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ABSTRACT

To learn more about how welfare reform affects children, a child-focused study was conducted as part of the larger Job Opportunities and Basic Skills Training (JOBS) evaluation. This study assess the impacts of mothers' mandatory participation in welfare-to-work programs on outcomes for children using a sample of 790 participants. It provides an early look at the experiences and characteristics of mothers and their preschool-aged children receiving aid to families with dependent children in one of three sites in Fulton County (Georgia). On an assessment of school readiness, 4 in 10 children answered half or fewer than half of the items correctly, suggesting that many lack needed skills for school. Two-thirds of the women in this study have only one or two children, and most had positive attitudes toward work, findings that contradicted some common stereotypes about welfare mothers. Important changes were underway within just a few months of entering the JOBS program, with the most obvious change being the substantial increase in the proportion of children in child care on a regular basis. Women in program groups were also more likely to have participated in education or job training programs since entering the evaluation. Early data suggest that mandatory work or training has the potential to affect the lives of two generations. Five appendixes discuss study methodology, and present three instruments used in the study. (Contains 7 tables, 41 figures, 24 tables in Appendix B, and 159 references.) (SLD)

The JOBS Evaluation

How Well Are They Faring? AFDC Families with Preschool-Aged Children in Atlanta at the Outset of the JOBS Evaluation

U.S. Department of Health and Human Services
Administration for Children and Families
Office of the Assistant Secretary for Planning and Evaluation

U.S. Department of Education
Office of the Under Secretary
Office of Vocational and Adult Education

The Manpower Demonstration Research Corporation is conducting the JOBS Evaluation under a contract with the U.S. Department of Health and Human Services (HHS), funded by HHS under a competitive award, Contract No. HHS-100-89-0030. HHS is also receiving funding for the evaluation from the U.S. Department of Education. The study of one of the sites in the evaluation, Riverside County (California), is also conducted under a contract from the California Department of Social Services (CDSS). CDSS, in turn, is receiving funding from the California State Job Training Coordinating Council, the California Department of Education, HHS, and the Ford Foundation. Additional funding to support the Child Outcomes portion of the study is provided by the following foundations: the Foundation for Child Development, the William T. Grant Foundation, and an anonymous funder.

The findings and conclusions presented herein do not necessarily represent the official positions or policies of the funders.

Publications from the JOBS Evaluation

From Welfare to Work. Judith M. Gueron and Edward Pauly. 1991. New York: Russell Sage Foundation.

The Saturation Work Initiative Model in San Diego: A Five-Year Follow-up Study. Daniel Friedlander and Gayle Hamilton. 1993. New York: Manpower Demonstration Research Corporation.

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The JOBS Evaluation: Adult Education for People on AFDC — A Synthesis of Research. U.S. Department of Education and U.S. Department of Health and Human Services. 1995. Washington, D.C.: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation.

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The JOBS Evaluation: How Well Are They Faring? AFDC Families with Preschool-Aged Children in Atlanta at the Outset of the JOBS Evaluation. U.S. Department of Health and Human Services and U.S. Department of Education. 1995. Washington, D.C.: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation.

The JOBS Evaluation: Monthly Participation Rates in Three Sites and Factors Affecting Participation Levels in Welfare-to-Work Programs. U.S. Department of Health and Human Services and U.S. Department of Education. 1995. Washington, D.C.: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation.

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U.S. Department of Health and Human Services
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PREFACE

As this report is being released, a major overhaul of the nation's welfare system is under way. Although children comprise the majority of Aid to Families with Dependent Children (AFDC) recipients, they are rarely the focus of the current welfare reform debate. Many questions about the well-being of children on welfare remain unasked and unanswered.

To learn more about how welfare reform affects children, a child-focused study was undertaken as part of the larger Job Opportunities and Basic Skills Training (JOBS) Evaluation, which is being conducted by the Manpower Demonstration Research Corporation, under contract to the U.S. Department of Health and Human Services. This Child Outcomes Study, being implemented by Child Trends, Inc., will assess the impacts of mothers' mandatory participation in welfare-to-work programs on outcomes for children.

This first report on children in AFDC families provides an early look at the experiences and characteristics of AFDC mothers and their preschool-aged children in one of three sites--Fulton County, Georgia--near the start of the evaluation. As one might expect, the families in this study are disadvantaged in many ways. Four in 10 mothers, more than twice as many as in the general population, were assessed to have high levels of depressive symptoms. On an assessment of school readiness, four in 10 children answered half or fewer of the items correctly, suggesting that many lack the skills expected by schools.

But the women and children in this sample also contradict many common stereotypes about welfare families -- that they tend to have large numbers of children, for example, or that the mothers do not want to work. Instead, two-thirds of the women in the study had only one or two children, and most had positive attitudes about work. Moreover, the families in this study were heterogeneous with respect to work experiences, literacy skills, and the availability of social supports, suggesting the importance of varied approaches to helping mothers move from welfare to work.

Important changes were already underway in the lives of mothers and children within just a few months of entering the JOBS Program. The most obvious change was the substantial increase in the proportion of children in child care on a regular basis. Also, women in the program groups were significantly more likely than women in the control group to have participated in education or job training programs since entering the evaluation.

These findings provide a rich portrait of the lives and circumstances of families on AFDC. The early data also suggest that mandatory work or training has the potential to affect the lives of two generations. Subsequent reports will examine the impact of mothers' participation in JOBS on children's well-being.

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Below is a list of acronyms that are frequently used throughout this report:

AFDC = Aid to Families with Dependent Children

FIDCR = Federal Interagency Day Care Requirements

FSA = Family Support Act of 1988

GAIN = Greater Avenues for Independence; California's JOBS program.

GED = General Education Development Certificate

HOME-SF = Home Observation for Measurement of the Environment - Short Form

JOBS = Job Opportunities and Basic Skills Training

MDRC = Manpower Demonstration Research Corporation

NHIS-CH = National Health Interview Survey on Child Health

NLSY-CS = National Longitudinal Survey of Youth - Child Supplement

RAD = Random Assignment Date

TALS = Test of Applied Literacy Skills

WIN = Work Incentive Program

EXECUTIVE SUMMARY

The centerpiece of the 1988 Family Support Act (FSA) is the Job Opportunities and Basic Skills Training (JOBS) Program, which requires eligible recipients of Aid to Families with Dependent Children (AFDC) to participate in educational, job training and work experience, or job search activities, in order to reduce welfare dependency and promote self-sufficiency. Although most services offered through JOBS are aimed at meeting the needs of adults, there are numerous reasons to expect that JOBS may also affect children in families that receive AFDC.

By What Pathways Might JOBS Affect Children?

The legislative debate that led to the passage of the Family Support Act was "two-generational" in focus. That is, lawmakers recognized the implications of poverty and welfare dependency for both parents and children. However, the JOBS Program focuses primarily on the parental generation, although transitional child care and Medicaid benefits mandated under JOBS do recognize the needs of young children. Because the JOBS program is part of the government's effort to interrupt the inter-generational transmission of poverty, it is important to consider the possibility of either positive or negative effects on children. There are several mechanisms by which JOBS could affect children. These include changes in parent education or family income; changes in the home environment; changes in mothers' psychological well-being; and increased participation in child care (Wilson and Ellwood, 1993; Zaslow, Moore, Morrison, and Coiro, 1995).

As a national policy, the underlying assumption of the FSA is that the needs of poor children are best addressed through providing parents with education and job training services. An important potential pathway of influence of JOBS on children is via increasing maternal education, employment skills, and eventually employment. There is ample evidence to support the view that maternal education and family income are associated with children's development (Desai, Chase-Landsdale, and Michael, 1989; Duncan, Brooks-Gunn, and Klebanov, 1994; Hauser and Mossell, 1985). Education and income gains may produce changes in children's home environments, such as the provision of more cognitively stimulating materials or activities. These qualities of the home environment are positively associated with children's development (Bradley et al., 1994), and in fact are better predictors of child outcomes than are measures of parent education or socioeconomic status. However, despite evidence that higher parental educational attainment and family income are beneficial for children, we do not know whether JOBS participation will result in sufficiently large gains in these areas to influence outcomes among children.

Implementation of the JOBS mandate among AFDC mothers may also affect children's participation in non-maternal care. Meyers (1993) has summarized evidence that participation in welfare-to-work programs is associated with an increase in the amount of child care used and a greater reliance on formal child care arrangements, such as day care centers. Mothers' participation in JOBS and the provision of child care subsidies for JOBS participants may result

in more children from AFDC families participating in out-of-home, formal child care arrangements. High quality, educationally oriented child care programs are associated with cognitive gains, particularly for children from low-income families. Consequently, the FSA may provide an important opportunity to enhance the development of disadvantaged children. On the other hand, if parents place their children in poor quality care in order to fulfill their JOBS participation requirements, children's development may well suffer.

Furthermore, JOBS may affect children through changes in maternal psychological well-being. For example, mothers' stress or depression levels may increase in response to the participation mandate and the need to arrange child care fairly quickly. By contrast, mothers may experience decreases in depression and increases in role satisfaction or self-esteem as a result of gains in their education or job skills, or because participation provides social interaction, a respite from child care, and a sense of future opportunity. These areas of maternal well-being have been linked in turn to aspects of the home environment and to children's development (e.g., Downey and Coyne, 1990).

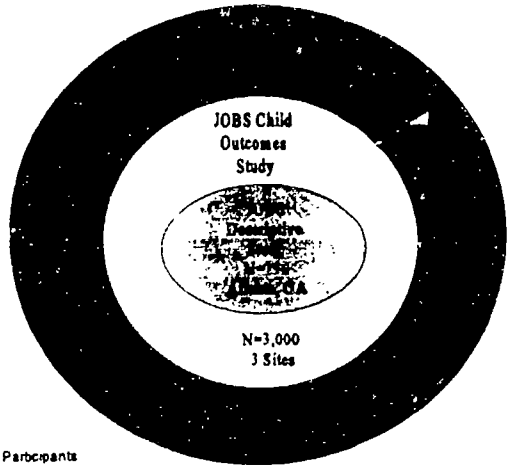
In sum, prior research suggests that JOBS, while primarily focused on parental education and employability, may affect the lives and well-being of young children as well. Both economic and non-economic mechanisms for such effects are possible. However, it is not known whether effects, if they do occur, will be positive, negative, or a mix of both; or whether any effects that are found will be large or modest. It is not known whether effects will differ by area of child well-being or for different subgroups of the JOBS population. The JOBS Child Outcomes Study has been designed to allow a careful examination of effects on children, as well as of the mechanisms by which such effects occur.

The JOBS Evaluation

The FSA legislation recommended a random assignment evaluation of the JOBS program to test its effectiveness, and this evaluation is currently being conducted by the Manpower Demonstration Research Corporation (MDRC). The impacts portion of the JOBS Evaluation involves random assignment of more than 55,000 JOBS eligibles to either a control group or one or two program groups, in seven sites around the country. The impact study is designed to examine the effects of various JOBS approaches on individuals' employment status, earnings levels, receipt and amount of AFDC payments, income levels, and educational attainment, using two types of experimental designs. The design of the impact study, and rationale for choosing each of the seven sites, are described fully in "The JOBS Evaluation: Early Lessons from Seven Sites" (Hamilton and Brock, 1994). Because JOBS departs from earlier welfare-to-work programs by mandating the participation of parents whose children are as young as three years of age, a special substudy of these parents and children, called the Child Outcomes Study, is being conducted within the larger JOBS Evaluation to examine outcomes for young children (see Figure 1).

Figure 1

The JOBS Child Outcomes Study is Nested Within the Larger JOBS Evaluation



NOTE N = Number of Study Participants

The JOBS Child Outcomes Study Design

The JOBS Child Outcomes Study, part of the larger JOBS Evaluation, has been designed to examine both the effects of JOBS on children and the mechanisms that explain any effects that are found. Data for the Child Outcomes Study are being collected for approximately 3,000 mothers and children in three sites: Fulton County, Georgia; Riverside County, California; and Kent County, Michigan. The Child Outcomes sample includes all eligible families with a youngest child aged three to five who are enrolled in the JOBS evaluation in these three sites. Analyses of the impacts of the JOBS program for children will rely on follow-up data collected in these three sites from mothers and children two years after random assignment,[1] and from schools approximately four years after random assignment.[2]

The Descriptive Study Within the JOBS Child Outcomes Study

The current report provides a descriptive account of the Child Outcomes sample in one of these sites -- Fulton County, Georgia -- near the start of the evaluation. In the Fulton County site, the JOBS Evaluation is designed to measure the effectiveness of two alternative approaches to welfare-to-work programs: a human capital development approach, which emphasizes education and training activities, and a labor force attachment approach, which emphasizes quick entry into the job market through job search strategies. AFDC applicants or recipients in Fulton County who were subject to the JOBS mandate were randomly assigned to one of these two program

[1] Anticipated sample sizes for the Child Outcomes Study Two-Year Follow-up survey are approximately 1,125 families in Fulton and in Riverside and approximately 750 in Kent.

[2] The Department of Health and Human Services will be funding a four and one-half year follow-up of the JOBS-mandatory population. Further information about outcomes for children will be obtained at that time.

groups, or to a control group. Those in the control group, while eligible for AFDC benefits, were not required to participate in any JOBS activities.[3]

This descriptive account of mothers and young children in the Fulton County site close to the start of the JOBS Evaluation will be referred to as the Descriptive Study, and the sample for this study as the Descriptive sample. For all participants in the JOBS Evaluation, including those in the Descriptive Study, we have baseline data, collected just prior to random assignment to either a program or control group. Baseline data include characteristics of the mothers and families at the time of random assignment, as well as a limited set of questions concerning maternal attitudes and subjective well-being. In addition, for the participants in the Descriptive Study, we also have data from a survey collected in respondents' homes on average three months after random assignment. This Descriptive survey included interviews with the mothers, assessments of the children, and direct observations of the home environment.

Seven hundred and ninety respondents from the JOBS Child Outcomes Study in Fulton County participated in the Descriptive survey. All are mothers whose youngest child was between the ages of three and five at the time of random assignment in the JOBS Evaluation, and all of these mothers were 20 years of age or older when they were assigned to a group within the JOBS Evaluation. Ninety-six percent are African American. Although none of the mothers were teenagers at the time of the Descriptive Study, 40 percent were 19 or younger at the birth of their oldest child living in the household. The present report refers to the child of between three and five years as the "focal" child, or the child whose circumstances and development were focused upon in the study. If the mother had two children between the ages of three and five, one was chosen randomly to be the focal child.

Key Questions and Selected Findings From the Report

The purposes of this report are to describe the lives and circumstances of this sample of AFDC families with preschool-aged children in Fulton County, Georgia and to inform policy makers about the mothers' goals and the development of their children. In addition, the study provides a context within which we will examine later impacts of the JOBS program on children. Below we summarize key findings from the report.

- **What is the community context of families in the Descriptive Study?**

Fulton County, Georgia, includes most of the city of Atlanta, as well as suburban and rural areas. Compared to both the United States as a whole and U.S. metropolitan areas, Fulton County has higher rates of overall poverty, child poverty, and mother-headed households. Fulton County was selected as a site for the JOBS Evaluation because it represents a southern, urban site

[3]Respondents in the control group are not eligible for JOBS services, but are eligible for all other employment and training services in the community, and they can on their own obtain access to child care funded by the JOBS program.

with a welfare population that is re .tively disadvantaged compared to other sites (Hamilton and Brock, 1994).

Mothers in the Descriptive Study were asked to describe their neighborhoods. At the time of random assignment, about two-thirds of the sample reported that they lived in public (39 percent) or subsidized (29 percent) housing.[4] At the time of the Descriptive survey, about half of the sample (55 percent) reported that "very few" of the other mothers in their neighborhoods worked regularly at paid jobs. Four in 10 mothers described their neighborhoods as a "not too good" or an "awful" place to raise children, and about two in 10 mothers described their neighborhoods as an "excellent" or a "very good" place to raise children.

- **How job-ready are mothers in the Descriptive sample in terms of fertility plans, education, reading and math literacy, labor force experience, attitudes regarding work and welfare, and psychological well-being?**

Mothers in the Descriptive sample varied substantially in terms of their apparent preparedness to pursue JOBS activities and employment. The majority of the mothers have had some previous experience in the labor force, although much of that experience was in low-paying, low-wage jobs. Two-thirds of the women are high school graduates or have a GED, suggesting that they are at a point where they could benefit from job training or further education, or could take an entry level job.

Despite the fact that most of the mothers in the Descriptive sample have a high school diploma or a GED, more than half of the mothers have low levels of basic reading and math literacy. Fifty-three percent of the sample have low levels of basic reading literacy, based on their scores on the Test of Applied Literacy Skills document literacy scale. Even among women with high school diplomas, 46 percent scored in this range. Sixty-two percent of the sample scored below seventh grade levels on the Greater Avenues for Independence (GAIN) Appraisal Math test. Only 14 percent of the women with high school diplomas scored in the highest level on the GAIN Appraisal Math test, indicating functioning at least at a high school entry level in basic reading and math. While the test scores point to low levels of reading and math literacy for many mothers in the Descriptive sample, we note that it is possible that having a high school diploma might be more important in acquiring a job than one's tested literacy level.

Data from the Descriptive Study contradict the stereotype that welfare mothers tend to have many children. Most mothers in the Descriptive sample have few children. Sixty-five percent had only one or two birth children living in the household at the time of the Descriptive survey, and only 13 percent had four or more birth children. Seventy-two percent of the households in the Descriptive Study consist only of the respondent and her child(ren). The total

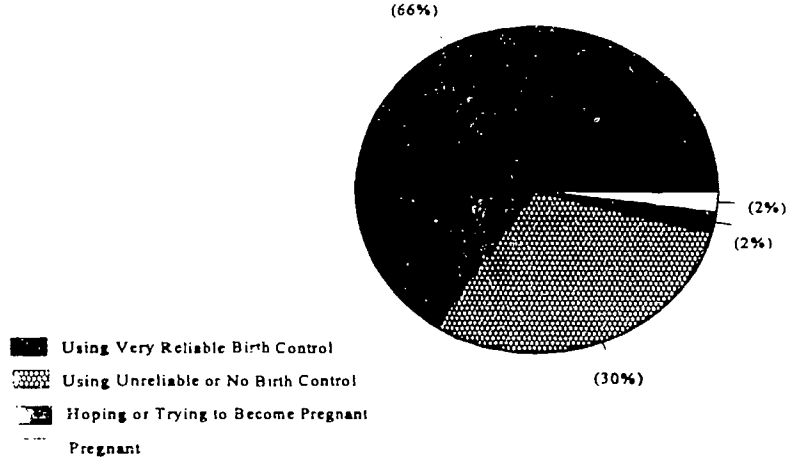
[4]A public housing project is operated by the local government to provide housing for low-income people. Receiving a rent subsidy, participating in a housing program like Section 8, or living in a building renovated by the government is not defined as living in a public housing project.

household size was small, with nearly three-quarters of the households composed of four or fewer people.

A woman's current fertility status and childbearing plans are important determinants of the likelihood that she will participate successfully in education and/or employment activities (Long, 1990; Moore et al., 1993). Women who want to have additional children may be a group particularly likely to drop out of JOBS activities due to pregnancy, whereas women who have already had all of the children they plan to have may participate more actively in JOBS. Most of the women in the Descriptive Study expressed a desire to limit their family size, with 96 percent neither being pregnant nor wanting to become pregnant. The majority reported using effective contraception or sterilization to avoid unwanted pregnancies (see Figure 2). Sixty-six percent of the women reported that they were not trying to become pregnant and were using a very reliable birth control method, such as the Pill, IUD, Depo Provera, or sterilization; the majority of these had a tubal ligation. On the other hand, 30 percent of the mothers responded that they were not trying to become pregnant, but were either using an unreliable method of birth control or were not using any birth control. As the women were not asked questions about their sexual activity, it is not clear whether contraceptive non-users are at risk of pregnancy or whether they are not sexually active.

FIGURE 2

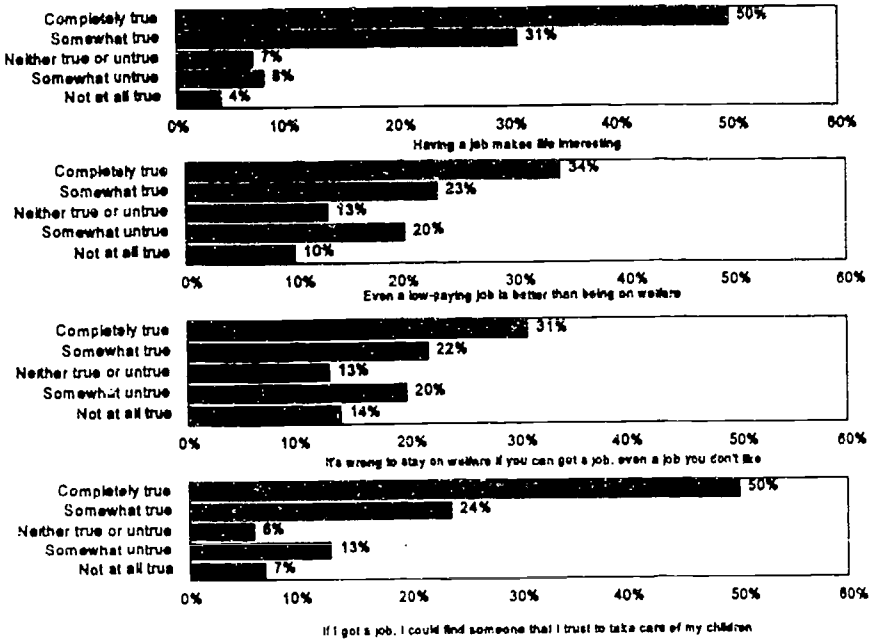
CONTRACEPTION USE



Although there were variations in ratings, most of the respondents expressed positive attitudes toward employment, negative attitudes toward welfare, and a sense that they could locate child care if they become employed (see Figure 3).

FIGURE 3

ATTITUDES TOWARD EMPLOYMENT AND WELFARE AT THE TIME OF THE DESCRIPTIVE STUDY SURVEY



In terms of educational attainment, attitudes about welfare and employment, and fertility status, many mothers in the Descriptive Study appear to be in a good position to participate in and benefit from JOBS. However, other characteristics of the mothers may impede their participation. A substantial proportion of mothers in the Descriptive Study (42 percent) reported depressive symptoms high enough to be considered in the clinically depressed range. Other studies using the same measure of depressive symptomatology in community-wide samples have found much lower rates of depressive symptoms, ranging from 9 to 20 percent. Further, most women in the Descriptive Study have experienced difficult life circumstances, including problems with housing, or having a relative or close friend in jail. Smaller groups of women also reported health-related barriers to employment or substance-use problems.

- **What assistance do the children's fathers provide to the mothers? Who other than the father provides emotional, childrearing, and economic support to these mothers, and to what extent?**

Contact between the focal children and their biological fathers was limited. Only 16 percent of the mothers in the Descriptive sample had ever been married to the focal child's father. Further, only 2 percent of the children's biological fathers lived in the same household at the time of the Descriptive survey.

Mothers report that only one-fifth of the children with non-residential fathers had seen their fathers at least once a week in the year prior to the Descriptive survey. Mothers reported that only 10 percent of the fathers living outside of the household had "often" bought clothes, toys, or presents for the focal children; about 10 percent had "often" served as a babysitter for the focal children in the past year; and about 4 percent had "often" bought groceries in the past year. Mothers in the Descriptive Study did not often report the family of their child's father as an alternative source of support. Indeed, sixty-two percent of the mothers reported that over the past year the family of the child's father had done none of the following: bought clothes, toys, or presents, babysat, or cared for the child overnight.

Few of the mothers in the Descriptive sample reported the establishment of legal paternity for the focal child, and few reported formal child support agreements. Only 13 percent of the women who had never been married to the focal child's father reported having gone to a court or child support office to establish paternity, and 2 percent of the never-married women had had the biological father sign the birth certificate.

Among the women who did not reside with the child's biological father, 30 percent had ever had child support payments agreed to or awarded to them. Fifty percent of these child support arrangements that had been established were court-ordered, and about half (46 percent) arranged through a voluntary written agreement. Formal child support arrangements did not appear to assure payments. Among mothers in the Descriptive sample who had child support awards, 78 percent reported receiving no money from the father in the year prior to the interview. Among the mothers in the sample without a formal child support agreement, 88 percent reported that they had not received money on a regular basis directly from the father. Only 9 percent of these women reported that they had legal proceedings to establish paternity "in process" or have established paternity.

Mothers expressed great dissatisfaction with the emotional and financial assistance they were receiving from the children's fathers, and yet acknowledged that the fathers might not have been in a position to provide further economic assistance. Fifty-two percent of the mothers in this sample said that they were very dissatisfied with the amount of love and caring that their child's father has shown for the child, and an additional 10 percent were somewhat dissatisfied. Two-thirds of the mothers (66 percent) were similarly very dissatisfied with the amount of money and help that the father had been providing for raising the child. However, less than half of the sample, 41 percent, felt that the father could pay more for child support than he did, or could pay something if he currently paid nothing.

Despite the reported lack of involvement of their children's fathers, many mothers had other persons to turn to for emotional and instrumental support. Most mothers had frequent contact with members of their own families. For instance, 63 percent of the respondents who did not live in the same household as their own mothers saw their mothers once a week or more. About 33 percent of the Descriptive sample reported that their mothers helped to take care of their children "quite a bit" or "a lot." Only 10 percent of the mothers said that they had no one

"who would listen to them, reassure them, or show them that they care." Most respondents did not feel overburdened by having other people ask them for their support. Many women had friends or relatives to turn to for economic or childrearing assistance as well. More than half of the respondents felt that it was true most or all of the time that they had someone who would lend them money in case of an emergency. However, mothers perceived instrumental support (e.g., economic assistance and help with childrearing) from these other sources to be less available than emotional support.

Mothers reporting low levels of social support were more likely to live in public or subsidized housing, to report high levels of depressive symptomatology, a limited sense of control over events in their lives, and more barriers to employment. Mothers with low levels of social support also had lower educational attainment and literacy scores.

- **How are the focal children in the Descriptive Study faring in terms of their cognitive development, school readiness, socioemotional development, and health at this early point in the JOBS Evaluation? Are there subgroups of children who are at greater risk in terms of their developmental status?**

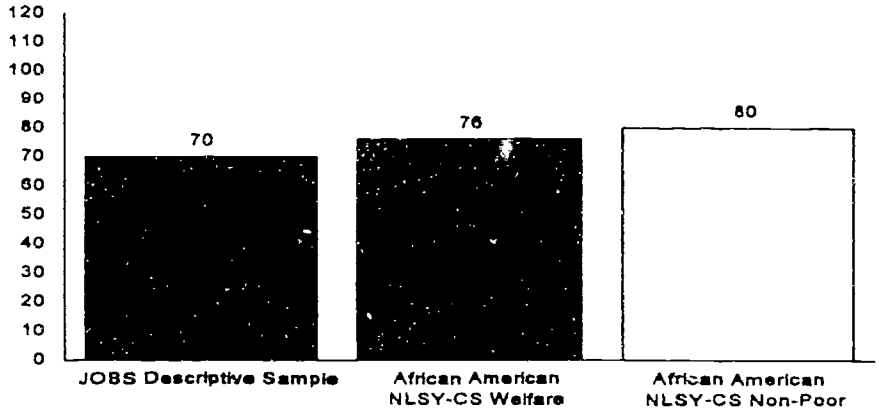
Children's developmental status was measured across several domains in order to provide a descriptive picture of child well-being. Direct assessments of cognitive development were obtained, one focusing on receptive vocabulary and one on school readiness. In addition, mothers reported on their perceptions of their children's socioemotional development and health status. At this early point in the JOBS Evaluation, children in the Descriptive sample appear to be faring poorly on assessments of their receptive vocabulary and school readiness, but not their health or social maturity as reported by their mothers.

The measure of receptive vocabulary used was the Peabody Picture Vocabulary Test-Revised (PPVT-R). This measure is highly correlated with measures of both intelligence and school achievement and is a predictor of IQ for African American as well as white children. Yet concerns about cultural bias have been raised regarding this measure, particularly the possibility that it underestimates the cognitive ability of minority children. As a result, we present comparative data from a national survey for African American children only.

Children in the Descriptive Study had a mean score of 70. By contrast, African American children from welfare families in a national sample had a mean score of 76 on this measure, and those from non-poor families had a mean score of 80 (see Figure 4). Thus, children in the Descriptive Sample had lower scores particularly than their non-poor peers in the national sample.

FIGURE 4

MEAN PEABODY PICTURE VOCABULARY TEST-REVISED SCORES FOR DESCRIPTIVE SAMPLE CHILDREN AND AFRICAN AMERICAN CHILDREN IN A NATIONAL SAMPLE OF WELFARE AND NON-POOR CHILDREN



On average, mothers describe their children as showing fairly high levels of social maturity on the Personal Maturity Scale. Although maternal reports of personal maturity do not indicate a problem in this area, it must be noted that assessments of the child from a different source, such as a teacher, might result in a differing conclusion.

More than three out of four children were rated by their mothers as currently in excellent or very good health. Approximately half (49 percent) of the children were described by their mothers as in "excellent" health, and a further 29 percent were described as in "very good" health.

When the ratings of the child's health were combined with a maternal rating concerning the presence of conditions that limited the child's activities, 47 percent of the children in the Descriptive sample were described as in excellent health with no limiting condition. This proportion is lower than the proportion in a national sample of non-poor children. This generally positive portrayal of the children's health is in keeping with the fact that serious health problems in the child were a basis of mothers' exemption from JOBS.

Close to the start of the JOBS Evaluation, those children in the Descriptive sample showing the least optimal development are those whose mothers have the least education, and the lowest reading and math literacy skills, whose mothers feel the least control over events in their lives, and whose mothers perceive the most barriers to employment. In addition, boys in the Descriptive sample show less optimal development than girls on all four measures.

Finally, when mothers were asked to consider all of their children (including the focal child), a substantial minority (8 percent) reported that they had a child with an illness or handicap that demanded a great deal of attention or interfered with the mother's ability to work.

- **How supportive and stimulating are the children's home environments?**

Findings from the Descriptive sample are in accord with previous reports that children living in poverty receive less cognitive stimulation and emotional support in their home environments than non-poor children. At the same time there is evidence of variability in the home environments of the families in the sample. This variability is related to family background characteristics, especially the extent of economic deprivation. In addition, the focal children's developmental status at the time of the Descriptive survey is significantly associated with the cognitive stimulation and emotional support they receive at home.

The Home Observation for Measurement of the Environment (Short Form), or HOME-SF, was used in the Descriptive Study to measure the emotional support and cognitive stimulation available in the home environment. Other analyses looking at the HOME-SF within the National Longitudinal Survey of Youth - Child Supplement indicate that this measure is closely related to several different indices of family poverty, and further, that the HOME-SF is sensitive to small increments in family income, particularly when looking at the home environments of children born into poverty (Garrett et al., 1994; Moore et al., 1994). Finally, the full HOME Scale (Caldwell and Bradley, 1984), from which the HOME-SF is adapted, has been found to be related to measures of child cognitive development and IQ, developmental delay, and poor school performance (Bradley et al., 1989; Elardo, Bradley, and Caldwell, 1975; Gottfried, 1984), all important outcomes in the Descriptive sample. Families in the Descriptive sample showed, on average, similar levels of emotional support and cognitive stimulation to AFDC families with three- to five-year-olds in a national sample. However, scores were lower in the Descriptive sample and the national sample of AFDC families than in non-poor families in the national sample, both in terms of cognitive stimulation and emotional support in the home.

Within the Descriptive sample, scores on the two subscales of the HOME-SF were lower for families with specific characteristics. Mothers who had not received a high school diploma or GED, families receiving welfare for two or more years, families living in public housing, families with three or more children, mothers scoring in the lowest groups on reading and math literacy, and mothers with less of a sense of control over events in their lives, scored lower on both the cognitive stimulation and emotional support subscales of this measure of the home environment, net of control variables.

After controlling for the influence of child age, gender, and research group, the total score and cognitive and socioemotional subscales of the HOME-SF were all significant predictors of children's scores on the Descriptive Study's measures of receptive vocabulary, school readiness and children's maturity. In addition, higher scores on the cognitive stimulation subscale and the

total HOME-SF scale were associated with children receiving a positive health rating from their mothers.

- **Are there changes in use of child care for the focal children in the Descriptive Study in the early months of the JOBS Evaluation?**

Previous evaluations of welfare-to-work programs indicate that maternal program participation is associated with increased use of child care for young children (Kisker and Silverberg, 1991; Meyers, 1993; Quint, Polit, Bos, and Cave, 1994; Riccio, Friedlander, and Freedman, 1994). In keeping with these earlier findings, there was a substantial increase in the proportion of Descriptive sample children in child care in the two program groups very shortly after enrollment in the JOBS Evaluation. Two months prior to random assignment, 44 percent of the three- and four-year-olds in the human capital development group were participating regularly in some form of child care, but two months after random assignment the figure was 72 percent. In the labor force attachment group, 48 percent of three- and four-year-olds were participating in child care two months prior to random assignment, but 83 percent were receiving some regular child care two months after random assignment. Over the same time period, use of child care in the control group increased only from 43 to 49 percent (an increase that probably reflects increasing child age and transitions to employment among control group mothers.)

Differential increases in the use of child care in the program groups relative to the control group occurred both for formal and informal care[5] settings, but as in previous studies of welfare-to-work programs (Kisker and Silverberg, 1991; Meyers, 1993; Quint et al., 1994; Riccio et al 1994), we find a particularly marked increase in the use of formal child care settings following enrollment in JOBS.

The greater use of regular child care at the time of the Descriptive survey for the two program groups appears to be a reflection of their greater participation in employment and educational activities, not a differential propensity to use child care. There was a strong relationship between maternal participation in educational and/or employment activities following random assignment and the use of regular child care for the child. This relationship held in both the program and control groups. By the time of the Descriptive survey (on average three months after random assignment) program group mothers were substantially more likely to be participating in educational or employment activities than were control group mothers.

There was a statistically significant difference between research groups in the primary form of child care used by families with three- and four-year-olds at the time of the Descriptive survey. The most frequently reported primary care arrangement for children in the control group was care by the mother (used by 53 percent of control group families with three- and four-year-

[5]Formal care includes care in child care centers, preschools, nursery schools, Head Start, kindergarten, and before-and-after school programs. Informal care includes care by a relative or non-relative babysitter.

olds).[6] By contrast, care in a formal child care setting was the most frequently noted primary care arrangement for children in either program group (used by 53 percent of human capital development group children and 54 percent of labor force attachment group children).

Federal recommendations exist for formal child care settings in the form of the 1980 Federal Interagency Daycare Requirements (FIDCR). The 1980 FIDCR were never implemented as national regulations, yet researchers frequently refer to the FIDCR recommendations as a benchmark against which to measure the quality of center care. For children between three and five years of age, the FIDCR recommendations are for group sizes of 16 or smaller, and for staff-to-child ratios of 1:8 or better. The requirements for group size and ratio in the state of Georgia depart substantially from the FIDCR recommendations, allowing group sizes of up to 36 and ratios of up to 1:18 for four-year-olds. Among three- and four-year-old children in the Descriptive Study whose primary arrangement was a formal one, and for whom data on both group size and ratio were available, 34 percent were in settings that met both of these FIDCR recommendations; 17 percent were in settings that met one of the recommendations; and 49 percent were in settings that met neither recommendation.

Sixty-seven percent of mothers with three- and four-year-olds in some form of regular child care at the time of the Descriptive Study reported that someone else paid some or all of the cost of the primary care arrangement. The most common source of assistance, according to the mothers, was the welfare office. Among those mothers whose child had a regular child care arrangement, mothers in the program groups were more likely than those in the control group to receive assistance for child care from the welfare office. Sixty-seven percent of those in the human capital development group, 64 percent in the labor force attachment group, and 47 percent of the control group reported getting help from the welfare office.[7]

Only a minority (21 percent) of the Descriptive sample mothers reported paying anything towards the cost of the primary child care arrangement. Among those mothers with three- and four-year-old children who paid something for care, 74 percent reported paying $0.50 or less per hour.[8] Considering payments toward the cost of child care for all children in the household, mothers in our sample reported paying $19.11 per week on average. We note, however, that this figure does not take into account either the number of children in the household in care or number of hours in care.

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[6]The children's primary care arrangement is the arrangement that they were in for the most hours each week. This can include sole maternal care.

[7]These differences were statistically significant: Chi square (2) = 8.29, $p < .05$.

[8]We note that this figure does not take into account variation in cost per hour according to number of hours in care.

- **Does mothers' psychological well-being, approximately three months after random assignment to the JOBS Evaluation, vary by baseline characteristics? How does the well-being of children differ by baseline characteristics?**

Although all AFDC mothers are economically disadvantaged, as a group they vary substantially on several important characteristics that may be related to maternal and child well-being. For example, some families have been on welfare longer than others, and some have less education and lower literacy skills than others. Can we identify factors such as these, documented at the time of random assignment, that are associated with differences in the well-being of the mothers and children at the time of the Descriptive Study?

Measures of maternal and child well-being at the time of the Descriptive Study were examined in light of the following characteristics documented at baseline: maternal education, family size, duration of welfare receipt, residence in public or subsidized housing, reading and math literacy, depression, locus of control (sense of control over events in one's life), sense of social support, and perception of barriers to employment. Mother and child well-being at the time of the Descriptive Study varied significantly with regard to these baseline characteristics. The associations are profiled variable by variable in the full report.

It is noteworthy that in many instances, however, the same baseline characteristics that were associated with well-being among the mothers at the time of the Descriptive Study were also found to be related to their children's well-being. In particular, low maternal education, long-term welfare dependency, residence in public housing, low maternal reading and math literacy test scores, and poor maternal psychological well-being at baseline were all associated with lower scores on measures of the developmental status of the children, measures of the home environment, and measures of maternal circumstances at the time of the Descriptive Study.

Baseline characteristics can thus be used to identify meaningful subgroups of families who appear to be faring more and less well close to the start of participation in the JOBS Program. It will be important to track the development of mothers and children in these differing subgroups throughout the course of the JOBS Child Outcomes Study, asking whether participation and program impacts also differ.

- **How do multiple risk factors combine to affect children's well-being? Is the presence of protective factors associated with child well-being?**

The analyses briefly summarized above consider whether the well-being of mothers and children at the time of the Descriptive Study differ for baseline subgroups considered one at a time, for example according to maternal education at baseline, or according to maternal depressive symptomatology at baseline. In reality, individual children will have differing profiles in terms of the number of baseline variables that place them at risk developmentally. Previous research suggests that the number of risk factors to which a child is exposed is an

important predictor of development (e.g., Rutter, 1989; Sameroff, Seifer, Barocas, Zax, and Greenspan, 1987).

Risk Factors and Children's Development

To explore the relationship between number of risk factors and children's well-being, we developed a cumulative risk index formed from the set of subgroup measures assessed at baseline prior to random assignment. These subgroups include maternal educational attainment and literacy; family size; welfare duration; maternal psychological well-being; and barriers to employment. Scores on the risk index range from 0 to 10 with a mean of 4.6 risk factors. The children divided nearly evenly into three groups according to the number of risk factors: Zero to three, four to five, and six to ten, indicating the presence in the Descriptive sample of children with few, some, and many risk factors.

Analyses indicate a strong association between the accumulation of maternal and family risk factors and the well-being of children in the Descriptive sample. Overall, 29 percent of the Descriptive Study children scored at or above the median for a national sample of African American preschool-aged children on the Peabody Picture Vocabulary Test-Revised.[9] However, the proportion of children with scores above the median was heavily concentrated among low-risk families, with 39 percent of children with zero to three risks scoring above this cutoff, compared to 17 percent among children with six to ten risks.

Scores on a measure of school readiness, the Preschool Inventory, show a similar pattern. Because national norms are not available for the Preschool Inventory, we have established a cut-point for this sample that identifies those children in the Descriptive sample whose scores are in the top quartile of the Descriptive survey distribution. Thirty-four percent of the children from low-risk environments scored in the top quartile, compared with 30 percent of children whose family environments posed four to five risks, and just 16 percent of those in very high-risk families (those with six to ten risk factors).

Children from low-risk family environments were also substantially more likely to be described favorably in terms of scores on the Personal Maturity Scale, while children from multiple-risk backgrounds were much less often described so positively. In addition, an increased number of risk factors is associated with a lower likelihood of being rated in excellent health with no disabilities. Specifically, 57 percent of children with zero to three risks received a positive health rating, compared to only 37 percent of those with six or more risks.

We also find a strong relationship between the number of risk factors and the emotional support and cognitive stimulation provided to the child as measured by the short form of the

[9]We used a cutoff based on the median score for African American children because of concerns that the Peabody Picture Vocabulary Test, like many other tests of achievement, may be racially biased (but comparable results were obtained using a standard cutoff).

HOME Scale. Approximately a third of the Descriptive survey children in families with zero to three risks enjoyed home environments that were above a designated cutoff in terms of cognitive stimulation and emotional support, while only 12 percent of children in families with six to 10 risk factors experienced similarly supportive homes.

Protective Factors and Children's Development

Although increased risk is associated with poorer child outcomes overall, we see in these analyses that the presence of risk by no means guarantees that a child will exhibit adverse outcomes. Based on a typology of protective factors developed by Garmezy (1985), we have used the measures of the Descriptive Study data to identify protective factors in each of the following categories: child characteristics, warmth and cohesion in the family, and an external support system. While our risk factors are all derived from baseline data, the protective factors are all based on data collected as part of the Descriptive survey. As for the risk factors, we have computed a summary index of protective factors. This ranges from zero to nine with a mean of 4.5 protective factors. We again group children into three groups according to the number of protective factors: zero to three, four to five, and six to nine.

To parallel the analyses looking at risk factors, we examined whether the number of protective factors was related to the proportion of children scoring above the cutoffs we defined on the same four measures of children's developmental status (the Peabody Picture Vocabulary Test, the Preschool Inventory, the Personal Maturity Scale, and rating of health). Results consistently indicate that, as the number of protective factors increases, a greater proportion of children score above the positive cutoff we delineated for each of the outcome measures. For example, the proportion of children scoring in the upper quartile on the Preschool Inventory increases from 15 percent among children with zero to three protective factors, to 36 percent among children with six or more protective factors. Similarly, the proportion of children in excellent health with no disabilities increases from 41 to 55 percent, as the number of protective factors increases.

Association Between Risk and Protective Factors

Does child well-being reflect the conjoint presence of risk and protective factors for the children in the Descriptive Study? To address this question, we grouped children according to their level of risk, and then within each risk group examined the proportion of children with favorable developmental status according to the number at each level of protective factors. We used the same categories of risk and protective factors described above, yielding a total of nine groups of children, ranging from those with few risk and few protective factors, to those with high levels of both.

Figure 5 shows that for the Peabody Picture Vocabulary Test, higher numbers of protective factors are associated with more optimal outcomes at each level of risk, while at the

same time children at greater risk exhibit poorer outcomes overall. A similar pattern was observed for scores on the Preschool Inventory.

FIGURE 5

PERCENT OF CHILDREN SCORING AT OR ABOVE MEDIAN FOR AFRICAN AMERICAN PRESCHOOLERS ON PEABODY PICTURE VOCABULARY TEST-REVISED, BY NUMBER OF FAMILY RISK AND PROTECTIVE FACTORS

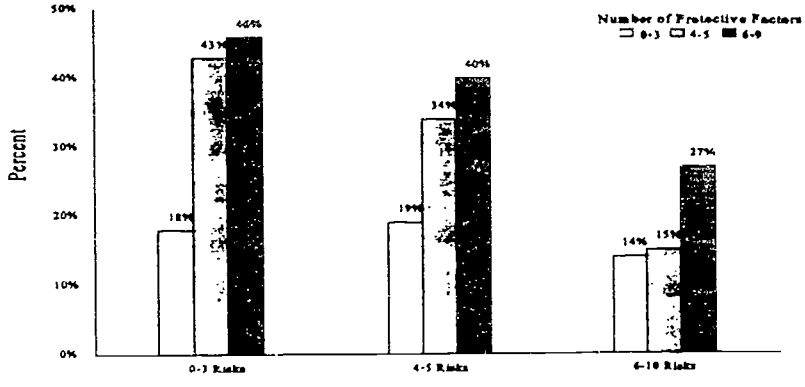
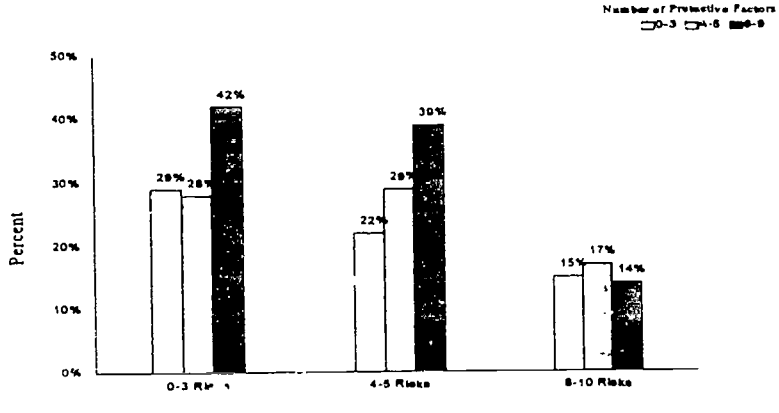


Figure 6 illustrates that the pattern is less clear when we consider children's socioemotional development. For children with fewer than six risks, more protective factors are generally associated with higher scores on the Personal Maturity Scale. However, for children with six or more risk factors, the presence of protective factors does not improve children's well-being. Regardless of the number of protective factors, only 14 to 17 percent of children with high levels of risk were rated by their mothers as having high levels of personal maturity.

FIGURE 6

PERCENT OF CHILDREN SCORING > 8.6 OF 10 POINTS ON PERSONAL MATURITY SCALE, BY NUMBER OF FAMILY RISK AND PROTECTIVE FACTORS



These analyses illustrate that even within a sample of children who are all at risk by virtue of living in poverty, those with multiple risk factors are exhibiting less optimal development. Thus, the risks experienced by the mothers in the first generation are clearly translated into diminished opportunities for the children in the next generation. At the same time, a number of protective factors were found to be associated with more positive development for the children. For measures of cognitive development, protective factors offset the influences of risk factors. However, for our measure of socioemotional development, protective factors do not offset the influences of risk factors at the highest level of risk.

- **What Are the Implications of These Findings?**

The JOBS program was designed to affect parents directly by providing services aimed at ending long-term welfare dependency. Nevertheless, indirect effects on children are also possible, if the JOBS program affects parental education, income, mother's psychological well-being, childrearing practices, or child care arrangements. The purpose of the current report is to explore the circumstances of eligible families at the outset of the program, rather than whether and how JOBS has impacted children. What have we learned?

A clear theme is that the mothers in the Fulton Descriptive sample are in many ways highly disadvantaged. On average, their reading and math literacy skills are low. Although they enjoy social support from family and friends, they report minimal economic or non-economic assistance from the fathers of their children. In addition, they have high rates of depressive symptoms and they experience numerous difficulties in the course of everyday life. At the same time, however, we note that most of the mothers in the sample had completed high school or a GED, most had positive attitudes about maternal employment, and most had taken steps to limit their childbearing.

Similarly, the three-to five-year-old children are also clearly disadvantaged at the outset of the JOBS program. As rated by their mothers, the children's maturity does not represent a problem; however, the children's receptive vocabulary is substantially below the mean for a national sample of children; and many of the children appear to lack the skills and knowledge that would make them ready to enter school. While a large majority of mothers in the sample described their children as in excellent or very good health, these ratings are somewhat less favorable than those reported in a national sample of non-poor children. Given that these children are already faring poorly in some respects, it seems entirely appropriate that policy makers, program providers, and the public consider whether and/or how the JOBS program may affect children.

A second recurring theme of the analyses is the heterogeneity of the population of welfare mothers eligible for JOBS. For example, some mothers hold positive attitudes about becoming employed, while a minority feel that mothers with young children should not work. Some mothers have received AFDC for a much longer period of time than others. A substantial proportion of women have high levels of depressive symptoms, but many others do not. Most

use reliable methods of contraception or have been sterilized, but a minority of mothers are at risk of an unplanned pregnancy. Because of this variation, it is likely that maternal participation in, and reactions to, JOBS activities will vary. Those mothers who are eager to work, know where they can obtain child care, and have recent employment experience seem more likely to respond favorably to the JOBS mandate. Other mothers face substantial obstacles to participation, such as low literacy levels, little support from family and friends, and negative attitudes about employment. It will be important to determine how both groups respond to the JOBS mandate.

Had the mothers proven to be more uniform in their work attitudes, goals, psychological well-being, skills, and the social support they receive, the JOBS mandate might have more uniform implications for children. However, early results indicating substantial subgroup variation suggest that the JOBS program is likely to elicit varied responses from both mothers and children. Hence, subgroup differences should be a critical component of further analyses. In particular, multiple risk families stand out as a group whose children are especially disadvantaged. On a more positive note, we were also able to identify a set of protective factors, greater numbers of which were associated with more positive child development. The mutual influence of risk and protective factors present at the start of the JOBS program may be an important determinant of both participation in, and impacts of the program.

Finally, the data suggest that the JOBS mandate is translating into initial changes in the lives of many AFDC mothers and their children. The effects of these apparent early changes will combine with any later program impacts on maternal education, earnings, and self-sufficiency. Thus, early data suggest that the JOBS mandate has the potential to affect the lives of two generations, and provide strong reason to track the well-being of both generations over time.

CHAPTER 1
THE FAMILY SUPPORT ACT AND THE JOBS PROGRAM

Overview

This report provides a detailed descriptive account of a sample of AFDC mothers and their preschool-aged children. The report represents the first data available from the Child Outcomes Study, a sub-study within the larger evaluation of the Job Opportunities and Basic Skills Training (JOBS) Program being conducted by the Manpower Demonstration Research Corporation (MDRC) for the Department of Health and Human Services and the Department of Education. Impact results will be available at a later date.

Responding to the interest in and concern about children living on welfare and in poverty, this report provides a broad and rich portrait of a sample of 790 Fulton County (Atlanta), Georgia families whose youngest child was aged three to five at the outset of their mothers' referral to the JOBS Program. The remainder of this chapter provides background information essential to understanding how work and welfare affect the well-being of children. We outline the history and policy issues that led to the JOBS Program, review relevant research studies that have motivated the current study, and describe the design of the JOBS Child Outcomes Study. Subsequent chapters describe the context of Fulton County, Georgia; the characteristics, attitudes, and experiences of the mothers and their families; the home environments and child care experiences of the children; and the development and well-being of the children at the outset of their mothers' contact with the JOBS Program. Finally, we identify several key subgroups and explore the extent to which members of each subgroup vary in both maternal and child characteristics.

