

**Revisiting the Stress Hypothesis:
Parenting Behavior in the First Half Year of the JOBS Program**

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Introduction

Just as the present conference is being held soon after passage of new welfare legislation, a meeting was held about a decade ago in response to passage of the Family Support Act of 1988. The present meeting and the meeting of a decade ago are linked in that they both originate in the need to consider *whether* and *how* children and families are affected by welfare policies. At the time of the earlier meeting, it was possible mainly to articulate *hypotheses* for how the Family Support Act would affect children. There was very little research available then that focused explicitly on children and families in the context of welfare policies and programs. But a decade later, we can harvest work that was launched around the time of that meeting, in order to inform work in the new policy context.

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In our presentation today, we will be revisiting a key hypothesis that was articulated in the discussions at the 1989 meeting and especially in a paper by Wilson, Ellwood and Brooks-Gunn (subsequently published in *Escape From Poverty*, 1995; see also Smith, Blank and Bond, 1990). We will refer to this hypothesis as the "Stress Hypothesis." The Stress Hypothesis anticipated that mandatory participation in a welfare-to-work program, and a transition from welfare to maternal employment, could involve substantial stress to mothers. This hypothesis noted that such a transition would require changes in daily family routines; the need to locate child care, possibly quickly, and the adjustment of children to new child care settings; the need to make (coordinated) transportation arrangements for family members; and the mothers' adjustment to the demands of the program -- whether the required activity was basic education, job training, or employment. Stress could be engendered if mothers made a transition into jobs that involved very repetitive or dangerous tasks; jobs with nontraditional hours or varying schedules; jobs that lacked stability or security; or jobs that did not bring the family out of poverty. Similarly, mothers could find mandated participation in basic education or training to be stress-provoking, particularly if they had previously experienced frustration or lack of success in school settings. The Stress Hypothesis posited that if the transitions required and encouraged by the JOBS Program (the program put in place by the Family Support Act), engendered stress in these ways, such stress could, in turn, come to be manifested in mother-child interactions, with eventual implications for children's development.

It is important to note that the discussions at the meeting on the Family Support Act and Children debated whether such stress, if it did occur, would be confined to an initial adaptation period, or would endure. Participants at the meeting also observed that there were grounds on which to predict favorable, rather than unfavorable, impacts on family processes. For example, positive effects on parenting could occur if mothers' self-esteem increased in connection with program participation or employment; if mothers' exposure to the outside world through program participation or employment resulted in more effective management of children's participation in activities outside of the home; if mothers felt more intellectually stimulated and brought this stimulation to their interactions with their children; or if family economic circumstances improved substantially.

The 1989 meeting was a point of germination for a set of intensive studies examining these possibilities in detail. Several studies focusing explicitly on parenting in the context of welfare-to-work programs were launched, each involving a combination of detailed observational and interview measures of parenting and each embedded within a larger evaluation that provides rich contextual data. While one of these, the JOBS Observational Study, focuses directly on the program put in place by the Family Support Act, two further observational studies looked at parenting behavior in the context of programmatically different welfare-to-work programs that mothers could use to fulfill the JOBS Program's participation requirement: the Teenage Parent Demonstration (that Jeanne Brooks-Gunn will be speaking about), and the New Chance Program (that Nancy Weinfield, Byron Egeland, and John Ogawa will be speaking about).

It is useful and important for us, as we transition into the new policy context, to be able to look across the findings from these studies and to ask whether *contrasting* programs for welfare families in the last generation of programs had *differing* implications for parenting behavior and the home environment. The present paper will begin to build this composite picture by presenting findings from the JOBS Observational Study. We will use findings from the first half year in this longitudinal study to revisit, and then to suggest modifications for, the Stress Hypothesis.

The JOBS Observational Study as an Embedded Study

Figure 1 illustrates the way in which the JOBS Observational Study is an "embedded" study. Together, the layers in this figure comprise the National Evaluation of Welfare-to-Work Strategies. When the Family Support Act was passed in 1988, the legislation called for a rigorous evaluation of the economic impacts of the JOBS Program, employing random assignment of families to experimental and control groups. The outer ring in the diagram represents this study of 55,000 families in 7 sites across the country, documenting such outcomes as reliance on welfare, maternal employment and earnings, and total family income. Families in this evaluation were randomly assigned to either a control group or an experimental group.

When the Family Support Act was passed, policymakers at the Department of Health and Human Services thought it prudent to study the impact of the JOBS program on children. The next ring in the figure shows the study that was launched in response to this recommendation: the Child Outcomes Study within the National Evaluation of Welfare-to-Work Strategies. This

study includes about 3,000 families from 3 of the 7 research sites in the larger evaluation. Families in these 3 sites -- including Atlanta, the site of the JOBS Observational Study -- were randomly assigned to a control group or to one of *two* program treatment groups: a labor force attachment group, which emphasized a rapid transition into the labor force through job search activities; or a human capital development group, which emphasized education and training as means to enhancing longer-term employability. Each family in the Child Outcomes Study had a preschooler between about 3 and 5 years of age at the time of random assignment (or baseline) within the full evaluation. One preschooler of this age was randomly selected to be the "focal child" (or the child focused upon in interviews and assessments) in families with more than one child in this age range. For the Child Outcomes Study, mothers are interviewed in their homes about two and five years after random assignment. During the visits to the home, children's developmental outcomes are assessed. Mothers report on the children's health, social and behavioral adjustment, and academic progress. In addition, assessments of the children's cognitive development are administered. The interviews cover multiple possible mediators of any program impacts on children, including maternal psychological well-being, participation in child care, mother-child relations and the home environment, child support and paternal involvement, and family economic status. A teacher survey is also being carried out around the time of the final follow up about 5 years after baseline to assess academic progress and behavioral adaptation to school.

Our presentation today will draw upon data collected as part of the two inner circles in the diagram: the Descriptive Study and the JOBS Observational Study. The Descriptive Study was carried out in only one of the study sites of the Child Outcomes Study: Atlanta. This study involved an extra visit to the homes of the 790 families in the sample to carry out interviews and assessments of the children's development about 3 months after baseline. The aim of the study was to describe the well-being of families and children close to the start of the evaluation (Moore et al., 1995). The Descriptive Study interview included a number of measures of parenting based on a combination of maternal report and interviewer ratings, including the abbreviated form of the Home Observation for Measurement of the Environment (HOME-SF), and further interview-based measures of parenting that were developed for the Descriptive Study to complement the HOME-SF and to address specific limitations that we perceived in its use with low income families.

We will also rely on data from the innermost ring in the figure, the JOBS Observational Study. This study chose to focus on families that had participated in the Descriptive Study and who, at baseline, had been assigned to either the control group or the human capital development group. Thus, families from the labor force attachment group of the larger evaluation were not included in this embedded study; and the experimental group for the observational study is comprised of mothers who were guided towards basic education or training classes in an attempt

to strengthen their overall employability.² Of the 351 families in the JOBS Observational Study, 193 were assigned to the experimental (human capital development) group while 158 were in the control group. The goal of the JOBS Observational Study is to provide detailed and fine-grained measures of parenting from two points in time: 4-6 months after baseline (Wave I), and again 4 ½ years after baseline (Wave II). The focal children in the 351 families of this study were all about 3-4 years old at baseline. The observational study employs a combination of interviews with the mothers and videotaping of mother-child interaction in the context of book reading and a series of structured teaching tasks.

Possibility of Short-term Longitudinal Analyses

Focusing on Interview-Based Measures of Parenting

In our presentation today, we will build on the fact that a number of the interview-based measures of parenting are available for the JOBS Observational Study sample from two points in time during the first half year of the evaluation, a period critical for an examination of the Stress Hypothesis. As shown in Figure 2, these two time points are: (1) the Descriptive Study, about 3 months after baseline, a time when we anticipate that many mothers in the experimental group will be initiating their program activity; and (2) the interview carried out as part of Wave 1 of the JOBS Observational Study, about 5 months after baseline. This gives us the opportunity for a short-term longitudinal study, asking whether group differences are found in parenting, and if so

² But note that some mothers who were deemed "job-ready" and in no need of basic education or training, were encouraged to move directly into employment.

at which of these two time points during the first half year after random assignment. Figure 2 also shows the further points of data collection for the observational study sample that we will be reporting on in the future, extending to the Two-Year Follow-Up Survey, the second observational wave at about 4 ½ years, and the 5-Year Follow-Up and Teacher Questionnaire in the full Child Outcomes Study. In the Figure, baseline is labeled T1, the Descriptive Study as T2, and the Wave 1 Observational Study as T3. We will use these abbreviations hereafter.

Our analyses will begin with consideration of whether the first half year in the evaluation indeed represents a period of entry into program activities for mothers in the experimental group in our sample. Our presentation will then focus on the *interview-based* measures of parenting that can provide the basis for longitudinal analyses. Analyses focusing on the *observational* measures of mother-child interaction at Wave I are currently in progress but will not be reported on here.

