlist their support in getting their local branches to cooperate with Head Start.

5. Find ways to serve working mothers. None of the five CFRPs studied intensively in the evaluation had developed particularly effective ways of serving working mothers. (The Modesto, California program, which made special efforts to reach this group, was not among the five sites studied.) Consequently the evaluation can only point to a need in this area, not to successful models. A number of suggestions can be offered; for example: weekend home visits and/or center sessions; a night and weekend drop-in or hotline arrangement, so that working parents can get emergency help or avail themselves of counseling when needed; cooperative arrangements with day care centers or family day care homes, to ensure that children of working mothers are provided with CFRP services. However, in the absence of supporting data for any of these suggestions, our strongest recommendation is that ACYF encourage local experimentation with services to working mothers, in an effort to develop successful practices that can later be disseminated.

7.3 Policy Questions

The recommendations above are all premised on the assumption that the CFRP approach might be adopted by Head Start in some form. However, broad policy issues currently being debated within ACYF call into question

whether this will or should be done. The CFRP evaluation throws some light on these current issues, of which we have identified four in consultation with ACYF:

1. Continuity. A major thrust of ACYF policy for many years has been continuity of service through the early developmental period. It has been assumed that effects of early intervention are greater and longer-lasting if the child's development is monitored and services are provided from infancy or the prenatal period into the elementary school years. As noted earlier, this was a fundamental assumption of CFRP.

The assumption is now being questioned, in part because of the cost of providing continuous services. Some have argued that a brief, intensive intervention at a carefully targeted age--at age four, just before entry into school--is a more cost-effective strategy.

Because the CFRP evaluation focused on the Infant-Toddler Component and did not follow children through the preschool and elementary years, it provides only limited evidence relevant to the issue of continuity. Specifically, it underscores the need for substantial resources, as well as improved management and coordination, in order to mount effective, home-based developmental interventions for infants and toddlers within the Head Start context. The picture with regard to provision of developmental and educational continuity from the Infant-Toddler Component to Head Start and from Head Start to elementary school (as part of the Preschool-School Linkage Component) also indicates a need for resources, planning and coordination.

*Effective transition services into Head Start were provided only in CFRPs with close organizational linkages with Head Start. The Preschool-School Linkage Component, aimed at providing comprehensive follow-up on children, was the least clearly defined and least developed of CFRP's three components. There are several reasons why continuity of services did not receive stronger emphasis: (a) CFRPs had limited resources and were unable to provide comprehensive services at each stage of the child's development; (b) most resources (including training and technical assistance) were targeted at the Infant-Toddler Component in part because it was the main focus of the CFRP evaluation; and (c) linkages between Head Start and CFRP were not optimal in some sites--a factor that hampered the transition process. Continuity could be strengthened considerably if ACYF used a carefully planned staged implementation process for each component with appropriate training, technical assistance and monetary support provided.

The research literature in child development points to the potential effectiveness of early intervention with parents of infants and toddlers, and several demonstration programs within and outside Head Start (e.g., the Brookline Early Education Project, the Parent-Child Development Centers) have produced actual effects with this approach. However, these programs involved highly trained staff and intensive work with parents and children. The CFRP evaluation provides cautionary evidence that at least one form of less intensive intervention is ineffective. Possibly CFRP could become effective if the recommendations on program management offered above were followed. Nevertheless, it is clear that to produce measurable developmental gains in very young children requires a sustained, intensive and probably costly effort. Head Start has abundantly demonstrated its effectiveness for preschoolers. To offer Head Start services (other than family support and health services) to younger children, however, is not a simple extension of established practices but a major new undertaking.

2. Comprehensiveness. Another long-established tenet of ACYF policy is that developmental services are most effective when offered in the context of a full range of support services--health services, parent education and counseling, etc. The child has been seen as a product of his or her entire environment; thus it has seemed self-defeating to offer isolated services (e.g., cognitive stimulation) while ignoring other factors (e.g., hunger, illness or disability, or a disturbed family situation) that may make it difficult or impossible for the child to profit from the services. This belief, too, was central to CFRP, and it, too, has been challenged. It has been argued that Head Start should be viewed as a program for educational preparedness, and that comprehensive services are costly frills.

The CFRP evaluation demonstrates clearly that support services can be provided to parents of infants and toddlers in the context of a home-based program--and that these services have far-reaching positive effects on families. However, the results also show that support services compete for staff time and program resources with other goals, especially child development. To abandon support services would be to abandon some of CFRP's--and Head Start's--most valued activities. To provide both support services and

first-rate developmental services is a matter of staffing, training, planning, and ultimately of money.

3. Local Autonomy. A third new policy direction in ACYF and in the government generally is the thrust toward decentralization of control. In this CFRP actually anticipated current thinking by many years. CFRP deliberately offered local programs a great deal of autonomy, anticipating that local administrators and staff would design programs which were more responsive to local needs and resources than would be possible from Washington.

The results of that rather bold experiment in delegating authority are now in, and they are mixed. The 11 CFRPs did create service packages appropriate to their local populations. However, variations in practice from site to site went beyond the bounds consistent with ACYF's mandate and priorities, particularly in the area of child development. The results show both the advantages of inviting local initiative and ingenuity and the need to retain a measure of central control.

4. Decentralization of Research. A final thrust of current policy affects not only ACYF but the writers as policy researchers. Closely allied to the view that control of programs should be decentralized is the view that research designed to assess and improve programs should also be a matter of local initiative, whether from programs themselves, local agencies or private research groups. There is certainly merit in the view that novel and stimulating research proposals are more likely to arise when a wider range of people and organizations are involved in generating ideas. On the other hand, there is a clear place for centrally initiated research, such as this evaluation. We hope and believe that this evaluation has provided ACYF with information that will be useful in making policy decisions and designing future programs based at least in part on the CFRP concept. It would not have done so without initial direction and continuous feedback from the agency regarding its evolving concerns in policy and program management.

Further, it is important to design evaluation studies so that they capture all important aspects of the program. Both process and impact data

must be collected for a meaningful assessment of the total program. Without qualitative and quantitative measures of the processes of program implementation and operation, the impact data cannot be explained or understood. The qualitative data collected through the program and ethnographic studies provided important and comprehensive insights into the impact of the CFRP demonstration.

Finally, evaluation samples should be large enough at each of the sites to support within-site analyses. This issue is particularly critical for complex programs such as CFRP, which encouraged local variation and innovation. Site differences make generalizations about the program as a whole problematic and rather risky.

* * *

Only a few years ago a glowing report by the General Accounting Office held up CFRP and kindred programs as models for delivery of services to low-income families. At that time it might have been reasonable to contemplate a major new initiative within Head Start, based on CFRP and other demonstrations, which would offer comprehensive services to families and expand the age range of children served. In the present climate of fiscal austerity, and in light of the somewhat sobering results of the CFRP evaluation, it may be more appropriate to focus on the hard policy issues discussed above. It is our hope that this report has provided substantial information to inform debate on these issues.

NOTES

All reports of Abt Associates' evaluation of CFRP are listed and described in Appendix A; references to those reports are therefore given here in an abbreviated form. Full references are given for other materials cited.

Foreword

1/ Early Childhood and Family Development Programs Improve the Quality of Life for Low-Income Families, General Accounting Office, 1979 (GPO Report No. HRD-79-40).

Chapter 1

1/ Report to the President, White House Conference on Children, U.S. Government Printing Office, 1971.

2/ Ibid., Changing Families, p. 232.

3/ Ibid., Children and Parents, p. 245.

4/ Phase III Program Study Report, pp. 72-82.

5/ Ibid, pp. 82-91.

6/ The Culture of a Social Program (Main Volume), pp. 9-49.

7/ Report of Baseline Data, 1979, pp. 4/4-4/10.

Chapter 2

1/ Phase III Program Study Report, pp. 139-140; The Culture of a Social Program (Main Volume), pp. 445-448, 479-483.

2/ The Culture of a Social Program (Main Volume), pp. 450-456.

3/ "FLEs Make It Tick: The Family Development Program in Jackson, Michigan," in The Culture of a Social Program (Main Volume), pp. 60-65.

NOTES (continued)

4/ "A Program within a Program: The Child and Family Resource Program in Las Vegas, Nevada," in The Culture of a Social Program (Main Volume), pp. 129-136.

5/ "An Ace in the Hole: The Child and Family Resource Program in Oklahoma City, Oklahoma," in The Culture of a Social Program (Main Volume), pp. 208-210.

6/ "Everything to Everybody: The Child and Family Resource Program in St. Petersburg, Florida," in The Culture of a Social Program (Main Volume), pp. 265-274.

7/ "The Path with a Heart: Family Head Start in Salem, Oregon," in The Culture of a Social Program (Main Volume), pp. 416-424.

8/ Phase III Program Study Report, pp. 22-26; The Culture of a Social Program (Main Volume), pp. 456-459, 493-494.

9/ "FLEs Make It Tick" in The Culture of a Social Program, pp. 81-87.

10/ "A Program within a Program" in The Culture of a Social Program, pp. 150-158.

11/ "An Ace in the Hole" in The Culture of a Social Program, pp. 229-232.

12/ "Everything to Everybody" in The Culture of a Social Program, pp. 280-292.

13/ "The Path with a Heart" in The Culture of a Social Program, pp. 401-413.

14/ Phase III Program Study Report, pp. 3-15, 26-32); The Culture of a Social Program (Main Volume), pp. 459-462, 483-488.

15/ "FLEs Make It Tick" in The Culture of a Social Program, 108-111.

16/ "A Program within a Program" in The Culture of a Social Program, pp. 178-184.

17/ "An Ace in the Hole" in The Culture of a Social Program, pp. 229-232.

18/ "Everything to Everybody" in The Culture of a Social Program, pp. 320-327.

19/ "The Path with a Heart" in The Culture of a Social Program, pp. 383-401.

NOTES (continued)

Chapter 3

1/ "FLEs Make It Tick" in The Culture of a Social Program, pp. 87-96.

2/ "A Program within a Program" in The Culture of a Social Program, pp. 158-166.

3/ "An Ace in the Hole" in The Culture of a Social Program, pp. 232-245.

4/ "Everything to Everybody" in The Culture of a Social Program, pp. 293-307.

5/ "The Path With A Heart" in The Culture of a Social Program, pp. 359-381, 424-432.

6/ Love, J.M. et al. National Home Start Evaluation Final Report--Findings and Implications, High/Scope Educational Research Foundation and Abt Associates Inc., 1976, pp. 23, 25.

7/ "FLEs Make It Tick" in The Culture of a Social Program, pp. 96-104.

8/ "A Program within a Program" in The Culture of a Social Program, pp. 168-178.

9/ "An Ace in the Hole" in The Culture of a Social Program, pp. 245-254.

10/ "Everything to Everybody" in The Culture of a Social Program, pp. 307-313.

11/ "The Path with a Heart" in The Culture of a Social Program, pp. 383-401.

12/ "FLEs Make It Tick" in The Culture of a Social Program, pp. 104-108.

13/ "Everything to Everybody" in The Culture of a Social Program, pp. 308-313.

14/ "The Path with a Heart" in The Culture of a Social Program, pp. 391-394.

15/ "An Ace in the Hole" in The Culture of a Social Program, p. 200.

16/ "FLEs Make It Tick" in The Culture of a Social Program, pp. 66-67.

17/ Laosa, L.M., Parent Education, Cultural Pluralism, and Public Policy: The Uncertain Connection. Educational Testing Service, 1980, p. 11.

18/ "A Program within a Program" in The Culture of a Social Program, p. 144.

19/ Ibid., p. 174.

20/ "FLEs Make It Tick" in The Culture of a Social Program, p. 78.

Chapter 5

1/ "An Ace in the Hole" in The Culture of a Social Program, p. 215.

2/ Ibid., p. 216.

3/ "Everything to Everybody" in The Culture of a Social Program, p. 275.

4/ "FLEs Make It Tick" in The Culture of a Social Program, p. 77.

5/ Phase III Program Study Report, p. 39.

6/ "The Path with a Heart" in The Culture of a Social Program, p. 434.

7/ Ibid., pp. 376-378.

8/ Phase III Program Study Report, pp. 156-157.

9/ Ibid., p. 15.

10/ Phase III Research Report, pp. 54-55.

11/ "The Path with a Heart" in The Culture of a Social Program, p. 399.

NOTES (continued)

12/ "A Program within a Program" in The Culture of a Social Program, p. 158.

13/ "The Path with a Heart" in The Culture of a Social Program, p. 429.

14/ Ibid., pp. 373-376.

15/ "FLEs Make It Tick" in The Culture of a Social Program, p. 76.

16/ "Everything to Everybody" in The Culture of a Social Program, p. 298.

17/ "A Program within a Program" in The Culture of a Social Program,p. 141.

18/ Phase III Research Report, pp. 71-79.

19/ "Everything to Everybody" in The Culture of a Social Program, p. 294.

20/ Ibid., p. 279.

21/ "FLEs Make It Tick" in The Culture of a Social Program, p. 77.

22/ "A Program within a Program" in The Culture of a Social Program, p. 166.

23/ "The Path with a Heart" in The Culture of a Social Program, p. 412.

24/ "FLEs Make It Tick" in The Culture of a Social Program, p. 77.

25/ "A Program within a Program" in The Culture of a Social Program, pp. 172-173.

26/ Ibid., p. 176.

27/ Infant-Toddler Component and Child Impact Report, p. 46.

28/ Ibid., p. 47.

29/ "An Ace in the Hole" in The Culture of a Social Program, p. 223.

30/ Ibid., p. 222.

31/ "The Path with a Heart" in The Culture of a Social Program, p. 428-429.

32/ "Everything to Everybody" in The Culture of a Social Program, p. 297-298.

33/ "FLEs Make It Tick" in The Culture of a Social Program, pp. 95-96.

Chapter 6

1/ "FLEs Make It Tick" in The Culture of a Social Program, p. 89.

2/ "The Path with a Heart" in The Culture of a Social Program, p. 353.

3/ Phase III Program Study Report, pp. 126-128.

4/ Ibid., p. 20.

APPENDIX A

ABT ASSOCIATES INC.
CFRP EVALUATION REPORTS*

Phase I

- Design Report (March 1979)--describes the overall study design and outcome domains.

- Study Implementation and Preliminary Baseline Profile (March 1979)--describes how the study was implemented and compares the entering characteristics of families who had been randomly assigned to a treatment or control/comparison group.

Phase II

- Research Report (February 1980)--documents the first six months of the study and examines initial program impact on families after six months in CFRP.

- Program Study Report (February 1980)--presents descriptive information about CFRP operations at the evaluation sites.

- Executive Summary (February 1980).

Phase III

- Program Study Report (November 1980)--presents 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 identifies 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.

- Infant-Toddler Component and Child Impact Report (December 1980)--describes program activities offered and examines the program's impact on the development of children approximately a year to a year and a half after they entered the program.

*Reports are available from the Administration for Children, Youth and Families or Abt Associates Inc. (at cost).

Phase III (continued)

- Research Report (March 1981)--examines CFRP's impact on families in outcome domains other than child development, after a year and a half of program participation, as well as the nature and extent of that participation.

- Executive Summary (March 1981).

Phase IV

- Analysis Issues and Measures Selection (June 1981)--outlines strategies to be used in answering research questions and a set of hypotheses concerning CFRP's impact on children and their families. The paper also makes recommendations concerning measures to be used in the concluding phase of the evaluation.

- The Culture of a Social Program: An Ethnographic Study of CFRP (Fall 1981) in two volumes (Main and Summary). The summary volume describes the design, methodology and implementation of a six-month qualitative study of CFRP, and summarizes results across sites. This volume also discusses various choices that programs must make in attempting to deliver a broad range of services with finite resources, outlining practical lessons that can be drawn from the CFRP demonstration and decisions that must be faced in designing any family-based child development program. Detailed case studies on each of the five CFRPs are presented in the Main Volume.

- The Effects of a Social Program: Executive Summary of CFRP's Infant-Toddler Component (Fall 1982). This report assesses the effects and effectiveness of CFRP after three years of program participation. Both quantitative and qualitative findings are presented.

APPENDIX B

QUANTITATIVE METHODS AND FINDINGS OF THE IMPACT AND PROCESS/TREATMENT STUDIES

This appendix describes the instruments, sample, statistical techniques and findings of the quantitative portions of the CFRP evaluation--the impact and process/treatment studies. It is addressed to the social scientist rather than the general reader and is intended to provide enough detail for other researchers to judge the adequacy of our methods and the trustworthiness of our results.

The research questions addressed here include the following:

- Did CFRP, overall, benefit its participants--children or families--in any measurable ways?
- Was the program more effective in some sites than in others?
- Was the program measurably more effective for some types of families than others?
- Were the benefits received by individual CFRP families measurably related to the frequency or duration of their participation in the program?

The appendix has three sections:

Section B.1: Measures or Program Effects describes the instruments used to measure outcomes for children and families; where relevant it also discusses conditions of administration and psychometric properties.

Section B.2: The Sample: Attrition and Its Analytic Consequences chronicles changes in the sample over the three-year life of the study, examines the degree of bias or selectiveness in sample attrition, and discusses the consequences of attrition for the planned analyses.

Section B.3: Statistical Approaches and Representative Findings describes the specific techniques and statistical models used to address the research questions listed above and presents salient findings.

B.1 Measures of Program Effects

This section presents detailed descriptions of dependent measures used in the impact and process/treatment studies. For measures used in the concluding phase of the evaluation, detailed information is presented concerning the psychometric properties of measures, response distributions, and factor structures. For measures used in previous phases of the evaluation, the reader is referred to other CFRP evaluation reports.

Measures used in outcome analyses are identified in capital letters. Those used for descriptive purposes are reported in lower case.

B.1.1 Measures of Child Development and Achievement

Three instruments were used to assess CFRP's impact on children's development at the conclusion of the infant-toddler component: (1) the 32-item Preschool Inventory (PSI); (2) the High/Scope Pupil Observation Checklist (POCL); and (3) the Schaefer Behavior Inventory (SBI). At the time of data collection, children were approximately three years old; many were beginning to enter Head Start.

Conditions of Testing

Children in both groups were tested either in the child's home or at the Head Start center, if the child was enrolled and appropriate arrangements could be made with the center. Most testing took place in the child's home, although this varied by site (Table B-1). In Jackson and Salem over half of the children were tested at the Head Start center.

Testing in the child's home was more common for the non-CFRP group than for CFRP children (72 versus 54%). This is due to generally lower enrollments of non-CFRP children in Head Start.

Table B-1

Location of Child Testing
(percent)

Site	N	Child's Home	Head Start Center	Other
Jackson	35	43	54	3
Las Vegas	30	67	33	-
Oklahoma City	53	89	11	-
St. Petersburg	58	79	19	2
Salem	56	36	61	4
OVERALL	232	64	35	2

According to tester logs completed after each testing session, the home provided a less ideal environment for testing than the center. In in-home testing sessions, there were more people present (4.2 versus 2.3), resulting in frequent occurrences of adult interference (33% of the sessions) and noisy sessions (13%) which may have distracted the child. Adult interference in center testing sessions and excess noise were rare occurrences (4 and 1% respectively). Other frequently noted problems were the child's unwillingness to respond or complete the tests (32 and 35% respectively).

Data collection occurred over a three-month period, starting at the beginning of October and ending around the Christmas holidays. The data collection period was considerably shorter in Jackson and Salem where only two months were required to complete this task.

Missing Data

Complete data sets were obtained for 93 percent of the families (Table B-2). Incidence of missing data was highest in Las Vegas (25%) resulting from the loss in the mail of one of the packages containing data. In the other four sites, the incidence of missing data was minimal. In most instances it was a direct result of split data collection sessions required for families with children in Head Start, with parents being interviewed at home and children tested at the center.

Table B-2

Incidence of Missing Data

Site/Group	N	Complete Data Sets	Missing: Preschool Inventory	Missing: Height and Weight	Missing: Pupil Observation Checklist	Missing: Schaefer Behavior Inventory
Jackson						
CFRP	23	23	-	-	-	-
Non-CFRP	14	14	-	-	-	-
Las Vegas						
CFRP	23	13	8	10	10	2
Non-CFRP	25	23	1	3	4	1
Oklahoma City						
CFRP	21	21	-	-	-	-
Non-CFRP	34	34	-	-	-	-
St. Petersburg						
CFRP	27	26	-	1	-	1
Non-CFRP	32	31	1	1	3	-
Salem						
CFRP	24	24	-	1	-	-
Non-CFRP	33	28	-	1	4	5
OVERALL						
CFRP	118	107	8	12	10	3
Non-CFRP	138	130	2	5	9	6
Percent	256	93.0	3.9	6.7	7.4	3.5

Preschool Inventory (PSI)

The PSI is a general measure of children's achievement in areas that are often regarded as necessary for success in school. Children are asked questions of general knowledge (e.g., "What does a dentist do?") and basic concepts (e.g., "Put the blue car under the green box"). The 32-item version of the PSI was used.

Item Analyses

There was unfortunately a significant tester effect on the PSI. When scatterplots of PSI scores with age indicated several very young children with very high scores, we investigated further and discovered that virtually

all of these children were in Oklahoma City and all had been tested by the same person. In fact, for this particular tester, the average PSI score for the children tested was 18.5, compared with an average of 8.6 for all of the other testers. This difference across testers was significant ($p<.01$). When the 26 children tested by this one Oklahoma tester were removed from the sample, there were no other significant differences across testers. As a result of these findings, this sample of Oklahoma children was removed from subsequent analyses.

The frequency distribution for items scored "correct" (PSI SCORE) is shown in Table B-3. On average each child passed 8.6 of the 32 items. The percent of children responding in each response category for each item is given in Table B-4.

