Published in final edited form as:

Soc Serv Rev. 2008 December ; 82(4): 579–614.

Welfare Program Implementation and Parents' Depression

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Abstract

This study examines how the frontline practices in welfare offices explain variation in program impacts on parents' depression. The study uses data from four large-scale experimental studies and conducts multilevel statistical modeling on 6,761 families in 22 local welfare offices. Analyses examine the ways that two program implementation practices (emphasis on quick job entry and personal client attention) are associated with program impacts on parents' depressive symptoms. Effects vary by the age composition of the parents' children, such that programmatic emphasis on quick job entry is associated with increases in depression among parents with preschool-age children but not among parents with school-age children. Findings have implications for research, policy, and practice.

Depression is a critical barrier to employment among welfare-recipient parents. Depression prevalence rates among welfare recipients are reported to be as high as one-third (Danziger et al. 2000; Polit, London, and Martinez 2001), and rates are closer to one-half in samples of disadvantaged groups, such as young welfare-recipient parents (Quint, Bos, and Polit 1997). Despite these high prevalence rates, research offers only limited insight as to how to address parents' depression in the context of welfare policy. While research links some forms of welfare policy with family and child outcomes, few effects on parents' emotional well-being have been observed (Morris et al. 2001). This is somewhat surprising because effects on parents' emotional well-being, and on depression in particular, are often discussed as possible outcomes of varying welfare strategies (Moore and Zaslow 2004).

A number of studies find that welfare policies can affect parents' depression, although some policies appear to reduce parents' depression and others appear to increase it (McGroder et al. 2000; Gennetian and Miller 2002; Huston et al. 2003, 2005). It is unclear, however, if this variance in effects occurs because differing policy levers lead to differing patterns of effects on parents' depression. For example, programs with an explicit antipoverty component might reduce depression but other programs might not; however, whether or not the program has an explicit antipoverty component does not appear to consistently predict reductions in depression (Ahluwalia et al. 2001; Morris et al. 2001).

If broad policy levers (such as whether the program has an antipoverty component) do not differentiate how the program might affect parents' depression, might it help to look at actual frontline practices? A body of research suggests the importance of program implementation, especially the practices of frontline staff, in informing understanding about how welfare policy is delivered to clients (Brodkin 1997; Meyers, Glaser, and MacDonald 1998; Riccucci et al. 2004). Research by Howard Bloom, Carolyn Hill, and James Riccio (2003) suggests that frontline practices may affect program effectiveness and thus may affect the extent to which programs are successful in increasing welfare-recipient parents' earnings and employment. The current study builds on this work and addresses whether

these same program implementation features also explain cross-site variation in the effect, or impact, of welfare programs on parents' depression.¹ In this way, the study tries to get inside the black box of policy effects.

In addressing these questions, the current study relies on a unique set of data that measure program implementation consistently across a set of policy experiments. Pooling data across sites and studies permits analyses to estimate how implementation features affect the impacts of experimental studies. By leveraging experimental data, this study takes a slightly different approach from that used in prior research examining the relation between program implementation and outcomes for welfare clients (Brodtkin 1997; Meyers et al. 1998). Just as prior research examines how program effects may vary across a wide range of individual characteristics (Michalopoulos and Schwartz 2000), this study examines how program effects may vary by the context of the welfare office itself.

Policy Context and Background Research

Although the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA; U.S. Public Law 104-193) did not explicitly identify parents with depression as targets of intervention, hard-to-employ parents, and particularly welfare recipients with depression, were part of policy makers' discussions during the debates that surrounded these welfare reform changes. Prior to 1996, welfare recipients with depression were typically exempt from work requirements, so caseworkers could effectively ignore the requirements in providing cash assistance. The 1996 act limits exemptions that can be made for work requirements or time limits and emphasizes quick employment. These narrow exemptions push states to work with many clinically depressed individuals who were previously exempt from work requirements or whose requirements were deferred. Moreover, time limits and stricter sanctions raise the stakes by requiring parents with depression to make the transition to employment.

With rates of depression as high as one-third to one-half of welfare recipients (Danziger et al. 2000; Polit et al. 2001; Miranda et al. 2003), it seems critical to understand how to address the needs of this portion of the welfare caseload. Notably, while there is a genetic component to depression (depression risk is higher within families than among unrelated individuals), research suggests that the emergence of depression is consistent with a diathesis stress model (Caspi et al. 2003). Accordingly, there are reasons to expect that policies targeting parents' economic outcomes (i.e., that reduce stress) would affect their depression.

Welfare Policy and Parents' Depression

Some of the most rigorous research about the effects of welfare policies on parents' depression comes from welfare policy experiments in which parents were randomly assigned to a new welfare policy regime or to the existing welfare program. In these experiments, parents' outcomes, including depression, were assessed several years after parents' random assignment to the treatment or control groups (McGroder et al. 2000; Hamilton et al. 2001; Morris et al. 2001; Gennetian and Miller 2002; Huston et al. 2003, 2005).

¹Consistent with other research, this article uses the term "impact" to refer to the program-control group difference in mean outcomes as measured in the context of a randomized experimental study. In this case, the impact is the difference between average level of depression for a program group of welfare recipients randomly assigned to receive a new welfare package and that for a control group randomly assigned to receive the existing welfare services.

The findings emerging from this body of research provide evidence that welfare programs can affect parents' depression in both the positive and the negative directions. However, the story is far from clear. Welfare reform programs can be divided into two categories: (1) those that target parents' employment and income by providing financial incentives to supplement the earnings of single parents as they make the transition from welfare into employment; and (2) those that target parents' employment but not their income, encouraging parents to move from welfare to employment by mandating participation in employment-related activities. As discussed below, developmental literature suggests that aspects of parents' employment and income, aspects that are affected by these policies, can have implications for their depression.

A strong body of correlational research links characteristics and dynamic patterns of employment with parental mental health. Menial, unstable jobs with low levels of complexity can undermine parents' psychological health (Parcel and Menaghan 1994; Menaghan and Parcel 1995). Some researchers argue that these negative effects may be due at least in part to the difficulties that low-income parents encounter in balancing family and work life (Edin and Lein 1997; Raver 2003). If welfare programs push relatively low-skilled parents into entry-level positions, such approaches to welfare policy might increase parents' depression. Employment instability may also be engendered by certain kinds of welfare programs and may undermine parents' mental health. Indeed, research links job loss and financial instability with decline in parents' mental health (Conger et al. 1994; McLoyd et al. 1994; Kalil and Ziol-Guest 2008).

Prior work suggests that financial strain also leads to increases in parents' depression. Research by Vonnice McLoyd finds that parents' mental health is a key mediator of the negative effects of unemployment and work loss on adolescent development (McLoyd et al. 1994; McLoyd 1998). Accordingly, the mental health of welfare-receiving parents should benefit from welfare programs that increase income and reduce financial strain by supplementing the earnings of those who move into employment. Moreover, the regularity of routines that result from employment could reduce parental stress and depression.