Key questions for Chapter 1

- **What policy concerns led to the creation of the JOBS Program?**
- **Why consider children in a program aimed primarily at parents?**
- **By what pathways might JOBS affect children?**
- **What is the design of the JOBS Evaluation and the embedded Child Outcomes Study?**

What policy concerns led to the creation of the JOBS Program?

The Aid to Families with Dependent Children (AFDC) program, one of the nation's largest cash assistance programs, was established under the Social Security Act in 1935 primarily to help the children of widows. At that time, there was public consensus that children should be raised at home by their mothers; AFDC made this possible for mothers who otherwise could not afford to stay home. However, in the 60 years since the creation of AFDC, both the population served by AFDC and U.S. society as a whole have undergone dramatic changes that have necessitated a re-evaluation of the purposes of this program.

First, the proportion of women with children who work outside the home has risen dramatically since 1935, so that in 1991, 60 percent of married women with children under age six were in the labor force (DaVanzo and Rahman, 1993). Second, AFDC today primarily serves children of single mothers: of the 1992 caseload, 53 percent of child recipients had parents with no marriage tie, and 30 percent had parents who were divorced or separated (U.S. House of Representatives, 1994). It is, therefore, no longer a program for children of widows.[1] Finally, research has shown that some portion of the AFDC caseload remains dependent on the program for long periods of time, so that a program designed as a "safety net" has become a long-term provider for a minority of families. Because of their longer spells on welfare, at any given time these long-term recipients account for a disproportionate share of the caseload. For example, at any one time, 48 percent of the people on welfare are in the midst of "spells" that will last 10 years or more (Bane and Ellwood, 1994). These changes, combined with growing concern about the cost of public assistance programs and the availability of a productive American work force, have helped to call into question the assumptions of existing welfare legislation.

As public support for welfare programs has diminished, the number of U.S. children living in poverty has increased. Following two decades in which the proportion of U.S. children living in poverty declined, the 1980s brought an increase in this proportion such that in 1992, more than one in five U.S. children under the age of 18 were living in poverty. Among children ages five and under, one in four was living in poverty in 1992 (U.S. Bureau of the Census, 1993). Further, an accumulating body of evidence suggests that living in poverty, particularly persistent poverty, has serious negative consequences for the cognitive, emotional, and physical well-being of children, and also carries enormous costs to society in terms of health insurance, compensatory education, the juvenile justice system, and other services (Duncan, Brooks-Gunn and Klebanov, 1994; Huston, 1991; Moore, Morrison, Zaslow, and Glei, 1994; Zill, Moore, Smith, Stief, and Coiro, in press). These converging lines of evidence have led to renewed public interest in policies aimed at helping families, especially families with children, leave welfare and poverty.

The decades since the 1960s' War on Poverty have witnessed numerous programs intended to reduce poverty, and numerous evaluations of these efforts. Previous evaluations of programs designed to assist welfare recipients have generally focused on the behaviors, attainments, and financial circumstances of the adults who receive the welfare grants rather than on the children who are beneficiaries of these programs. These evaluations indicate that such programs have real but modest success in reducing welfare dependency and increasing earnings (Gueron and Pauly, 1991).

For example, the Work Incentive (WIN) program was established in 1967 to provide services such as education, job training, and social services to AFDC recipients on a primarily voluntary basis. WIN gradually evolved to emphasize job search assistance and immediate

[1] The original AFDC program was expanded in 1950 to include parents or adult caretakers in addition to children.

employment, and became mandatory for most AFDC recipients without children under age six (Hamilton and Brock, 1994). Evaluations of WIN and similar programs (which allowed states more flexibility in the types of services offered) provided evidence that welfare-to-work programs could lead to modest but sustained increases in employment and earnings for single parents on AFDC, and also to decreased welfare expenditures for states.

However, women with young children were typically exempt from participation in such programs, and outcomes for children were not examined in the evaluations. An implicit assumption has been that school-aged children whose mothers participated in activities designed to promote self-sufficiency while the children attended school would not be greatly affected by such participation -- and that any effects would be positive, reflecting improvements in the family's financial circumstances. The most recent national-level welfare reform initiative, the Family Support Act, extended mandatory welfare-to-work programs to parents with young children, and thus made the issue of the effects of such programs for young children an important one for policy makers, program providers, and the public (Gueron and Pauly, 1991).

The Family Support Act and JOBS

Demographic changes, concern about child poverty, and accumulating evidence that welfare-to-work programs have real but modest effects on welfare dependence convinced conservatives and liberals alike to enact a major reform of the welfare system. In 1988, the U.S. Congress passed landmark welfare reform legislation -- the Family Support Act (P.L. 100-485, known as FSA) -- that marked a fundamental shift in the philosophy underlying the provision of welfare assistance to poor families with children (Zill, Moore, Nord and Stief, 1991). The centerpiece of the FSA is the Job Opportunities and Basic Skills Training (JOBS) Program, which aims to "encourage and assist needy children and parents to obtain the education, training, and employment needed to avoid long-term welfare dependence" (Family Support Act, 1988). Like earlier welfare-to-work programs, JOBS Programs offer job readiness activities, and job development and job placement. However, states are also required to offer "human capital development" activities such as adult education and job skills training. States must also provide at least two of the following: group and individual job search, on-the-job training, work supplementation programs,[2] and community work experience or alternative work experience (Hamilton and Brock, 1994). The FSA also includes provisions to facilitate the establishment of paternity, and improve the monitoring and enforcement of child support payments. In addition, the FSA required all states to have AFDC-UP programs, which provide benefits to two-parent families when the primary wage earner is unemployed.

Because the JOBS legislation endorses a view of welfare as a reciprocal obligation between individuals and government, participation is mandatory for certain segments of the AFDC caseload, and states may impose sanctions (reductions in welfare grants) upon those who

[2] Work supplementation programs involve subsidized on-the-job training for welfare recipients with a public or private sector employer.

fail to participate. Participation in JOBS is mandatory for all AFDC recipients with children as young as age three and, at state option, age one. (Exceptions are made for illness or incapacitation of recipients, those taking care of an ill or incapacitated child or other household member, advanced age, age under 16, pregnancy past the first trimester, or living in areas where program services are unavailable.) In order to focus efforts on those most at risk of long-term dependence and on those who are more disadvantaged, the JOBS legislation stated that at least 55 percent of JOBS expenditures should be spent on the following groups of AFDC applicants and recipients: those who have already received AFDC for 36 of the past 60 months; those who are custodial parents under the age of 24 without a high school diploma or General Educational Development (GED) certificate, or who have little work experience; and those who are within two years of becoming ineligible for AFDC because their youngest child is age 16 or older.

Again recognizing the mutual responsibility between government and individuals, the JOBS legislation requires states to provide supportive services for JOBS-mandatory individuals. States must guarantee child care to each JOBS participant with dependent children if such care is necessary for the client to attend a JOBS activity or accept a job. States must also reimburse clients for transportation or other expenses (such as fees to take the GED examination) that are required for participation. Further, both Medicaid and child care benefits are provided to JOBS participants for one year after they leave AFDC for employment.[3]

Why consider children in a program aimed primarily at parents?

Programs that successfully alter outcomes for children at risk "see the child in the context of the family, and the family in the context of its surroundings" (Schorr, 1991, p. 267). This ecological approach (Bronfenbrenner, 1979, 1986) provides the framework for the JOBS Child Outcomes Study, in which the lives and circumstances of children living in welfare families are considered in light of characteristics of the child, family, community, and policy.

Those few evaluations of programs aimed at poor families that have assessed outcomes for children as well as adults provide evidence that interventions for disadvantaged families can have effects on multiple family members. For example, the Negative Income Tax Experiment, which provided a guaranteed minimum income to a sample of low-income families in several communities, was associated with an increase in children's reading achievement (Maynard and Murnane, 1979; Murnane, Maynard, and Ohls, 1981). Not only do programs for AFDC mothers have the potential to affect the well-being of children, but two-generational effects have also been found in the opposite direction, with programs aimed at children affecting parents. A review of programs that provide educationally-oriented intervention services for young children suggests that such programs result in higher rates of maternal employment and more stable employment (Benasich, Brooks-Gunn, and Clewell, 1992). Thus, the child care benefits provided by the JOBS Program may themselves have effects on mothers. Below we discuss a

[3] AFDC recipients are automatically eligible for Medicaid (U.S. House of Representatives, 1994).

more recent approach to welfare-to-work programs that explicitly address the needs of both the parental and child generations.

Two-generational Programs. A new model of intervention for low-income families also bears mentioning: those that are explicitly "two-generational" in focus (Smith and Zaslow, 1995). Such programs "pursue the dual goals of economic self-sufficiency for families and healthy development of children" (Smith, Blank, and Collins, 1992, p. 2). Smith and Zaslow suggest that two-generational programs have the potential to improve children's well-being in the long term by focusing not just on one area of family functioning but on the multiple challenges and needs of at-risk families.

Three recent two-generational programs, Project Redirection, New Chance, and Even Start, provide evidence that such interventions have effects on the experiences of both mothers and children. For example, Project Redirection, a demonstration initiated by MDRC that offered comprehensive services to economically disadvantaged mothers aged 17 and younger, was found to have modest, but significant, positive effects on the cognitive and socioemotional development of participants' children five years after the program began (Polit, Quint, and Riccio, 1988). Children in the Project Redirection group were also more likely to have attended Head Start. These program impacts for children were more powerful than the long-term impacts found for the mothers who participated in Project Redirection.

Similarly, New Chance, a comprehensive, voluntary program for young women on AFDC who gave birth to their first child at age 19 or younger and who had not obtained a high school diploma or GED certificate, resulted in more hours of educational activities, and increased completion of the GED certificate, for mothers in the experimental group compared to those in a control group who were not in the program. In addition, the lives of children whose mothers participated in New Chance were also positively affected: their home environments were slightly more emotionally supportive, and their mothers reported somewhat less punitive childrearing attitudes, compared to control group mothers. Furthermore, children of experimental group mothers were more likely to have been in non-maternal care, especially center-based care (Quint, Polit, Bos, and Cave, 1994). These differences were apparent 18 months after random assignment. Results from analyses of observational and survey data collected 21 months after random assignment within the New Chance evaluation were similar to the 18-month data. The New Chance program reduced the incidence of harsh parenting behavior, particularly for younger children. In addition, mothers in the experimental group reported spending more time in parenting chores than mothers in the control group (Egeland and Zaslow, 1995). Findings from a 42-month survey will provide information regarding the long-term impacts of New Chance (Quint et al., 1994). In addition, the Even Start family literacy program, which provides early childhood education, parenting education, and adult education to disadvantaged families, had a positive effect on the presence of reading materials in the home (St. Pierre, Swartz, Murray, Deck and Nickel, 1993). Thus, although these programs provide more comprehensive services than JOBS, they suggest ways in which children can be affected by such interventions.

In sum, these findings suggest that programs aimed at either parents or children can also affect the experiences of the other generation. Further, available evidence from two-generational interventions suggest effects on the experiences of both mothers and children, in and out of the home. Given these patterns, it is clear that although the JOBS Program is primarily directed at parents, we must consider the potential effects on both the parental and child generations.

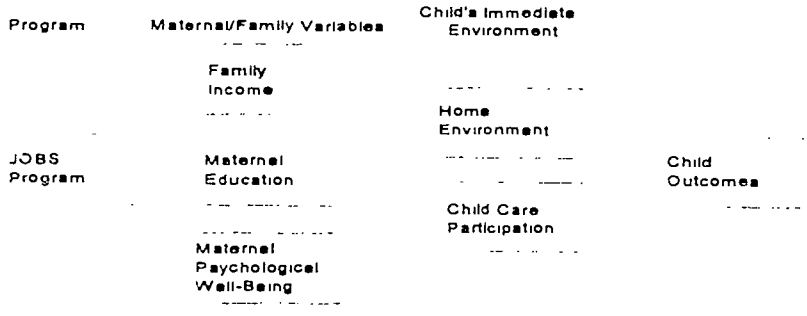
By what pathways might JOBS affect children?

The major program to stem from the FSA -- JOBS -- focuses primarily on the parental generation (although transitional child care and Medicaid benefits mandated under the FSA do recognize the needs of young children). Yet because the JOBS Program is part of the government's effort to interrupt the inter-generational transmission of poverty, it is important to consider the possibility of either positive or negative effects on children.

There are several mechanisms by which the JOBS Program could affect children (see Figure 1.1). The program may affect maternal and family factors such as changes in family economic status, maternal education, or mothers' psychological well-being; or the program could lead to changes in the child's immediate environment such as changes in the home environment or increased participation in child care programs (Wilson and Ellwood, 1993; Zaslow, Moore, Morrison, and Coiro, 1995). Each of the potential pathways, alone and in combination, could affect child outcomes. Below we review existing research that supports each of these potential pathways of influence.

FIGURE 1.1

POTENTIAL PATHWAYS OF INFLUENCE OF THE JOBS PROGRAM ON CHILD OUTCOMES



As a national policy, the underlying assumption of the FSA is that the needs of poor children are best addressed through providing parents with education and job training services or employment. That is, an important potential pathway of influence of JOBS on children is via changes in family income and maternal education. There is ample evidence to support this possibility. For example, Duncan et al. (1994) showed that family income was a powerful predictor of children's IQ scores and behavior problems, and that the effects of persistent poverty on these outcomes were much larger than the effects of transient poverty. Similarly, higher

parent education levels and cognitive attainment are associated with children's development in both the socioemotional and academic spheres (Desai, Chase-Landsdale, and Michael, 1989; Hauser and Mossell, 1985). Income and education gains may in turn produce changes in children's home environments, such as the provision of more cognitively stimulating materials or activities. These qualities of the home environment are positively associated with children's development (Bradley et al., 1994), and in fact are better predictors of child outcomes than are measures of parent education or socioeconomic status.

However, despite the evidence that higher levels of parent education or income are beneficial for children, there is little evidence of the effects of changes in family economic status on children. Analyses of survey data indicate that children's outcomes improve when family economic fortunes increase, if family income rises enough to bring the family out of poverty (Moore et al., 1994). However, the results reflect natural transitions out of poverty and cannot necessarily be extrapolated to program effects. Nor do we know whether JOBS participation will result in sufficiently large gains in these areas to produce impacts for children. For example, MDRC's evaluation of California's JOBS Program, Greater Avenues for Independence (GAIN), found an average impact on earnings of just over $1000 over a three-year period (Riccio, Friedlander, and Freedman, 1994), and an average 7 percent impact on receipt of a GED or high school diploma over a two- to three-year period (Martinson and Friedlander, 1994). Similarly, New Chance participants were substantially more likely to obtain a GED than control group members during the first 18 months of the program, though it is not clear whether these program impacts, or participation in other program components, caused the modest impacts of New Chance on parenting (Quint et al., 1994). We do not yet have data to indicate how many JOBS participants will attain a GED or nigh school diploma, although Hamilton and Brock (1994) report that six-month participation rates in some type of JOBS activity are similar to those in earlier mandatory welfare to-work initiatives.

Furthermore, JOBS may affect children through changes in maternal psychological well-being. For example, mothers' stress or depression levels may increase in response to the participation mandate and the need to arrange child care. By contrast, mothers may experience decreases in depression and increases in role satisfaction or self-esteem as a result of gains in their education or job skills or because participation provides social interaction, a respite from child care, and a sense of future opportunity. These areas of maternal well-being have been linked in turn to aspects of the home environment and to children's outcomes. For example, depressed mothers are both less warm and more punitive during interactions with their children, and their children are at risk for a variety of adjustment problems (Downey and Coyne, 1990). Similarly, child outcomes are less optimal when mothers with a preference not to be employed are working (Zaslow, Rabinovich, and Suwalsky, 1991).

Finally, participation in JOBS may affect children's participation in non-maternal care. Meyers (1993) has summarized evidence that participation in welfare-to-work programs is associated with an increase in the amount of child care used and changes in the type of care used. Thus, the provision of child care subsidies for JOBS participants may result in more children

from AFDC families participating in out-of-home child care arrangements. The quality of such care, however, is not mandated,[4] and child care quality is positively associated with child outcomes across a variety of types of care and domains of child well-being (Hayes, Palmer, and Zaslow, 1990). The quality of care may be particularly important for low-income children. Thus, the FSA may provide an important opportunity to enhance the development of disadvantaged children. On the other hand, if parents place their children in sub-standard care in order to fulfill their JOBS participation requirements, children's development may well suffer.

In sum, prior research suggests that JOBS, while primarily focused on the self-sufficiency needs of parents, may affect the lives and well-being of their young children as well. Both economic and non-economic mechanisms for such effects are possible. However, at this time we are agnostic as to whether these effects will be positive or negative, or a mix of both for different outcomes or different subgroups of the JOBS population, and as to whether these impacts will be large or modest. The JOBS Child Outcomes Study, part of the national JOBS Evaluation described below, has been designed to allow a careful examination of such impacts for children, as well as of the mechanisms by which such impacts occur.

The JOBS Evaluation

The FSA legislation recommended a random assignment evaluation of the JOBS Program to test its effectiveness, and this evaluation is currently being conducted by MDRC. The impacts portion of the JOBS Evaluation involves random assignment of JOBS eligibles to either one or two program groups or a control group, in seven sites around the country, involving more than 55,000 individuals. The impact study is designed to examine the effects of various JOBS approaches on individuals' employment status, earnings levels, receipt and amount of AFDC payments, income levels, and educational attainment, using two types of experimental designs.

The design of the impact study, and rationale for choosing each of the seven sites, are described fully in "The JOBS Evaluation: Early Lessons from Seven Sites" (Hamilton and Brock, 1994). That report describes several key questions that guide the JOBS Evaluation, regarding the feasibility of implementing a large scale, multi-component program like JOBS, and the effectiveness of such a program for both the AFDC caseload as a whole and particular subgroups of the caseload. As described previously, one subgroup of particular interest is mothers with young children. Because JOBS departs from earlier welfare-to-work programs by mandating the participation of parents whose children are as young as three years of age,[5] a special substudy of these parents and children, called the Child Outcomes Study, is being conducted within the larger JOBS Evaluation (see Figure 1.2).

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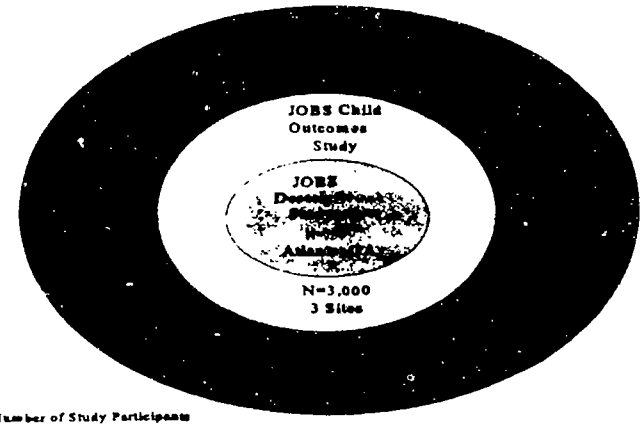
[4] To receive federal matching funds, states must ensure that JOBS-funded child care meets applicable state and local standards. However, fewer than 25 percent of states have child care regulations that meet minimal professionally-agreed upon standards of quality (Maynard, Kisker, and Kerachsky, 1990).

[5] States have the option to mandate the participation of parents whose children are as young as one year of age.

FIGURE 1.2
STUDY DESIGN



NOTE: N = Number of Study Participants

The JOBS Child Outcomes Study Design and Methods

The JOBS Child Outcomes Study is a longitudinal investigation of the life circumstances and development of children ages three to five at the time their mothers enter the JOBS Program. As noted above, early evaluations of welfare reform initiatives rarely considered the effects of welfare reform on children, assuming that increases in maternal earnings or employment would have only beneficial effects on children. However, the Child Outcomes Study recognizes that such programs potentially carry both benefits and hazards for children, perhaps particularly for young children. This age group was chosen for study because parents with children under age six have previously been exempt from participation in welfare reform initiatives; thus, little is known about the impacts of such programs for young children. In addition, because many children of this age are not in school, they are most likely to experience changes in their daily experiences as a result of JOBS.

Data for the Child Outcomes Study are being collected for approximately 3,000 mothers and children in three sites: Fulton County, Georgia; Riverside County, California; and Kent County, Michigan. This includes all eligible families with a youngest child aged three to five who are enrolled in the JOBS Evaluation in these three sites. Each of these sites uses an experimental design in which those eligible for the JOBS Program are randomly assigned to either a control group or one of two program groups, called the human capital development and labor force attachment groups. Families in the Child Outcomes Study will be drawn from all three groups. Differences between the two program groups are described in Chapter 2 of this report, and with greater detail by Hamilton and Brock (1994). Note that JOBS' effects on children will be evaluated by comparing outcome data for individuals in these three research groups, using an experimental design.

Information for the Child Outcomes Study will be obtained from parent report, interviewer observations, direct assessments of the child, and teacher reports. Analyses of the

impacts of the JOBS Program for children will rely on follow-up data collected from mothers and children in all three sites two years after random assignment,[6] and from schools approximately four years after random assignment.[7] The current report provides a descriptive account of the Child Outcomes Study sample in one of these sites -- Fulton County -- at the start of the evaluation.

Sources of data. Data for the current report are derived from four sources, all collected in the initial phase of the evaluation. Three of these data sources were collected at the JOBS office just prior to the random assignment process in all sites; orientation to the JOBS Program occurred on the same day. Thus these data constitute true "baseline" measures of the characteristics and attitudes of AFDC applicants and recipients, before they began to participate in any JOBS activities, and indeed prior to their being randomly assigned to either the program or the control groups. These data sources are: (a) standard client characteristics (e.g., AFDC history, educational background) collected by welfare staff during routine intake interviews with clients; (b) a client-completed survey of attitudes and psychological well-being; and (c) client-completed standardized tests of reading and math achievement. Throughout the report, we refer to the time period in which these data were collected as the "baseline." Although baseline data were collected in all seven sites, this report only uses data collected in Fulton County.

The fourth source of data is (d) the Fulton County Descriptive Study survey. Data from this survey provide the primary focus of the current report. The survey was designed to provide detailed descriptive data on a sample of women and their children in the Child Outcomes Study living in Fulton County, Georgia, shortly after the mothers' random assignment as part of the JOBS Evaluation. Topics assessed in the survey include household composition; parenting; maternal psychological well-being; history of child care use and current child care arrangements; availability of social support; and child cognitive and behavioral development.

Sample, design, and data collection. The sample who participated in the Descriptive Study, hereafter called the Descriptive sample, are a subset of the total Child Outcomes Study sample for Fulton County. Because of the experimental nature of the JOBS Evaluation, it was not necessary to collect detailed information about families soon after program enrollment from the full Child Outcomes Study sample; these data were collected primarily for the current, descriptive report. Funding was obtained from the Department of Health and Human Services to conduct Descriptive surveys with 600 of the expected 1,125 families in Fulton County who will be eligible for the Child Outcomes Study Two Year Follow-Up Survey. These 600 families were drawn from the two program groups in Fulton County (human capital development and labor force attachments groups). In addition, a consortium of private foundations including the

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[6] Anticipated sample sizes for the Child Outcomes Study Two-Year Follow-up Survey are approximately 1,125 families in Fulton and in Riverside and approximately 750 in Kent

[7] The Department of Health and Human Services will be funding a four and one-half year follow-up of the JOBS-mandatory population. Further information about outcomes for children will be obtained at that time

Foundation for Child Development, the William T. Grant Foundation, and the Smith Richardson Foundation, provided funding to collect 200 interviews from members of the control group, to supplement a foundation-funded observational study of parent-child interaction among JOBS families (see Zaslow and Eldred, 1994, for details of this study). Thus, the Descriptive sample contains families from the control and program groups, all of whom are also included in the Child Outcomes Study sample and will be eligible for the Two Year Follow-Up Survey. As Figure 1.2 illustrates, the Descriptive sample is embedded within the full Child Outcomes Study sample, which is embedded within the larger JOBS Evaluation sample. The nested nature of the design means that the full range of data collected from participants in the JOBS Evaluation is available for participants in the Descriptive Study, the focus of the current report.

Descriptive surveys from a final sample of 790 women who were randomly assigned to a research group in the Fulton County JOBS Evaluation from March 1992 through June 1993 were obtained. The survey was administered in person, usually in the respondent's home. All mothers in the Descriptive sample had a child between three and five years of age at the time of their random assignment. This child was the focus of the in-home survey. Because women with children under age three are exempt from the JOBS Program in Atlanta, the focal child was almost always the mother's youngest child at the time she entered the JOBS Program. If the mother had two children ages three to five, one was chosen randomly to be the focal child.[8]

Descriptive data were collected an average of three months after the mother was randomly assigned within the JOBS Evaluation, with nearly all interviews conducted between one and five months post-random assignment. Because of this interval between random assignment and the interview, many mothers in the sample had already begun to participate in JOBS-related activities, such as schooling or job search, by the time of their interview. For example, in the first six months of the larger JOBS Evaluation, more than 60 percent of those assigned to one of the two program groups had participated in some type of JOBS activity for at least a day (Hamilton and Brock, 1994). These activities of the mothers often necessitate changes in the lives of their young children, such as increased participation in child care programs. For these reasons, data from the Descriptive survey cannot be viewed as "baseline" in nature, but for some respondents represent early adaptation to the JOBS mandate. A more complete analysis of the impacts of the JOBS Program for mothers and children will be conducted at a later point in time using follow-up data.

Response Analysis Corporation was responsible for data collection and the training of interviewers, all of whom were African American females living in the Atlanta area. Interviewers were very carefully trained and monitored to obtain information as completely and accurately as possible from the mothers. Interviewers also received in-depth training in conducting child assessments and in rating the children's home environments.

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[8] Throughout the report, the Descriptive Sample includes all 790 respondents and their children from all three research groups.

The overall response rate for the Descriptive survey was 87 percent. While this is considered a high response rate, it is nevertheless useful to examine whether those who completed the survey differ in any way from those who were eligible but did not complete it (e.g., refused, could not be contacted or located). Sampling bias checks were conducted in order to determine whether those women who were selected for, but did not participate in, the Descriptive Study were different on a set of baseline characteristics from those women who were surveyed. Note that those who did and did not participate in the Descriptive Study are nevertheless all included in the Child Outcomes sample and are eligible for the Two-Year Follow-Up Survey. Overall, those women who were fielded for, but did not participate in, the Descriptive Study were somewhat more advantaged than those women who were surveyed. Women who were not surveyed had significantly higher mean scores on reading and math literacy tests, had completed more years of education, had higher mean scores on measures of social support and locus of control,[9] had spent proportionally less time on welfare, and were proportionally more likely to live in housing other than public or subsidized housing than women who completed the Descriptive survey. Although these differences were all significant at the $p < .05$ level, the magnitude of the difference was small for most of the comparisons. In sum, although women who completed the Descriptive survey were more disadvantaged than those who were not interviewed, the obtained sample reflects the previously mentioned focus of the JOBS legislation, those most at risk of long-term dependence on AFDC.

Limitations of the data. The data used in this report are largely self-reports from the mothers, with a few exceptions. First, information on standard client characteristics was collected at baseline by caseworkers in the JOBS office. Second, the interviewers assessed various aspects of the home environment and mother-child interactions at the time of the Descriptive survey. In addition, the assessments given to the children by the interviewers are objective and well-validated measures of achievement and school readiness. Nevertheless, much of the data's accuracy cannot be corroborated through other sources, such as the children's fathers or the welfare office. As a result, we indicate throughout this report instances in which readers should be aware that the information that is presented is from mother-report only.

Analysis strategy. For analyses of subgroup differences that are described throughout this report, focal child age at random assignment, focal child gender, and research group assignment were used as a standard set of control variables, unless otherwise indicated, for several reasons. First, it has been widely documented that age-and gender-related characteristics in children can elicit unique responses in parents (Bell and Harper, 1977). In addition, age- and gender-related characteristics in children are also strongly associated with children's developmental status (e.g., Mussen, 1983). However, because the influences of child age and gender are not generally the focus of analyses presented in this report, they have been statistically controlled. Second, with specific exceptions, we used research group assignment as a control variable because the Descriptive survey was not designed to measure early impacts of JOBS. In

[9] People with an external locus of control are more likely to feel at the mercy of circumstances and environmental events, whereas those with an internal locus of control are more likely to feel efficacious and in control of their lives.

addition, all analyses are weighted, unless otherwise indicated. Weighting was necessary in order to correct for differential sampling in one of the program groups. (See Appendix A for a detailed description of weighting procedures and control variables).

Heterogeneity of the AFDC population.

A theme throughout this report is the heterogeneity of the AFDC population, both mothers and children. For example, in contrast to the view that welfare is a "way of life" for most participants, Bane and Ellwood (1994) show that women who receive public assistance do so for varying lengths of times. Almost half of all beginning spells on welfare end within two years, and only 14 percent last ten years or more. In addition, Zill et al. (1991) document that, while women receiving AFDC are disadvantaged, many AFDC mothers have small families, high school diplomas, and several years of work experience. At the same time, both Bane and Ellwood (1983) and Zill et al. (1991) observe that women with certain initial characteristics (such as no high school diploma, teen births, low scores on a test of cognitive achievement, or a health limitation) are at particular risk for long-term welfare dependence. Bane and Ellwood (1994) note that more than half of never-married mothers who have not completed high school and who have no work experience will receive AFDC for more than 10 years.

This view of the AFDC population leads to the hypothesis that different subgroups of the JOBS-eligible caseload will experience the JOBS Program differently. In fact, Friedlander (1988) has shown that the impacts of previous welfare-to-work programs vary across differing subgroups of the AFDC caseload. Therefore, in the following chapters we not only describe the Descriptive sample as a whole, we also identify several key subgroups and examine the extent to which members of the different subgroups vary in both maternal and child characteristics. Using baseline data, subgroups are identified based on background characteristics of the mother (education, reading and math literacy, and welfare duration); characteristics of the family (number of children, housing, and available social support); and indices of maternal subjective well-being (depression, locus of control, and perception of barriers to employment). Appendix A describes these subgroups in detail. These analyses pave the way for analyses of between subgroup impacts, which will be conducted when two-year follow-up data are available, and also illustrate the heterogeneity found even within a sample of African American mothers with preschool-aged children who receive AFDC.

Summary

Changes in the population served by AFDC, concerns over the increasing rate of child poverty in the U.S., and accumulating evidence that welfare-to-work programs have modest success in reducing welfare dependence and increasing adults' earnings, have contributed in recent years to renewed public interest in policies aimed at helping families, especially families with children, leave welfare and poverty. The Family Support Act of 1988 and its centerpiece, the JOBS Program, encourage families on welfare to obtain the education, job skills, and employment necessary to avoid long-term welfare dependency. JOBS is mandatory for certain

segments of the AFDC caseload, including parents with children as young as age three, and also provides participating families with supportive services such as child care and transitional Medicaid.

Despite evidence of the negative effects of poverty on children's physical, emotional, and cognitive development, little is known about the effects of welfare-to-work programs on children. Prior research provides substantial evidence that programs aimed at parents may also affect children, through changes in maternal education, family income, the home environment, maternal psychological well-being, and participation in child care.

Because of the potential for JOBS to affect both parents and children, the evaluation of the JOBS Program being conducted by MDRC includes a substudy of the effects of JOBS on young children. The Child Outcomes Study will examine the effects of parents' random assignment to one of two JOBS program groups, or a control group, on children's well-being. Families with children aged three to five at the time the mother enters the JOBS Evaluation will be drawn from three sites, and will be followed for at least four years. Data for the Child Outcomes Study will be collected from interviews with mothers, direct assessments of the children, observations of the home environment, and teacher surveys and school records.

The current report presents data drawn primarily from the Descriptive survey, which was conducted among a subsample of those eligible for the Child Outcomes Study in Fulton County, Georgia. Descriptive surveys were conducted with mothers and children between one and five months after the mothers' random assignment to a research group as part of the JOBS Evaluation. The goal of this report is to present a broad description of the well-being of both mothers and young children in the Fulton County JOBS Program, and a portrait of the family and community contexts in which they live, at the outset of the JOBS Evaluation. An additional focus is to examine the extent to which members of key subgroups of the AFDC population vary in both maternal and child characteristics.

Key Questions for the Report

The goal of this report is to provide the context within which we will examine later impacts of the JOBS Program for children. Several key questions are addressed in this report:

- **What is the community context of Fulton County, and how do the community setting and sample characteristics affect the conclusions that can be drawn?** Chapter 2 describes Fulton County in terms of size, population characteristics, income distribution, and labor market, and compares the population in Fulton County to the U.S. population as a whole. In addition, data from the Descriptive survey are used to describe the housing and communities in which respondents live.

- **How job-ready are mothers in the Descriptive sample in terms of fertility plans, education, reading and math literacy, labor force experience, attitudes regarding work and welfare, and psychological well-being? What stressors and barriers to JOBS participation do they face?** Chapter 3 provides a description of the readiness of mothers to pursue JOBS activities and employment. Although JOBS participation is mandatory, some women will be at a greater disadvantage than others because of low educational attainment, low reading and math skills, little or no work experience, and other psychological and attitudinal barriers. In addition to basic demographic information about the sample, Chapter 3 provides an account of respondents' contraceptive use; education levels and reading and math literacy test scores; employment experience and attitudes toward employment; and psychological well-being.

- **What assistance do the children's fathers provide to the mothers? Who other than the father provides emotional, childrearing, and economic support to these mothers, and to what extent?** Chapter 4 describes the economic and childrearing roles that the biological fathers play in their children's lives, and the mothers' satisfaction with those roles. Additionally, respondents' frequency of contact with their own families, and their access to emotional and childrearing support from multiple sources, are reported.

- **How are these children faring in terms of their cognitive development, school readiness, socioemotional development, or health? Are there subgroups of children who are showing particularly poor developmental status?** Chapter 5 provides data on the development of the 3- to 5-year-old children in the Descriptive sample, and uses data from other sources to compare the Descriptive sample to both non-poor and poor samples.

- **How supportive and stimulating are the children's home environments?** Because changes in children's home environments are one possible mechanism by which JOBS may affect children, Chapter 6 describes the homes of the children in terms of the cognitive stimulation and emotional support provided to the child. Data from a national-level survey are also examined to provide a comparison of the home environments of the Descriptive sample to those of other poor and non-poor children.

- **What were the child care experiences of children in the Descriptive sample prior to their enrollment in JOBS? Are there changes in child care use that are related to mothers' participation in JOBS?** Chapter 7 describes the children's child care histories, examines changes in child care use after mothers' enrollment in JOBS, as well as how quickly changes in child care arrangements come about. This chapter also documents the type and quality of the care children are receiving at the time of the Descriptive survey.

- **Does the mothers' psychological well-being, at the time of the Descriptive Survey, vary according to baseline characteristics? How does children's well-being differ according to baseline characteristics?** Chapter 8 provides a summary of the findings regarding variation in mother and child well-being according to their initial characteristics, in order to identify those subgroups of mothers and children who are likely to experience differential impacts of the JOBS Program.

- **How do multiple risk factors combine to affect children's well-being? Is the presence of protective factors associated with child well-being? Are protective factors associated with child well-being when considered in association with risk factors?** Chapter 9 considers the implications of multiple risk factors for the well-being of the children, and whether risk factors accumulate to undermine the development of children. In addition, the association between protective factors and children's development, as well as the relationship between risk and protective factors, are examined.

- **What have we learned?** Chapter 10 summarizes the major themes of this report, including both the extent of disadvantage in the Descriptive sample and its substantial heterogeneity. The implications of these findings for participation in, and impacts of, the JOBS Program are discussed.

CHAPTER 2
THE COMMUNITY CONTEXT

Background

The Descriptive survey was conducted with a sample of 790 mothers with young children living in Fulton County, Georgia. In this chapter we present information on the demographic characteristics of Fulton County to provide a broader view of the context of the current study. Then, we provide a description of the overall Fulton County JOBS sample, as well as of JOBS enrollees with preschool-aged children from all seven sites. Finally, we describe the neighborhoods in which mothers in the Descriptive sample live. Comparisons of Fulton County to the United States as a whole are derived from tabulations of the 1990 U.S. Census, unless otherwise noted.

Key Questions for Chapter 2

- **What is the community context of Fulton County, and how do the community setting and sample characteristics affect the conclusions that can be drawn from the JOBS Evaluation?**
- **How do the Fulton County JOBS Program, and the clientele it serves, differ from other sites in the JOBS Evaluation? How do mothers with young children in the JOBS Evaluation differ from other JOBS-mandatory individuals?**
- **What are the characteristics of the neighborhoods in which the respondents to the Descriptive survey live?**

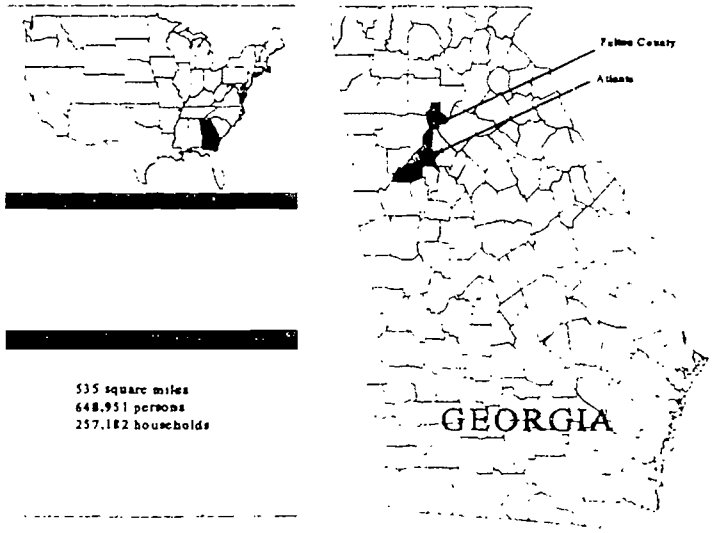
Demographic Profile of Fulton County

- **Fulton County, GA is the most populous county in the Atlanta metropolitan area and includes a variety of socioeconomic groups.**

Fulton County includes most of the city of Atlanta, as well as suburban and rural areas (see Figure 2.1). In 1990, 648,951 persons lived in Fulton County, including 27,860 children ages three to five (the age of the children in the Descriptive sample). The population of Fulton County is fairly evenly divided between African Americans (50 percent) and whites (48 percent). Only 2 percent of the Fulton County population is of Hispanic origin.

The median household income in Fulton County in 1990 was approximately $30,000. The distribution of income is broad, with 15 percent of the households in Fulton County earning $75,000 per year or more, and 18 percent reporting household income below the poverty line. Further, there are marked racial disparities in income. Among whites, the median income falls between $35,000 and $49,999, while for African Americans the median income falls between $15,000 and $24,999.

FIGURE 2.1
FULTON COUNTY AND ATLANTA, GA



Reflecting Fulton County's urban character, the industries employing the most people in Fulton County are professional and related services (such as health and education); retail trade; and finance, insurance, and real estate. The greatest number of jobs in 1993 (more than 25 percent of the total) were in services, which is the fastest growing sector of employment. Although the growth in Atlanta's economy has slowed somewhat in recent years (Research Atlanta, 1990), the 1993 unemployment rate in Fulton County was slightly lower than the overall U.S. rate (6.2 percent and 6.8 percent, respectively) (Hamilton and Brock, 1994; U.S. Bureau of the Census, 1994).

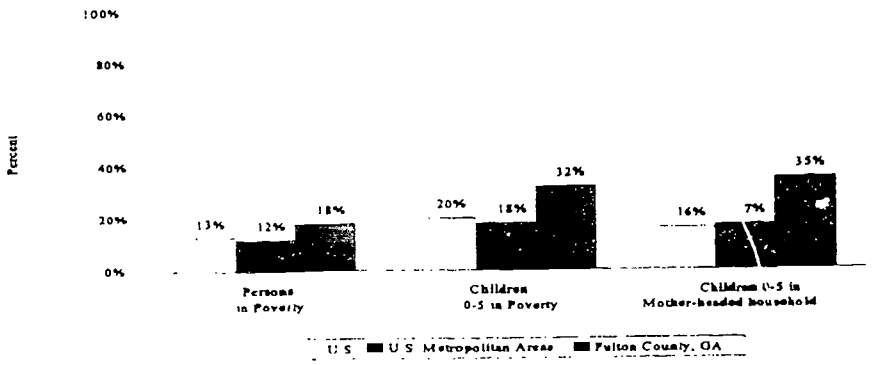
- **Growth in Fulton County has proceeded at a slower rate than in the greater Atlanta metropolitan area.**

The Fulton County population grew only 17 percent from 1982 to 1992, and is expected to grow by 6 percent from 1991 to 1996 (Atlanta Chamber of Commerce, 1994). The population of the Atlanta metropolitan area as a whole grew 36 percent from 1982 to 1992. In addition, there were more new housing units authorized in the Atlanta area in 1992 than in any other city in the U.S.

- **Compared to both the United States as a whole and U.S. metropolitan areas, Fulton County has higher rates of overall poverty, child poverty, and mother-headed households** (see Figure 2.2; U.S. Bureau of the Census, 1992a, 1992b).

FIGURE 2.2

RATES OF OVERALL POVERTY, CHILD POVERTY, AND MOTHER-HEADED HOUSEHOLDS IN FULTON COUNTY COMPARED TO THE U.S. AS A WHOLE AND U.S. METROPOLITAN AREAS



Overall racial differences in income are also apparent for children in Fulton County: of the children five and under living below the poverty line, 90 percent are African American, and only 7 percent are white. The relative disadvantage of Fulton County as a context for the JOBS Program will be important to keep in mind as data on the impacts of JOBS in different sites become available.

- **The AFDC caseload in Fulton County grew from 18,507 in 1991 to 23,113 in 1993.**

In 1993, the AFDC grant level for a family of three in Fulton County was $280 per month, which is lower than any other site in the JOBS Evaluation, and is far lower than the median state benefit level of $366 (U.S. House of Representatives, 1994). To some extent, this low AFDC grant is offset by higher food stamp payments (the food stamp benefit for a family of three in 1993 was $292), but Atlanta still has the overall lowest ranking on benefit levels (combining AFDC and food stamps) among the JOBS Evaluation sites.[10] Because lower grant levels may mean that even low-paying jobs are attractive to AFDC recipients, and because such jobs may result in termination from AFDC, the low benefit level may have important implications for later impacts of the JOBS Program in Atlanta (Hamilton and Brock, 1994).

[10] In the other six JOBS Evaluation sites, 1993 AFDC grant levels for a family of three ranged from $324 to $624. 1993 food stamp benefit levels for a family of three ranged from $202 to $292.

Approximately 33,000 people live in public housing in Atlanta, in 48 separate housing communities. The Housing Authority of the City of Atlanta reports that approximately 38 percent of these public housing tenants name AFDC as their primary source of income (they may receive income from other sources as well).

- **Georgia's JOBS Program is called PEACH (Positive Employment and Community Help).**

Fulton County was selected for the JOBS Evaluation because it represented a southern, urban site with a welfare population that is relatively disadvantaged compared to other sites (Hamilton and Brock, 1994). Fulton County operated a small, mainly voluntary JOBS Program called PEACH prior to the JOBS Evaluation, with a strong employment focus. The selection of Fulton County as a site for the JOBS Evaluation necessitated the transition to a larger, mandatory program that included both education and employment services. In 1993, the PEACH program in Fulton County enrolled 3,919 persons in JOBS activities (Hamilton & Brock, 1994).

The JOBS Evaluation in Fulton County is designed to measure the effectiveness of two alternative approaches to welfare-to-work programs: a human capital development approach, which emphasizes education and training activities, and a labor force attachment approach, which emphasizes quick entry into the job market through "job club"[11] or other job search strategies. JOBS-mandatory AFDC applicants or recipients in Fulton County are randomly assigned to one of these two program groups, or to a control group, which is not required to participate in any JOBS activities.[12] Job search services for the labor force attachment group are provided by the PEACH staff, whereas the public schools provide most of the educational services for the human capital development group. This design allows for the direct comparison of more traditional, labor-market oriented approaches (the labor force attachment group) to longer-term approaches to increasing self-sufficiency (the human capital development group). It also allows a comparison of the different ways that these two approaches may affect child well-being. (See Hamilton and Brock (1994) for descriptions of research designs in other sites.)

In Fulton County, random assignment of AFDC applicants and recipients into the JOBS Evaluation occurred from January 1992 through January 1994. The sample for the Descriptive Study all participated in the random assignment process between March 1992 and June 1993. This sample of 790 birth mothers of children ages three to five includes 369 assigned to the human capital development group, 238 assigned to the labor force attachment group, and 183

[11] Job club is a class conducted by JOBS Program staff that encourages quick entry into the labor force by teaching job search and interviewing skills.

[12] Respondents in the control group are not eligible for JOBS services through PEACH, but are eligible for all other employment and training services in the community.

assigned to the control group.[13] Like several other JOBS Evaluation sites, Fulton County excluded mothers who are currently teenagers from random assignment, although mothers who gave birth as teens but are now older mothers were randomly assigned.[14]

- **Compared to other sites in the JOBS Evaluation, the overall Fulton County JOBS sample (including those in the Descriptive sample and others) is on average older, has received welfare longer, and is more likely to live in public housing, and to have resided as a child in a household that received AFDC** (Hamilton and Brock, 1994).

The average age of respondents in the total Fulton County JOBS sample is 32.7 years, the oldest of any site in the JOBS Evaluation. Thirty-six percent of the total Fulton County sample lives in public housing. This is more than twice the proportion of any other JOBS Evaluation site, and is far higher than the 10 percent of AFDC recipients in the U.S. as a whole who live in public housing (U.S. House of Representatives, 1994). Forty-six percent of the Fulton County sample has received AFDC for at least five years during their adult life (not necessarily five continuous years), and 18 percent lived as a child in a household that received AFDC for five years or more (Hamilton and Brock, 1994). Both these proportions are the third highest of any site in the JOBS Evaluation. More detailed information about the total Fulton County sample is presented in Chapter 3.

- **Approximately 40 percent of the total Fulton County JOBS sample had a child aged three to five at the time of random assignment. This group constitutes the eligible sample for the Child Outcomes Study.**

Because mothers of preschool-aged children have never before been required to participate in welfare-to-work programs, it is useful to consider whether they differ in their characteristics or attitudes from JOBS enrollees with older, school-age children. Hamilton and Brock (1994) provide a contrast of mothers with children aged three to five, and mothers with only older children, using data from all of the sites in the JOBS Evaluation.

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[13]Sample sizes in the three research groups are unequal for a variety of reasons. More human capital development group members than labor force attachment group members were included in the sample because of the dearth of knowledge about the effects of educationally-oriented programs on children's well-being. At the beginning of the Child Outcomes Study, funding was only available to sample members of the human capital development group and labor force attachment groups; government funds were not available to interview members of the control group. However, private funding later became available to sample some children in the control group who were ages three to four. As a result of the delay in sampling respondents in the control group, there is a statistically significant group difference (F [2, 787] = 14.72, p = .000) in the average length of time between random assignment and the Descriptive survey (human capital development group = 2.98 months; labor force attachment group = 2.96 months; control = 3.40 months).

[14]Analyses were conducted in order to determine whether respondents in the two program groups and the control group differed at the time of random assignment on selected subgroup characteristics including reading and math literacy test scores, educational attainment, number of moves in the past two years, number of children in the household, measures of maternal psychological well-being, barriers toward employment, welfare history, housing status and employment status. Respondents in the three groups were not significantly different on any of these characteristics.

Across all seven sites in the JOBS Evaluation, JOBS enrollees with preschool-aged children are younger, less likely to have worked full-time for six months or more for the same employer, less likely to have ever married, more likely to have grown up in households in which AFDC was received, and are more likely to be in a JOBS "target" group (e.g., under age 24 with no high school diploma or GED) compared to JOBS enrollees with older children. On the more positive side, JOBS enrollees with young children have higher average reading and math literacy scores. Their attitudes toward leaving welfare and obtaining work are also different from JOBS enrollees with school-aged children: they are more likely to report the cost of child care as a barrier to their JOBS participation, and are more likely than mothers with older children to prefer part-time jobs (although the majority of both groups still prefer full-time jobs). Mothers with young children are more likely to feel that welfare provides for their families better than they could by working, and they are more pessimistic about finding jobs that will make them self-sufficient (Hamilton and Brock, 1994, Appendix Tables D.2 and D.3).

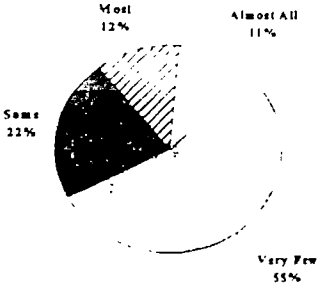
Neighborhoods of the Descriptive Sample

- **Respondents to the Descriptive survey, all of whom are mothers with young children, generally reside in disadvantaged neighborhoods.**

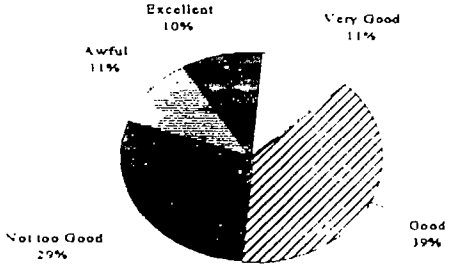
About two-thirds of the mothers reported at the time of their random assignment that they lived in public (39 percent) or subsidized (29 percent) housing.[15] About half of the sample (55 percent) reported that "very few" of the other mothers in their neighborhoods work regularly at paid jobs (see Figure 2.3).

FIGURE 2.3

NEIGHBORHOOD CHARACTERISTICS



How many of the mothers you know in your neighborhood work regularly at paid jobs?



As a place to raise children, would you say your neigborhood is:

[15] A public housing project is operated by the local government to provide housing for low-income people. Receiving a rent subsidy, participating in a housing program like Section 8, or living in a building renovated by the government is not defined as living in a public housing project.

When asked to rate their neighborhoods, four in ten mothers described their neighborhoods as a "not too good" or an "awful" place to raise children. At the same time, about two in ten mothers described their neighborhoods as an "excellent" or a "very good" place to raise children (see Figure 2.3). Twenty-five percent of the mothers had lived in the same home since the birth of their three- to five-year-old child. Among those who had moved, it was most typical to have moved only once, although a few mothers reported moving five or more times in this interval.