Table B-3

Distribution of PSI Scores
(CFRP and Control/Comparison Groups)

Number of Correct Responses	Number of Children	Percent of Children
0-4	37	16.8
5-9	95	43.2
10-14	61	27.7
15-19	24	10.9
20-24	3	1.4
25-32	0	.0
OVERALL	220	100.0

On average, children responded to 1.4 items "Don't Know" (S.D.=1.5), refused to respond on one item (S.D.=1.7), or did not respond on one item (S.D.=1.6). These figures are underestimates since the test was stopped after four consecutive "don't knows," "refusals" or "no responses," or combination thereof. This procedure for stopping the test resulted in incomplete tests for 13 percent of the children. The ability of children to complete all 32 items increased with age ($p=.06$; $F=2.17$), from 75 percent for

Table B-4

PSI Response Distributions
(CFRP and Control/Comparison Groups)

(percent)

Item	Responses[a] N	C	W	DK	R	NR	V
1. What is your first name?	217	88.5	3.2	2.3	2.3	3.7	95.9
2. Show me your shoulder.	217	56.7	26.3	6.0	3.2	7.8	35.0
3. What is this? (Knee)	216	52.3	25.9	10.2	1.9	9.7	89.4
4. What is this? (Elbow)	216	40.7	40.7	10.2	0.9	7.4	90.3
5. Put the yellow car on the little box.	215	21.9	67.9	0.9	3.3	6.0	32.1
6. Put the blue car under the green box.	214	14.0	75.7	1.9	3.3	5.1	33.2
7. Put two cars behind the box in the middle.	212	4.2	88.2	1.9	1.4	4.2	25.0
8. If you were sick, who would you go to?	212	26.4	53.8	9.4	4.2	6.1	91.0
9. When do we eat breakfast?	211	20.9	61.1	9.5	3.8	4.7	92.9
10. If you wanted to find a lion, where would you look?	209	8.6	62.2	12.0	6.7	10.5	84.2
11. What does a dentist do?	209	25.4	39.2	16.7	10.0	8.6	86.1
12. Which way does a phonograph record go?	199	19.6	60.8	8.5	8.5	2.5	88.4
13. Which way does a ferris wheel go?	199	10.6	64.8	11.1	8.0	5.5	83.9
14. How many hands do you have?	196	41.3	52.6	1.5	2.6	2.0	93.9
15. How many wheels does a bicycle have?	195	33.8	53.3	8.2	4.1	0.5	97.9
16. How many wheels does a car have?	194	17.0	69.1	7.2	4.6	2.1	96.4
17. How many toes do you have?	193	3.1	89.6	2.6	3.1	1.6	95.3
18. Which is slower a car or a bicycle?	193	50.3	39.4	6.2	2.6	1.6	95.3
19. Checkers--Point to the middle one.	193	26.4	68.9	-	2.1	2.6	25.9
20. Checkers--Point to the first one.	193	35.8	60.6	1.0	2.1	0.5	20.7
21. Checkers--Point to the last one.	193	34.7	62.7	1.0	1.6	-	18.1
22. Point to the second one.	191	34.0	63.4	0.5	1.6	0.5	18.3
23. Which group has less checkers?	191	15.2	67.0	5.8	8.4	3.7	50.3
24. Which group has more checkers?	191	5.8	74.3	7.9	7.9	4.2	51.8
25. Point to the one that is most like a tent.	190	65.3	29.5	1.6	1.6	2.1	38.4
26. Make one like this--square	190	10.5	87.4	-	2.1	-	22.1
27. Make one like this--triangle.	190	4.7	94.7	-	0.5	-	20.5
28. Which one is the color of night? (crayons)	190	42.1	55.3	-	2.1	0.5	50.5
29. Color the square	190	18.9	75.8	-	3.7	1.6	28.9
30. Purple	190	39.5	56.3	0.5	2.6	1.1	27.4
31. Color the triangle	190	24.7	72.6	-	2.1	0.5	20.5
32. Orange	190	46.8	51.1	-	1.1	1.1	26.3

[a]Responses: C=correct; W=wrong; DK=Don't Know; R=Refusal; NR=No Response; V=Verbal Response

the youngest children (33 months) to 100 percent for the oldest group. The alpha coefficient for PSI items was .79.

As would be expected, there was a significant correlation of PSI SCORE (sum of correct items) with age (r=.28, p=<.01). Table B-5 presents the means and standard deviations by three-month age intervals. In addition, there was a significant correlation between PSI SCORE and sex of the child, with girls scoring approximately 1.4 points higher than boys. Both sex and age were statistically controlled for in all analyses of program impact on PSI SCORE, as discussed in Section B.3.

Table B-5

Proportion of PSI Items Passed
by Age and Sex
(CFRP and Control/Comparison Groups)

Age Groups[a] (months)	N	Mean	S.D.
33-35	6	5.83	5.42
36-38	40	6.65	4.59
39-41	72	7.94	4.52
42-44	61	9.66	4.27
45-47	35	10.69	4.74
48-50	4	9.25	2.87
Sex[b]			
Male	98	7.80	4.63
Female	120	9.24	4.63
OVERALL	218	8.59	4.68

[a] F Ratio=4.45; p-value <.01

[b] F Ratio=5.26; p-value .02

Table B-6 compares the PSI scores of children in the CFRP evaluation with samples of the Head Start Planned Variation Study (1971), Home Start Evaluation (1973), and the National Day Care Study (NDCS-1976). Scores

Table B-6

Comparison of PSI Data on CFRP Sample
with Other Studies
PSI Means by Age

Age (Months)	Huron Institute[a] Head Start Sample- no previous preschool experience			Home Start Evaluation[b]			National Day Care Study[c]			CFRP Evaluation		
	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
36-38	4	7.8	4.8	25	6.6	2.9				40	6.6	4.6
							282-304	9.8	4.1			
39-41	4	6.8	1.5	53	7.7	3.6				72	7.9	4.5
42-44	16	7.6	3.8	57	8.5	3.2				61	9.7	4.3
							330-349	12.6	5.1			
45-47	63	10.2	4.6	60	9.6	4.4				35	10.7	4.7
							372-381	15.5	5.2			
48-50	207	10.6	4.5	69	10.1	4.3				4	9.3	2.8

[a]Huron Institute data from fall 1971, Head Start Planned Variation Sample (Walker, Bane and Bryk, 1973).

[b]High/Scope Educational Research Foundation data from fall 1973, Home Start Evaluation Pretest Sample (Deloria and Love, 1974).

[c]Abt Associates Inc. data from 1976, National Day Care Study Sample (Bache, Goodrich, Layzer, Goodrich, Calore, 1980)--Age intervals for this study were different than those used in other evaluations: 37-48 months, 43-48 months and 49-54 months.

of the CFRP sample were quite comparable to those of samples used in the first two studies (scores of children 39 to 47 months old in the CFRP evaluation were slightly higher). Performance by the NDCS sample was substantially higher--by more than a standard deviation in some instances. These data reflect the fact that the NDCS sample included a higher proportion of middle-income families than the other samples.

Bayley-PSI Relationship

We examined the relationship between the PSI SCORE and the Bayley score obtained approximately 18 months earlier. For the sample of 168 children who were given both tests, this correlation was .34 ($p<.01$). Because both of these tests are correlated with age, the partial correlation between the Bayley and the PSI, removing age, was examined. Not surprisingly, the correlation decreased, but only to .26, which is still significant at the .05 level. We then checked to see if this still-significant correlation was due to some form of non-linearity in the relationships between age and the two tests; however, none of the age transformations performed better than linear age, nor did they significantly alter the Bayley's predictive power.

As a final test of the Bayley-PSI relationship, two variables which were thought to possibly affect the correlation were examined: the inter-test interval and race. As expected, both of these variables were significantly related to the child's PSI SCORE. Throughout these analyses, however, the relationship between the two tests remained strong and highly significant. Bayley test scores, inter-test intervals and child race were as a result used in all subsequent analyses of the PSI data, in addition to child age and sex.

High/Scope Pupil Observation Checklist*

Upon completion of testing, a checklist was completed rating each child on ten bipolar adjectives such as "resistive-cooperative" or "quiet-

*The POCL was developed by the High/Scope Educational Research Foundation, Ypsilanti, Michigan. Permission for the use of this checklist in the CFRP Evaluation was granted by the Foundation.

talkative." The checklist has two scales: (1) TEST ORIENTATION, pertaining to the child's engagement with the test and (2) SOCIABILITY, pertaining to the child's general interpersonal skills and attitudes as seen by testers.

Item Analyses

The distribution of POCL ratings is shown in Table B-7.

Table B-7

High/Scope Pupil Observation Checklist (POCL)

Item Response Distributions for CFRP and Control Groups (percent)

		Ratings						
Item	N	1	2	3	4	5	6	7
Resistive-Cooperative	240	1	7	18	25	31	10	8
Shy-Sociable	240	2	5	19	20	35	12	8
Outgoing-Withdrawn	240	3	3	14	36	29	11	4
Involved-Indifferent	240	2	7	16	44	22	7	2
Defensive-Agreeable	240	1	-	5	36	37	15	6
Active-Passive	239	1	5	13	45	26	8	2
Gives up-Keeps Trying	239	1	5	14	44	27	7	2
Attentive-Inattentive	238	3	9	18	31	31	6	3
Calm-Excited	238	1	3	11	60	17	3	5

An examination of ratings by individual testers shows a different pattern of ratings of one tester, who used extreme low or extreme high ratings with greater frequency than other testers. Inter-tester differences are significant on both scales: TEST ORIENTATION ($p=<.01$) and SOCIABILITY ($p=.10$). POCL ratings obtained by this tester (Las Vegas) are excluded from POCL analyses.

Table B-8 shows the intercorrelations of the POCL items. Inter-item correlations are high. On the basis of a factor analysis, two factors were

Table B-8

High/Scope Pupil Observation Checklist

Inter-Item Correlations

	TEST ORIENTATION					SOCIALBILITY				
Scale/Item	Cooperative	Involved	Agreeable	Keeps Trying	Attentive	Sociable	Outgoing	Active	Talkative	Excited
TEST ORIENTATION										
Cooperative	-									
Involved	.67	-								
Agreeable	.74	.62	-							
Keeps Trying	.56	.72	.58	-						
Attentive	.63	.75	.57	.62	-					
SOCIABILITY										
Sociable	.56	.63	.51	.59	.47	-				
Outgoing	.52	.63	.49	.57	.45	.87	-			
Active	.14	.33	.13	.32	.14	.59	.66	-		
Talkative	.36	.46	.36	.44	.28	.75	.76	.61	-	
Excited	.23	.08	.28	.10	.17	-.15	-.22	-.42	-.30	-

extracted--TEST ORIENTATION and SOCIABILITY (Table B-9) which were the same factors found and used in previous research with the instrument. The "excited" rating was excluded, however, from the SOCIABILITY scale because its negative factor loading is at variance with the results of previous studies.

The alpha coefficients calculated for each scale were high: .90 for TEST ORIENTATION and .91 for SOCIABILITY.

The mean scale scores (by age and sex) are presented in Table B-10. For both scales, there is a pronounced tendency for mean scores to increase with age, as long as the youngest and oldest groups of children are ignored which both have small N's.

Schaefer Behavior Inventory (SBI)

The Schaefer Behavior Inventory consists of fifteen descriptive statements of child behavior that are read to the child's parent. Two typical items are "Stays with a job until he finished it" and "Watches others, but doesn't join in with them." The parent indicates the degree to which the description fits the child by responding on a scale from 1 to 5. The SBI contains three scales labeled TASK ORIENTATION, EXTRAVERSION-INTROVERSION, and HOSTILITY-TOLERANCE.

Item Analyses

The distribution of ratings is shown in Table B-11. There is a tendency for parents to use positive ratings, particularly on the EXTRAVERSION-INTROVERSION Subscale. Negative ratings were most common on the HOSTILITY-TOLERANCE Subscale. The effect of these rating biases will be more clearly seen when the scale means and standard deviations are presented.

The intercorrelation matrix of the SBI items is presented in Table B-12. Factor analyses confirmed the three subscales--TASK ORIENTATION, EXTRAVERSION-INTROVERSION, and HOSTILITY-TOLERANCE. Two items were excluded

Table B-9

High/Scope Pupil Observation Checklist

Rotated Factor Loadings[a]

(Two Factors Extracted)

Scale Item	FI	FII
TEST ORIENTATION		
Cooperative	.85	.09
Involved	.83	.29
Agreeable	.84	.06
Keeps Trying	.76	.29
Attentive	.81	.07
SOCIABILITY		
Sociable	.58	.70
Outgoing	.53	.76
Active	.09	.85
Talkative	.34	.79
Excited[b]	.43	-.68

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

[b]Excluded from factor because the negative loading contradicts results of previous studies and appears to be anomalous.

Table B-10

High/Scope Pupil Observation Checklist

Descriptive Data by Age and Sex for CFRP and Control Groups

	TEST ORIENTATION				SOCIABILITY			
	N	Mean	S.D.	S.E.	N	Mean	S.D.	S.E.
Age Groups (months)								
33-36.4	13	4.40	1.01	.28	13	4.65	.87	.24
36.5-39.4	50	3.96	1.01	.14	50	4.11	1.27	.18
39.5-42.4	82	4.05	.92	.10	82	4.23	.99	.11
42.5-45.4	56	4.66	.94	.13	58	4.31	1.13	.15
44.5-48.4	33	4.81	.91	.16	32	4.87	1.04	.18
48.5+	3	4.73	.61	.35	3	4.50	1.15	.66
Sex								
Male	105	4.19	.97	.09	106	4.32	1.08	.11
Female	132	4.40	1.01	.09	132	4.35	1.13	.10
OVERALL	237	4.31	1.00	.06	238	4.34	1.11	.07
Age Differences	F=6.117 p=<.01				F=2.338 p=.04			
Sex Differences	F=2.687 p=.10				F= .032 p=.86			

Table B-11

Schaefer Behavior Inventory

Item Response Distributions for CFRP and Control Groups

(percent)

Item by Subscale[a]	N	Ratings 1	2	3	4	5
TASK ORIENTATION						
1	247	6	18	42	11	24
4	246	15	23	40	12	11
7	247	2	11	19	16	52
10	247	15	17	27	27	15
13	247	2	12	34	16	37
EXTRAVERSION-INTROVERSION						
2	247	3	19	16	24	38
5	247	2	7	12	15	64
8	247	1	5	5	12	77
11	247	4	7	16	24	49
14	247	8	15	24	15	38
HOSTILITY-TOLERANCE						
3	247	37	24	20	15	3
6	246	9	12	23	19	37
9	247	8	5	17	16	54
12	247	36	18	23	19	4
15	247	19	16	26	24	16

[a]See key to items

Table B-11 (continued)
Key to
Schaefer Behavior Inventory Items

Task Orientation Subtest

1. Pays attention to what he (she) is doing when other things are going on around him (her).

4. Stays with a job until he (she) finishes it.

7. Becomes very involved in what he (she) is doing.

10. Goes from one thing to another; quickly loses interest in things.

13. Watches carefully when an adult is showing how to do something.

Extraversion-Introversion Subtest

2. Tries to be with another person or group of people.

5. Likes to take part in activities with others.

8. Enjoys being with others.

11. Watches others, but doesn't join with them.

14. Does not wait for others to approach him (her), but makes the first friendly move.

Hostility-Tolerance Subtest

3. Gets impatient or unpleasant if he (she) can't get what he (she) wants when he (she) wants it.

6. Slow to forgive when offended.

9. Stays angry for a long time after an argument.

12. Complains or whines if he (she) can't get his (her) own way.

15. Gets angry when he (she) has to wait his (her) turn or share with others.

Table B-12

Schaefer Behavior Inventory
Inter-Item Correlations

Item[a]	Task Orientation					Extra-Introversion					Hostility-Tolerance				
	1	4	7	10	13	2	5	8	11	14	3	6	9	12	15
TASK ORIENTATION															
1	-														
4	.14	-													
7	.27	.16	-												
10	.29	.27	.24	-											
13	.19	.24	.25	.19	-										
EXTRAVERSION-INTROVERSION															
2	.02	-.01	-.01	-.03	.06	-									
5	-.00	.11	.17	-.04	.24	.30	-								
8	-.05	.08	.01	-.04	-.02	.29	.16	-							
11	-.03	.02	-.08	.03	-.01	.39	.21	.20	-						
14	-.16	.05	.00	-.14	.10	.25	.22	.15	.20	-					
HOSTILITY-TOLERANCE															
3	.15	.23	.05	.18	.14	-.02	.16	-.11	.02	.13	-				
6	.07	.02	.08	.11	.11	.16	.23	.13	.20	.02	.12	-			
9	.00	-.08	.04	.09	-.01	.12	.10	.16	.15	.05	.13	.33	-		
12	.06	.16	.07	.11	.14	.02	.19	-.03	.15	.20	.55	.16	.15	-	
15	.19	.16	.04	.24	.43	.01	.11	.03	.12	-.07	.31	.17	.19	.43	-

[a]See Key to items

from the HOSTILITY-TOLERANCE subscale due to low loadings--"Slow to forgive when offended" and "Stays angry for a long time after an argument." Factor loadings are presented in Table B-13.

Alpha coefficients were calculated for each scale: For TASK ORIENTATION, alpha=.59; for EXTRAVERSION-INTROVERSION and for HOSTILITY-TOLERANCE, alpha=.62.

The mean scores, standard deviations and standard errors for each age level are presented in Table B-14. The scale scores were calculated by summing the ratings on items contained in each scale and dividing by the number of items in the scale.

Previous Measures of Child Development

In addition to the three instruments used in fall 1981 to assess the final outcomes of CFRP's infant-toddler component, several other developmental measures were taken at earlier points in the evaluation. At baseline (fall 1978), five questions were asked of parents concerning infant temperament. Six months after entry into the evaluation, parents were asked to estimate the frequency with which they encountered 12 common problem situations, reflecting typical stages of early development. The measures, which showed no hint of program effects, are described in an earlier report*; they are not discussed further here.

In fall/winter 1979-80, the Bayley Scales of Infant Development (BSID) were used to assess CFRP's impact on children's development.** The majority of the children were between the ages of 15 and 22 months. The BSID consists of two scales, a mental development scale (MDS) and a physical development scale (PDS). (The latter scale was not administered in its entirety, since several items required special equipment and were not feasible to use in homes where testing occurred.) Although the BSID did not show a difference between the CFRP and control/comparison groups, there were hints

*Phase II Research Report, 1980, pp. 125-128.

**See Infant-Toddler Component and Child Impact Report, 1980.

Table B-13
Schaefer Behavior Inventory

Rotated Factor Loadings[a]
(Three Factors Extracted)

Items by Subscale[b]	FI	FII	FIII
TASK ORIENTATION			
1	-.12	.07	.61
4	.03	.15	.53
7	.06	-.09	.67
10	-.12	.21	.58
13	.15	.06	.61
EXTRAVERSION-INTROVERSION			
2	.73	-.07	.03
5	.58	.15	.23
8	.57	-.14	.01
11	.61	.17	-.10
14	.51	.04	-.10
HOSTILITY-TOLERANCE			
3	-.04	.75	.16
6[c]	.39	.32	.11
9[c]	.31	.39	-.09
12	.07	.81	.08
15	.01	.67	.19

[a]Principal components factor analysis followed by a varimax rotation
[b]See key to items.
[c]Excluded from factor due to low loadings.

Table B-14

Schaefer Behavior Inventory

Descriptive Data by Age and Sex for CFRP and Control Groups

	TASK ORIENTATION				EXTRAVERSION-INTROVERSION				HOSTILITY-TOLERANCE			
	N	Mean	S.D.	S.E.	N	Mean	S.D.	S.E.	N	Mean	S.D.	S.E.
Age Groups (months)												
33-36.4	14	3.61	.62	.17	14	4.10	1.02	.27	14	2.88	1.20	.32
36.5-39.4	53	3.13	.66	.09	54	3.98	.74	.10	54	2.43	1.01	.14
39.5-42.4	89	3.45	.68	.07	89	3.98	.69	.07	89	2.45	1.01	.11
42.5-45.4	59	3.56	.81	.11	59	4.17	.65	.09	59	2.57	.88	.11
44.5-48.4	28	3.30	.73	.14	28	4.28	.67	.13	28	2.86	1.04	.20
48.5+	3	3.47	.31	.18	3	4.33	.23	.13	3	2.33	.67	.38
Sex												
Male	110	3.39	.69	.07	111	4.03	.69	.07	111	2.44	.94	.09
Female	136	3.41	.75	.06	136	4.10	.73	.06	136	2.63	1.03	.09
OVERALL	246	3.40	.72	.05	247	4.07	.71	.05	247	2.54	.99	.06
Age Differences		F=2.563	p=.03			F=1.248	p=.29			F=1.218	p=.30	
Sex Differences		F= .081	p=.78			F= .547	p=.46			F=2.028	p=.16	

of an effect in one site (Salem) and of a relationship to the amount and type of program participation. Further investigation, conducted at the end of the evaluation, suggested that BSID scores would be useful as covariates in analyzing the impact of the program on PSI scores.

B.1.2 Measures of Parent-Child Interaction and Parental Teaching Skills

At the conclusion of the three-year infant-toddler component, Robert Strom's Parent-As-A-Teacher Inventory (PAAT) was used to assess CFRP's impact on parental teaching skills. A number of other measures were used in previous phases of the study.

Parent-As-A-Teacher Inventory (PAAT)

The Parent-As-A-Teacher Inventory* consists of fifty statements concerning childrearing, to which the parent is asked to indicate agreement on a four-point scale (strong yes, yes, no, strong no). The responses were scored from 1 to 4 as "strongly undesirable" to "strongly desirable", as specified by the author based on his theoretical approach. The 50 items and the direction of the scoring for each item are shown in Exhibit B-1.

Item Analyses

An examination of the distribution of responses to individual items of the PAAT pointed to two problems. First, many of the items had three- rather than four-point distributions. On these items (indicated in the right-hand column of Table B-15) there were few responses at the extremely "undesirable" end of the scale. Second, on a few of the items, most parents disagreed with the author's judgment of the desirable response.

A series of principal component analyses were pursued to explore the interrelationships among items and the internal structure of the PAAT. This task was complicated by the distributional problems of some of the

*Permission for the use of this measure in the CFRP evaluation was obtained from the author, Dr. Robert Strom.

Exhibit B-1

Parent-As-A-Teacher Inventory

Directions:

You will be reading some statements on feelings about your child. This is not a test. We are asking that you express your feelings about your child. For each statement, circle only one answer. If there is no doubt in your mind about a statement, then you will circle either STRONG YES or STRONG NO. Otherwise, circle either YES or NO. Continue until you have answered all 50 statements. Take your time.