Several experimental studies examine the effects of welfare programs that simultaneously target parents' employment and income. Two such programs are New Hope (Huston et al. 2003, 2005) and the Minnesota Family Investment Program (MFIP; Gennetian and Miller 2002). Evaluations of the programs show that parents assigned to the program group had lower levels of maternal depressive symptomatology than did their control group counterparts. Relative to their control group counterparts, New Hope's program group parents had less stress at the 2-year follow-up point and less depression at the 5-year follow-up. Likewise, MFIP control group members had more stress at the 3-year follow-up than did MFIP parents who were offered financial incentives (the effect was not observed among MFIP parents who were offered incentives and were subject to employment mandates). Another program, the Self-Sufficiency Project, similarly offered earnings supplements to a Canadian sample of welfare recipients. An evaluation of this program finds that the program group parents did not experience improvements similar to those found in the New Hope and MFIP evaluations (Morris and Michalopoulos 2003).

By contrast, results from the National Evaluation of Welfare-to-Work Strategies (NEWWS) suggest that depressive symptoms may increase among program group members who face requirements to participate in employment-related activities. More specifically, NEWWS tested two variants of mandatory programs designed to increase employment: one group (labor force attachment) was required to participate in job search programs, and a second group (human capital development) was required to participate in education-related activities. Both variants were tested in three sites (Grand Rapids, MI; Riverside, CA; and

Atlanta). Two years after parents in the Grand Rapids site were randomly assigned to their respective program or control condition, parents in the labor force attachment group were found to have higher levels of depressive symptoms than parents assigned to the control group (McGroder et al. 2000). The same negative effects are observed in some of the lower-risk subgroups at other sites, but the effects observed are not uniformly positive or negative. The next section considers how measures of program implementation might drive differences across sites of similar program models.

Key Program Implementation Practices

Prior research suggests that, within similarly classified program models, there is indeed variation in program implementation (Bloom et al. 2003). A number of studies show that similar policy approaches can be experienced very differently on the ground, and these differences are found to depend on the culture of the local welfare office (Brodkin 1997; Meyers et al. 1998; Riccucci et al. 2004). In the same way that employment characteristics and dynamics shape the way that employment affects parents' mental health (Hock 1984; Hock and DeMeis 1990; Parcel and Menaghan 1994; Menaghan and Parcel 1995), the experience in welfare offices may shape perceptions of welfare policies and whether they benefit or undermine parents' mental health. In addition, policy features may affect the patterns or kinds of employment that parents' experience. That is, differing policy features may lead parents to take jobs of differing levels of quality, numbers of hours (part- or full-time), or stability (short-term unstable jobs or more stable jobs). At the extreme, some approaches to welfare policy may encourage parents to take transitory, part-time, and menial work, while others may encourage parents to wait for stable, full-time, high-quality employment. In light of the theoretical and empirical research reviewed earlier, the former approaches are much more likely to result in increases in parents' depression than are the latter.

Several key program implementation practices seem critical to consider under this theoretical model. These are the practices that might affect the kind and stability of employment available to welfare-recipient parents. One of these practices is an emphasis on quick job entry. It is characterized by how quickly a program encourages clients to obtain jobs. Because this practice may lead recipients to take low-quality jobs or to take and lose jobs quickly, and because parents may feel coerced to engage in employment, the practice may result in negative impacts on parents' mental health outcomes. Another common practice, personalized attention to clients, involves the extent to which frontline staff members get to know their clients' personal situations. This practice may reduce mental health problems if the caseworker provides individualized service that accommodates difficulties the client is facing. A personalized approach may allow the frontline staff to recognize the mental health needs of clients and to adapt their program plans to those needs. These two dimensions of program implementation are the focus of the current study because they are likely to result in differing effects on parents' employment patterns and thus in differing effects on parents' mental health. These two dimensions also are measured across a set of experimental studies.

Prior research suggests that mandatory employment programs vary by these implementation practice features. For example, sites classified as labor force–attachment mandatory (and thus ones that used sanctions to enforce participation in employment-related activities) in the NEWWS study differed in the extent to which the caseworkers emphasized quick job entry and offered clients personalized attention (Bloom et al. 2003). Moreover, these differences (in implementation practices) explain variation in program impacts on parents' earnings. The study by Bloom and colleagues (2003) draws from three random assignment experiments of welfare-to-work programs in 59 sites across the United States. It finds that,

for welfare-recipient samples, program impacts on earnings during the first 2 years after random assignment are largest when programs strongly emphasize employment and provide personalized attention. Compared with the earnings of their control group counterparts in the same welfare office, the earnings of program group members were higher in programs that strongly emphasized finding jobs quickly and encouraged caseworkers to understand their clients' personal situations (Bloom et al. 2003).

Age Composition of Children as a Key Moderator

Parents may differ in their responses to the same program implementation features. Research in community psychology (Moos and Lemke 1983), organizational psychology (Kristof-Brown, Zimmerman, and Johnson 2005), and developmental psychology (Eccles et al. 1993) finds evidence that person-environment fit is relevant in understanding how individuals interact with their environments. The current article integrates this theoretical perspective of person-environment fit, positing that a mismatch between individual characteristics and program demands will adversely affect outcomes (Moos 1984).

With this framework, the age composition of children in the household seems critical to consider. Age composition may be a proxy for parent's readiness to engage in employment and thus for parent-employment fit. Parents who have school-age children may meet the same welfare program demands, such as an emphasis on quick employment, differently than parents of preschool-age children do. Psychological research that links mental health and parents' preferences for employment is reviewed below to help develop hypotheses on such moderating influences for the current study.

Prior research suggests that employment preferences moderate the effects of employment on mental health, such that difficulties in parents' mental health emerge when there is a disconnect between employment preferences and employment status (i.e., when parents who want to work stay at home; Hock and DeMeis 1990). Therefore, programs that allow parents some discretion over employment choices might indeed reduce depression among parents. Furthermore, parents' separation anxiety, especially over separation from their youngest children, may explain part of this relationship (Hock 1984; Hock and DeMeis 1990). These preferences may change over the course of parenthood as parents feel increasingly comfortable going to work. As their children age and their separation anxiety declines, parents may feel increasingly interested in seeking employment.

Accordingly, programs that push parents to enter employment quickly may be perceived more negatively by parents with young children (as such parents may not be prepared to engage in employment) than by parents of older children (as these parents may welcome the push to engage in employment). Conversely, programs that provide personalized attention may be better able to support the needs of parents with young children. The task of balancing work and family is challenging in families with young children; achieving this balance may be particularly challenging if parents are under pressure to find a job quickly and to find one with little support from the welfare caseworker.