- **Almost all Descriptive Study surveys were conducted in the respondent's own home.**

Interviewers who conducted the surveys were asked to describe characteristics of the respondents' neighborhoods. More than half of the sample lived in apartment houses and on residential streets. When asked to rate the exterior of both the respondent's home and other homes in the neighborhood on a scale from "very poorly kept" (0) to "very well kept" (10), interviewers generally described the structures as well kept (the average for both the respondents' and neighbors' homes was 7 on the 0 to 10 scale). Similarly, when asked to rate the condition of the interior of the residence on a scale from "very poor, major structural damage" (0) to "very well kept up and in good repair" (10), the average rating was 8, indicating homes in good condition. Respondents who lived in public housing received significantly poorer ratings than those who lived in non-public housing on both the exterior and interior of their homes.[16]

Summary

The description to follow of mothers with young children must be viewed against the backdrop of Fulton County as a relatively disadvantaged site for a JOBS Program. Fulton County has higher concentrations of poverty and mother-headed households than the U.S. as a whole, or than U.S. metropolitan areas, and the AFDC population in Fulton County is particularly disadvantaged compared to that of other JOBS Evaluation sites. A substantial minority of the respondents themselves report that their neighborhoods are not good places to raise children. This context suggests that long-term impacts of the JOBS Program for mothers and children will reflect not only the initial characteristics of the families and the mothers' experiences in the program, but also the characteristics of the families' neighborhoods and larger communities. We turn now to a description of the mothers and children in the Fulton Descriptive sample.

[16] Exterior: $t(768) = 12.28$, $p < .001$), interior: $t(746) = 8.82$, $p < .001$).

CHAPTER 3
THE MOTHERS

Background

One basic premise of the Family Support Act (FSA) of 1988 is that the well-being of poor children will be enhanced by increased parental education, job skills, and employment. As described in Chapter 1, the JOBS Program, while it may involve changes in children's child care experiences, is not a direct intervention for children. If changes in children's cognitive and social development occur, such changes may come about because of changes in the mother: her education, employability or actual employment, or her subjective well-being.

At this time, it is not known whether the types of changes that might occur in the lives of the mothers will affect the development of their children. In addition, it is not necessarily expected that changes in the lives of the mothers will be uniform. Some mothers may find the JOBS Program to be a much wanted route to economic independence, while others might regard the JOBS mandate as stressful. It is also possible that participation in JOBS might be welcome, yet stressful at the same time. Mothers with considerable social support from friends and relatives may have little difficulty satisfying JOBS participation requirements, while mothers with low skills, many children, and little work experience may find it more difficult to satisfy the JOBS mandate while being highly supportive of their preschool-aged children. Similarly, uniform effects are not anticipated for children. It is probable that multiple factors including maternal education and cognitive attainment, family economic status, maternal subjective well-being, and child care arrangements will operate simultaneously to influence children's cognitive and social development, as well as their emotional and physical well-being. Consequently, it is important to describe, at the start of participation in JOBS-related activities, the preparedness of women on AFDC to pursue JOBS activities and employment in terms of their education, labor force experience, attitudes, and psychological well-being.

Key Questions for Chapter 3

- **How job-ready are these mothers in terms of fertility plans, education, reading and math literacy, labor force experience, attitudes regarding work and welfare, and psychological well-being?**
- **What stressors and barriers to JOBS participation do these women face?**

In this chapter, we provide a profile of the mothers who participated in the Descriptive Study: an account of respondents' current contraceptive use; educational backgrounds and reading and math literacy test scores; employment experience and attitudes toward employment; and maternal subjective well-being. First, the demographic characteristics of our Fulton Descriptive sample are described as background for subsequent analyses.

Findings

Profile of the Fulton County Descriptive Sample

Because mothers who were teenagers at the time of random assignment were excluded from the sample, respondents in the Descriptive Sample are somewhat older. Most of the respondents (65 percent) were between the ages of 25 and 34 at the time of random assignment. However, as shown in Table 3.1, the sample is younger than the total Fulton County JOBS sample from which it was drawn,[17] reflecting the fact that all mothers in the Descriptive sample have at least one preschool-aged child. Whereas only 19 percent of the mothers in the Descriptive sample were ages 35 or older at random assignment, 35 percent of the total Fulton County JOBS sample fell into that age group (Hamilton and Brock, 1994).

- **Although not currently teens, many of the respondents to the Descriptive survey were teenagers at the time of their first birth. Forty percent of the sample were 19 or younger at the birth of their oldest child living in the household.**
- **The mothers are almost entirely African American (96 percent) and non-immigrant (less than 2 percent of the sample was born outside of the United States).**

On a national level, 44 percent of single women receiving AFDC in 1992 were African American, 39 percent were white, and 16 percent were Hispanic. Among all single mothers in 1992, 30 percent were African American, 59 percent were white, and 11 percent were Hispanic (Fagnoni et al., 1994). Thus, this sample is disproportionately African American relative to the national welfare population, and to the population of single mothers.[18]

- **Respondents in the Descriptive sample have a longer welfare history than the typical AFDC recipient.**

At the time the JOBS Program was being initiated in Fulton County, a very high rate of referrals caused a six-month delay between the time that the income maintenance office referred AFDC applicants or recipients to JOBS and the time they were actually called for JOBS orientation. Consequently, some welfare recipients left the rolls before they got to JOBS, and those women who ended up in the research sample are likely to be slightly more disadvantaged than the sample would be if there had been no delay (Hamilton and Brock, 1994).

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[17]The total Fulton County sample includes JOBS enrollees with children of all ages. Sixty percent of respondents had youngest children who were six years of age or older (Hamilton and Brock, 1994).

[18]However, as noted in Chapter 2, 50 percent of the Fulton County population is African American and 90 percent of the poverty population with a child under age 6 are African American.

TABLE 3.1

DEMOGRAPHICS OF DESCRIPTIVE SAMPLE COMPARED TO
JOBS EVALUATION TOTAL FULTON COUNTY SAMPLE

Demographic Characteristics	Descriptive Sample (%)	Total Fulton County Sample (%)
Gender		
Male	0	2.9
Female	100	97.1
Age at Random Assignment		
20 to 24	17	10
25 to 34	65	55
35 to 44	17	29
45 or higher	2	6
Ethnic Status		
Black, Non-Hispanic	96	95
White, Non-Hispanic	3	4
White, Hispanic	0.3	0.7
Native American, Alaska Native	0.1	0.1
Other	0.1	0.5
Marital Status		
Never Married	72	60
Married, Living with Spouse	0.9	1
Separated	18	21
Divorced	9	17
Widowed	0.3	2
Educational Attainment		
No Degree	35	41
GED	5	6
High School Diploma	53	46
More than High School Diploma	8	8
Time Spent on Welfare		
Less than 2 Years		
Two Years to Less than 5 Years	20	30
Five Years or More	36	24
	44	46
Household Received AFDC When Growing up (b)		
No	66	65
Yes	34	27
Time Spent on AFDC When Growing Up Among Women Who Grew Up in Families that Received AFDC (a)		
All	31	N/A
Most	11	N/A
Half	12	N/A
Some	46	N/A

Demographic Characteristics	Descriptive Sample (%)	Total Fulton County Sample (%)
Household Income (a)		
Total Monthly Household Income (c)		
Less than $400	27	N/A
$400 to $600	38	N/A
$601 to $1000	30	N/A
$1000 or higher	5	N/A
Per Capita Monthly Household Income (a)		
Less than $100	18	N/A
$100 to $199	52	N/A
$200 to $399	28	N/A
$400 and up	3	N/A
Sample Size (Unweighted)	790	6,374

SOURCE: Figures for the Descriptive sample are from Child Trends, Inc. calculations of Fulton County Descriptive Study data.
Figures for the total Fulton County Sample are from Hamilton and Brock (1994).

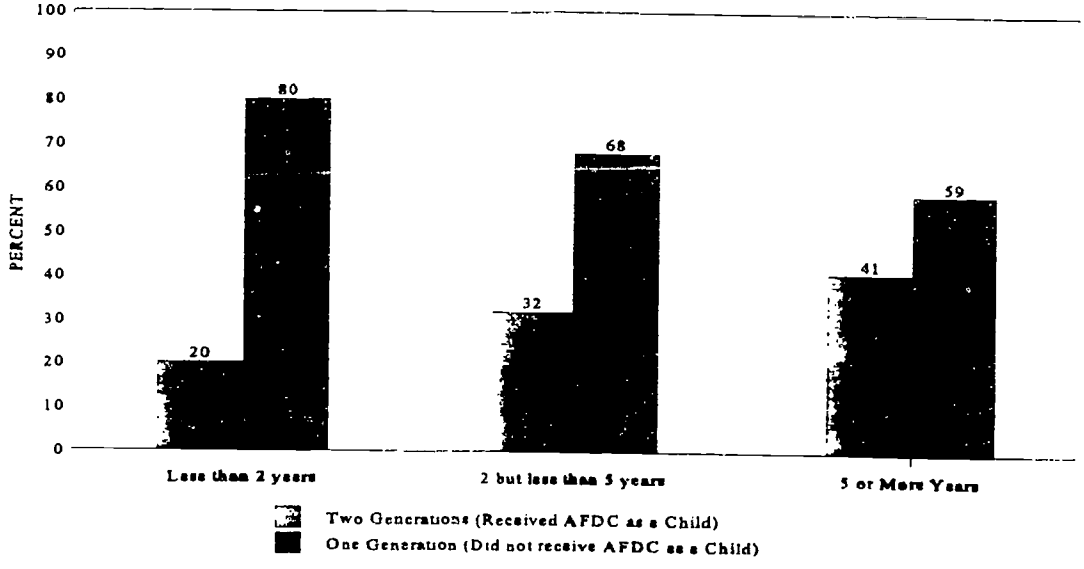
NOTES: (a) This information was collected only for the Descriptive sample through the survey, and not for others in the total Fulton County Sample.
(b) Eight percent of the total Fulton County Sample responded "Don't Know."
(c) Two people reported $0 monthly household income. One person reported $40,000 monthly income and was dropped from these percentages.

Unless otherwise mentioned, analyses of the Descriptive sample use weighted data.
Due to rounding, percentages may not add up to 100.

At the time of random assignment, 44 percent of the sample had received AFDC cumulatively for five years or more as adults, while 20 percent had received AFDC for less than two years. These percentages are comparable to the Fulton County sample as a whole (Table 3.1). Additionally, 34 percent of the sample reported receiving AFDC as a child, and of these, 31 percent reported spending "all" of their time growing up on AFDC. As shown in Figure 3.1, a smaller proportion of intergenerational welfare recipients than first generation welfare recipients received AFDC for less than two years on their own case.

FIGURE 3.1

YEARS ON AFDC AS AN ADULT ON OWN CASE BY INTERGENERATIONAL AFDC RECEIPT



- **The average household size is small, and two-thirds of the mothers have just one or two children.**

Data for the Descriptive sample reflect a national trend toward smaller families among single mothers receiving AFDC. Data from the Current Population Survey (CPS) indicate that, the proportion of AFDC families with four or more children under the age of 18 declined from 23 percent in 1976, to 13 percent in 1992 (Fagnoni et al., 1994).

Seventy-two percent of households consist of the respondent and her child(ren) only (Figure 3.2). The total household size is small, with nearly three-quarters of the households composed of four or fewer people. In addition, most mothers have few children. Sixty-five percent had only one or two birth children living in the household and only 13 percent had four or more birth children (Figure 3.3).

Because family size is a predictor of long-term welfare dependency (Hutchens, 1981), we examined the characteristics at baseline of women with larger families. Women with more children in the Descriptive sample are less likely to have a high school education, have been on welfare longer, are more likely to live in public housing than in non-public non-subsidized housing, have lower reading and math literacy test scores, and are more likely to have an external locus of control than those women with fewer children (see Appendix B, Table 3.1-1).

FIGURE 3.2

HOUSEHOLD COMPOSITION

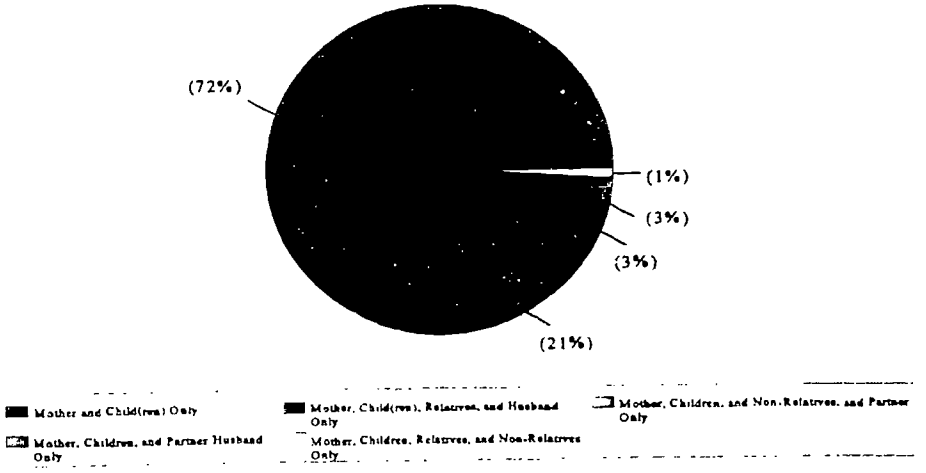
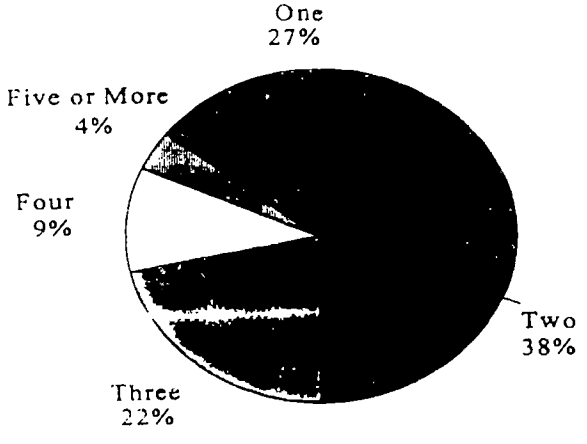


FIGURE 3.3

NUMBER OF BIRTH CHILDREN IN THE HOUSEHOLD



- **The majority of the respondents wish to limit their fertility.**

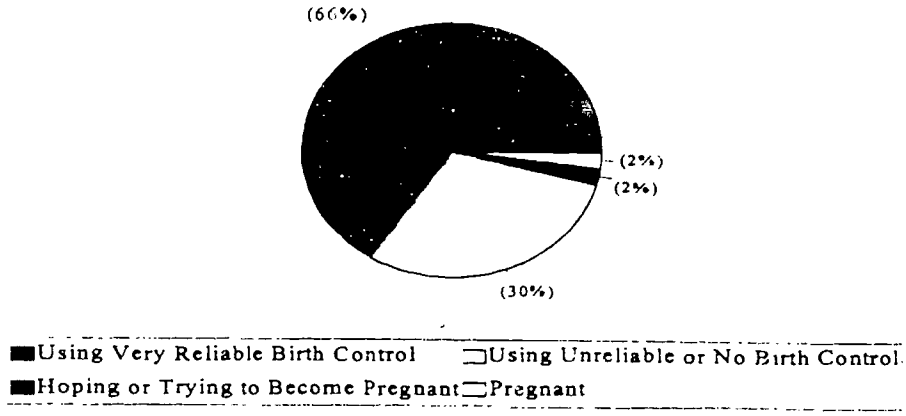
A woman's current fertility status and childbearing plans are important determinants of the likelihood that she will participate successfully in education and/or employment activities (Long, 1990; M ore et al., 1993). Women who desire to have additional children may be particularly likely to drop out of JOBS activities due to pregnancy, whereas women who have already had all of the children they plan to have are expected to participate more actively in JOBS.

In addition, the number of children in a family also has implications for child development outcomes. Small family size is related to more positive outcomes for children, as well as more positive home environments (Blake, 1981, 1989; Garrett, Ng'andu, and Ferron, 1994; Heer, 1985; Zuravin, 1988). Large family size, on the other hand, is considered to be a risk factor for negative child outcomes such as low intellectual competence (Samero: f, Seifer, Barocas, Zax, and Greenspan, 1987).

Ninety-six percent of women responded that they were not pregnant and were not trying to become pregnant at the time of the interview, and only 18 percent of these mothers would still like to have one or more children sometime in the future. Two percent of the sample said that they were pregnant;[19] 2 percent were hoping or trying to become pregnant (Figure 3.4).

FIGURE 3.4

CONTRACEPTION USE



[19]Federal law states that pregnant women are mandatory for JOBS as long as they are in their first or second trimester and they have no children under the age of three. This also applies to states with mandatory participation for women with children as young as one.

As illustrated in Figure 3.4, 66 percent of the women reported that they were not trying to become pregnant and were using a very reliable birth control method, such as the Pill, IUD, Depo Provera, or sterilization. Similar to results reported by Furstenberg, Brooks-Gunn, and Morgan (1987), among those women who reported that they were using a method of family planning or birth control to keep from getting pregnant, 57 percent have had a tubal ligation. On the other hand, 30 percent of the sample responded that they were not trying to become pregnant, but were either using an unreliable method of birth control or were not using any birth control (Figure 3.4); whether or not these women were sexually active is not known.

- **Education levels among these AFDC mothers are higher than often thought by the general public, although still low compared to non-poor women.**

A respondent's education level has implications for her employment success (U.S. Bureau of the Census, 1991), as well as for outcomes for her children. For example, children who live in homes with parents who do not have a high school diploma are more likely to drop out of school themselves (Brizius and Foster, 1993). In addition, material involvement in adult education and other programs can aid in the transfer of literacy skills to children (Sticht and McDonald, 1989; Van Fossen and Sticht, 1991).

As shown in Table 3.1, two-thirds of the sample are high school graduates or have a GED. This is a slightly higher proportion than reported in the total Fulton County JOBS sample (60 percent), as well as in a nationally representative sample of AFDC mothers (57 percent; Zill et al., 1991). Although educational levels in this sample are higher than might be expected, they are still low when compared to those of non-poor women. Eighty-eight percent of non-poor women with children under age 18 in 1988 had completed high school or higher levels of education (Zill et al., 1991).

Attitudes toward schooling are strong predictors of educational attainment (Moore and Stief, 1991), and are likely to be related to whether a woman obtains additional schooling through participation in the JOBS Program. Most of the mothers reported positive feelings about going to classes and doing schoolwork. Eighty-seven percent indicated that they had either "loved" or "liked" going to classes and doing schoolwork the last time they were enrolled in school. Nevertheless, at the time of random assignment, most respondents (83 percent) preferred help looking for a job over going to school to study basic reading and math.

- **Mothers tended to have low scores on selected standardized tests; however, there is considerable variation.**[20]

Welfare recipients tend to have average or below average reading and math skills (Martinson and Friedlander, 1994; Zill et al., 1991). In fact, 31 percent of welfare recipients

[20]As noted in Chapter 1, respondents who completed the Descriptive survey had significantly lower mean scores on reading and math literacy tests than those women who were fielded for, but did not complete, the Descriptive survey.

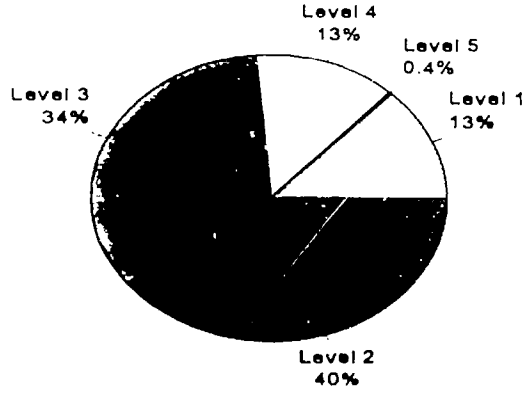
have been estimated to have basic cognitive skills below those of the minimum skill level of women in the lowest occupation class, manual operatives (Zill et al., 1991). This represents a labor market disadvantage because literacy is strongly associated with employment opportunities (Cohen, Golonka, Maynard, Ooms, and Owen, 1994). Lower-skilled individuals are less likely to participate in the labor force (Kirsch, Jungeblut, Jenkins, and Kolstad, 1993). Additionally, those marginally literate individuals who are in the labor force earn only one-third as much as those in the top literacy skills group (Cohen et al., 1994).

- **Immediately before they were randomly assigned to the JOBS Program, respondents completed standardized reading and math literacy tests.**

The document literacy scale of the Test of Applied Literacy skills (TALS), which was developed by the Educational Testing Service (ETS), was selected because it is a good measure of broad reading and math skills that are used in everyday life. The TALS requires readers to locate and use information contained in materials such as tables, schedules, charts, graphs, maps, and forms (Kirsch et al., 1993).

The ETS divides literacy scores into five levels (see Appendix C). Scoring in Level 3, 4 or 5 indicates an abiiity to integrate multiple pieces of information from one or more documents, or an ability to progress through complex tables or graphs which contain information that is irrelevant to the primary task. Scoring in Levels 1 or 2 on the TALS indicates difficulty in performing tasks that require integration of information from various parts of a document. For example, a person scoring in Level 1 or 2 has difficulty using a map of a hospital campus (Kirsch et al., 1993). As shown in Figure 3.5, 53 percent of the respondents scored in Level 1 or 2 on the TALS document literacy scale, indicating low levels of basic literacy.

FIGURE 3.5
DOCUMENT LITERACY SCORES

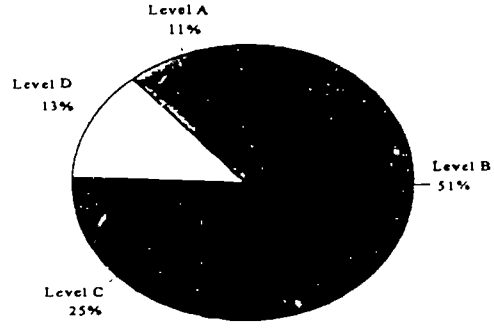


NOTE. Level 5 is the highest level; Level 1 is the lowest level.

The Greater Avenues for Independence (GAIN) Appraisal math test used in the California GAIN program is designed to assess a participant's ability to perform basic math computation and to apply basic math skills in a functional or "life-skills" context. The Comprehensive Adult Student Assessment System (CASAS) has divided scale scores into four levels (see Appendix D) based on eight years of California educational achievement data for approximately 200,000 students in Adult Basic Education and English as a Second Language classes (Armstrong et al., 1989). Scoring in Level C or D indicates functioning at least at a seventh to eighth grade level. At the minimum, individuals scoring in Level C or higher are able to handle basic computational skills in a functional setting related to employment. People who score in Levels A or B are determined to be in need of basic education (Armstrong et al., 1989). Sixty-two percent of the Descriptive sample scored in Level A or B on the GAIN Appraisal math test (Figure 3.6), indicating math skills below seventh grade levels.

FIGURE 3.6

GAIN APPRAISAL MATH TEST SCORES



NOTE: Level D is the highest level; Level A is the lowest level.

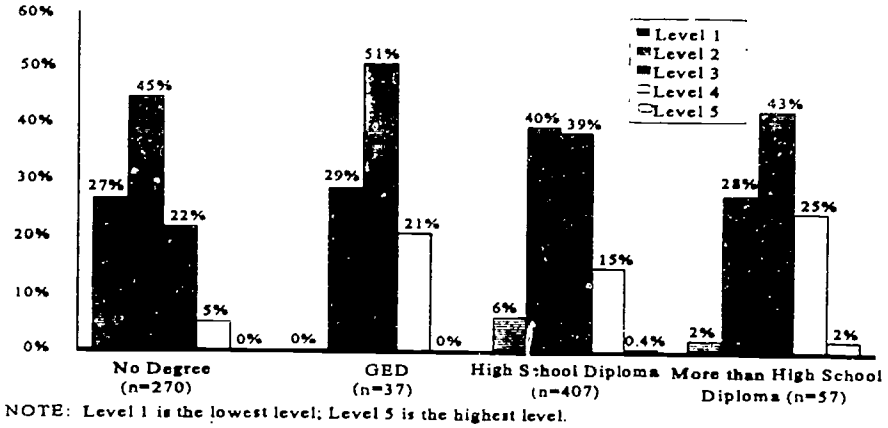
- **For some respondents, high school completion was not an indicator of job readiness.**

Data from several national studies have revealed that large numbers of persons who hold high school degrees but acquired no further schooling, obtain scores on standardized tests that indicate they function in the lowest literacy levels (Cohen et al., 1994). Data from the Descriptive Study support this pattern.

As illustrated in Figure 3.7, among women with high school diplomas, 46 percent scored in Levels 1 or 2 on the TALS. Fifty-seven percent of the women with high school diplomas scored in Levels A or B on the GAIN Appraisal math test (Figure 3.8). However, it is possible that having a high school diploma might be more important in acquiring a job than one's literacy level, as measured on a test.

FIGURE 3.7

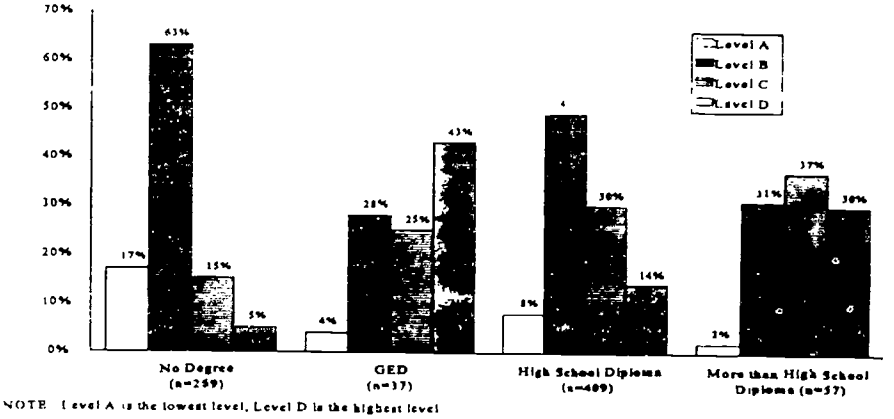
DOCUMENT LITERACY LEVELS BY HIGHEST LEVEL OF EDUCATION COMPLETED



NOTE: Level 1 is the lowest level; Level 5 is the highest level.

FIGURE 3.8

GAIN APPRAISAL MATH TEST LEVELS BY HIGHEST LEVEL OF EDUCATION COMPLETED



NOTE: Level A is the lowest level, Level D is the highest level

- **Some women participated in training and employment-related activities during the year preceding random assignment.**

Fifteen percent of the sample were involved in some sort of educational or employment program, such as GED preparation, vocational education and skills training, or job search, in the 12 months prior to random assignment. The most common activity was vocational education and skills training.

At the time of random assignment, more than one out of 10 respondents in the sample were currently involved in some type of educational or employment-related activity. Vocational education and skills training was again the most frequently mentioned program. Between random

assignment and the time of the Descriptive Study, nearly three out of 10 women participated in some type of school or job training program for a month or more.

Because the Descriptive survey was conducted an average of three months after random assignment, we anticipated that there might be very early effects of the JOBS Program on participation. Indeed, respondents in both the human capital development group (38 percent) and labor force attachment (29 percent) groups were significantly more likely[21] than women in the control group (4 percent) to have participated in educational or job training programs since their random assignment dates (RAD), even after controlling for focal child age at RAD and focal child gender.[22]

- **The majority of respondents had some experience in the labor force, although employment rates were lower following the birth of the focal child.**

The vast majority of respondents have worked for pay at some point in their lives. Including all types of paid jobs on a regular or irregular basis, 83 percent of the sample reported having some experience working for pay, and 64 percent had worked full time for six months or more for one employer. Only 59 percent, however, reported working outside of the home for one month or more since the birth of the focal child. A spell of employment may include more than one job, with, for example, a second job beginning immediately upon the end of the first. The average length of such spells of employment since the birth of the focal child was 13 months.

Of the respondents who have worked outside the home since their child was born, 66 percent reported working full time during any of these months, with the average length of full time spells of employment reported at 15 months. Paid work inside the home was much less common, with only 8 percent of respondents reporting paid work in their homes for one month or more.

Mothers who never worked full time between the birth of their child and their random assignment date (RAD) are different than women who had worked full time during this time period. Respondents who had never worked between the birth of their child and RAD were less likely to have a high school diploma or GED, had more children, had been on welfare longer, and were more likely to live in public or subsidized housing than those women who had worked full time at some point in their child's life before RAD. In addition, respondents who had not worked full time tended to have lower reading and math literacy test scores, had a more external locus of

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[21] Logistic regression: $p < .000$ for human capital development and labor force attachment group mothers.

[22] Because only 3- to 4-year-old children were included in the control group for the Descriptive Study, the analyses in this paragraph were conducted on a subsample of respondents with 3- to 4-year-old children from all three research groups, who were randomly assigned to the JOBS Evaluation after the funding became available for sampling members of the control group, using a sample size of 509

control, and perceived higher barriers to employment than mothers who had been in the work force full time before random assignment (see Appendix B, Table 3.1-2).

- **Seventeen percent of respondents reported current employment, typically working in low-wage, low-benefit, part-time jobs.**

This level of employment is higher than found in other samples, where only 6 percent of women receiving AFDC benefits have been reported to work (U.S. House of Representatives, 1994). The Descriptive Study figures are more consistent with findings from an earlier time period during which AFDC work incentives were greater (Moffitt, 1992). However, it is possible that some of the mothers who reported current employment were no longer receiving AFDC benefits at that time. Analyses were conducted on a subsample of respondents with 3- to 4-year-old children, selecting families in the labor force attachment and human capital development groups who entered the Descriptive sample in the same time period as families in the control group (see previous footnote) in order to determine whether the higher level of employment reflects an early response to the program mandate. After controlling for focal child age at random assignment and focal child gender, women in the labor force attachment group (23 percent) were significantly more likely than either those in the human capital development group (16 percent) or the control group (11 percent) to be employed at the time of the Descriptive interview.[23]

Respondents who were currently employed reported a median job tenure of three months, working an average of 28 hours per week with an average pre-tax wage estimated to be $5.50 per hour.[24] The data suggest that the currently employed program participants are working at low-wage jobs, many on a part-time basis, with few fringe benefits. For example, only 15 percent reported having a health plan and just 19 percent received paid sick days. Low-wage, low-benefit part-time work is not uncommon in the sectors in which sample members' employment is concentrated: technical, sales, and administration, and the service sector (Figure 3.9). The concentration of program participants in these sectors is consistent with other research (e.g., Zill et al., 1991) regarding employment patterns of AFDC recipients. Respondents who are not currently working reported an average period of 30 months since last working for pay.

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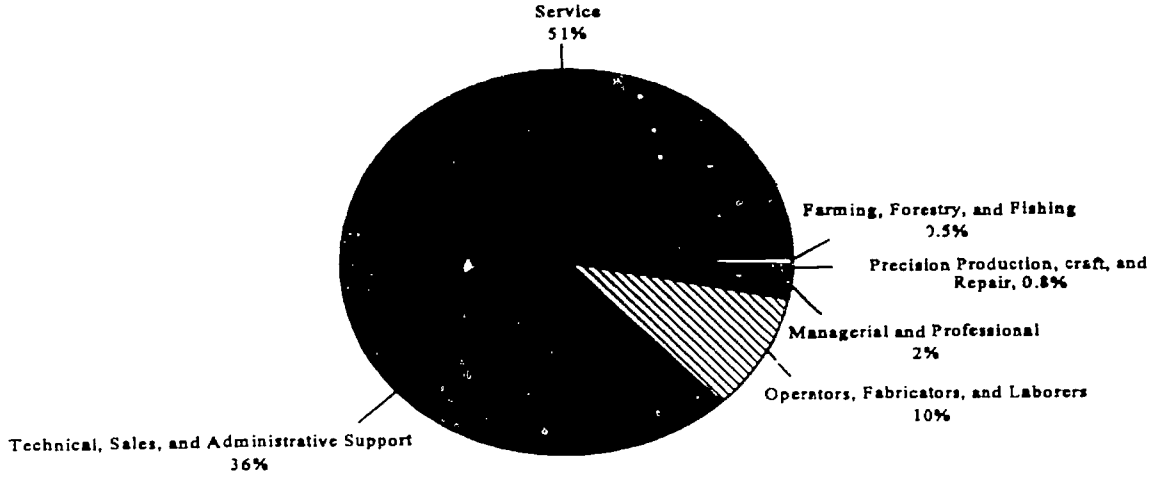
[23] Logistic regression; $p = .002$ for the labor force attachment group.

[24] Several assumptions were made in order to calculate this hourly wage. It was assumed that the respondent worked five days per week in order to compute an hourly wage. Second, only people who reported earnings as gross income were included. Third, people who did not provide a specific amount in response to the earnings question were not included in the calculation of hourly wages. As a result of these assumptions, the sample size was much smaller (n=114).

FIGURE 3.9

OCCUPATIONAL CATEGORIES FOR THOSE CURRENTLY WORKING



NOTES: Occupational Categories are from: U.S. Department of Commerce (1990). 1990 Census of population occupational classification system. Washington, DC: Bureau of the Census.

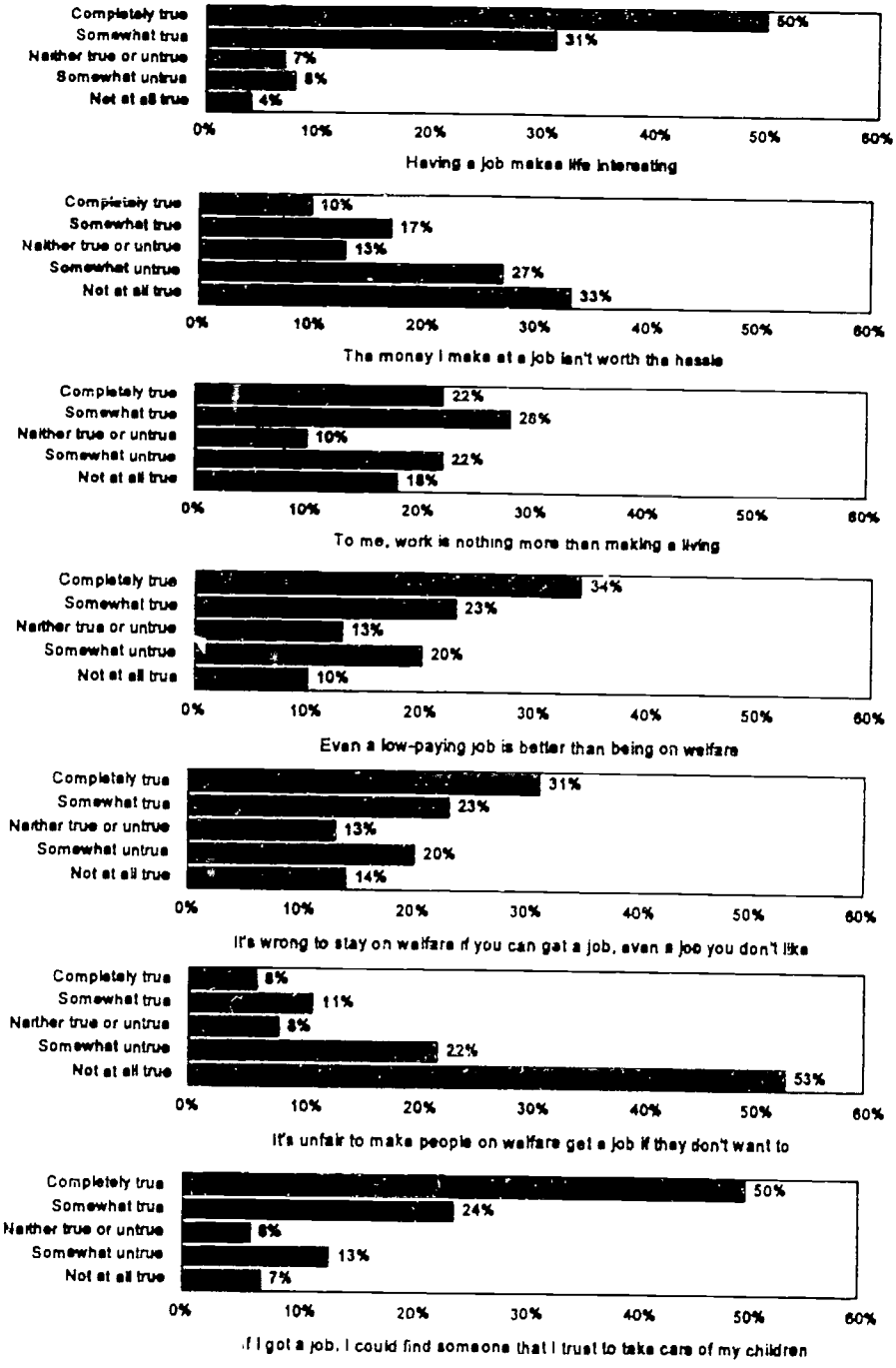
- **Most of the respondents expressed positive attitudes toward employment at the time of the Descriptive survey.**

Studies in the child development literature have found that negative effects of maternal employment on children are more likely when the mother has negative attitudes about employment than when she has neutral or positive feelings (Zaslow et al., 1991). Also, in one welfare-to-work study, negative attitudes toward work were found to predict less favorable supervisor ratings when employment was secured (Johnson, Messe, and Crano, 1984). Thus, attitudes toward employment might help to explain variation in job success among women enrolled in JOBS, as well as child adjustment.

Women were asked to respond to a series of questions regarding their attitudes toward employment and welfare. Using an 11-point scale ranging from 0 (not at all true) to 10 (completely true), respondents were asked to indicate how true each statement was for them. A "5" is the midpoint of the scale. In general, women in this AFDC sample held moderately to strongly positive attitudes about employment (above 5 on the 0-10 scale; Figure 3.10).

FIGURE 3.10

ATTITUDES TOWARD EMPLOYMENT AND WELFARE AT THE TIME OF THE DESCRIPTIVE STUDY SURVEY



As illustrated in Figure 3.10, one out of two women responded that it was "completely true" that having a job makes life interesting. Only one in ten women responded that it was "completely true" that the money that they make at a job is not worth the hassle. Four in ten women responded that the statement "To me, work is nothing more than making a living" was "somewhat untrue" or "not at all true," indicating that many respondents believe there is some intrinsic value to employment. On the other hand, 22 percent agreed completely that work is nothing more than making a living.

More than one-third of the mothers thought that it was "completely true" that it would be better to have a low paying job than to be on welfare. Additionally, about one-third of the mothers responded "completely true" to the statement "It's wrong to stay on welfare if you can get a job, even a job you don't like." Only 6 percent of mothers felt that it was "completely true" that it is unfair to make people on welfare get a job if they do not want to work.[25]

- **Most of the respondents did not see barriers to locating child care while employed.**

As depicted in Figure 3.10, nearly three out of four women responded that the statement "If I got a job, I could find someone I trust to take care of my children," was "completely true" or "somewhat true," suggesting that they did not perceive strong child care barriers toward employment.

- **Women who believe that mothers should not be employed are different from those who do not object to mothers working.**

A five-item scale indicating attitudes toward maternal employment was formed from data collected in the interview. The scale has a Cronbach coefficient alpha (a measure of internal consistency) of .73 (see Appendix E). Higher scores indicate a stronger belief that mothers should not work and should stay at home with their children. The average score on this scale was 2.78 out of 10 (SD=2.14), indicating a high level of acceptance of maternal employment among mothers in the sample.

Nevertheless, there are subgroups of women who are less likely to believe that mothers should be employed. Women with a stronger belief that mothers should not work outside the home are significantly more likely to have lower levels of education and literacy; to reside in public housing; to be on welfare longer; and have more negative psychological well-being (higher levels of depressive symptoms, perceive more barriers to working, more external locus of control, and less social support) (see Appendix B, Table 3.1-3).

[25] The same two questions were asked shortly before random assignment using a different response scale. Nevertheless, respondents' attitudes at baseline were positively correlated with the same attitudes at the Descriptive survey.

Maternal Well-being

- **A large proportion of mothers who receive AFDC report high levels of depressive symptoms.**

Depression is defined as a negative mood state so extreme that it interferes with daily functioning and productive activity. In general, the highest rates of depression are found among persons with low incomes, women, persons with young children, young adults, unmarried people, the poorly educated, and the unemployed (Eaton and Kessler, 1981; Hall, Gurley, Sachs, and Kryscio, 1991; Hall, Williams, and Greenberg, 1985; Klerman and Weissman, 1989; Orr, James, Burns, and Thompson, 1989). Consequently, single mothers on AFDC with young children are at especially high risk for developing depressive symptoms. In samples of low-income women with young children, depression rates have been found to range from 48 to 60 percent (Hall et al., 1981, 1991; Quint et al., 1994).

In the Washington State Family Income Study (Weeks et al., 1990), the public assistance sample was found to have a greater percentage of mothers who reported high levels of depression than control groups. Longer duration on welfare was associated with more depression. However, women in the Washington State Family Income Study who were enrolled in a school or training program, and those with jobs, were less likely to be depressed (Weeks et al., 1990). Other studies have also found that employed women tend to have better psychological health (Kraus and Markides, 1985; Ross, Mirowsky and Goldstein, 1990).

In addition to the negative ramifications of depression for mothers themselves, a variety of child development studies have found that children of depressed parents display higher levels of both externalizing and internalizing behavior problems, often have deficits in social and academic competence, and are in poorer physical health than children of non-depressed parents (Downey and Coyne, 1990). Thus, if any changes occur in mothers' depression as a result of JOBS participation, this may have implications for the development of their children.

The 20-item Center for Epidemiological Studies Depression Scale (CES-D) was included in the Descriptive survey to measure mothers' depression.[26] The CES-D measures levels of depressive symptomatology in the general population (Devins and Orme, 1985) and has been found to distinguish between clinically depressed patients and others. A CES-D score greater than 15 out of 60 indicates a high level of depressive symptoms, and only 20 percent of people in community samples score in this range (Comstock and Helsing, 1976). CES-D scores greater than 15 can be further divided into mild (16-20.5), moderate (21-30.5), and severe (31 or higher) levels of depressive symptomatology (Devins and Orme, 1985).

[26] A four-item version of the CES-D used at baseline was significantly and positively associated with the 20-item version used in the Descriptive survey. Cronbach coefficient alphas (measures of internal consistency) were similar for the baseline and Descriptive survey versions of the scales

- **Forty-two percent of the entire Descriptive sample were assessed to have a high level of depressive symptoms. Breaking this group down further, 15 percent had mild depressive symptoms, 20 percent had moderate depressive symptoms, and 7 percent had severe depressive symptoms.**

Women with CES-D scores greater than 15 out of 60 had been on welfare longer, and had lower literacy and math test scores, a more external locus of control, higher levels of family-related barriers toward work, and lower levels of social support than those women who scored below 16 on the CES-D (see Appendix B, Table 3.1-4). Moreover, despite the high percentage of the sample who had high levels of depressive symptomatology, only 3 percent of women had received professional treatment for a personal, emotional, behavioral, or mental problem in the past 12 months. Only 8 percent felt or had someone suggest that they needed professional help for any personal problem.

- **Mothers with a more internal locus of control are advantaged relative to those mothers with a more external locus of control.**

People with an external locus of control are more likely to feel at the mercy of circumstances and environmental events, whereas those with an internal locus of control are more likely to feel efficacious and in control of their own destinies. In general, an internal locus of control is more conducive to educational and occupational success than an external locus of control (Hill et al., 1985). If women gain feelings of personal control through participation in JOBS, education and/or employment, they may be better off in many ways. Locus of control might also help to explain variation in maternal participation and job success among JOBS eligibles.

In addition, a greater sense of efficacy and control may lead to beneficial consequences for the children, perhaps due to a woman's increased sense of confidence and control in the parenting role. For example, Stevens (1988) found that for low-income, African American mothers of young children, a more internal locus of control was the only significant predictor of whether mothers provided stimulating environments for their children.

Locus of control was measured in the Descriptive survey using a seven-item scale developed by Pearlin, Menaghan, Liebermann, and Mullan (1981).[27] Using this scale, the State of Washington Family Income Study found a significantly greater prevalence of low personal control among a public assistance sample than among comparison groups (Weeks et al., 1990). Employment and enrollment in school or vocational training programs were linked to feelings of greater personal control.

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[27] A three-item version of the locus of control (mastery) scale used at baseline was significantly and positively associated with the seven-item version used in the Descriptive survey. Cronbach coefficient alphas (measures of internal consistency) were similar for the baseline and Descriptive survey versions of the scales.

Mothers in the Descriptive Study who reported a more internal locus of control were significantly more likely to have a high school degree or GED, had fewer children, had been on welfare for a shorter period of time, were less likely to live in public housing, had higher reading and math literacy test scores, and had better psychological well-being (e.g., had lower levels of depressive symptoms, had lower family barriers to employment, and higher social support levels) than those women with a more external locus of control (see Appendix B, Table 3.1-5).

- **Many women have experienced multiple difficult life circumstances.**

Within the low income population, the degree of environmental stress varies substantially. Some welfare mothers may reside with relatives in a middle-class neighborhood with low crime rates. Others may live in rental housing in disorganized urban settings rife with problems. In addition to neighborhood problems and disorganization, personal life circumstances are likely to vary among families as well.

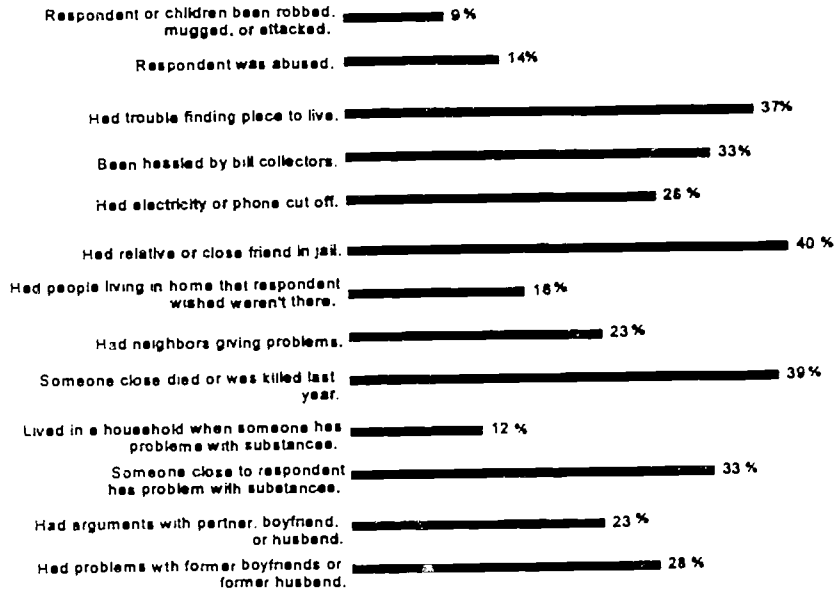
Among low-income women, maternal stress due to negative life circumstances is related to higher depressive symptoms (Hall et al., 1985), as well as poorer caregiving behavior (Pianta and Egeland, 1990). Further, maternal stress is associated with socioemotional, behavioral, and cognitive difficulties in children (Pianta, Egeland, and Sroufe, 1990). In sum, it is possible that families under strain from multiple difficulties are less likely to be successful participants in JOBS and less successful parents as well.

A 13-item scale, adapted from the Difficult Life Circumstances scale (Barnard, 1988),[28] was used to measure the hassles and problems of daily life among mothers in the Descriptive sample. Difficult life circumstances included problems such as having the electricity or phone cut off, having problems with neighbors, or having a lot of arguments with a partner, boyfriend, or husband. In the 12 months prior to the Descriptive survey, AFDC mothers experienced, on average, three out of the 13 difficult life circumstances enumerated. Only 11 percent of the sample had not experienced any difficult life circumstances. The three most frequently experienced events reflected extremely difficult life circumstances (Figure 3.11). These included: having a relative or close friend in jail, having a relative or close friend die or be killed, and having trouble finding a good place to live. Smaller proportions of women had difficulty paying bills, and experienced interpersonal problems with neighbors and partners. In addition, women who reported more difficult life circumstances had higher literacy test scores and higher levels of depressive symptoms at baseline than those women who experienced fewer difficult life circumstances (see Appendix B, Table 3.1-6).

[28] Several items from the original scale were not included for two reasons: (1) they were of a highly sensitive nature; and (2) they showed no variability in a pretest with low-income mothers.

FIGURE 3.11

DIFFICULT LIFE CIRCUMSTANCES EXPERIENCED IN THE PAST YEAR



- **In general, AFDC mothers did not report feeling extremely weary from parenting.**

Only 11 percent of the sample reported that they felt worn out from raising a family "most" or "all of the time," through 59 percent said that they "always" or "sometimes" felt rushed. Eighty-seven percent of the women responded "never" or "now and then" to the question "Do you have time on your hands that you don't know what do with?" This indicates that although most of these mothers are not unduly stressed due to family responsibilities, they do not feel that they have much idle time either.

- **Most respondents do not have personal health-related barriers to employment.**

Maternal and child health problems are reasons for exemption from the JOBS mandate; thus, women with serious health problems, as well as those caring for children with health problems, are not included in the JOBS Evaluation. Nevertheless, we anticipate that there will be mothers who have health impairments that are not sufficiently severe to result in their being exempt from the mandate, but which they feel are sufficiently severe to make it difficult for them to manage participation in JOBS in addition to childrearing.

Mothers in poor health and mothers with some kind of physical impairment are known to have longer welfare spells (Adler, 1988). JOBS education and work requirements are likely to be highly problematic for mothers who have young children and who are in anything short of good

health. Consequently, women with even slight health impairments may be less likely to be active participants. Health status of the mother is also known to be a significant predictor of child health and emotional well-being (Boyer, 1991; Center for the Future of Children, 1992; U.S. Congress, 1988).

Most mothers describe themselves as being in good but not excellent health. Eighty-five percent of the Descriptive sample reported that they did not have any health problems or impairments that would keep them from working, or limit the kind or amount of work they can do.[29] However, only 24 percent of the mothers rated themselves in "excellent" health. This percentage is comparable to findings from the 1988 National Health Interview Survey which indicated that 21 percent of AFDC mothers, compared to 38 percent of non-poor mothers, rated themselves in "excellent" health (Zill et al., 1991).

- **Self-reported substance use and abuse among mothers are infrequent.**

Mothers with alcohol and drug problems represent a subgroup with a particularly poor prognosis for JOBS participation and for appropriate childrearing (Deren, 1986; Moore, Krysan, Nord, and Peterson, 1990; Newcomb and Bentler, 1989). Participation in activities such as school or job training might be very difficult for mothers with substance use problems because use of hard drugs is associated with a greater likelihood of having restricted activity days (Keer et al., 1994). Moreover, mothers with substance abuse problems may require treatment for their problem before they are able to participate in employment or educational programs.