1. I get tired of all the questions my child asks.	Strong Yes	Yes	No	Strong No
2. My child should be able to make noise during play.	Strong Yes	Yes	No	Strong No
3. It is all right for my child to disagree with me.	Strong Yes	Yes	No	Strong No
4. My child needs to play with me.	Strong Yes	Yes	No	Strong No
5. Much of my child's learning will take place before he enters school.	Strong Yes	Yes	No	Strong No
6. I like my child to make up stories.	Strong Yes	Yes	No	Strong No
7. It gets on my nerves when my child keeps asking me to watch him play.	Strong Yes	Yes	No	Strong No
8. I want my child to say more than I do when we talk.	Strong Yes	Yes	No	Strong No
9. Playing with my child makes me feel restless.	Strong Yes	Yes	No	Strong No
10. It is hard for me to tell when my child has learned something.	Strong Yes	Yes	No	Strong No
11. When my child doesn't know an answer, I ask him to guess.	Strong Yes	Yes	No	Strong No

		Strong Yes	Yes	No	Strong No
12.	I get tired of all the fears that my child talks about.				
13.	There are some things I just don't want my child to talk about.				
14.	If I spend a lot of time playing with my child, he will disobey me more often.				
15.	It is all right for my child to have a make-believe friend.				
16.	I want my child to play with toys made for boys and with toys made for girls.				
17.	My child bothers me with questions when I am busy.				
18.	I like my child to be quiet when adults are talking.				
19.	I feel able to choose new toys for my child.				
20.	It is difficult for me to think of things to say to my child during play.				
21.	When my child plays with toys, the pretending seems foolish.				
22.	My child is punished for fighting during play.				
23.	While we play, my child should be the person in control.				
24.	Playing with my child improves the child's behavior.				
25.	When I play with my child I feel the need to talk like a child.				
26.	I want my child to have all of his questions answered.				
27.	It's all right for my child to get dirty while at play.				
28.	When at play with my child, I prefer games that have rules rather than the make-believe kind of play.				
29.	My child learns new words when we play.				
30.	I feel able to give my child the proper preschool experience at home.				
31.	I get upset when my child tries to solve a simple problem in the wrong way.				

(3)

32.	It's okay for my child to interrupt me when we play.	Strong Yes	Yes	No	Strong No
33.	I feel play must be stopped when my child becomes angry at a playmate.	Strong Yes	Yes	No	Strong No
34.	I try to praise my child a lot when we play.	Strong Yes	Yes	No	Strong No
35.	More of my child's personality learning at this age takes place by watching people and things rather than by being told.	Strong Yes	Yes	No	Strong No
36.	It is all right for my child to spend a lot of time playing alone.	Strong Yes	Yes	No	Strong No
37.	While at play my child can take out as many toys as he wishes.	Strong Yes	Yes	No	Strong No
38.	I provide chances for my child to make up his own mind about a lot of things.	Strong Yes	Yes	No	Strong No
39.	It is difficult for me to stay interested when playing with my child.	Strong Yes	Yes	No	Strong No
40.	I scold my child when he doesn't learn.	Strong Yes	Yes	No	Strong No
41.	My child wants to play too long at one time.	Strong Yes	Yes	No	Strong No
42.	When my child shows off I ignore it.	Strong Yes	Yes	No	Strong No
43.	I feel unhappy when I don't know an answer to my child's questions.	Strong Yes	Yes	No	Strong No
44.	I imitate my child's speech when we play so that the child understands.	Strong Yes	Yes	No	Strong No
45.	It is easy for me to use toys when teaching my child.	Strong Yes	Yes	No	Strong No
46.	I seldom tell my child his work is good or bad so that my child can make up his own mind.	Strong Yes	Yes	No	Strong No
47.	I want my child to put the toys away before going to bed.	Strong Yes	Yes	No	Strong No
48.	It's all right for my child to have secrets from me.	Strong Yes	Yes	No	Strong No
49.	My child learns by playing with other children.	Strong Yes	Yes	No	Strong No
50.	If we play whenever my child wants to, not much learning will take place.	Strong Yes	Yes	No	Strong No

Table B-15

Distribution of Responses to the PAAT
(CFRP and Control Groups)

DOMAIN	Q#	Number Missing/ Don't Know: N D.N.	N Miss	Percent Distribution: Str. Undes.	Undes.	Des.	Str. Des.	$\bar{X}$	Content Problems	N Point Scale
C	1	1		4	21	47	27	2.96		3
R	6	3	1	2	14	53	29	3.07		3
E	11	4		9	29	50	10	2.61		4
A	16	1	1	4	12	56	28	3.07		3
T	21	1		1	7	55	37	3.25		3
I	26		1	29	58	13	1	1.83	X	3
V	31	3		5	30	49	15	2.73		3
I	36	1	1	5	31	51	13	2.77		3
T	41		1	8	35	46	11	2.57		3
Y	46			18	34	37	11	2.46		4
F	2			1	4	55	40	3.36		2
R	7			2	22	54	21	2.92		3
U	12	6		3	6	58	31	3.16		2
S	17	1	2	12	51	32	6	2.28		3
T	22	1		17	54	24	5	2.21	X	3
R	27			1	1	59	39	3 36	X	2
A	32	2		1	14	68	16	2.99		3
T	37			11	24	49	15	2.69		4
I	42	1	1	4	20	53	22	2.91		3
O	47			51	47	1	1	1.52	X	2
N										
C	3			15	22	48	14	2.59		4
O	8	4		4	25	54	17	2.82		3
N	13	3		13	36	29	21	2.56		4
T	18	1	1	45	48	6	1	1.60	X	2
R	23	5		10	37	44	7	2.50		3
O	28	5	1	6	32	47	13	2.65		3
L	33	3	1	18	45	29	6	1.87	X	3
	38			3	17	55	26	3.02		3
	43	1	1	10	43	37	9	2.47		4
	48	6		12	32	45	8	2.48		3
P	4	2		1	7	59	32	3.21		2
L	9			2	10	56	31	3.14		3
A	14			8	17	40	36	2.96		3
Y	19			0	8	63	29	3.22		2
	24	1		2	11	61	25	3.08		3
	29	2		0	5	74	20	3.14		2
	34	1	1	27	63	10	1	1.87	X	3
	39		1	3	26	52	20	2.84		3
	44			3	32	40	24	2.81		2
	49			1	1	49	50	3.47		2
T	5			2	8	50	40	3.27		2
E	10			1	10	50	40	3.28		3
A	15	6		1	17	60	20	2.99		3
C	20			2	19	49	31	3.06		3
H	25			3	20	45	32	3.03		3
I	30	4		9	35	43	11	2.59		4
N	35	4		1	6	51	41	3.33		2
G	40			1	16	56	27	3.04		3
	45	3		1	18	61	19	2.98		3
	50	4		7	33	38	20	2.71		3

items identified above (truncated or "reversed" distributions). As a result, principal component analyses were done not only with the 50 items in their original distributions, but also with different adjustments for the discrepant distributions. One set of principal component analyses was done with relevant items recoded to three-point distributions, and another set was done deleting the items to which the majority of the parents responded opposite to the desirable direction. (Both these principal component analyses were run on the total sample, and on the CFRP and non-CFRP samples separately, to investigate differences in the factor structures for these samples.) Another set of principal component analyses was done to test the domain structure that the author postulated for the 50 items. The author organized the 50 items into five domains--CREATIVITY, FRUSTRATION, CONTROL, TEACHING, and PLAY with the 10 items in each domain considered to be related conceptually. The author suggested that scoring and analysis of the instrument be based on his domain structure, and it seemed important to investigate whether in fact there was statistical support in our sample for the separate domains.

The series of principal component analyses showed similar results, regardless of the subsample, of whether the item values were recoded, and whether the "reversed" items were included. The results can be summarized as follows. First, there was one strong factor that consistently appeared. (The factor loadings for this first component are presented in Table B-16.) It cut across all of the author's five domains, although it included nearly all of the items in his "Play" domain. On the basis of the content of the items in this factor, it did not have a readily apparent meaning or definition. Second, there was little statistical support for the original five domains in the factor analyses.

Although there was not strong evidence to support a factor structure for the 50 items, we nevertheless constructed some summary scores based on the principal component analyses and on the author's hypothesized domain structure. First, an overall factor score was computed for each subject, derived from the strongest component that appeared in the principal components analysis. This score (PAAT-SCORE) was a sum of the item scores, each

Table B-16

Factor Loadings for First Principal Component on the PAAT (n=247)

Domain	Question #	Factor Loading
CREATIVITY	1	.37
	6	.40
	11	.05
	16	.54
	21	.63
	26	.45
	31	.47
	36	.28
	41	.47
	46	.30
FRUSTRATION	2	.46
	7	.25
	12	.42
	17	.04
	22	-.07
	27	.53
	32	.39
	37	.26
	42	-.19
	47	.39
CONTROL	3	.39
	8	.03
	13	.45
	18	.14
	23	-.23
	28	.41
	33	.08
	38	.56
	43	.21
	48	.42
PLAY	4	.50
	9	.55
	14	.54
	19	.45
	24	.47
	29	.38
	34	-.43
	39	.47
	44	.42
	49	.50
TEACHING	5	.42
	10	.54
	15	.51
	20	.63
	25	.34
	30	.12
	35	.44
	40	.51
	45	.47
	50	.48

weighted according to the results of the principal component analyses. Second, a TOTAL PAAT SCORE was computed by simply adding the item scores. Since each item could take on a value from 1 to 4, this total score would range from 50 to 200. In addition, subtotals were computed for the five domains. For each domain of 10 items, the subtotal score thus could range from 10 to 50. Table B-17 shows the central tendencies of the six summary scores computed for the PAAT.

Table B-17

Distributions of PAAT Summary Scores
for CFRP and Control Groups
(n=247)

	Mean	Median	Mode	S.D.	Range
FACTOR SCORE	46.4	45.9	42.1	5.9	34-64
TOTAL SCORE	139.5	138.1	136	11.2	116-177
Domain Scores					
CREATIVITY	27.3	27.0	27	2.8	20-36
FRUSTRATION	27.4	27.0	28	2.7	17-36
CONTROL	24.9	25.0	24	3.4	15-34
PLAY	29.7	29.0	28	3.1	20-38
TEACHING	30.3	30.0	28	3.6	22-40

Previous Measures of Parent-Child Interaction and Parent Teaching Skills

At baseline, data were collected concerning parental comfort with various aspects of the child's schedule, behavior and overall disposition. (Items were linked to infant temperament questions--see Section B.1.1.) Items correlated highly and were combined into one parent comfort scale.* This "comfort" measure was examined as a possible covariate in the outcome analyses reported in Section B.3.

A different set of questions about parents' comfort with the child were asked after six months in the program. They focused on comfort with being a mother, the baby's personality, quieting and comforting the

*Phase II Research Report, 1980, pp. 128-134.

baby, the baby's reaction to separation, eating and sleeping habits, the child's energy and need for attention, obedience, and health. Eight of the ten items (excluding child's reaction to separation and feelings about the child's health) were combined into a general comfort measure.*

In spring 1980, a year and a half after families entered the evaluation, an in-home observation study was conducted on a subset of families using the Carew Toddler and Infant Experiences System (TIES).** The TIES system employs videotape technology and focuses on the child's interaction with the physical and social environment, particularly with the mother or primary caregiver. It records information about naturally occurring activities in the home. TIES is organized (1) 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 (2) to specify the forms of environmental stimulation that the child receives and that are likely to promote these competencies. TIES has 12 major coding dimensions: activity (type), caregiver location, identity of interactor, interaction type, interaction source, interaction facilitation, interaction control, interactor language, interactor emotion, child emotion, and child mobility. (Definitions are provided in the Phase III Research Report, cited earlier.)

A set of adult codes was developed by Abt Associates, Inc. to supplement TIES by recording the behavior of the mother/caregiver 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. Adult codes involved (1) types of solitary activities; (2) objects of social interaction; (3) types of social interaction; and (4) numbers of adults and children present.

Because of the time and expense involved in doing an observation study, resource constraints dictated a limited sample (30 CFRP and 30 control/comparison families) at not more than two sites. A careful multivariate matching procedure was used to minimize any need for statistical adjustments.

*Phase II Research Report, 1980, pp. 128-134.

**Phase III Research Report, 1980, pp. 80-90.

As discussed in Chapter 5, the observation data pointed to some important short-term effects of CFRP on parents' interactions with their children. This finding encouraged us to think that the program might have longer-term effects on children's development.

B.1.3 Measures Maternal and Child Health

Three types of data were collected in the maternal and child health outcome domain: (1) birth circumstances; (2) height and weight; and (3) several aspects of preventive health care.

Birth Circumstances

Baseline data collection focused on the adequacy of prenatal care, complications during pregnancy and birth, birth weight (through parental self-report and birth records obtained in four sites from State Bureaus of Vital Statistics), and physical problems of the child at birth. A group of potentially high-risk children was identified who had low birth weights or were born with physical problems.

Height and Weight

Weight data were obtained through parental report at baseline and six months later. (An attempt also was made to obtain height data; most parents, however, did not know this information.) In fall/winter 1980 measurements were taken of the child's weight and recumbent length. Measurements were repeated in fall 1981, at the conclusion of the three-year Infant-Toddler Component. Four variables were constructed relating the child's stature to national norms: AT RISK FOR HEIGHT (below 5th percentile for height); AT RISK FOR WEIGHT (below 5th percentile for weight); UNDERWEIGHT (below 5th percentile weight for height); and OVERWEIGHT (above 5th percentile weight for height).

Preventive Health Care

A series of questions were asked at each data collection time point (except fall/winter 1980) about preventive health care for mother and child. Items included:

- presence of chronic health problems and treatment;
- frequency of doctor visits for both mother and child; a child measure taken in fall 1981 (MEDICAL CHECKUP) was used as a dependent variable.
- frequency of dentist visits starting in fall 1981 (MOTHER'S DENTAL CHECKUP and CHILD DENTAL CHECKUP); and
- child immunizations.

In addition, some questions were asked about the families' enrollment in a private health insurance plan or Medicaid/Medicare (HEALTH INSURANCE), use of health care facilities, problems with access to health care (DIFFICULTY OBTAINING HEALTH SERVICES), and satisfaction with medical care.

B.1.4 Family Functioning

Two aspects of family functioning were assessed at various time points in the evaluation: (1) family independence and use of formal and informal support networks, and (2) parental coping. All relevant data were drawn from parent interviews.

Family Independence and Supports

Throughout the evaluation an important topic of investigation was the degree to which families became self-reliant and/or able to find support from friends and non-government organizations, as opposed to relying on CFRP or other government agencies in securing needed services. At baseline, availability and use of informal support was defined by four sets of indicators:

- contacts with social groups;
- availability of help at birth;
- preference for help from family or friends (rather than from professionals); and
- likelihood of seeking advice from family or friends (rather than from professionals).

Early analyses focused on two types of contacts with social groups: contacts with informal groups of friends and contacts with organized groups of parents at school, work, or church. Questions concerning networks were dropped in later phases because such contacts increased significantly for CFRP parents by virtue of the center activities offered by the program itself--virtually a tautological "finding." New questions were asked about the help families received with various types of community services from informal and formal networks. At the conclusion of the evaluation, this line of questioning was redirected slightly to assess families' dependence on or independence from various sources of support. Three general questions were posed:

- When you need services for your child, yourself or a family member or have a problem, do you usually know where to go to get services or do you usually ask someone for advice on where to go for help or services?
- Do you usually call the agency yourself to make an appointment or do you usually ask someone to make an appointment for you?
- When you need to go to an agency to get services, do you usually ask someone to provide transportation or do you go on your own?

Items were scored as follows: 1--parent asks for help with information, appointments or transportation; 1.5--"it depends"; 2--parent knows where to find help and/or arrange her own appointments and transportation. Scores on the three items were summed to form a single scale indicating the degree to which parents relied on themselves in securing needed services or on government agencies or private sources (INDEPENDENCE A).

If the response to the above questions was either "it depends" or "parent asks for help," families were asked who provided that help--friends or social agencies. Answers were combined with answers to the original question to form a 4-point scale: 1--parent asks help from agencies; 2--parent sometimes gets help from agencies and sometimes from friends; 3--parent depends on friends; and 4--parent knows where to get services or finds out on her own. This scale provided a measure of parents' independence from CFRP and other agencies (INDEPENDENCE B).

Parental Coping

At baseline, parents were presented with eight potentially problematic situations and asked how frequently they had experienced difficulty in these areas. The situations were: (1) arranging for child care, (2) arranging for housing, (3) getting home repairs, (4) obtaining a job, (5) getting food or clothing, (6) paying bills, (7) arranging for transportation, and (8) obtaining public services such as fire or police protection or utility services. Seven items combined into a "frequency of feeling hassled" scale.* CFRP and control/comparison families did not differ on this scale.

After six months parents were asked a related but somewhat more elaborate set of followup questions, in an attempt to discover whether CFRP had improved their perceived ability to cope with life stresses and demands. Parents were asked to report how frequently they "worried about" or "had to deal with" and (separately) how often they "felt positive or pleased" about the following everyday situations or relationships: school or training; marriage or relationship with another person; financial situation; being a parent; relationship with family; home or neighborhood; outside job; and job as homemaker (managing the home). Items were intended as attitudinal rather than situational measures. This set of items was deleted from later parent interviews because interpretation proved to be ambiguous. CFRP families scored higher than controls on the "worrisome" scale. However, this apparently negative finding might have been due to increased sensitization of

*Phase II Research Report, 1980, pp. 137-141.

CFRP mothers to the realities of their current situation (decreased complacency with one's situation).

Because these efforts to measure program impact on parental coping were unsuccessful, we were forced to confine our investigation of parental feelings of efficacy to a five-item locus-of-control scale, which was included at baseline and repeated in the final parent interview. The distribution of baseline and fall 1981 ratings is shown in Table B-18.

Intercorrelations of baseline items are presented in Table B-19. Factor analyses resulted in the extraction of one factor (COPING SCORE) containing three items (items A, B and C in Table B-20). Alpha coefficients for the three-item scale were .54 at baseline and .64 in fall 1981.

Intercorrelations of baseline items are presented in Table B-19.

Table B-19

Baseline Coping Variables
Inter-Item Correlations
(Baseline)

	A	B	C	D	E
A. Shouldn't Plan Ahead Because Things Don't Usually Work Out	-				
B. No Matter How Hard a Person Tries Can't Do Much About What Happens	.29	-			
C. When I Make Plans, Almost Certain Can Make Them Work	.16	-.01	-		
D. Getting What I Want Has Little or Nothing to Do With Luck	.03	.05	.04	-	
E. World is Run by Few Big Shots and There Isn't Much the Little Guy Can Do About It	.24	.19	-.02	-.01	-

Table B-18
Coping Variables
Response Distributions for CFRP and Control Groups

	N	agree strongly	agree most of time	neither agree/ disagree	disagrees most of time	disagree strongly
Shouldn't Plan Ahead						
Baseline	251	.28	.22	.11	.25	.14
Fall 1981	247	.25	.33	.07	.24	.11
Can't Do Much About What Happens						
Baseline	253	.14	.10	.10	.20	.46
Fall 1981	247	.14	.18	.10	.31	.27
Can Make Work[1]						
Baseline	220	.24	.53	-	.17	.06
Fall 1981	247	.17	.64	.08	.08	.04
Little or Nothing to Do with Luck[1]						
Baseline	210	.42	.33	-	.16	.09
Fall 1981	247	.33	.35	.17	.08	.07
Isn't Much the Little Guy Can Do						
Baseline	254	.42	.17	.15	.11	.15
Fall 1981	247	.40	.24	.11	.15	.12

[1]On these two items, "agree strongly" is the most favorable score. The opposite is true for the other three questions.

Table B-20

Baseline Coping Variables
Rotated Factor Loadings[a]

(One Factor Extracted)

Item	FI	FII
A. Shouldn't Plan Ahead because Things Don't Usually Work Out	.69	.35
B. No Matter How Hard a Person Tries Can't Do Much About What Happens	.71	-.01
E. World is Run by Few Big Shots and There Isn't Much the Little Guy Can Do About It	.69	-.14
C. When I Make Plans, Almost Certain Can Make Them Work	-.04	.88
D. Getting What I Want Has Little or Nothing to Do with Luck	.03	.41

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

Mean scores were computed based on the three items in the COPING scale. In our analyses, we used both the mean score--COPING A--and a categorical variable based on the mean (high, medium or low coping)--COPING B. The means and standard deviations for COPING A and COPING B at both baseline and at the end of the evaluation are shown in Table B-21. In addition, we computed measures of change in coping from baseline to the end of the evaluation. For CHANGE IN COPING A, we computed a residualized change score. COPING A scores from the end of the study were regressed on entering COPING A scores at baseline. Residuals (deviations from the regression line) were used as measures of change. CHANGE IN COPING B was a categorical variable that was coded as follows: 1.0=low coping scores at baseline and high at

Table B-21

Coping Scores for CFRP and Control Groups

	N	Mean	S.D.
COPING A			
Baseline	251	2.97	1.03
Fall 1981	247	2.79	1.07
CHANGE IN COPING A	244	0.00	.92
COPING B (3-point scale)			
Baseline	243	2.13	.59
Low	28 (12%)		
Medium	155 (64%)		
High	60 (25%)		
Fall 1981	244	1.96	.67
Low	59 (24%)		
Medium	135 (55%)		
High	50 (21%)		
CHANGE IN COPING B (5-point scale)	233	-.11	.54
HI TO LO	5 (2%)		
MED TO LO	64 (28%)		
LO TO LO	17 (79%)		
MED TO MED	93 (40%)		
HI TO HI	22 (9%)		
LO TO MED MED TO HI	29 (12%)		
LO TO HI	3 (1%)		

the end of the study; .75=low at baseline and medium at end, or medium at baseline and high at end; .5=high at baseline and high at end; 0=medium at baseline and medium at end; -.5=low at baseline and low at end; -.75=medium at baseline and low at end, or high at baseline and medium at end; -1.0=high at baseline and low at end. The means and standard deviations for the coping change scores are shown in Table B-21.

Mean coping scores and change scores were both used as dependent variables in assessing the effects of CFRP. The findings presented in Chapters 5 and 6 of this report are based on COPING B and CHANGE IN COPING B.