The Current Study

This study takes advantage of a set of multisite experiments that measure program implementation and effects in a consistent manner. The data are pooled to examine how program implementation practices are related to impacts on parents' mental health. This work is built on the hypothesis that the context of the welfare office itself affects how parents react to program requirements, benefits, and mandates. Prior work argues that the way in which frontline staff interact with clients is a critically important dimension of the policy experience for clients (Brodtkin 1997; Meyers et al. 1998; Riccucci et al. 2004) and

can link with program success (i.e., impacts on employment; Bane 1989; Bloom et al. 2003). This study examines how these same practices influence program effects on parents' mental health. In so doing, this research tries to identify the source of variation in impacts on parents' depression across welfare offices. Moreover, it is expected that these same programmatic features may be perceived differently by parents at varying points in the life course of parenthood (i.e., with children of differing ages).

More specifically, this study addresses the following questions:

1. Do program impacts on parents' depression vary by critical features of program implementation? This article focuses on two key features of programs: the extent to which programs emphasize to parents that they should get jobs quickly (as compared to an approach that emphasizes waiting for the best and most satisfying job) and the extent to which programs provide clients with personal attention in helping them make the transition to employment.
2. How do the effects vary with the age of the children in these families? Compared to counterparts with younger children, parents with school-age children may feel more positive about the welfare programs' push to increase self-sufficiency. By contrast, ambivalence about leaving children in care during this early period of development may lead parents with preschool-age children to feel more negatively about this same delivery of welfare-to-work services.

This work has the unique feature of relying on experimental data in investigating the role of implementation practices. The experimental design provides a control group and a program group at each of the welfare offices. Because of random assignment, the two groups are matched on all demographic characteristics and are subject to the same local context. That is, this study examines how differences between the program and control groups vary by the welfare office context, rather than focusing solely on average levels of mental health problems in the local office. This distinction is critical because some variation across welfare offices stems from the population served and the local economy. Welfare offices serving very disadvantaged recipients may have implementation practices that differ from those in offices serving more advantaged recipients. Attributing differences across offices to welfare practices would be clearly erroneous in that case. By relying on experimental studies, the analyses remove one possible source of bias in the estimates (any relation between background characteristics and average levels of mental health problems at the follow-up point).² As such, this study provides a critical contribution to the literature on welfare program implementation and the psychological well-being of parents.

Data and Methods

Studies and Sample

The analysis for this article is based on four multisite experimental evaluations of welfare and antipoverty policies: the Connecticut Jobs First program (CT Jobs First; Bloom et al. 2002); Florida's Family Transition Program (FTP; Bloom et al. 2000); MFIP (Gennetian and Miller 2000), which tests the effects of two programs, full MFIP and MFIP incentives only; and National Evaluation of Welfare-to-Work Strategies (NEWWS; McGroder et al. 2000; Hamilton et al. 2001), which tests the effects of six programs in three sites across two follow-up points. All these studies evaluate employment treatments of one form or another. All treatments are intended to reduce welfare and increase employment without including direct intervention components targeted at parents' mental health, parenting, or outcomes for children. In various combinations, the programs include three approaches to welfare policy.

²Additional sources of bias in these estimates are discussed later in the article and addressed in the sensitivity analyses.

In CT Jobs First and MFIP, the generous earnings supplements are designed to make work financially rewarding for welfare recipients by increasing the earnings disregard, which is the amount of earnings not counted as income in calculating a family's welfare benefit. Increasing the earnings disregard allows families to continue to receive some portion of the welfare grant as they work. All four of the programs included mandatory employment services, or requirements that recipients participate in employment-related activities as a condition of receiving welfare benefits. Sanctions are the primary tool used to enforce participation mandates. A recipient's welfare grant is reduced if she or he does not comply with program requirements.

In each of these studies, welfare-recipient parents (most of whom are single mothers) are randomly assigned at baseline to one or more program groups, which are subject to the new set of welfare rules and benefits, or to a control group that receives the prevailing Aid to Families with Dependent Children (AFDC) welfare benefits package and is subject to its rules. Parents were applying for welfare or renewing eligibility when they were randomly assigned. For the current study, data from these four evaluations are pooled to obtain a sample of 6,761 parents from 22 local welfare offices.

Procedure

Basic demographic information is available on all sample members from a background information form completed just prior to random assignment. Staff in the welfare offices interviewed each sample member and collected such demographic information as the sample member's age, educational attainment, work history prior to random assignment, prior welfare receipt, and the age of the respondent's children. Data from administrative records are used to track families' benefit receipt and employment prior to baseline. Information on parents' depression was collected from a parent survey administered to each family between 3 and 5 years after baseline (depending on the study). Most of these surveys were conducted in the home, although some surveys were conducted by telephone (if the family lived outside the interviewing area or refused an in-home interview).

Case workers in CT Jobs First, FTP, MFIP, and NEWWS completed surveys on their work with program participants, attitudes toward participants, and interpretation of program goals. The initial findings of these surveys are described in earlier reports (Brown, Bloom, and Butler 1997; Hamilton et al. 1997; Miller et al. 1997; Bloom, Andes, and Nicholson 1998). The surveys were administered to FTP case managers in Escambia County, FL, in 1996, and the survey response rate was 85 percent; 27 FTP case managers completed the surveys (Brown et al. 1997). In the Manchester and New Haven, CT, sites of CT Jobs First, all 21 employment services workers completed the 1997 surveys (Bloom et al. 1998). All 34 MFIP case managers in Anoka, Dakota, Hennepin, Millelacs, Morrisons, Sherburn, and Todd counties completed the surveys in 1995 (Miller et al. 1997). Surveys were completed in 1993 by NEWWS case managers in Atlanta (27 case managers), Grand Rapids (23 case managers), and Riverside (71 case managers). Completion rates among NEWWS case managers ranged from 90 to 100 percent (Hamilton et al. 1997). Individual clients are not linked with individual caseworkers in these data; instead the average score on implementation practices (see below) across the welfare office is used to approximate the individual clients' experience with the caseworkers. Interviews were only conducted with caseworkers in the experimental programs being examined, because participants in the control groups interacted with caseworkers only during the process of determining eligibility for cash assistance at the time of the initial welfare application.

Measures

Age of children—Parents reported the age and date of birth of each of their children on the baseline information form. At the point of random assignment, parents were divided into two groups: those with preschool-age children in the home and those without children of that age. The term “preschool-age” refers to children, ages 0–5 years, whose birthdays made it likely that they were not yet in school (school entrance rules typically require children to be 5 years old in the calendar year of school entry).

Baseline characteristics—Baseline surveys and administrative data sources provide a set of pre-random-assignment parental and family characteristics that were comparable across studies. Baseline controls used here include cash assistance and earnings in the year prior to baseline, whether the parent has a high school degree or General Equivalency Diploma (GED), the parent's age, the parent's marital status, the number of children in the family, the age of the family's youngest child, and the parent's race and ethnicity.

Program Implementation Features

For this study, two office-level scales are created from the staff surveys: emphasis on quick job entry and emphasis on personal attention. Scale creation was based on the methodology described in the study by Bloom, Hill, and Riccio (2001).