The Observational Studies Collaboration

Before turning to a description of the sample and of the measures of parenting we will be focusing on, we want to note that the JOBS Observational Study involves the close collaboration of a multisite and interdisciplinary research team. Byron Egeland, Nancy Weinfield, and John Ogawa and colleagues at the University of Minnesota focus on the affective quality of mother-child interactions; and Catherine Snow, Patton Tabors and Jeanne DeTemple and their colleagues at the Harvard Graduate School of Education focus on the issue of mother-child interactions related to the emergence of literacy in children. Colleagues at MDRC, including Bob Granger and Joanne Rock coordinate the work of the observational study with the larger evaluation of economic impacts of the National Evaluation of Welfare-to-Work Strategies. My colleagues

Robin Dion, Jennifer Sargent and I focus on the interview measures (both parenting and contextual) available for the sample at each data collection wave. Kristin Moore, Sharon McGroder, and Carrie Mariner, also from Child Trends, assist in coordinating the observational study with the Child Outcomes Study of the National Evaluation of Welfare-to-Work Strategies. Donna Ruane Morrison is a member of the team from Georgetown University, who will be focusing on analyses looking across the interview data from the New Chance and JOBS Observational Studies. Carolyn Eldred, an independent research and evaluation consultant, focuses on the issue of adaptation of observational methodologies for fielding in a survey context. The full team shares the credit for helping to make today's presentation possible. The observational study is funded by the Foundation for Child Development, the William T. Grant Foundation, the George Gund Foundation and an anonymous funder, with support provided by the U.S. Department of Health and Human Services as well for pretest work. The National Evaluation of Welfare-to-Work Strategies is funded by the U.S. Department of Health and Human Services and the U.S. Department of Education.

Sample for the Present Analyses

Table 1 provides a summary of the characteristics of the 351 families in the observational study sample at T1, just prior to random assignment. As can be seen, the mothers were, on average, about 29 years old, and almost three-quarters had never been married. One-quarter of the sample had only one child at baseline, the remainder being equally distributed between families with two children and those with three or more children. The average age when mothers gave birth to the oldest child in the household was 21.5. Almost two-thirds of the sample mothers held a high-school diploma or GED. However, more than half had low levels of

literacy, and 43 percent had only moderate or no interest in attending school. Two-thirds of the mothers reported having worked for at least six months, but few were employed at baseline and most reported no earnings in the past year. Over one-third reported that their families of origin had received public assistance, and almost 45 percent of the mothers reported that they themselves had been on welfare for 5 or more years at baseline. Interestingly, 71 percent of the mothers reported at least one of two logistical barriers to work --problems with transportation or child care. In addition, almost two-thirds of the sample reported having family barriers to work, such as having someone with a health or emotional problem in the family. Many of the focal children (73 percent) had experienced some form of child care prior to random assignment. Scores on measures of maternal psychological well-being at baseline indicated that 39 percent of the sample mothers reported some depressive symptoms, 72 percent reported they had some social support, and nearly 40 percent had scores falling into the internal locus of control category. Finally, on a composite measure of overall risk at baseline, 43 percent of the sample was found to have multiple (6-10) risks. Our definition of risk was guided by the literature on risk and resilience and includes the presence or absence of the following 10 risk factors: Mother lacked a high school diploma or GED, had 3 or more children, had been on AFDC 2 or more years, was living in public housing, had low reading literacy test scores, had low math literacy test scores, had moderate to high levels of depressive symptoms, had a more external or mixed locus of control, perceived more family barriers to work, and lacked social support.

Analyses have been completed asking whether the baseline characteristics of the experimental and control group families in the observational study sample differed. These analyses confirm that the baseline characteristics of the two groups did not differ systematically.

Thus the experimental design has been preserved within the embedded study sample. We have also carried out analyses asking whether the families in the observational study sample differed in a systematic way from other families in the Descriptive Study who were eligible for the study but who did not participate. Again, we found no evidence of a systematic difference between those eligible families who did and did not participate in the observational study.

Parenting Measures Selected for Present Analyses

As we have noted, the interview carried out at T2 in the present analyses included an abbreviated form of the HOME Inventory and also several further interview measures of parenting developed to complement the HOME. The HOME-Short Form is an adaptation of the full HOME Inventory (Caldwell and Bradley, 1984) that was developed for use in the National Longitudinal Survey of Youth-Child Supplement (Baker and Mott, 1989). It has proven to be a rich resource for analyses of family processes and child outcomes in that dataset, and there is excellent documentation of its predictive validity (Chase-Lansdale et al., 1991; Mariner and Zaslow, 1997). One of the strengths of the HOME-SF is its reliance on a combination of maternal report and interviewer rating items. We will report here on three scores from the HOME-SF: a total score and subscale scores for Emotional Support and Cognitive Stimulation in the home environment.

Several further interview-based measures of parenting were developed for the Descriptive Study to address specific concerns about the HOME-SF when used in a low income sample and in the context of an evaluation study. In particular, the Emotional Support subscale of the HOME-SF is a global one, with such widely varying content as extent of TV viewing, whether the child eats dinner with both parents, use of physical punishment, and warmth in the mother-

child relationship. In the context of an evaluation study, we felt that it would be particularly important to delineate specific aspects of Emotional Support that could be affected by the program. In addition, internal consistency reliability for the HOME-SF Emotional Support subscale has been documented to be low (see summary in Zaslow, Mariner and Oldham, 1998), perhaps reflecting the range of content encompassed by the scale. We therefore developed measures of Maternal Warmth and of Maternal Control/Restrictiveness, with the intent of focusing on more delimited constructs, and because we were particularly interested in whether these specific aspects of parenting were affected by JOBS.

We were also concerned with the possibility that the program might affect subjective reactions to the parenting role rather than (or in addition to) parenting behavior per se. Accordingly, we included also a measure of Aggravation in Parenting, building on but adapting the measure of parenting stress developed by Abidin (1986).

Finally, we have noted elsewhere (Zaslow et al., 1998) a concern that the HOME-SF Cognitive Stimulation subscale relies fairly heavily on documenting the child's access to material possessions, such as tape recorder and tapes, as sources of cognitive stimulation. In a low income sample, it might be critical to focus to a greater extent on joint mother-child activities (such as outings, or playing games together) as a source of cognitive stimulation, and to de-emphasize stimulation that requires material possessions. Accordingly, we developed a measure that we will call Joint Activities.

While the HOME-SF was administered only at T2, the measures of Maternal Warmth, Maternal Control, Aggravation in Parenting, and Joint Activities were included both at T2 and T3. For these measures it will be possible to carry out longitudinal analyses. We also note that

there is some item overlap between the HOME-SF and the further measures. Table 2 summarizes the internal consistency reliability for the HOME-SF and the further parenting measures (with Cronbach's alpha reported for these further measures for both T2 and T3). The concern with the internal consistency reliability of the HOME-SF subscales is clearly reflected in these analyses. There is also some indication that for our sample, focusing scales on the more specific constructs improves internal consistency reliability. We note here that for each of the parenting scales, higher scores indicate more of the aspect of parenting reflected in the measure's name. For example, a high score on Aggravation in Parenting indicates more aggravation, while a high score on the measure of Maternal Warmth indicates more warmth.

Engagement in School and Work Activities Across T1, T2 and T3

We turn next to the question of whether the period we are focusing on here does indeed reflect a time during which mothers in the experimental group in our sample are initiating work and school activities. Figure 3 shows, separately for the experimental and control groups in the observational study sample, the proportion of mothers at T1 (baseline), T2 (about 3 months after baseline), and T3 (about 5 months after baseline) reporting any participation in work or school activities. Given that all of the experimental group mothers were in the human capital development stream rather than the labor force attachment group, it is not surprising that the activity most often engaged in by experimental group mothers was school or job training, rather than employment, as can be seen by a contrast between the two panels in figure 4. Note also that although control group members were not mandated to participate in any activities, a nontrivial minority (approaching 1/3 of the group) did get a job or start school by T3. Several findings are noteworthy. First, we have confirmation here that the groups did not differ in their participation

in work or school at baseline, just prior to random assignment. Second, the groups clearly diverge by T2. At this point, 58.5 percent of mothers in the experimental group, and 17.7 percent of those in the control group were engaging in work or school activities. Furthermore, it is important to note that the period of greatest transition for the mothers in the experimental group is between T1 and T2, while participation remains relatively constant for the control group across this same period. Across T2 and T3, we see no substantial increase in participation in work or school for the mothers in the experimental group, but a modest increase for the control group is seen across this time.

It will be important to consider the findings on parenting behavior in light of these group differences in engagement in work or school activities. The Stress Hypothesis would predict that there would be negative program impacts on parenting behavior particularly around the time that mothers are adapting to program participation. Figures 3 and 4 suggest that T2 is therefore a key time point, when the greatest proportion of mothers in the experimental group have recently experienced a transition. An important question will be that of whether there are indeed program impacts on parenting at all, and if so, whether they occur only at T2, or continue to T3, a point only a few months later, but when participation has stabilized in the experimental group. The short-term longitudinal design available for some of the parenting measures makes it possible to ask whether we see evidence of stress confined only to the months of transition, or some indication of stress enduring beyond the immediate transition period.

Findings for the HOME-SF at T2

We report separately on analyses of the HOME-SF subscales and Total Score, which were available only at T2, and for the further parenting measures, which were available at both

T2 and T3. For the HOME-SF Total Score, Emotional Support Subscale, and Cognitive Stimulation Subscale, analyses of covariance were carried out examining differences by research group (experimental and control), and controlling for five background characteristics (focal child's age, maternal age, number of children in the family, maternal literacy, and maternal work history).