B.1.5 Family Circumstances

At almost every time point in the evaluation, data were collected about the following family characteristics and circumstances:

- MOTHER'S AGE
- HOUSEHOLD SIZE (including number of children born to mother and in household)
- FAMILY TYPE [TWO-PARENT, SINGLE (single living alone, single in extended family, and single living with unrelated adults)]
- MOTHER'S EDUCATION--highest grade of school completed, in school now or in the last three years
- Mother's job training--currently or in past three years
- MOTHER'S EMPLOYMENT--part- or full-time
- NUMBER OF WAGE EARNERS
- Family income
- Income and primary income sources
- Use of public assistance programs--AFDC or Welfare, Medicaid/Medicare, food stamps and WIC (PUBLIC ASSISTANCE).

The first four variables above--mother's age, household size, family type, and mother's level of education--were used as covariates in all of the outcome analyses. From the remaining variables, a number of outcome

measures were constructed. The employment and education/job training variables were combined into one measure because we believed that employment in isolation does not provide an adequate index of a family's circumstances. A four-point scale was created to measure employment/training, at both baseline and the end of the study. It was scored as follows: (1) unemployed and not enrolled in education/training; (2) unemployed and enrolled in training; (3) employed and not in training; (4) employed and in training (or having received training over the course of the Infant-Toddler component). The combined measures, called MOTHER'S EMPLOYMENT/TRAINING STATUS, as well as individual components--EMPLOYMENT STATUS and TRAINING STATUS--were used in analyses. The distributions of these measures at baseline and fall 1981 are shown in Table B-22.

Data on the family's income sources also were combined to form a 4-point scale: (1) sole reliance on income sources other than wages (mostly AFDC); (2) primary reliance on non-wage sources of income with some wages received; (3) primary reliance on wages with some other (non-wage) sources of income; and (4) sole reliance on wages. The distribution of this measure--RELIANCE ON WAGES--is shown in Table B-22, at baseline and at the end of the evaluation.

For both sets of measures, change scores also were computed to assess CFRP's impact (from baseline to the end of the Infant-Toddler Component) in the area of family functioning. For the employment and income measures, residualized change scores were computed by first regressing scores in fall 1981 on baseline scores, and then using residuals as change measures. The distribution of the change measures are shown in Table B-22. In addition, a measure for NUMBER OF PUBLIC ASSISTANCE PROGRAMS was used as an outcome measure.

B.1.6 Process/Treatment Measures

As noted in Chapter 1, a wealth of information on families enrolled in CFRP was collected as part of the process/treatment study. Data included information about participation in progam activities, the needs assessment process, strengths and needs of individual families, relationships between staff and families, family goals for services to be obtained through CFRP and

Table B-22

Measures of Family Circumstances for CFRP and Control Groups

	N	Mean	S.D.
MOTHER'S EMPLOYMENT/TRAINING STATUS			
Baseline	223	.69	.93
Not working/training	133 (60%)		
Working/not training	48 (22%)		
Training/not working	34 (15%)		
Working and training	8 (4%)		
Fall 1981	246	1.43	1.19
Not working/training	75 (31%)		
Working/not training	44 (18%)		
Training/not working	59 (24%)		
Working and training	68 (28%)		
MOTHER'S EMPLOYMENT STATUS			
Baseline	223	.25	.44
Not working	167 (75%)		
Working	56 (25%)		
Fall 1981	246	.46	.50
Not working	134 (54%)		
Working	112 (46%)		
MOTHER'S TRAINING STATUS			
Baseline	223	.19	.39
Not training	181 (81%)		
Training	42 (19%)		
Fall 1981	246	.52	.50
Not training	119 (48%)		
Training	127 (52%)		
RELIANCE ON WAGES			
Baseline	235	2.50	1.07
Wages only	49 (21%)		
Wages and other	75 (32%)		
Other and wages	56 (24%)		
Other only	55 (23%)		
Fall 1981	245	2.30	1.25
Wages only	99 (40%)		
Wages and other	40 (16%)		
Other and wages	40 (16%)		
Other only	66 (27%)		
CHANGE IN EMPLOYMENT/TRAINING STATUS	215	-.01	.45
CHANGE IN EMPLOYMENT STATUS	215	-.03	.50
CHANGE IN TRAINING STATUS	215	.00	.50
CHANGE IN RELIANCE ON WAGES	227	-1.90	40.85
NUMBER OF PUBLIC ASSISTANCE PROGRAMS	245	1.82	1.43

progress toward goal attainment. The intent was to relate process and/or treatment to outcome, because it was deemed unlikely that all families would benefit from the program in the same way. 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.

Collection of detailed data on family needs was largely abandoned in the concluding phase of the evaluation, for several reasons. One major limitation of the needs data that were originally collected was that data were available only for the CFRP group; without parallel data from the control/comparison group, information on needs could not be used in impact analyses. Attempts to collect data on both sets of families in spring 1980 were not successful. Exploratory efforts to relate process and/or treatment to outcomes was further hampered by site variations and small within-site sample sizes.

Only one process measure was used in final analyses--a needs index* (TOTAL NEED), based on baseline and spring 1979 staff reports. All items were of a checklist form, each item asking about specific needs (in areas of housing, health, income, family management, etc.). These items were originally conceived as measures of specific, relatively independent needs that would show quite different patterns from family to family. However, subsequent analysis did not confirm this expectation. Therefore the items were combined into a single measure of global need. The measure is simply a count of the number of needs reported by families. (Since "needs" are not well-defined units, the needs index has no metric; it is an ordinal scale in which higher numbers indicate greater need.)

Treatment data were obtained throughout the three-year data collection period. Once each quarter, family workers reported on participation of individual impact study families in (a) home visits, (b) center sessions, (c) brief home visits (of 15 minutes or less), (d) telephone calls, and (e) other contacts such as social activities, arts or crafts workshops.

*Infant-Toddler Component and Child Impact Report, 1980, pp. D-10 to D-22.

A number of participation measures were used in analyses of relationships between outcome and the amount of participation, as reported in Chapter 6. To measure intensity of participation, average number of home visits per quarter and average number of center sessions per quarter were used. (For CFRP families who participated the full three years of the evaluation, these quarterly averages were based on data from Year III; for CFRP families with shorter participation, Year II data were used; CFRP families who dropped out before the end of the first year were excluded from the analyses.) In addition, a binary measure of ANY PARTICIPATION was computed, to distinguish the families who stayed in CFRP with little or no actual participation. Duration of participation was defined as the number of months a family participated in CFRP activities.

B.2 The Sample: Attrition and Its Analytic Consequences

The impact study was designed as a controlled experiment. At each of the five sites, recruited families were randomly assigned to treatment (CFRP) and control/comparison groups. Random assignment ensured that any pre-existing differences between the groups would be minimized and would be due to chance alone. (As noted below, the assumption of initial group equivalence was checked and found to be nearly correct.) This simple, traditional design was intended to permit the clearest possible assessment of the overall effects of CFRP, within and across sites. The finer-grained analyses required by the process/treatment study--e.g. analyses of CFRP's effects for particular types of families, or for families who received different degrees and kinds of services--were to be based on subsamples within the impact study sample.

As noted in Chapter 1, the full sample at the beginning of the evaluation (fall, 1978) consisted of 199 CFRP families and 210 control/comparison families, averages of 40 and 42 per site, respectively. During the course of the three-year data collection period, 38 percent of the combined CFRP and control/comparison sample was lost due to attrition. The rate of attrition for the CFRP group was 6 percent higher than for the control/comparison group. An average of 22 CFRP families and 27 control/comparison

families remained in the sample at each site in fall 1981. Overall attrition was highest in Jackson, Las Vegas, and Oklahoma City and lowest in St. Petersburg. Despite an elaborate tracking system,* most of the attrition was caused by family relocation and inability of our site staff to locate families following one or multiple moves.

There was another threat to the CFRP sample in the form of non-participation. Some of the 118 non-attrited CFRP families did not participate in CFRP program activities throughout the full evaluation period, although they did participate in the outcome testing. The majority of the non-attrited families (81%) did continue to participate; however, there was a small but steady drop-out after the first 6 months of the program. Most of our analyses are confined to those 111 non-attrited CFRP families who participated in center sessions or home visits for more than one year.

The high rate of attrition, combined with the nonparticipation of some CFRP families, posed problems not only for CFRP, as discussed in Chapter 3 of this report, but also potentially for the evaluation. First, the reduction in sample size potentially threatened the study's statistical power to detect program effects, particularly within sites. Effects are harder to detect in a smaller sample. Second, the comparability of the CFRP and control/comparison groups was potentially compromised by sample attrition. If the families who remained in the treatment and control groups are no longer equivalent, this would invalidate any simple comparison and instead require statistical control of those factors that differentiated the two groups. Third, there was a possibility that families remaining in the sample would, as a group, differ systematically from those who had been in the original sample. This "selective attrition" would occur if families that shared some characteristic (e.g., teenage mothers) tended to drop out. Although such selective attrition might give clues as to the kinds of families

*As part of the tracking system, families were provided with self-addressed, stamped postcards to notify AAI of address changes. On-site, contact was made with relatives, close friends, and former neighbors of the family in an attempt to get information about the household's whereabouts.

that CFRP served or failed to serve, it would also restrict the representativeness of the remaining sample and the generalizability of the treatment-control comparison.

Each of these issues raised by attrition--reduced statistical power, comparability of CFRP and control/comparison groups, and selective attrition--was subjected to analysis to ascertain the consequences for the evaluation. The results are discussed below.

B.2.1 Statistical Power

Sample sizes for the evaluation were originally chosen to permit statistically powerful comparisons of outcomes between CFRP and control/comparison groups both within and across sites. Attrition necessarily reduced the statistical power of the study. However, for the pooled samples across all sites, the statistical power to detect program main effects remained high despite attrition. Power to detect program-by-site interactions remained adequate. Unfortunately, power to detect effects within sites was extremely low. Thus we would be able to tell whether program effects varied across sites--but not whether any particular site produced or failed to produce an effect.

Table B-23 shows the results of power estimations based on techniques decribed by Cohen.* The table shows the likelihood of detecting main and interaction effects of various sizes, given statistical tests of varying degrees of stringency. For example, an overall program effect of medium size (corresponding roughly to a correlation of .24 or a mean difference of .50 standard deviations between CFRP and control groups) would be detected with a probability of .99, assuming a two-tailed α of .10 or a one-tailed α of .05. A medium-sized interaction of program and site would be detected with a probability of .82. Large main effects (corresponding to an r of .37 or a mean difference of .8α) and interactions would be virtually certain to be detected. However, there would be less than a 50-50 chance of detecting a small main effect and very little chance of detecting a small interaction.

*Jacob Cohen, Statistical Power Analyses for the Social Sciences, (1976) (Academic Press: New York)

Table B-23

Statistical Power of the CFRP Impact Study[a]

Test	Stringency of Test (two-tailed values are shown)	Size of Effect[b] Small	Medium	Large
Overall Program Effect	$\alpha 2=.05$	.30	.95	.995+
	$\alpha 2=.10$	.44	.99	.995+
Program-by-Site Interaction	$\alpha 2=.05$	.13	.71	.995+
	$\alpha 2=.10$	.22	.82	.995+

[a]Probability of Detecting a Treatment-Control Difference, as a Function of Effect Size, Sample and Test Stringency

[b]Effect sizes were specified using Cohen's f-statistic. Small effects correspond to f's of .10, which in turn correspond roughly to correlations of .10 or treatment-control differences of 0.2σ. Medium and large effects respectively correspond to f's of .25 and .40 (r's of .24 and .37, mean differences of 0.5σ and 1.0σ).

B.2.2 Comparability of CFRP and Control/Comparison Groups

Random assignment at the outset of the study produced CFRP and control/comparison groups that were equivalent in most respects. That is, when the groups were compared on a wide variety of characteristics at baseline (fall 1978), there were only three significant differences between CFRP and control/comparison families: CFRP families on the average were smaller, contained fewer children and were slightly more likely to contain only a single parent. There were in addition other non-significant but appreciable differences between the groups at baseline: CFRP families tended to have fewer wage earners and to be more dependent on welfare income than non-CFRP families.

To determine whether different attrition patterns had further compromised the equivalence of the two groups, families who remained in the CFRP and control/comparison groups after attrition were compared on the same baseline characteristics. The comparison revealed that attrition had exacerbated some initial differences between the groups and created other differences that had not existed in the full initial sample. (Table B-24 shows the results for the five sites pooled.) CFRP families remaining in the sample in 1981 after attrition differed from control/comparison families with respect to the following entry characteristics (as measured in fall 1978): (1) CFRP families had fewer children (2.6 versus 3.0); (2) CFRP families had fewer wage earners (.7 versus .9); (3) CFRP mothers had less education; (4) proportionately fewer CFRP mothers (21 versus 33%) reported having continuous health problems at baseline; (5) fewer CFRP families were enrolled in Medicaid; and (6) CFRP mothers reported less interaction with informal networks of support (friends) at baseline.

Most of these significant overall differences were not unexpectedly non-significant in the much smaller within-site samples, but were consistent in direction across the sites (see Table B-25). St. Petersburg showed more significant within-site differences between CFRP and control/comparison families than any other site. For health problems, the large and significant CFRP-control difference in St. Petersburg was in the same direction as the difference for all sites pooled and may account in part for the significance of the overall comparison. For other maternal and family characteristics, significant differences in St. Petersburg were not consistent in direction with differences at all other sites and thus were not reflected in significant overall comparisons. Specifically, after attrition (1) St. Petersburg CFRP mothers were older than control/comparison group mothers; (2) more single-parent families remained in the St. Petersburg CFRP group than in the control group; and (3) mothers remaining in the St. Petersburg CFRP group had reported feeling more comfortable in their role as parents at baseline than had mothers in the control group. Only scattered significant effects were found at other sites, none of them contributing to significant across-site comparisons.

Table B-24

Attrition Effects for the Overall Sample

Child Characteristics	CFRP N	CFRP Mean	CFRP S.D	Non-CFRP N	Non-CFRP Mean	Non-CFRP S.D.	F	P
Age[a]	111	.33	.25	136	.30	.26	.747	.39
Proportion of Males	111	.44	-	136	.49	-	.469	.49
Proportion of Only Children	111	.58	-	136	.53	-	.546	.46
Proportion of Non-white	100	.61	-	133	.65	-	.477	.49
Family Characteristics								
Mother's Age	111	21.92	5.58	136	21.77	4.82	.056	.81
Proportion of Teenage Mothers	111	.26	-	136	.21	-	1.052	.31
Number of Children (in Household)	111	2.59	1.52	136	3.01	1.84	3.742	.05
Household Size	111	4.88	2.17	136	5.41	2.52	3.048	.08
Proportion of Two-Parent Families	111	.24	-	136	.29	-	.588	.44
Proportion of Single Living Alone	111	.27	-	136	.23	-	.585	.44
Proportion of Single Living in Extended Family	111	.39	-	136	.41	-	.150	.70
Proportion of Single Living with Unrelated Adults	111	.08	-	136	.06	-	.470	.49
Socioeconomic Status								
Mother's Education[b]	111	2.59	.80	134	2.91	.99	7.713	.01
Proportion of Employed Mothers	98	.20	-	121	.29	-	2.090	.15
Proportion of Mothers in School or Employed	111	.40	-	136	.45	-	.675	.41
Per Capita Income	87	1.75	1.15	110	1.92	1.46	.772	.38
Proportion with Welfare Income	108	.78	-	131	.72	-	1.125	.29
Proportion with Income from Wages	110	.75	-	131	.76	-	.025	.87
Number of Wage Earners	111	.70	.61	136	.92	.64	7.208	.01
Proportion with Welfare as Primary Income Source	104	.43	-	132	.32	-	3.295	.07
Proportion with Wages as Primary Income Source	104	.49	-	132	.58	-	1.704	.19
Health								
Proportion of Mothers with Chronic Health Problems	111	.22	-	136	.33	-	4.024	.05
Proportion Enrolled in Medicaid	110	.81	-	136	.91	-	5.600	.02
Proportion of High Risk Babies[c]	111	.17	-	136	.21	-	.475	.49
Other								
Parent Comfort	111	3.67	.97	131	3.56	.91	.749	.38
Hassled Scale	107	.50	.33	130	.57	.32	2.801	.10
Network of Friends	110	.97	.83	133	1.19	.82	4.119	.04
Network of Groups	108	1.45	1.00	130	1.49	1.04	.085	.77
Attitudinal Temperament Scale	95	2.25	.60	124	2.23	.56	.054	.82
Behavioral Temperament Scale	101	2.09	.63	133	2.16	.57	.820	.37
Coping Score	107	2.12	.58	130	2.16	.59	.273	.60

[a] Child age in years at entry (9/78)

[b] Mother's Education has the following response categories: (1) 8th grade or less; (2) 9-11th grade; (3) high school graduate or, GED or 12th grade; (4) 1-3 years college; (5) college graduate.

[c] High risk babies are children with low birth weight or who were born with physical problems.

Table B-25

Attrition Effects By Site [a]

	Jackson	Las Vegas	Oklahoma City	St. Petersburg	Salem	OVERALL
Child Characteristics						
Age in Months	-.02	.04	.07	-.01	.04	.07
Proportion of Males	-.15	.37**	-.02	-.06	-.32**	-.05
Proportion of Only Children	.22	.04	-.05	-.21	.09	.05
Proportion of Non-white	-.07	-.10	.10	-.09	.00	-.04
Family Characteristics						
Mother's Age	-2.93	-.63	-.40	3.13*	.44	.15
Proportion of Teenage Mothers	-.04	.28	-.03	-.07	.10	.05
Number of Children (in Household)	-.46	-.25	-.28	-.52	-.27	-.42*
Household Size	-.62	-.12	-.75	-.79	-.25	-.53
Proportion of Two-Parent Families	-.01	.00	-.13	-.05	-.01	-.05
Proportion of Single Living Alone	-.11	-.04	.14	.25*	-.09	.04
Proportion of Single Living in Extended Family	-.09	.11	-.10	-.21	.04	-.02
Proportion of Single Living with Unrelated Adults	.10	-.09	.12	-.09	.08	.02
Socioeconomic Status						
Mother's Education	-.65*	-.36	-.19	-.04	-.43	-.32**
Proportion of Employed Mothers	-.33	-.02	-.14	.05	-.06	-.09
Proportion of Mothers in School or Employed	-.29	.20	-.15	-.09	-.05	-.05
Per Capita Income	-.06	-.38	.05	-.12	-.33	-.17
Proportion with Welfare Income	.01	-.05	.22	-.06	.07	.06
Proportion with Income from Wages	-.21	-.05	.17	.07	.22	.01
Number of Wage Earners	-.46	-.14	.42*	-.11	-.09	-.22**
Proportion with Welfare as Primary Income Source	.15	.07	.37**	.07	-.02	.11
Proportion with Wages as Primary Income Source	-.15	.06	-.31*	.00	-.06	-.09
Health						
Proportion of Mothers with Chronic Health Problems	-.11	[redacted]	.01	-.28*	-.15	-.11*
Proportion Enrolled in Medicaid	-.08	-.06	-.04	-.24*	-.09	-.10*
Proportion of High Risk Babies	-.11	-.08	.26*	-.18	-.03	-.04
Other						
Parent Comfort	-.34	.20	-.38	-.77***	.18	.11
Hassled Scale	-.17	.01	-.15	-.12	.02	-.07
Network of Friends	.06	-.17	-.27	-.42	-.24	.15*
Network of Groups	-.39	-.18	.07	.02	.09	-.04
Attitudinal Temperament Scale	-.20	.11	.02	.02	.10	.02
Behavioral Temperament Scale	-.38*	.10	-.14	-.09	.15	-.07
Coping Score	.14	-.13	-.04	-.13	.02	-.04

[a] Entries represent mean differences between values observed for CFRP families and values observed for control/comparison families. A minus denotes that the CFRP group had lower scores than the non-CFRP group. Asterisks indicate significance of these mean differences, as follows: *p=.05; **p=.01; and ***p<.01.

The nonequivalence of CFRP and control/comparison groups, created in part by attrition, required us to control statistically those factors that differentiate the two groups. In the analyses reported below, we control Mother's Education and Single-Parent Status, although we generally do not control Mother's Age or Number of Children. Mother's age is fairly highly correlated with education ($r=.47$, $p<.01$) so control of age is largely achieved by controlling education. We do not attempt to control the number of wage earners in each family or the incidence of health problems reported at baseline. In addition, a number of other baseline characteristics were included in most analyses (e.g., race, age of child, mother's employment or school history), not to control for attrition effects but because they are known to be correlated with outcome measures, such as those used in the CFRP evaluation.

B.2.3 Comparability of the Original, Retained and Attrited Samples

The families recruited at baseline (fall 1978) represented a broad cross-section of CFRP-eligible families. At some sites, the sample probably included virtually all such families, since vigorous efforts had to be made to locate enough families for the study. For the same reason the original sample undoubtedly did not represent the population that would normally have volunteered for CFRP or responded to its usual outreach efforts. The sample remaining at the end of the study (fall 1981) was to a much greater degree self-selected.

The process of self-selection gave us an opportunity to examine the factors associated with dropout versus continued participation in CFRP. Results of that examination are presented here; the data provide the basis for the discussion of program retention and attrition in Chapter 3. At the same time, self-selection raised the likelihood that the remaining sample would no longer represent the CFRP-eligible population. The issue of representativeness is also discussed here.

Factors in Dropout versus Retention

To examine the correlates of dropout versus retention in CFRP, we performed a discriminant analysis using a wide variety of baseline family characteristics as potential predictors. These included mother's age, mother's education, employment or school attendance, race, single-parent versus two-parent family type, high-risk status, "social support" and "comfort" scores, participation measures and site. Three of these factors discriminated between the groups who remained in CFRP and those who dropped out: (1) Families that were members of the predominant racial or ethnic group in each site tended to remain in the program; members of other racial or ethnic groups tended to drop out. (2) Families that had few social ties tended to remain in the program; families with more extensive support networks tended to drop out. (3) Families that participated less often in group sessions tended to drop out. Table B-26 shows values of these three variables for the retained and attrited groups. Of the three variables, membership in the locally predominant racial or ethnic group was by far the most powerful predictor. A weighted sum of these three variables measured at entry would have predicted dropout versus retention correctly in 72 percent of the cases. No other baseline variable discriminated between the two groups.