Emphasis on quick job entry—This scale measures whether program staff reportedly emphasize that clients should take any job as quickly as possible or instead tell clients that they should wait to find a better job or seek further education and training. Respondents answered questions on a 7-point likert scale. For example, one of the surveys asked staff: “What message do you communicate to clients: to take any job they can get or to be selective about the jobs they take?” Possible responses range from “be selective” (1) to “get jobs quickly” (7).

The scale scores were standardized to a mean of zero and a standard deviation of one for each staff member. Scores are averaged across items for each staff member and then averaged for a single office-level value. The scale for CT Jobs First is created from four items asked in a survey of case maintenance workers and from two items in a survey of employment services workers. For FTP, the scale is created from two items from a case manager survey. The scale for MFIP is created from five items in a case manager survey ($\alpha = 0.73$), and the scale for NEWWS was created from four items in a caseworker survey ($\alpha = 0.84$).

Personal client attention—This scale measures staff interest in learning about a client's individual situation and obstacles. For example, one of the surveys asked: “From the time a participant first appears at your agency to when his/her Employability Plan is approved, how much effort do you make to learn in depth about the participant's educational and work history?” The survey also asked: “How much effort do you make to learn in depth about the issues that led the participant to be on welfare?” Possible responses range from “little effort” (1) to “a great deal of effort” (7).

The scale score variable is created by standardizing items to a mean of zero and a standard deviation of one. Scores are averaged across responses at the staff level and then averaged across staff for each office. The scale for CT Jobs First is created from two items in a survey of employment services workers. For FTP, the scale is created from three items in a case manager survey ($\alpha = 0.76$). The scale for MFIP is created from four items in a case manager survey ($\alpha = 0.65$). For NEWWS, the scale is created from five items in a caseworker survey ($\alpha = 0.83$).

Parents' Depressive Symptoms

At the survey follow-up (which, depending on the study, occurred from 3 to 5 years after random assignment), parents were asked about the number of days that, in the week prior to survey, they experienced each of 20 depressive symptoms. Parents' depressive symptoms are measured using the scale developed from the Center for Epidemiology Studies–Depression Scale (CES-D; Radloff 1977). Clients rate each item on a scale of zero (“rarely [less than 1 day]”) to three (“most [5–7] days”). To assess program impacts on parent's depression, analyses use both a scale score and a dichotomous measure reflecting risk of depression (the threshold for depression, a scale score of 16 out of 60, is identified in prior research; Radloff 1977).

Analysis Strategy

This analysis uses information about both individual clients and welfare-to-work offices. For data at multiple levels of analysis, Stephen Raudenbush and Anthony Bryk (2002) and others recommend a modeling and estimation strategy that explicitly takes these multiple levels into account. Doing so aids in model conceptualization, allows for the estimation of cross-level interactions (between individual-level and group-level variables), enables the proper estimates of standard errors (because clustering within groups is taken into account), and increases efficiency. Thus, this analysis follows the multilevel modeling strategy that Bloom and colleagues (2003) use for explaining program impacts. Notably, without the two-level model, it would not be possible to appropriately examine the effects of office characteristics on differences between the program and control groups in ways that leverage the full information available at the individual level.

In the two-level model, the first level uses client-level information from both control group and program group members; the second level uses office-level information about program implementation. These levels are estimated simultaneously. The first level estimates the impact of the program group status, controlling for a set of baseline characteristics on parents' depression for each of the 22 local offices. As such, it is a basic impact equation. The level-1 model is shown in equation (1):

$$Y_{ij} = \alpha_j + \beta_j P_{ij} + \sum_k \delta_k C_{ijk} + \sum_k \gamma_k C_{ijk} P_{ij} + \kappa_j R_{ij} + \varepsilon_{ij}. \quad (1)$$

In this equation, Y_{ij} is a depression score measured up to 5 years after random assignment for each sample member i ; P_{ij} is an indicator of group status (program or control) for each sample member i (group mean centered); C_{ijk} is the value of client characteristic k for each sample member i (grand mean centered); R_{ij} is an indicator of random assignment cohort for each sample member i ; α_j is the control group conditional depression scale score for each office j ; β_j is the conditional program impact on depression for each office j ; δ_k is the effect of client characteristic k on control group members' depression levels; γ_k is the effect of client characteristic k on the program impact on depression; κ_j is a random assignment cohort coefficient for each office j ; and ε_{ij} is a random component of depression for each sample member i .

Client characteristics are included in this model to increase precision. Because these client characteristics are grand mean centered, the program impact can be interpreted as the conditional program impact, adjusted for the types of clients served in different offices. Because the random assignment ratio differs somewhat across sites, the program group indicator, P , is group mean centered in order to remove association with unobserved between-site covariates.³ The main parameter estimate of interest from equation (1) is β_j ,

which is the conditional program impact on depression for each office j (22 offices) and which will be modeled further at level 2.

Three level-2 equations are estimated simultaneously with equation (1). Equation (2) is the equation of primary interest for this study. It tests whether the two features of program implementation (emphasis on quick job entry and personalized client attention) are associated with impacts on depression across the 22 local offices. That is, equation (2) models the variation across offices in program impacts on depression, β_j :

$$\beta_j = \beta_0 + \sum_m \pi_m I_{mj} + \mu_j, \quad (2)$$

where β_j is the conditional program impact on depression for each office j , I_{mj} is the value of program implementation feature m for each office j (grand mean centered), β_0 is the grand mean impact on depression, π_m is the effect of program implementation feature m on program impacts on depression, and μ_j is a random component of the program impact for each office j .

This model produces the main coefficients of interest, π_m . Because the program implementation measures are standardized to have a mean of zero and a variance of one, these coefficients represent the predicted effect on the program impact for a one standard deviation increase in the program implementation variable (job emphasis or personalized attention).

Equation (3) reflects the average depression level for control group members. The level is allowed to randomly vary across the 22 offices in the sample.

$$\alpha_j = \alpha_0 + \nu_j, \quad (3)$$

where α_j is the control group conditional depression score for each office j , α_0 is the grand mean control group depression score, and ν_j is a random component of control group mean depression score for each office j .

Finally, equation (4) accounts for the fact that random assignment ratios differ across subgroups of families in some of the offices:

$$\kappa_j = \kappa_0 + \eta_j,$$

where κ_j is a random assignment coefficient for each office j , κ_0 is the grand mean random assignment coefficient, and η_j is a random component of the coefficient for each office j .