Table 3 summarizes the results of these analyses. As can be seen, a significant difference was found for the HOME Total Score. The mean was significantly lower in the experimental group. In addition, a marginally significant difference in the same direction was found for the Cognitive Stimulation Subscale. Effect sizes for these differences fall in the small range (.18 to .22). Item analysis indicated that differences occurred both for maternal report and interviewer rating items. Thus, the group differences do not rest on the report of a single informant.

These findings provide some support for the Stress Hypothesis. That is, there is evidence that experimental group mothers are providing a somewhat less stimulating and supportive home environment at T2, the time of greatest transition for experimental group mothers. We turn now to the short term longitudinal analyses with the further parenting measures, asking whether differences are found on these measures, and if so, whether differences are confined to T2 or endure beyond the period of greatest transition for experimental group mothers.

**Short-Term Longitudinal Findings for Maternal Warmth, Maternal Control,
Aggravation in Parenting and Joint Activities**

For the measures available at both T2 and T3, we carried out repeated measures analyses of covariance, examining effects for group, time and the interaction of group by time. These analyses include controls for the same five covariates as in the analyses of the HOME-SF.

Means at T2 and T3 are shown in Table 4. Significant interactions of group x time were found for two of the measures: Maternal Warmth and Aggravation in Parenting. Figure 5 illustrates the interaction of group by time on Maternal Warmth. Follow-up analyses contrasting scores at T2 and T3 indicate a significant group difference on Maternal Warmth occurring only at T2. Mothers in the experimental group had lower scores than those in the control group on this measure, with the effect size falling in the small to medium range (.32). Item analyses again confirmed that the group difference occurred both on maternal report and interviewer rating components of this measure at T2.

Figure 6 illustrates the significant interaction of group by time on the measure of Aggravation in Parenting. Follow-up analyses with the Aggravation measure failed to reveal a significant difference at either time point, although means for the two groups appear to converge over time in a manner similar to that for Maternal Warmth. In sum, T2 means for both Maternal Warmth and Aggravation in Parenting show a pattern in which mothers in the experimental group, while showing less warmth to their children, also showed a tendency to experience less aggravation in the parenting role than control group mothers.

Figure 7 illustrates the mean scores for the Control scale. The pattern of convergence of groups over time is echoed here, but the interaction of group by time does not reach significance. Across the three measures discussed so far, the pattern appears to be one of disengagement rather than of an increase in harsh parenting or in subjective sense of stress in the parenting role.

Finally, Figure 8 illustrates the pattern for the Joint Activities measure, our attempt at a "de-materialized" cognitive stimulation measure. A marginally significant difference indicates that across the two time points, experimental group mothers spent slightly less time in interaction

with their children than control group mothers. This finding is in accord with the marginally significant difference for the Cognitive Stimulation subscale of the HOME-SF found at T2. The small differences found in the area of cognitive stimulation suggests that in this domain, a slight tendency towards maternal disengagement may endure over time, or it may simply mean that experimental group mothers are less available to their children.

In revisiting the Stress Hypothesis, the findings to this point carry the following implications:

- We do see evidence of unfavorable program impacts about 3 months after random assignment, especially in terms of the overall supportiveness and stimulation of the home environment and in terms of a diminution in maternal warmth.
- However, it is critical to note that with the exception of the marginally significant finding on the Joint Activities scale, these unfavorable impacts on parenting are confined to T2, the period of the greatest transition for experimental group mothers in terms of initiation of school and work activities. In addition, effect sizes fall in the small to moderate range. While we see evidence that might be considered supportive of the Stress Hypothesis, for most measures the evidence suggests a brief period of transition- related stress, rather than the beginning of an enduring pattern.
- It is also critical to note that we do *not* see an increase in subjective sense of aggravation or an increase in punitive/controlling behavior, behaviors that would most clearly be indicative of stress. Rather, the trend towards a *decrease* in aggravation as well as in restrictive discipline for the experimental group at T2, taken together with the differences

in the measures of warmth and in the home environment, suggests that the pattern might better be labeled "Disengagement During the Transition Period" rather than stress.

Parenting in Light of Participation Trajectories

Rather than leaving the Stress Hypothesis simply having renamed it, however, we will consider one further prediction that this hypothesis suggests. The Stress Hypothesis would predict that the group difference findings we have documented at T2 would be attributable to the particular families in which the mother was actually undergoing a transition to work or school. That is, in order to have closure on these analyses, we should confirm that the brief "dip" in engagement in parenting occurs specifically during a transition to work or school, and that the group differences disappear as families adapt through continued participation in these activities.

In order to examine this possibility, we delineated patterns, or trajectories, of participation in work and school activities across T1, T2 and T3.

- "Never Participated" subgroup includes the 135 respondents who reported never engaging in work or school activities at any of the three timepoints.
- A "Transitioned In" subgroup includes the 113 respondents who were not engaged in work or school activities at baseline, but who initiated such activities at either T2 or T3.
- A "Dropped Out" subgroup includes the 48 respondents who were engaged in work or school activities at either T1 or T2, but who were no longer engaged in such activities at T3.

- Finally, a "Continuous/Near Continuous" subgroup includes the 50 respondents involved in work or school activities at all three time points, or who were engaged with a gap only at T2.

According to the Stress Hypothesis, we would expect that when we examine parenting behavior for experimental and control group members within each of these subgroups, the significant group differences at T2 would be "located" in the "Transitioned In" subgroup. The analyses that we have carried out so far (and which we report today) to examine this possibility carry an important limitation: families were not randomly assigned to the various participation trajectory subgroups -- therefore, analyses using the participation trajectory variable are not experimental analyses. Self-selection into participation subgroups is not only possible, but likely. We report here on follow-up analyses that control for baseline differences among the participation trajectory subgroups in an attempt to correct for observable selection factors. However, further analyses are planned to address the issue of endogeneity.

Table 5 presents the means on the parenting measures according to participation trajectory for each research group. We do not present significance levels in the table itself in order to distinguish this set of nonexperimental analyses from the previously presented experimental impact analyses. Note also that numbers in parentheses indicate cell sizes. Means are presented for a particular parenting measure only for the timepoints within which a significant or marginally significant difference was found. A significant group difference is found, as predicted, on the Maternal Warmth measure within the subgroup that Transitions In to

work or school activities. However, significant group differences also occur on the measure of Maternal Warmth and the HOME Total score for the Never Participated subgroup. A marginally significant difference on the Joint Activities measure also occurs within the Never Participated subgroup.

These findings raise the possibility that *two* processes rather than one may underlie the program impacts on parenting found at T2. On the one hand, mothers transitioning into work or school activities in response to the JOBS Program may show a brief period of relative disengagement from parenting activities. Yet on the other hand, mothers who are unable or unwilling to fulfill the participation requirement of JOBS also appear to show differences in their parenting behavior. Indeed it is for the Never Participated subgroup that differences occur *across* parenting measures. Perhaps the pressure to fulfill the mandate, apparently experienced particularly strongly at T2, was a source of stress for those who could not or would not respond as required. Such an interpretation would suggest a further revision to the Stress Hypothesis: stress could occur in the context of a transition to work or school, but might also be felt by those made aware of the participation requirement but who are unable or unwilling to respond to it.

We must, however, question the extent to which the parenting impacts reflect responses to JOBS, or rather reflect *differential* self-selection into the participation trajectories. An important possibility is that because of the mandate, those experimental group mothers who remain in the Never Participated trajectory are a particularly "hard to move" group, with initial characteristics that would differentiate them from control group mothers who choose not to

participate in work or school. Perhaps the differences in parenting behavior for this subgroup reflect group differences in the initial characteristics of the mothers, rather than effects of the program.

To explore this possibility, we examined whether there were group differences on the baseline characteristics of mothers in the different participation trajectory subgroups. Interestingly, the experimental group members in the Never Participated subgroup had significantly less interest in attending school, were less likely to have had experience working, reported more family barriers to work, and were less likely to have ever married than their control group counterparts. Among the subgroup of mothers who Transitioned In, however, experimental group mothers appeared to be those who could more readily respond to the participation requirements of the JOBS program. For example, they reported fewer family barriers to work and a less negative attitude toward child care than their control group counterparts.

In a final set of analyses, we asked whether the group differences in parenting at T2 within the participation trajectory subgroups persisted when controlling for differences in baseline characteristics between experimental and control group members within the Never Participated and Transitioned In trajectories. Significant differences for Maternal Warmth, the HOME-SF Total Score and the HOME Cognitive Stimulation Subscale persisted even with controls for these background characteristics, although in some instances the significance level diminished. This result suggests that the program impact findings reflect a combination of the

initial characteristics of the families that predict their participation trajectories, *and* influences of the program itself. In further analyses we hope to take further steps to address the problem of endogeneity by employing an instrumental variables approach.

Discussion

To summarize, these analyses provide partial support for the Stress Hypothesis yet at the same time give ample basis to revise and reformulate the hypothesis. We see indications of program impacts on parenting behavior. Yet these differences reflect not an increase in harsh or punitive parenting as might be predicted by the Stress Hypothesis, but rather a relative disengagement from positive parenting behavior. Further, there was actually a diminution in aggravation in the parenting role. Only in the area of cognitive stimulation did a group difference endure, and this difference was only marginally significant. Rather, impacts tended to be confined to the first few months of the program, when participation data suggest that experimental group families experienced the greatest pressure and encouragement to undertake new activities to fulfill the program requirements.