Table B-26

Baseline Family Characteristics
Related to Dropout versus Retention in CFRP

	Dropouts	Retained Sample
Membership in Predominantly Ethnic Group (percentage)	54.50	91.90
Sociability Rating (mean)	1.27	.91
Logarithm of Number of Group Sessions (mean)	.14	.36

Representativeness of Remaining Sample

To check whether selective attrition from either the CFRP or control/comparison groups might have diminished the representativeness of the sample, we compared families in the original and retained samples on a wide variety of characteristics. These tests revealed no significant differences overall, and scattered significant findings within site, none consistent in direction across sites. We conclude that the composition of the CFRP sample, overall, was not changed due to attrition. (Note that this conclusion is not inconsistent with the results reported in the previous paragraph. The comparisons reported in the two cases are different, though related. More important, the one really large difference between the retained and attrited samples within the CFRP groups--the effect of membership in the locally predominant racial/ethnic group--did not indicate an overall difference in retention rates by racial or ethnic groups. Different groups predominated at different sites; thus the overall racial/ethnic composition of the CFRP sample did not change.)

B.3 Analyses and Findings

This section outlines the statistical methods used to analyze data from the impact and process/treatment studies. It also reports representative findings. The section provides support for the summary of quantitative findings that appeared in earlier chapters.

B.3.1 Analytic Models

To determine whether CFRP had an overall effect on any dependent measure for either children or families, we performed a series of analyses of covariance, using PROGRAM (CFRP versus control/comparison) and SITE (five CFRP sites) as the primary independent variables. The sample for this series of analyses consisted of approximately 95 CFRP and 120 control/comparison

families, pooled from all five sites.*

Several different analytic models--sets of independent variables and covariates--were explored in both the child and parent/family ANCOVAS.** (As discussed in the previous section, covariates were chosen to compensate for nonequivalence of treatment and control groups and to gain additional control over extraneous variables, such as the child's age or the mother's educational level, that were known to be related to the outcome measures.) General results were quite stable across models; these technical variations did not materially affect the broad conclusions reported in Chapter 5 or most of the specific findings reported below. The most revealing analytic models--used to generate the results below--are shown in Exhibit B-2.

In the ANCOVAS, the covariates that described demographic characteristics of the families were baseline measures, i.e., measures of the families' status on entering the program. In ANCOVA models other than those listed in the Exhibit, additional covariates were tested, including "predominant race" (was the family of the predominant race at the site), "parent comfort," "mother's age," and "high-risk child," among others.

B.3.2 Overall Effects of CFRP

Model I ANCOVAS were used to estimate the overall effects of CFRP. Results are shown in Tables B-27 and B-28.

Child Outcomes

Table B-27 shows the magnitude and significance of the PROGRAM effect for the child outcome variables--PSI scores, subscale scores on the

*The analytic sample included all black and white families who were not lost due to attrition. A small group of families of other racial/ethnic backgrounds were omitted from the ANCOVAS. (As indicated in Section B.2, the CFRP group included only families who had participated in the program for at least one year.) N's for individual analyses reported below varied because of missing data on dependent and independent variables.

**Because there was no reason to believe that site or the set of covariates would affect height and weight, analyses of the anthropometric data used only PROGRAM and CHILD SEX as independent variables.

Exhibit B-2

Analytic Models

A. Child Outcomes--Preschool Inventory

Model I: Designed to provide a clearcut estimate of the main effect for PROGRAM and of PROGRAM BY SITE interactions (discussed in Section B.3.2)

Independent Variables:
- PROGRAM (CFRP vs control/comparison)
- SITE (treated as a single variable with 5 categories)
- CHILD'S RACE

Covariates:
- CHILD AGE AT PSI TESTING
- MOTHER'S EDUCATION (number of years)
- DAY CARE (child had day care experience/ child had no day care experience)
- BAYLEY SCORE (score on BSID mental scale in 1979/80)
- TEST INTERVAL (time interval between administration of Bayley and PSI)

Model II: Designed to estimate interactions involving selected covariates* and check the robustness of estimates of PROGRAM effects and PROGRAM BY SITE interactions from Model I

Independent Variables:
- PROGRAM
- SITE
- RACE
- DAY CARE

Covariates:
- CHILD AGE
- CHILD SEX
- MOTHER'S EDUCATION
- BAYLEY SCORE
- TEST INTERVAL

B. Child Outcomes--Pupil Observation Checklist (POCL), Schaefer Behavior Inventory (SBI) and Child Health Measures

Model I: PROGRAM effects and PROGRAM BY SITE interactions

Independent Variables:
- PROGRAM
- SITE

Covariates:
- CHILD AGE
- CHILD SEX
- RACE
- MOTHER'S EDUCATION
- DAY CARE

*The SPSS ANCOVA program, which was used for all reported analyses, computes interactions only for variables designated as "independent." Therefore, to estimate interactions such as PROGRAM BY DAY CARE, it was necessary to treat the relevant covariate (from Model I) as an independent variable in Model II.

Model II: Covariate interactions and check for robustness of PROGRAM and PROGRAM BY SITE effects.

Independent Variables: PROGRAM
SITE
DAY CARE
RACE

Covariates: CHILD AGE
CHILD SEX
MOTHER'S EDUCATION

C. Family Outcomes--Family Functioning, Family Circumstances and Maternal Health Measures

Model I: PROGRAM effects and PROGRAM BY SITE interactions

Independent Variables: PROGRAM
SITE

Covariates: SINGLE PARENT (single parent family/other)
MOTHER'S EDUCATION
RACE
SCHOOL/WORK (mother working or in school/mother not in school and not working)
HOUSEHOLD SIZE (number of individuals)

Model II: Covariate interactions and robustness of PROGRAM and PROGRAM BY SITE effects.

Independent Variables: PROGRAM
SITE
SCHOOL/WORK
FAMILY TYPE (single parent living alone/ single parent living in extended family/two-parent family)
HIGH SCHOOL (Mother is or is not a high school graduate)

Covariates: RACE
HOUSEHOLD SIZE
COPING (a 5-point locus of control scale, as described in Section B.1)

Table B-27

Overall Effects of CFRP on Child Outcome Measures

OUTCOME MEASURE	N	OVERALL MEAN	UNADJUSTED[a] DEVIATIONS		ADJUSTED[a] DEVIATIONS		F-STATISTIC	SIGNIFICANCE OF F1
			CFRP	CONTROL	CFRP	CONTROL		
Preschool Inventory (total correct)	165	8.64	.00	.00	.17	-.13	.179	.672
Pupil Observation Checklist Test Orientation	172	4.20	.01	-.01	-.05	.04	.536	.465
Sociability	173	4.27	-.07	.05	-.08	.06	.871	.352
Schaefer Behavior Inventory Task Orientation	213	3.39	-.04	.03	-.06	.04	.943	.333
Introversion-Extraversion	214	2.52	.00	.00	.00	.00	.003	.955
Hostility-Tolerance	214	2.52	.06	-.04	.03	-.02	.110	.741
Health Measures Checkup in last 12 mos.	210	.91	.04	-.03	.03	-.03	2.218	.138
Ever Been to Dentist	216	.35	.05	-.04	.04	-.03	1.349	.247
Child in Head Start	215	.47	.17	-.13	.15	-.12	22.582	.000

[a]Unadjusted deviations are raw differences between means for CFRP and control/comparison group and overall mean. Adjusted deviations are comparable differences, adjusted to take account of covariates. Comparison between the two sets of deviations indicates the magnitude of covariate effects on the CFRP-control differences, which were generally minor.

on the POCL and SBI, child health measures, and Head Start enrollment. The tables show:

(a) The N and total sample mean for each variable.

(b) Unadjusted and adjusted deviations for the CFRP and control/comparison groups. Unadjusted deviations are raw differences between each of the group means and the overall mean. Adjusted deviations are mean differences adjusted for covariates; these provide the best estimate of the magnitude of CFRP's effect on each outcome measure.

(c) F-statistics and associated significance levels for the adjusted treatment-control difference. In all cases, the statistics shown were taken from analyses using Model I (see previous section).

Essentially, CFRP had no effect on any of the measures of child development. One health measure (whether or not the child had a medical checkup in the previous 12 months) approached significance. There was, however, a large CFRP effect on enrollment in Head Start: A much higher proportion of children from CFRP families entered Head Start in 1981 than children from control/comparison families.

Family Outcomes

Table B-28 shows the magnitude and significance of the PROGRAM effect for the parent/family outcome variables. The general pattern is one of small, statistically nonsignificant treatment-control differences. However, CRFP did appear to have effects in three of the four variable domains:*

(1) CFRP parents scored higher than control parents on several subscales of the PAAT; consequently the PAAT TOTAL SCORE also showed a difference that approached significance.

(2) CFRP parents had higher scores on the COPING scale, indicating a more internal locus of control. The CFRP group showed a larger CHANGE

*There is obviously some risk of inadvertent capitalization on chance in reporting highly selected "significant" findings. However, we are inclined to take the reported findings seriously, because they cluster in a few outcome areas and make sense in light of qualitative data on the strengths and weaknesses of CFRP's operations.

Table B-28

Overall Effects of CFRP on Family Outcome Measures

OUTCOME MEASURE	N	OVERALL MEAN	UNADJUSTED[a] DEVIATIONS		ADJUSTED[a] DEVIATIONS		F-STATISTIC	SIGNIFICANCE OF F
			CFRP	CONTROL	CFRP	CONTROL		
Parent-as-Teacher Scores								
PAAT Total Score	214	139.73	1.03	-.78	1.26	-.95	2.700	.102
PAAT Factor Score	214	46.54	.26	-.20	.35	-.26	.853	.357
PAAT Creativity Domain	214	27.25	.37	-.28	.32	-.24	2.228	.137
PAAT Frustration Domain	214	27.38	.46	-.34	.46	-.35	4.389	.037
PAAT Control Domain	214	24.93	.47	-.36	.55	-.42	5.170	.024
PAAT Play Domain	214	29.82	-.15	.11	-.09	.07	.165	.685
PAAT Teaching Domain	214	30.34	-.12	.09	.02	-.01	.005	.944
Family Health								
Mother's Dental Visit	214	.46	-.03	.02	-.01	.01	.072	.789
Health Insurance	214	.83	.02	-.01	.01	-.01	.065	.799
Difficulty Obtaining Services	214	.13	-.04	.03	-.03	.02	.022	.313
Family Functioning								
Independence A	214	1.80	.00	.00	.00	.00	.038	.846
Independence B	207	3.56	-.03	.02	-.02	.01	.188	.665
Coping A (mean)	214	2.83	.06	-.05	.10	-.08	1.624	.204
Coping B	212	2.00	.10	-.07	.12	-.09	5.421	.021
Change in Coping A	212	.02	.07	-.05	.08	-.08	1.274	.260
Change in Coping B	204	-.09	.09	-.07	.10	-.07	4.632	.033
Family Circumstances								
Change in Mother's Employment/Training Status	187	.00	.04	-.03	.06	-.04	2.323	.130
Change in Employment Status	187	-.00	.03	-.02	.05	-.03	1.050	.306
Change in Training Status	187	-.02	.03	-.02	.06	-.04	2.024	.158
Change in Reliance on Wages	200	.00	-6.94	5.13	-5.21	3.85	2.532	.113
Public Assistance	212	1.75	.27	-.20	.19	-.14	2.821	.095

IN COPING from baseline (fall 1978) to fall 1981. (Further discussion of COPING and its relation to other program effects appears in a later section.)

(3) The variables relating to the family's economic and employment circumstances showed near-significant treatment-control differences. At the end of the evaluation CFRP families tended to make greater use of various forms of PUBLIC ASSISTANCE (AFDC, Medicaid, WIC, food stamps) than non-CFRP families; also, CFRP families tended to have decreased more in their RELIANCE ON WAGES than did control families. At the same time, more CFRP than control mothers were working and/or in training by the end of the study.

(4) There were no significant CFRP effects on family health measures.

B.3.3 Site Differences

The analytic models outlined above were used to test for differences across sites in the magnitude of CFRP's effects (PROGRAM BY SITE interactions), as well as overall PROGRAM effects. Few interactions were statistically significant, even using an extremely lax significance level of .25. (The very small n's within each site motivated us to relax the criterion for "significance".)

Child Outcomes

There was virtually no evidence that CFRP had stronger effects on child outcomes at some sites than others (Tables B-29 and B-30). The essentially null overall program effect was found at every site. No PROGRAM BY SITE interaction reached even the significance level of .25 for any child outcome measure except HEAD START ENROLLMENT. In Las Vegas, Oklahoma City, and Jackson, the proportion of CFRP children entering Head Start was very much greater than the corresponding proportion of control/comparison children. In the first two of these sites, the CFRP advantage was significant. In St. Petersburg, the proportion of CFRP children entering Head Start was only a little larger than the proportion of control/comparison children, and both proportions were very low compared to other sites. In Salem, CFRP children were slightly less likely to enter Head Start than control/comparison children, but both

Table B-29

Effects of CFRP on Child Development and Head Start Enrollment by Site

Variable Name	JACKSON Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	LAS VEGAS Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	OKLAHOMA CITY Overall Mean / Adj. CFRP / Adj. CONTROL (eignificance)	ST. PETERSBURG Overall Mean / Adj. CFRP / Adj. CONTROL (eignificance)	SALEM Overall Mean / Adj. CFRP / Adj. CONTROL (eignificance)	Significance Teete Site Main Effect F (eignificance)	Site x Program Interaction F (significance)
N for Preschool Inventory	27 13 14	31 12 19	26 12 14	41 17 24	40 18 22	165 72 93	165 72 93
Preschool Inventory	8.81 .05 -.06 (-)	8.64 -.80 .52 (-)	6.62 -.19 .16 (-)	8.09 .94 -.65 (-)	10.26 .71 -.63 (-)	1.789 (.13)	.262 (-)
N for Pupil Observation Checklist	29 15 14	0	51 18 33	48 20 28	45 20 25	173 73 100	173 73 100
Pupil Observation Checklist (0-7 range) - Test Orientation	4.25 .10 -.15 (-)		4.00 -.21 .13 (.07)	4.08 .12 -.09 (-)	4.49 -.00 .00 (-)	2.276 (.08)	.994 (-)
Soci-ability	4.31 -.15 .22 (.18)		4.06 -.09 .05 (-)	4.16 -.25 .19 (.17)	4.52 .19 -.17 (-)	1.324 (-)	.438 (-)

Table B-29 (continued)

Variable Name	JACKSON Overall Mean / Adj. CFRP / Adj. CONTROL / (significance)	LAS VEGAS Overall Mean / Adj. CFRP / Adj. CONTROL / (significance)	OKLAHOMA CITY Overall Mean / Adj. CFRP / Adj. CONTROL / (significance)	ST. PETERSBURG Overall Mean / Adj. CFRP / Adj. CONTROL / (significance)	SALEM Overall Mean / Adj. CFRP / Adj. CONTROL / (significance)	Significance Tests: Site Main Effect F (significance)	Significance Tests: Site x Program Interaction F (significance)
N for Schaefer Behavior Inventory and Head Start Enrollment	29 / 15 / 14	39 / 18 / 21	52 / 19 / 33	49 / 20 / 29	45 / 20 / 25	214 / 92 / 122	214 / 92 / 122
Schaefer Behavior Inventory (0-5 range)	3.67 / .08 / -.11	3.60 / -.06 / .05	3.27 / -.12 / .07	3.09 / -.07 / .05	3.50 / -.06 / .05	5.480	.121
- Task Orientation	(-)	(-)	(-)	(-)	(-)	(<.01)	(-)
- Introversion-Extraversion	4.05 / -.06 / .08	4.22 / .02 / -.02	3.90 / -.21 / .12	3.94 / .02 / -.01	4.26 / .26 / -.22	1.913	1.168
	(-)	(-)	(.08)	(-)	(.02)	(.11)	(-)
- Hostility Tolerance	2.67 / .01 / -.01	2.76 / .18 / -.15	2.46 / .06 / -.03	2.32 / .14 / -.11	2.59 / -.00 / .00	1.139	.290
	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Head Start Enrollment (proportion)	.68 / .03 / -.05	.44 / .21 / -.18	.25 / .37 / -.21	.25 / .07 / -.06	.87 / -.02 / -.02	11.824	6.043
	(-)	(<.01)	(<.01)	(.26)	(-)	(<.01)	(<.01)

Table B-30

Effects of CFRP on Family and Child Health by Site

Variable Name	JACKSON Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	LAS VEGAS Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	OKLAHOMA CITY Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	ST. PETERSBURG Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	SALEM Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	Significance Tests: Site Main Effect F (significance) / Site x Program Interaction F (significance)
N for Health Measures	29 15 14	39 18 21	52 19 33	49 20 29	45 20 25	214 92 122 / 214 92 122
- Child Medical Checkup (proportion)	.91 .05 -.06 (-)	.93 -.05 .04 (-)	.90 .04 -.03 (-)	.96 -.00 .00 (-)	.84 .08 -.07 (.19)	1.157 (-) / .861 (-)
- Child Dental Checkup (proportion)	.47 .04 -.06 (-)	.31 .12 -.10 (.19)	.38 .03 -.02 (-)	.11 .06 -.05 (.23)	.56 .06 -.05 (-)	4.049 (<.01) / .135 (-)
Mother's Dental Visit (proportion)	.32 .09 -.13 (.25)	.56 -.18 .16 (.03)	.60 .01 -.01 (-)	.33 .03 -.02 (-)	.56 .09 -.07 (.24)	3.126 (.02) / 1.679 (.16)
Health Insurance (proportion)	.97 .02 -.03 (-)	.80 -.04 .04 (-)	.85 .01 -.02 (-)	.81 .02 -.02 (-)	.77 .10 -.09 (.12)	1.432 (.23) / .464 (-)
Difficulty Obtaining Health Services (proportion)	.09 .01 -.02 (-)	.16 -.02 .01 (-)	.13 -.03 .02 (-)	.13 -.10 .07 (.07)	.21 -.11 .09 (.08)	.616 (-) / 1.027 (-)

proportions were extremely high, probably close to exhausing the pool of applicants from both groups.

Family Outcomes

Tables B-30 to B-33 show PROGRAM BY SITE interactions for parent/family outcome measures, as well as overall PROGRAM effects. The table shows n's adjusted means for CFRP and control/comparison groups, by site. F-statistics for the site main effects and PROGRAM BY SITE interactions, with associated significance levels, are also shown. Across the four domains of parent and family measures, the following trends are found:

(1) The only family health measure where there was a site interaction was MOTHER'S DENTAL VISITS. In four of the five sites, more CFRP mothers than control mothers had made a dental visit in the past year. In Las Vegas, however, this trend was reversed where significantly more control mothers had seen a dentist. This anomalous finding in Las Vegas produced the marginally-significant PROGRAM BY SITE interaction.

(2) On the Parent-As-A-Teacher measure, there were no site interactions, although there were large site main effects caused by Salem families (CFRP and control) scoring higher than the other sites (Table B-31).

(3) There was little evidence of site interactions on the measures of family functioning (Table B-32). One of the measures of CHANGE IN COPING showed a marginally significant PROGRAM BY SITE interaction, apparently produced by the striking difference in St. Petersburg between the changes CFRP mothers made in coping scores and the changes in control mothers.

(4) On the measures of family circumstances, there again was virtually no evidence of site interactions (Table B-33). There was a marginally significant interaction for RELIANCE ON WAGES, as well as a significant main effect of site. In two of the sites, Las Vegas and Jackson, CFRP families increased their reliance on wages from baseline to fall 1981, while it decreased for control families. In Las Vegas, in fact, the CFRP/control difference was marginally significant. In the other three sites, the opposite trend appeared; and in Salem, there was a significant difference between CFRP and control families.