The notation above describes the modeling of the primary dependent variable of interest in a period up to 5 years after random assignment. This is the average score on the continuous depression scale. In addition to the primary depression measure, a binary measure of depression risk is also examined as a dependent variable in the model. For this outcome, the same basic modeling strategy is used, except that the level-1 model explicitly takes into

³In addition to the models presented, analyses were conducted in which the program group status for each sample member i and the client characteristic k for each sample member i are group mean centered and in which the client characteristic k for each sample member i is grand mean centered but the program group status was not centered. See Raudenbush and Bryk (2002) for further information on the interpretation of these alternative specifications. The primary results do not change with any of these varying model specifications.

account the binomial outcome (0_{ij}) being examined, where 0_{ij} is the log of the odds of success for a binomial outcome variable (the logit link function), defined as $\log(N_{ij}/1 - N_{ij})$.⁴

Findings

Primary Analyses

Table 1 presents the baseline characteristics of the 6,761 welfare-recipient parents across the 22 offices. The mean value across the full sample of parents is presented along with the variation in characteristics across the offices. As the table indicates, the sample is composed primarily of black and white parents. Nearly 60 percent of the parents are never married. Although more than half have a high school degree or GED, earnings levels are quite low (an average of \$2,400 in the year prior to random assignment), and more than 70 percent have received welfare for more than 2 years. Families have young children and more than two children on average. There is some variation across welfare offices, particularly on characteristics like racial and ethnic composition, parents' marital status, and the proportion of parents with a high school degree or GED. The level-1 equation controls for these client characteristics in estimating impacts on parents' depression. Appendix table A1 presents comparisons between the program and control groups in baseline characteristics by office. As expected (as a result of the random assignment nature of the studies), statistically significant differences are rare. This comparison provides a test of whether random assignment worked, and indeed the results suggest that it did in each of the offices used in this analysis.

Table 2 presents characteristics of the 22 welfare offices that are part of the pooled sample. The table suggests that there are small differences in depression scores across the control group. Although differences between the program and the control groups are not large, they vary from a difference of +4 points on the depression scale to -2 points on the same scale. On the dichotomous measure of risk for depression, impacts of the programs range from an 8-percentage-point reduction to an 18-percentage-point increase in the risk for depression. Figure 1 illustrates this variation.

Values for the two program implementation practices are also presented in table 2. Results suggest that there is some variation on each of these features. Values for emphasis on quick job entry range from a low of -1.72 to a high of 2.06 on the standardized score; values for personal client attention range from a low of -1.98 to a high of 1.84 on the standardized score.

The next step was to estimate, using a two-level model, how program implementation characteristics are associated with impacts on parents' depression; in effect, the model estimates whether the variation in program impacts observed in figure 1 is associated with program implementation features. These findings are presented in table 3. In models 1 and 2, the relation between each of the program implementation characteristics and program impacts on depression is examined individually. Model 3 presents each of the effects, holding the other constant. The intercept value is the control group mean, and the program group intercept is the residual program group effect (estimated after accounting for the effect of program implementation). Coefficients represent the extent to which the context of the local welfare office moderates, or shapes, the effect that being assigned to the program group has on parents' depression.

⁴Analogous two-level models were conducted using the same specification as indicated in the above equations, treating the dichotomous measure as a continuous variable. The results are quite similar to those obtained from models using the logit specification.

The findings indicate that an increase in impacts on parents' depression is associated with programmatic emphasis on quick job entry. The relation remains whether or not the other program feature, personal client attention, is included in the model. The results for the dichotomous depression variable are similar to those estimated using the scale score. No statistically significant effects are observed for the relation between personal client attention and impacts on risk for depression.

These findings are illustrated in figure 2. For programs in the lowest quartile on emphasis on quick job entry, there is little difference between the program and control groups in parents' risk for depression. However, for programs at the highest quartile on this same dimension, the program group has a much higher level of depression than the control group. This amounts to a 10-percentage-point difference between the two groups.

Table 4 tests whether parental responses to the program implementation features differ by the age composition of children in their household. The table suggests that the effects of emphasis on quick job entry are stronger for parents with preschool children in the home at baseline than for the total sample. A one-standard-deviation increase in emphasis on quick job entry is associated with a 2-point increase in depression score impacts. The results for parents with school-age children are weaker but notably reversed in direction. Programmatic emphasis on quick job entry is associated with reductions in impacts on parents' depression (but the estimates only approach statistical significance in some models). A *t*-test, conducted to compare the two age groups on the association between quick job entry and impacts on parents' depression, confirms that the associations are statistically significantly different from each other ($t = -2.24, p < .05$). This means that variation in office contexts affects impacts on parents' depression, but only for parents with preschool-age children.

Figure 3 shows the findings for parents of preschool-age and school-age children. The program and control groups do not substantially differ in risk for depression among parents who have preschool children and were in offices with low levels of emphasis on quick job entry. For offices with high levels of emphasis on quick job entry, however, the program-control group difference was 11 percentage points.

Sensitivity Tests

A series of analyses were conducted to address the sensitivity of these findings to alternative specifications. First, analyses test whether broad categorization of program type (i.e., incentives, mandates, and time limits), rather than implementation practices, differentiate impacts on parents' depression. These analyses rely on two-level models analogous to those presented earlier, assessing the effects on parents' depression of the program implementation practices along with four broad welfare program type variables at level 2 (whether or not the program had time limits, generous earnings supplements, mandates focused on labor force attachment, and mandates focusing on human capital development).⁵ These findings are presented in table 5, and they show that the estimated effect of emphasis on quick job entry does not change with the inclusion of these program type measures.

Second, analyses assess whether the characteristics of the individuals served at the welfare offices confound the relation between program implementation practices and program impacts. The analyses assess whether emphasis on quick job entry is associated with the extent to which the welfare recipients in these offices were ready to engage in employment.⁶

⁵Offices were scored with values of one (yes) or zero (no) on each dimension. Offices that implemented multiple policies were scored as one on multiple dimensions.

⁶Notably, the concern here is about the composition of families within the offices, not the effects of individual characteristics on program impacts. Individual characteristics are controlled for in the level-1 model.

More specifically, these analyses test the hypothesis that the level of emphasis on quick job entry is associated with the number of minority clients served in those offices, as well as with the number of disadvantaged clients served in them. The two-level models thus add two key features of parent characteristics: (1) racial or ethnic minority status (black or Latino; white is the reference group) and (2) economic disadvantage (the combination of parents' receipt of a high school degree or GED, earnings prior to random assignment, and receipt of welfare prior to random assignment). The results, presented in table 5, again show that the inclusion of the office level variables does not change the relation between emphasis on quick job entry and program impacts on depression.

Third, analyses test whether there is any effect of study. That is, because these data are pooled across four distinct studies, the relevant dimension may be study features rather than the program implementation practice. As with the prior analyses, two-level models are conducted that add in study indicators at level 2 (whether the estimate was from NEWWS, CT Jobs First, FTP, or MFIP; NEWWS serves as the omitted category). These findings are presented in table 5. They show that the effect of emphasis on quick job entry is unchanged from the original model (presented in table 3).