Finally, group difference findings did not appear to be confined to the subgroup of families who were coping with the transition to new activities, as would be suggested by the Stress Hypothesis. Rather, they also occurred for families who were unable or unwilling to participate in work or school activities. Thus, perturbations in parent-child relations may have

occurred in this sample not only as a function of adaptation to new roles and activities, but also in response to inability or resistance to fulfill program requirements. Analyses conducted to date suggest that differential self-selection does not fully explain the impacts on parenting behavior for the specific participation trajectories. Further analyses are planned to examine this issue more exhaustively.

What are the possible implications of these findings in the new policy context? The findings suggest that though there may be a period of maternal disengagement in mother-child relations for families with young children when mothers and children are first adapting to a welfare-to-work program, this pattern is both temporary and shallow. While this set of findings may be seen as reassuring, indicating no permanent or deep impact on parenting within the time frame of the study, we note that a hypothesis of "Temporary Perturbation" in parent-child relations should be directly examined in the new policy context, which differs in key ways from that under the Family Support Act.

The 1996 welfare legislation requires participation in work activities rather than in educational or work preparation activities. Further, the requirement in some states is to begin such work even when a child is in the infancy period, and for a substantial numbers of hours per week. Families face lifetime limits on receipt of benefits (Zaslow, Tout, Smith and Moore, forthcoming). Initial tracking of state implementation indicates that families are being sanctioned for noncompliance with work requirements (Pavetti, 1998). Our results suggest that in the context of the JOBS Program, there were small to moderate program impacts on measures

of parenting both for families transitioning in to program participation, and also for families who did not participate despite the requirement to do so. The likelihood is that with more stringent participation requirements, sanctions, and time limits, pressure on families will be greater. The possibility exists that in the new policy context, impacts on parenting might be of greater magnitude and/or duration. Future research should include a focus on this possibility.

References

Abidin, R.R. (1987). Parenting Stress Index manual, second edition. Charlottesville, VA: Pediatric Psychology Press.

Baker, P.C., & Mott, F.L. (1989). NLSY child handbook 1989. Columbus: Ohio State University, Center for Human Resources Research.

Caldwell, B.M., & Bradley, R.H. (1984). Home Observation for Measurement of the Environment. (Rev. ed.). (Administration Manual). Little Rock, Arkansas: University of Arkansas at Little Rock.

Chase-Lansdale, P.L., Mott, F.L., Brooks-Gunn, J., & Phillips, D. (1991). Children of the National Longitudinal Survey of Youth: A unique research opportunity. Developmental Psychology, *27*, 918-931.

Mariner, C.L., & Zaslow, M.J. (1997). Don't leave HOME without it? An evaluation of the need for further work on survey measures of the home environment. Methods Working Paper Series #1, Child Trends, Washington, D.C.

Moore, K.A., Zaslow, M.J., Coiro, M.J., Miller, S.M. & Magenheim, E.B. (1995). How well are they faring? AFDC families with preschool-age children at the outset of the JOBS evaluation. Washington DC: U.S. Department of Health and Human Services and the Office of the Assistant Secretary for Planning and Evaluation.

Pavetti, L. (1998, March). Welfare to Work: What are we expecting from parents? Panel II presented at conference titled Opening Doors in the Barrio: Forging New Partnerships, sponsored by Avance Family Support and Education programs, San Antonio, TX.

Smith, S., Blank, S., & Bond, J.T. (1990). One program. two generations. New York: The Foundation for Child Development.

Wilson, J.B., Ellwood, D.T., & Brooks-Gunn, J. (1995). Welfare to work through the eyes of children: The impact on parenting of movement from AFDC to employment. In P.L. Lansdale and J. Brooks-Gunn (Eds.), Escape from poverty (pp.). Cambridge: UK: Cambridge University Press.

Zaslow, M.J., Mariner, C.L., & Oldham, E. (1998). Reliability and predictive validity of two sets of parenting measures within a sample of low income families: the HOME-SF and Exploratory Measures of Parenting developed for the JOBS Descriptive Study. Methods Working Paper Series #4, Child Trends, Washington, D.C.

Zaslow, M.J., Tout, K., Smith, S., & Moore, K.A. (forthcoming). Implications of the 1996 welfare legislation for children: A research perspective.