Mothers who use drugs or alcohol are also creating risks for their children. In a recent survey of illicit drug use in adults, more than one-quarter of adults who used marijuana in the past year said that they were high while at home caring for their families (Keer et al., 1994). In addition, parents with a history of substance use problems are more likely to have a child who drinks or uses other drugs (Kandel, 1973; Reuter and Conger, 1994).

Fifty-eight percent of the mothers in the Descriptive sample reported using no substances, including alcohol, marijuana, cocaine or crack, and other street drugs, in the past 12 months. Of the 38 percent who reported using only one substance in the past 12 months, almost all were using alcohol. Five percent of women reported using more than one substance in the past 12 months. Fourteen percent felt that they should stop or reduce their use of one or more substances. Only 10 percent of the sample reported that someone else told them to stop or reduce their use of one or more substances. However, we note that there is typically a problem with underreporting of substance use in self-report surveys such as the Descriptive survey (Mensch and Kandel, 1988).

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[29] Twenty-seven percent of the total JOBS Evaluation Fulton County sample (who are generally older) "agreed" or "agreed a lot" to either having a health or emotional problem, or having a child or family member with a health or emotional problem (Hamilton and Brock, 1994).

Summary

It is apparent that within the Fulton County Descriptive sample, there is a great deal of heterogeneity with regard to preparedness to pursue JOBS activities and employment. Two-thirds of the women are high school graduates or have a GED, suggesting that they are ready for job training or further education or are prepared to take an entry level job. However, more than half of the mothers had low levels of basic reading and math literacy. In addition, the majority of the mothers have some experience in the labor force, although much of that experience is in low-paying, low-benefit jobs.

Although there were variations in ratings, most of the respondents expressed positive attitudes toward employment, and negative attitudes toward welfare, and few perceived child care barriers. Additionally, even though the sample is disadvantaged in terms of its welfare history, many of the women expressed a desire to limit their family size, one key indicator of successful participation in education and/or employment activities, and the majority reported using effective contraception or sterilization to avoid unwanted pregnancies.

Although many mothers appear to be job-ready, there are other characteristics that might impede their participation in JOBS. Most women had experienced difficult life circumstances, including problems with housing and having a relative or close friend in jail. In addition to the stress incurred from experiencing these difficult events, many women also reported depressive symptoms, some severe. Smaller groups of women also reported health-related barriers to employment, as well as substance-use problems, although underreporting of substance use is common in self-report surveys. In conclusion, because of the varied levels and combinations of experiences, attitudes, stressors, and psychological difficulties that women on AFDC experience, it is likely that there will be differential rates of successful participation in JOBS, as well as differential outcomes for children.

CHAPTER 4
SOCIAL AND ECONOMIC SUPPORT FOR MOTHERS WHO RECEIVE AFDC

Background

Previous research has shown that the networks of support available to mothers on AFDC are important factors in both maternal and child well-being (Auslander, 1988; Cohen and Wills, 1985; McLanahan, Seltzer, Hanson, and Thomson, 1994). Individuals living in poverty tend to have support networks that are weaker and smaller than those of the non-poor (Auslander, 1988; Lindblad-Goldberg and Dukes, 1985). Furthermore, single mothers often receive less support for parenting (Weinraub and Wolf, 1987). An additional consideration with low-income single mothers is that support networks can be draining (Stack, 1974). For example, in one study of African American, low-income, single-parent families, mothers whose families were already experiencing high levels of stress felt that they provided more emotional support than they received from their support network members (Lindblad-Goldberg and Dukes, 1985). Whereas lack of social support is associated with negative psychological and physical health outcomes in adults, researchers have found that for those individuals who are experiencing high levels of stress, social support can act as a buffer against negative outcomes such as depression (Cohen and Wills, 1985; Pearlin et al., 1981; Turner, 1981).

The amount of social support available to mothers may also have implications for their successful participation in JOBS. Parry (1986) found that among working-class mothers who experienced social support deficits and high levels of life stress, paid employment was associated with high levels of psychiatric symptoms. That is, paid employment was an additional source of tension, rather than a benefit, for mothers under stress who were caring for young children.

Support can take many forms, including economic assistance and social support. In this chapter, we consider economic support to be monetary assistance provided either directly or indirectly to the mother. Economic support from family members, particularly absent fathers, can both enhance the family's standard of living and also reduce stress. Social support, which is often divided into different types of support, has been defined as "...the degree to which a person's basic social needs are gratified through interaction with others. Basic social needs include affection, esteem or approval, belonging, identity, and security" (Thoits, 1982, p. 147). In the present chapter, we will describe respondents' perceptions of support from the fathers of their children, as well as the emotional and instrumental support they receive from other individuals.

Key Questions for Chapter 4

- **What assistance do the children's fathers provide to the mothers?**
- **Who other than the father provides emotional, childrearing, and economic support to these mothers, and to what extent?**

Findings

The Fathers

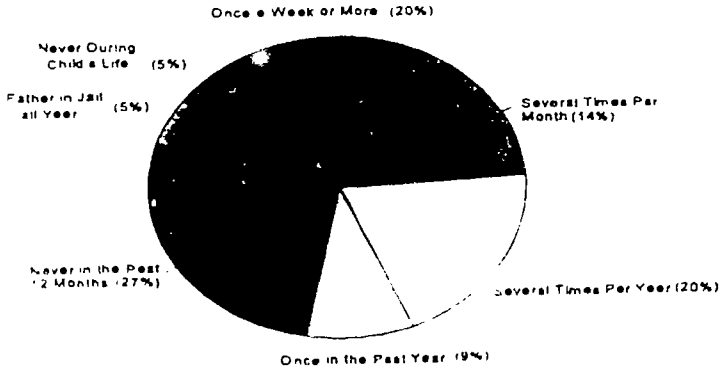
Despite the fact that the large majority of children in the Descriptive sample do not live with their fathers, it is to be anticipated that the child's biological father will often maintain an important role in the child's life, both emotionally and financially. In addition, financial assistance provided by the father might be expected to increase over the course of the study for all research groups due to increased enforcement of child support obligations. The availability of either emotional or financial support from the father could have positive effects on the child's social and emotional development. However, children born outside of marriage tend to have less frequent contact with their nonresidential parent than children whose natural parents were once married to each other, and children in lower income families have particularly low levels of contact with absent parents (Seltzer and Bianchi, 1988).

- **Most biological fathers in this sample are not actively involved in their children's lives.**

The majority (84 percent) of the AFDC mothers were never married to the biological father of their three- to five-year-old child. Most of the biological fathers live outside of the household, but in the same state as the respondents. Only 2 percent of the children's biological fathers live in the same household. As illustrated in Figure 4.1, only one-fifth of the children whose fathers live outside of the household had seen their fathers at least once a week in the 12 months prior to the Descriptive survey. Including children whose fathers were in jail, more than three out of 10 children had not seen their fathers at all in the past year. However, because information on father-child contact comes from mothers' self report, it is possible that contacts are underreported or that there were other undisclosed reasons for infrequent contact For example, some fathers might have been discouraged or prevented from seeing their children by the mothers or grandmothers.

FIGURE 4.1

FREQUENCY OF CONTACT IN THE PAST YEAR BETWEEN FOCAL CHILDREN AND THEIR BIOLOGICAL FATHERS LIVING OUTSIDE OF THE HOUSEHOLD



Within the past 12 months, mothers reported that only 10 percent of fathers living outside of the household had "often" bought clothes, toys, or presents for their children, and only about 4 percent had "often" bought groceries. With regard to non-economic support from fathers, 10 percent of the fathers "often" babysat for their children in the past year, and 9 percent "often" cared for their children overnight. Among those fathers living outside the household who had seen their children in the past 12 months, 44 percent had never done any of the following things during that time period: bought clothes, toys, or presents; bought groceries; babysat for their children; or cared for their children overnight.

- **Some fathers are offering regular economic support, but most are not.**

As mentioned in Chapter 1, one important component of the Family Support Act (FSA) of 1988 provides for the strengthening of child support enforcement. In particular, Title I of the FSA was designed to increase the proportion of children with child support awards through the establishment of paternity, increases in the level of awards, and enforcement of the collection of awards through the location of missing parents and withholding of support from wages. It is often noted that the number of people who receive welfare, as well as average welfare payments, could be reduced if absent fathers paid their fair share of child support (e.g., Sorensen, 1995).

The provision of child support has been found to be associated with greater child well-being. However, how these effects on children come about is not yet clear. McLanahan et al. (1994) found that for those children born outside of marriage, voluntary payment of child support was associated with lower parental conflict and increased contact between the child and the noncustodial parent. Overall, child support dollars had a more beneficial effect for children than ordinary dollars, perhaps (as the authors recognize) because the fathers who paid support were a select group with regard to their commitments to their children.

It should be stressed that previous research has demonstrated large discrepancies between custodial and non-custodial parents' reports of child support payments. Sonenstein and Calhoun (1990) found that on average, non-custodial parents reported paying almost 30 percent more in child support than custodial parents reported receiving. Moreover, custodial parents were more likely to report irregular and incomplete payments, whereas non-custodial parents were more likely to report making regular and full payments. Receipt of public assistance such as AFDC was associated with discrepancies between custodial and non-custodial parents in the report of child support payments because child support is often tied to welfare receipt. Consequently, it is possible that if father reports of child support payments were available in the Descriptive Study, similar discrepancies between custodial and non-custodial parents in the reports would be evident.

In the Descriptive sample, only 13 percent of the women who were never married to their child's father went to a court or child support office to establish paternity,[30] and only 2 percent of those never-married women had the biological fathers sign the birth certificate. Among those women whose child's father did not live in the household at the time of the Descriptive survey, only 30 percent ever had child support payments agreed to or awarded to them. Fifty percent of these payments were court-ordered, and 46 percent were arranged through a voluntary written agreement. Among the 30 percent of women who received child support awards, 78 percent did receive money from the father in the past year. National data suggest similar levels of awards and payments. Among single mothers living below the poverty level in 1989, only 25 percent received child support awards, and 69 percent of these received money (U.S. Bureau of the Census, 1992b).

Among the 70 percent of the mothers who did not have a formal child support agreement in the year prior to the interview, 88 percent did not receive any money directly from the father. Only 9 percent of these women without a formal child support agreement have legal proceedings to establish paternity "in process" or have established paternity. The 12 percent who did collect money directly from the child's father (rather than through the welfare office) received an average of $279 per month. Forty-one percent of the mothers felt that their child's father could either pay more for child support than he did, or pay some amount if he paid nothing, whereas 24 percent felt that he could not pay anything more. Thirty-five percent of the mothers did not know whether their child's father could pay more or not.

- **Most mothers did not receive assistance from the families of the child's biological father.**

Sixty-two percent of mothers reported that the family of their child's father never did any of the following for the child in the past year: bought clothes, toys, or presents; babysat; or cared for him or her overnight. On the other hand, 35 percent of the mothers reported that members of the father's family bought clothes or toys in the past year, 22 percent said that the father's family babysat in the past year, and 22 percent reported that the father's family cared for their child overnight. Again, we note that this information is from mother-report only. Fathers (and their families) might provide different information.

- **Most AFDC mothers were very dissatisfied with the level and quality of father involvement in their children's lives.**

As illustrated in Figure 4.2, more than half of the mothers said that they were very dissatisfied with the amount of love and caring that their child's father has shown for their child.

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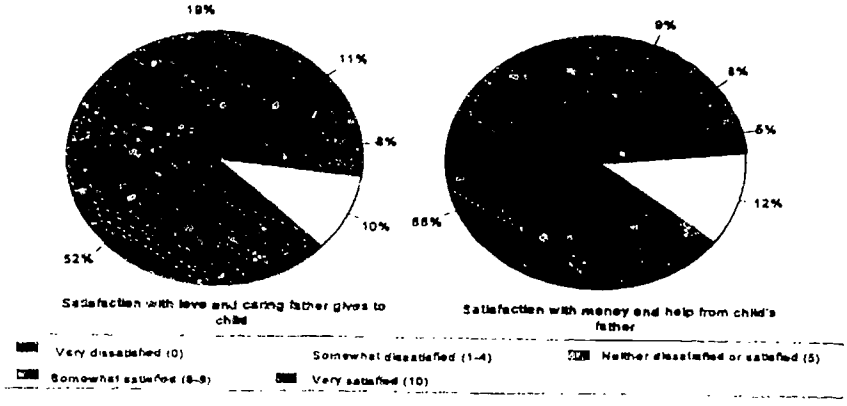
[30] Seventy-four percent of those women who went to a court or child support office to establish paternity had paternity legally declared.

Two-thirds of the mothers were similarly very dissatisfied with the amount of money and help that the fathers have been providing in raising their children.

FIGURE 4.2

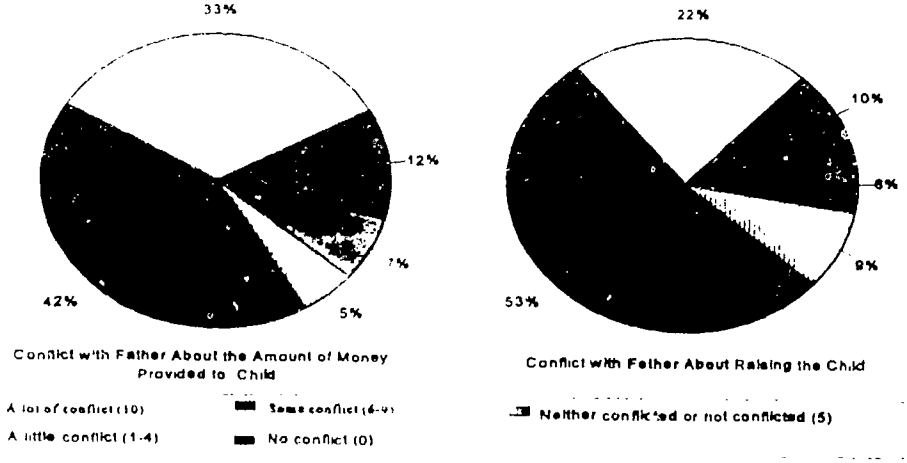
MATERNAL SATISFACTION WITH LEVEL AND QUALITY OF FATHER INVOLVEMENT IN THEIR CHILDREN'S LIVES



Among mothers who had contact with the biological father, one-third reported that they had a lot of conflict with their child's father about the amount of money he provides for raising the child (10 on an 11-point scale), and more than one-fifth of mothers reported a lot of conflict with the father about other things having to do with raising the child (Figure 4.3). However, mothers whose children saw their natural fathers more frequently, reported lower levels of conflict with the fathers, over either the amount of money they provided for raising their children, or other things having to do with raising their children.

FIGURE 4.3

CONFLICT WITH CHILD'S FATHER AMONG MOTHERS WHO HAD CONTACT WITH THE FATHER



Social Support Networks

Support from a network of friends or relatives can be especially beneficial for those individuals who are disadvantaged due to poverty or unemployment. Among unemployed women, the number of social ties in a network is negatively associated with depressive symptoms (Hall et al., 1985). Moreover, among poor individuals, having more friends, at least one close friend, and frequent contact with members of a social network, are related to better health status (Auslander, 1988). However, as mentioned previously, social support networks can also be exhausting for low-income, single mothers (Lindblad-Goldberg and Dukes, 1985).

Access to social support also contributes to more positive parent-child interactions (Weinraub and Wolf, 1987). Several studies have demonstrated that low-income parents, as well as parents under stress, benefit from social support. Data from the National Survey of Families and Households revealed that for families with children under the age of five, higher social support was related to less punitive behavior for parents living in poverty, though not for more affluent parents (Hashima and Amato, 1994). Additionally, under high levels of stress, mothers of five-year-old children who were more satisfied with the support they received had more positive interactions with their children than mothers with lower levels of satisfaction (Crnic and Greenberg, 1990).

In addition to the amount of contact with members of one's social network, the quality of the network is also important. In general, members of a social network can provide both emotional support, "...information that a person is esteemed and accepted," and instrumental support, "...the provision of financial aid, material resources, and needed services" (Cohen and Wills, 1985, p. 313). Both types of support have implications for well-being, particularly among low-income women with young children (Parry, 1986).

- **Most mothers have frequent contact with members of their own families.**

In many ethnic minority communities, the extended family plays a significant role in numerous aspects of family life, including the provision of material and emotional support, and assistance with child care (Harrison, Wilson, Pine, Chan, and Buriel, 1990). Among African Americans, particularly those who are economically disadvantaged, arrangements that allow relatives and friends to share resources and household tasks are common sources of support (Gibbs and Huang, 1989; Staples and Johnson, 1993).

As illustrated in Figure 3.2 in Chapter 3, about a quarter of the mothers in the Descriptive sample lived with relatives and/or non-relatives, in addition to their own children and in some cases their partner or husband. Thirteen percent of mothers lived in the same household with their own mothers, an arrangement that is common among low income single-parent African American families with young children (Chase-Lansdale, Brooks-Gunn, and Zamsky, 1994; Coll, 1990). Most women whose mothers did not live in the same household still had frequent contact with them. Sixty-three percent of the respondents whose own mothers lived elsewhere

saw them once a week or more: 11 percent saw their mothers a couple of times per month; and only 26 percent saw their mothers seldom or never. In addition, 36 percent of the sample said that there was someone else who acted as a mother figure to them, and most of these women saw their mother figure at least once a week or more often.

Women also had frequent contact with their siblings. More than three-quarters of the sample had brothers or sisters who lived within an hour's travel time, and most of these (65 percent) saw them at least once a week during the year prior to the Descriptive survey.

Respondents had less frequent contact with their own fathers than with their mothers or siblings. Only 21 percent of the women whose fathers did not live in the same household and were not deceased saw them once a week or more often in the past year, and 68 percent saw them seldom or never in the past year.

- **Most of the respondents had at least one person in their lives to whom they could turn for emotional support.**

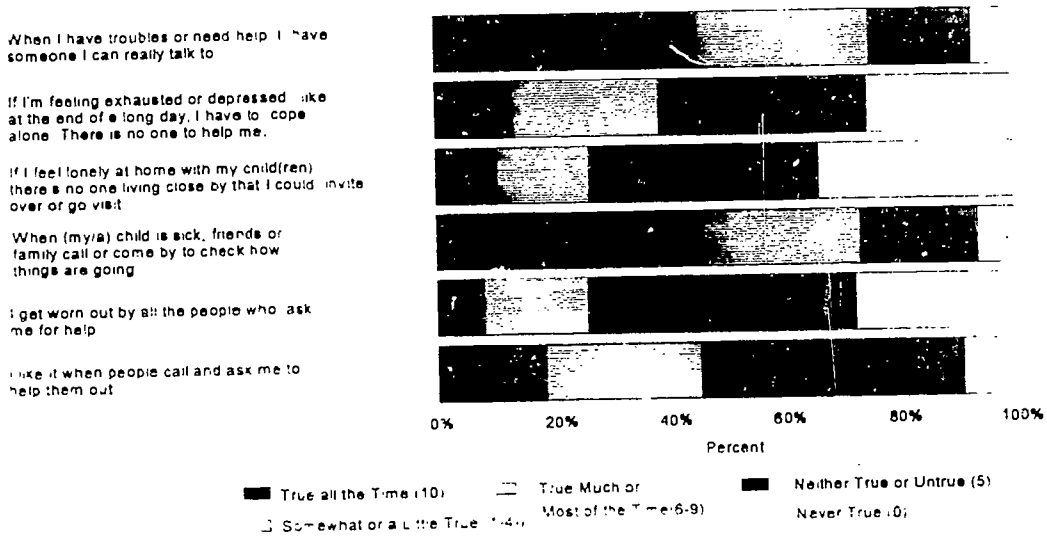
Ninety percent of the mothers said that they had some one "who would listen to them, reassure them, or show them that they care." However, nearly half the sample (46 percent) reported only one such person, and only 17 percent reported three or more people that they could turn to for emotional support. Frequently mentioned sources of support included the respondent's mother and other female relatives, as well as friends and neighbors.

Using an 11-point scale ranging from 0 (never true) to 10 (true all the time) respondents were asked to indicate how true each statement in a series about emotional support was for them. A "5" is the midpoint of the scale. Almost half the sample responded that it was "true all the time" that they had someone they could really talk to if they had troubles or needed help (Figure 4.4). Half of the mothers responded below the midpoint (below 5 on the 0 to 10 scale) to an item about having to cope alone if they were feeling exhausted or depressed at the end of a long day, suggesting that most of the respondents had someone to help them cope with problems and provide support.

Nearly two-thirds of the mothers disagreed that they have no one close by to visit with if they felt lonely at home with their children. That is, they do feel they have friends nearby. Additionally, nearly half of the mothers said that it was "true all the time" that friends or family would call or come by to check on how things were going if their child were sick (Figure 4.4).

FIGURE 4.4

PERCEPTIONS OF EMOTIONAL SUPPORT AMONG MOTHERS



- **Most respondents were not overly burdened by others asking for their support.**

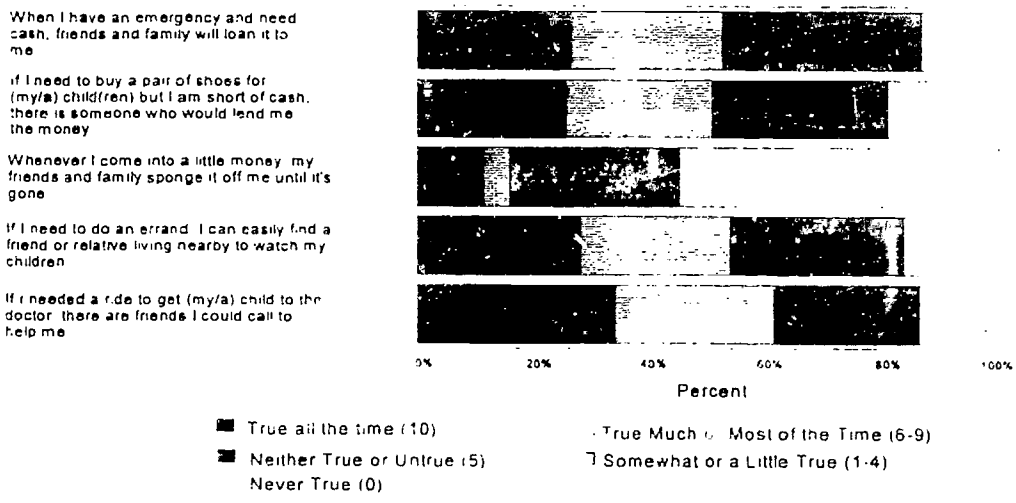
Although other researchers have reported that social support networks can be exhausting for low-income single mothers (Lindblad-Goldberg and Dukes, 1985), this does not seem to be the case for most of the women in the Descriptive sample. Sixty percent of the respondents answered below the midpoint to the statement "I get worn out by all the people who ask me for help," indicating that most mothers are not overburdened by others asking for help. On the other hand, only 19 percent of the respondents felt that it was "true all the time" that they liked it when people called on them for help (Figure 4.4).

- **Many mothers felt that they had someone to count on for economic aid.**

Many women reported that they had friends and family who would provide economic aid or material resources, two components of instrumental support (Figure 4.5). More than half of the respondents felt that it was true all or most of the time that they had someone who would lend them money in case of an emergency. However, more than one-third of the women responded below the midpoint (below 5) to this item.

FIGURE 4.5

PERCEPTIONS OF INSTRUMENTAL SUPPORT
AMONG MOTHERS



More than half of the mothers responded that it was true all or most of the time that they had someone who would lend them money to buy a pair of shoes for their child if they were "short on cash." Thirty-nine percent responded below the midpoint, suggesting that they rarely or never had anyone to provide emergency financial assistance. Thus, although most mothers do have people to provide economic assistance in an emergency, more than one in three lack such support. Furthermore, the majority of mothers said that they were not overburdened by family members or friends asking them for money.

- **Many mothers receive some type of help with childrearing.**

About 33 percent of the sample reported that their own mothers helped to take care of their children "quite a bit" or "a lot." About half of the respondents said that in addition to themselves, there was another woman in their child's life who was "like a mother" to the child, with the respondents' own mothers accounting for half of the mother figures. More than half of the mothers in the Descriptive sample said that there was a man other than the child's biological father who spends a lot of time with the child, and who their child might consider to be a father figure. These father figures were most commonly the mother's current partner or friend.

As depicted in Figure 4.5, more than half of the respondents felt that it was true all or most of the time that they could easily find a friend or relative living nearby to watch their child

while they ran an errand, although nearly one-fifth of the sample felt that this was "never true." Nearly two-thirds of the respondents responded that they would be able to call on friends for a ride to get their child to a doctor all or most of the time, indicating that they had people in their support network to help them with needed services. However, more than one in 10 said that this was "never true."

- **There are subgroups of women who tend to perceive higher levels of emotional and instrumental support.**

Women who have higher levels of emotional and instrumental support, and are more satisfied with the emotional support they receive, are different from those with lower levels of satisfaction on several sociodemographic and psychological indicators assessed at baseline. Items related to emotional support and instrumental support were summed to form two separate indices. Having a high school degree, housing other than public or subsidized, higher literacy test scores, lower levels of depressive symptoms, a more internal locus of control, and lower family barriers to employment were characteristics associated with higher levels of emotional and instrumental support. Further, women with higher levels of instrumental support tended to be those who have fewer children and who have been on welfare for shorter periods of time (see Appendix B, Tables 4.1-1 and 4.1-2). Mothers were also asked to rate how satisfied they were with the emotional support available to them. Women who were less satisfied with the emotional support that they received tended to have higher levels of depressive symptoms than those with higher levels of satisfaction (see Appendix B, Table 4.1-3).

Summary

As found in previous research on visitation by never-married parents (Seltzer and Bianchi, 1988), most of the preschool-aged children in the Descriptive sample had infrequent contact with their biological fathers, and few received financial support from their fathers. Most of the mothers of these young children were very dissatisfied with the emotional and financial roles that the fathers played. However, it should be cautioned that information on father involvement was obtained from mothers only. Discrepancies between mothers' and fathers' reports of contact and child support payments might be apparent if information were also available from fathers.

Many mothers in the Descriptive sample had sources of emotional and instrumental support other than the child's father. Most mothers had frequent contact with members of their own families, and most reported that they had at least one person to turn to for emotional support. In addition, most respondents did not feel overburdened by others asking them for their support. Many women also had friends or relatives to turn to for economic or childrearing assistance, as well. However, mothers perceived instrumental support (e.g., economic assistance and help with childrearing) to be less available than emotional support. Moreover, there were subgroups of women who were more likely to report higher levels of both emotional and

instrumental support than others. Maternal characteristics measured at baseline including higher levels of education, not living in public or subsidized housing, higher levels of literacy, lower levels of depressive symptomatology, having a more internal locus of control, and low family barriers to employment were all associated with having higher levels of social support.

In conclusion, although many mothers on AFDC have access to social support, there are still groups of women who will likely have more difficulties coping with the challenges and stressors of mandatory participation in JOBS because of lack of emotional support or support for childrearing. Based on previous research, it is probable that women with higher levels of both emotional and instrumental support will be able to cope more successfully with the changes that are introduced into their families' lives.

CHAPTER 5
THE CHILDREN

Background

The JOBS Child Outcomes Study will examine whether and in what ways children's development is affected over time by mothers' JOBS participation. Rather than beginning with a clear, unidirectional hypothesis, however, the possible direction of effects for children, and even the possibility of any effects, remain open (Zaslow et al., 1995).

Thus, for example, there is ample evidence that both family income and maternal education are strong predictors of children's developmental status and academic achievement (Baydar, Brooks-Gunn, and Furstenberg, 1993; Desai et al., 1989; Duncan et al., 1994; Hauser and Mossel, 1985). It is therefore possible that children will benefit from mothers' assignment to participate in JOBS because of improvements in maternal education and family economic status. Further, previous research has shown welfare mothers to be at risk for lower self-esteem and sense of efficacy about events in their lives (Zill et al., 1991). JOBS participation may bring about improvements in mothers' sense of self-esteem or efficacy, for example, because of successful completion of an educational program or entry into the work force. Wilson and Ellwood (1993) and Zaslow and colleagues (1995) have hypothesized that such changes could have positive implications for children's interactions with their mothers and for their development.

Yet the possibility has also been raised that JOBS may have negative effects on children. Participants at a 1989 conference on the Family Support Act and Children, sponsored by the Foundation for Child Development, emphasized that the Family Support Act might "create new problems for children by adding strains to family life or by exposing children to poor substitute care arrangements" (Smith, Blank, and Collins, 1992, p.1). Maternal stress could be increased by JOBS participation because mothers may fear the possibility of sanctions, because the mandatory nature of the program may necessitate activities that conflict with their beliefs about appropriate maternal roles, or because of greater complexity in family schedules. Furthermore, as we will discuss in greater detail in Chapter 7, the quality of child care that children experience helps shape their development (Hayes et al., 1990). For children whose home environments lack cognitive stimulation and emotional support, child care quality may be an especially important contributor to development. If mothers' JOBS participation results in many of the young children being placed in child care of poor quality, then JOBS could well have negative implications for their development.

To complete the picture of possible patterns, we note that JOBS may have little or no impact on children's development if there is minimal program participation, or if mothers respond to JOBS in multiple but counterbalancing ways. For example, mothers may indeed show an increase in stress but simultaneously improve their educational status and family earnings. Finally, JOBS may have differing implications for different subgroups of children.

For example, children of mothers who were initially quite depressed and socially isolated may have outcomes that differ dramatically from those of children whose mothers had many sources of social support and who were not depressed (Moore, Zill, and Stief, 1990).

In sum, there are reasonable bases to hypothesize that JOBS will have positive effects on children, negative effects, differing effects for different subgroups, or virtually no effects. Participants at the conference on the Family Support Act and Children stressed the importance of examining these alternatives carefully, documenting the development of children at the time their mothers enter the JOBS Program and over a period of years (Smith et al., 1992). In the present report we take the first step in this direction, documenting the children's development in four areas (cognitive development, school readiness, personal maturity, and health) shortly after their mothers enrolled in the JOBS Evaluation.

Our prediction based on previous research must be that the children in the Descriptive sample, because of their family's disadvantaged circumstances, will be at risk in terms of their health and development at this early point in the study. Family poverty, especially persistent family poverty, is among the most powerful predictors of poor developmental outcomes for children (Duncan et al., 1994). Zill et al. (in press), analyzing data from the 1986 National Longitudinal Survey of Youth-Child Supplement (NLSY-CS), found that children from AFDC families, when compared with children from non-poor families, were more often reported to be in poor health, had more often repeated a grade in school, had lower scores on a measure of cognitive development, and exhibited more behavior problems.

While the developmental status of children from AFDC families was less positive than that of non-poor children, Zill and colleagues (in press) found comparable problems among children from poor families not receiving AFDC. Their rates of health and behavior problems were found to be similar to those of children in AFDC families, though measures of academic and cognitive achievement were somewhat better for these children. Thus, the developmental status of children from welfare families may have more to do with economic deprivation than with the fact that their families receive welfare benefits.

Zill et al. (in press) stress that there is also heterogeneity among children in AFDC families in terms of development. Just as Duncan et al. (1994) found enduring family poverty to have particularly negative implications for children's development, Zill and colleagues found less positive development particularly in families with longer welfare duration. These findings suggest that it would be valuable to carry out a detailed examination of the development of the children in the Descriptive sample in light of mother and family characteristics. Because previous literature (e.g., Zaslow and Hayes, 1986) suggests gender differences in children's response to psychosocial stress, we examine gender as a subgroup variable for these analyses.

Key Questions for Chapter 5

- **At this early point in the JOBS Evaluation, is there evidence that the focal children in the Descriptive sample are faring poorly in terms of their cognitive development, school readiness, socioemotional development, or health?**
- **Which subgroups of children are showing particularly poor developmental status?**
- **Looking at all of the children in the family, what is the burden that mothers in the sample are facing in terms of health, emotional and behavioral problems in their children?**

Before presenting the findings regarding the development of children, we provide a brief overview of the characteristics of the children and of the measures used to assess their developmental status and health.

Characteristics of the children

The 790 children were generally between the ages of three and five at the time the mother was randomly assigned to the JOBS Program. These children are fairly evenly divided among children ages three (34 percent), four (42 percent), and five (23 percent), with only nine six-year-olds (1 percent).[31] Approximately equal proportions are male (48 percent) and female (52 percent).

Measures

Children's developmental status was measured across several domains in order to provide a broad picture of child well-being. Two measures of cognitive development were obtained, as well as a measure of socioemotional development and a measure of health status.

The **Peabody Picture Vocabulary Test - Revised**[32] is a measure of receptive vocabulary appropriate for children ages two and older, as well as adults (Dunn and Dunn, 1981). Peabody Picture Vocabulary Test scores are highly correlated with measures of both intelligence and school achievement. To administer the test, the interviewer reads a word (such as "elbow" or "feather"), and the child is asked to choose one of four pictures that best portrays that word. Each child begins at a point expected to be easy for a child of that age. Words become progressively more difficult, until the child reaches a point at which he or she misses several words in succession, at which point the test stops. Raw scores on the Peabody Picture Vocabulary Test are converted into standard scores, based on the child's age. In the Peabody Picture Vocabulary Test standardization sample, the mean standard score is 100, with a standard deviation of 15. The Peabody is sometimes criticized for cultural biases, particularly the

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[31] These children turned six either shortly before or after their mothers' random assignment dates.

[32] Although we used the revised (1981) version, hereafter we refer to the test as the Peabody Picture Vocabulary Test.

possibility that it underestimates the cognitive abilities of minority children. At the same time, we note that empirical research (e.g., Bracken and Passe, 1983; Kutsick, Vance, Schwarting and West, 1988) suggests that the measure is a good predictor of IQ scores and achievement among at-risk preschoolers, and is a predictor of IQ scores for African American as well as white children (Halpin, Simpson, and Martin, 1990). Because of concerns about possible racial bias with this measure, we will present comparative data from a national survey for African American children only.

The **Caldwell Preschool Inventory** is a 32-item inventory of skills and concepts important for preschool children to know before entering school (Caldwell, 1970). Areas assessed include knowledge of colors, shapes, and numbers; ability to follow directions; understanding of relationships such as "under" or "behind;" and knowledge of the meaning of words such as "dentist" or "breakfast." The 32-item version of the Preschool Inventory has been used in other large-scale evaluations, including the National Day Care Study, the Head Start Planned Variation study, and the evaluation of Even Start. Several of these studies have shown that Preschool Inventory scores are sensitive to positive effects of developmentally oriented preschool programs. The Preschool Inventory is a useful complement to the Peabody Picture Vocabulary Test because it measures abilities directly related to school success, whereas the Peabody Picture Vocabulary Test is typically viewed as a measure of general cognitive ability.

The Preschool Inventory was administered to the child by the interviewer. Scores on the Preschool Inventory represent the total number of items that the child answered correctly, and may range from 0 to 32. Age-corrected norms are not available, and thus it is expected that Preschool Inventory scores will vary markedly according to child age.

The **Personal Maturity Scale** is a 14-item mother report measure of the child's socioemotional development and personal maturity adapted from the 1976 National Survey of Children. The Personal Maturity Scale includes items such as "Doesn't concentrate, doesn't pay attention for long" and "Is loving and affectionate," which the mother rates on a scale from 0 (my child is not at all like that) to 10 (my child is exactly like that). For the current report, summary scores on the Personal Maturity Scale were computed to indicate the mother's mean response on the 0 to 10 scale across all 14 items.

In the Beginning School Study, a study of children's academic and social development from the first grade forward, teacher-reported scores on the Personal Maturity Scale predicted parental and child expectations for the child's achievement, parents' estimate of the child's academic ability, and child's end-of-year grades, net of the child's performance on standardized tests (Alexander and Entwisle, 1988). These findings suggest that the Personal Maturity Scale provides a valid measure of socioemotional development that also has important implications for later academic performance. However, Alexander and Entwisle used teachers' reports of children's maturity while we obtained mother report. Other research (e.g., Achenbach, McConaughy and Howell, 1987) has shown that teacher and parent report of children's behavior

and competence are only moderately correlated, and we are not aware of prior research using mother report on the Personal Maturity Scale to predict children's achievement.

Child health status was determined from two mother-report items. First, mothers rated their child's health on a five-point scale ranging from "excellent" to "poor." In addition, mothers reported whether their child has a disability, illness, emotional problem or mental condition that limits the child's ability to attend school or engage in other activities. These two items are combined to form an overall rating of child health, identifying those children whose mothers describe them as in excellent health with no limiting condition. As noted previously, relying on maternal report has some limitations; however, no objective data on child health are available.

Each of our measures of developmental status for children in the Descriptive sample can be placed in the context of other work using the same measure on children of the same or similar age. The Peabody Picture Vocabulary Test has national norms to which we can relate the results for the Descriptive sample, and was also administered to children in the National Longitudinal Survey of Youth-Child Supplement (NLSY-CS). The Preschool Inventory was administered to a sample of 1,477 children in the evaluation of the Even Start program, which provided early childhood education, adult education, and parenting classes to low income families. The Personal Maturity Scale was used in the research of Alexander and Entwisle (1988) on achievement in the first two years of school. Finally, a similar indicator of child health status was used in the National Health Interview Survey on Child Health (NHIS-CH).

Findings

- **Children in the Descriptive sample had mean Peabody Picture Vocabulary Test scores that were lower than the means on this measure for African American children from welfare and non-poor families in a national sample.**

The mean on the Peabody Picture Vocabulary Test for the Descriptive Study children was 70. Analyses of 1986 data from the NLSY-CS were conducted to permit comparison of the mean Peabody Picture Vocabulary Test score in the Descriptive sample to that for African American children from non-poor and welfare families in this national data set.

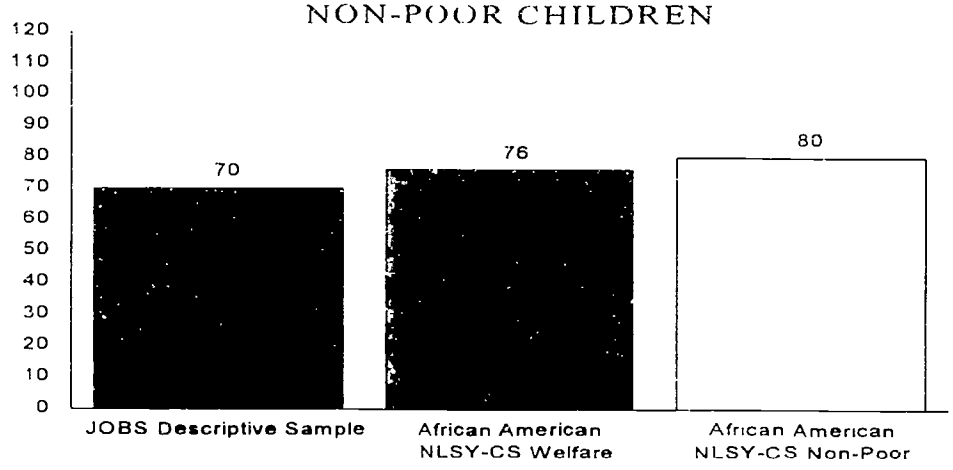
Analyses with the NLSY-CS are reported here for African American children only because of the possibility of racial bias with this measure. Although the Peabody Picture Vocabulary Test predicts to measures of intelligence for black as well as white children (Halpin et al., 1990), minority children score lower on the Peabody Picture Vocabulary Test than non-minority children. There is thus the possibility that this measure under-assesses receptive vocabulary for minority children. In order to determine whether children in the Descriptive sample show indications of risk in this aspect of their cognitive development, the key comparison is not with all children of the same ages from a national sample (since this comparison might show differences that are attributable simply to the racial composition of the samples and their

differing performance on this assessment), but rather with African American children of the same ages from the national sample.

Figure 5.1 shows mean scores on the Peabody Picture Vocabulary Test-Revised for children from the Descriptive sample, and African American children from the national sample from welfare and from non-poor families. Three-to-five-year-old African American children in the national sample whose families were not poor had mean scores of 80, while children whose families were currently on welfare had mean scores of 76. With a standard deviation of 15 on this measure, children in the Descriptive sample scored .4 of a standard deviation lower than welfare children of the same racial/ethnic background in the national sample, and approximately two-thirds of a standard deviation below non-poor children in the national sample.

FIGURE 5.1

MEAN PEABODY PICTURE VOCABULARY TEST-REVISED SCORES FOR DESCRIPTIVE SAMPLE CHILDREN AND AFRICAN AMERICAN CHILDREN IN A NATIONAL SAMPLE OF WELFARE AND NON-POOR CHILDREN



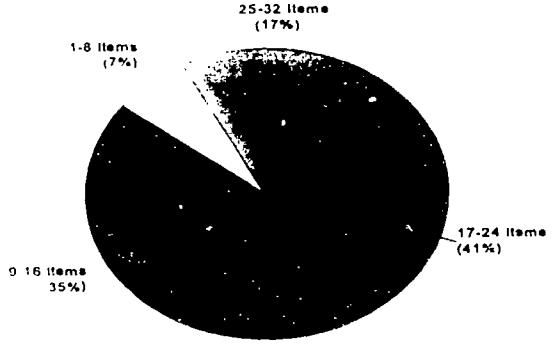
We conclude that children in the Descriptive sample are showing some indication of developmental risk in terms of their receptive vocabulary. As will be noted later, within the Descriptive sample scores on the Peabody Picture Vocabulary Test were related to duration of welfare receipt by the child's family. The fact that children in the Descriptive sample scored lower on this measure than African American children from welfare families in a national sample may reflect the tendency towards longer welfare receipt in the Descriptive sample.

- **On average, children scored correctly on 56 percent of the items on the Preschool Inventory.**

Children on average, answered 18 out of the 32 items on the Preschool Inventory correctly. Figure 5.2 shows the distribution of scores. As can be seen, a substantial proportion of children in the sample (42 percent) answered half or fewer of the items correctly.

FIGURE 5.2

NUMBER OF ITEMS ON THE PRESCHOOL INVENTORY ANSWERED CORRECTLY



Consistent with our expectation that scores would increase with age, children between 3-0 (3 years, 0 months) and 3-11 completed 14 Preschool Inventory items on average, while children between 5-0 and 5-11 completed 23 items on average. However it must be noted that even the oldest children in the Descriptive sample missed 9 items on average, or approximately a quarter of these questions relevant to readiness for school.

In the Even Start evaluation, the Preschool Inventory was administered to 1,477 children ages three through five at the time of the child's entry into the Even Start program (St. Pierre, Swartz, Murray, Deck, and Nickel, 1993). Although a low income sample, the Even Start sample is somewhat more heterogeneous than the Descriptive sample, with only about half of the Even Start participants receiving their primary income from government assistance, and with almost half of participants living in two-parent families. Yet at the same time, the parents' educational attainment was generally lower than that of the JOBS population: only about 20 percent of Even Start participants had either a high school diploma or GED.

As with the JOBS sample, age-related increases on Preschool Inventory scores were evident in the Even Start sample, with average scores ranging from 10 for three-year-olds to 17 for five-year-olds. However, the average pretest Preschool Inventory score for the Even Start sample was 13 (St. Pierre et al., 1993), significantly lower than that for the JOBS sample.[33] This

[33] For the difference between these two means, $t(2231) = 16.56$, $p < .001$

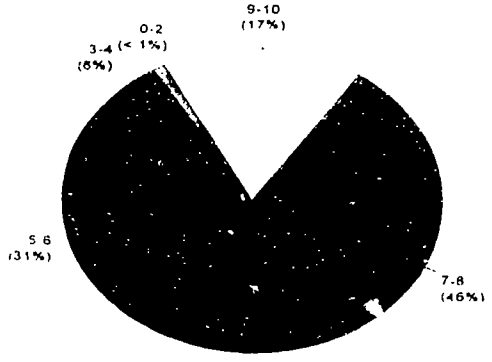
finding suggests that parental education may be a particularly important factor in young children's school entry skills.

- **On average, mothers describe their children as showing fairly high levels of maturity and few problems in terms of their emotional and behavioral development.**

The average score on the Personal Maturity Scale for children was eight. Given that an overall mean of 0 would indicate mothers' perception of an absence of personal maturity in the child, and a mean of 10 would indicate very high levels of maturity, the sample mean of 8 suggests that on average, mothers give their children fairly high ratings on maturity. Figure 5.3 illustrates the distribution of scores.

FIGURE 5.3

MEAN RATINGS ON THE PERSONAL MATURITY SCALE



NOTE: A mean score of 0 indicates a lack of maturity and higher level of behavior problems, while a score of 10 indicates higher levels of personal maturity and fewer behavior problems.

Because the response scale for the Personal Maturity Scale was adapted for the current study, we can relate findings from the present sample to those from the Beginning School Study in a broad rather than precise manner. In the Beginning School Study, which focused on first and second graders, the average Personal Maturity Scale score for African American children in the first grade also indicated that teachers perceived children as relatively mature. The average score on a six-point scale was about five points for African American children, such that items reflecting more maturity were rated as between "pretty much like" and "very much like" the average child (Alexander and Entwisle, 1988).

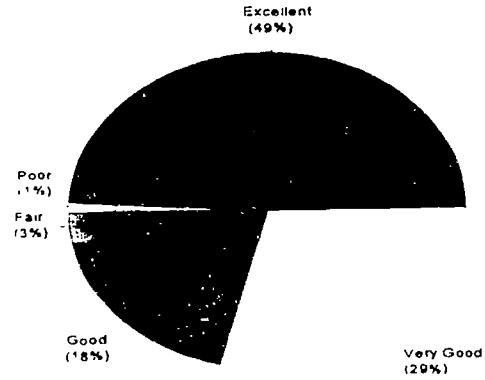
- **Approximately half of the children were described by their mothers as in excellent health with no limiting condition.**

Figure 5.4 shows the distribution of mothers' ratings of their child's health. Approximately half of the mothers (49 percent) described their child's health as "excellent," and a further 29 percent described the children's health as very good. Thus, more than three out of four children were rated by their mothers as currently in excellent or very good health. This

portrayal of the children's health is in keeping with the fact that health problems in the child were a basis for mothers' exemption from JOBS.

FIGURE 5.4

MOTHERS' RATINGS OF THEIR CHILD'S CURRENT HEALTH STATUS



Nine percent said that their child had a disability, illness, emotional problem or mental condition that limited the child's ability to attend school or engage in other activities, and the most common such problem was asthma (reported by 46 percent of mothers whose child had a condition that limited the child's activities). Other conditions reported included blood disorders or immune deficiency (9 percent of those with a condition), heart trouble (7 percent), and speech impairment (7 percent).

When the item describing the child's health and the item concerning conditions that limited the child's activities were combined to form an overall rating of child health status, 47 percent of children were described as in "excellent health with no limiting condition." A similar (though not identical) composite rating of health and limiting conditions was constructed using data from the NHIS-CH.[34] In the national subsample of children ages three to five, the proportion described as in excellent health with no limiting conditions was 38 percent among families receiving welfare, 42 percent among families that were poor but not on welfare, and 52 percent among non-poor families. Thus, the proportion of children receiving a positive health rating was somewhat higher in the Descriptive sample than in the NHIS-CH sample of welfare families, with the NHIS-CH definition of health limitations being more encompassing (see previous footnote). In neither sample did a majority of children from welfare families receive the most favorable health rating.

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[34] In the Descriptive survey, mothers reported on disabilities, illnesses, emotional problems or mental conditions that interfered with the child's activities. In the NHIS-CH, however, parents reported the existence of physical disability or illness that interfered with the child's activity, but were asked to report on the presence of mental or behavioral problems, *regardless of whether they interfered with activities*. Thus, it is not surprising that parents in the NHIS-CH would report more conditions than would mothers in the Descriptive sample, and thus would have fewer children in the "excellent, no limiting condition" category.

The relatively favorable health of the Descriptive sample compared to the national sample may also reflect the fact that AFDC recipients who care for an ill or incapacitated family member are exempt from the JOBS Program. That is, children in particularly poor health would be excluded from the Descriptive sample.

- **The children at greatest developmental risk were those whose mothers had one or more of the following characteristics at baseline: they had not completed high school or obtained a GED, received lower reading and math literacy scores, had a more external locus of control, and perceived more barriers to their own employment. Boys were also consistently at greater risk than girls.**

Children's scores on the Peabody Picture Vocabulary Test, the Preschool Inventory, the Personal Maturity Scale and the health status rating were all examined in light of subgroups formed on the basis of data collected at baseline. For these analyses, we examined child gender as a subgroup variable. Previous research (e.g., Zaslow and Hayes, 1986) suggests that boys may be more vulnerable to psychosocial stress than girls. Thus, it is important to consider whether boys in this sample are exhibiting poorer development at the outset of the JOBS Program, and then when follow-up data are available, to consider whether program impacts differ for families with boys and with girls. Table 5.1 shows adjusted means of each measure for the various subgroups.

Controlling for the influence of child age and research group (and child gender, except for analyses of gender differences), a similar picture emerged when baseline subgroups were examined in relation to all four measures of development. First, boys consistently showed poorer development than girls. In addition, several maternal characteristics were associated with children's development. Children's development was significantly more negative across all four outcome measures when mothers had not completed high school or obtained a GED, and when they had lower scores on reading and math literacy tests. Children also fared worse across all measures of development when their mothers had an external rather than internal locus of control, and when mothers perceived more family barriers to their own employment.