The effect of study may also account for the differences in effects observed across families with the two age groups of children. All four studies contribute at least some families to both age groups in the analysis. Families with school-age children compose about one-fourth of the sample, and families with preschool-age children compose about three-quarters of the sample. However, the NEWWS sample is weighted much more heavily than the other studies with preschool-age children. Two sets of analyses are conducted to address this issue. The first set, conducted at the office level, allows the equal weighting of impacts across the offices (irrespective of the number of sample members they contributed). Findings (not shown) are very similar to those presented in table 4. The effects of emphasis on quick job entry are positive for parents of preschool-age children but not for parents of school-age children. The second set employs study controls in the two-level models for each of the groups of parents. These models are very similar to those presented in table 5, but they are estimated separately for parents of school-age and preschool-age children. Results are very similar to those in the primary set of analyses (data not shown).

Discussion

This study examines how program implementation practices are associated with cross-site variation in impacts on parents' depressive symptoms. Results suggest that programmatic emphasis on quick job entry is associated with increases in impacts on parents' depression but that this is the case only among parents with preschool-age children. It appears that the combination of programmatic practices and the age composition of children in the family affects how programs influence parents' depression. Findings have implications for policy and practice, underscoring the roles that welfare office context and family characteristics play in differentiating clients' responses to welfare program changes.

The results suggest that a strong emphasis on efforts to push welfare clients into low-wage employment may have adverse effects on the ways in which welfare programs affect low-income women's mental health outcomes. Among participants in programs at the highest quartile of emphasis on quick job entry, there is a sizable increase (10 percentage points) in parents' risk for depression. Of the two dimensions examined, emphasis on quick job entry appears to moderate impacts on parents' depression, but caseworkers' personalized attention to clients does not.

The emphasis on quick job entry might lead to unfavorable effects for parents' depression because this measure captures programmatic pressure to find a job quickly. For low-income parents already charged with raising young children, that pressure may negatively affect mental health. Alternatively, the quality or the stability of jobs may be the critical mediating process here. If programs push parents to take jobs quickly, those jobs may be of worse quality than jobs obtained through a careful job search process. Jobs taken more quickly may be lost quickly, and an emphasis on quick job entry may thus increase job instability. Prior research suggests that the quality of parents' jobs can affect their mental health outcomes (Parcel and Menaghan 1994, 1997), and job loss is found to be associated with parents' well-being and their parenting practices (Elder 1974; 1979; McLoyd 1990; McLoyd et al. 1994).

An additional set of post hoc analyses were conducted to test whether economic outcomes are indeed potential mediating processes. These analyses examine the effects of the program implementation practices on impacts on three employment variables: parents' earnings, the number of transitions into and out of employment, and the number of months to the first spell of employment. Unemployment insurance records provide the information on quarterly employment, and a parent survey conducted at follow-up collected information on retrospective job histories over the follow-up period. Models use the same two-level specification conducted earlier for predicting impacts on parents' depression. These analyses show that emphasis on quick job entry (but not personal attention) is associated with increases in impacts on parents' earnings (by a little over \$400 for a standard deviation change in emphasis on quick job entry). Emphasis on quick job entry is also associated with increased impacts on the number of transitions into and out of employment (by 0.1 transition for a standard deviation change in emphasis on quick job entry). Both emphasis on quick job entry and personal attention reduce the number of months to parents' first employment among those who work during the follow-up period (by about 1 month for a standard deviation change in these program implementation practice). These findings are consistent with the hypothesis that programmatic emphasis on quick job entry may increase impacts on depression by increasing the amount of work parents engage in and the instability of their employment experiences.

This study also points to the critical role that age composition of children in the family plays in shaping these relations. The effects described above appear to be concentrated only among families with pre-school-age children in the household. The results suggest that parents with preschool-age children may not respond positively to programs that push the parents to get jobs quickly. Parents' risk of depression increases by 11 percentage points in families that include preschool-age children and are in offices at the highest quartile of emphasis on quick job entry.

It is interesting to note that the emphasis on quick job entry has neutral effects on depression for parents of school-age children. Perhaps parents of school-age children want to make the transition to employment and find the programmatic push to do so beneficial in meeting their goals (or at least they do not find the push to be negative). Parents of school-age children may come to the welfare office with a very different attitude toward employment and may have experienced employment before. Compared with the parents of preschool-age children, parents of school-age children may be in a much better position to manage the challenges of increasing their employment.

Contrary to hypotheses, personalized client attention is not found to be associated with program impacts on parents' mental health. Other research suggests that clients' revelations of personal information affect their understanding of how legitimate the problem is and whether it is linked with services or with sanctions (Brodkin 1997). Caseworkers may

indicate that they provide personal attention to clients, but this does not necessarily mean that caseworkers communicate support for clients or that they assist clients with issues. This gap between personal attention and personal support may explain the limited benefits that this programmatic practice has for clients. In fact, the analyses show a slightly unfavorable association between personal attention and depression impacts among parents of preschool-age children.

A few key limitations are worth noting. First, program implementation practices are not randomly assigned across sites. This nonexperimental model of natural variation in impacts permits statements about the association between implementation practices and program impacts but not about causal relations. Second, the focus on the CES-D measure means that any effects observed should be interpreted as an increase in depressive symptoms and not in clinical rates of depression. Third, welfare-recipient reports of implementation practices might provide different perspectives than the caseworker reports used in this study, and these perspectives may be important. Finally, the small number of offices in this sample limits the analytic power to detect effects in the two-level model. Replication of these study findings with a larger number of offices is therefore warranted.

Prior work has been unable to identify a link between welfare policy approaches and parents' mental health. This study is the first to shed light on how welfare programs may influence parents' mental health. It thus points to the importance of examining the nature of the interactions between staff workers and welfare-recipient parents. In so doing, this research builds on an important body of literature that emphasizes the importance of frontline staff-client interactions (Brodkin 1997; Meyers et al. 1998; Riccucci et al. 2004). The possibility that these effects differ across families with different age groups of children suggests that researchers and practitioners should be cognizant of parents' responsibilities in caring for their young children. It also lends support for person-environment fit theory. Given the high rates of depression among welfare-recipient parents, it is critical to understand the way in which implementation practices can address the needs of these high-risk families.

Acknowledgments

This article was completed under grants from the Annie E. Casey Foundation and the William T. Grant Foundation. Thanks go to Carolyn Hill for analytic support and advice and to Desiree Principe, Chris Rodrigues, Ximena Acevedo, and Francesca Longo for capable research analysis and assistance. Thanks go to Howard Bloom, Sheldon Danziger, Sandra Danziger, Fred Doolittle, Lisa Gennetian, Ariel Kalil, and James Riccio for critical feedback on early drafts of this work.

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Fig. 1.
Impact estimates on risk for depression by office. NOTE.—OLS = ordinary least squares regression.

Fig. 2.
Estimated impacts on depression risk by level of emphasis on quick job entry

Fig. 3.
Estimated impacts on depression risk by level of emphasis on quick job entry and age composition of children.