Figure 1
The National Evaluation of Welfare-to-Work Strategies

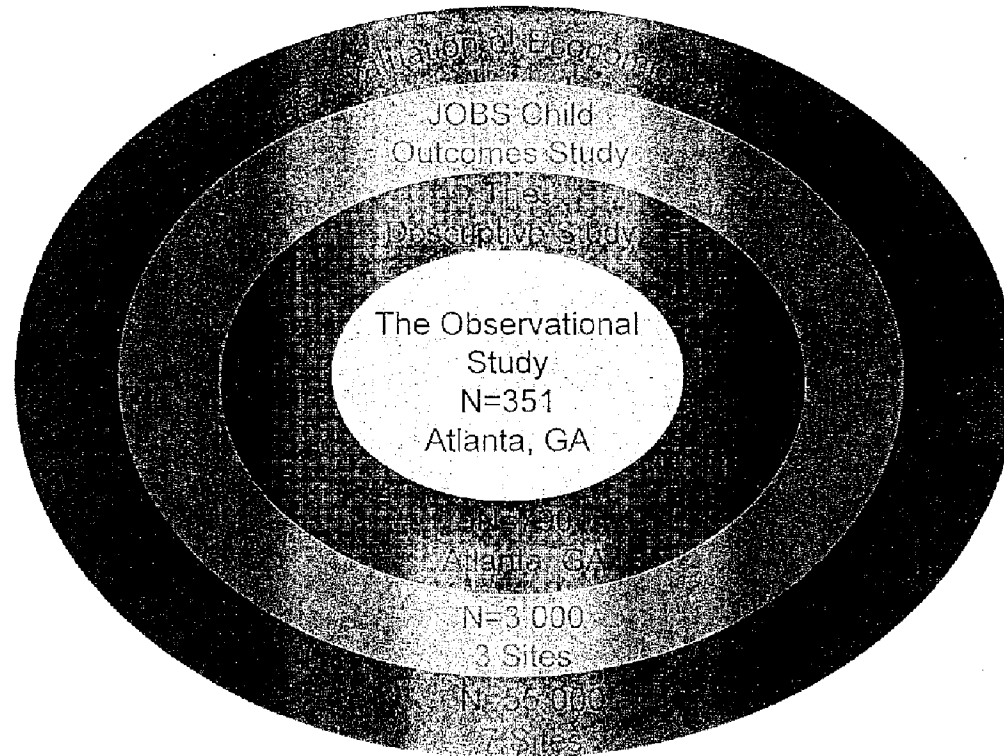


Figure 2

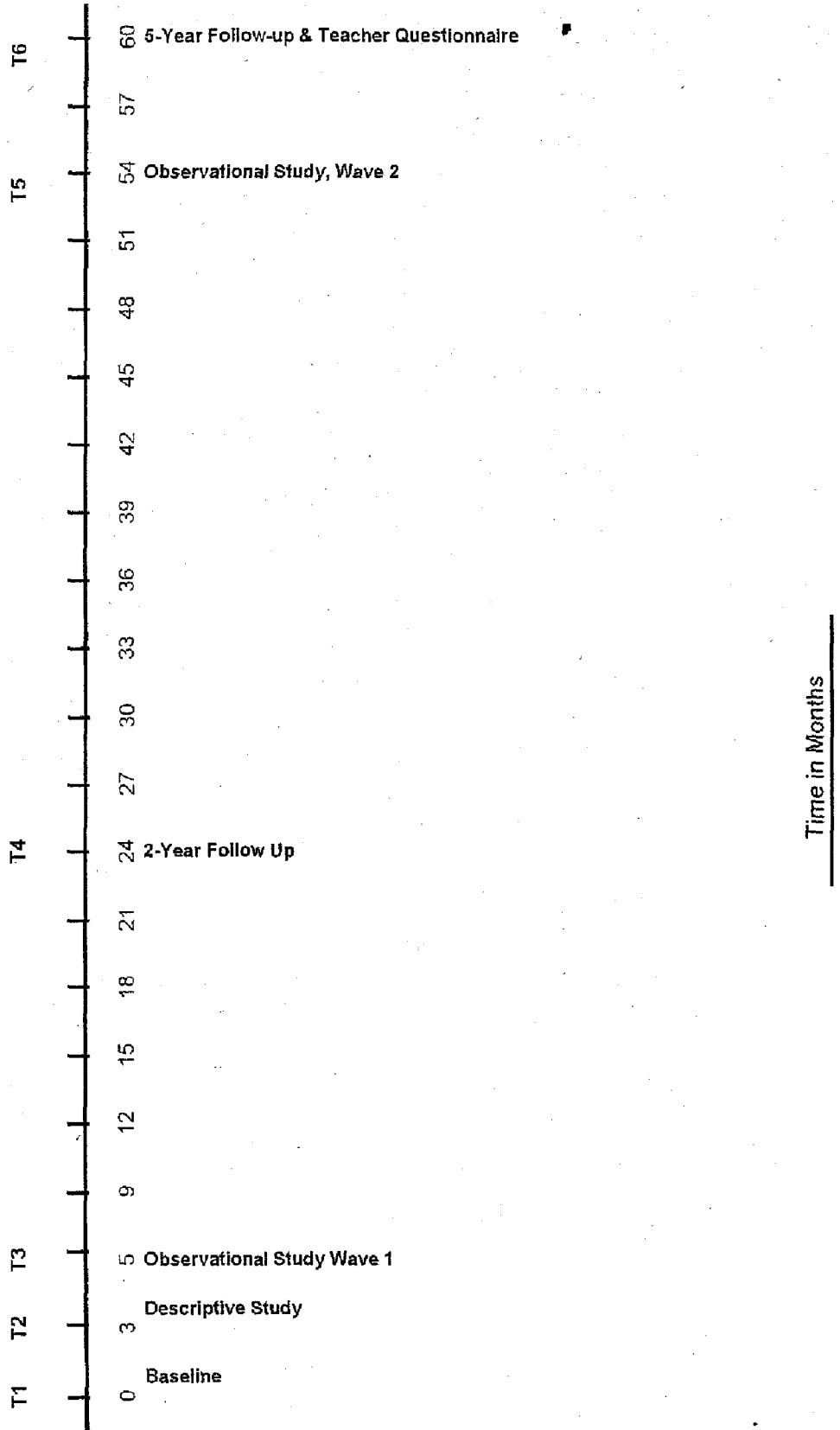


Figure 3
Participation Rates in Work or School

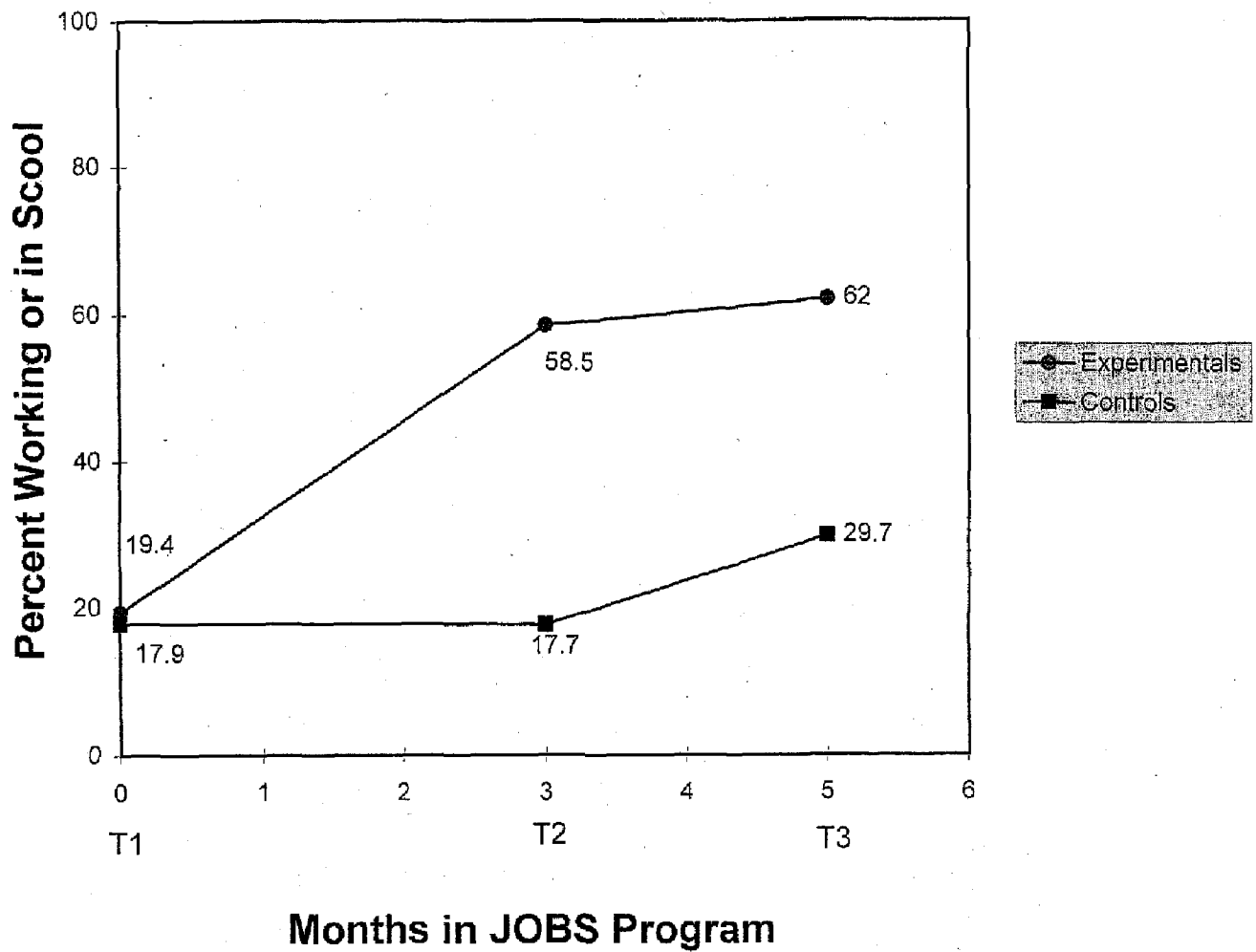
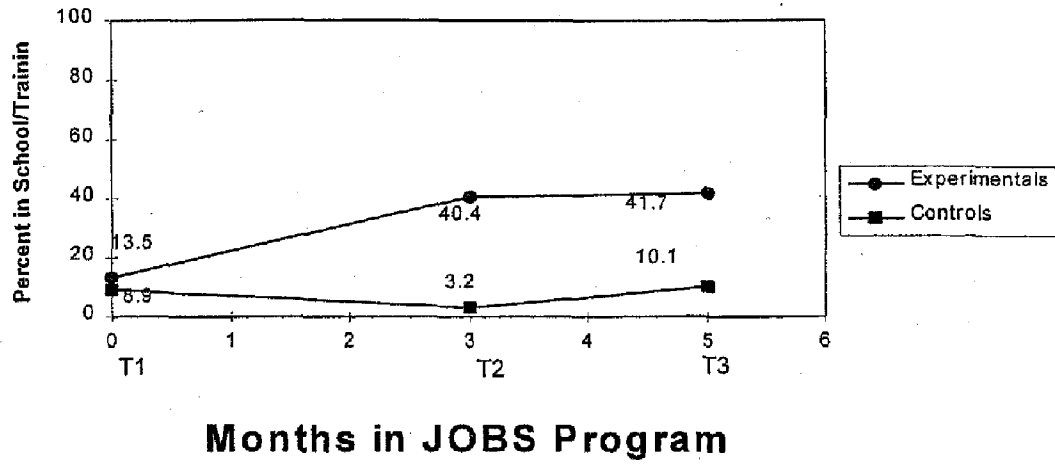