TABLE 5.1

CHILDREN'S ADJUSTED MEANS ON PEABODY PICTURE VOCABULARY TEST-REVISED, PRESCHOOL INVENTORY, AND PERSONAL MATURITY SCALE, AND ADJUSTED PERCENTAGE OF CHILDREN WITH FAVORABLE HEALTH RATING FOR SUBGROUPS BASED ON CHILD GENDER, MOTHERS' DEMOGRAPHIC CHARACTERISTICS, LITERACY LEVELS, AND PSYCHOLOGICAL WELL-BEING

Measure	PPVT-R (Mean)	PSI (Mean)	PMS (Mean)	Child in Excellent Health/No Disability (Percent)
Total Sample	70.04	17.84	7.45	50
Child Gender				
Male	68.65*	17.12***	7.34*	46*
Female	71.38	18.53	7.56	54
Received high school diploma or GED				
No	66.40	16.72	7.17	40
Yes	71.55***	18.49***	7.60***	52**
Number of children (a)				
One	73.34***	18.61***	7.59	55*
Two	71.63***	17.99***	7.49	45
Three or more	65.02	16.50	7.35	43
Total prior AFDC receipt (b)				
Less than 2 years	74.79	19.05	7.94	50
2 years or more, but less than 5 years	70.57**	18.18	7.47**	51
5 years or more	67.41***	16.75***	7.15***	42
Current Housing Status (c)				
Public, emergency or temporary housing	65.94***	16.81***	7.27**	49
Subsidized housing	71.71	17.65	7.51	44
None of the above	72.94	18.51	7.60	53
Score on TALS literacy test				
Level 1 or 2	67.70	16.93	7.10	42
Levels 3 through 5 (higher literacy skills)	72.90***	18.84***	7.88***	52**

(continued)

Table 5.1, continued

Measure	PPVT-R (Mean)	PSI (Mean)	PMS (Mean)	Child in Excellent Health/No Disability (Percent)
Score on GAIN Appraisal math test				
Level A or B	67.83	17.19	7.18	45
Level C or D (higher math skills)	73.80***	18.94***	7.87***	54*
Depression Scale				
Low a little depressive symptoms	70.01	17.92	7.52	50
Moderate high depressive symptoms	70.91	18.10	7.06**	51
Locus of Control Scale				
More external locus of control	68.27	17.23	7.11	45
More internal locus of control	70.86*	18.59***	7.72***	53*
Perception of barriers to going to work				
Few barriers	71.34	19.84	7.79	59
Many barriers	68.64*	18.98*	7.16***	44***
Social Support				
Low	70.31	17.89	7.39	43
High	69.93	17.99	7.53	57***
Sample Size (Unweighted) (d)	765	751	771	787

SOURCE: Child Trends, Inc. calculations of Fulton County Descriptive Study data.

NOTES: Unless otherwise mentioned, all analyses use weighted data. The Peabody Picture Vocabulary Test-Revised (PPVT-R) is a standard score, the Preschool Inventory (PSI) is a total score, and the Personal Maturity Scale (PMS) is a mean score. OLS regression analyses were conducted for the PPVT-R, PSI and PMS scales, logistic regression analyses were used for child health rating. All analyses control for child's age and research group status and, except for analyses of gender differences, also control for child gender. Means and percentages were adjusted for control variables. For example, holding age, gender, and research group constant, the mean PPVT-R score for children whose mothers did not receive a high school diploma or GED was 66.40.

A t-test statistic was applied to differences between subgroups. Statistical significance levels are indicated as ***p <.001; **p < .01; *p < .05.

(a) Significance levels are in contrast to families with three or more children.

(b) Significance levels are in contrast to families with less than two years of AFDC receipt.

(c) Significance levels are in contrast to families living in non-public, non-subsidized housing.

(d) Sample sizes are unequal due to missing data.

Beyond these common patterns across all four developmental indices, several additional subgroup differences were apparent for only some of the outcome measures. For example, children living in families with three or more children had lower scores on the Peabody Picture Vocabulary Test and Preschool Inventory, and a less favorable health status, than those living with no other children. Children also achieved lower scores on the Peabody Picture Vocabulary Test, Preschool Inventory, and Personal Maturity Scale when their families lived in public housing, or when their mothers had received welfare for five years or more. Other subgroups were associated with lower scores on just one or two measures of child well-being also (see Appendix B, Table 5.1-1 to 5.1-4).

- **Children other than the focal child may also have health or other problems that present a barrier to mothers' JOBS participation.**

Seventy-two percent of mothers have children other than the focal child also living in the household. The vast majority of these children are the mother's birth children, although a few step- or adoptive children were reported. To be included in the JOBS Evaluation in Fulton County, the mother could have no children younger than age three; thus, the other children in the household are generally older than the three- to five-year-old child.[35] The average age of the mothers' other children was nine years.

Eight percent of the mothers said that one of their children (including the focal child) had an illness or disability that demanded a lot of her attention or interfered with her ability to work. (Information on the nature and severity of these problems was not obtained.) In addition, 15 percent of the mothers reported that one of their children (including the focal child) had an accident, injury or poisoning requiring medical attention in the previous year.

Among those mothers with school-aged children, five percent said that one or more of these children was limited from attending school because of a health problem. Ten percent reported that one or more of their school-aged children had a learning problem that required special help. Nine percent reported that one or more of their school-aged children either received or needed help for an emotional, mental, or behavioral problem in the past year.

Summary

Children in the Descriptive sample appear to be faring poorly, particularly in terms of their cognitive development. Maternal reports of personal maturity and behavior do not indicate a problem in this area, although it must be noted that assessments of the child by an impartial observer might result in a differing conclusion. Although most children were rated by their

[35] In a few cases a mother had more than one child between the ages of three and five. In such cases, one child of this age was randomly designated the "focal child."

mothers as in excellent or very good health, 9 percent reported that the focal child had a health limitation.

Children at greatest risk close to the start of the JOBS Evaluation are those whose mothers have the least education, lower reading and math literacy skills, feel the least control over events in their lives, and perceive the most barriers to employment. Children who live in large families or in public housing, or whose mothers have received welfare for several years, are also at greater risk.

Finally, when mothers were asked to consider all of their children, a substantial minority (8 percent), reported that they had a child (including the focal child) with an illness or handicap that demanded a great deal of attention or interfered with their ability to work.

CHAPTER 6
HOME ENVIRONMENTS

Background

Poverty appears to affect children's development in multiple ways. Clearly, individuals with certain characteristics may be more likely to be poor, and thus selectivity effects may help explain impacts of poverty on children. In addition, however, it appears that poverty can affect children though a lack of material resources, through the quality of health and other services available to the family, the physical and social characteristics of poor neighborhoods, and through the home environment. Although the research is clear that each of these factors is important, "most concede that the quality of parenting children receive and the general conditions of their physical surroundings may play the largest role" (Bradley et al., 1994, p. 347).

If we are to understand the development of children in the Descriptive sample, it is of particular importance that we describe the children's home environments. A portrayal of the home environments of the children at this early point in the JOBS Child Outcomes Study will permit us to: (1) understand the degree to which children in the Descriptive sample, relative to other children, come from home environments that can be described as supportive and stimulating; (2) examine the variability of the children's home environments in relation to maternal and family background characteristics; and (3) provide a reference point, early in the study, for understanding any later changes in the home environment or changes in the children's development brought about by JOBS participation.

The body of research on the home environments of families in poverty is increasingly specifying which parenting behaviors and features of the home environment are affected by economic hardship, and how these differences come about within families. We briefly review the evidence on these issues before providing a portrayal of the home environments of the young children in the Descriptive sample.

Economic hardship and specific features of the home environment. Research points to differences between poor and non-poor families in terms of both the emotional supportiveness and cognitive stimulation of interactions within the home. For example, using the short form of the Home Observation for Measurement of the Environment (the HOME-SF; Baker and Mott, 1989), a measure that taps both the support and stimulation in the home environment, Garrett and colleagues (1994) found that poverty was significantly predictive of a less positive home environment above and beyond the influence of child, mother, and household characteristics in families with young children.

Recent work permits us to make more specific statements about which aspects of the home environment are most affected by poverty. Looking first at the affective quality of parent-child interaction, on average parents enduring economic hardship appear to use harsher disciplinary practices and to express greater irritability and less warmth towards their children.

In work by McLoyd and colleagues, for example (McLoyd, Jayaratne, Ceballo, and Borquez, 1994), unemployment among single African American mothers was found to be associated with more punitive and coercive disciplinary practices. Conger and colleagues found economic pressure in intact families to be associated with greater expression of hostility to adolescent children (Conger, Ge, Elder, Lorenz, and Simons, 1994). Dodge, Pettit, and Bates (1994) confirm the association of lower socio-economic status and harsh disciplinary practices for children in the preschool years. In addition they find low income to be associated with a diminished expression of warmth and affection. These patterns of interaction are in turn associated with less optimal adjustment in the children. For example, the harsher interaction patterns documented by McLoyd et al. (1994) and Conger et al. (1994) had adverse effects on adolescent socioemotional adjustment.

In the area of cognitive stimulation, findings indicate that children from low income families, on average, receive less stimulation related to language and literacy development (Walker, Greenwood, Hart, and Carta, 1994). More specifically, they are exposed to fewer books and cognitively stimulating toys. Parents in low income families, on average, appear to engage their children less often in language games and in interactions that elicit child speech. Parents in poor families, on average, appear to be less encouraging of intellectual accomplishment (Walker et al., 1994).

It is crucial to note that while research finds families in poverty to be less supportive and stimulating on average, there is also substantial variation among poor families. As stated by Bradley and colleagues, "Poverty is not isomorphic with inadequate parenting. That is, the quality of the home environment is not uniform across families living in poverty" (1994, p. 347). In keeping with this portrayal, Zill et al. (in press), looking at AFDC families, poor non-welfare, and non-poor families with three- to five-year-olds in the 1986 National Longitudinal Survey of Youth-Child Supplement (NLSY-CS), found a higher proportion of AFDC than non-poor families to have HOME-SF scores that fell into a category of "least stimulating and supportive home environments." Yet at the same time, fully 34 percent of the AFDC families in the sample studied had home environments that were characterized as "supportive."

The implications of these findings for the Descriptive sample are twofold. First, it will be critical to look at both the socioemotional and the cognitive aspects of stimulation in the home. Both aspects appear to differ between poor and non-poor families. Second, we should not expect the sample to be homogeneous with respect to the home environment. It will be important to describe and examine the basis for (as well as implications of) variability in home environments within the sample.

Associations between poverty and parenting behaviors. Research conducted during the Great Depression found that children were not directly affected by the economic hardships their families were experiencing, but rather were indirectly affected by the psychological distress the hardship caused their parents, which in turn was associated with irritable and punitive parenting behavior (research reviewed in McLoyd, 1990; McLoyd et al., 1994). This same

sequence (economic hardship, parental psychological distress, parenting behaviors, child outcomes) has now been documented in a number of studies of maternal behavior under current economic conditions.

In their sample of African American single mothers, for example, McLoyd et al. (1994) found current unemployment of the mother to be associated with increased maternal depression. Maternal depression in turn predicted the heightened punitiveness in mother-adolescent interactions that was associated with depressive symptoms and distress in the adolescents. Studying African American families with young children, Leadbeater and Bishop (1994) also found maternal depression to be an important predictor of child behavior problems.

Several studies have reported that the availability of social support can be an ameliorative factor in this chain. For example, Hashima and Amato (1994) report that perceived social support was negatively related to punitive behavior with young children, particularly among low income families. McLoyd and colleagues (1994) report that mothers with more social support reported fewer depressive symptoms and less punishment of their adolescents. Leadbeater and Bishop (1994) found greater perceived emotional support by mothers to be associated with fewer child behavior problems in the preschool period.

In the present context, it will be important to document the relation between baseline measures of maternal depression and social support, as well as extent of economic deprivation (best captured by welfare duration), and parenting behavior at the time of the Descriptive survey.

Reliance on the HOME-SF for reporting on the home environments of families. Although in the Descriptive survey we asked mothers and interviewers to report on numerous aspects of parenting behavior and the home environment, in the present report we will restrict our analyses to those measures that comprise the short form of the HOME Scale.[37] Our analyses with the HOME-SF focus on 25 items,[38] based on either maternal report or interviewer rating. The combination of these two sources of information provides an advantage over reliance on maternal report alone, because mothers may wish to portray themselves as uniformly supportive. The total score for a family indicates the number of items out of the 25 that were scored favorably (indicating both cognitive stimulation and emotional support of the child). The socioemotional and cognitive stimulation subscales consist of 11 items and 14 items, respectively, with a family's score on each subscale indicating the number out of these items that were scored favorably.

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[37] Methodological work is in progress with the full set of parenting measures collected as part of the Descriptive Study to examine whether new composite measures tapping more specific parenting constructs can be created that are reliable and valid. Depending on the results of this methodological work, future reports of the JOBS Child Outcomes Study may go beyond the HOME-SF to describe the home environment.

[38] One item from the HOME-SF, focusing on contact with the child's father was considered inappropriate for the present sample given the infrequent contact between children in the sample and their fathers (see Chapter 4). This item was omitted from analyses with the Descriptive Study sample as well as the comparative analyses carried out with NLSY-CS data.

Our reliance in this report on the HOME-SF is in part based on the fact that this same measure is also available in a national data set, the NLSY-CS. We will thus be able to examine data from our sample in relation to that for both AFDC and non-poor families in the NLSY-CS. Other analyses looking at the HOME-SF within the NLSY-CS indicate that this measure is closely related to several different indices of family poverty, and further, that the HOME-SF is sensitive to small increments in family income, particularly when looking at the home environments of children born into poverty (Garrett et al., 1994; Moore et al., 1994). Finally, the full HOME Scale (Caldwell and Bradley, 1984), from which the HOME-SF is adapted, has been found to be related to measures of child cognitive development and IQ, developmental delay, and poor school performance (Bradley et al., 1989; Elardo, Bradley, and Caldwell, 1975; Gottfried, 1984), all important outcomes in the Descriptive sample.

Key Questions for Chapter 6

- **What are the home environments of the families in the Descriptive sample like?**
- **How do the Descriptive Study families compare to other welfare, non-welfare poor and non-poor families in terms of the home environment?**
- **Are the cognitive stimulation and emotional support available to the child in the home related to maternal depression, social support, and the extent of economic deprivation? To other baseline characteristics?**
- **Is there evidence that stimulation and support in the home environment at the time of the Descriptive survey are related to the available measures of children's development?**

Findings

- **In the large majority of families, the home environment was described as safe and organized.**

The HOME-SF cognitive stimulation items describe the safety and organization of the home environment, materials like books available to the child, and direct interactions and outings with the child that foster cognitive development. Interviewers rated the home environment as safe and organized for the large majority of families in the Descriptive sample. For example, in only 8 percent of the families did the interviewer rate the play environment of the child as having physical hazards, and in only 16 percent of the families did the interviewer rate the home as dark or perceptually monotonous.

- **Most mothers reported that someone in the home was helping the child with basic academic skills, such as learning colors and shapes. By contrast, cognitively stimulating material resources in the home, stimulating outings outside of the home, and opportunities to read with the mother, were less consistently available to the children.**

Almost all of the mothers reported that someone at home was helping the child to learn colors, numbers, the alphabet, shapes and sizes. For example, 98 percent of the mothers reported that the child received such help at home for learning numbers. However, only 59 percent of the children in the sample had 10 or more books of their own, and only 45 percent of the children in the sample had use of a record player or tape recorder and at least five children's records or tapes. While 70 percent of the mothers reported that the child went on outings with a family member two to three times a month or more often, only 54 percent of the mothers reported an outing to any type of museum in the past year. Only 45 percent of the mothers reported that they read stories to the child more than once a week.

- **Emotional support available to children also presented a mixed picture.**

The emotional support subscale of the HOME-SF includes items describing the emotional tone of the mother's interactions with her child, observed and reported physical punishment of the child, and structuring of the child's day so as to provide choices and support.

In some ways, children appeared to be living in emotionally supportive home environments. The large majority of mothers were rated by the interviewers as conversing with the child at least twice in a positive tone during the interview (83 percent) and talking in a way that conveyed positive feeling about the child (91 percent). Physical punishment was rarely observed during the course of the interview. Only 1 percent of the mothers were observed to slap or spank the child. Giving the child latitude in selecting foods is viewed as providing the child with an opportunity for decision making, and the large majority of children were given latitude in choosing what they ate at breakfast or lunch (78 percent).

Yet in other ways emotional support was more limited. While physical punishment was rarely observed during the course of the Descriptive survey, by their own report, 26 percent of the mothers had spanked their children twice or more over the course of the past week. Few of the children (13 percent) ate a daily meal with both their mother and father or a father figure. (As reported in Chapter 4, however, 98 percent of the children's fathers do not live in the household.) In addition, during the home visit, only 28 percent of the mothers introduced the interviewer to the child by name.

In sum, it appears that on some measures the children in the Descriptive sample quite consistently received positive cognitive stimulation and emotional support, while on other measures stimulation and support were less available. We turn now to the question of how the

composite measures of cognitive stimulation and emotional support in the Descriptive sample compare with levels reported in other samples.

- **Mean scores on the HOME-SF (total score as well as socioemotional and cognitive subscales) were slightly higher in the Descriptive sample than in a national sample of AFDC families with three- to five-year-old children, but these small differences were not always significant.**

As noted above, Zill et al. (in press) have previously examined HOME-SF total and subscale scores for AFDC and non-welfare families in the 1986 wave of the NLSY-CS. For the present report, we update the work of Zill and colleagues, looking at the HOME-SF total and subscale scores of families with three- to five-year-olds in a more recent wave of the NLSY-CS data set, that from 1988. We will be using a 1988 NLSY-CS sample that randomly selected one preschool-aged child per family. We can, in this way, compare the identical measure of the home environment across two AFDC samples with young children. In addition, we can contrast both AFDC samples with poor families not receiving welfare and with non-poor families in the national sample.

We should guard against the assumption that the Descriptive sample and the NLSY-CS welfare sample should look identical in terms of the home environment. Indeed, the two samples differ in certain key respects. The NLSY-CS sample includes a higher proportion of mothers who gave birth for the first time as teenagers. Further, the mean age of the mothers in the NLSY-CS welfare sample is younger than in the Descriptive sample. Consistent with our previous report that a high proportion of mothers in the Descriptive sample have taken strong steps to limit their fertility, family size in the NLSY-CS welfare sample is larger than that in the Descriptive sample. Finally, mothers in the Descriptive sample are almost all African American, while this is not the case in the NLSY-CS welfare sample. In general, the NLSY-CS welfare sample appears to be an even more disadvantaged sample of welfare mothers with preschoolers than the Descriptive sample. Our recurring observation of heterogeneity among welfare families is further underscored by these differences between the two samples.

Table 6.1 shows means for the HOME-SF total score, emotional support subscale and cognitive stimulation subscale for the Descriptive sample, and the NLSY welfare, non-welfare poor and non-poor families with three- to five-year-olds.[39] As can be seen, Descriptive Study families have mean scores that are slightly, but significantly, higher than those of the NLSY-CS welfare families on the total score and cognitive subscale, and similar to those of NLSY welfare families on the socioemotional subscale.

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[39] T-tests for independent samples were calculated to compare the means for the Descriptive Study sample to the NLSY-CS sample

TABLE 6.1
MEANS OF HOME-SF SCALES FOR DESCRIPTIVE AND NLSY-CS DATA SETS

HOME Scale	Descriptive Sample (a)	NLSY-CS 1988 (b)		
		Welfare Families	Poor, Non-welfare Families	Non-poor, Non-welfare Families
Total HOME Scale (Range 0-25)	17.06	16.38**	17.68**	19.94***
Cognitive Stimulation Subscale (Range 0-14)	10.51	10.04**	10.65	12.00***
Socioemotional Subscale (Range 0-11)	6.56	6.35	7.03***	7.94***

SOURCE: Child Trends, Inc. calculations of Fulton County Descriptive Study Survey data and National Longitudinal Survey of Youth-Child Supplement (NLSY-CS) data, 1988 cohort.

NOTES: Table values are based on weighted data.

(a) T-tests for independent means were conducted to compare the mean for the Descriptive sample to the means for the NLSY-CS subgroups. Asterisks indicate NLSY-CS groups that differ from the Descriptive sample. ** $p < .01$, *** $p < .001$.

(b) A pairwise comparison of means was conducted within the above NLSY-CS subgroups. All differences between means in each subgroup were significant at least at the .05 level.

- **Mean scores on the HOME-SF were higher for the non-poor families in the NLSY-CS than for the welfare families in either sample.**

Comparisons of the means in Table 6.1 show that non-poor families in the NLSY-CS had higher scores on the HOME-SF total scale, emotional support subscale and cognitive stimulation subscale than families in the Descriptive sample. Within the NLSY-CS sample, statistical comparison of the means in the three groups indicates that non-poor families had significantly higher scores on all three measures of the home environment than either welfare or poor non-welfare families.

- **Comparable proportions of Descriptive Study and NLSY-CS welfare families can be characterized as showing "low" levels of stimulation and support in the home environment. However, a smaller proportion of Descriptive Study than NLSY-CS welfare families could be characterized as showing "very low" levels of stimulation and support.**

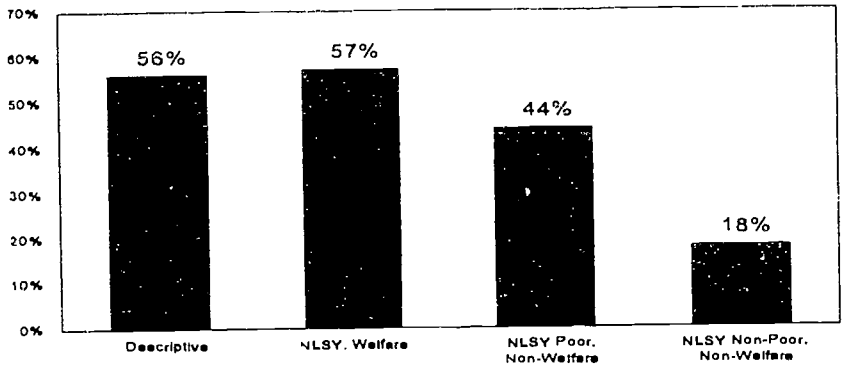
As had Zill and colleagues (in press), we used the distribution of scores in the NLSY-CS sample of three- to five-year-olds to demarcate differing levels of stimulation and support in the home environment on the HOME-SF total score. We defined "low levels of stimulation and support" as HOME-SF total scores in the bottom 28 percent[40] of the full 1988 NLSY-CS sample with three- to five-year-olds (a score of 18 or less). We defined "extremely low levels of stimulation and support" as scores in the bottom 10 percent of the full 1988 NLSY-CS sample with three- to five-year-olds (a score of 15 or less).

As can be seen in Figure 6.1, nearly the same proportion of the Descriptive sample and the NLSY-CS welfare families (56 percent and 57 percent respectively) fell into the "low stimulation and support" category when defined in this way. Thus, more than half of each sample of welfare families could be characterized as providing relatively low levels of cognitive stimulation and emotional support to their young children at home. By contrast, only 18 percent of the non-poor families in the NLSY-CS sample with preschoolers could be categorized as showing "low stimulation and support."

[40]We attempted to use a cutoff indicating the lowest 25 percent of scores, but due to the distribution of scores in the NLSY-CS sample, 28 percent was the closest we could come to the lowest quartile.

FIGURE 6.1

COMPARISON OF DESCRIPTIVE DATA TO NLSY-CS 1988 ON THE HOME TOTAL SCALE: LOW SCORES

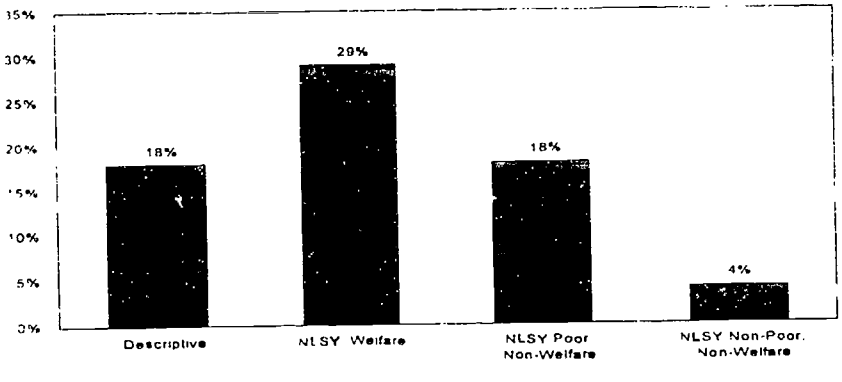


NOTE "Low" scores defined as the bottom 28% of NLSY total sample

The picture differed somewhat when considering the more severe cutoff of "extremely low levels of stimulation and support." A higher percentage of the NLSY-CS welfare families than the Fulton County families in the Descriptive sample fell into this category (29 percent and 18 percent respectively; see Figure 6.2). Both samples of welfare families far exceeded the proportion of non-poor families (only 4 percent) falling into this extreme category.

FIGURE 6.2

COMPARISON OF DESCRIPTIVE DATA TO NLSY-CS 1988 ON THE HOME TOTAL SCALE: EXTREMELY LOW SCORES



NOTE "Extremely Low" scores defined as bottom 10% of NLSY total sample

It is clear from these data that the welfare families in both the Descriptive sample and the NLSY-CS sample show lower levels of stimulation and support in their home environments than non-poor families. However, the Descriptive sample has a somewhat more favorable profile in terms of the home environment than the AFDC families in the NLSY-CS, particularly with regard to the proportion showing extremely low levels of stimulation and support. These

findings again point to the importance of distinguishing among welfare families, and taking into account such factors as maternal age, age at first birth, and family size in understanding their family situations. We turn now to consideration of this variability in the home environment within the Descriptive sample.

- **The measures of the quality of the home environment for children varied within the Descriptive sample, especially according to markers of extent and duration of poverty and disadvantage.**

We looked at the cognitive and socioemotional subscales of the HOME-SF in relation to maternal, child, and family background characteristics at baseline. Controlling for the influence of child age, gender, and research group, both the cognitive stimulation and emotional support subscales of the HOME-SF were significantly lower for families in which the mother had not received a high school diploma or GED, had been receiving welfare for two or more years, when the family lived in public housing, and when the mother scored in the lowest groups on reading and math literacy tests taken prior to random assignment (see Appendix B, Tables 6.1-2 and 6.1-3). All of these are baseline markers of extent of disadvantage.

In addition, scores on both the cognitive and socioemotional subscales of the HOME-SF were lower when there were three or more children in the family, and when the mother had a more external locus of control. Mothers who reported more barriers to their own employment at baseline had significantly lower scores on the cognitive, but not the socioemotional, subscale of the HOME-SF.

Based on the literature, it was our expectation that the home environment measures would also differ according to mothers' baseline reports of their own depressive symptoms and social support. There was only partial support for these predictions. No relationship was found between the HOME subscales and our brief baseline index of maternal depressive symptomatology. However, mothers reporting less social support at baseline had lower scores on the cognitive subscale of the HOME-SF.

Controlling for the influence of child age and research group, gender differences were apparent for the socioemotional but not the cognitive subscale. Boys received significantly less emotional support at home than did girls (although the group difference was small; see Appendix Table 6.1-3).

In sum, stimulation and support in the home environment do vary in meaningful ways according to background characteristics, even within a sample of welfare families. The most consistent pattern to emerge is that subgroups characterized by greater economic disadvantage were most likely to receive lower scores on the home environment subscales.

- **The measures of the home environment were significantly related to children's developmental status in all areas of development examined in the Descriptive Study survey.**

Data from the Descriptive survey were consistent with other research showing measures of the home environment to be important predictors of children's development. Net of child age, gender and research group, the three measures of the home environment (the total score and cognitive and socioemotional subscales of the HOME-SF) were all significant predictors of children's scores on the Peabody Picture Vocabulary Test, the Preschool Inventory, and the Personal Maturity Scale (see Table 6.2 and Appendix B Tables 6.2-1 to 6.2-4). In all instances, more supportive and stimulating home environments predicted more optimal developmental status. In addition, the cognitive subscale and HOME-SF total score were associated with the child receiving a positive health rating, while the socioemotional subscale was not. With only a single exception, then, our measures of the home environment were significant predictors of all indices of children's developmental status at the time of the Descriptive survey.

Summary

Findings from the Descriptive sample are in accord with previous reports that children living in poverty receive less cognitive stimulation and emotional support in their home environments than non-poor children. At the same time there is evidence of variability in the home environments of families. This variability is related on the one hand to family background characteristics, especially the extent of economic deprivation, and on the other hand to children's developmental status at the time of the Descriptive survey.

TABLE 6.2
ASSOCIATION BETWEEN HOME SCALES AND MEASURES OF CHILD DEVELOPMENT (a)

HOME Scale	PPVT-R	PSI	PMS	Child in excellent health/No disability
Total HOME Scale (Range 0-25)	+	+	+	+
Cognitive Stimulation Subscale (Range 0-14)	+	+	+	+
Socioemotional Subscale (Range 0-11)	+	+	+	0

SOURCE: Child Trends, Inc. calculations of Fulton County Descriptive Study survey data.

NOTES: Table values are based on weighted data.

Statistical significance levels are indicated as "+" if $p < .05$ and positive coefficient; "-" if $p < .05$ and negative coefficient; "0" if not significant.

OLS regression analyses were conducted for the PPVT-R, PSI and PMS scales; logistic regression analyses were used for health rating of child. Analyses control for child's age and gender, and research group status. See Appendix Tables 6.2-1 to 6.2-4.

(a) Measures of child development are the Peabody Picture Vocabulary Test-Revised (PPVT-R), the Preschool Inventory (PSI), the Personal Maturity Scale (PMS), and a rating of child's health.

CHAPTER 7
CHILD CARE

Background

There are two central reasons for focusing on child care within the Fulton Descriptive sample. First, there is substantial evidence that the quality of child care that children receive is important to their development (Hayes et al., 1990). Research in both center care and family day care settings, using various measures of child care quality, consistently indicates that care quality is associated with cognitive as well as social development in young children. The three- to five-year-old children in the Descriptive sample, many of whom have not started their primary school education, are more likely than older children to experience changes in their care routines with their mothers' participation in JOBS. Because child care arrangements represent an important pathway through which the JOBS Program might affect children (Zaslow et al., 1995), it is important to document the type and quality of the child care that children are receiving.

Second, the provision of funds to families to pay for child care is a key component of the JOBS Program. The Family Support Act of 1988 mandates self-sufficiency activities for welfare mothers, and simultaneously provides for the use of child care in association with these self-sufficiency activities. Mothers in the JOBS Program are guaranteed child care funds "if child care is necessary for the client to attend a program activity or accept employment" (Hamilton and Brock, 1994, p. 73). Transitional child care payments are also available for a 12-month period to clients transitioning from welfare to employment. Both program and control group mothers in the JOBS Evaluation have access to these funds. Program group mothers can also get help locating child care through the JOBS Program.

In the Fulton County JOBS Program, mothers are free to choose the type of care they want, including unlicensed home-based care, licensed care in a home setting, and an established day care center. Reimbursement rates for child care are established according to the local market rates, and are generally higher for licensed than for unlicensed providers. Payments for services delivered are provided directly to the child care providers.

It is important to examine whether, at this early point in the evaluation, more mothers in the program groups use child care, and child care funds, than mothers in the control group, as a result of the JOBS participation requirements. As mentioned in Chapter 3, respondents in both the human capital development group and labor force attachment groups are significantly more likely than women in the control group to have participated in education or job training programs since their random assignment dates. These experiences may be associated with an increase in the use of child care in the program groups. A limited but interesting body of research on child care use among AFDC and low income families can guide us to more specific predictions and expectations about child care use in the Descriptive sample.

Amount of care. Previous evaluations of welfare-to-work programs show maternal program participation to be associated with increased use of child care for young children. Data from the Teenage Parent Demonstration are particularly relevant here because, like JOBS, this program involved mandatory participation in self-sufficiency activities for AFDC mothers, and because data are available from about the same point in time as in the Descriptive survey: four months following enrollment. At the same time, it should be kept in mind that the Teenage Parent Demonstration targeted teenage mothers rather than the heterogenous population of welfare mothers, and that these mothers tended to have a child younger than the children in the Descriptive Study. In the fourth month of the Teenage Parent Demonstration, about 20 percent more experimental than control group mothers were using child care (Kisker and Silverberg, 1991). This pattern of increased use of child care is corroborated in the evaluations of other welfare-to-work programs, including the New Chance Demonstration for teenage AFDC mothers, and the evaluation of California's JOBS Program, GAIN (Meyers, 1993; Quint et al.,1994; Riccio et al., 1994).

Together, these studies lead to the prediction that in the Descriptive sample, a higher proportion of mothers in each of the program groups than in the control group will be using child care for the focal child even at this early point in the evaluation.

Type of care. A consistent finding in the research on child care is that low income mothers who use care are more likely than other mothers to rely on "informal" child care arrangements, that is care by relatives and friends. For example, in one recent study focusing on AFDC mothers who were employed, approximately two-thirds reported relying on informal care (Bowen and Neenan, 1993; see also Meyers and van Leuwen, 1992).

Yet some researchers caution that this pattern of reliance on informal child care should not be misinterpreted as the preference of AFDC mothers. Use of "market" or "formal" child care arrangements by welfare mothers, that is care in child care centers, preschools, Head Start, after-school programs or organized family day care homes, has been found to be related strongly to families' use of child care subsidies, suggesting a financial barrier to use of formal care among welfare families (Meyers and van Leuwen, 1992; Siegel and Loman, 1991). Further, when mothers just entering the GAIN program were asked what form of child care they hoped to use while they were engaged in education and training activities, a higher proportion pointed to formal care arrangements as their preference than were currently using such care (Meyers and van Leuwen, 1992). Bowen and Neenan (1993) also report that AFDC mothers who were using formal child care were more likely to report preferring their current arrangement than mothers using informal care.

Two studies have reported particularly large increases in the use of formal care arrangements once mothers have started welfare-to-work programs. Mothers in GAIN not only indicated a preference for formal care arrangements at the time of enrollment, as noted above, but three months after enrollment in the program there were already substantial increases in their use of child care centers and licensed day care homes (Meyers, 1993). In the New Chance

Demonstration, 63 percent of experimental group mothers but only 33 percent of control group mothers had used center day care or a preschool for the focal child in the 18 months after the start of the program. There was also significantly greater use of family day care or care by an unrelated babysitter in the New Chance experimental group than in the control group, but the difference was far less marked (28 percent in the experimental group, 24 percent in the control group). Similarly, a study of single-parent AFDC recipients in Illinois found an increased use of center-based child care among JOBS participants (Siegel and Loman, 1991). In addition, MDRC's report "The JOBS Evaluation: Early Lessons From Seven Sites" (Hamilton and Brock, 1994) indicates that in the Fulton County JOBS site, although mothers were free to choose the type of child care, the JOBS staff encouraged mothers to use licensed child care settings.

It is important to examine, then, whether assignment to the JOBS Evaluation program groups in the Descriptive sample is associated with an early increase in all types of child care, or particularly with an increase in the use of formal care arrangements.

Payment for child care. Low income families are less likely to pay for child care than are other families. Brayfield, Deich, and Hofferth (1993), reporting on data from the National Child Care Survey, indicate that only 44 percent of employed mothers in low income families paid for the care of their youngest preschool-aged child. Those low income families with a child under age five who did pay for care paid only $36 per week, on average, for the care of all children in the family. Families who were on welfare or had been in the past year paid even less for child care: $30 per week on average.

Previous research suggests that not all mothers participating in JOBS will report receipt of child care funds through JOBS. Early reports from the Fulton County site of the JOBS Evaluation indicate that six months after the orientation for the JOBS Program, 38 percent of mothers in the human capital development group, and 47 percent of those in the labor force attachment group, reported receipt of child care payments or reimbursements. Among those who actually went on to participate in JOBS educational or employment activities, approximately two-thirds in each group reported receipt of funds for child care. Further, a recent summary of state data prepared by the Administration for Children and Families indicates that in fiscal year 1992, about 33 percent of children between the ages of three and five with mothers in the JOBS Program received Title IV JOBS funds, the child care subsidy provided through JOBS (U.S. Department of Health and Human Services, 1994).

Why might it be the case that some mothers with preschool-aged children in JOBS would not report receipt of JOBS child care funds? First, as the research of Brayfield and colleagues (1993) indicates, a substantial proportion of low income mothers do not make any payments for child care. Second, it is possible that some mothers are unaware of child care benefits for which they are eligible. In a recent study, Meyers (1995) found that one-third of single parent AFDC recipients in a sample drawn from four California counties were unaware of the child care subsidy for which they were eligible. Thus, there are reasons why some eligible mothers may not report use of JOBS child care funds. At the same time, there are reasons that mothers may

report making payments for child care whether or not they also rely on JOBS child care funds. For example, mothers may use child care beyond the hours of their JOBS educational and employment activities. Further, mothers may choose to pay more for their child care than is reimbursed at market rates with JOBS funds, for example if they choose higher quality care that is more costly.

The previous research suggests that we will want to ask two key questions regarding payments for child care in our sample. First, what proportion of mothers report making any payment towards child care for their three- to five-year-old child? Second, will there be a difference in the proportion of mothers in the program groups and the control group reporting the receipt of child care subsidies through JOBS? Previous research suggests that only a minority of mothers in the sample will report making any payment for the focal child's child care, and that many but not all of the mothers in the program groups will report receipt of child care assistance from the JOBS office.

Quality. Recent research on the quality of care leads to somewhat contradictory predictions for the Descriptive sample. Analyses looking at the quality of care provided in child care centers in relation to family socioeconomic status indicate that low income families use center care that varies greatly in terms of quality. On average, however, it is middle class, rather than poor or upper-income families, whose children are most likely to be in centers of the poorest quality (Phillips, Voran, Kisker, Howes, and Whitebook, 1994). At the same time, there is evidence that center care in the Atlanta area is, on average, of particularly low quality. The National Child Care Staffing Study (Whitebook, Phillips, and Howes, 1989) studied child care centers in five metropolitan areas (Atlanta, Detroit, Phoenix, Seattle and Boston), and concluded that Atlanta offered center care of substantially lower quality than that in the other sites. This lower quality reflected, at least in part, minimal child care regulations in Atlanta. Both the National Child Care Staffing Study (Whitebook et al., 1989), and more recently the study of Cost, Quality, and Child Outcomes in Child Care Centers (Helburn et al., 1995) found that better quality centers are more likely to be found in states with stricter regulations regarding child care quality. Further, child care regulations in Georgia are reported to be "among the least rigorous in the country" (Whitebook et al., 1989, Atlanta report, p. 3). For example, while the Federal Interagency Day Care Requirements (FIDCR) recommend a staff-child ratio of 1:8, Georgia permits ratios of 1:18 for four-year-olds.

We note further that the nature of the AFDC mothers' job training, education, and actual employment schedules may act as an impediment to the use of high quality child care. Employment and training may occur at irregular hours (e.g., evenings, weekends, varying shifts) rather than during the hours high quality formal child care may be available (Presser, 1986).

While these findings do not pertain to all forms of care that may be used by Fulton mothers, they do raise the possibility that when center care is used, it may be of highly variable quality. We must carefully examine the possibility that a proportion of the formal care settings

used by children in the Descriptive sample will be of poor quality in terms of such quality markers as group size and staff-child ratio.

Key Questions for Chapter 7

- **Prior to mothers' random assignment to the JOBS Evaluation, what type of child care had the children experienced? Did these experiences vary with background characteristics of the families?**
- **How can we describe the current child care used by children in terms of amount, type, quality, and cost?**
- **Is there any evidence of early program impacts on amount of care, type of care, or how and how much families pay for child care?**

Findings

In the Descriptive survey, we asked mothers about both their children's child care history and about their current child care experience. Regarding child care history, data collected using a retrospective calendar allowed us to examine the child's month-by-month participation in nonmaternal care, from birth to the time of the Descriptive survey. Mothers were asked during which months of the child's life the three- to five-year-old child had participated in formal and informal child care settings, and whether such care was used for 35 hours per week or more. Thus, we are able to report on mothers' recollections of their children's experiences in formal and informal care from the time of the child's birth to the time of the Descriptive Study. In some instances, we look separately at child care prior to and after the mother's random assignment to the JOBS Evaluation because of the possibility that random assignment to one of the program groups in the study (i.e., participation in JOBS) may have altered child care participation in these families.

Regarding current child care, we asked mothers to describe up to four current regular child care arrangements in terms of type of care, hours per week spent in care, number of children cared for, staff-child ratio, caregiver education and training, and cost of care. We also asked about mothers' child care preferences and about care settings mothers would not be willing to use. Throughout this chapter, "regular" child care is defined as an arrangement used at least once a week for a month or more. In addition, a "formal" child care setting is defined as care in a center, nursery school, preschool, Head Start, or kindergarten, while an "informal" care setting is defined as care by a babysitter who is either a relative or nonrelative.

More than half of the five-year-old focal children in the Descriptive sample (61 percent) had already started kindergarten. Further, very few of the children in kindergarten (6 percent) had a before- or after-school child care arrangement. Because we are particularly interested in the implications of JOBS for child care experiences prior to the start of elementary school, the

sections that follow will focus specifically on the three- and four-year-old children in our sample.[41]

- **From mothers' reports of child care use prior to their assignment to the JOBS Evaluation, we see a pattern of greater reliance on formal child care in our sample than is suggested from previous reports of child care use among AFDC families.**

Prior to the date of the mothers' random assignment to program or control groups within the JOBS Evaluation, 51 percent of the three- and four-year-old children had been cared for at some time in a formal care setting, and essentially the same proportion (50 percent) had been cared for at some time in an informal care setting, possibilities that were not mutually exclusive. Only 25 percent of the mothers reported that their three- or four-year-old focal children had never received any regular child care prior to random assignment. Unfortunately, these data do not permit identification of the context in which formal and informal care were used. For example, we do not know whether informal care was relied upon primarily for employment during evenings or weekends, or occurred during the daytime on weekdays. We do not know if the care used was the mothers' preference or reflected constrained choice.

These data differ from previous reports indicating that AFDC families rely more heavily on informal types of child care. There are two possible interpretations. First, these data are restricted to whether or not formal and informal care were ever used, and do not reflect hours spent in these different types of care. Perhaps the previously reported pattern of greater reliance by AFDC mothers on informal care would emerge if we had information as to extent of use. The alternative interpretation is that because of differences between the Descriptive sample and other samples, the mothers in our sample have indeed relied more than other AFDC mothers on formal care.

Differences in the availability of formal care and in the composition of our sample relative to other samples of AFDC mothers might contribute to such a pattern. There are regional differences across the United States in the relative availability of formal and informal child care. In the South, the pattern is more heavily weighted towards formal care than in other regions of the country (Willer et al., 1991), and available child care in Fulton County may reflect this pattern. In addition, although findings are not entirely consistent, there have been some reports that African American families are more likely than other groups to choose center care (Meyers and van Leuwen, 1992). Thus, the racial composition of the Descriptive sample may also help explain the pattern.

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[41] In order to make an equitable comparison between research groups, these analyses were conducted on a subsample of Descriptive Study respondents with three- and four-year-old focal children who were randomly assigned to the JOBS Evaluation after funding became available for sampling members of the control group. Sample sizes in the tables for this chapter differ from those in other chapters accordingly. In this chapter, when we refer to results for three- and four-year-old focal children, we are referring to the program and control group children of this age who enrolled in the study during the same time period.

- **Even prior to their mothers' participation in the Descriptive survey, children had participated in some regular child care for a substantial part of their lives.**

Three- and four-year-old focal children who had ever participated in some form of regular child care had done so, on average, during 40 percent of the months of their lives. However, the range was substantial. These young children had experienced regular child care during as little as 2 percent or as much as 98 percent of the months of their lives, up to the point that their mothers enrolled in the JOBS study.

- **Use of child care was associated with mothers' employment in the period prior to mothers' participation in the JOBS Evaluation.**

Considering the time from the child's birth to enrollment in the evaluation, mothers who worked full-time were significantly more likely to have children who participated in regular child care during a substantial part of their lives (defined as at least 25 percent of the months of their lives). While 70 percent of mothers who had been employed full-time at some point prior to the Evaluation had children who had experienced any regular child care during at least a quarter of the months of their lives, only 26 percent of mothers who had not been employed full-time had children in regular care to this extent.[42]

- **Use of child care for the focal child, prior to enrollment in the JOBS Evaluation, was also related to maternal background characteristics.**

Families in which the focal child had experienced any regular child care during at least 25 percent of the months of his or her life prior to the start of the study differed from families in which child care had not been used as extensively or not used at all. Children who had experienced regular care to a greater extent were more likely to be the only child in the family, to have mothers who had completed high school or received a GED at baseline, and to have mothers who scored higher on reading and math literacy tests at baseline. Children were less likely to have experienced child care for at least 25 percent of the months of their lives when the mother had been on welfare for two or more years, and when the mother perceived more barriers to employment (see Appendix B, Table 7.1-1).

In a similar way, we asked whether children who had been in formal child care arrangements for at least 25 percent of the months of their lives differed from those who had not experienced formal child care as extensively or at all. As for use of any regular child care, children who had experienced a fair amount of formal child care were significantly more likely to have mothers who had completed high school or a GED upon entering the evaluation, and who scored higher on reading and math literacy tests at baseline. In addition, these children were less

[42] Chi square (1) = 107.78, p < .000

likely to be from families that had received welfare for two or more years (see Appendix B, Table 7.1-2).

In general, prior use of any regular child care and of formal care for a substantial portion of the child's life appear to be associated with higher education and literacy levels in the mother, and with shorter welfare duration.

- **Very shortly after enrollment in the JOBS Evaluation, there was a substantial increase in the proportion of three- and four-year-old children in child care in the two program groups.**

To look at changes in child care occurring soon after enrollment in JOBS, we used the calendar data to examine the time period from two months prior to the date of random assignment within the JOBS Evaluation, to two months after random assignment. Over this time period, there was a small increase in the proportion of children in the control group in any form of regular child care from 43 percent to 49 percent. This change probably reflects a slow but steady increase in families' use of regular child care as control group members move off welfare and find jobs at their own initiative, and as children grow older.

However, the increase in the two program groups across this same time period was much more dramatic. Two months prior to random assignment, 44 percent of the three- and four-year-olds in the human capital development group were participating regularly in some form of child care, but two months after random assignment the figure was 72 percent. In the labor force attachment group, 48 percent of three- and four-year-olds were participating in child care two months prior to random assignment, but 83 percent were receiving some regular child care two months after random assignment.

The proportion of families that showed an increase in their use of child care across this time interval, either making a transition to using any care when they had not been using care earlier, or using full time care when they had not done so earlier, differed significantly by group (see Table 7.1). Table 7.1 also shows that families in the labor force attachment group showed the greatest increase in the use of child care. While participation in the human capital development group may be delayed as participants wait for GED or other educational courses to begin, those in the labor force attachment group are more likely to start program participation or employment quickly, and initiate child care accordingly.[43]

[43] As described in Chapter 3, women in the labor force attachment group were significantly more likely than those in either the human capital development group or the control group to be employed at the time of the Descriptive survey.

TABLE 7.1

PROPORTION OF FAMILIES SHOWING AN INCREASE IN USE OF CHILD CARE FROM TWO MONTHS PRIOR TO RANDOM ASSIGNMENT TO TWO MONTHS AFTER RANDOM ASSIGNMENT, BY GROUP

Type of Care	Human Capital Development Group	Labor Force Attachment Group	Control	Chi-Square (a)
Any care	35	40	11	38.8***
Formal care (b)	27	30	8	27.9***
Informal care (c)	13	16	3	16.9***
Sample size (Unweighted)	157	146	168	

SOURCE: Child Trends, Inc. calculations of Fulton County Descriptive Study data.

NOTES: Sample restricted to families with three- and four-year-old focal children that enrolled in the study from August, 1992 to June, 1993.

Increase in use of child care defined as making transition from no child care to any use of regular child care, or from less than full-time care to full-time care. Families may have increased in more than one type of care.

(a) A chi-square statistic was applied to differences between the human capital development group, labor force attachment group and control groups separately for each type of care. Statistical significance levels are indicated as *** $p < .001$, ** $p < .01$, * $p < .05$.

(b) Formal care includes care in child care center, preschool, nursery school, Head Start, kindergarten, and before- and after-school program.

(c) Informal care includes care by a relative or nonrelative babysitter.

Table 7.1 shows that these greater increases in use of care in the program groups relative to the control group occurred both for formal and informal care settings, but were particularly large for formal care settings. As in previous studies of welfare-to-work programs, we find a particularly marked increase in the use of formal child care settings following enrollment in JOBS.

We have fairly detailed information about amount, type, and quality of child care used at the time of the Descriptive survey. We turn now to a detailed look at current child care use.

- **Children in the program groups were more likely to be in child care at the time of the Descriptive Study than children in the control group.**

Turning from child care history and child care transitions to current use of child care, a majority of the three- and four-year-old children were in some regular form of child care at the time of the Descriptive Study. However, participation in regular child care was greater for children in the program groups than in the control group. Overall, 63 percent of the three- and four-year-olds in the sample were participating in some form of child care on a regular basis at the time of the Descriptive survey. Only 48 percent of control group children in this age range were participating in child care on a regular basis, compared to 70 percent of the children in the human capital development group and 74 percent of children in the labor force attachment group, a significant group difference.[14]

There was a strong relationship between maternal participation in educational and/or employment activities following random assignment and the use of regular child care for the child. This relationship held in both the program and control groups. Program group mothers were 16 times more likely to have used a regular child care arrangement for their children in the months following random assignment when they had participated in an educational or employment activity. Control group mothers who had participated in an activity were 15 times more likely to have used regular child care.[15]

While the association between child care use and educational or employment activities was similar in both the program and control groups, as noted previously, by the time of the Descriptive Study (on average three months after random assignment), program group mothers were substantially more likely to be participating in educational or employment activities. Thus, the greater use of regular child care at the time of the Descriptive survey for the two program groups appears to be a reflection of their greater participation in employment and educational activities, not a differential propensity to use child care.

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[14] Chi square (21, 25 29, $p < .001$)

[15] Logistic regression, $p < .0001$ for program as well as control group mothers

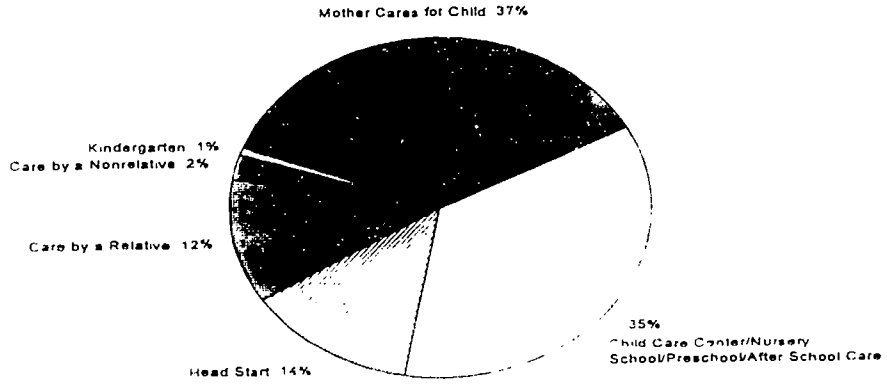
Among those three- and four-year-old children receiving some regular child care, only 9 percent had more than one regular arrangement. Further, the use of multiple arrangements did not differ by group. Because the piecing together of a mosaic of multiple child care arrangements was not common in our sample, we focus on the characteristics of the children's primary arrangement, that is, the arrangement that they were in for the most hours each week.