Table 1**Characteristics of Parents and Families at Baseline**

	Client Sample Means	Cross-Office SD	Cross-Office Range
Parent characteristics:			
Age of parent	29.06	.95	27.06–30.80
Race (%):			
Black	46.56	.29	0–96.12
White	39.49	.28	3.11–97.44
Latino	11.17	.19	0–57.89
Other	2.78	.04	.27–16.90
Marital status (%):			
Never married	59.95	.14	24.36–73.98
Separated or divorced	38.77	.14	24.78–75.64
Married	1.15	.01	0–5.26
Parent education, employment, and income:			
Received high school degree or GED (%)	62.92	.16	32.63–91.03
Employed in year prior to random assignment (%)	44.99	.13	23.23–66.20
Earnings in year prior to random assignment (in \$1,000s)	2.40	1.03	1.04–4.44
AFDC receipt prior to random assignment (%):			
No prior receipt	6.79	.08	0–27.65
1 month to 2 years	22.85	.08	13.33–42.11
More than 2 years	70.36	.09	53.41–81.93
Family composition and child age:			
Age of youngest child	3.75	.34	3.01–4.51
Number of children in family	2.20	.10	2.01–2.38
<i>N</i>	6,761		

NOTE. — GED = General Equivalency Diploma; AFDC = Aid to Families with Dependent Children program; SD = standard deviation; *N* = sample size.

Table 2
Office-Level Depression Scale Scores, Risk for Depression, and Program Implementation Practices

	N	DEPRESSION SCALE SCORES		RISK FOR DEPRESSION		PROGRAM IMPLEMENTATION PRACTICES	
		Control Group Mean	Control-Program Group Difference	Control Group Mean	Control-Program Group Difference	Emphasis on Quick Job Entry	Personal Client Attention
MFIP:							
Anoka	155	15.58	1.89	.41	.09	-.54	.25
Dakota	217	12.70	-1.42	.33	-.03	-.52	.35
Hennepin	884	15.94	-.92	.45	-.04	-.62	-.07
Millelacs	71	12.90	1.77	.27	.13	-.85	.78
Morrison	51	11.86	-2.26	.22	-.05	-.87	.49
Sherburn	118	14.97	2.83	.45	.12	-1.05	.66
Todd	78	14.31	2.24	.39	.12	-.33	1.15
FTP:							
Metro	458	13.45	-.81	.40	-.05	-.48	-.06
Northside	528	13.66	.72	.36	.01	-.73	.19
Connecticut Jobs First:							
Manchester	300	13.14	-.38	.31	.03	-.15	-.09
New Haven	1,097	12.12	.53	.28	.00	-.74	.16
NEWSWS:							
Atlanta LFA	565	13.41	-.78	.32	-.08	-.31	.02
Atlanta HCD	644	14.05	-.53	.37	-.05	-1.72	1.01
Grand Rapids, MI	595	16.14	-.96	.44	-.01	-.04	-1.82
Riverside County, CA:							
City of Riverside LFA	233	15.96	2.31	.39	.06	1.23	-1.81
City of Riverside HCD	254	13.82	-.18	.36	.08	1.49	-1.52
City of Hemet LFA	78	16.24	4.34	.44	.18	2.06	.07
City of Hemet HCD	83	13.22	.30	.29	-.06	.16	1.84
City of Rancho Mirage LFA	93	14.23	2.83	.37	.13	1.60	.79

	N	DEPRESSION SCALE SCORES		RISK FOR DEPRESSION		PROGRAM IMPLEMENTATION PRACTICES	
		Control	Program Group Difference	Control	Program Group Difference	Emphasis on Quick Job Entry	Personal Client Attention
City of Rancho Mirage HCD	95	15.24	2.36	.35	.07	.84	.11
City of Lake Elsinore LFA	81	14.23	1.53	.33	.07	.30	-.55
City of Lake Elsinore HCD	83	13.15	.93	.28	-.02	1.27	-1.98

NOTE.—N = 6,761. MFIP = Minnesota Family Investment Program; FTP = Florida Family Transition Program; NEWWS = National Evaluation of Welfare-to-Work Strategies; LFA = labor force attachment program group; HCD = human capital development program group.

* Two program models were tested in this study: labor force attachment and human capital development.

Table 3
Estimated Effects of Program Implementation Practices on Estimated Impacts on Parents' Depression

	DEPRESSION SCALE SCORE			RISK FOR DEPRESSION	
	Coefficient	SE	p-value	Odds Ratio	p-value
Model 1:					
Intercept	14.27***	.32	.00	.58***	.00
Program group intercept	.29	.35	.43	1.05	.43
Quick job entry	.82 ⁺	.43	.07	1.20*	.03
Model 2:					
Intercept	14.26***	.32	.00	.57***	.00
Program group intercept	.02	.31	.94	.99	.84
Personal attention	.15	.37	.69	.97	.68
Model 3:					
Intercept	14.27***	.32	.00	.58***	.00
Program group intercept	.58	.39	.15	1.10	.21
Quick job entry	1.39*	.53	.02	1.31*	.01
Personal attention	.85 ⁺	.46	.08	1.13	.17
N, parents	6,761			6,761	
N, offices	22			22	

NOTE.—GED = General Equivalency Diploma; AFDC = Aid to Families with Dependent Children program; SE = standard error; SD = standard deviation; N = sample size. (1) At level 1, all models include client baseline characteristics (age of parent, race, marital status, high school degree or GED, employment in year prior to random assignment, earnings in year prior to random assignment, AFDC receipt, age of youngest child, and number of children in family), interactions of the client characteristics with the treatment dummy, and the random assignment ratio dummy (all variables are centered as indicated before interacting). (2) All level-2 variables (except for interactions) are centered as mean = 0 and SD = 1 (across the 22 offices).

⁺ $p < .10$.

* $p < .05$.

*** $p < .001$.

Table 4

Estimated Effects of Program Implementation Practices on Estimated Impacts on Parents' Depression by Age Composition of Children

	PRESCHOOL-AGE CHILDREN IN HOUSEHOLD				ONLY SCHOOL-AGE CHILDREN IN HOUSEHOLD			
	Depression Scale Score		Risk for Depression		Depression Scale Score		Risk for Depression	
	Coefficient	SE	p-value	Odds Ratio	Coefficient	SE	p-value	Odds Ratio
Model 1:								
Intercept	13.99***	.37	.00	.55***	14.85***	.56	.00	.65***
Program group intercept	.90*	.38	.03	1.19*	-2.86*	.94	.01	.66*
Quick job entry	1.36*	.47	.01	1.39***	-2.12 ⁺	1.21	.09	.77
Model 2:								
Intercept	14.00***	.37	.00	.55***	14.87***	.56	.00	.65***
Program group intercept	.58	.35	.11	1.15	-1.87*	.69	.01	.76*
Personal attention	.18	.41	.66	.98	1.66	1.12	.15	1.08
Model 3:								
Intercept	13.99***	.37	.00	.55***	14.86***	.56	.00	.65***
Program group intercept	1.31*	.43	.01	1.27*	-2.67*	1.04	.02	.64*
Quick job entry	2.13***	.58	.00	1.59***	-1.65	1.58	.31	.70
Personal attention	1.22*	.50	.03	1.23 ⁺	.68	1.46	.64	.87
N, parents	5,242			5,242	1,519			1,519
N, offices	22			22	22			22

NOTE.—GED = General Equivalency Diploma; AFDC = Aid to Families with Dependent Children program; SE = standard error; SD = standard deviation; N = sample size. (1) At level 1, all models include client baseline characteristics (age of parent, race, marital status, high school degree or GED, employment in year prior to random assignment, earnings in year prior to random assignment, AFDC receipt, age of youngest child, and number of children in family), interactions of the client characteristics with the treatment dummy, and the random assignment ratio dummy (all variables are centered as indicated before interacting). (2) All level-2 variables (except for interactions) are centered as mean = 0 and SD = 1 (across the 22 offices).