Figure 4
Participation Rates in School/Training



Participation Rates in Employment

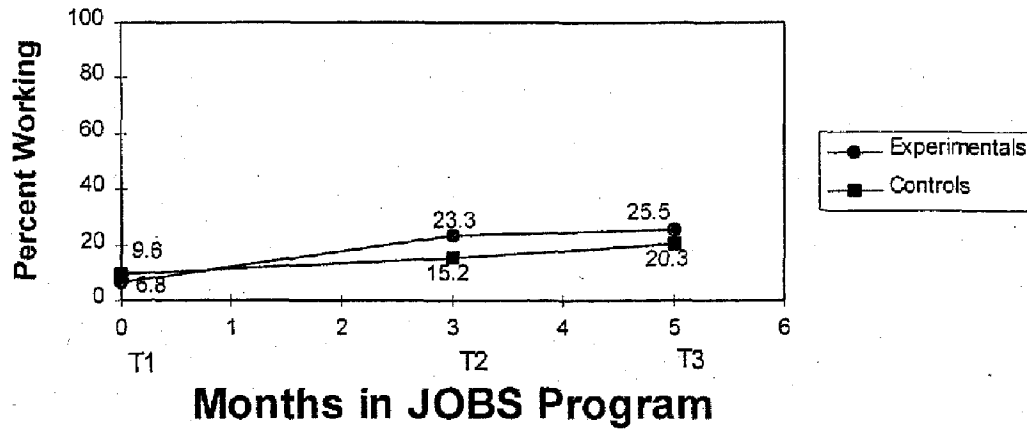
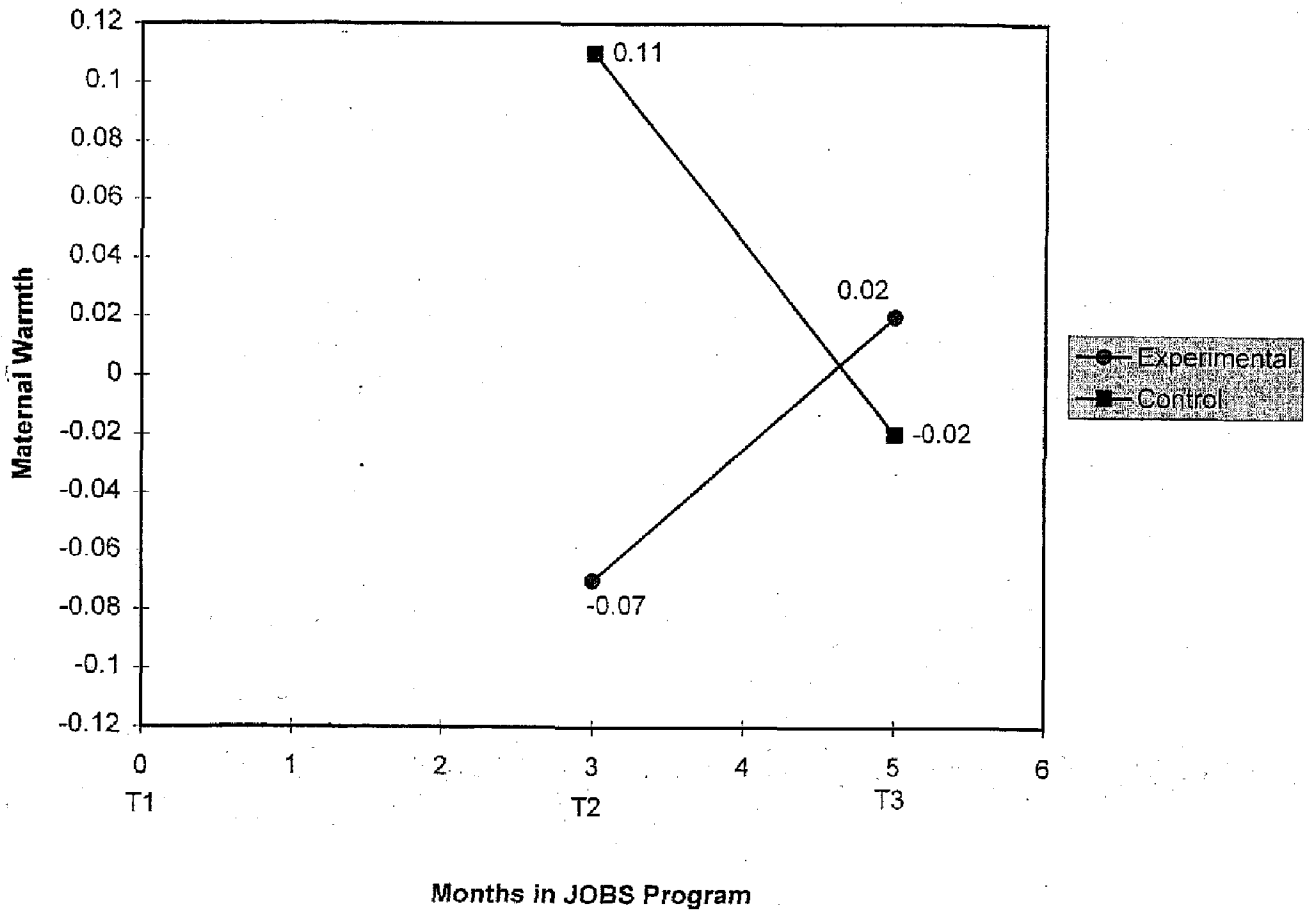
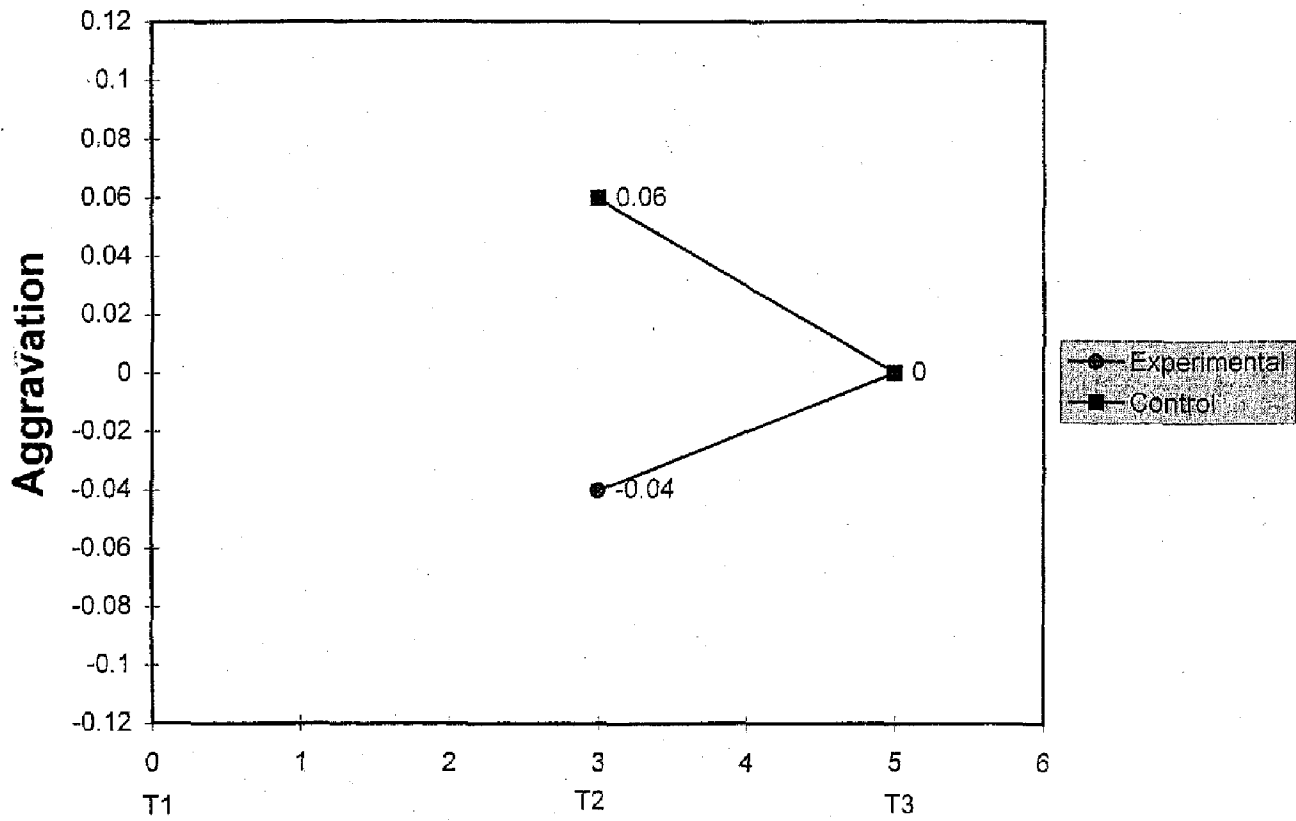