Table B-31

Effects of CFRP on Parent Teaching Skills by Site

Variable Name	JACKSON Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	LAS VEGAS Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	OKLAHOMA CITY Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	ST. PETERSBURG Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	SALEM Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	Significance Tests Site Main Effect F (significance)	Site x Program Interaction F (significance)
N	29 / 15 / 14	39 / 18 / 21	52 / 19 / 33	49 / 20 / 29	45 / 20 / 25	214 / 92 / 122	214 / 92 / 122
PAAT Total Score (0-200 Range)	141.12 / 1.94 / -2.77 / (-)	138.56 / .01 / -.01 / (-)	137.59 / -.40 / .23 / (-)	133.40 / .81 / -.60 / (-)	148.87 / 2.23 / -1.92 / (.18)	6.961 / (<.01)	.571 / (-)
PAAT Creativity Domain (0-40 Range)	27.46 / .58 / -.82 / (.12)	26.79 / .10 / -.09 / (-)	26.86 / -.48 / .28 / (-)	26.11 / .34 / -.26 / (-)	29.31 / .67 / -.58 / (.16)	4.267 / (<.01)	.588 / (-)
PAAT Frustration Domain (0-40 Range)	27.65 / .70 / -.99 / (.09)	27.79 / .26 / -.22 / (-)	27.36 / .22 / -.13 / (-)	26.93 / .29 / -.21 / (-)	27.33 / .65 / -.56 / (.19)	.800 / (-)	.580 / (-)
PAAT Control Domain (0-40 Range)	25.25 / .49 / -.71 / (-)	25.52 / -.30 / .26 / (-)	23.47 / .39 / -.23 / (-)	24.32 / .07 / -.06 / (-)	26.56 / 1.27 / -1.09 / (.01)	4.084 / (<.01)	.722 / (-)
PAAT Play Domain (0-40 Range)	29.92 / -.18 / .25 / (-)	29.07 / .37 / -.33 / (-)	29.47 / -.60 / .35 / (-)	28.16 / .38 / -.28 / (.22)	32.31 / -.46 / .39 / (-)	6.847 / (<.01)	1.384 / (.24)
PAAT Teaching Domain (0-40 Range)	30.84 / .35 / -.50 / (-)	29.40 / -.42 / .37 / (-)	30.42 / .08 / -.04 / (-)	27.88 / -.27 / .20 / (-)	33.36 / .11 / -.09 / (-)	7.774 / (<.01)	.068 / (-)

Table B-32

Effects of CFRP on Family Functioning by Site

Variable Name	JACKSON Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	LAS VEGAS Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	OKLAHOMA CITY Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	ST. PETERSBURG Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	SALEM Overall Mean / Adj. CFRP / Adj. CONTROL (significance)	Significance Tests: Site Main Effect F (significance) / Site x Program Interaction F (significance)
N	29 15 14	39 18 21	52 19 33	49 20 29	45 20 25	214 92 122
Independence A (0-2 Range)	1.86 -.01 .01 (-)	1.80 .07 -.06 (.08)	1.75 -.03 .02 (-)	1.75 -.02 .02 (-)	1.84 .01 -.01 (-)	.957 (-) 1.112 (-)
Independence B (0-2 Range)	3.72 -.01 .01 (-)	3.58 .14 -.12 (.09)	3.47 -.15 .09 (.15)	3.43 -.11 .07 (-)	3.66 .01 -.01 (-)	1.349 (.25) 1.355 (.25)
Coping A (mean)	3.16 .04 -.04 (-)	2.62 -.18 .15 (-)	2.67 .14 -.08 (-)	2.48 .32 -.22 (.09)	3.35 .21 -.16 (.14)	1.692 (.15) 1.143 (-)
Coping B (0-3 Range)	2.15 .09 -.13 (-)	1.93 -.03 .03 (-)	1.90 .14 -.08 (-)	1.72 .21 -.15 (.05)	2.24 .09 -.08 (.25)	2.301 (.06) .495 (-)
Change in Coping A (-1 to +1 Range)	.17 -.10 .15 (-)	-.11 -.12 .10 (-)	-.04 .14 -.08 (-)	-.21 .41 -.33 (.02)	.25 .10 -.08 (-)	.643 (-) 1.552 (.19)
Change in Coping B (-1 to 1 Range)	.05 .04 -.05 (-)	-.09 .01 -.01 (-)	-.11 .15 -.08 (.18)	-.28 .20 -.15 (.02)	-.07 .09 -.07 (-)	1.997 (.10) .554 (-)

Table B-33

Effects of CFRP on Family Circumstances by Site

Variable Name	JACKSON Overall Mean Adj. CFRP / Adj. CONTROL (significance)	LAS VEGAS Overall Mean Adj. CFRP / Adj. CONTROL (significance)	OKLAHOMA CITY Overall Mean Adj. CFRP / Adj. CONTROL (significance)	ST. PETERSBURG Overall Mean Adj. CFRP / Adj. CONTROL (significance)	SALEM Overall Mean Adj. CFRP / Adj. CONTROL (significance)	Significance Tests Site Main Effect F (significance) Site x Program Interaction F (significance)
N	26 12 14	28 14 14	46 15 31	42 17 25	45 20 25	187 78 109 187 78 109
Change in Reliance on Wages	-11.19 4.64 -4.97 (-)	12.74 7.47 -6.29 (.189)	4.70 -8.76 4.52 (-)	-.88 -4.99 3.59 (-)	-7.40 -19.29 15.27 (.014)	3.42 (.010) 1.59 (.178)
Public Assistance	2.26 -.14 .20 (-)	1.89 -.21 .18 (-)	1.60 .42 -.24 (.10)	1.55 .04 -.03 (-)	1.84 .42 -.34 (.03)	3.695 (.01) 1.109 (-)
Change in Mother's Employment/ Training Status	.03 .11 -.10 (.245)	.10 .20 -.20 (.009)	-.03 .07 .03 (-)	.06 .06 -.04 (-)	-.10 -.04 .03 (-)	.66 (-) .89 (-)
Change in Employment Status	-.03 .03 -.02 (-)	.11 .19 -.19 (.074)	-.06 .10 -.05 (-)	.09 -.00 .00 (-)	-.08 -.03 .03 (-)	1.09 (-) .66 (-)
Change in Training Status	-.00 .18 -.15 (-)	.17 .12 -.12 (-)	.04 -.05 .03 (-)	-.03 .13 -.09 (-)	-.06 .04 -.03 (-)	.55 (-) .56 (-)

B.3.4 Subsample Differences

To determine whether CFRP had differential effects for different types of children or families, program effects were examined in relation to two kinds of family characteristics: demographic or background characteristics, such as ethnicity, education, employment and family structure; and behavioral or psychological characteristics, namely "coping" and amount of program participation. We used two analytic methods to investigate how these family characteristics mediated the impact of CFRP. First, we entered the variables in the main effects analyses, and looked for interaction effects (e.g., program by mother's education, or program by level of coping skills). Second, we partitioned the sample in various ways (e.g., high school graduates versus non-graduates, employed mothers versus mothers at home) and performed ANCOVAS within the subsamples, using the analytic models outlined earlier. The following three sections of the appendix discuss the results of these ANCOVAS on the stratified samples, first using the demographic characteristics as stratifiers, second using coping as the stratifier, and third using amount of participation. We do not discuss in detail the interactions found in the main effects ANCOVAS, although we note in the text where significant interactions were found.

Demographic Characteristics

To investigate the mediating effects of demographic characteristics, we partitioned the sample in a number of ways and compared program-control differences within the resulting groups. Specifically, we compared:

- families headed by single women versus two-parent families;
- families with one child versus families with several children (this partition was motivated by the hypothesis that mothers of first-borns might be more receptive to the program's influence than experienced mothers);
- families in which the mother had graduated from high school versus those in which she had not; and

- black versus white families.

In addition, for dependent measures of child development, we compared effects for:

- children who had experience in day care versus those who had none (this partition was motivated by the assumption that control/comparison children in day care might receive some services paralleling those offered by CFPR).

Finally, for dependent measures of parental teaching skills, family health, family functioning and family circumstances, we compared effects for:

- mothers who were employed and/or in school or job training versus others who were at home.

Results of these analyses are presented in summary form in the tables below. The tables show (a) the total sample mean for each variable; (b) the "adjusted difference" between CFRP and control/comparison means--the mean difference adjusted for covariates--for the total sample and within each subsample; and (c) F-statistics and p-values for each difference, if significant at the .25 level or better. All statistics are based on Model I analyses. There was little evidence that CFRP had differential effects for families of different types:

Child Outcomes: Few of the various subdivisions of the sample showed results that were noticeably different from the null results for the sample as a whole (Table B-34). There was no striking evidence that CFRP selectively benefited children from particular types of families. The isolated effects (both positive and negative) were, however, of some interest. Perhaps most notable is the combined effect of CFRP and day care on children's scores on the POCL SOCIABILITY scale and on the SBI TASK ORIENTATION scale. Among children who had some day care experience, scores on the POCL for those in the CFRP group were higher than those in the control group, by a margin that approached conventional levels of significance ($p=.093$). Among children without day care experience, those in the CFRP

Table 8-34

Effects of CFRP on Child Outcome Measures, by Family Type*

Outcome Measure	Total Sample	Day Care		Mother's Education		Single-Parent Status		Race		First-born Children
		Some Experience	None	High School Graduate	Non-Graduate	Single Parent	Other	Black	White	
Preschool Inventory (total correct)	(n=165)	(n=67)	(n=98)	(n=99)	(n=66)	(n=92)	(n=43)	(n=95)	(n=70)	(n=88)
Overall Mean	8.64									
Adjusted Difference	.30	-.19	-.85	-.11	.52	.76	-.11	.15	.46	-.76
F		.827	.807	.011	.271	.672	.004	.022	.134	.590
p (if <.25)		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Pupil Observation Checklist	(n=173)	(n=67)	(n=106)	(n=189)	(n=64)	(n=118)	(n=55)	(n=95)	(n=78)	(n=78)
Test Orientation										
Overall Mean	4.28									
Adjusted Difference	-.89	-.04	-.07	-.10	-.06	.00	-.21	-.13	-.08	-.18
F		.037	.223	.488	.106	.002	.995	.667	.134	2.618
p (if <.25)		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(.111)
Sociability										
Overall Mean	4.27									
Adjusted Difference	-.14	.43	-.46	-.06	-.24	-.06	-.56	-.18	-.11	-.24
F		2.915	5.818	.104	.733	.088	4.686	.814	.163	.927
p (if <.25)		(.093)	(-.018)	(-)	(-)	(-)	(.036)	(-)	(-)	(-)
Scheafer Behavior Inventory	(n=214)	(n=89)	(n=125)	(n=128)	(n=86)	(n=153)	(n=61)	(n=134)	(n=80)	(n=114)
Task Orientation										
Overall Mean	3.39									
Adjusted Difference	-.18	.15	-.25	.06	-.22	-.05	-.24	-.04	-.13	.03
F		.942	3.416	.216	1.443	.168	1.478	.091	.463	.042
p (if <.25)		(-)	(.067)	(-)	(.234)	(-)	(.230)	(-)	(-)	(-)
Introversion-Extroversion										
Overall Mean	4.06									
Adjusted Difference	.00	.10	-.08	-.02	.02	.07	-.13	.03	-.04	-.05
F		.347	.373	.039	.009	.419	.484	.051	.084	.136
p (if <.25)		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Hostility-Tolerance										
Overall Mean	2.52									
Adjusted Difference	.05	.09	-.05	.05	.02	-.14	-.21	.22	-.19	-.05
F		.131	.078	.055	.007	.728	.646	1.298	.630	.047
p (if <.25)		(-)	(-)	(-)	(-)	(-)	(-)	(.257)	(-)	(-)
Health Measures	(n=212)	(n=88)	(n=124)	(n=126)	(n=86)	(n=152)	(n=60)	(n=133)	(n=79)	(n=114)
Checkup in last 12 months										
Overall Mean	.91									
Adjusted Difference	.06	.07	.04	.06	.08	.07	.05	.01	.12	.05
F	2.268	1.317	.394	1.127	1.920	2.323	.381	.058	1.685	.973
p (if <.25)	(.138)	.255	(-)	(-)	.170	.130	(-)	(-)	(.199)	(-)
Ever been to dentist										
Overall Mean	.85									
Adjusted Difference	.07	.07	.09	.12	.02	.10	.08	.10	.06	.02
F for program effect	1.349	.507	1.017	2.044	.060	1.922	.366	1.538	.206	.008
p (if <.25)	(.247)	(-)	(-)	(.156)	(-)	(.108)	(-)	(.217)	(-)	(-)

*CFRP program effects are shown as "adjusted difference" scores--differences between CFRP and control/comparison group means, adjusted for covariates. Positive values represent higher scores for the CFRP group. Negative values represent higher scores for the control group.

group had lower POCL SOCIABLITITY scores (p=.018) and lower SBI TASK ORIENTATION scores (p=.067) than controls. On both of these measures there also were significant program-by-day care interactions.

CFRP had a few differential effects on children from single-parent and two-parent families. Among children from single-parent families, those in CFRP tended to fare significantly better on both health measures than controls. Among those from two-parent families, POCL SOCIABILITY scores were lower for CFRP than control children. There was also a tendency for CFRP children from two-parent families to have lower SBI TASK ORIENTATION scores than controls.

There was no clear evidence for differential program effectiveness as a function of mother's education. There were two marginally significant effects on health measures, one showing an advantage for CFRP over controls among families with mothers who were high school graduates, the other showing a program advantage among families with nongraduate mothers. On the SBI TASK ORIENTATION Scale, there was a marginally significant trend for controls to score higher than CFRP children among families where mothers had not graduated from high school.

There was virtually no differential program effect by race. One of the two health measures showed a slight advantage for CFRP children among black families, and the other measure showed a slight CFRP advantage among white families.

Family Outcomes: Table B-35 shows CFRP's effects on family outcomes for various subsamples. The table provides limited evidence that CFRP had different patterns of outcomes for different types of families. Clear differential effects were confined to a few outcome variables. There were a number of anomalous findings, suggesting chance effects. There is no strong evidence that CFRP globally benefited certain types of families more than others.

In discussing the complex findings, we will highlight outcome variables for which differential effects were found and largely ignore

Table B-35

Effects of CFRP on Family Outcome Measures, by Family Type[a]

Outcome Measure	Total Sample (n=214)	Mother's School/Work		Mother's Education		Single-Parent Status		Race		First-born Children (n=114)
		In School or Working (n=88)	At Home (n=126)	High School Graduate (n=128)	Non-Graduate (n=86)	Single Parent (n=153)	Other (n=61)	Black (n=134)	White (n=80)	
Parent-as-a Teacher Score										
PAAT Total Score										
Overall Mean	139.73									
Adjusted Difference	1.21	2.29	2.81	1.61	2.20	1.91	3.20	1.94	2.97	2.[illegible]
F	2.788	.915	1.353	.769	1.063	1.611	1.088	1.468	1.424	2.231
p (if <.25)	.182	(-)	.247	(-)	(-)	.207	(-)	(-)	.237	.139
PAAT Creativity Domain										
Overall Mean	27.25									
Adjusted Difference	.56	.93	.28	.89	.22	-.39	.91	.22	1.12	.18
F	2.228	1.859	.386	2.890	.171	.828	1.240	.211	2.639	.133
p (if <.25)	(.131)	(.177)	(-)	(.092)	(-)	(-)	(-)	(-)	(.109)	(-)
PAAT Frustration Domain										
Overall Mean	27.38									
Adjusted Difference	.81	.98	.71	.70	1.08	.95	.31	.64	1.08	1.10
F	4.389	2.538	1.778	2.039	2.713	4.379	.188	1.874	2.240	4.924
p (if <.25)	(.037)	(.115)	(.185)	(.156)	(.104)	(.038)	(-)	.173	.139	(.029)
PAAT Control Domain										
Overall Mean	24.93									
Adjusted Difference	.97	.15	1.42	.57	1.22	.45	2.56	.52	1.88	.89
F	5.178	.041	6.315	1.051	3.195	.746	9.206	1.018	5.858	2.231
p (if <.25)	(.024)	(-)	(.013)	(-)	(.078)	(-)	(.004)	(-)	(.018)	(.138)
PAAT Play Domain										
Overall Mean	29.82									
Adjusted Difference	.16	.40	-.51	-.40	-.10	.02	-.54	.39	-1.11	.57
F		.331	1.078	.640	.028	.004	.370	.610	2.991	1.222
p (if <.25)		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(.088)	(-)
PAAT Teaching Domain										
Overall Mean	30.34									
Adjusted Difference	.03	-.15	.10	-.14	-.22	.11	-.05	.19	.00	.00
F		.045	.035	.060	.112	.058	.002	.131	.000	.001
p (if <.25)		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Family Health										
Mother's Dental Visit										
Overall Mean	.46									
Adjusted Difference	-.02	-.03	-.02	-.01	-.02	.05	.07	-.10	.13	-.01
F		.068	.824	.011	.012	.457	.260	1.373	1.194	.014
p (if <.25)		(-)	(-)	(-)	(-)	(-)	(-)	(.243)	(-)	(-)
Health Insurance										
Overall Mean	.83									
Adjusted Difference	.02	-.04	.06	.00	.02	.02	.00	.01	.06	.00
F		.207	.608	.014	.096	.069	.002	.023	.418	.001
p (if <.25)		(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
Difficulty Obtaining Services										
Overall Mean	.13									
Adjusted Difference	-.05	-.10	-.02	-.08	.02	-.05	-.06	-.05	-.06	-.03
F		1.649	.191	1.279	.216	1.134	.332	.483	.518	.236
p (if <.25)		.203	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)

[a]CFRP program effects are shown as "adjusted difference" scores--differences between CFRP and control/comparison group means, adjusted for covariates. Positive values represent higher scores for the CFRP group. Negative values represent higher scores for the control.

Table 8-35 (continued)

Effects of CFRP on Family Outcome Measures, by Family Type[a]

OUTCOME MEASURE	TOTAL SAMPLE (n=214)	MOTHER'S SCHOOL/WORK: IN SCHOOL OR WORKING (n=88)	MOTHER'S SCHOOL/WORK: AT HOME (n=126)	MOTHER'S EDUCATION: HIGH SCHOOL GRADUATE (n=128)	MOTHER'S EDUCATION: NON-GRADUATE (n=86)	SINGLE-PARENT STATUS: SINGLE PARENT (n=153)	SINGLE-PARENT STATUS: OTHER (n=61)	RACE: BLACK (n=134)	RACE: WHITE (n=80)	FIRST BORN CHILDREN (n=114)
Family Functioning										
Independence A										
Overall Mean	1.80									
Adjusted Difference	.00	-.05	.04	.05	- 06	.02	-.01	.00	-.01	.05
F		.609	.833	1.458	1.405	.165	.020	.031	.016	.963
p		(-)	(-)	(.230)	(.240)	(-)	(-)	(-)	(-)	(-)
Independence B										
Overall Mean	3.56									
Adjusted Difference	-.03	-.13	.03	.06	-.23	-.02	-.06	-.07	.00	.07
F		1.001	.098	.552	2.491	.052	.178	.459	.010	.412
p		(-)	(-)	(-)	(.119)	(-)	(-)	(-)	(-)	(-)
Coping A (mean)										
Overall Mean	2.83									
Adjusted Difference	.18	- 13	.24	.21	.08	.23	.21	.20	.17	.04
F	1.621	.321	1.623	1.362	.113	2.115	.577	1.145	.633	.073
p	(.204)	(-)	(.205)	(.246)	(-)	.148	(-)	(-)	(-)	(-)
Coping B										
Overall Mean	2.08									
Adjusted Difference	.21	.22	.21	.22	.14	.28	.12	.23	.21	.05
F	5.421	2.345	3.245	3.814	.948	7.760	.589	4.143	2.474	.243
p	(.021)	(.130)	(.074)	(.053)	(-)	(.006)	(-)	(.044)	(.120)	(-)
Change in Coping A										
Overall Mean	.02									
Adjusted Difference	.14	-.06	.31	.28	-.06	.18	.18	.18	.09	-.06
F		.081	3.469	2.525	.073	1.603	.544	1.121	.232	.121
p		(-)	(.065)	(.115)	(-)	(.208)	(-)	(-)	(-)	(-)
Change in Coping B										
Overall Mean	-.09									
Adjusted Difference	.17	.08	.24	.23	.07	.23	.10	.22	.11	.05
F	4.632	.500	5.648	4.704	.372	6.402	.415	5.553	.634	.301
p	(.033)	(-)	(.019)	(.032)	(-)	(.013)	(-)	(.020)	(-)	(-)
Family Circumstances										
Change in Reliance on Wages	(n=288)	(n=81)	(n=119)	(n=118)	(n=82)	(n=143)	(n=57)	(n=125)	(n=75)	(n=106)
Overall Mean	0.00									
Adjusted Difference	-9.06	.35	-13.13	-9.06	-9.18	-8.65	-9.66	-4.82	-18.63	-16.85
F	2.533	.001	3.015	1.563	.977	1.664	.731	.464	3.206	5.818
p	(.113)	(-)	(.085)	(.215)	(-)	(.199)	(-)	(-)	(.078)	(.018)
Public Assistance	(n=214)	(n=88)	(n=126)	(n=128)	(n=86)	(n=153)	(n=61)	(n=134)	(n=80)	(n=114)
Overall Mean	1.75									
Adjusted Difference	.33	.21	.29	.26	.52	.18	.60	.20	.47	.18
F	2.821	.399	1.395	1.074	2.682	.654	3.009	.668	2.060	.384
p	(.095)	(-)	(.240)	(-)	(.1061	(-)	(.089)	(-)	(.156)	(-)
Change in Mother's Employment/Training Status	(n=187)	(n=72)	(n=115)	(n=122)	(n=65)	(n=128)	(n=59)	(n=111)	(n=76)	(n=95)
Overall Mean	0.00									
Adjusted Difference	.10	.19	.7	.14	.06	.17	-.05	.20	-.05	.16
F	2.323	3.794	.693	3.092	.291	4.460	.192	5.051	.162	2.844
p	(.130)	(.057)	(-)	(.082)	(-)	(.037)	(-)	(.027)	(-)	(.0969)
Change in Mother's Employment Status										
Overall Mean	0.08									
Adjusted Difference	.08	.17	.08	.07	.09	.08	.06	.12	-.02	.19
F		1.453	.733	.574	.497	.770	.242	1.529	.034	3.061
p		(.233)	(-)	(-)	(-)	(-)	(-)	(.219)	(-)	(.084)
Change in Mother's Training Status										
Overall Mean	-.02									
Adjusted Difference	.10	.17	.11	.11	.14	.18	-.07	.12	.08	.09
F	2.021	1.940	1.311	1.613	1.493	4.084	.21	1.542	.463	.614
p	(.158)	(.169)	(.256)	(.207)	(.227)	(.046)	(-)	(.217)	(-)	(-)

variables for which CFRP affected or failed to affect subgroups alike. For example, CFRP raised PAAT scores for all subgroups; since these program effects did not differentiate groups, they will not be mentioned further. We will concentrate primarily on differential effects that approached conventional significance levels, although a few other effects are mentioned.

There were isolated differences in CFRP's effects for families with mothers who were in school or working versus those with mothers at home, particularly on the measures of family circumstances. Not surprisingly, CFRP had enhanced effects* on CHANGE IN EMPLOYMENT/TRAINING STATUS for mothers in school or working at baseline. Those mothers moved into (or stayed in) jobs or training to a significantly greater degree than comparable control mothers. In addition, the slight decrease in RELIANCE ON WAGES that was shown in the total sample was not found among mothers in school or working, while a large decrease was found among mothers who were not. Also, only among mothers not in school or working was there a program effect on FORMS OF PUBLIC ASSISTANCE, with CFRP mothers using significantly more forms than control mothers. On the coping measures, there was a significant program effect only among mothers who were at home. The rather isolated effect on the PAAT and family health suggested neither group of mothers particularly benefited more.

CFRP'S effects also differed somewhat as a function of mother's education, at least on the measures of family functioning. CFRP mothers who had graduated from high school scored significantly higher than similar control mothers on INDEPENDENCE, COPING and CHANGE IN COPING; among non-graduate mothers, there were no comparable program effects on COPING, and control mothers had significantly higher INDEPENDENCE scores than did CFRP mothers. On the other family outcome measures, there was little evidence that mother's education mediated program effects.