- **Care in a child care center, preschool or nursery school was the most frequent form of primary child care arrangement for the three- and four-year-old children at the time of the Descriptive Study, apart from sole maternal care.**

Figure 7.1 shows the proportion of three- and four-year-olds in our analysis sample using different types of child care for their primary arrangement. At the time of the Descriptive Study, a little more than a third of the children (37 percent) were in no regular child care arrangement and were cared for only by the mother. The most frequently used non-maternal child care arrangement in the sample, used by 35 percent of the families, was care in a center, nursery school or preschool. Other commonly used arrangements were Head Start (the primary arrangement for 14 percent) and care by a relative (12 percent).

FIGURE 7.1

PRIMARY CHILD CARE ARRANGEMENTS OF THREE- AND FOUR-YEAR-OLD CHILDREN AT THE DESCRIPTIVE SURVEY



NOTE: Based on sample of three- and four-year olds in human capital development, labor force attachment, and control families that enrolled in JOBS Evaluation under the same time period (N=499).

- **There was a significant difference by group in the primary form of child care used by families with three- and four-year-olds.**

Children's primary child care arrangements were further characterized as falling into one of three categories: (1) sole maternal care; (2) care in an informal setting (by a relative or

nonrelative babysitter); and (3) care in a formal setting (including child care center, preschool, nursery school, Head Start, kindergarten, before or after school program). [46]

When summarized in this way, the most frequently noted primary care arrangement for children in the control group was care by the mother (used by 53 percent of control group families with three- and four-year-olds). By contrast, care in a formal care setting was the most frequently noted primary care arrangement for children in either program group (used by 53 percent of human capital development group children and 54 percent of labor force attachment group children). These differences in primary care arrangement by group were statistically significant (see Table 7.2).

- **Overall, three- and four-year-old focal children in the program groups spent more hours per week in non-maternal child care than children in the control group. However, considering only those children who were in regular care, groups did not differ in the average number of hours in care.**

Including both those who had regular child care arrangements and those who did not, three- and four-year-old children spent, on average, 25 hours each week in child care. There was a significant difference between the program groups and control group in hours per week spent in care, with human capital development group children spending 28 hours on average, labor force attachment group children 30 hours on average, and control group children 18 hours.[47]

However, considering only those children in each of the groups who were in some form of regular care, the average number of hours per week did not differ significantly by group (means for human capital development group, labor force attachment group and control groups were 40, 40 and 37 hours per week respectively). Thus the groups seemed to differ more in terms of whether or not children were in a regular arrangement, and in the type of regular arrangement, than in terms of hours spent in child care among those who were participating in such care.

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[46] We note that the Descriptive survey did not ask specifically about licensed family day care. As a result, our category "formal child care arrangement" differs from that used in some previous studies.

[47] $F(2,494)=15.07$, $p < .001$.

TABLE 7.2
PROPORTION OF FAMILIES USING SOLE MATERNAL CARE, FORMAL CHILD CARE, AND INFORMAL CHILD CARE AS THEIR PRIMARY ARRANGEMENT, BY GROUP

Type of Primary Arrangement	Human Capital Development Group	Labor Force Attachment Group	Control	Chi-Square (a)
Maternal care	30	26	53	29.93***
Formal care (b)	53	54	42	6.44*
Informal care (c)	17	20	6	15.92***
Sample size (Unweighted)	195	119	195	

SOURCE: Child Trends, Inc. calculations of Fulton County Descriptive Study data.

NOTES: Percentages do not add up to 100 due to rounding.

Sample restricted to families with three- and four-year-old focal children in human capital development group, labor force attachment group and control groups that enrolled in the study from August, 1992 to June, 1993.

Primary arrangement is the arrangement currently used for the most hours each week.

(a) A chi-square statistic was applied to differences between the human capital development group, labor force attachment group and control group separately for each type of care. Statistical significance levels are indicated as *** $p < .001$, ** $p < .01$, * $p < .05$.

(b) Formal care includes care in child care center, preschool, nursery school, Head Start, kindergarten, and before- and after-school program.

(c) Informal care includes care by a relative or nonrelative babysitter.

- **The FIDCR recommendations were used as a reference point for describing the quality of the formal child care settings that children were experiencing.**

In 1980, the federal government issued recommendations for group size, caregiver-child ratios, and caregiver training for formal child care settings in the form of the Federal Interagency Day Care Requirements (FIDCR). The 1980 FIDCR were never implemented as national regulations, yet they remain widely respected indicators of child care quality. Researchers frequently refer to FIDCR standards as a benchmark against which to measure center quality. For example, the National Child Care Staffing Study found more high quality child care centers in those locations that adhered more closely to the FIDCR recommendations. While other methodologically more rigorous approaches are available for the measurement of center quality, these often involve direct observation in the classroom (e.g., the use of the Early Childhood Environment Rating Scale or ECERS, in the Child Care Staffing Study, Whitebook et al., 1989; and in the study of Cost, Quality, and Child Outcomes in Child Care Centers; Helburn et al., 1995). Given the nature of the data available to us in the present study, we will follow closely the strategy used by Phillips, Howes, and Whitebook, (1992), describing center care in terms of the number of FIDCR recommendations centers did and did not meet.

For children between three and five years of age, the FIDCR recommendation is for group sizes of 16 or smaller, and for staff to child ratios of 1:8 or better. The FIDCR also recommends that caregivers participate regularly in specialized training. The requirements for group size and ratio in the state of Georgia depart substantially from the FIDCR recommendations, allowing group sizes of up to 36 and ratios of up to 1:18 for four-year-olds.

In the Descriptive Study we did not ask mothers whether caregivers were receiving ongoing professional training.[18] However, mothers did report on group size and the number of caregivers in their child's group, thus permitting tabulation of staff to child ratio. While we should be careful to view these data as mothers' perception of group size and number of caregivers per group, Hofferth, West, Henke, and Kaufman (1994) conclude that maternal report agrees to a reasonable extent with director report on these particular factors. We do note, however, that in our sample we have missing data on group size and number of caregivers for about 25 percent of the cases for three- and four-year-old focal children who were in formal child care arrangements other than kindergarten, indicating some uncertainty among mothers on this information. We hypothesize that those mothers most concerned about child care quality would seek out information on group size and ratio (as well as caregiver training and education), and be able to report it; and that those not reporting on these care characteristics would be more likely to be using centers of poorer quality. If this is indeed the case, then our portrayal of center care quality below may be somewhat optimistic.

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[18] We did ask about the education and training level of the focal child's caregivers. However, mothers in the Descriptive sample often had difficulty reporting on caregiver education and training. This information is missing for nearly half of the sample (48 percent), and thus we do not feel confident in reporting summary figures for these child care characteristics.

Keeping the limitations of the maternal report data in mind, among mothers with three- and four-year-old children whose primary child care arrangement was a formal arrangement other than kindergarten, group sizes averaged 18 children, and the ratio of caregivers to children in formal care settings averaged 1:5 (about one caregiver for every five children). By contrast, when mothers of three- and four-year-old children reported that their primary child care arrangement was an informal one, group size averaged five children, and the ratio of caregivers to children averaged 1:2. Thus, it appears that children in formal as opposed to informal settings, on average experienced substantially different group sizes as well as staff/child ratios.

These averages for group size and ratio for formal care do not depart substantially from FIDCR recommendations. Indeed the average ratio of caregivers to children in formal settings surpasses that recommended by FIDCR (1:5 as opposed to 1:8). In addition, the average formal care group size is half that of the FIDCR recommendation. However the averages mask substantial variation. Accordingly, we turn next to the question of the proportion of children whose formal care settings met FIDCR recommendations.

- **According to maternal report, only about a third of the three- and four-year-olds whose primary child care arrangement was a formal one were in settings that met the national recommendations for both group size and ratio.**

Among three- and four-year-old focal children whose primary arrangement was a formal one, and for whom data on both group size and ratio were available, 34 percent were in settings that met both recommendations, 17 percent were in settings that met one of the recommendations, and 49 percent were in settings that met neither the group size nor ratio recommendations of the FIDCR. The National Child Care Staffing Study, looking at child care centers in five metropolitan areas, found that a much smaller proportion of child care centers in Atlanta than in the other four study sites met the FIDCR recommendations (including in their analysis not only group size and ratio but also teacher training requirements: Whitebook et al., 1989). We have found, as have other studies, that welfare-to-work programs are associated with an increase in use of child care and especially formal child care arrangements. In Fulton County, unfortunately, the tendency of mothers to enroll their children in formal child care settings means that many are in child care that does not meet nationally recommended standards of quality.

- **A minority of the mothers reported paying anything towards the cost of the primary child care arrangement for their children.**

Overall, only 21 percent of the mothers whose three- and four-year-olds participated in some regular child care reported paying anything towards the cost of the primary arrangement. Among those mothers with three- and four-year-old children who paid something for care, 74 percent reported paying $0.50 or less per hour.[39] When mothers reported making some payment

[39] We note that this figure does not take into account variation in cost per hour according to number of hours in care.

for the focal child's primary child care arrangement, the focal child was significantly more likely to be in the primary arrangement for 40 or more hours a week (72 percent vs. 47 percent when the mother did not make any payment.)[50] Considering payments toward the cost of child care for all children in the household, mothers in our sample reported paying $19.11 per week on average. We note, however, that this figure does not take into account either the number of children in the household in care or number of hours in care.

We asked also whether mothers who paid were more likely to be using formal child care, and formal care of higher quality, than mothers who were not making any contribution towards the cost of the primary arrangement. In both instances the numbers were in the predicted direction but the differences were not statistically significant. For example, when the primary arrangement was a formal one, the FIDCR group size recommendation was met for 56 percent of the children of mothers who made some payment for the primary arrangement, and 43 percent of those who made no payment (a nonsignificant difference).

We asked also whether mothers who reported making some contribution towards the cost of the primary arrangement were less likely to report that the welfare office contributed towards the cost of care. Mothers were slightly (and nonsignificantly) less likely to report that the welfare office paid when they themselves made some payment for the primary arrangement (56 percent) than when they made no payment (63 percent). Mothers' payment of any of the cost of the focal child's primary arrangement, then was most clearly associated with use of full time child care.

- **A majority of mothers reported assistance in paying for child care. The welfare office was the most frequently reported source of assistance.**

Sixty-seven percent of mothers with three- and four-year-olds in some form of regular child care reported that someone else paid some or all of the cost of the primary care arrangement. Although this proportion was slightly higher in the human capital development group and labor force attachment groups than in the control groups (70, 69, and 60 percent respectively), these groups' differences were not statistically significant.

The most common source of assistance, according to the mothers, was the welfare office. Among those mothers who reported some assistance in paying for their children's primary arrangement, fully 91 percent reported that the welfare office was a source of such assistance. For those mothers whose child had any regular child care arrangement, 67 percent of those in the human capital development group, 64 percent in the labor force attachment group, and 47 percent of the control group reported getting help from the welfare office. These differences were statistically significant,[51] indicating that among mothers using child care regularly, those in the

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[50] Chi square (1) = 8.45, p = .004

[51] Chi square (2) = 8.29, p = .05

program groups were more likely than those in the control group to receive assistance for child care from the welfare office. We note that these figures correspond closely with MDRC's report that approximately two-thirds of mothers in the Fulton County JOBS Evaluation who had attended a JOBS employment or educational program reported receiving child care payments or reimbursements during the six months after program orientation (Hamilton and Brock, 1994).

In sum, our findings are in accord with previous reports that a minority of low income mothers pay for child care, and that the overall amount paid for all children in the family is, on average, small. Further, our findings provide some evidence that assignment to one of the JOBS program groups increases use of JOBS funding for child care among those with regular child care arrangements.

- **A small but nontrivial proportion of mothers indicated that problems with child care had hindered previous employment.**

Among mothers of three- and four-year-old children who had been employed during the last 12 months, 7 percent reported ever having to miss a day of work, 4 percent reported having to quit a job, and 4 percent reported being fired from a job, because of problems with their primary child care arrangement. Further, 16 percent of mothers reported that they had had to turn down a job over the past 12 months because they could not arrange for child care.

- **Most mothers felt that, should they undertake or increase employment or educational activities, there was a formal child care setting or a relative available to them as a child care provider.**

We asked mothers whether they had a relative, nonrelative, or formal child care setting available should they decide to initiate or increase their hours of work or school. Mothers were free to indicate that more than one type of care was available to them. Among mothers of three- and four-year-olds, 57 percent answered that they definitely or probably had a relative available to care for the child; 39 percent indicated that a nonrelative was available; and 76 percent felt that a formal care setting would be available.

- **Mothers most often pointed to formal child care as a setting they would use if they could choose any for their child.**

When asked to list all the forms of care they would choose as a first choice for their children, 53 percent of the mothers of three- and four-year-olds indicated that center care was one of their first choices. In addition, 33 percent named Head Start as a setting they would choose. By contrast, only 20 percent named care by a relative as one of their first choices, and only 2 percent named care by a nonrelative.

When asked what types of child care they would be unwilling to use for their child, mothers most often named care by the child's father (38 percent), care by a nonrelative (32

percent), and care by their partner (23 percent). By contrast, only 4 percent of the mothers indicated an unwillingness to use center care.

Summary

In summary, the Descriptive Study data contribute to an emerging picture across evaluations of welfare-to-work programs indicating that child care use increases quickly and substantially after enrollment among those in the program group or groups, and that AFDC mothers show both a preference for, and greater increase in the use of, formal child care settings. Yet the opportunity to introduce poor children into high quality formal care settings appears often to be missed, at least in a state like Georgia whose child care centers are not required to meet national child care quality recommendations. In later phases of the JOBS Child Outcomes Study, it will be crucial to determine the implications of this varying but often poor quality formal child care, as well the implications of other types of early care, for children's development.

CHAPTER 8
SUBGROUP DIFFERENCES IN MATERNAL AND CHILD WELL-BEING

Background

It is widely known that welfare families are disadvantaged (Zill et al., 1991), and data presented in the current report support this view. However, poor, African American mothers with a preschool-aged child who receive or apply for AFDC are often assumed to be homogeneous when in fact they are highly varied. Although all are economically disadvantaged, some families have been on welfare longer than others, and some have less education and lower literacy skills than others. Can we identify factors such as these that are associated with differences in the well-being of the mothers and children?

Previous research supports the view that key subgroups will vary in their responses to welfare-to-work programs. Looking specifically at economic and educational impacts of such programs, for example, Friedlander (1988) found differences in outcomes according to such variables documented at baseline as prior welfare receipt and prior earnings. Other baseline characteristics, such as education, family size, and age of youngest child, were less consistently related to program impacts.

In the present report, we continue this strategy of analysis for a new set of outcomes: the consideration of children's development, maternal psychological well-being, and the home environment. In the Descriptive Study, we are not yet considering the issue of subgroup differences in program impacts on these variables, as the measures of child development, maternal well-being and home environment are examined in this report very soon after program enrollment. However, at this early point in the evaluation we can take a first step towards such subgroup analyses through careful delineation of a set of baseline subgroups that we think will be important to the outcomes of this study. Non-experimental analyses, examining the relationship between the baseline subgroups and measures of child development, maternal well-being and the home environment irrespective of whether the family is in one of the program groups or the control group, will help document which subgroup variables appear to be particularly important to the set of maternal, family, and child variables that we will eventually be examining for program impacts. These analyses will also help us identify key subgroups that appear to be faring more and less well close to the start of participation in the JOBS Program.

The delineation of baseline subgroups in the present analyses was facilitated by the collection of more extensive information prior to random assignment for all participants in the JOBS Evaluation (including those in the Descriptive Study) than in previous evaluations of welfare-to-work programs. In particular, the collection of baseline information not only on basic client characteristics, but also on maternal attitudes and psychological well-being at baseline (in the Private Opinion Survey) permits us to extend the set of baseline subgroups beyond those examined in prior research. Thus here, in addition to defining subgroups on the basis of maternal education, duration of welfare receipt, family size, housing type, and maternal literacy at

baseline, we also define subgroups based on baseline measures of maternal depression, social support, and sense of control over events, as well as maternal attitudes towards work and welfare.

Previous chapters of this report have already presented subgroup analyses for particular maternal and child measures from the Descriptive Study. The purpose of the present chapter is to draw these results together and synthesize them. We will conclude with an overview of which baseline subgroups appear, at this early point in the evaluation, to be most consistently related to measures of children's development and markers of mothers' readiness to enter employment.

Key Questions for Chapter 8

- **Does mothers' psychological well-being, approximately three months after random assignment to the JOBS Evaluation, vary according to baseline characteristics?**
- **How does children's well-being differ according to baseline characteristics?**

Analyses of Subgroups

Table 8.1 shows the relationship between a variety of measures of maternal and child well-being (listed along the side of the table) measured, on average, three months after random assignment, and several background characteristics measured prior to random assignment (shown across the top of the table). Although many of these analyses have been presented in earlier chapters (see Appendix B for individual tables), our goal here is to summarize across a variety of areas of well-being to identify particular background characteristics that are consistently related to maternal and child well-being. These analyses will help in the identification of key subgroups of the JOBS sample who may be differentially affected by the program.

Our approach in considering specific subgroups was to ask whether a background characteristic was positively, negatively, or not at all related at a statistically significant level ($p < .05$) to an indicator of maternal or child well-being. In Table 8.1, a plus sign (+) indicates that the two variables are positively and significantly related to one another (for example, women with a high school diploma or GED at baseline report more social support at the time of the Descriptive survey than other people). A minus sign (-) means that the two variables have a significant negative association (for example, women who had been on welfare for more than five years at baseline were found to have less social support at the time of the Descriptive survey). A zero indicates that no statistically significant association was found. Due to the nature of the data, it should be noted that associations are correlational rather than causal. All associations were estimated with multiple regression controlling for the age and gender of the child, and research group. However, no other background characteristics were statistically controlled in these analyses. Definitions of each subgroup variable are provided in Appendix A.

TABLE 8.1

MATERNAL AND CHILD WELL-BEING AT THE TIME OF THE DESCRIPTIVE SURVEY AS RELATED TO BASELINE MEASURES OF MATERNAL AND FAMILY BACKGROUND

	Baseline Subgroup Variables												
	Educational Attainment (comparison = High school)	No. of Children (comparison = 3 or more children)		Welfare Duration (comparison = 2 yrs.)		Housing Type (comparison = neither public nor subsidized housing)		Literacy (comparison = Lowest Levels: 1-2)	Math (comparison = Lowest Levels, A-B)	Brief Depression Scale (comparison = Low, Moderate)	Locus of Control (comparison = External)	Family Barriers to Work Index (comparison = Low)	Social Support Index (Comparison = Low)
	HS Diploma, GED or College	1	2	5 or more yrs	2 but less than 5 yrs	Public	Subsidized	High TABE(a) Scores Levels 3-5	High Math (b) Scores Levels C-D	High	Internal	High	High
Maternal Characteristics Measured in the Descriptive Survey													
Has Depressive Symptomatology	0	0	0	-	0	0	0	-	-	-	-	+	-
Perceived Locus of Control	+	+	0	-	0	+	0	+	+	-	+	-	+
Difficult Life Circumstances Index(d)	0	0	0	0	0	0	0	+	0	+	0	0	0
Total number of people who provide social support	+	0	0	0	+	0	0	0	0	0	0	0	0
Instrumental Social Support			0	-	0	+		+	0	-	+	-	+
Emotional Social Support	+	0	0	0	0	-	-	+	0	-	+	-	+
Satisfaction with Emotional support	0	0	0	0	0	0	0	0	0	-	0	0	+

(continued)

Table 8.1 (continued)

	Baseline Subgroup Variables												
	Educational Attainment (comparison: High school)	No. of Children (comparison = 3 or more children)		Welfare Duration (comparison = < 2 yrs.)		Housing Type (comparison = neither public nor subsidized housing)		Literacy (comparison = Lowest Levels, 1-2)	Math (comparison = Lowest Levels, A-B)	Brief Depression Scale (comparison = Low, Moderate)	Locus of Control (comparison = External)	Family Barriers to Work Index (comparison = Low)	Social Support Index (Comparison = Low)
	HS Diploma GED or College	1	2	2 yrs. or more yrs	2 but less than 5 yrs	Public	Subsidized	High TABE(a) Scores Levels 3-5	High Math (b) Scores Levels C-D	High	Internal	High	High
Sterilized or using the most effective contraception	+	-	-	0	+	0	0	0	0	0	0	0	0
Twenty-five percent or more of child's life in any employment prior to RAD(d)(e)	-	-		-	-	-	0	-	+	0	+	-	+
Twenty-five percent or more of child's life in full-time employment prior to RAD (d) (e)	-	-	-	-	-	-	-	-	+	0	+	-	0
Belief that Mothers Should Not be Employed Scale	-	0	0	-	-	-	0	-	-	+	-	+	-
Child support provided by biological father(d)	0	0	0	-	0	0	0	0	0	0	0	0	0

(continued)

Table 8.1 (continued)

	Baseline Subgroup Variables												
	Educational Attainment (comparison = High school)	No. of Children (comparison = 3 or more children)		Welfare Duration (comparison = < 2 yrs.)		Housing Type (comparison = neither public nor subsidized housing)		Literacy (comparison = Lowest Levels, 1-2)	Math (comparison = Lowest Levels, A-B)	Brief Depression Scale (comparison = Low, Moderate)	Locus of Control (comparison = External)	Family Barriers to Work Index (comparison = Low)	Social Support Index (Comparison = Low)
	HS Diploma or GED or College	1	2	5 or more yrs	2 but less than 5 yrs	Public	Subsidized	High TAI Std Scores Levels 3-5	High Math (b) Scores Levels C-D	High	Internal	High	High
Child Development Measured in the Descriptive Surveys													
Peabody Picture Vocabulary Test Revised				-	-	-	0	-	+	0	+	-	0
Peabody Achievement	-		-	-	0	-	0	+	+	0	+	-	0
Perceptual Motor Scale		0	0		-	-	0	-	+	-	+	-	0
Child Health Rating	-	+	0	0	0	0	0	+	+	0	+	-	+
Child's Experiences in Home and Child Care													
HOME-Cognitive Stimulation	-	-	-	-	-	-	0	+	+	0	+	-	+
HOME-Emotional Support	-	+	-	-	-	-	0	+	+	0	+	0	0
Twenty-five percent or more of child's life in any regular child care prior to RAD(d)(e)	-	+	0	-		0	0	+	+	0	0	-	0

(continued)

Table 8.1 (continued)

	Baseline Subgroup Variables												
	Educational Attainment (comparison = High drop-out)	No. of Children (comparison = 3 or more children)		Welfare Duration (comparison = 2 yrs.)		Housing Type (comparison = neither public nor subsidized housing)		Literacy (comparison = Lowest Levels 1-2)	Math (comparison = Lowest Levels, A-B)	Brief Depression Scale (comparison = Low, Moderate)	Locus of Control (comparison = External)	Family Barriers to Work Index (comparison = Low)	Social Support Index (Comparison = Low)
	HS Diploma GED or College	1	2	5 or more yrs	2 but less than 5 yrs	Public	Subsidized	High TALS(a) Scores Levels 3-5	High Math (b) Scores Levels C-D	High	Internal	High	High
Eighty-five percent or more of child's life in formal child care prior to RAD(d)(e)	-	0	0	-		0	0	+	+	0	0	0	0
Greater father involvement in child's life	0	-	0	0	0	0	0	0	0	0	0	0	+

SOURCE: Child Trends, Inc. calculations of Fulton County Descriptive Study data

NOTES: (a) TALS = Test of Applied Literacy Skills
(b) Math Scores were measured using the GAIN Appraisal Math Test
(c) 20-item CES-D (Center for Epidemiological Studies Depression Scale)
(d) These data, while collected as part of the Descriptive Survey, are all retrospective. RAD (Random Assignment Date)
(e) These analyses did not control for group because employment and child care took place before random assignment

All analyses controlled for focal child age in months, focal child gender, and group assignment unless otherwise indicated
+ Significant at $p < .05$ and positive coefficient
- Significant at $p < .05$ and negative coefficient
0 Not significant

Findings

Maternal Education

- **Mothers who had a high school diploma or GED at the outset of the JOBS Program had greater subjective well-being and more employment experience at the time of the Descriptive survey, and their children were generally developing more positively.**

Mothers who had a high school diploma or GED tended to be better off across a wide range of measures in the Descriptive survey, compared with mothers who had less education. Thus, women with a diploma at baseline had a more internal locus of control and reported higher levels of social support (both emotional support and instrumental assistance), and they received social support from a larger number of persons at the time of the Descriptive survey. They were not more satisfied with the social support that they received, however. Better-educated welfare mothers were more likely to have been employed, and more likely to have been employed full-time, for a quarter or more of the months since the birth of the focal child. In addition, they were less likely to believe that mothers should not be employed.

Measures of child developmental status were very consistently associated with maternal education. Children whose mothers had a high school diploma or GED had higher scores on the Peabody Picture Vocabulary Test - Revised and the Preschool Inventory, measures of receptive vocabulary and school readiness. They were rated higher on the Personal Maturity Scale, which assesses emotional and behavioral development, and they were perceived as having better health. In addition, their home environments provided more cognitive stimulation and emotional warmth, as assessed by the HOME subscales. As would be expected given their mothers' greater work experience, children whose mothers had a high school diploma or GED were more likely to have been in regular child care, and to have been in formal child care, for a quarter of the months of their lives or more, prior to the date of random assignment. On the other hand, in this sample, maternal education was unrelated to the amount of contact children had with their fathers or the father's provision of child support as reported at the time of the Descriptive survey.

Number of Children

- **Though family size is not related to most mother characteristics in this sample, the well-being of children was found to be greater when family size was small.**

Results for family size are shown in two columns of Table 8.1. The column headed "1" compares women with one child to those who have three or more children. The column headed "2" compares women who have two children with those who have three or more. Looking down these columns, it is apparent that maternal characteristics were not strongly related to family size.

Indeed, the only significant associations were with internal locus of control and instrumental

social support. Women who had only one child at baseline were found to have a more internal locus of control and perceived more instrumental support available to them at the time of the Descriptive survey compared with women with larger families. In addition, women with one or with two children were less likely to be sterilized or using highly effective contraception at the time of the Descriptive survey than women with larger families. Although women with larger families did not differ in their attitudes regarding employment, they were less likely to have worked at all and to have worked full-time for at least a quarter of their child's life. However, family size was unrelated to whether child support was received on behalf of the focal child.

As found in studies of the general population (Blake, 1989, 1991), children in one- and two-child families attained higher scores on both of the measures of cognitive development, and had higher scores on the HOME subscales, compared to children in larger families. In addition, compared to those in families of three or more children, only children had higher health ratings, and were more likely to have been in child care for at least a quarter of the months of their lives. On the other hand, only children were less likely to have regular contact with their fathers.

Duration on Welfare

- **Both mothers and children in families that had received AFDC for less than two years were different from mothers and children who had received welfare for longer periods of time.**

We identified women who at baseline had received AFDC for two to five years, and women who had received AFDC payments for five or more years. Both of these groups were compared to women who had been recipients for less than two years. Table 8.1 summarizes that, with respect to the Descriptive survey measures of psychological well-being and social support, women who had received welfare for five years or more were different from those who had been on welfare for less than two years, whereas on employment history and attitudes scales, both groups of longer-term recipients were different from women on welfare for less than two years. Specifically, women who had received welfare assistance for five or more years had more depressive symptoms, had less of a sense of control over their lives, and were less likely to receive instrumental social support. These women, as well as women who had received AFDC for two to five years, were less likely to have a lengthy work history and were more likely to believe that mothers should not be employed. Although duration of welfare receipt was unrelated to use of an effective contraceptive, being on welfare for five or more years was associated with a lower probability of receiving child support.

Compared with the children of short-term welfare recipients, children whose mothers had received welfare assistance for two or more years scored lower on the vocabulary test and on the Personal Maturity Scale. In addition, the home environments provided by longer-term recipients were less cognitively stimulating and less emotionally supportive than those of short-term recipients. Finally, children of longer-term recipients were less likely to have spent a substantial amount of their lives in any child care or formal child care.

Housing Type

- **Residence in public housing was related to lower well-being for mothers, and was associated with particularly low levels of child development.**

The sample was fairly evenly divided among women living at baseline in public housing projects (39 percent), subsidized housing that was not part of public housing (29 percent), and housing paid for by themselves or family members (32 percent). Residence in public housing was most consistently associated with lower well-being for the mothers and children. Women who lived in public or subsidized housing perceived less social support, and were less likely to have been employed full-time for a quarter or more of the months since their child was born, compared to other mothers. Further, those who lived in public housing (but not those who lived in subsidized housing) were less likely to feel an internal sense of control over their lives, were more likely to believe that mothers should not be employed, and were less likely to have been employed for a quarter of the months since the focal child was born, compared to mothers who lived in neither public nor subsidized housing. Child outcomes were also negatively associated with living in public housing, but not with living in subsidized housing. Specifically, children living in public housing had lower scores on the vocabulary test, the Preschool Inventory, the Personal Maturity Scale, and on the HOME measures of cognitive stimulation and emotional support.

Reading Literacy

- **Mothers and children had higher well-being when maternal reading literacy scores were higher.**

Women's scores at baseline on the reading literacy test were, like their education level, strongly associated with measures of maternal and child well-being. Thus, women with higher reading literacy scores were less likely to have depressive symptoms at the time of the Descriptive survey, more likely to indicate an internal locus of control, and more likely to enjoy instrumental and emotional social support. Women with higher reading literacy were also more likely to have worked for at least a quarter of the child's life prior to random assignment. In addition, women with higher scores were less likely to oppose maternal employment. Somewhat surprisingly, women with higher literacy reported more difficult life circumstances (e.g., housing, crime, financial problems). They were no more likely to receive child support than lower scoring mothers.

The well-being of children was also consistently higher for those whose mothers scored higher on the IALS reading literacy test. They had higher scores on both cognitive assessments; their behavior was rated more positively on the Personal Maturity Scale; their health was described as better; and their home environments were assessed as being more cognitively stimulating and more emotionally supportive. They were also more likely to have been in child care for at least a quarter of the months of their lives.

Math Literacy

- **Math proficiency was less consistently related to measures of maternal well-being, but was consistently associated with greater child well-being.**

As found for reading literacy, mothers with higher math literacy scores were less likely to be depressed and tended to have a more internal locus of control. In addition, they were more likely to have been employed (both full-time and at all) for a quarter of the months of the child's life, and were less likely to oppose maternal employment. Other measures of maternal well-being were unrelated to math literacy.

As with reading literacy, higher maternal math literacy scores were related to the child's having better cognitive and behavioral development, a better health rating, a more stimulating and supportive home environment, and having spent more time in child care.

Depressive Symptoms

- **Mothers who described themselves as having higher levels of depressive symptoms at baseline had lower well-being in multiple domains at the time of the Descriptive Survey, and described their child's behavior more negatively.**

Prior to random assignment, mothers completed a brief four-item depression scale adapted from the CES-D. Scores on this measure were strongly predictive of maternal well-being at the time of the Descriptive survey, but were not strongly related to child well-being. For example, mothers with more depressive symptoms were less likely to have an internal locus of control, less likely to enjoy instrumental and emotional social support, and less satisfied with the emotional support available to them. Moreover, mothers with depressive symptoms reported more stressful life events, and were more likely to believe that mothers should not be employed outside the home. As one might expect, women who had high depressive symptoms at baseline also reported them at the time of the Descriptive survey.

Consistent with other research (see Downey and Coyne, 1991 for a review), mothers who had depressive symptoms at baseline reported less maturity on the part of their child. However, other measures of child well-being and the assessments of the home environment were not related to the mother's baseline depression score.

Locus of Control

- **Mothers with an internal locus of control at baseline enjoyed greater psychological well-being on measures in the Descriptive survey, and had children who were developing more optimally.**

As with depression, a brief self-administered scale measuring locus of control or mastery was given to mothers at baseline. Women with a more internal locus of control tended to have fewer depressive symptoms at the time of the Descriptive survey, perceived the availability of more instrumental and emotional social support, were more likely to have worked for a quarter or more of the child's life, and were less likely to believe that mothers should not be employed. Again, as one would expect, women with a relatively internal locus of control at baseline scored similarly at the time of the Descriptive survey.

In addition to its association with maternal well-being, a more internal orientation was consistently associated with more positive child outcomes. Children whose mothers had an internal locus of control scored higher on the vocabulary test, the Preschool Inventory, the Personal Maturity Scale, and were more likely to receive a positive health rating, and their homes were rated as higher in cognitive stimulation and emotional support. Time in child care and father involvement were unrelated to the mother's locus of control.

Barriers to Work Index

- **Women on welfare who perceived substantial barriers to becoming employed were not only less likely to have worked, but they and their children were faring more poorly than those who perceived fewer barriers.**

Eight items administered at baseline were combined to construct a scale of the mother's perception of barriers which could make employment difficult, for example, family health or emotional problems, concerns about child care, and preferences for staying at home with their children. Women who perceived more barriers to employment outside of the home tended to have more depressive symptoms, and a more external locus of control, at the time of the Descriptive survey. As one would expect, they perceived themselves to have available less instrumental and emotional social support, though surprisingly they did not differ from mothers with fewer barriers with regard to the number of people who provided assistance or their satisfaction with social support. Also, women who reported more barriers to employment were less likely to have worked during a quarter of the months of the child's life, and were more likely to believe that mothers should not be employed.

Women who perceived more obstacles to employment tended to have children who were developing less well. Their children had lower scores on both of the cognitive assessments, the Personal Maturity Scale, and the HOME cognitive stimulation scale, and were more likely to

receive a negative health rating. Further, their children were less likely to have been in child care for a quarter of the months of their lives than those whose mothers perceived fewer barriers.

Social Support Index

- **Greater social support for the mother reported at baseline was associated with better psychological well-being and somewhat greater work involvement.**

As one would anticipate, women with more social support at baseline continued to have more support available to them, and be more satisfied with their support, than other mothers at the time of the Descriptive survey. In addition, they had fewer depressive symptoms and had a more internal locus of control than mothers with less support. They were also more likely to have worked during a quarter or more of the months their child's life, and were less likely to oppose maternal employment. On the other hand, mothers with higher baseline levels of social support were not more likely to have worked full-time during a quarter of the months of the child's life, to be users of effective contraception, or to receive child support from the focal child's father. Greater social support for the mother was related to a better health rating for the child, and more cognitive stimulation in the home, but was unrelated to other indices of child well-being.

Summary

In summary, it is clear that families in this sample who may appear homogeneous because they are all poor, African American mothers with a preschool-aged child are in fact highly varied. Some subgroups are functioning very well despite their marginal economic circumstances, while others are characterized by poorer psychological well-being, little social support, or less optimal child development. Moreover, in many instances the same subgroup characteristics that are associated with lower well-being among the mothers were found to be related to lower well-being on the part of the children. Specifically, low maternal education, long-term welfare dependency, residence in public housing, low maternal literacy and math test scores, and poor maternal psychological well-being at baseline were all associated not only with difficulties for the mother at the time of the Descriptive survey, but with lower scores on measures of the home environment and the developmental status of the children as well.

In the next chapter, the examination of these subgroup differences is continued. Specifically, the cumulative effects for children of being in families with multiple baseline risk factors are examined. In addition, we explore the association between protective factors, risk factors, and child well-being.

CHAPTER 9
CUMULATIVE FAMILY RISK AND PROTECTIVE FACTORS AND CHILD WELL-BEING

Background

The analyses presented thus far suggest that both the well-being of mothers and the developmental status of children in the Descriptive Study differ according to subgroups defined at baseline. In particular, those children from families with certain baseline characteristics (e.g., low maternal education, low maternal reading and math literacy scores, living in public housing) are experiencing considerably more difficulty than others.

Yet the analyses we have reported on thus far consider the set of subgroup variables one at a time. In reality, individual children will have differing profiles in terms of the number of baseline variables that place them at risk developmentally. One child, for example, might have a mother with limited education and literacy skills, but who has only been on welfare a brief period of time, who has strong social support, and shows few signs of depression. Another child, by contrast, might have a mother who not only has limited educational attainment and achievement, but who also has been on welfare for a number of years and reports both depression and social isolation.

Previous research suggests that the number of risk factors to which a child is exposed is an important predictor of development (e.g., Luster and McAdoo, 1994). For example, Rutter (1979) found that the incidence of psychiatric disorder in children was predicted by the number of familial risks to which they had been exposed (including marital discord, low socioeconomic status, overcrowding, large family size, paternal criminality, maternal psychiatric disorder, and placement of the child in out-of-home care). Whereas the presence of a single stressor did not increase child risk of psychiatric disorder, the presence of multiple stressors did. The presence of two to three stressors was associated with a fourfold increase in psychiatric disorder; when four or more stressors were present there was a tenfold increase.

Similarly, Sameroff and colleagues (1987) reported that preschool children with multiple risk factors had lower IQ scores, as well as lower ratings of social and emotional competence. Risk factors considered included measures of maternal psychological well-being, childrearing attitudes and behavior, maternal education, occupation of head of household, social support, family size, and stressful life events. Sameroff and colleagues note that it was the accumulation of different risk variables, rather than the presence of any particular type of risk, that was predictive of more negative outcomes in the children.

At the same time, however, research also indicates that some children develop positively despite the presence of serious stressors in their lives. A growing body of research documents "resilience" in children, that is, "the manifestation of competence in children despite exposure to stressful events" (Garmezy, Masten and Tellegen, 1984, p. 98). Three broad sets of variables

appear to operate to ameliorate the effects of stress on children: child characteristics, family characteristics, and external supports (Garmezy, 1985; Luthar and Zigler, 1991). Child characteristics include easy temperament and skill in social interactions. Family characteristics include warmth and affection in parent-child relations, the absence of severe parental criticism of the child, and parental psychological well-being and competence in individual functioning. Beyond the family, social support and positive school environments appear important.

Some studies find that just as risk factors can act cumulatively, so can protective factors. Bradley et al. (1984) found that in a sample of premature, low birthweight children living in poverty, the presence of multiple protective factors substantially increased the young children's chances of functioning in acceptable ranges on a set of health and developmental outcomes. In addition, Luster and McAdoo (1994) found that African American children with more family advantages (e.g., mothers with at least a high school education; mothers with intelligence scores above the mean and high self-esteem; not living in poverty; two or fewer children in the family; and HOME-SF scores above the median) were doing better cognitively and behaviorally than children with fewer advantages.

In the analyses to follow, we ask first whether risk factors, defined in light of our analyses with baseline subgroups, act cumulatively in predicting the developmental status and health of the children in the Descriptive sample. Second, guided by previous research, we identify a set of variables that we hypothesize will act as protective factors. We ask then whether the number of protective factors is important to the children's health and development. Finally, we examine how the risk and protective factors operate simultaneously in the lives of the children. If we find that the number of risk and protective factors in a child's life together predict the child's well-being, this will again underscore the need for researchers and policymakers to view welfare families as varying rather than uniform contexts for children's development.

Key Questions for Chapter 9

- **How do multiple risk factors combine to affect children's well-being?**
- **Is the presence of protective factors associated with child well-being?**
- **Are protective factors associated with child well-being when considered in association with risk factors?**

Findings

Risk Factors and Children's Development

To explore the relationship between number of risk factors and children's well-being, we developed a risk index based on the set of subgroup measures assessed at baseline (prior to random assignment) and examined throughout this report. By examining the bivariate subgroup analyses summarized in Chapter 8, we first noted that each subgroup predicted some maternal and child characteristics, and then identified the category within each subgroup that indicated

"risk" by virtue of an association with less optimal well-being. In addition, we conducted preliminary analyses to determine whether individual risk factors identified in this way were significantly related only to outcomes in the same domain (e.g., maternal cognitive attainment and child's cognitive development). We found background risk factors to predict children's development across domains. For example, low maternal education and literacy test scores predict children's cognitive and socioemotional development, as did mother's psychological well-being. These preliminary analyses resulted in the identification of the following ten risk factors:

- mother lacks a high school diploma or GED;
- mother has three or more children;
- family has been on AFDC for two or more years;
- family lives in public housing;
- mother has low reading literacy test scores;
- mother has low math literacy test scores;
- mother has moderate/high levels of depressive symptoms;
- mother has more external locus of control;
- mother perceives numerous barriers to work; and
- mother lacks social support.

Previous chapters have already documented the relationship of each of these baseline variables with measures of children's health and development. Further, many of these variables have been included in previous studies of cumulative risk. For example, Sameroff and colleagues (1987), too, considered maternal education, family size, maternal psychological well-being, and social support. Luster and McAdoo (1994) also considered maternal education, family size, and maternal psychological well-being.

We go beyond the variables included in previous research on cumulative risk in identifying variables that are important in differentiating among families within a poverty sample. Previous research indicates duration of welfare receipt (Zill et al., 1991), and residence in a neighborhood with a greater concentration of low-income-neighbors (Duncan et al., 1994), to be associated with more negative child outcomes. In addition, research indicates that completion of high school or a GED does not necessarily assure higher literacy scores (Hamilton and Brock, 1994), and that maternal literacy predicts children's development (Moore and Snyder, 1991). Mothers who perceive numerous barriers to work (e.g., children in the family with health problems, few child care resources) may be least able to take steps toward economic self-sufficiency at their own initiative or through the JOBS Program.

Prior to the creation of a cumulative risk index, we examined the intercorrelations among the risk variables to confirm that no pair was so highly correlated that they should not be considered distinct risk factors (see Appendix Table 9.1-1). None of the correlations was higher than .51 (the correlation between low reading and math literacy test scores).

We therefore proceeded with computation of a cumulative risk index, with each risk factor coded as a dichotomy, by summing the number of risk indicators present for each family. Scores on the risk index range from 0 to 10 with a mean of 4.6 risk factors. The children divided nearly evenly into three groups according to the number of risk factors: zero to three (n= 216), four to five (n = 230), and six to ten (n= 253), indicating the presence in the Descriptive sample of children with few, some, and many risk factors.

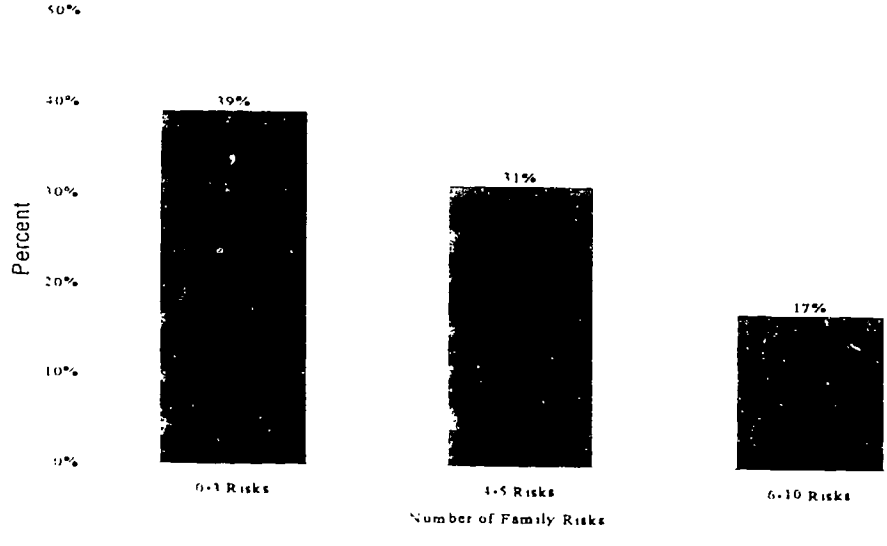
In the analyses that follow, for each child outcome we define scores that indicate positive development. We then examine the proportion of children at each level of risk scoring in this positive range.

- **The analysis of cumulative risk factors showed strong associations between the accumulation of maternal and family risk factors and the well-being of the child. We also find a strong relationship between the number of maternal risk factors and the emotional warmth and cognitive stimulation provided to the child.**

Cumulative Family Risks and Children's Cognitive Attainment. Figure 9.1 illustrates the association between the number of risk factors experienced by the child at baseline and the child's receptive vocabulary as measured in the Descriptive survey. The bar graph reports the proportion of children in the sample who obtained scores of 79 or higher on the Peabody Picture

FIGURE 9.1

PERCENT OF CHILDREN SCORING AT OR ABOVE MEDIAN FOR AFRICAN AMERICAN PRESCHOOLERS ON PEABODY PICTURE VOCABULARY TEST-REVISED, BY NUMBER OF FAMILY RISKS



Vocabulary Test, by the number of family risk factors experienced by the child. A score of 79

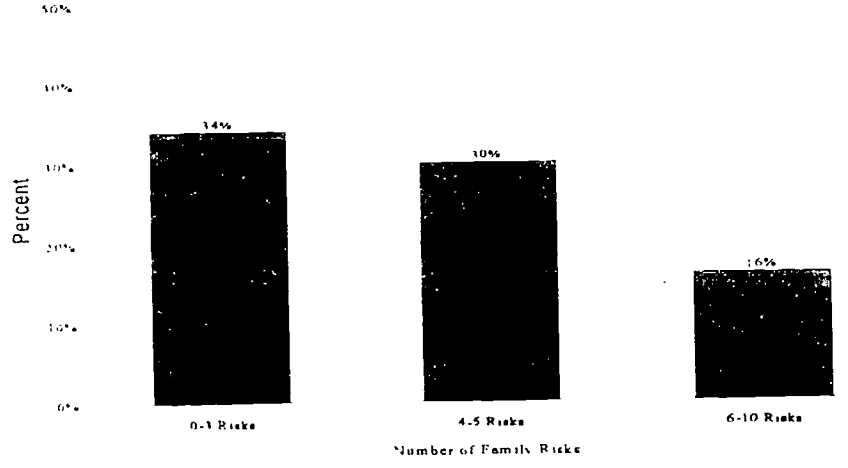
represents the median test score of a national sample of African American preschool-aged children.[52]

Overall, 29 percent of the children scored at or above the median for African American children on the vocabulary test. The proportion with higher scores was heavily concentrated among low-risk families, with 39 percent of children with zero to three risks scoring above this cutoff, compared to less than half that number (17 percent) among children at high risk.

Scores on a measure of school readiness showed a similar pattern (see Figure 9.2). Because national norms are not available for the Preschool Inventory, we established a cut-point for this sample that identifies those children in the Descriptive sample whose scores are in the top quartile of the Descriptive survey distribution. These children correctly completed 23 or more of the 32 tasks deemed important for entry into school. The proportion of Descriptive Study children correctly completing at least 23 of the 32 tasks varied by risk status. Thirty-four percent of the children from low-risk environments (zero to three risks) scored in the top quartile, compared with 30 percent of children whose family environments posed four to five risks, and just 16 percent of those in very high-risk families (six or more risks).

FIGURE 9.2

PERCENT OF CHILDREN WITH 23 OR MORE OF 32 ITEMS CORRECT ON PRESCHOOL INVENTORY, BY NUMBER OF FAMILY RISKS

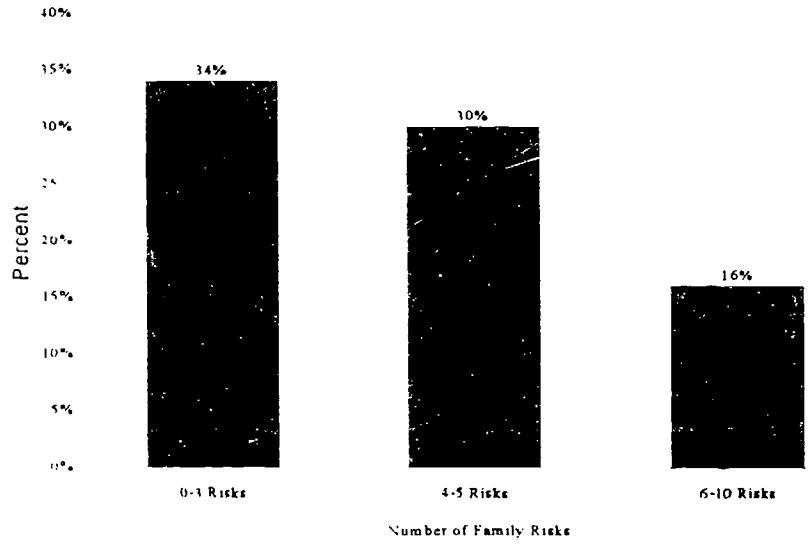


[52] We used a cutoff based on the median score for African American children because of concerns that the Peabody Picture Vocabulary Test, like many other tests of achievement, may be racially biased. This median score of 79 was based on analyses of the Peabody Picture Vocabulary Test scores of African American preschool-aged children in the NLSY-CS. We also replicated these analyses using a cutoff of scores of 100 or higher, a score which represents the median for children in the test's national standardization sample. In the Descriptive sample, only 4 percent of the children scored at or above 100 on the vocabulary test. However, the same pattern of results in relation to risk factors was observed. Specifically, only 1 percent of children with six to 10 risks scored above the national median, compared to 2 percent of children with four to five risks, and 8 percent of children with zero to three risks.

Personal Maturity Scale. The Personal Maturity Scale reflects mothers' perceptions of their children's emotional and behavioral development, and includes items concerning whether the child fights, is creative, lies, or has a strong temper. The scale ranges from zero to 10, with 10 indicating high levels of maturity. In general, mothers tended to be quite positive about their children, with about a quarter of children receiving scores of 8.6 or higher. The proportion of children with scores in this highest quartile according to number of risk factors is depicted in Figure 9.3. Again, children from low-risk family environments were substantially more likely to be described as having few developmental or emotional problems, while children from multiple-risk backgrounds were much less often described so positively.