Figure 5
Mean Scores on Maternal Warmth Over Time



Significant Interaction of Group by Time, $p=.01$

Figure 6
Mean Scores of Aggravation Over Time



Months in JOBS Program

Significant Interaction of Group by Time, $p=.05$

Figure 7
Means on Maternal Control Over Time

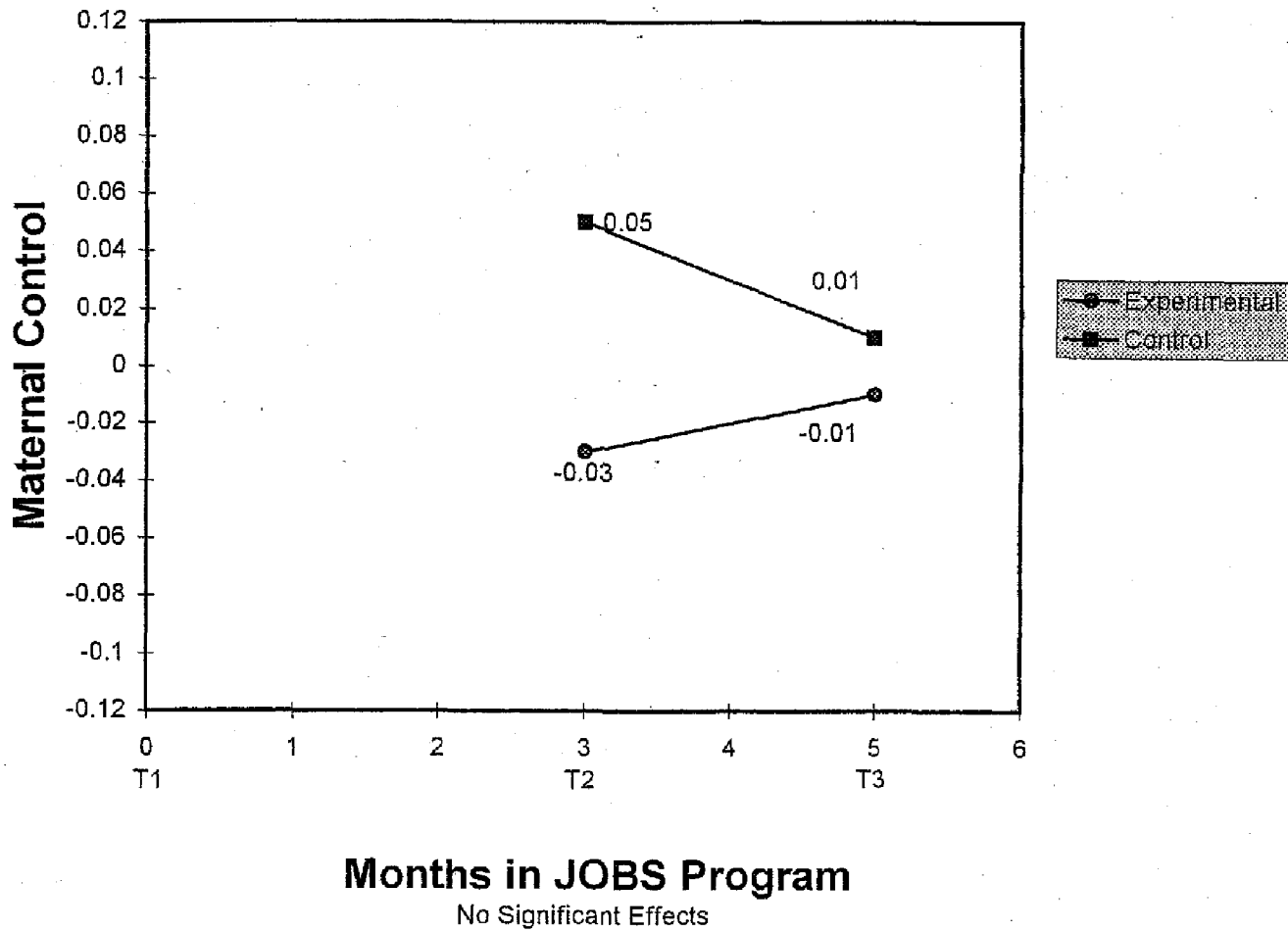
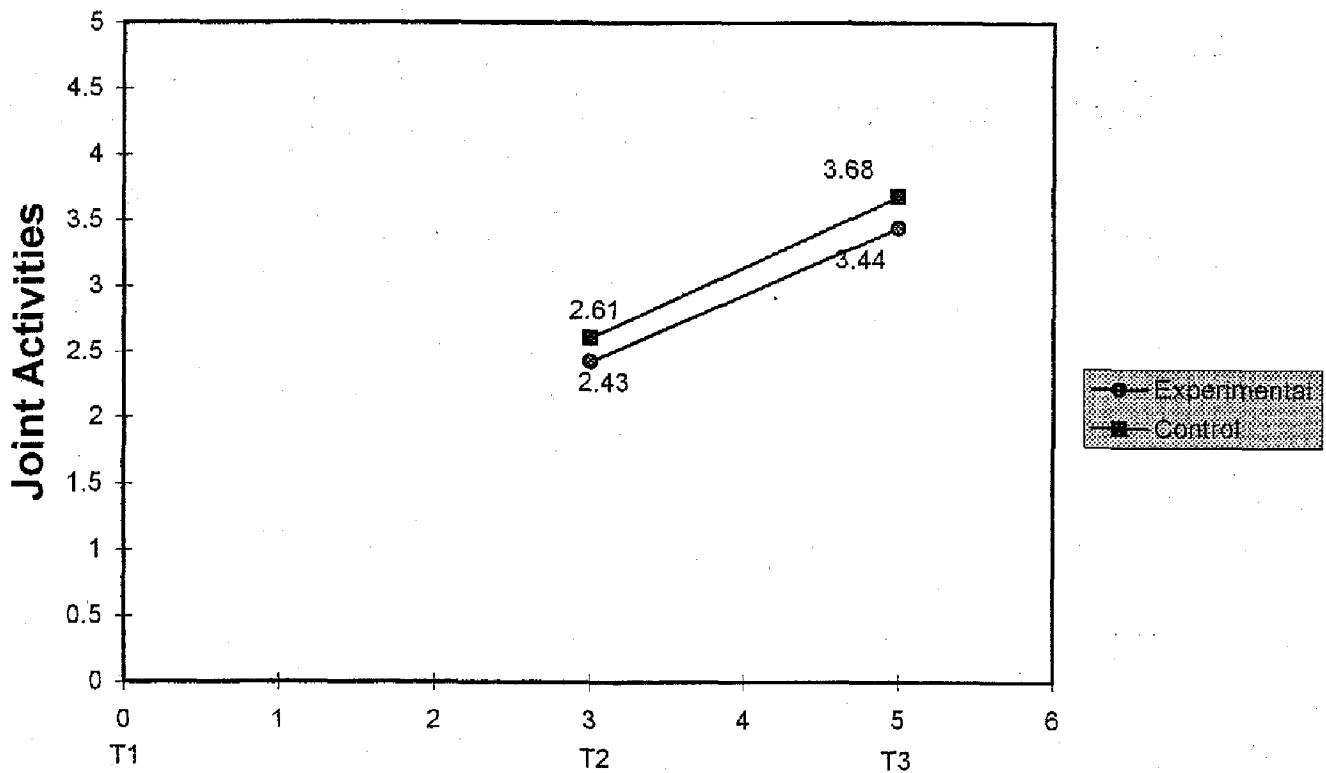


Figure 8
Means on Joint Activities Over Time



Months in JOBS Program

Marginally Significant Main Effect for Group, $p=.10$

Significant Main Effect for Time, $p=.02$

No Interaction

Table 1

Selected Characteristics of Wave I JOBS Observational Study Sample At Random Assignment

Characteristics	Average	Percent
<u>Demographic Characteristics</u>		
Age of focal child (months)	49.2	
Age of focal child (years)		
3-0 to 3-11		44.2
4-0 to 4-11		53.0
5-0 to 5-11		2.8
Marital Status		
Never Married		72.1
Ever Married		28.0
Maternal age (years)	29.3	
Maternal age (years)		
20-29		57.5
30-39		37.9
40-49		4.6
Age at first birth (years)	21.5	
Number of children		
One child		25.1
Two children		37.6
Three or more children		37.3
Housing Type ^a		
Public		43.4
Subsidized		29.0
Neither public nor subsidized		27.6
Number of Moves in Past 2 Years		
No moves		45.3
One move		35.6
Two or more moves		19.1
<u>Education And Literacy</u>		
Educational Attainment		
No Degree		34.2
HS diploma, GED, any college		65.8

Table 1, cont.

Selected Characteristics of Wave I JOBS Observational Study Sample At Random Assignment

Characteristics	Average	Percent
Maternal Literacy ^b		
Lower (Level 1 or 2)		52.6
Higher (Level 3 or 4)		47.4
School Orientation ^c		
Less interest in attending school		43.0
More interest in attending school		57.0
<u>Employment and AFDC History</u>		
Ever Worked Full-Time for 6 Months or More		
No		33.3
Yes		66.7
Currently Employed		
No		91.9
Yes		8.1
Earnings in past year		
No Earnings		79.9
Some Earnings		20.1
Family Receipt of AFDC During Childhood		
No		64.1
Yes		35.9
Welfare Duration		
Less than 2 years		18.5
More than 2 years, but less than 5 years		36.7
5 years or more		44.8
<u>Employment and AFDC History</u>		
Involved in program prior to JOBS		
No		83.8
Yes		16.2

Table 1, cont.

Selected Characteristics of Wave I JOBS Observational Study Sample At Random Assignment

Characteristics	Average	Percent
<u>Perceived Barriers to Work</u>		
Logistical Barriers to Work ^d		
No logistical barriers		28.6
One logistical barrier		27.4
Two logistical barriers		44.0
Family barriers to work ^e		
No perceived barriers		34.7
Some perceived barriers		29.2
Many perceived barriers		36.2
<u>Psychosocial Characteristics</u>		
Locus of Control ^f		
External locus of control		17.7
Mixed locus of control		42.3
Internal locus of control		39.9
Social Support ^g		
No support		27.6
Some support		72.4
Depression ^h		
Low risk of depression		60.8
Moderate risk of depression		22.2
High risk of depression		17.0
<u>Child Care/Early Childhood Education</u>		
Ever any regular child care or early childhood education before random assignment ⁱ		27.2
None		72.8
Some		
<u>Overall Risk</u>		
0-3 risks		27.8
4-5 risks		29.6
6-10 risks		42.7
Sample Size		351

SOURCE: JOBS baseline surveys (Private Opinion Survey and Standard Client Characteristics)

Table 1, cont.

Selected Characteristics of Wave I JOBS Observational Study Sample At Random Assignment

Notes: Calculations for this table used data for all 351 observational study respondents for whom there were baseline survey data, including experimental group members who did not participate in the JOBS Program. The sample size may fall slightly short of the number reported because of missing or unusable items from some respondents' questionnaires.

*Two families were in emergency/temporary housing and were coded as missing on this variable.

^bThe document literacy scale of the Test of Applied Literacy Skills (TALS) was administered to respondents at baseline. The TALS was developed by the Educational Testing Service and yields measures of broad reading and math skills used in everyday life, such as the ability to locate and use information contained in materials such as tables, schedules, charts, graphs, maps and forms. The ETS divides scores into five levels. Scores in Levels 3, 4, or 5 indicate an ability to integrate multiple pieces of information or to disregard information in complex documents that are irrelevant to the main task. (There were no cases of Level 5 in this sample.) Levels 1 or 2 indicate difficulty in the performance of tasks that require integration of information from various parts of a document.

^cSchool Orientation was a self-reported measure created from baseline survey items. It is composed of 7 items intended to reflect the respondent's interest in and preference for going to school. Examples of items are: "I like going to school" and "If you had a choice, which would you prefer: going to school to study basic reading and math or going to a program to get help looking for a job?" Mothers who indicated a positive attitude toward school on 3 or fewer items were classified as having less interest in attending school, while mothers who indicated a preference for school on 4 to 7 items were classified as having more interest in attending school.

^dMothers responded to two questions which asked about two logistical barriers to working. Specifically, mothers indicated whether they perceived having a problem with (1) being able to afford child care, and (2) having transportation to work.

^eFamily Barriers to Work was a self-reported measure created from baseline surveys comprising 8 items intended to reflect the respondent's degree of preference for staying home to be with her family instead of working (e.g., "Right now I'd prefer not to work so I can take care of my family full-time"), or for other personal reasons such as family health or emotional problems. The measure ranged from 8-32 and had a coefficient alpha of .84 in this sample. For use as a subgroup variable, mothers who disagreed or disagreed a lot with all items were classified as having "No perceived barriers." Those who agreed with some items but disagreed with others (including a few who agreed or agreed a lot with all items) were grouped as having "Some barriers."