CFRP's effects differed between single parent and two-parent families in the following ways: Among single-parent families, CFRP produced higher COPING scores and greater CHANGE IN COPING, compared with single

*Compared with the program effects for the overall sample.

control families; no program effects were found for two-parent families. Also, there were program effects on family circumstances only among single parents. Single CFRP parents changed significantly more than single controls in their EMPLOYMENT/TRAINING STATUS (particularly on TRAINING). They also tended to decrease more than controls in their RELIANCE ON WAGES. Finally, there were significant program effects on COPING and on CHANGE IN COPING only among single parents.

Some outcomes also were affected differentially for black and white families. Significant positive program effects on CHANGE IN MOTHER'S EMPLOYMENT/TRAINING STATUS occurred only among black families, while the significant negative program effect on CHANGE IN RELIANCE ON WAGES was found only among white families. In addition, only among white families was there significantly greater use of PUBLIC ASSISTANCE by CFRP versus control families. There was a tendency for slightly stronger program effects on COPING and CHANGE IN COPING among black families.

Finally, among families where the CFRP child was the first-born child, the program effects on family circumstances were generally strengthened. It should be noted that the same partern of enhanced program effects on family circumstances was found for a set of correlated variables: first-borns, black families, single parents, and Las Vegas.

Coping

Up to this point we have treated COPING strictly as a dependent variable. In section B.3.2 we reported that COPING was one outcome measure for which CFRP showed a significant overall effect: CFRP parents evidenced a more "internal" locus of control than non-CFRP parents and more CFRP parents than control parents stayed at or moved to a high level of coping by the end of the program. There were no major differences in the strength of the program effect from site to site. However, there were differences in the strength of CFRP's effect for different types of families, as noted in the previous section: Depending on the type of analysis used, there was evidence that CFRP produced higher COPING scores and/or more positive CHANGE IN COPING

for (a) families with the mother at home (not in school or working); (b) families in which the mother was a high school graduate; (c) single parent families; and (d) black families.

Thus COPING showed a far-reaching pattern of effects. There seemed to be a complex relationship among COPING, program participation, program outcomes, and various family characteristics. Conceptually, COPING appeared to be a kind of mediating variable, accompanying and perhaps facilitating CFRP's effects in other areas, at least for some types of families.

To explore these possibilities we took the unorthodox step of treating COPING as an independent variable. (We recognize the pitfalls in doing so and offer our findings only as hypotheses, not as firm conclusions.) We partitioned the sample into groups of families in which mothers had high and low coping scores at baseline (fall 1978). We then reran all ANCOVAS separately for the two groups, to determine whether CFRP's effects differed for parents who began with scores reflecting internal as opposed to external locus of control.

Partitioning revealed a few differences in child outcomes between the groups (Table B-36). For children whose mothers were high copers, there was a significant CFRP effect on DENTIST VISIT and the SBI INTROVERSION-EXTROVERSION scale. CFRP produced lower scores on the POCL SOCIABILITY and SBI INTROVERSION-EXTROVERSION scales. There was a significant negative program effect on the PSI. For children whose mothers were low copers, there were negative program effects on the POCL SOCIABILITY and SBI INTROVERSION-EXTROVERSION scales.

Family outcomes showed a different picture, with much stronger mediating effects of baseline coping. Families with mothers who began as high copers (i.e., expressed an internal locus of control) benefited more from CFRP, on a wide range of outcome variables, than families with mothers who began as low copers (Table B-37).

Among the initially high copers there were significant positive program effects on: (1) PAAT TOTAL SCORE and several PAAT domains; (2)

Table B-36

Effects of CFRP on Child Outcomes for Families with High Versus Low Initial COPING Scores

OUTCOME MEASURE	HIGH COPERS					LOW COPERS				
		ADJUSTED DEVIATIONS					ADJUSTED DEVIATIONS			
	N	MEAN	CFRP	CONTROL	F	P	N	MEAN	CFRP	CONTROL	F	P
Child Development												
Preschool Inventory	82	9.68	-1.03	.98	3.067	.084	70	7.60	.72	-.43	1.284	.262
Pupil Observation Checklist	83						75					
Test Orientation		4.41	- .12	.09	1.044	.311		3.99	.01	-.01	.012	.913
Sociability		4.40	.03	-.02	.053	.818		4.11	-.27	.19	4.754	.033
Schaefer Behavior Inventory	97						94					
Task Orientation		3.40	- .01	.01	.014	.906		3.37	-.08	.06	.820	.368
Introversion-Extroversion		4.13	.11	-.08	1.790	.185		4.00	-.18	.13	4.533	.036
Hostility-Tolerance		2.64	- .06	.04	.186	.667		2.47	.06	-.04	.221	.640
Health Measures	96						95					
Checkup in Last 12 Months		.94	.03	-.02	.915	.342		.90	.02	-.02	.398	.530
Ever Been to Dentist		.46	.14	-.10	5.072	.027		.27	-.01	.01	.068	.795

Table B-37

Effects of CFRP for Families with
High Versus Low Initial COPING Scores

OUTCOME MEASURE	HIGH COPERS						LOW COPERS					
			ADJUSTED DEVIATIONS						ADJUSTED DEVIATIONS			
	N	MEAN	CFRP	CONTROL	F	p	N	MEAN	CFRP	CONTROL	F	p
Parents-as-a-Teacher Scores												
PAAT Total Score	97	142.95	2.43	-1.86	4.039	.048	95	136.81	.24	-.17	.044	.834
PAAT Factor Score	97	48.33	.79	-.60	1.808	.182	95	44.90	-.15	.11	.065	.799
PAAT Creativity Domain	97	27.83	.92	-.71	6.238	.015	95	26.91	-.06	.04	.050	.823
PAAT Frustration Domain	97	27.60	.70	-.54	4.317	.041	95	26.96	.29	-.21	.735	.394
PAAT Control Domain	97	25.65	.73	-.56	4.458	.038	95	24.33	.44	-.32	1.285	.260
PAAT Play Domain	97	30.69	-.24	.19	.513	.476	95	29.01	-.20	- 14	.322	.572
PAAT Teaching Domain	97	31.18	.32	-.24	.804	.372	95	29.59	-.23	.17	.400	.529
Family Health												
Mother's Dental Visit	97	.47	.00	.00	.000	.991	94	.43	.02	-.02	.158	.692
Health Insurance	97	.79	.02	-.01	.096	.758	95	.88	.01	-.01	.119	.731
Difficulty Obtaining Services	97	.14	-.07	.05	2.839	.096	94	.11	.02	-.01	.228	.634
Family Functioning												
Independence A	97	1.84	-.01	.01	.189	.664	95	1.74	.00	.00	.003	.954
Independence B	92	3.69	-.02	.01	.121	.729	94	3.41	-.04	.03	.219	.641
Family Circumstances												
Change in Reliance on Wages	92	.39	-7.52	5.78	2.423	.124	88	-3.01	-3.29	2.17	.353	.544
Public Assistance	96	1.68	.25	-.19	2.589	.111	94	1.95	.20	-.15	1.274	.262
Change in Mother's Employment/ Training Status	90	-.01	.13	-.10	5.338	.024	81	-.02	-.03	.02	.169	.551
Change in Mother's Employment Status	90	-.04	.06	-.05	.791	.377	81	.02	.03	-.02	.173	.679
Change in Mother's Training Status	90	.03	.11	-.08	3.007	.087	81	-.06	.00	-.00	.000	.993

DIFFICULTY OBTAINING HEALTH SERVICE (which decreased for CFRP families); (3) CHANGE IN MOTHER'S EMPLOYMENT/TRAINING STATUS; and (4) CHANGE IN RELIANCE ON WAGES and USE OF PUBLIC ASSISTANCE. Among the high-coping mothers, significantly more CFRP mothers stayed on or moved into work and/or training during the study; at the same time, CFRP mothers also used more forms of PUBLIC ASSISTANCE and decreased in their RELIANCE ON WAGES. There were no significant program effects among the initially low-coping mothers, which suggests that CFRPs benefited primarily those families in which mothers had high initial coping scores.

We also investigated how program effects related to patterns of CHANGE IN COPING. We looked for differential effects for mothers whose COPING scores increased over time or started and remained high versus mothers whose scores decreased or started and remained low. This analysis was substantially weakened by the small sample size of mothers in the high coping category (n=25-30, depending on the measure). There nevertheless were some interesting trends suggesting that increase in COPING also was related to larger program effects.

On the child outcome measures, there were few significant program effects for either the mothers with increased COPING scores or the mothers with decreased scores (Table B-38). The one notable exception was the PSI, where there was a significant positive program effect among the group with increased COPING skills. Across the other child measures, there was a consistent (although non-significant) trend toward positive program effects among the increased copers, while the opposite patterns (control ahead of CFRP) held in the group with low or decreased coping scores.

On the family outcome measure, there was little evidence that CHANGE IN COPING was related to program effects (Table B-39). Again, however, while the CFRP families tended to hold an advantage over control families among those with high or increased coping scores, the opposite was more often true among the group with low/decreased coping scores.

Table B-38

Effects of CFRP on Child Outcomes for Families with High or Increased Final COPING Scores Versus Low or Decreased COPING Scores

OUTCOME MEASURE	HIGH AND INCREASED COPING					LOW AND DECREASED COPING				
		ADJUSTED DEVIATIONS					ADJUSTED DEVIATIONS			
	N	MEAN	CFRP	CONTROL	F	p	N	MEAN	CFRP	CONTROL	F	p
Child Development												
Preschool Inventory	25	9.04	2.32	-1.55	2.644	.132	141	8.56	-.28	.22	.413	.522
Pupil Observation Checklist	24						149					
Test Orientation		4.18	.28	-.24	.990	.341		4.20	-.09	.06	1.296	.257
Sociability		4.26	.25	-.21	.413	.534		4.27	-.13	.09	1.758	.187
Schaefer Behavior Inventory	30						184					
Task Orientation		3.45	.21	-.14	.926	.351		3.37	-.08	.06	1.488	.224
Introversion-Extroversion		4.25	.02	-.01	.015	.903		4.04	-.00	.00	.003	.958
Hostility-Tolerance		2.42	.24	-.16	.763	.396		2.54	.04	-.03	.240	.625
Health Measures	30						184					
Checkup in Last 12 Months		.93	.13	-.09	2.583	.129		.91	.03	-.02	1.364	.245
Ever Been to Dentist		.37	.18	-.12	2.020	.176		.34	.04	-.03	1.165	.282

Table B-39

Effects of CFRP for Families with High or Increased Final COPING Scores Versus Low or Decreased Final COPING Scores

OUTCOME MEASURE	HIGH AND INCREASED COPING					LOW AND DECREASED COPING				
			ADJUSTED DEVIATIONS					ADJUSTED DEVIATIONS		
	N	MEAN	CFRP	CONTROL	F	p	N	MEAN	CFRP	CONTROL	F	p
Parents-as-a-Teacher Scores												
PAAT Total Score	30	143.21	- .22	.15	.012	.916	184	139.16	1.39	-1.07	2.800	.096
PAAT Factor Score	30	48.20	-1.13	.75	1.187	.293	184	46.27	.52	- .40	1.608	.207
PAAT Creativity Domain	30	28.03	.76	-.51	1.216	.288	184	27.13	.26	- .20	1.289	.258
PAAT Frustration Domain	30	27.47	.69	-.46	1.237	.284	184	27.37	.46	- .35	3.703	.056
PAAT Control Domain	30	25.63	.10	-.07	.012	.916	184	24.81	.60	- .46	5.364	.022
PAAT Play Domain	30	31.00	-1.46	.97	4.948	.042	184	29.63	.10	- .07	.169	.681
PAAT Teaching Domain	30	31.08	-.31	.21	.286	.600	184	20.22	-.02	.01	.005	.946
Family Health												
Mother's Dental Visit	30	.37	.03	-.02	.057	.815	184	.48	-.01	.01	.105	.746
Health Insurance	30	.80	.14	-.09	1.650	.218	184	.84	-.01	.01	.126	.723
Difficulty Obtaining Services	30	.07	.02	-.01	.054	.819	184	.14	-.03	.02	1.103	.295
Family Functioning												
Independence A	30	1.84	.02	-.01	.197	.663	184	1.79	-.00	.00	.006	.937
Independence B	30	3.63	.05	-.03	.181	.667	177	3.55	-.04	.03	.531	.467
Family Circumstances												
Change in Reliance on Wages	29	3.82	-10.02	6.12	1.251	.282	171	-0.65	-4.34	3.31	1.441	.232
Public Assistance	30	1.50	.35	-.23	1.325	.267	182	1.80	.15	-.12	1.620	.205
Change in Mother's Employment/ Training Status	28	-.00	.14	-.08	1.726	.210	159	.00	.05	-.03	1.228	.270
Change in Mother's Employment Status	28	-.05	.12	-.07	.982	.338	159	.01	.01	-.01	.092	.763
Change in Mother's Training Status	28	.05	.13	-.07	1.004	.333	159	-.01	.05	-.03	1.034	.311

Participation

Types and Amount of Participation by Site

As reported in Chapter 3, there was considerable variation across the five programs in the amount and types of participation. Table B-40 shows average levels of participation by site on a number of participation measures. There were significant site differences on most of these measures. More specifically, frequency of HOME VISITS was highest in Jackson and Salem and lowest in Oklahoma City and St. Petersburg. (However, Oklahoma City did tend to use BRIEF HOME VISITS more than the other sites.) Frequency of CENTER SESSIONS was highest in Oklahoma City and Salem and lowest in St. Petersburg and in Las Vegas. There was wide variation in the average number of PHONE CALLS per quarter, with Las Vegas especially high ($\bar{x}$=9.5) and Salem especially low ($\bar{x}$=3.6).

Effects of Participation

To investigate the hypothesis that the amount of contact a CFRP family had with the local program affected parent and child outcomes, we examined relationships between participation and outcome measures. This section presents the results of these analyses, beginning with an examination of simple correlations, moving to regression modeling (using participation measures as independent variables) and concluding with CFRP vs. control ANCOVAS using higher-participation families only.

Analyses focused primarily on three measures of participation: Frequency of HOME VISITS (logarithm of mean number per quarter), Frequency of GROUP SESSIONS (logarithm of mean number per quarter) and LENGTH OF PARTICIPATION (number of months). Although we also examined the frequencies of brief home visits and phone calls, these variables are not discussed further because they were never found to be powerful predictors of outcomes. In general, the frequency-of-participation measures represent data for the period fall 1980-fall 1981; however, if no data for this period were available, data for the preceding year were substituted. We also examined two categorical

Table B-40

Measures of Participation by Site

MEASURE	JACKSON N	JACKSON Mean	JACKSON SD	LAS VEGAS N	LAS VEGAS Mean	LAS VEGAS SD	OKLAHOMA CITY N	OKLAHOMA CITY Mean	OKLAHOMA CITY SD	ST. PETERSBURG N	ST. PETERSBURG Mean	ST. PETERSBURG SD	SALEM N	SALEM Mean	SALEM SD	OVERALL N	OVERALL Mean	OVERALL SD	SITE DIFFERENCE F STATISTIC	SITE DIFFERENCE SIGNIFICANCE
Home Visits per Quarter[a]	19	4.02	1.90	23	3.08	1.93	19	1.85	1.19	23	1.96	1.53	24	4.31	2.67	108	3.06	2.16	7.36	<.01
Year II Quarterly Home Visit Rate	18	4.49	2.37	23	1.54	1.04	18	1.43	1.10	21	2.53	1.96	24	4.35	3.09	104	2.88	2.45	10.28	<.01
Year III Quarterly Home Visit Rate	14	4.74	1.14	21	3.21	1.97	17	2.01	1.14	22	2.05	1.50	21	4.81	2.47	95	3.31	2.12	11.08	<.01
Brief Home Visits per Quarter	19	1.09	1.50	23	.89	1.36	19	1.87	2.39	23	1.62	1.35	24	.92	2.43	108	1.26	1.88	1.19	.32
Telephone Calls per Quarter	20	6.12	12.32	23	9.50	9.08	19	7.40	3.49	24	7.10	5.18	24	3.61	2.40	110	6.71	7.48	1.99	.10
Center Sessions per Quarter[a]	19	2.14	2.00	23	.80	1.50	19	3.74	4.40	23	1.01	.90	24	3.50	4.48	108	2.20	3.22	4.44	<.01
Quarterly Center Participation Rate-Low Participants[b]	7	.17	.29	17	.14	.21	6	.00	.00	12	.40	.32	11	.09	.22	53	.18	.27	3.92[c]	.01
Quarterly Center Participation Rate-High Participants[b]	12	3.29	1.61	6	2.67	2.01	13	5.47	4.33	11	1.68	.85	13	6.38	4.32	55	4.15	3.55	4.37[c]	<.01
Year II Quarterly Center Participation Rate	18	2.12	1.82	23	.90	1.57	18	1.58	3.35	21	2.89	3.30	24	2.30	2.79	104	1.95	2.05	1.76	.14
Year III Quarterly Center Participation Rate	14	2.43	2.05	21	.46	.74	17	4.18	4.45	22	1.06	.89	21	4.00	4.58	95	2.34	3.33	6.22	<.01

[a] Figures reported here do not represent either Year II or III alone, or an average of the two. To maximize sample sizes, we used Year III data for all families for which such data were available, and Year II data in other cases.

[b] Families were classified as low center session participants if they attended less than once per quarter on average. The high participating group attended center sessions once per quarter or more on average.

[c] Differences in means between low and high participants are significant at each site and overall (p=.01 or less).

participation measures: (1) ANY SERVICE--a binary variable contrasting families with low or no participation and those with moderate or high; and (2) SERVICE PACKAGE--a three-level variable that distinguished among the moderate and high participants as to whether they got home visits only or home visits and group sessions.

Parent Outcomes: Table B-41 presents simple correlations between the three participation measures and parent outcomes. In general, there were few significant relationships. Frequency of HOME VISITS was strongly and positively related to most of the PAAT scores (total and subscales): Parents who received more home visits tended to score higher across all the subscales. Participation in GROUP SESSIONS, in contrast, was not related to the PAAT measures but was related to COPING skills. LENGTH OF PARTICIPATION was related only to CHANGE IN TRAINING STATUS, such that mothers who participated for more months were also more likely to obtain job training of schooling during the program.

As a next stage in examining the effects of the intensity of participation on parent outcomes, we constructed regression models for predicting outcomes that included participation as well as an extensive set of covariates (SITE, RACE, PREDOMINANT RACE, BASELINE SCHOOL/WORK, COPING, HOUSEHOLD SIZE, PRESENCE OF HIGH RISK INFANT, COMFORT SCORE, SOCIAL TIES SCORES and MOTHER's EDUCATION, AGE and MARITAL STATUS). In general, the regression analyses showed the same relationships between participation and outcomes as were indicated in the simple correlations. That is, inclusion of the covariates did not diminish the effects of the participation measures.

We then used each of the participation variables to partition the CFRP group into families with low participation levels and families with higher participation levels. The outcome analyses then were redone comparing the control families to this subset of (relatively) higher participators.*

*Note that this line of analyses is somewhat biased because we do not have an equivalent measure (i.e., enthusiasm) to use to select out unmotivated control families.

Table B-41

Correlations of Participation and
Family Outcome Measures, for CFRP Families

Parent-as-Teacher Scores	N	Frequency of HOME VISITS	Frequency of GROUP SESSIONS	LENGTH OF PARTICIPATION (months)
PAAT Total Score	89	.33**	.15	.02
PAAT Factor Score	89	.31**	.17	.01
PAAT Creativity Domain	89	.29**	.01	.02
PAAT Frustration Domain	89	.17	.13	-.03
PAAT Control Domain	89	.29**	.19	.06
PAAT Play Domain	89	.18	.05	.01
PAAT Teaching Domain	89	.31**	.17	.02
Family Health				
Mother's Dental Visit	89	.08	.07	.06
Health Insurance	89	-.17	-.09	-.07
Difficulty Obtaining Services	89	-.14	.01	.01
Family Functioning				
Independence A	85	.12	-.12	.08
Independence B	85	.08	-.18	.03
Coping A (mean)	89	.17	.27**	-.05
Coping B	83	.14	.25*	-.14
Change in Coping A (based on mean)	83	.20	.23*	.01
Change in Coping B	83	.17	.12	.02
Family Circumstances				
Change in Reliance on Wages	83	-.08	-.05	-.01
Public Assistance	83	.12	.03	.03
Change in Mother's Employment/Training Status	75	-.04	.00	.08
Change in Mother's Employment Status	75	-.12	-.15	-.01
Change in Mother's Training Status	75	.21	.16	.26*

*p < .05
**p < .01
***p < .001

The definition of low versus high participation on each participation measure was based on the distribution of the variable. The stratifications were as follows:

ANY SERVICE	Low participation	= no center sessions or home visits;
	Higher participation	= some center sessions or home visit.
HOME VISITS	Low participation	= less than 3 home visits per quarter, on the average;
	Higher participation	= 3 or more home visits per quarter, on the average.
CENTER SESSIONS	Low participation	= less than one center session per quarter, on the average;
	Higher participation	= one or more centers sessions per quarter, on the average.
LENGTH OF PARTICIPATION	Low participation	= 12 to 24 months.*
	Higher participation	= 25 to 36 months.

The results (Tables B-42 through B-46) indicate that in fact the distance between program and control families increased on many of the parent measures as a result of dropping out the low participants. (Compare the F-statistics on these tables with the F-statistics for the ANCOVAS for the overall sample.) In general, the results indicate that in fact the distance between program and control families increased on most of the parent outcomes as a result of dropping out the low participants. (Compare the adjusted deviations and the F-statistics on Tables B-42 to B-45 with the statistics for the ANCOVAS of the overall sample in Table B-28.) The stratifiers measuring amount of participation (ANY SERVICES, frequencies of HOME VISITS and GROUP SESSIONS) appeared to be stronger mediators of the program effects than did LENGTH OF PARTICIPATION (perhaps because we had already excluded those families with less than one year of participation). In the ANCOVAS on the stratified samples, the parent outcomes on which program effects were most enhanced were the PAAT measures, CHANGE IN MOTHER'S TRAINING STATUS, and CHANGE IN RELIANCE ON WAGES.

*Families with less than 12 months of participation were excluded from all analyses.