FIGURE 9.3

PERCENT OF CHILDREN SCORING > 8.6 OF 10 POINTS ON PERSONAL MATURITY SCALE, BY NUMBER OF FAMILY RISKS



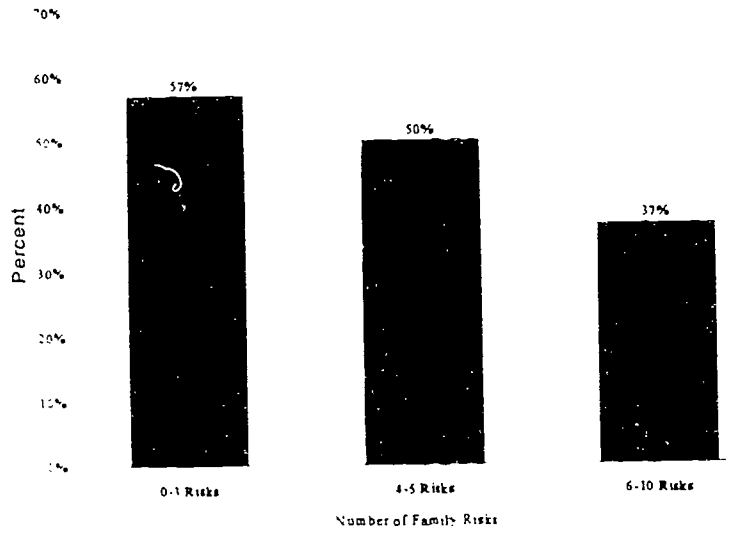
Health. Mothers were asked both to provide a global rating of their child's physical health and to report on the presence of any handicap, illness, emotional problem or mental condition that limits school attendance, exercise or sports or that requires special medication or equipment. In a sample of preschool-aged children from the National Health Interview Survey of Child Health, 38 percent of children in welfare families, 42 percent of children in poor non-welfare families, and 52 percent of children in non-poor families were reported by their mothers to enjoy excellent health with no disabilities, as were 47 percent of the children in the Descriptive sample (see Chapter 5).

As were other measures of children's well-being, the health of children in our sample was related to the number of family risk factors. Figure 9.4 shows that children were less likely to be rated in excellent health with no disabilities as the number of risk factors increased. Specifically,

57 percent of children with zero to three risks received a positive health rating, compared to only 37 percent of those with six or more risks.

FIGURE 9.4

PERCENT OF CHILDREN IN EXCELLENT HEALTH WITH NO DISABILITIES, BY NUMBER OF FAMILY RISKS



Cognitive and Emotional Stimulation in the Home: The HOME Scale. The abbreviated HOME Scale, described in Chapter 6, is comprised of two subscales that assess the cognitive stimulation and emotional support available to the child in the home environment. The sum of the two subscales provides a total score. To provide a national comparison, we have tabulated the median HOME-SF score for preschool-aged children in the NLSY-CS.[53] In Figure 9.5, we depict the proportion of children in the Descriptive sample scoring above the national median on the total scale and on each subscale, according to the number of risk factors.

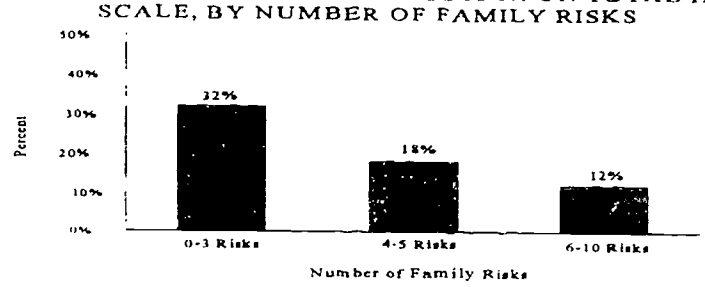
The presence of multiple risk factors was strongly associated with the quality of children's home environments. Looking at results for the total HOME scale (top of Figure 9.5), approximately a third of the Descriptive survey children in families with zero to three risks enjoyed home environments that were cognitively and emotionally supportive, while only 12 percent of children in families with six to 10 risk factors experienced similarly supportive homes.

The exact cutoffs based on the NLSY sample are the 50th percentile for the total HOME scale, the 41st percentile for the cognitive stimulation subscale, and the 53rd percentile for the emotional warmth subscale. Because the subscales have fewer items or scale points than the full scale, no single scale point coincided exactly with the national median. Therefore on the two subscales, the percentiles chosen represent the points closest to the median. Applying these cutoffs to the Descriptive sample identifies 20, 17, and 27 percent of families as scoring above the national median on the total, cognitive, and emotional scales, respectively. Fewer children rank above the national median on the cognitive scale than on the emotional warmth scale, presumably because many aspects of cognitive stimulation are limited for families that lack economic resources.

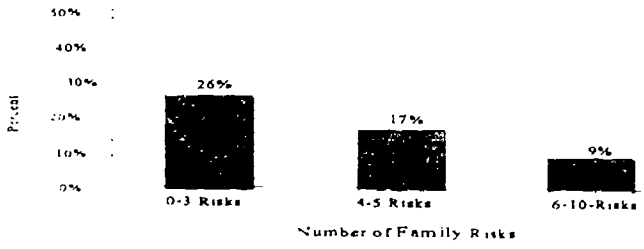
These patterns were replicated when the cognitive and emotional subscales were examined separately (see lower panels of Figure 9.5).

FIGURE 9.5

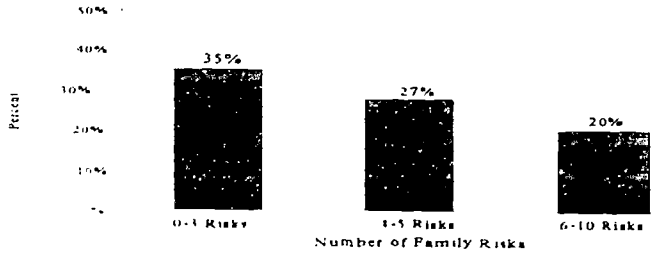
PERCENT OF CHILDREN ABOVE MEDIAN ON TOTAL HOME SCALE, BY NUMBER OF FAMILY RISKS



PERCENT OF CHILDREN ABOVE MEDIAN ON HOME COGNITIVE SUBSCALE, BY NUMBER OF FAMILY RISKS



PERCENT OF CHILDREN ABOVE MEDIAN ON HOME EMOTIONAL SUBSCALE, BY NUMBER OF FAMILY RISKS



Protective Factors and Children's Development

The above analyses illustrate that, although increased risk is associated with poorer child outcomes overall, the presence of risk by no means guarantees that a child will exhibit adverse outcomes. Previous research on populations ranging from children living on the Hawaiian Island of Kauai to those living in America's inner cities has documented that some children seem to be resistant to the effects of stress (National Commission on Children, 1991; Werner, Bierman, and French, 1971; Werner and Smith, 1977).

As we have noted, Garmezy (1985) identifies three categories of protective factors: personality characteristics of the child, warmth and cohesion in the family environment, and the presence of an external support system that encourages and strengthens the child's coping. Based on this typology, we have used the Descriptive Study data to identify the following protective factors:

Child Characteristics

- child is highly sociable and cooperative, as rated by the interviewer;
- child had no health risks at birth (child was not of low birthweight, and did not require special medical attention as a newborn);

Warmth and Cohesion of Family

- mother reports low levels of conflict with the child's father;
- mother has received child support from the child's father within the last year, or the father lives with the mother and child;
- mother reports high levels of warmth in her relationship with the child;
- mother reports she does not lose control of her feelings with the child and never feels worn out with the burdens of parenting;

External Support System

- mother reports the child has a substitute parent figure, in addition to his or her biological parent(s);
- child's father's family helps the mother with caring for the child, or buys clothes or presents for the child;
- child has attended a formal child care arrangement (including kindergarten, Head Start, nursery school, preschool, or day care center); and
- mother describes her neighborhood as an excellent or very good place to raise children.

We note that while our risk factors are all derived from baseline data, the protective factors are all based on data collected as part of the Descriptive survey, and are thus contemporaneous with the child outcomes.

As was done for the risk factors, each protective factor was coded as a dichotomy, and we then computed a summary index indicating the number of protective factors present for each child. Although we identified 10 protective factors, we found that no child had more than nine of these; thus the protective index ranges from zero to nine with a mean of 4.5 protective factors. Intercorrelations among the protective factors indicated no pair to be highly correlated (see Appendix Table 9.1-2). The highest correlation was .25, between the receipt of child support from the child's father and the receipt of non-economic support from the father's family.

To parallel the above analyses looking at risk factors, here we examine whether the number of protective factors was related to the proportion of children scoring above the cutoffs we defined on each of four measures of child's developmental status: Peabody Picture

Vocabulary Test, Preschool Inventory, Personal Maturity Scale, and health status rating.[54] For each measure of child well-being, we use the same cutoffs reported earlier, to examine the percentage of children faring well on each measure. We again group children into three groups according to the number of protective factors: zero to three (n = 182), four to five (n = 300), and six to nine (n = 217). The fact that a substantial proportion of the sample falls into each category points to the variation within this sample in the presence of protective factors. Although protective factors have traditionally been examined only for children at high risk (that is, with multiple risk factors in their lives), the fact that living in poverty itself constitutes a risk factor for children's development suggests that protective factors may be important for the Descriptive sample as a whole.

- **Children with a greater number of protective factors were more likely to score in the upper distribution of measures of health and development.**

Figures 9.6 through 9.9 show how the number of protective factors relates to each child development measure. These figures clearly show that as the number of protective factors increases, a greater proportion of children score at the highest level of each measure. For example, Figure 9.7 shows that the proportion of children scoring in the upper quartile on the Preschool Inventory increases from 15 percent among children with zero to three protective factors, to 36 percent among children with six or more protective factors. Similarly, the proportion of children rated by their mothers as in excellent health with no disabilities increases from 41 to 55 percent, as the number of protective factors increases (Figure 9.9).

[54] In contrast to the analyses of risk factors, we did not examine protective factors in association with children's scores on the HOME. Previous literature has viewed the quality of the home environment as an important protective factor, and thus we have used a measure of maternal warmth, drawn in part from the HOME scale, as one of several protective factors.

FIGURE 9.6

PERCENT OF CHILDREN SCORING AT OR ABOVE MEDIAN FOR AFRICAN AMERICAN PRESCHOOLERS ON PEABODY PICTURE VOCABULARY TEST-REVISED BY NUMBER OF PROTECTIVE FACTORS

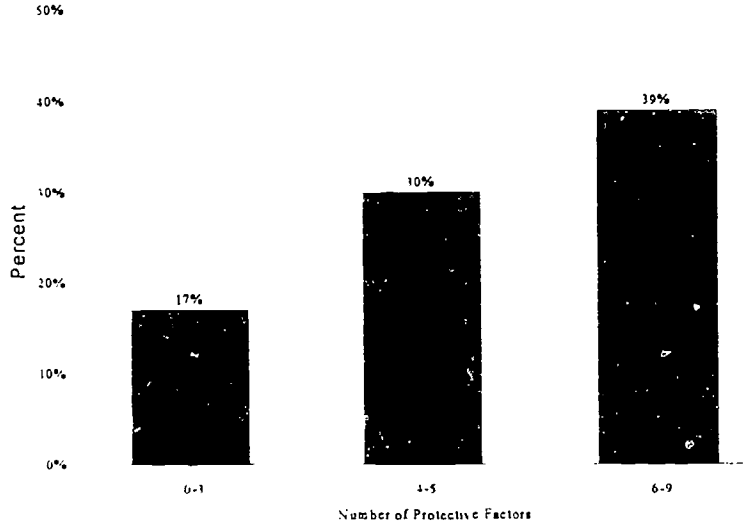


FIGURE 9.7

PERCENT OF CHILDREN WITH 23 OR MORE OF 32 ITEMS CORRECT ON PRESCHOOL INVENTORY, BY NUMBER OF PROTECTIVE FACTORS

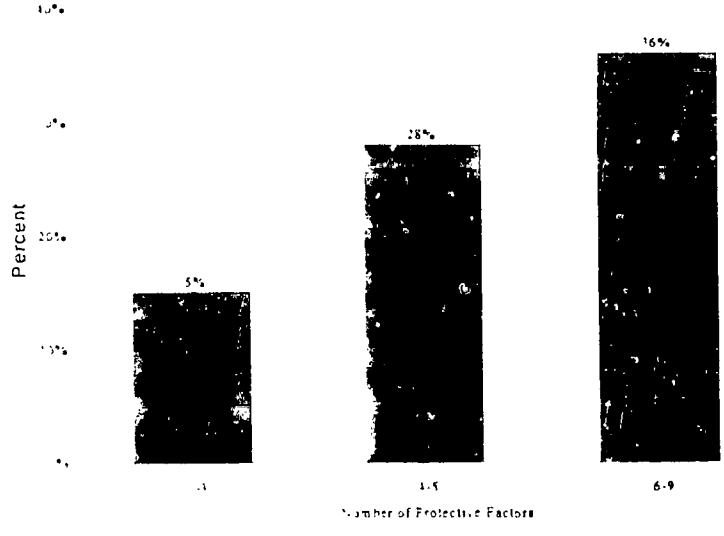


FIGURE 9.8

PERCENT OF CHILDREN SCORING > 8.6 OF 10 POINTS ON PERSONAL MATURITY SCALE, BY NUMBER OF PROTECTIVE FACTORS

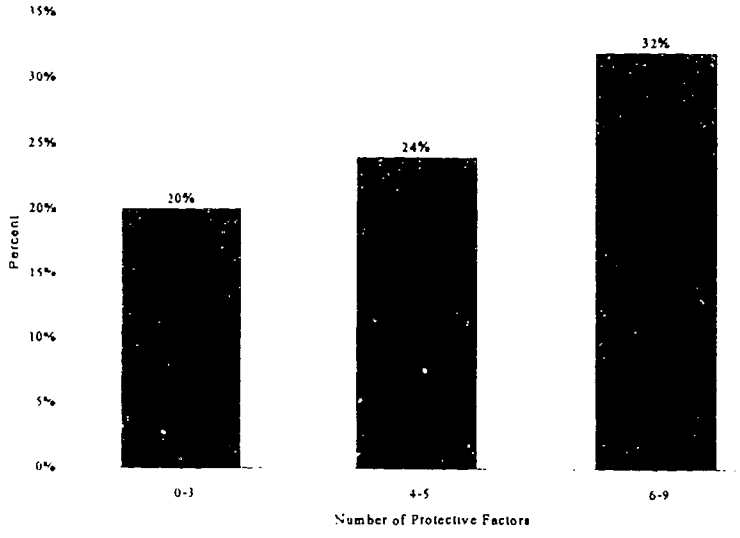
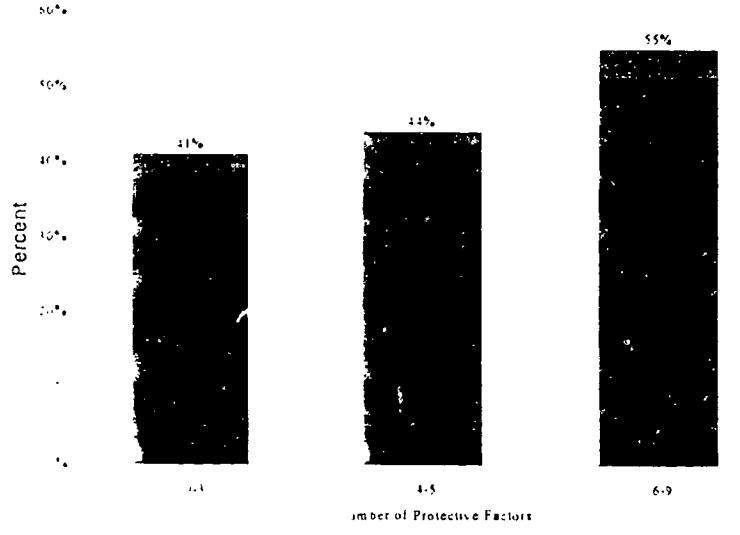


FIGURE 9.9

PERCENT OF CHILDREN IN EXCELLENT HEALTH WITH NO DISABILITIES, BY NUMBER OF PROTECTIVE FACTORS

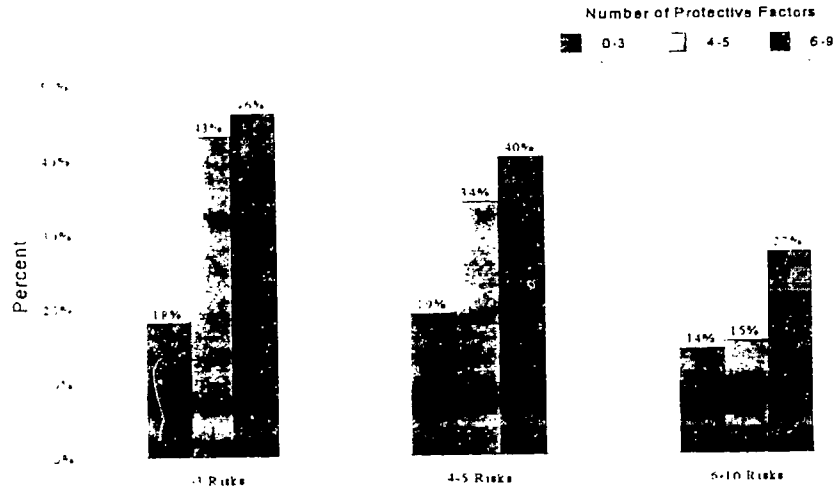


Association Between Risk and Protective Factors

Next, we consider the conjoint association between the presence of risk and protective factors. These analyses allow one to examine whether protective factors are associated with more positive development for all children, or only for children at high levels of risk. For these analyses we grouped children according to their level of risk, and then within these groups examined the proportion of children with favorable developmental status at each level of protective factors. We used the same categories of risk and protective factors described above, yielding a total of nine groups of children, ranging from those with few risk and few protective factors, to those with high levels of both.[55] Figures 9.10 through 9.13 show the association of risk and protective factors with each of the four measures of child developmental status considered above.

FIGURE 9.10

PERCENT OF CHILDREN SCORING AT OR ABOVE MEDIAN FOR AFRICAN AMERICAN PRESCHOOLERS ON PEABODY PICTURE VOCABULARY TEST-REVISED, BY NUMBER OF FAMILY RISK AND PROTECTIVE FACTORS



[55] Among children with 0-3 risks, the number of children with 0-3, 4-5, and 6-9 protective factors was 41, 89, and 86, respectively. Among children with 4-5 risks, the number of children w. 0-3, 4-5, and 6-9 protective factors was 60, 106, and 64, respectively. Among children with 6-10 risks, the number of children with 0-3, 4-5, and 6-9 protective factors was 81, 105, and 67, respectively.

FIGURE 9.11

PERCENT OF CHILDREN WITH 23 OR MORE OF 32 ITEMS CORRECT ON PRESCHOOL INVENTORY, BY NUMBER OF FAMILY RISK AND PROTECTIVE FACTORS

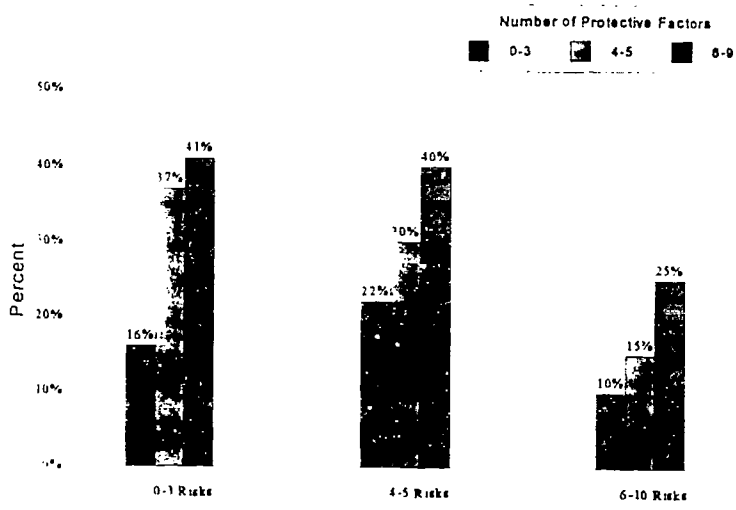


FIGURE 9.12

PERCENT OF CHILDREN SCORING > 8.6 OF 10 POINTS ON PERSONAL MATURITY SCALE, BY NUMBER OF FAMILY RISK AND PROTECTIVE FACTORS

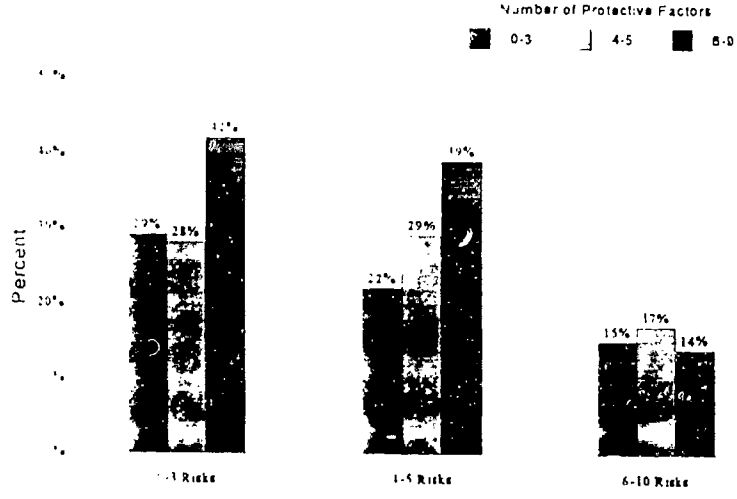
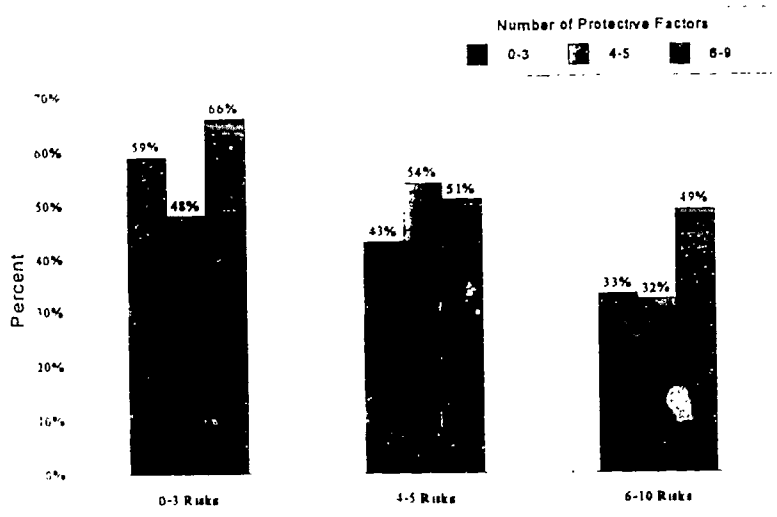


FIGURE 9.13

PERCENT OF CHILDREN IN EXCELLENT HEALTH WITH NO DISABILITIES, BY NUMBER OF FAMILY RISK AND PROTECTIVE FACTORS



- **For the two cognitive measures considered (Peabody Picture Vocabulary Test and Preschool Inventory), higher numbers of protective factors are associated with more optimal development at each level of risk, while at the same time children at greater risk exhibit poorer outcomes overall.**

For example, Figure 9.10 shows that at each level of risk, children with six to nine protective factors are approximately twice as likely to score above the median on the Peabody Picture Vocabulary Test than are children with zero to three protective factors. However, fewer than 30 percent of children at the highest level of risk scored above the median, regardless of the number of protective factors present.

- **The association between risk and protective factors is less clear when we consider children's socioemotional development and physical health.**

Figure 9.12 shows that, for children with fewer than six risks, more protective factors are generally associated with higher scores on the Personal Maturity Scale. However, for children with six or more risk factors, the presence of protective factors does not improve children's well-being. Regardless of the number of protective factors, only 14 to 17 percent of children with high levels of risk were rated by their mothers as high on personal maturity. This pattern suggests that above a certain threshold in terms of number of risk factors, protective factors no longer operate as ameliorative for this measure of socioemotional development.

Figure 9.13 illustrates that in all three risk groups, children with six or more protective factors are more likely to be in excellent health with no disability than children with three or fewer protective factors. However, children with four or five protective factors show an irregular association of risk level with health status.

Luthar and Zigler (1991) describe contrasting theoretical models for the relationship between risk and resilience. In a compensatory or additive model, risk factors are associated with lower levels of functioning, and protective factors with higher levels. The simultaneous operation of risk and protective factors "is a simple counteractive one" (p. 13). By contrast, in an interactive model, the protective factors operate differently at different levels of risk, for example, buffering negative effects only for those at high risk. These researchers note that different models may fit the pattern of findings for different child outcomes. In reviewing the evidence, Luthar and Zigler (1991) note that interaction effects account for very little variance once the main effects of risk and protective factors are accounted for.

On the one hand, the findings of the Descriptive Study provide evidence that protective factors buffer the negative effects of risk at all levels of risk, particularly for the cognitive child outcomes. These findings support the compensatory model. Yet at the same time we must note that the children in our sample might all be considered at high risk, by dint of their families' poverty. That is, we are portraying the functioning of the protective factors at the upper end of the risk continuum. Thus, our analyses, while lending support to the compensatory model, cannot be seen as ruling out the particular version of the interactive model that hypothesizes that protective factors operate only for those at high risk.

Summary

These analyses make it very apparent that even among a sample of children who are all at risk by virtue of living in poverty, those with multiple risk factors are exhibiting less optimal development. Thus, the risks experienced by the mothers in the first generation are clearly translated into diminished opportunities for the children in the next generation. At the same time, a number of protective factors were found to be associated with more positive development for the children. Analyses suggest that risk and protective factors influence jointly children's cognitive, socioemotional, and physical well-being.

How family risk and protective factors will interact with maternal participation in JOBS activities, and success in obtaining employment and leaving welfare, remains to be seen. How these factors in turn affect the development of children over time will be explored with follow-up data from the JOBS Evaluation.

CHAPTER 10
IMPLICATIONS

It is well understood that the circumstances of families and the characteristics of parents have a tremendous influence on the development and well-being of their children (National Commission on Children, 1991). Only recently, however, has this understanding been incorporated into programs that explicitly attempt to improve the prospects for children by investing in their parents (Smith et al., 1992). As discussed in earlier chapters, the JOBS Program was designed to affect parents directly by providing services aimed at ending long-term welfare dependency. Nevertheless, indirect effects on children are also possible, if the JOBS Program affects parental education, income, mother's psychological well-being, the home environment, or child care arrangements. As the long-term evaluation of JOBS proceeds, we will examine whether and how JOBS has impacts on children. The purpose of this report has been to explore the circumstances of eligible families soon after their enrollment in the Program. What have we learned?

A clear theme is that the mothers in the Fulton Descriptive sample are in general highly disadvantaged. As single mothers on AFDC, their incomes are of course very modest. On average, their reading and math literacy skills are low. Although they enjoy social support from family and friends, they report minimal economic or non-economic assistance from the fathers of their children. In addition, they have high rates of depressive symptoms and they experience numerous difficulties in the course of everyday life, such as having family members and friends who are in jail, injured, or killed.

Similarly, the three- to five-year-old children are also clearly disadvantaged at this early point in the Evaluation. As rated by their mothers, the children's behavior and maturity do not represent a problem; however, the children's receptive vocabulary is substantially below the mean for national samples of children; their health is somewhat less favorable than that reported for non-poor children; and many of the children appear to lack the skills and knowledge that would make them ready to enter school. Given that these children are already faring poorly, it seems entirely appropriate that policy makers, program providers, and the public consider whether and/or how the JOBS Program may affect children.

A second recurring theme of these analyses is the heterogeneity of the population of welfare mothers eligible for JOBS. For example, some mothers have no prior work experience, while others were working at the time of the Descriptive survey. Some mothers hold positive attitudes about becoming employed, while a minority feel that mothers with young children should not work. A substantial proportion have high levels of depressive symptoms, but many others do not. A majority use reliable methods of contraception or have been sterilized; but a minority of mothers are at risk of an unplanned pregnancy. Because of this variation, it is likely that maternal participation in, and reactions to, JOBS activities will vary. Those mothers who are eager to work, know where they can obtain child care, and have recent employment experience may be more likely to respond to the JOBS mandate. Other mothers face substantial

obstacles to participation, such as low literacy levels, little support from family and friends, and negative attitudes about employment.

These variations in maternal characteristics are likely to have important implications for the children's well-being. Thus, for children whose mothers and families are already under substantial stress and who have minimal social support, the JOBS mandate may represent a fairly difficult transition, although the Program may eventually be particularly helpful for such families. For other children, whose mothers have job skills and employment experience and who receive help with childrearing and child care, the JOBS mandate may stimulate and support a transition which is positive for both mother and child.

Had the mothers proven to be more uniform in their work attitudes, goals, psychological well-being, skills, and social support, the JOBS mandate might have more uniform implications for children. The Descriptive data, however, document diversity within the Fulton County AFDC sample of such magnitude that it seems unlikely that any impacts on children will be uniform. We have suggested elsewhere that the effects of the JOBS Program could be positive, negative, or neutral; that positive and negative effects could offset one another; or that effects on children may vary across subgroups (Zaslow et al., 1995). Early results indicating substantial subgroup variation suggest that the JOBS Program is likely to elicit varied responses from both mothers and children and also suggest it will be very important to examine subgroup differences.

In particular, multiple risk families stand out as a group whose children are especially disadvantaged. It is striking how the effects of family and maternal risk factors appear to cumulate to undermine the well-being of the children. Whether and how mothers in multiple-risk families can participate in JOBS, and the effects of the program on the children in these high-risk environments, must be examined. Indeed, this particular subgroup of multiple-risk families may need special counseling and services to help the mothers meet the JOBS mandate and to help their children to prosper.

On a more positive note, we were also able to identify a set of protective factors that were associated with more positive child development. The mutual influence of risk and protective factors present at the start of the JOBS Program may be an important determinant of both participation in, and impacts of, the Program.

Finally, the data suggest that the JOBS mandate is translating into initial changes in the lives of many AFDC mothers and their children. Whether or not the program results in economic self-sufficiency for AFDC families, the JOBS mandate is producing immediate changes in mothers' activities and child care arrangements. The effects of these apparent early changes will combine with any later program impacts on maternal education, earnings, and self-sufficiency. Thus, these early data suggest that the JOBS mandate has the potential to affect the lives of two generations and provide strong reason to track the well-being of both generations over time.

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APPENDIX A

DESCRIPTION OF WEIGHTING PROCEDURES, CONTROL VARIABLES, AND ANALYTIC SUBGROUPS

I. Weighting

The sample weight used for the Fulton County Descriptive Study data is designed to correct for the differential sampling in the Labor Force group. The weight was created by using the sample sizes in the following table and computing weights using the formula: WEIGHT = [1 / (a / b)] * (c / d) = e.

For each group (human capital development with and without a high school (HS) diploma, labor force attachment with and without a HS diploma, and control group with and without a HS diploma) this formula calculates the factor by which the sample can be multiplied to obtain a weighted N. To avoid the problem of statistically significant results for even small differences, which can result from inflated Ns, the second part of calculating the weight involves down-weighting to the original sample size. This is done by multiplying the factor calculated above by the proportion of the population represented by our sample.

Computed Weights for Descriptive Sample

	N in Descriptive Study cell (a)	N in Population (b)	Total N (Descriptive Study) (c)	Total N (Population) (d)	Computed Weight (e)
Human Capital Development Group					
w/ HS diploma/GED	235	318	790	1254	0.85
w/o HS diploma GED	125	168	790	1254	0.85
Labor Force Attachment Group					
w/ HS diploma/GED	149	319	790	1254	1.35
w/o HS diploma/GED	81	164	790	1254	1.28
Control Group					
w HS diploma GED	129	183	790	1254	0.89
w o HS diploma GED	71	102	790	1254	0.91

II. Control Variables

The following variables were used as controls in all analyses, unless otherwise indicated. Omitted categories for the regression analyses are noted in parentheses:

A. Focal child's age at random assignment (RAD) in months
B. Focal child's gender (omitted category = girl)
C. Group Assignment:
    1. human capital development group
    2. labor force attachment group
    3. control group (omitted category)

III. Subgroup Variables

Subgroup analyses were conducted using the following variables constructed from information collected at the time of random assignment:

A. **Educational Attainment**
    1. High school diploma, GED, or college
    2. No degree (omitted category)

B. **Number of children** under age 19 living in the household for whom the respondent is the primary caretaker
    1. One child
    2. Two children
    3. Three or more children (omitted category)

C. **Welfare duration**: Time on own or spouse's AFDC case in adult life, cumulatively
    1. Five or more years
    2. Two but less than five years
    3. Less than two years (omitted category)

D. **Current Housing**
    1. Public Housing
    2. Subsidized Housing
    3. Neither public nor subsidized (omitted category)

E. **Reading Literacy**: Test of Applied Literacy Skills Scores
    1. Levels 1 or 2 (0 to 275; Lowest levels) (omitted category)
    2. Level 3, 4, or 5 (276 to 500; Highest levels)

F. **Math Literacy**: GAIN Appraisal Math test

1. Levels A or B (0 to 214; Lowest literacy) (omitted category)
2. Levels C or D (215 to 249; Highest literacy)

G. **Locus of Control** This is a four-item scale constructed from the following Private Opinion Survey items:

I have little control over the things that happen to me.
I often feel angry that people like me never get a fair chance to succeed.
Sometimes I feel that I'm being pushed around in life.
There is little that I can do to change many of the important things in my life.

The summary score for the scale was recoded into two categories by dividing the score at the median:

1. Low/external (omitted category)
2. High/internal

H. **Brief Depression Scale** This is a four-item scale constructed from the following Private Opinion Survey items:

During the past week...
I felt sad.
I felt depressed.
I felt that I could not shake off the blues, even with the help of family and friends.
I felt lonely.

The summary score for the scale was recoded into two categories by dividing the score at the median:

1. Moderate/high depressive symptoms
2. Low depressive symptoms (omitted category)

I. **Family Barriers to Work Index** This is an 8-item index created from the following Private Opinion Survey items:

I can't go to a school or job training program right now because I...
...have a health or emotional problem.
...have a child or family member with a health or emotional problem.
...already have too much to do during the day.

My family is having so many problems that I cannot go to a school or training program right now.

My family is having so many problems that I cannot work at a part-time or full-time job right now.
Right now I'd prefer not to work so I can take care of my family full-time.
I do not want a job because I would miss my children too much.
I cannot go to a school or job training program right now because I am afraid to leave my children in day care or with a babysitter.

Summary scores were recoded into two categories by dividing the score at the median:

1. High amount of barriers to work
2. Low amount of barriers to work (omitted category)

J. **Social Support Index.** This is a 3-item index created from the following Private Opinion Survey items:

When I have an emergency and need cash, friends and family will loan it to me.
When I have troubles or need help, I have someone I can really talk to.
If I got a job, I could find someone I trust to take care of my children.

Summary scores were recoded into two categories by dividing the score at the median:

1. High amount of sources of social support
2. Low amount of sources of social support (omitted category)

APPENDIX B

REGRESSION ANALYSES FOR SUBGROUP DIFFERENCES IN MATERNAL AND CHILD CHARACTERISTICS

APPENDIX TABLE 3.1-1

OLS REGRESSION ANALYSES OF SUBGROUPS PREDICTING NUMBER OF BIRTH CHILDREN LIVING IN HOUSEHOLD AT THE DESCRIPTIVE STUDY
(mean=2.26, s.d.=1.13)

Variable Description	Model 1 (N=790)	Model 2 (N=790)	Model 3 (N=790)	Model 4 (N=790)	Model 5 (N=790)	Model 6 (N=789)	Model 7 (N=789)	Model 8 (N=771)	Model 9 (N=772)
Child's age in months	.02***	--	--	.02***	.02***	.01*	.02***	.02***	.02***
Child's gender (1=boy, 0=girl)	--	-.03	--	-.03	-.02	.04	-.04	.001	-.01
Human Capital Development Group	--	--	-.04	-.12	-.11	-.09	-.12	.001	-.01
Labor Force Attachment Group	--	--	-.16	-.25*	-.23*	-.20*	-.25*	-.26*	-.27*
R received high school diploma/GED	--	--	--	--	-.47***	--	--	--	--
R has been on welfare 2 years, but less than 5	--	--	--	--	--	-.14	--	--	--
R has been on welfare 5 years or more	--	--	--	--	--	.75***	--	--	--
R lives in public housing	--	--	--	--	--	--	.31***	--	--
R lives in subsidized housing	--	--	--	--	--	--	-.03	--	--
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	--	--	--	-.39***	--
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--	-.44***
R has moderate/high depressive symptoms	--	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--	--
R^2	.02***	.0002	.003	.02**	.06***	.16***	.04***	.05***	.06***

(continued)

Variable Description	Model 10 (N=722)	Model 11 (N=733)	Model 12 (N=726)	Model 13 (N=708)	Model 14 (N=676)
Child's age in months	.02***	.02***	.02***	.02***	.01**
Child's gender (1 boy, 0 girl)	.04	-.007	.02	.007	.06
Human Capital Development Group	-.09	-.10	-.11	-.12	-.11
Labor Force Attachment Group	-.25*	-.26*	-.31**	-.31**	-.25*
R received high school diploma/GED	--	--	--	--	-.11
R has been on welfare 2 years, but less than 5	--	--	--	--	-.16
R has been on welfare 5 years or more	--	--	--	--	.60***
R lives in public housing	--	--	--	--	.12
R lives in subsidized housing	--	--	--	--	-.13
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	.02
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	-.16+
R has moderate high depressive symptoms	-.03	--	--	--	-.11
R has more internal locus of control	--	-.24**	--	--	-.13
R perceives high amount of barriers to working	--	--	.14+	--	-.03
R has high amount of social support	--	--	--	-.07	-.06
R^2	.02**	.04***	.03***	.03***	.19***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data
A t test statistic was applied to differences between baseline subgroups. Statistical significance levels are indicated as *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$

APPENDIX TABLE 3.1-2

LOGISTIC REGRESSION ANALYSES OF SUBGROUPS PREDICTING WOMEN WHO HAVE NEVER WORKED FULL-TIME DURING THEIR CHILD'S LIFE BEFORE RANDOM ASSIGNMENT
(Women Who Have Never Worked Full-time = 63%)

Variable Description	Model 1 (N=780)	Model 2 (N=780)	Model 3 (N=780)	Model 4 (N=780)	Model 5 (N=780)	Model 6 (N=772)	Model 7 (N=779)	Model 8 (N=759)	Model 9 (N=761)
Child's age in months	.98**	--	.98*	.98**	.97**	.97***	.98**	.98**	.98*
Child's gender (1=boy, 0=girl)	--	.77+	.78+	.78+	.77+	.86	.77+	.77+	.73*
R received high school diploma or GED	--	--	--	.57***	--	--	--	--	--
R has one child	--	--	--	--	.50***	--	--	--	--
R has two children	--	--	--	--	.62**	--	--	--	--
R has been on welfare 2 years but less than 5	--	--	--	--	--	3.35***	--	--	--
R has been on welfare 5 years or more	--	--	--	--	--	10.48***	--	--	--
R lives in public housing	--	--	--	--	--	--	2.50***	--	--
R lives in subsidized housing	--	--	--	--	--	--	1.58*	--	--
R scored 276 and above on reading literacy test (Level 3/4)	--	--	--	--	--	--	--	.44***	--
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--	.42***
R has moderate-high depressive symptoms	--	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--	--
-2 Log Likelihood	1017.47**	1021.18+	1014.65**	1002.48***	1000.86***	881.53***	986.55***	961.06***	960.44***

(continued)

APPENDIX TABLE 3.1-2 (continued)

Variable Description	Model 10 (N=713)	Model 11 (N=725)	Model 12 (N=718)	Model 13 (N=701)	Model 14 (N=668)
Child's age in months	.98*	.98*	.98*	.98**	.96**
Child's gender (1=boy, 0=girl)	.85	.80	.80	.79	.86
R received high school diploma/GED	--	--	--	--	1.04
R has one child	--	--	--	--	1.28
R has two children	--	--	--	--	.77
R has been on welfare 2 years but less than 5	--	--	--	--	2.47***
R has been on welfare 5 years or more	--	--	--	--	7.36***
R lives in public housing	--	--	--	--	1.48+
R lives in subsidized housing	--	--	--	--	1.05
R scored 7th grade and above on reading literacy test (Levels C and D)	--	--	--	--	.90
R scored 7th grade and above on math literacy test (Levels C and D)	--	--	--	--	.68+
R has moderate to severe depressive symptoms	1.0	--	--	--	.79
R has more internal locus of control	--	.61**	--	--	.90
R perceives high amount of barriers to working	--	--	2.08***	--	1.65**
R has high amount of social support	--	--	--	.75+	.79
-2 Log Likelihood	933.79+	940.19***	921.98***	915.46**	750.99***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data. Estimated odds ratios based on logistic regression analysis. *** p < .001, ** p < .01, * p < .05; + p < .10. Research group is not controlled because employment took place before random assignment.

APPENDIX TABLE 3.1-3

OLS REGRESSION ANALYSES OF SUBGROUPS PREDICTING BELIEF THAT MOTHERS SHOULD NOT BE EMPLOYED MEAN SCORE

(mean=2.78, s.d. 2.14)

Variable Description	Model 1 (N=778)	Model 2 (N=778)	Model 3 (N=778)	Model 4 (N=778)	Model 5 (N=778)	Model 6 (N=778)	Model 7 (N=770)	Model 8 (N=777)	Model 9 (N=758)
Child's age in months	-.001	--	--	-.002	-.004	-.003	-.001	-.003	-.004
Child's gender (1=boy, 0=girl)	--	-.009	--	-.01	-.008	-.02	.03	-.015	.02
Human Capital Development Group	--	--	-.009	-.000	.01	.005	.02	-.004	.03
Labor Force Attachment Group	--	--	.09	.10	.11	.11	.10	.10	.12
R received high school diploma/GED	--	--	--	--	-.35*	--	--	--	--
R has one child	--	--	--	--	--	-.18	--	--	--
R has two children	--	--	--	--	--	-.22	--	--	--
R has been on welfare 2 years but less than 5	--	--	--	--	--	--	.53*	--	--
R has been on welfare 5 years or more	--	--	--	--	--	--	.71***	--	--
R lives in public housing	--	--	--	--	--	--	--	.43*	--
R lives in subsidized housing	--	--	--	--	--	--	--	.15	--
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	--	--	--	--	-.58***
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--	--
R has moderate high depressive symptoms	--	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--	--
R^2	.000	.000	.000	.001	.006	.003	.024	.008	.024

(continued)

APPENDIX TABLE 3.1-3 (continued)

Variable Description	Model 10 (N=760)	Model 11 (N=711)	Model 12 (N=721)	Model 13 (N=715)	Model 14 (N=697)	Model 15 (N=665)
Child's age in months	-.002	-.005	-.001	-.004	-.006	.001
Child's gender (1=boy, 0=girl)	-.04	-.007	.005	-.015	.001	.05
Human Capital Development Group	.03	.08	-.02	.04	.02	.05
Labor Force Attachment Group	.12	.12	.10	-.02	.14	.06
R received high school diploma/GED	--	--	--	--	--	-.01
R has one child	--	--	--	--	--	.16
R has two children	--	--	--	--	--	.01
R has been on welfare 2 years but less than 5	--	--	--	--	--	.43+
R has been on welfare 5 years or more	--	--	--	--	--	.34
R lives on public housing	--	--	--	--	--	.13
R lives in subsidized housing	--	--	--	--	--	-.08
R scored 276 and above on reading literacy test (Level 3/5)	--	--	--	--	--	-.02
R scored 215 and above on math literacy test (Levels C and D)	-.66***	--	--	--	--	-.30
R has moderate/high depressive symptoms	--	.45*	--	--	--	.34
R has more internal locus of control	--	--	-.81***	--	--	-.39*
R perceives high amount of barriers to working	--	--	--	1.27***	--	.95***
R has high amount of social support	--	--	--	--	-.44**	-.26
R^2	.02**	.007	.04***	.09***	.01	.12***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data.
A t-test statistic was applied to differences between baseline subgroups. Statistical significance levels are indicated as *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$

APPENDIX TABLE 3.1-4

LOGISTIC REGRESSION ANALYSES OF SUBGROUPS PREDICTING SCORES ON THE CENTER FOR EPIDEMIOLOGICAL STUDIES DEPRESSION SCALE (CES-D) THAT ARE ABOVE A CLINICAL CUTOFF
(Women with Scores above a Clinical Cut-off = 42%)

Variable Description	Model 1 (N=765)	Model 2 (N=765)	Model 3 (N=765)	Model 4 (N=765)	Model 5 (N=765)	Model 6 (N=765)	Model 7 (N=757)	Model 8 (N=764)	Model 9 (N=745)
Child's age in months	1.00	--	--	.99	.99	.99	.99	.99	.99
Child's gender (1=boy 0=girl)	--	.89	--	.89	.89	.89	.91	.88	.95
Human Capital Development Group	--	--	1.04	1.05	1.07	1.07	1.10	1.07	1.09
Labor Force Attachment Group	--	--	1.14	1.19	1.19	1.21	1.23	1.19	1.25
R received high school diploma/GED	--	--	--	--	.89	--	--	--	--
R has one child	--	--	--	--	--	.80	--	--	--
R has two children	--	--	--	--	--	.86	--	--	--
R has been on welfare 2 years (last 6 months)	--	--	--	--	--	--	1.17	--	--
R has been on welfare 5 years (last 6 months)	--	--	--	--	--	--	1.87**	--	--
R lives in public housing	--	--	--	--	--	--	--	1.13	--
R lives in subsidized housing	--	--	--	--	--	--	--	.87	--
R scored 276 and above on reading literacy test (Level 3/5)	--	--	--	--	--	--	--	--	.58***
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--	--
-2 Log Likelihood	1040.75	1040.50	1040.51	1039.37	1037.57	1037.86	1017.24*	1036.24	999.80**

(continued)

APPENDIX TABLE 3.1-4 (Continued)

Variable Description	Model 10 (N=747)	Model 11 (N=713)	Model 12 (N=706)	Model 13 (N=690)	Model 14 (N=669)
Child's age in months	.99	1.00	.99	.99	.99
Child's gender (1=boy, 0=girl)	.90	.93	.92	.95	.94
Human Capital Development Group	1.04	.96	1.04	1.06	1.07
Labor Force Attachment Group	1.19	1.22	1.15	1.30	1.31
R received high school diploma/GED	--	--	--	--	1.18
R has one child	--	--	--	--	1.10
R has two children	--	-	--	--	.99
R has been on welfare 2 years but less than 5	--	--	--	--	1.01
R has been on welfare 5 years or more	--	-	--	--	1.53+
R lives in public housing	--	--	--	--	.79
R lives in subsidized housing	-	-	-	--	.61*
R scored 276 and above on reading literacy test (Level 3/4)	--	--	--	--	.82
R scored 215 and above on math literacy test (Levels C and D)	.56***	-	--	--	.69+
R has more internal locus of control	--	.47***	--	--	.57**
R perceives high amount of barriers to working	--	--	1.69***	--	1.24
R has high amount of social support	--	--	--	.68*	.73+
-2 Log Likelihood	1001.54**	941.17***	948.80*	923.96	859.65***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data
Estimated odds ratios based on logistic regression analysis. Statistical significance levels are indicated as *** p < .001, ** p < .01, * p < .05, + p < .10

APPENDIX TABLE 3.1-5
OLS REGRESSION ANALYSES OF SUBGROUPS PREDICTING A MORE INTERNAL LOCUS OF CONTROL
(mean = 21.35, s.d. = 3.54)

Variable Description	Model 1 (N=770)	Model 2 (N=770)	Model 3 (N=770)	Model 4 (N=770)	Model 5 5(N=770)	Model 6 (N=770)	Model 7 (N=764)	Model 8 (N=769)	Model 9 (N=750)
Child's age in months	-.0004	--	--	-.001	.005	.006	.007	-.0003	.008
Child's gender (1=boy, 0=girl)	--	.29	--	.26	.24	.26	.15	.28	.16
Human Capital Development Group	--	--	-.25	-.24	-.30	-.27	-.35	-.25	-.21
Labor Force Attachment Group	--	--	.17	.16	.11	.08	.04	.15	.19
R received high school diploma/GED	--	--	--	--	1.13***	--	--	--	--
R has one child	--	--	--	--	--	.92**	--	--	--
R has two children	--	--	--	--	--	.27	--	--	--
R has been on welfare 2 years but less than 5	--	--	--	--	--	--	-.49	--	--
R has been on welfare 5 years or more	--	--	--	--	--	--	-1.52***	--	--
R lives in public housing	--	--	--	--	--	--	--	-.75*	--
R lives in subsidized housing	--	--	--	--	--	--	--	.10	--
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	--	--	--	--	2.04***
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--	--
R has moderate/high depressive symptoms	--	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--	--
R^2	.00	.002	.003	.004	.03***	.01+	.03***	.02*	.08***

(continued)

APPENDIX TABLE 3.1-5 (continued)

Variable Description	Model 10 (N=752)	Model 11 (N=706)	Model 12 (N=709)	Model 13 (N=692)	Model 14 (N=664)
Child's age in months	0001	-.001	.001	.0007	.01
Child's gender (1=boy, 0=girl)	.27	.19	.19	.24	.19
Human Capital Development Group	-.24	-.36	-.30	-.22	-.46
Labor Force Attachment Group	.17	.04	.18	.08	-.04
R received high school diploma/GED	--	--	--	--	.18
R has one child	--	--	--	--	.04
R has two children	--	--	--	--	-.17
R has been on welfare 2 years but less than 5	--	--	--	--	-.25
R has been on welfare 5 years or more	--	--	--	--	-.76
R lives in public housing	--	--	--	--	-.21
R lives in subsidized housing	--	--	--	--	.74
R scored 27% and above on reading literacy test (Level 3-5)	--	--	--	--	1.36
R scored 21% and above on math literacy test (Levels C and D)	1.69***	--	--	--	0.65
R has moderate/high depressive symptoms	--	-.98**	--	--	-.96
R perceives high amount of barriers to working	--	--	-1.60***	--	-1.14
R has high amount of social support	--	--	--	.71**	.37
R	.06***	.01+	.05***	.01	.16***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data.
A t-test statistic was applied to differences between baseline subgroups. Statistical significance levels are indicated as *** p < .001, ** p < .01, * p < .05, + p < .10

APPENDIX TABLE 3.1-6

OLS REGRESSION ANALYSES OF SUBGROUPS PREDICTING NUMBER OF DIFFICULT LIFE CIRCUMSTANCES
(mean = 3.33, s.d. = 2.53)

Variable Description	Model 1 (N=777)	Model 2 (N=777)	Model 3 (N=777)	Model 4 (N=777)	Model 5 (N=777)	Model 6 (N=777)	Model 7 (N=769)	Model 8 (N=776)	Model 9 (N=758)
Child's age in months	.004	--	--	.006	.005	.003	.005	.007	.007
Child's gender (1=boy, 0=girl)	--	.11	--	.10	.11	.10	.07	.10	.08
Human Capital Development Group	--	--	-.18	-.20	-.19	-.19	-.21	-.22	-.29
Labor Force Attachment Group	--	--	-.13	-.16	-.16	-.13	-.14	-.17	-.21
R received high school diploma or GED	--	--	--	--	-.19	--	--	--	--
R has one child	--	--	--	--	--	-.42*	--	--	--
R has two children	--	--	--	--	--	-.31	--	--	--
R has been on welfare 2 years but less than 5	--	--	--	--	--	--	-.26	--	--
R has been on welfare 5 years or more	--	--	--	--	--	--	-.19	--	--
R lives in public housing	--	--	--	--	--	--	--	.40*	--
R lives in subsidized housing	--	--	--	--	--	--	--	-.13	--
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	--	--	--	--	.49**
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--	--
R has moderate/high depressive symptoms	--	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--	--
R^2	.00	.00	.001	.002	.003	.006	.003	.01	.01