^fLocus of Control was a 4-item self-reported measure constructed from statements intended to tap how much control the respondent felt she had in her life (e.g. "I have little control over the things that happen to me" and "There is little I can do to change many of the important things in my life"). The scale had a coefficient alpha of .60 in this sample, and was recoded into three categories. Mothers who agreed or agreed a lot with all 4 items were grouped as "External locus of control"; those who agreed with some items but disagreed with others were grouped as "Mixed locus of control"; and those who disagreed or disagreed a lot with all items were classified as "Internal locus of control."

^gRespondents indicated their level of agreement with the statement "When I have trouble or need help, I have someone I can really talk to." Respondents who disagreed or disagreed a lot with this statement were classified as having no social support, while those who agreed or agreed a lot were classified as having some social support.

^hThe Brief Depression Scale administered at baseline was comprised of four items drawn from the Center for Epidemiological Studies Depression (CES-D) scale, which asked how many days during the past week the respondent felt sad, depressed, lonely or could not shake off the blues even with the help of family and friends. The summary score, which had an alpha of .84 in this sample, was divided into three categories to create a subgroup variable. Those mothers who responded "rarely" or "a little" to each of the items were grouped as "Low risk of depression." Those who responded "moderate" or "most" to some but not all items were grouped in the category "Moderate risk of depression"; those who responded "moderate" or "most" to all items were considered to be at "High risk of depression." Follow-up analyses indicated that the "high risk" category maps well onto the clinical cutoff of 16 using the full 20-item version of the CES-D in the JOBS Descriptive Study.

ⁱThe data source for this measure was created from a set of questions in the Descriptive Study survey that asked the respondent to recall the dates when her child had been in child care.

^jAs discussed in the text, an index for Overall Risk at baseline was created by summing the presence or absence of the following 10 risk factors: Mother lacked a high school diploma or GED, Mother had three or more children, Family had been on AFDC for two or more years, Family was living in public housing; Mother had low reading literacy test scores and low math literacy test scores, Mother had

Table 1, cont.

Selected Characteristics of Wave I JOBS Observational Study Sample At Random Assignment

moderate to high levels of depressive symptoms; Mother had a more external or mixed locus of control, Mother perceived more family barriers to work, and Mother lacked social support. The measure was then divided by nearly equal terciles of the distribution.

Table 2

Reliabilities for Parenting Measures at Time 2 and Time 3

Measure	Descriptive Study (T2) Coefficient Alpha	Observational Study (T3) Coefficient Alpha
HOME Total -SF	.56	N/A
HOME Emotional Support	.55	N/A
HOME Cognitive Stimulation	.32	N/A
Maternal Warmth	.60	.60
Maternal Control/Restrictiveness	.63	.56
Maternal Aggravation	.78	.77
Joint Activities ^a	.49	.57

SOURCE: JOBS Descriptive Study survey and JOBS brief interview accompanying Wave 1 Observational Study session, n=351.

NOTES: Reliabilities for the HOME-SF measures are based on the Descriptive Study sample, n=790.

^aThe coefficient alphas presented in this table for Joint Activities are for continuous versions of the variables; we used dichotomous versions of the variables in the analyses conducted in this study.

Table 3

Parenting Impacts on the HOME Scales at Time 2

	Adjusted Means			
	Experimentals	Controls	Difference	p
Total HOME-SF	16.73	17.31	-.58	.043**
Cognitive Stimulation subscale (Dichotomously coded)	10.28	10.64	-.36	.089*
Emotional Support subscale (Dichotomously coded)	6.49	6.64	-.15	.334
Sample Size	186	151		

SOURCE: JOBS Descriptive Study survey, n=351

NOTES: Calculations for this table used data for all 351 respondents for whom there were interview data and for whom there were baseline survey data, including those with values of zero for outcomes and experimental group members who did not participate in the JOBS Program. The sample size may fall slightly short of the numbers reported because of missing or unusable items from some respondents' questionnaires. The averages are adjusted using linear analysis of covariance procedures controlling for five kinds of difference in characteristics before random assignment: Child age, Maternal Age, Number of Children, Maternal Literacy, and Ever Worked Full-Time.

A test of significance was applied to each difference in regression-adjusted means. The column labeled "p" is the statistical significance level of each between-group impact. That is, p is the probability that sample estimates are different from each other only because of chance. Statistical significance levels are indicated as *** \leq 1 percent, ** \leq 5 percent, and * \leq 10 percent.

Table 4

Short-Term Longitudinal Impacts on Interview Measures of Parenting

	Time 2		Time 3		Main Effect Group	Main Effect Time	Interaction
	Experimental	Control	Experimental	Control	p	p	p
Maternal Warmth	-.07	.11	.02	-.02	.137	.031*	.011**
Maternal Aggravation	-.04	.06	-.00	.00	.156	.545	.054*
Maternal Control	-.03	.05	-.01	.01	.210	.399	.281
Joint Activities	2.43	2.61	3.44	3.68	.099+	.023*	.660
Sample Size	193	158	193	158			

SOURCE: JOBS Descriptive Study survey and JOBS brief interview accompanying Wave I observational study sessions, n=351.

NOTES: Calculations for this table used data for all 351 respondents for whom there were interview data and for whom there were baseline survey data, including those with values of zero for outcomes and experimental group members who did not participate in the JOBS Program. The sample size may fall slightly short of the numbers reported because of missing or unusable items from some respondents' questionnaires. These averages are adjusted using linear analysis of covariance procedures controlling for five kinds of difference in characteristics before random assignment: Child age, Maternal Age, Number of Children, Maternal Literacy, and Ever Worked Full-Time.

Statistical significance levels are indicated as ** \leq 1 percent, * \leq 5 percent, and + \leq 10 percent.

The measures of Maternal Warmth, Aggravation in Parenting, and Maternal Control/Restrictiveness were created by summing standardized items; thus resulting scales have a mean of zero. The measure of Joint Activities was created by summing across a set of items the occurrence (1) or nonoccurrence (0) of an activity or aspect of the environment. Thus, scores Joint Activities ranged from 0-5. All measures were coded such that higher scores correspond to more of the parenting behavior or home environment described by the variable label, i.e., higher scores on Maternal Warmth reflect more, rather than less, warmth.

Table 5

Means on Parenting Measures within Participation Trajectories

Participation in Work or School Activities Across Time	Maternal Warmth (Time 2)		Maternal Aggravation (Time 2)		HOME-SF Total (Time 2)		HOME-Cognitive Stimulation (Time 2)		Joint Activities (Time 3)	
	E	C	E	C	E	C	E	C	E	C
Never Participated ^a	-.15(41)	.08(90)	.04(42)	.04(90)	16.16(41)	17.10(90)	9.95(41)	10.51(90)	3.24(42)	3.63(88)
Transitioned In ^b	-.16(78)	.10(25)	-.04(84)	.08(25)	16.41(83)	17.13(25)	10.25(80)	10.00(22)	3.46(84)	3.84(25)
Dropped Out ^c	.09(27)	.33(17)	-.06(28)	.14(17)	17.14(29)	17.42(17)	10.30(28)	10.88(17)	3.39(29)	3.26(17)
Continuous/ Near Continuous ^d	.11(28)	.06(18)	-.18(29)	.10(18)	17.96(28)	18.25(18)	10.58(29)	11.52(18)	3.67(28)	3.96(18)

SOURCE: JOBS baseline surveys (Private Opinion Survey and Standard Client Characteristics); JOBS Descriptive Study survey and JOBS brief interview accompanying Wave I observational study sessions, n=351.

NOTES: Numbers in parentheses indicate number of cases per cell.

Calculations for this table used data for all 351 respondents for whom there were data from the baseline survey, the Descriptive Study, and the Observational Study, including those with values of zero for Outcomes and experimental group members who did not participate in the JOBS Program. Sample sizes vary because of missing or unusable items from some respondents' questionnaires. The averages are adjusted using linear analysis of covariance procedures controlling for five kinds of difference in characteristics before random assignment: Child Age, Maternal Age, Number of Children, Maternal Literacy, and Ever Worked Full-Time.

The measure of Maternal Warmth and Aggravation was created by summing standardized items; thus resulting scales have a mean of zero. The measure of Joint Activities was created by summing across a set of items the occurrence (1) or nonoccurrence (0) of an activity or aspect of the environment. Thus, the scores ranged from 0-4.

All measures were coded such that higher scores correspond to more of the parenting behavior or home environment described by the variable label, i.e., higher scores on Maternal Warmth reflect more, rather than less, warmth.

^a"Never Participated" refers to respondents who were not engaged in either work or school activities at any of the three time points (baseline, Descriptive Study, Observational Study).

^b"Transitioned In" refers to respondents who were not engaged in work or school activities at baseline, but began participating in work or school at either the Descriptive Study or Observational Study.

^c"Dropped Out" refers to respondents who had participated in work or school at either baseline or the Descriptive Study, but had dropped out at the Observational Study.

^d"Continuous/Near Continuous" refers to respondents who were engaged in work or school at baseline and the Observational Study, though they may or may not have been either working or in school at Descriptive Study.