Table B-42

Effects of CFRP on Family Outcomes of Higher Participation, for CFRP Families

Participation Measure: ANY SERVICE[a]

OUTCOME MEASURE	N	OVERALL MEAN	UNADJUSTED[b] DEVIATIONS: CFRP	UNADJUSTED[b] DEVIATIONS: CONTROL	ADJUSTED[b] DEVIATIONS: CFRP	ADJUSTED[b] DEVIATIONS: CONTROL	F STATISTIC	SIGNIFICANCE OF F
Parent-as-Teacher Scores								
PAAT Total Score	201	140.18	1.89	-1.23	2.05	-1.33	5.92	.02
PAAT Factor Score	201	46.79	.68	- .44	.73	- .47	3.05	.08
PAAT Creativity Domain	201	27.32	.53	- .34	.46	- .30	3.62	.06
PAAT Frustration Domain	201	27.44	.62	- .40	.63	- .41	6.72	.01
PAAT Control Domain	201	24.98	.64	- .41	.70	- .45	6.58	.01
PAAT Play Domain	201	29.96	.03	- .02	.06	- .04	.05	.81
PAAT Teaching Domain	201	30.48	.07	- .05	.20	- .13	.57	.45
Family Health								
Mother's Dental Visit	201	.46	-.03	.02	-.02	.01	.14	.71
Health Insurance	201	.84	.02	- .02	.02	- .01	.39	.53
Difficulty Obtaining Services	201	.12	-.05	.03	-.04	.02	1.52	.22
Family Functioning								
Independence A	201	1.80	.00	-.00	.01	-.00	.18	.67
Independence B	194	3.57	-.02	.02	-.01	.01	.08	.78
Coping A (mean)	201	2.84	.09	-.06	.13	-.08	2.12	.15
Coping B	199	1.99	.10	-.06	.12	-.08	4.72	.03
Change in Coping A (based on mean)	199	.02	.09	-.06	.11	-.07	1.72	.19
Change in Coping B	199	-.20	.11	-.07	.09	-.06	.84	.36
Family Circumstances								
Change in Reliance on Wages	190	-.25	-8.24	5.38	-6.27	4.09	3.02	.08
Public Assistance	199	1.77	.34	-.22	.25	-.16	3.96	.05
Change in Mother's Employment/Training Status	177	-.01	.04	-.02	.06	-.04	1.76	.19
Change in Mother's Employment Status	177	-.01	.02	-.01	.03	-.02	.46	.50
Change in Mother's Training Status	177	.01	.06	-.03	.09	-.06	3.63	.06

[a] Low participation = no center sessions or home visits;
High participation = any center sessions or home visits.

[b] Unadjusted deviations are raw differences between means for CFRP and control/comparison group and overall mean. Adjusted deviations are comparable differences, adjusted to take account of covariates. Comparison between the two sets of deviations indicates the magnitude of covariate effects on the CFRP-control differences, which were generally minor.

Table B-43

Effects of CFRP on Family Outcomes of Higher Participation, for CFRP Families

Participation Measure: Frequency of HOME VISITS[a]

OUTCOME MEASURE	N	OVERALL MEAN	UNADJUSTED[b] DEVIATIONS CFRP	UNADJUSTED[b] DEVIATIONS CONTROL	ADJUSTED[b] DEVIATIONS CFRP	ADJUSTED[b] DEVIATIONS CONTROL	F STATISTIC	SIGNIFICANCE OF F
Parent-as-Teacher Scores								
PAAT Total Score	165	140.37	4.02	-1.42	3.49	-1.23	8.01	.01
PAAT Factor Score	165	46.79	1.47	- .52	1.06	- .37	3.02	.08
PAAT Creativity Domain	165	27.40	1.21	- .43	1.07	- .38	8.86	.003
PAAT Frustration Domain	165	27.30	.73	- .26	.74	- .26	4.05	.05
PAAT Control Domain	165	25.04	1.33	- .47	1.19	- .42	8.30	.01
PAAT Play Domain	165	30.00	.17	- .06	-.01	.00	.00	.97
PAAT Teaching Domain	165	30.63	.57	- .20	.50	- .18	1.62	.21
Family Health								
Mother's Dental Visit	165	.47	-.03	.01	-.00	.00	.00	.96
Health Insurance	165	.82	.01	- .01	.01	- .00	.01	.92
Difficulty Obtaining Services	165	.12	-.10	.03	-.08	.03	3.16	.08
Family Functioning								
Independence A	165	1.80	.01	-.00	.01	-.00	.03	.86
Independence B	160	3.58	-.01	.00	-.05	.02	.39	.53
Coping A (mean)	165	2.83	.15	-.05	.14	-.05	1.01	.32
Coping B	164	1.99	.18	-.06	.15	-.05	3.05	.08
Change in Coping A (based on mean)	163	.01	.12	-.04	.10	-.04	.68	.41
Change in Coping B	163	-.23	.11	-.04	.10	-.03	.40	.53
Family Circumstances								
Change in Reliance on Wages	158	2.30	-7.58	2.83	-4.88	1.83	.79	.38
Public Assistance	163	1.70	.42	-.15	.29	-.10	2.24	.14
Change in Mother's Employment/Training Status	146	-.00	.07	-.02	.08	-.03	1.51	.22
Change in Mother's Employment Status	146	-.02	.01	-.00	.02	-.01	.08	.78
Change in Mother's Training Status	146	.02	.12	-.04	.15	-.05	4.36	.04

[a]Low participation = less than 3 home visits per quarter;
High participation = 3 or more home visits per quarter.

[b]Unadjusted deviations are raw differences between means for CFRP and control/comparison group and overall mean. Adjusted deviations are comparable differences, adjusted to take account of covariates. Comparison between the two sets of deviations indicates the magnitude of covariate effects on the CFRP-control differences, which were generally minor.

Table B-44

Effects of CFRP on Family Outcomes of Higher Participation, for CFRP Families

Participation Measure: Frequency of GROUP SESSIONS[a]

OUTCOME MEASURE	N	OVERALL MEAN	UNADJUSTED[b] DEVIATIONS		ADJUSTED[b] DEVIATIONS		F STATISTIC	SIGNIFICANCE OF F
			CFRP	CONTROL	CFRP	CONTROL		
Parent-as-Teacher Scores								
PAAT Total Score	165	139.70	2.12	-.75	1.58	-.56	1.70	.20
PAAT Factor Score	165	46.66	.88	-.31	.50	-.18	.68	.41
PAAT Creativity Domain	165	27.09	.33	-.12	.07	-.02	.04	.84
PAAT Frustration Domain	165	27.24	.57	-.20	.56	-.20	2.37	.13
PAAT Control Domain	165	24.98	1.14	-.40	1.23	-.43	9.42	.003
PAAT Play Domain	165	29.86	-.23	.08	-.44	.16	1.50	.22
PAAT Teaching Domain	165	30.54	.31	-.11	.16	-.06	.18	.67
Family Health								
Mother's Dental Visit	165	.47	-.03	.01	-.01	.00	.01	.92
Health Insurance	165	.84	.05	-.02	.05	-.02	1.11	.30
Difficulty Obtaining Services	165	.14	-.05	.02	-.03	.01	.35	.55
Family Functioning								
Independence A	165	1.80	-.01	.00	-.00	.00	.00	.95
Independence B	160	3.56	-.08	.03	-.07	.02	.77	.38
Coping A (mean)	165	2.88	.29	-.10	.30	-.10	5.18	.02
Coping B	165	2.02	.26	-.09	.25	-.09	10.30	.002
Change in Coping A (based on mean)	163	.06	.27	-.10	.27	-.10	4.65	.03
Change in Coping B	163	-.17	.26	-.09	.25	-.09	2.56	.11
Family Circumstances								
Change in Reliance on Wages	156	3.58	-10.33	3.58	-7.15	2.55	1.74	.19
Public Assistance	163	1.70	.42	-.15	.33	-.12	3.30	.07
Change in Mother's Employment/Training Status	145	-.01	.06	-.02	.07	-.02	1.20	.28
Change in Mother's Employment Status	145	-.02	.01	-.00	.03	-.01	.14	.72
Change in Mother's Training Status	145	.01	.11	-.03	.14	-.04	3.71	.06

[a]Low participation = less than one center session per quarter;
High participation = one or more home visits per quarter.

[b]Unadjusted deviations are raw differences between means for CFRP and control/comparison group and overall mean. Adjusted deviations are comparable differences, adjusted to take account of covariates. Comparison between the two sets of deviations indicates the magnitude of covariate effects on the CFRP-control differences, which were generally minor.

Table B-45

Effects of CFRP on Family Outcomes of Higher Participation, for CFRP Families

Participation Measure: LENGTH OF PARTICIPATION[a]

OUTCOME MEASURE	N	OVERALL MEAN	UNADJUSTED[b] DEVIATIONS CFRP	UNADJUSTED[b] DEVIATIONS CONTROL	ADJUSTED[b] DEVIATIONS CFRP	ADJUSTED[b] DEVIATIONS CONTROL	F STATISTIC	SIGNIFICANCE OF F
Parent-as-Teacher Scores								
PAAT Total Score	208	139.78	1.17	-.83	1.55	-1.09	3.65	.06
PAAT Factor Score	208	46.59	.35	-.24	.52	- .37	1.72	.19
PAAT Creativity Domain	208	27.23	.37	-.26	.33	- .24	2.17	.14
PAAT Frustration Domain	208	27.37	.47	-.33	.48	- .34	4.16	.04
PAAT Control Domain	208	24.94	.53	-.37	.64	- .45	6.31	.01
PAAT Play Domain	208	29.87	-.10	.07	.00	- .00	.00	.99
PAAT Teaching Domain	208	30.36	-.09	.06	.09	- .07	.14	.71
Family Health								
Mother's Dental Visit	208	.46	-.03	.02	-.02	.01	.20	.66
Health Insurance	208	.83	.02	- .01	.01	- .01	.07	.79
Difficulty Obtaining Services	208	.13	-.04	.03	-.02	.02	.74	.39
Family Functioning								
Independence A	208	1.80	-.00	.00	.01	-.01	.31	.58
Independence B	201	3.57	-.02	.02	-.01	.00	.03	.87
Coping A (mean)	208	2.81	.05	-.03	.10	-.07	1.37	.24
Coping B	207	1.99	.09	-.06	.11	-.07	4.20	.04
Change in Coping A	206	.00	.06	-.04	.08	-.06	1.07	.30
(based on mean) Change in Coping B	199	-.10	.07	-.05	.08	-.06	3.20	.08
Family Circumstances								
Change in Reliance on Wages	196	0.16	-7.07	4.98	-5.40	3.81	2.54	.11
Public Assistance	206	1.75	.28	-.20	.19	-.14	2.76	.10
Change in Mother's Employment/Training Status	181	.00	.05	-.03	.07	-.04	2.46	.13
Change in Mother's Employment Status	181	.00	.03	-.02	.05	-.03	1.19	.28
Change in Mother's Training Status	181	.01	.04	-.03	.07	-.05	2.36	.13

[a]Low participation = 12 to 24 months in the program;
High participation = 24 to 36 months in the program.

[b]Unadjusted deviations are raw differences between means for CFRP and control/comparison group and overall mean. Adjusted deviations are comparable differences, adjusted to take account of covariates. Comparison between the two sets of deviations indicates the magnitude of covariate effects on the CFRP-control differences, which were generally minor.

Child Outcomes: This same progression of analyses was repeated for the child outcome measures, with generally weaker results. First, at the level of simple correlations, four of the 27 correlations between outcomes and participation were "significant" (Table B-46). The frequency of HOME VISITS was related to higher scores on the SBI TEST ORIENTATION scale; LENGTH OF PARTICIPATION was related to CHILD MEDICAL VISITS; finally, children whose families stayed in CFRP the longest and whose families received more HOME VISITS were more likely to enter HEAD START. With the proportion of "significant" correlations so close to chance, it is difficult to infer any relationship between parent participation and child outcomes.

Despite the dearth of significant simple correlations, we conducted multiple regressions, statistically controlling for the extensive set of covariates cited above (substituting CHILD AGE, CHILD SEX and DAY CARE EXPERIENCE for MOTHER'S AGE and SCHOOL/WORK). The inclusion of the covariates diminished the few participation effects to nonsignificance. At the same time, the one regression coefficient that achieved significance was that for LENGTH OF PARTICIPATION on the PSI. Holding all other factors constant, a child's PSI score went up approximately one-third point for each month of participation. Although this potentially might be a major effect, the confounding of length of participation and entry into Head Start makes it difficult to interpret the result.

As with the parent measures, we then reran the outcome ANCOVAS using only the program families who participated above a specified level. The simple correlations between participation and outcome led us to expect little enhancement of the program effect, and this was the case. We found some enhancement in only one domain--proportion of program versus control families who visited a doctor or dentist (program > control). Tables B-47 through B-51 show the F-statistics for the new outcome analyses, which can be compared to the F-statistics for the overall child sample (Table B-27).

Table B-46

Correlations of Participation and Child Outcome Measures, for CFRP Families

OUTCOME MEASURE	N	FREQUENCY OF HOME VISITS	FREQUENCY OF GROUP SESSIONS	LENGTH OF PARTICIPATION (months)
Preschool Inventory (total correct)	70	.14	.05	.20
Pupil Observation Checklist				
Test Orientation	55	-.14	-.06	-.02
Sociability	55	-.25	-.19	.11
Schaefer Behavior Inventory				
Task Orientation	74	.30**	.01	.05
Introversion-Extraversion	74	.16	.21	.00
Hostility-Tolerance	74	.05	-.07	-.03
Health Measures				
Checkup in last 12 months	74	.09	.13	.24*
Ever Been to Dentist	74	.02	.12	-.15
Child in Head Start	89	.39**	.130	.36**

*p<.05
**p<.01

Table B-47

Effects of CFRP on Child Outcomes of Higher Participation, for CFRP Families

Participation Measure: ANY SERVICE[a]

OUTCOME MEASURE	N	OVERALL MEAN	UNADJUSTED[b] DEVIATIONS CFRP	UNADJUSTED[b] DEVIATIONS CONTROL	ADJUSTED[b] DEVIATIONS CFRP	ADJUSTED[b] DEVIATIONS CONTROL	F	SIGNIFICANCE OF F
Preschool Inventory (total correct)	157	8.76	.19	-.13	.22	-.15	.26	.61
Pupil Observation Checklist								
Test Orientation	162	4.19	-.01	.01	-.09	.06	1.37	.24
Sociability	164	4.26	-.09	.06	-.13	.08	1.75	.19
Schaefer Behavior Inventory								
Task Orientation	200	3.41	-.01	.01	-.03	.02	.23	.63
Introversion-Extraversion	201	4.08	.02	-.01	.02	-.01	.09	.76
Hostility-Tolerance	201	2.51	.04	-.03	-.00	.00	.001	.98
Health Measures								
Checkup in last 12 months	197	.91	.05	-.03	.05	-.03	3.30	.07
Ever Been to Dentist	201	.34	.06	-.04	-.06	-.04	1.91	.17
Child in Head Start	202	.49	.22	-.15	.19	-.13	34.03	.00

[a]Low participation = no center session or home visits;
High participation = any center sessions or home visits.

[b]Unadjusted deviations are raw differences between means for CFRP and control/comparison group and overall mean. Adjusted deviations are comparable differences, adjusted to take account of covariates. Comparison between the two sets of deviations indicates the magnitude of covariate effects on the CFRP-control differences, which were generally minor.

Table B-48

Effects of CFRP on Child Outcomes of Higher Participation, for CFRP Families

Participation Measure: Frequency of HOME VISITS[a]

OUTCOME MEASURE	N	OVERALL MEAN	UNADJUSTED[b] DEVIATIONS CFRP	UNADJUSTED[b] DEVIATIONS CONTROL	ADJUSTED[b] DEVIATIONS CFRP	ADJUSTED[b] DEVIATIONS Control	F	SIGNIFICANCE OF F
Preschool Inventory (total correct)	128	8.73	.27	-.10	-.04	.01	.00	.96
Pupil Observation Checklist								
Test Orientation	130	4.22	.10	-.03	-.08	.03	.41	.53
Sociability	132	4.30	-.04	.01	-.19	.06	1.51	.22
Schaefer Behavior Inventory								
Task Orientation	165	3.44	.06	-.02	-.01	.00	.02	.90
Introversion-Extraversion	165	4.11	.12	-.04	.10	-.04	1.11	.29
Hostility-Tolerance	165	2.52	.10	-.04	.00	-.00	.00	.99
Health Measures								
Checkup in last 12 months	169	.91	.07	-.02	.07	-.03	3.16	.08
Ever Been to Dentist	165	.35	.14	-.05	.11	-.04	3.37	.07
Child in Head Start	165	.48	.38	-.13	.28	-.10	34.19	.00

[a] Low participation = less than 3 home visits per quarter.
High participation = 3 or more home visits per quarter.

[b] Unadjusted deviations are raw differences between means for CFRP and control/comparison group and overall mean. Adjusted deviations are comparable differences, adjusted to take account of covariates. Comparison between the two sets of deviations indicates the magnitude of covariate effects on the CFRP-control differences, which were generally minor.

Table B-49

Effects of CFRP on Child Outcomes of Higher Participation, for CFRP Families

Participation Measure: FREQUENCY OF GROUP SESSIONS[a]

OUTCOME MEASURE	N	OVERALL MEAN	UNADJUSTED[b] DEVIATIONS CFRP	UNADJUSTED[b] DEVIATIONS CONTROL	ADJUSTED[b] DEVIATIONS CFRP	ADJUSTED[b] DEVIATIONS CONTROL	F	SIGNIFICANCE OF F
Preschool Inventory (total correct)	129	8.68	.15	-.05	.21	-.08	.11	.74
Pupil Observation Checklist								
Test Orientation	136	4.20	.02	-.01	-.04	.02	.13	.72
Sociability	138	4.29	-.07	.03	-.11	.04	.60	.44
Schaefer Behavior Inventory								
Task Orientation	164	3.40	-.06	.02	-.08	.03	.72	.40
Introversion-Extraversion	165	4.09	.07	-.02	.08	-.03	.92	.34
Hostility-Tolerance	165	2.45	-.09	.03	-.13	.05	1.00	.32
Health Measures								
Checkup in last 12 months	161	.91	.07	-.02	.08	-.03	3.85	.05
Ever Been to Dentist	165	.35	.12	-.04	.09	-.03	2.52	.11
Child in Head Start	165	.45	.31	-.11	.25	-.09	27.89	.00

[a]Low participation = less than one center session per quarter;
High participation = one or more center sessions per quarter.

[b]Unadjusted deviations are raw differences between means for CFRP and control/comparison group and overall mean. Adjusted deviations are comparable differences, adjusted to take account of covariates. Comparison between the two sets of deviations indicates the magnitude of covariate effects on the CFRP-control differences, which were generally minor.

Table B-50

Effects of CFRP on Child Outcomes of Higher Participation, for CFRP Families

Participation Measure: LENGTH OF PARTICIPATION[a]

OUTCOME MEASURE	N	OVERALL MEAN	UNADJUSTED[b] DEVIATIONS CFRP	UNADJUSTED[b] DEVIATIONS CONTROL	ADJUSTED[b] DEVIATIONS CFRP	ADJUSTED[b] DEVIATIONS CONTROL	F	SIGNIFICANCE OF F
Preschool Inventory (total correct)	161	8.71	.11	-.08	.17	-.12	.17	.68
Pupil Observation Checklist								
Test Orientation	166	4.19	.00	-.00	-.06	.04	.69	.41
Sociability	167	4.28	-.05	.04	-.07	.05	.57	.45
Schaefer Behavior Inventory								
Task Orientation	208	3.40	-.03	.02	-.04	.03	.50	.48
Introversion-Extraversion	208	4.07	.01	-.01	.01	-.01	.06	.81
Hostility-Tolerance	208	2.53	.07	-.05	.14	-.03	.46	.50
Health Measures								
Checkup in last 12 months	204	.91	.04	-.03	.04	-.03	2.72	.10
Ever Been to Dentist	208	.34	.05	-.03	.05	-.03	1.53	.22
Child in Head Start	209	.49	.20	-.14	.19	-.13	35.76	.00

[a]Low participation = 12-24 months of participation;
High participation = 24-36 months of participation.

[b]Unadjusted deviations are raw differences between means for CFRP and control/comparison group and overall mean. Adjusted deviations are comparable differences, adjusted to take account of covariates. Comparison between the two sets of deviations indicates the magnitude of covariate effects on the CFRP-control differences, which were generally minor.

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B.3.5 Transition to Head Start

In Chapter 4 we described the transition from the infant-toddler component to Head Start. The success of the transition process was measured using a number of variables, based on interviews with parents and Head Start teachers conducted in fall 1981. There was substantial variation across sites in the transition process. Table B-51 shows these site differences for the transition measures.

Table B-51

Measures of Transition to Head Start of CFRP Children by Site

MEASURE	JACKSON	LAS VEGAS	OKLAHOMA CITY	ST. PETERSBURG	SALEM	OVERALL	SIGNIFICANCES OF SITE DIFFERENCES F STATISTIC	p
Number of Hours per Week of Head Start Classes								
N	15	15	9	7	20	67		
Mean	4.23	17.07	19.94	27.86	6.00	12.52	37.41	<.01
S.D.	1.91	6.21	3.45	13.72	.00	9.82		
Teacher Aware of Child's CFRP Participation								
N	15	10	12	8	19	67	6.02	<.01
Proportion	.93	1.00	.83	.25	.63	.75		
Teacher's Knowledge of Child's Abilities (0-3 range)								
N	15	10	12	8	19	65		
Mean	2.67	.80	.58	.25	2.79	1.69	27.83	<.01
S.D.	.82	1.14	1.00	.71	.54	1.37		
Teacher's Knowledge of Child's Health (0-2 range)								
N	15	10	12	8	10	65		
Mean	2.00	1.80	1.58	.25	1.42	1.50	13.73	<.01
S.D.	.00	.63	.67	.71	.61	.76		
Teachers' Knowledge About the Family (0-3 range)								
N	15	10	12	8	19	65		
Mean	2.33	1.90	1.67	1.25	2.21	1.97	2.31	.07
S.D.	1.05	1.20	1.07	1.04	.54	.99		
Total Knowledge (0-8 range)								
N	15	10	12	8	19	65		
Mean	7.00	4.50	3.83	1.75	6.42	5.19	16.88	<.01
S.D.	1.36	2.42	1.80	1.98	1.35	2.44		