(continued)

APPENDIX TABLE 3.1-6 (continued)

Variable Description	Model 10 (N=759)	Model 11 (N=711)	Model 12 (N=722)	Model 13 (N=715)	Model 14 (N=697)	Model 15 (N=666)
Child's age in months	006	01	007	005	006	005
Child's gender (1=boy, 0=girl)	12	09	12	08	07	.0002
Human Capital Development Group	-.26	-.26	-.34	-.26	-.37	-.39
Labor Force Attachment Group	-.20	-.25	-.27	-.25	-.24	-.18
R received high school diploma/GED		--	--	--	--	-.39+
R has one child			-	--	--	-.57*
R has two children	--	-	--	--	--	-.36
R was/is on welfare 2 years but less than 5	-		-	-	-	-.29
R is/was on welfare 5 years or more	-	--	--	--	--	-.49+
R lives in public housing	--	-	--	--	--	.37
R lives in subsidized housing	--	-	-	-	-	-.11
R scored 276 and above on reading literacy test (Level 3-5)	-	-	--	--	--	.71**
R scored 215 and above on math literacy test (Levels C and D)	0.16	-	--	--	--	-.09
R has moderate/high depressive symptoms	--	.56*	--	--	--	.44
R has more internal locus of control	--	--	-0.28	--	--	-.41+
R perceives high amount of barriers to working	--	--	--	-0.09	--	-.17
R has high amount of social support		--	--	--	-0.08	-.06
R^2	.003	.01	.006	.002	.004	.05**

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data.
A t-test statistic was applied to differences between baseline subgroups. Statistical significance levels are indicated as *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$

APPENDIX TABLE 4.1-1
OLS REGRESSION ANALYSES OF SUBGROUPS PREDICTING LEVELS OF EMOTIONAL SUPPORT
(mean = 39.07, s.d. = 10.82)

Variable Description	Model 1 (N=775)	Model 2 (N=775)	Model 3 (N=775)	Model 4 (N=775)	Model 5 (N=775)	Model 6 (N=775)	Model 7 (N=767)	Model 8 (N=774)	Model 9 (N=756)
Child's age in months	-.07	--	--	-.07	-.06	-.07	-.07	-.06	-.05
Child's gender (1=boy, 0=girl)	--	1.07	--	1.03	.99	1.04	1.06	.95	.87
Human Capital Development Group	--	--	-1.60	-1.30	-1.38	-1.30	-1.32	-1.37	-1.39
Labor Force Attachment Group	--	--	-.19	.08	-.02	.07	-.002	-.01	-.06
R received high school diploma/GED	--	--	--	--	2.10*	--	--	--	--
R has one child	--	--	--	--	--	.23	--	--	--
R has two children	--	--	--	--	--	.49	--	--	--
R has been on welfare 2 years but less than 5	--	--	--	--	--	--	-2.01+	--	--
R has been on welfare 5 years or more	--	--	--	--	--	--	-1.65	--	--
R lives in public housing	--	--	--	--	--	--	--	-2.64**	--
R lives in subsidized housing	--	--	--	--	--	--	--	-3.04**	--
R scored 276 and above on reading literacy test (Level 3/5)	--	--	--	--	--	--	--	--	1.78*
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--	--
R has moderate/high depressive symptoms	--	--	--	--		--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	-	--	--	--	--	--	--	--	--
R^2	.003	.002	.005	.009	.02*	.01	.01	.02**	.01*

(continued)

APPENDIX TABLE 4.4-1 (continued)

Variable Description	Model 10 (N=758)	Model 11 (N=711)	Model 12 (N=721)	Model 13 (N=715)	Model 14 (N=689)
Child's age in months	-.06	-.06	-.06	-.05	-.02
Child's gender (1=boy, 0=girl)	1.03	1.23	.94	.99	.99
Human Capital Development Group	-1.27	-1.12	-.84	-1.12	-1.13
Labor Force Attachment Group	.01	-.42	-.32	-.20	-.76
R received high school diploma or GED	--	--	--	--	2.03*
R has one child	--	--	--	--	.30
R has two children	--	--	--	--	.09
R has been on welfare 2 years but less than 5	--	--	--	--	-.76
R has been on welfare 5 years or more	--	--	--	--	.34
R lives in public housing	--	--	--	--	-1.42
R lives in subsidized housing	--	--	--	--	-2.38*
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	1.35
R scored 215 and above on math literacy test (Levels C and D)	0.64	--	--	--	-1.34
R has moderate high depressive symptoms	--	-5.32***	--	--	-4.64***
R has more internal locus of control	--	--	3.58***	--	2.37**
R perceives high amount of barriers to working	--	--	--	-2.12**	-1.48+
R	.009	-.01***	.03***	.02*	.08***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data
A t-test statistic was applied to differences between baseline subgroups. Statistical significance levels are indicated as *** p < .001; ** p < .01; * p < .05; + p < .10

APPENDIX TABLE 4.1-2
OLS REGRESSION ANALYSIS OF SUBGROUPS PREDICTING LEVELS OF INSTRUMENTAL SUPPORT
(mean = 31.72, s.d. = 11.95)

Variable Description	Model 1 (N=776)	Model 2 (N=776)	Model 3 (N=776)	Model 4 (N=776)	Model 5 (N=776)	Model 6 (N=776)	Model 7 (N=768)	Model 8 (N=775)	Model 9 (N=758)
Child's age in months	-.10+	--	--	-.11*	-.09+*	-.09+	-.08	-.09+	-.10+
Child's gender (1=boy, 0=girl)	--	-.09	--	-.09	-.13	-.09	-.32	-.22	-.40
Human Capital Development Group	--	--	-.28	.18	.06	.12	-.06	.05	-.01
Labor Force Attachment Group	--	--	.43	.96	.81	.78	.76	.84	.77
R received high school diploma/GED	--	--	--	--	3.18***	--	--	--	--
R has one child	--	--	--	--	--	2.32*	--	--	--
R has two children	--	--	--	--	--	.94	--	--	--
R has been on welfare 2 years, but less than 5	--	--	--	--	--	--	-.43	--	--
R has been on welfare 5 years or more	--	--	--	--	--	--	-3.18**	--	--
R lives in public housing	--	--	--	--	--	--	--	-2.53*	--
R lives in subsidized housing	--	--	--	--	--	--	--	-4.22***	--
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	--	--	--	--	2.55**
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--	--
R has moderate/high depressive symptoms	--	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--	--
R^2	.005+	.00	.00	.006	.02**	.01	.02*	.03**	.02*

(continued)

APPENDIX TABLE 4.1-2 (continued)

Variable Description	Model 10 (N=759)	Model 11 (N=713)	Model 12 (N=723)	Model 13 (N=716)	Model 14 (N=690)
Child's age in months	-.11*	-.10+	-.12*	-.10+	-.04
Child's gender (1=boy, 0=girl)	-.25	.07	.18	.16	-.03
Human Capital Development Group	.14	.26	.49	.61	.08
Labor Force Attachment Group	.95	.39	.94	1.23	.19
R received high school diploma or GED	--	--	--	--	2.4[illegible]
R has one child	--	--	--	--	.83
R has two children	--	--	--	--	.11
R has been on welfare 2 years but less than 5	--	--	--	--	.76
R has been on welfare 5 years or more	--	--	--	--	-.42
R lives in public housing	--	--	--	--	-1.02
R lives in subsidized housing	--	--	--	--	-3.40**
R scored 276 and above on reading literacy test (Levels 3+4)	--	--	--	--	1.46
R scored 215 and above on math literacy test (Levels C and D)	1.30	--	--	--	-1.39
R has moderate-high depressive symptoms	--	-4.54***	--	--	-4.46***
R has more internal locus of control	--	--	3.28***	--	1.74+
R perceives high amount of barriers to working	--	--	--	-2.72**	-2.25*
R^2	.009	.02**	.03**	.02*	.08***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data.
A t-test statistic was applied to differences between baseline subgroups. Statistical significance levels are indicated as *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$

APPENDIX TABLE 4.1-3
OLS REGRESSION ANALYSES OF SUBGROUPS PREDICTING SATISFACTION WITH EMOTIONAL SUPPORT
(mean = 8.17, s.d. = 2.88)

Variable Description	Model 1 (N=785)	Model 2 (N=785)	Model 3 (N=785)	Model 4 (N=785)	Model 5 (N=785)	Model 6 (N=785)	Model 7 (N=777)	Model 8 (N=784)	Model 9 (N=766)
Child's age in months	-.01	--	--	-.008	-.007	-.01	-.009	-.009	-.009
Child's gender (1=boy, 0=girl)	--	.22	--	.21	.21	.22	.26	.18	.18
Human Capital Development Group	--	--	-.57*	-.53+	-.53+	-.52+	-.51+	-.50+	-.53+
Labor Force Attachment Group	--	--	-.28	-.24	-.26	-.23	-.25	-.25	-.23
R received high school diploma/GED	--	--	--	--	.29	--	--	--	--
R has one child	--	--	--	--	--	-.15	--	--	--
R has two children	--	--	--	--	--	.20	--	--	--
R has been on welfare 2 years but less than 5	--	--	--	--	--	--	.15	--	--
R has been on welfare 5 years or more	--	--	--	--	--	--	.21	--	--
R lives in public housing	--	--	--	--	--	--	--	-.30	--
R lives in subsidized housing	--	--	--	--	--	--	--	-.46+	--
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	--	--	--	--	-.09
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--	--
R has moderate/high depressive symptoms	--	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--	--
R^2	.001	.001	.006	.008	.01	.01	.009	.01	.008

(continued)

APPENDIX TABLE 4.1-3 (continued)

Variable Description	Model 10 (N=768)	Model 11 (N=717)	Model 12 (N=729)	Model 13 (N=722)	Model 114 (N=694)
Child's age in months	- 009	- 008	- 008	- 006	-.002
Child's gender (1 boy, 0 girl)	17	17	16	15	18
Human Capital Development Group	- 55*	- 62*	- 53*	- 60*	- 60*
Labor Force Attachment Group	- 26	- 30	- 24	- 28	- 29
R received high school diploma/GED	--	--	--	--	29
R has one child	--	--	--	--	06
R has two children	--	--	--	--	26
R has been on welfare 2 years, but less than 5	--	--	--	--	26
R has been on welfare 5 years or more	--	--	--	--	.39
R lives in public housing	-	--	--	--	- 38
R lives in subsidized housing	--	--	--	--	- 59*
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	- 16
R scored 215 and above on math literacy test (Levels C and D)	02	--	--	--	07
R has moderate/high depressive symptoms	--	- 66*	--	--	- 62*
R has more internal locus of control	--	--	0 21	--	.14
R perceives high amount of barriers to working	--	--	--	005	008
R	008	02+	009	008	03

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data
A t-test statistic was applied to differences between baseline subgroups. Statistical significance levels are indicated as *** $p < .001$, ** $p < .01$; * $p < .05$, + $p < .10$.

APPENDIX TABLE 5.1-1
OLS REGRESSION ANALYSES OF SUBGROUPS PREDICTING PEABODY PICTURE VOCABULARY TEST-REVISED (PPVT-R) STANDARD SCORES
(PPVT-R mean=69.88; PPVT s.d.=15.85)

Variable Description	Model 1 (N=765)	Model 2 (N=765)	Model 3 (N=764)	Model 4 (N=765)	Model 5 (N=765)	Model 6 (N=765)	Model 7 (N=757)	Model 8 (N=764)
Child's age in months	.21**	--	--	.20**	.22**	.25***	.21**	.21**
Child's gender (1=boy, 0=girl)	--	-2.48*	--	-2.73*	-2.79*	-2.48*	-3.06**	-2.62*
Human Capital Development Group	--	--	.41	-.51	-.62	-.71	-.67	-.55
Labor Force Attachment Group	--	--	3.13*	2.31	2.10	1.72	2.06	2.27
R received high school diploma/GED	--	--	--	--	5.15***	--	--	--
R has one child	--	--	--	--	--	8.32***	--	--
R has two children	--	--	--	--	--	6.61***	--	--
R has been on welfare 2 years but less than 5	--	--	--	--	--	--	-4.22**	--
R has been on welfare 5 years or more	--	--	--	--	--	--	-7.38***	--
R lives in public housing	--	--	--	--	--	--	--	-7.00***
R lives in subsidized housing	--	--	--	--	--	--	--	-1.23
R scored 276 and above on reading literacy test (Level 3/4)	--	--	--	--	--	--	--	--
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--
R has moderate/high depressive symptoms	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--
R^2	.01**	.006*	.0084	.03***	.05***	.08***	.05***	.07***

(continued)

APPENDIX 5.1-1 (continued)

Variable Description (cont.)	Model 9 (N=757)	Model 10 (N=764)	Model 11 (N=700)	Model 12 (N=711)	Model 13 (N=705)	Model 14 (N=692)	Model 15 (N=658)
Child's age in months	.20**	.17*	.17*	.17*	.18*	.17*	.22**
Child's gender (1=boy, 0=girl)	-2.82*	-2.41*	-2.79*	-2.59*	-2.80*	-2.43*	-2.23+
Human Capital Development Group	-.52	-.53	-1.16	-.48	-.90	-.62	-.99
Labor Force Attachment Group	2.80+	2.73+	2.64	2.64+	2.81+	2.73+	2.65+
R received high school diploma/GED	--	--	--	--	--	--	2.86*
R has one child	--	--	--	--	--	--	5.46**
R has two children	--	--	--	--	--	--	5.42***
R has been on welfare 2 years but less than 5	--	--	--	--	--	--	-3.21+
R has been on welfare 5 years or more	--	--	--	--	--	--	-2.78
R lives in public housing	--	--	--	--	--	--	-4.60**
R lives in subsidized housing	--	--	--	--	--	--	-.47
R scored 2% and below on math locator test (Level A)	5.39***	--	--	--	--	--	1.67
R scored 21% and above on math locator test (Levels C and D)	--	5.97***	--	--	--	--	2.24
R has moderate-high depressive symptoms	--	--	.90	--	--	--	.38
R has more internal locus of control	--	--	--	2.59*	--	--	-.48
R perceives high amount of barriers to working	--	--	--	--	-2.70*	--	-1.05
R has high perceived social support	--	--	--	--	--	-.38	-.82
R^2	.05***	.06***	.03**	.03***	.03***	.02**	.13***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data.

NOTES: Table values are based on weighted data.
All test statistics were applied to differences between baseline subgroups. Statistical significance levels are indicated as *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$.

APPENDIX TABLE 5.1-2
OLS REGRESSION ANALYSES OF SUBGROUPS PREDICTING PRESCHOOL INVENTORY (PSI) TOTAL SCORES
(PSI mean=17.90, PSI s.d. =6.23,)

Variable Description	Model 1 (N=751)	Model 2 (N=751)	Model 3 (N=751)	Model 4 (N=751)	Model 5 (N=751)	Model 6 (N=751)	Model 7 (N=757)	Model 8 (N=750)
Child's age in months	.44***	--	--	.44***	.45***	.45***	.45***	.44***
Child's gender (1=boy, 0=girl)	--	-1.11*	--	-1.41***	-1.43***	-1.37***	-1.46***	-1.42***
Human Capital Development Group	--	--	1.78**	-.23	-.27	-.29	-.30	-.24
Labor Force Attachment Group	--	--	2.52***	.42	.33	.25	.36	.41
R received high school diploma/GED	--	--	--	--	1.77***	--	--	--
R has one child	--	--	--	--	--	2.11***	--	--
R has two children	--	--	--	--	--	1.49***	--	--
R has been on welfare 2 years, but less than 5	--	--	--	--	--	--	-.87+	--
R has been on welfare 5 years or more	--	--	--	--	--	--	-2.30***	--
R lives in public housing	--	--	--	--	--	--	--	-1.70***
R lives in subsidized housing	--	--	--	--	--	--	--	-.86+
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	--	--	--	--
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--
R has moderate/high depressive symptoms	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--
R	.35***	.008*	.02***	.37***	.38***	.39***	.39***	.38***

(continued)

APPENDIX TABLES 1-2 (continued)

Variable Description	Model 9 (N=732)	Model 10 (N=734)	Model 11 (N=687)	Model 12 (N=699)	Model 13 (N=693)	Model 14 (N=680)	Model 15 (N=646)
Child's age in months	.44***	.43***	.43***	.43***	.43***	.43***	.45***
Child's gender (1=boy, 0=girl)	-1.46***	-1.33***	-1.41***	-1.43***	-1.49***	-1.34***	-1.37***
Human Capital Development Group	-.20	-.24	-.38	-.26	-.25	-.27	-.23
Labor Force Attachment Group	.50	.56	.48	.41	.48	.16	.33
R received high school diploma or GED	--	--	--	--	--	--	1.12*
R has one child	--	--	--	--	--	--	1.28*
R has two children	--	--	--	--	--	--	1.22**
R has been on welfare 2 years but less than 5	--	--	--	--	--	--	-.11
R has been on welfare 5 years or more	--	--	--	--	--	--	-.51
R lives in public housing	--	--	--	--	--	--	-1.15*
R lives in subsidized housing	--	--	--	--	--	--	-1.02*
R scored 276 or above on quantitative literacy test (Level 3 or	1.91***	--	--	--	--	--	.82+
R scored 276 and above on quantitative literacy test (Levels C and D)	--	1.75***	--	--	--	--	.50
R has moderate-high depressive symptoms	--	--	.18	--	--	--	.42
R has more internal locus of control	--	--	--	1.36***	--	--	.62
R perceives high amount of barriers to working	--	--	--	--	-.86*	--	-.27
R has high amount of social support	--	--	--	--	--	.10	-.08
R^2	.38***	.38***	.35***	.36***	.35***	.35***	.41***

SOURCE: Child Trends' tabulations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data.
A t-test statistic was applied to differences between baseline subgroups. Statistical significance levels are indicated as *** p < .001; ** p < .01; * p < .05; + p < .10

APPENDIX TABLE 5.1-3
OLS REGRESSION ANALYSES OF SUBGROUPS PREDICTING PERSONAL MATURITY SCALE MEAN SCORES
(PMS mean= 7.45, s.d.=1.49)

Variable Description	Model 1 (N=771)	Model 2 (N=771)	Model 3 (N=771)	Model 4 (N=771)	Model 5 (N=771)	Model 6 (N=771)	Model 7 (N=763)	Model 8 (N=770)
Child's age in months	.003	--	--	.002	.004	.004	.003	.002
Child's gender (1=boy, 0=girl)	--	-.22*	--	-.22*	-.23*	-.22*	-.25*	-.22*
Human Capital Development Group	--	--	.07	.06	.05	.06	.03	.07
Labor Force Attachment Group	--	--	.12	.12	.11	.11	.10	.12
R received high school diploma or GED	--	--	--	--	.43***	--	--	--
R has one child	--	--	--	--	--	.24+	--	--
R has two children	--	--	--	--	--	.15	--	--
R has been on welfare 2 years or at least less than 5	--	--	--	--	--	--	-.47**	--
R has been on welfare 5 years or more	--	--	--	--	--	--	-.79***	--
R lives in public housing	--	--	--	--	--	--	--	-.33**
R lives in subsidized housing	--	--	--	--	--	--	--	-.09
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	--	--	--	--
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--
R has moderate/high depressive symptoms	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--
R^2	.0002	.005*	.001	.01	.03**	.01	.04***	.02+

(continued)

APPENDIX 5.1-3 (continued)

Variable Description	Model 9 (N=751)	Model 10 (N=753)	Model 11 (N=707)	Model 12 (N=719)	Model 13 (N=711)	Model 14 (N=695)	Model 15 (N=662)
Child's age in months	004	0003	-003	-002	00006	001	-0002
Child's gender (1=boy, 0=girl)	-26*	-19+	-18	-22*	-20+	-20+	-18+
Human Capital Development Group	05	07	03	13	09	10	02
Labor Force Attachment Group	12	13	12	12	17	11	10
R received high school diploma/GED	--	--	--	--	--	--	04
R has one child	--	--	--	--	--	--	-01
R has two children	--			--	--	--	-004
R has been on welfare ... years but less than 5	--		--	--	--	--	-28+
R has been on welfare 5 years or more	--	--	--	--	--	--	-44**
R lives in public housing		--	--	--	--	--	-009
R lives in subsidized housing	--	--	--	--	--	--	14
R scored 176 and above on reading literacy test (Level 3-5)	78***	--	--	--	--	--	42**
R scored 215 and above on math literacy test (Levels C and D)	--	69***	--	--	--	--	27*
R has moderate to high depressive symptoms	--		-16**	--	--	--	-35*
R has more internal locus of control	--	--	--	61***	--	--	26*
R perceives high amount of barriers to working	--	--	--	--	-63***	--	-35**
R has high amount of social support	--	--	--	--	--	14	01
R^2	07***	06***	02*	05***	05***	01	14***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data.
A t-test statistic was applied to differences between baseline subgroups. Statistical significance levels are indicated as *** p < .001, ** p < .01, * p < .05, + p < .10

APPENDIX TABLE 5.1-4

LOGISTIC REGRESSION ANALYSIS OF SUBGROUPS PREDICTING RATING OF CHILD'S HEALTH AS EXCELLENT WITH NO LIMITING CONDITION

(Children Receiving Rating of Health as Excellent with No Limiting Condition = 47%)

Variable Description	Model 1 (N=787)	Model 2 (N=787)	Model 3 (N=787)	Model 4 (N=787)	Model 5 (N=787)	Model 6 (N=787)	Model 7 (N=779)	Model 8 (N=786)
Child's age in months	99+	--	--	99	99	99	99	99
Child's gender (1=boy; 2=girl)	--	70*	--	71*	71*	71*	70*	71*
Human Capital Development Group	--	--	94	99	97	98	99	97
Labor Force Attachment Group	--	--	76	82	80	79	81	81
R received high school diploma or GED	--	--	--	--	1.59**	--	--	--
R has one child	--	--	--	--	--	1.58*	--	--
R has two children	--	--	--	--	--	1.07	--	--
R has been on welfare 2 years but less than 5	--	--		--	--	--	1.01	--
R has been on welfare 5 years or more	--	--	--	--	--	--	71+	--
R lives in public housing	--	--	--	--	--	--	--	87
R lives in subsidized housing	--	--	--	--	--	--	--	70+
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	--	--	--	--
R scored 215 and above on math literacy test (Levels C and D)	--	--	-	--	--	--	--	--
R has moderate high depressive symptoms	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--
-2 Log Likelihood	1085.90+	1082.83*	1086.12	1078.40*	1069.08**	1071.56**	1062.13*	1073.81*

(continued)

APPENDIX TABLE 5.1.4 (continued)

Variable Description	Model 9 (N=766)	Model 10 (N=768)	Model 11 (N=719)	Model 12 (N=731)	Model 13 (N=723)	Model 14 (N=707)	Model 15 (N=673)
Child's age in months	.99	.99	.99	.99	.99	.99	1.00
Child's gender (1=boy, 0=girl)	.72*	.73*	.71*	.70*	.69*	.67**	.66**
Human Capital Development Group	1.00	.99	1.01	1.02	1.02	1.04	1.10
Labor Force Attachment Group	.83	.83	.89	.78	.83	.82	.86
R received high school diploma or GED	--	--	--	--	--	--	1.60*
R has one child	--	--	--	--	--	--	1.32
R has two children	--	--	--	--	--	--	1.03
R has been on welfare 2 years but less than 5	--	--	--	--	--	--	1.14
R has been on welfare 5 years or more	--	--	--	--	--	--	1.10
R lives in public housing	--	--	--	--	--	--	1.07
R lives in subsidized housing	--	--	--	--	--	--	.74
R scored 276 and above on reading literacy test (Level 3/4)	1.43**	--	--	--	--	--	1.13
R scored 215 and above on math literacy test (Levels C and D)	--	1.44*	--	--	--	--	1.12
R has moderate high depressive symptoms	--	--	1.02	--	--	--	1.29
R has more internal locus of control	--	--	--	1.41*	--	--	1.18
R perceives high amount of barriers to working	--	--	--	--	.54***	--	.63**
R has high amount of social support	--	--	--	--	--	1.78***	1.71**
-2 Log Likelihood	1046.23**	1049.16*	986.77	994.27**	973.74***	950.99***	875.37***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data.
A Wald statistic was applied to differences between baseline subgroups. Statistical significance levels are indicated as *** p<.001, ** p<.01, * p<.05, + p<.10

APPENDIX TABLE 6.1-1
OLS REGRESSION ANALYSES OF SUBGROUPS PREDICTING HOME TOTAL SCALE SCORES
(Total HOME Scale mean =17.06, s.d.=2.78)

Variable Description	Model 1 (N=781)	Model 2 (N=781)	Model 3 (N=781)	Model 4 (N=781)	Model 5 (N=781)	Model 6 (N=781)	Model 7 (N=773)	Model 8 (N=780)
Child's age in months	-.01	--	--	-.009	-.003	-.001	-.004	-.008
Child's gender (1=boy, 0=girl)	--	-.32	--	-.33+	-.35+	-.33+	-.41*	-.31
Human Capital Development Group	--	--	-.31	-.28	-.32	-.30	-.34	-.28
Labor Force Attachment Group	--	--	.06	.12	.08	.04	.06	.12
R received high school diploma or GED	--	--	--	--	1.20***	--	--	--
R has one child	--	--	--	--	--	1.08***	--	--
R has two children	--	--	--	--	--	.59*	--	--
R has been on welfare 2 years but less than 5	--	--	--	--	--	--	-.80**	--
R has been on welfare 5 years or more	--	--	--	--	--	--	-1.57***	--
R lives in public housing	--	--	--	--	--	--	--	-.71**
R lives in subsidized housing	--	--	--	--	--	--	--	.18
R scored 226 and above on reading literacy test (Level 3-5)	--	--	--	--	--	--	--	--
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--
R has moderate/high depressive symptoms	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--
R^2	.0009	.003	.004	.008	.05***	.03***	.05***	.03**

(continued)

APPENDIX TABLE 6.1-1 (continued)

Variable Description	Model 9 (N=760)	Model 10 (N=762)	Model 11 (N=713)	Model 12 (N=725)	Model 13 (N=717)	Model 14 (N=701)	Model 15 (N=667)
Child's age in months	-.004	-.01	-.01	-.01	-.01	-.008	.001
Child's gender (1=boy, 0=girl)	-.43*	-.31	-.39+	-.44*	-.42*	-.36+	-.43*
Human Capital Development Group	-.37	-.34	-.42	-.37	-.38	-.39	-.47+
Labor Force Attachment Group	.08	.10	-.02	-.01	.08	.05	-.07
R received high school diploma or GED	--	--	--	--	--	--	.70**
R has one child	--	--	--	--	--	--	.44
R has two children	--	--	--	--	--	--	.45+
R has been on welfare 2 years or cumulatively less than 5	--	--	--	--	--	--	-.58*
R has been on welfare 5 years or more	--	--	--	--	--	--	-.76*
R lives in public housing	--	--	--	--	--	--	-.13
R lives in subsidized housing	--	--	--	--	--	--	.51+
R scored 225 and above on reading literacy test (Level 3 or 4)	1.41***	--	--	--	--	--	.36
R scored 215 and above on math literacy test (Levels C and D)	--	1.48***	--	--	--	--	.82***
R has moderate-high depressive symptoms	--	--	-.23	--	--	--	-.12
R has more maternal social support	--	--	--	.78***	--	--	.14
R perceives high amount of barriers to working	--	--	--	--	-.60**	--	-.10
R has high amount of general support	--	--	--	--	--	.34	.35+
R²	.06***	.07***	.01	.03***	.02**	.01	.14***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data.
A t-test statistic was applied to differences between baseline subgroups. Statistical significance levels are indicated as *** p < .001, ** p < .01, * p < .05, + p < .10

APPENDIX TABLE 6.1-2
OLS REGRESSION ANALYSES OF SUBGROUPS PREDICTING HOME COGNITIVE STIMULATION SUBSCALE SCORES
(Cognitive Stimulation Subscale mean=10.51; s.d.=2.03)

Variable Description	Model 1 (N=761)	Model 2 (N=761)	Model 3 (N=761)	Model 4 (N=761)	Model 5 (N=761)	Model 6 (N=761)	Model 7 (N=753)	Model 8 (N=760)
Child's age in months	-.004	--	--	-.005	-.0009	-.0005	-.002	-.005
Child's gender (1=boy, 0=girl)	--	-.18	--	-.19	-.20	-.19	-.24	-.18
Human Capital Development Group	--	--	-.14	-.12	-.15	-.14	-.16	-.13
Labor Force Attachment Group	--	--	.15	.18	.14	.13	.15	.188
R received high school diploma/GED	--	--	--	--	.88***	--	--	--
R has one child	--	--	--	--	--	.59**	--	--
R has two children	--	--	--	--	--	.35*	--	--
R has been on welfare 2 years but less than 5	--	--	--	--	--	--	-.41*	--
R has been on welfare 5 years or more	--	--	--	--	--	--	-.87***	--
R lives in public housing	--	--	--	--	--	--	--	-.39*
R lives in subsidized housing	--	--	--	--	--	--	--	.12
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	--	--	--	--
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--
R has moderate/high depressive symptoms	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--
R^2	.0003	.002	.004	.007	.05***	.02*	.03***	.02*

(continued)

APPENDIX TABLE 6.1-2 (continued)

Variable Description	Model 9 (N=741)	Model 10 (N=743)	Model 11 (N=694)	Model 12 (N=706)	Model 13 (N=698)	Model 14 (N=682)	Model 15 (N=648)
Child's age in months	-.001	-.006	-.006	-.006	-.007	-.003	.005
Child's gender (1=boy, 0=girl)	-.25+	-.18	-.25	-.29+	-.26+	-.23	-.31*
Human Capital Development Group	-.18	-.18	-.26	-.20	-.23	-.15	-.23
Labor Force Attachment Group	.14	.14	.07	.06	.15	.12	.03
R received high school diploma or GED	--	--	--	--	--	--	.63***
R has one child	--	--	--	--	--	--	.14
R has two children	--	--	--	--	--	--	.24
R has been on welfare 2 years, but less than 5	--	--	--	--	--	--	-.31
R has been on welfare 5 years or more	--	--	--	--	--	--	-.40+
R lives in public housing	--	--	--	--	--	--	-.06
R lives in subsidized housing	--	--	--	--	--	--	.35+
R scored 226 and above on reading literacy test (Levels C and D)	.82***	--	--	--	--	--	.31+
R scored 215 and above on math literacy test (Levels C and D)	--	.79***	--	--	--	--	.29
R has moderate-high depressive symptoms	--	--	-.22	--	--	--	-.14
R has more internal locus of control	--	--	--	.50**	--	--	.11
R perceives high amount of barriers to working	--	--	--	--	-.49**	--	-.16
R has high amount of social support	--	--	--	--	--	.34*	.33*
R^2	.05***	.04***	.01	.02**	.02**	.01	.11***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data.
A t-test statistic was applied to differences between baseline subgroups. Statistical significance levels are indicated as *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$

APPENDIX TABLE 6.1-3
OLS REGRESSION ANALYSES OF SUBGROUPS PREDICTING HOME SOCIOEMOTIONAL SUBSCALE SCORES
(Socioemotional Subscale mean=6.56, s.d.=1.47)

Variable Description	Model 1 (N=757)	Model 2 (N=757)	Model 3 (N=757)	Model 4 (N=757)	Model 5 (N=757)	Model 6 (N=757)	Model 7 (N=749)	Model 8 (N=756)
Child's age in months	-.003	--	--	-.002	-.0002	.001	.0001	-.001
Child's gender (1=boy, 0=girl)	--	-.23*	--	-.24*	-.24*	-.23*	-.26*	-.23
Human Capital Development Group	--	--	-.13	-.13	-.14	-.14	-.16	-.13
Labor Force Attachment Group	--	--	-.09	-.07	-.09	-.11	-.11	-.07
R received high school diploma/GED	--	--	--	--	.38***	--	--	--
R has one child	--	--	--	--	--	.48***	--	--
R has two children	--	--	--	--	--	.25*	--	--
R has been on welfare 2 years, but less than 5	--	--	--	--	--	--	-.37*	--
R has been on welfare 5 years or more	--	--	--	--	--	--	-.69***	--
R lives in public housing	--	--	--	--	--	--	--	-.33**
R lives in subsidized housing	--	--	--	--	--	--	--	.10
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	--	--	--	--
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	--	--
R has moderate/high depressive symptoms	--	--	--	--	--	--	--	--
R has more internal locus of control	--	--	--	--	--	--	--	--
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--
R^2	.0004	.006*	.001	.008	.02**	.02**	.04***	.02**

(continued)

APPENDIX TABLE 6.1-3 (continued)

Variable Description	Model 9 (N=741)	Model 10 (N=742)	Model 11 (N=697)	Model 12 (N=707)	Model 13 (N=700)	Model 14 (N=685)	Model 15 (N=653)
Child's age in months	-.0009	-.003	-.004	-.004	-.004	-.002	-.002
Child's gender (1=boy, 0=girl)	-.27*	-.22*	-.23*	-.24*	-.25*	-.22*	-.21+
Human Capital Development Group	-.15	-.13	-.11	-.13	-.10	-.18	-.19
Labor Force Attachment Group	-.07	-.06	-.08	-.08	-.07	-.07	-.11
R received high school diploma/GED	--	--	--	--	--	--	.13
R has one child	--	--	--	--	--	--	.28+
R has two children	--	--	--	--	--	--	.20
R has been on welfare 2 years but less than 5	--	--	--	--	--	--	-.27
R has been on welfare 5 years or more	--	--	--	--	--	--	-.36*
R lives in public housing	--	--	--	--	--	--	-.08
R lives in subsidized housing	--	--	--	--	--	--	.18
R scored 276 and above on reading literacy test (Level 3/4)	.47***	--	--	--	--	--	.01
R scored 215 and above on math literacy test (Levels C and D)	--	.67***	--	--	--	--	.51***
R has moderate/high depressive symptoms	--	--	.001	--	--	--	.03
R has more internal locus of control	--	--	.	.28*	--	--	.006
R perceives high amount of barriers to working	--	--	--	--	-.16	--	-.0005
R has high amount of social support	.	--	--	--	--	.04	.06
R^2	.03***	.06***	.008	.02*	.01	.008	.08***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data.
A t-test statistic was applied to differences between baseline subgroups. Statistical significance levels are indicated as *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$

APPENDIX TABLE 6.2-1
OLS REGRESSION ANALYSES OF HOME SCALES PREDICTING PEABODY PICTURE VOCABULARY TEST-REVISED (PPVT-R) STANDARD SCORES
(PPVT-R mean=69.88; s.d. 16.03)

Variable Description	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Child's age in months	.10*	--	--	.08*	.08*	.08*	.08*
Child's gender (1=boy, 0=girl)	--	-.07+	--	-.08*	-.07+	-.07+	-.06
Human Capital Development Group	--	--	.04	.02	.04	.02	.04
Labor Force Attachment Group	--	--	.14**	.12*	.12**	.13*	.13**
HOME Cognitive Stimulation Sub-Scale	--	--	--	--	.27***	--	--
HOME Socio-Emotional Sub-Scale	--	--	--	--	--	.12**	--
HOME Total Scale	--	--	--	--	--	--	.26***
R^2	.01*	.005+	.01**	.03**	.10***	.04***	.09***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data
Estimated odds ratios based on logistic regression analysis. Statistical significance levels are indicated as *** $p < .001$; ** $p < .01$, * $p < .05$, + $p < .10$

APPENDIX TABLE 6.2-2
OLS REGRESSION ANALYSES OF HOME SCALES PREDICTING PRESCHOOL INVENTORY TOTAL SCORES
(PSI mean=17.89; s.d. 6.19)

Variable Description	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Child's age in months	.58***	--	--	.58***	.58***	.57***	.58***
Child's gender (1 boy, 0 girl)	--	-.10*	--	-.12***	-.11***	-.10**	-.10**
Human Capital Development Group	--	--	.16***	.007	.02	.01	.02
Labor Force Attachment Group	--	--	.22***	.06	.06	.06	.06
HOME Cognitive Stimulation Sub-Scale	--	--	--	--	.22***	--	--
HOME Socio-Emotional Sub-Scale	--	--	--	--	--	.18***	--
HOME Total Scale	--	--	--	--	--	--	.25***
R^2	.34***	.01*	.03***	.35***	.40***	.39***	.42***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data
Estimated odds ratios based on logistic regression analysis. Statistical significance levels are indicated as *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$

APPENDIX TABLE 6.2-3
OLS REGRESSION ANALYSES OF HOME SCALES PREDICTING PERSONAL MATURITY SCALE MEAN SCORES
(PMS mean=7.43; s.d.=1.49)

Variable Description	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Child's age in months	.006	--	--	-.002	-.002	-.002	-.002
Child's gender (1=boy, 0=girl)	--	-.07+	--	-.07+	-.06	-.05	-.05
Human Capital Development Group	--	--	.04	.04	.05	.05	.06
Labor Force Attachment Group	--	--	.05	.06	.06	.06	.06
HOME Cognitive Stimulation Sub-Scale	--	--	--	--	.25***	--	--
HOME Socio-Emotional Sub-Scale	--	--	--	--	--	.26***	--
HOME Total Scale	--	--	--	--	--	--	.32***
R^2	00004	005+	002	007	07***	07***	.11***

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data
Estimated odds ratios based on logistic regression analysis. Statistical significance levels are indicated as *** p<.001, ** p<.01, * p<.05, + p<.10

APPENDIX TABLE 6.2-4

LOGISTIC REGRESSION ANALYSES OF HOME SCALES PREDICTING RATING OF CHILD'S HEALTH AS EXCELLENT WITH NO LIMITING CONDITON

(Children Receiving Rating of Health as Excellent with No Limiting Condition = 47%)

Variable Description	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Child's age in months	.99	--	--	.99	.99	.99	.99
Child's gender (1 boy, 0 girl)	--	.66**	--	.67**	.68*	.67**	.69*
Human Capital Development Group	--	--	.95	.97	1.00	.98	1.00
Labor Force Attachment Group	--	--	.83	.89	.88	.89	.89
HOME Cognitive Stimulation Sub-Scale	--	--	--	--	1.14***	--	--
HOME Socio-Emotional Sub-Scale	--	--	--	--	--	1.03	--
HOME Total Scale	--	--	--	--	--	--	1.08**
Model Chi Square	1.16	7.45**	1.02	8.89+	20.50**	9.29+	16.70**
-2 Log Likelihood	956.82	950.52	956.95	949.08	937.47	948.68	941.27

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data

Estimated odds ratios based on logistic regression analysis. Statistical significance levels are indicated as *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$

APPENDIX TABLE 7.1-1

LOGISTIC REGRESSION ANALYSES OF SUBGROUPS PREDICTING TWENTY-FIVE PERCENT OR MORE OF CHILD'S LIFE IN ANY CARE BEFORE RANDOM ASSIGNMENT
(mean = 0.44, s.d. = 0.50)

Variable Description	Model 1 (N=776)	Model 2 (N=776)	Model 3 (N=776)	Model 4 (N=768)	Model 5 (N=775)	Model 6 (N=755)	Model 7 (N=757)	Model 8 (N=709)	Model 9 (N=720)
Child's age in months	1.04***	1.04***	1.04***	1.04***	1.04***	1.04***	1.04***	1.03***	1.03***
Child's gender (1 = boy, 0 = girl)	1.12	1.13	1.12	1.25	1.11	1.19	1.15	1.23	1.16
R received high school diploma/GED	--	2.67***	--	--	--	--	--	--	--
R has one child	--	--	1.89***	--	--	--	--	--	--
R has two children	--	--	1.20	--	--	--	--	--	--
R has been on welfare 2 years, but less than 5	--	--	--	0.35***	--	--	--	--	--
R has been on welfare 5 years or more	--	--	--	0.16***	--	--	--	--	--
R lives in public housing	--	--	--	--	0.81	--	--	--	--
R lives in subsidized housing	--	--	--	--	1.04	--	--	--	--
R scored 276 and above on reading literacy test (Level 3-5)	--	--	--	--	--	2.22***	--	--	--
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	2.03***	--	--
R has moderate/high depressive symptoms	--	--	--	--	--	--	--	1.02	--
R has more internal locus of control	--	--	--	--	--	--	--	--	1.23
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--	--
-2 Log Likelihood	1045.4	1007.4	1033.9	957.8	1041.8	988.9	990.0	957.5	970.3

(continued)

APPENDIX TABLE 7.1-1 (continued)

Variable Description	Model 10 (N=712)	Model 11 (N=697)
Child's age in months	1.03***	1.05***
Child's gender (1 boy, 0 girl)	1.18	1.20
R received high school diploma/GED	--	--
R has one child	--	--
R has two children	--	--
R has been on welfare 2 years, but less than 5	--	--
R has been on welfare 5 years or more	--	--
R lives in public housing	--	--
R lives in subsidized housing	--	--
R scored 276 and above on reading literacy test (Level 3-5)	--	--
R scored 215 and above on math literacy test (Levels C and D)	--	--
R has moderate high depressive symptoms	-	--
R has more internal locus of control	--	--
R perceives high amount of barriers to working	0.57***	--
R has high amount of social support	--	1.20
-2 Log Likelihood	949.8	939.2

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data.

NOTES: Table values are based on weighted data. Estimated odds ratios based on logistic regression analysis. *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$. Research group is not controlled because child care took place before random assignment.

APPENDIX TABLE 7.1-2

LOGISTIC REGRESSION ANALYSES OF SUBGROUPS PREDICTING TWENTY-FIVE PERCENT OR MORE OF CHILD'S LIFE IN FORMAL CARE BEFORE RANDOM ASSIGNMENT
(mean = 0.25; s.d. = 0.43)

Variable Description	Model 1 (N=782)	Model 2 (N=782)	Model 3 (N=782)	Model 4 (N=774)	Model 5 (N=781)	Model 6 (N=761)	Model 7 (N=763)	Model 8 (N=714)	Model 9 (N=726)
Child's age in months	1.04***	1.04***	1.04***	1.04***	1.04***	1.04***	1.04***	1.03**	1.03**
Child's gender (1=boy, 0=girl)	1.08	1.09	1.08	1.13	1.08	1.10	1.06	1.11	1.11
R received high school diploma/GED	--	1.88***	--	--	--	--	--	--	--
R has one child	--	--	1.38	--	--	--	--	--	--
R has two children	--	--	1.36	--	--	--	--	--	--
R has been on welfare 2 years, but less than 5	--	--		0.46***	--	--	--	--	--
R has been on welfare 5 years or more	--	--		0.35***	--	--	--	--	--
R lives in public housing	--	--		--	1.37	--	--	--	--
R lives in subsidized housing	--	--		--	1.23	--	--	--	--
R scored 276 and above on reading literacy test (Level 3/4)	--	--		--	--	1.54*	--	--	--
R scored 215 and above on math literacy test (Levels C and D)	--	--	--	--	--	--	1.63**	--	--
R has moderate/high depressive symptoms	--	--	--	--	--	--	--	1.18	--
R has more internal locus of control	--	--	--	--	--	--	--	--	1.28
R perceives high amount of barriers to working	--	--	--	--	--	--	--	--	--
R has high amount of social support	--	--	--	--	--	--	--	--	--
-2 Log Likelihood	865.0	853.1	862.0	832.0	862.2	840.2	839.1	789.1	802.2

(continued)

APPENDIX TABLE 7.1-2 (continued)

Variable Description	Model 10 (N=718)	Model 11 (N=703)
Child's age in months	1.03**	1.03**
Child's gender (1 = boy, 0 = girl)	1.10	1.15
R received high school diploma/GED	.	--
R has one child	--	--
R has two children	--	--
R has been on welfare 2 years, but less than 5	.	--
R has been on welfare 5 years or more	--	--
R lives in public housing	.	--
R lives in subsidized housing	--	--
R scored 250 and above on reading literacy test (Level 3+)	--	--
R scored 215 and above on math literacy test (Levels C and D)	--	--
R has more than high depressive symptoms	--	--
R has more internal locus of control	--	--
R perceives high amount of barriers to working	0.72	--
R has high amount of social support	--	0.96
-2 Log Likelihood	793.2	779.6

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Study data

NOTES: Table values are based on weighted data. Estimated odds ratios based on logistic regression analysis. *** p < .001, ** p < .01, * p < .05, + p < .10. Research group is not controlled because child care took place before random assignment.

APPENDIX TABLE 9.1-1
INTERCORRELATIONS BETWEEN FAMILY RISK FACTORS

Family Risk Factor	1	2	3	4	5	6	7	8	9	10
1 Respondent did not receive high school diploma or GED	--	17***	12***	18***	28***	28***	-.05	15***	08*	.01
2 Respondent has three or more children		--	11**	10**	13***	14***	03	09*	08*	-.01
3 Respondent has been on welfare two years or more			--	20***	17***	16***	03	12***	14***	02
4 Respondent lives in public housing				--	09*	12***	-.02	11**	04	.05
5 Respondent scored below 276 on literacy test (Levels 1-2 lower reading literacy skills)					--	51***	00	24***	18***	.04
6 Respondent scored below 215 on math literacy test (Levels A and B lower math skills						--	04	22***	14***	-.02
7 Respondent has moderate-high depressive symptoms							--	19***	-.04	19***
8 Respondent has more external locus of control								--	24***	07+
9 Respondent perceives high amount of barriers to working									--	15***
10 Respondent has low amount of social support										--

SOURCE: Child Trends, Inc. calculations of the Fulton County Descriptive Survey data

NOTES: Table values are based on weighted data
Statistical significance levels are indicated as *** p < .001, ** p < .01, * p < .05, + p < .10

APPENDIX TABLE 9.1-2
INTERCORRELATIONS BETWEEN FAMILY PROTECTIVE FACTORS

Family Protective Factor	1	2	3	4	5	6	7	8	9	10
1. Child is highly sociable and cooperative	--	05	03	03	-.07+	02	-.08*	-.04	09*	06+
2. Child had no health risks at birth		--	-.15***	-.00	02	02	-.01	-.01	-.02	04
3. Respondent reports low levels of conflict with the child's father			--	06	07	09*	-.07	-.03	-.04	-.02
4. Respondent has received child support from the child's father within the last year				--	03	-.04	-.03	.25***	-.02	-.03
5. Respondent reports high levels of warmth in her relationship with the child					--	.15***	-.00	-.07*	04	02
6. Respondent reports she does not lose control of feelings and never feels worn out with the burdens of parenting						--	-.13***	-.11**	-.02	-.01
7. Respondent reports the child has a substitute parent figure							--	02	00	09*
8. Child's father lives with the mother								--	09**	04
9. Child has attended a formal child care program									--	07+
10. Respondent describes her neighborhood as an excellent or very good place to raise children										--

SOURCE: Child Trends, Inc., calculations of the Fulton County Descriptive Survey data

NOTES: Table values are based on weighted data
Statistical significance levels are indicated as *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$

APPENDIX C

TEST OF APPLIED LITERACY SKILLS
DOCUMENT LITERACY LEVELS

Level 1: Scale range 0-225
Tasks in this level tend to require the reader either to locate a piece of information based on a literal match or to enter information from personal knowledge onto a document. Little, if any, distracting information is present. Average difficulty value of tasks in this level: 195

Level 2: Scale range 226-275
Tasks in this level are more varied than those in Level 1. Some require the reader to match a single piece of information; however, several distractors may be present, or the match may require low-level inferences. Tasks in this level may also ask the reader to cycle through information in a document or to integrate information from various parts of a document. Average difficulty value of tasks in this level: 249

Level 3: Scale range 276-325
Some tasks in this level require the reader to integrate multiple pieces of information from one or more documents. Others ask readers to cycle through rather complex tables or graphs which contain information that is irrelevant or inappropriate to the task. Average difficulty value of tasks in this level: 302

Level 4: Scale range 326-375
Tasks in this level, like those in the previous levels, ask readers to perform multiple-feature matches, cycle through documents, and integrate information; however, they require a greater degree of inferencing. Many of these tasks require readers to provide numerous responses but do not designate how many responses are needed. Conditional information is also present in the document tasks in this level and must be taken into account by the reader. Average difficulty value of tasks in this level: 340

Level 5: Scale range 376-500
Tasks in this level require the reader to search through complex displays that contain multiple distractors, to make high-level text-based inferences, and to use specialized knowledge. Average difficulty value of tasks in this level: 391

SOURCE: Kirsch et al., 1993.

APPENDIX D

CASAS SCALE SCORE INTERPRETATIONS FOR GAIN APPRAISAL MATH TEST

Level A: Below 200
Participants functioning below 200 have difficulty with the basic computational skills necessary to function in employment and in the community. These adults can handle routine, entry-level jobs. They are not able to compute wages and deductions on paychecks.

Level B: 200-214
These adults can function in intermediate level Adult Basic Education programs but have difficulty pursuing other than entry-level programs. They can perform basic computations, and are functioning below a seventh grade level.

Level C: 215-224
Participants functioning between 215 and 224 are able to handle basic computational skills in a functional setting related to employment. They have difficulty following more complex sets of directions and are functioning below a high school level.

Level D: 225 and above
Participants functioning at or above 225 can function at a high school entry level in basic math, and if they do not have a high school diploma, can profit from instruction at the high school level. They can usually perform work that involves following oral and written directions in familiar and some unfamiliar situations. Those participants 18 years of age and above can profit from instruction in GED preparation and, in a short time, have a high probability of passing the GED test.

SOURCE: Adapted from Armstrong et al., 1989, p. 12.

APPENDIX E

BELIEF THAT MOTHERS SHOULD NOT WORK SCALE

This scale was formed by taking the mean of the following five items taken from the Descriptive survey[55]:

1) When children are young, mothers should not work outside the home.
2) If a mother has a choice about whether or not to work, it is better for her children if she stays home and cares for them.
3) Making welfare mothers work is bad for their children.
4) I do not want a job because I would miss my children too much.
5) Having a working mother may be OK for some children, but not for mine.

[55] Responses to these items were on an 11-point scale, where 0 was "not at all true," and 10 was "completely true."