⁺ $p < .10$.

* $p < .05$.

*** $p < .001$.

Table 5

Models Testing Robustness of Estimated Effects of Program Implementation

	CONTROLLING AT LEVEL 2 FOR THE PROGRAM TYPE			CONTROLLING AT LEVEL 2 FOR PARENT CHARACTERISTICS			CONTROLLING AT LEVEL 2 FOR STUDY EFFECTS		
	Coefficient	SE	p-value	Coefficient	SE	p-value	Coefficient	SE	p-value
Intercept	14.27***	.32	.00	14.26***	.32	.00	14.28***	.32	.00
Program group intercept	.95	2.21	.67	1.68	1.46	.27	1.04	1.52	.50
Quick job entry	1.47*	.64	.04	1.44 ⁺	.74	.07	1.37*	.53	.02
Personal attention	.85	.66	.22	.89 ⁺	.49	.09	.93 ⁺	.47	.06
N, parents	6,761			6,761			6,761		
N, offices	22			22			22		

NOTE.—GED = General Equivalency Diploma; AFDC = Aid to Families with Dependent Children program, SE = standard error, SD = standard deviation, N = sample size. (1) At level 1, all models include client baseline characteristics (age of parent, race, marital status, high school degree or GED, employment in year prior to random assignment, earnings in year prior to random assignment, AFDC receipt, age of youngest child, and number of children in family), interactions of the client characteristics with the treatment dummy, and the random assignment ratio dummy (all variables are centered as indicated before interacting). (2) Program implementation variables are centered as mean = 0 and SD = 1 (across the 22 offices).

⁺ $p < .10$.

* $p < .05$.

*** $p < .001$.

Selected Baseline and Demographic Characteristics by Research Group by Office, Minnesota Family Investment Program Urban Counties

Table A1

	ANOKA		DAKOTA		HENNEPIN	
	Control	Program	Control	Program	Control	Program
Parent characteristics:						
Average age of parent	28.92	30.25	30.24	29.11	29.40	28.92
Race (%):						
Black	4.76	4.35	8.64	9.56	44.77	48.79
White	92.06	93.48	79.01	78.68	44.44	39.27
Latino	.00	.00	2.47	5.88	2.29	1.38
Other	3.17	2.17	9.88	5.88	8.50	10.55
Marital status (%):						
Never married	39.68	40.22	33.33	48.53 *	63.73	67.13
Separated or divorced	60.32	59.78	65.43	51.47 *	35.62	32.35
Married	.00	.00	1.23	.00	.65	.52
Parent education, employment, and income:						
Received high school degree or GED (%)	82.54	81.52	81.48	81.62	76.47	70.93 +
Employed in year prior to random assignment (%)	65.08	55.43	55.56	55.15	52.61	48.96
Earnings in year prior to random assignment (in \$1,000s)	5.84	3.48 *	5.00	3.97	3.48	3.16
Time on own or other parent AFDC case (1–3)	2.41	2.30	2.17	2.36	2.46	2.60 *
Family composition and child age:						
Average age of youngest child	4.05	3.87	3.93	3.96	3.68	3.61
Average number of children in family	1.97	2.14	2.10	2.01	2.15	2.28
<i>N</i>	63	92	81	136	306	578

NOTE.—GED = General Equivalency Diploma; AFDC = Aid to Families with Dependent Children program; *N* = sample size. Two-tailed *t*-tests were applied to differences between the program group and control group covariates.

+ *p* < .10.

* *p* < .05.

Table A2
A Selected Baseline and Demographic Characteristics by Research Group by Office, Minnesota Family Investment Program Rural Counties

	MILLELACS		MORRISON		SHERBURN		TODD	
	Control	Program	Control	Program	Control	Program	Control	Program
Parent characteristics:								
Average age of parent	30.71	27.29 [*]	30.67	30.26	28.03	28.76	30.76	29.26
Race (%):								
Black	.00	.00	.00	.00	3.33	.00	.00	2.44
White	77.50	87.10	95.00	90.32	91.67	93.10	100.00	95.12
Latino	2.50	.00	.00	3.23	.00	3.45	.00	.00
Other	20.00	12.90	5.00	6.45	5.00	3.45	0.00	2.44
Marital status (%):								
Never married	50.00	48.39	30.00	35.48	38.33	25.86	21.62	26.83
Separated or divorced	47.50	51.61	70.00	64.52	61.67	72.41	78.38	73.17
Married	2.50	.00	.00	.00	.00	1.72	.00	.00
Parent education, employment, and income:								
Received high school degree or GED (%)	72.50	87.10	65.00	74.19	80.00	93.10 [*]	91.89	90.24
Employed in year prior to random assignment (%)	67.50	64.52	30.00	29.03	51.67	50.00	43.24	63.41 ⁺
Earnings in year prior to random assignment (in \$1,000s)	3.07	3.91	1.66	1.42	3.54	3.46	2.71	3.03
Time on own or other parent AFDC case (1–3)	2.83	2.65	2.65	2.81	2.55	2.43	2.68	2.46
Family composition and child age:								
Average age of youngest child	4.20	3.26	3.95	3.61	3.65	3.84	4.49	3.88
Average number of children in family	2.38	2.16	1.95	2.55 ⁺	2.07	1.95	2.35	2.12
<i>N</i>	40	31	20	31	60	58	37	41

NOTE.—GED = General Equivalency Diploma; AFDC = Aid to Families with Dependent Children program; *N* = sample size. Two-tailed *t*-tests were applied to differences between the program and control group covariates.

⁺ *p* < .10.

^{*} *p* < .05.

A Selected Baseline and Demographic Characteristics by Research Group by Office, Connecticut's Jobs First Program and Florida's Family Transition Program

Table A3

	CONNECTICUT'S JOBS FIRST				FLORIDA'S FAMILY TRANSITION PROGRAM			
	Manchester		New Haven		Metro		Northside	
	Control	Program	Control	Program	Control	Program	Control	Program
Parent characteristics:								
Average age of parent	29.26	29.92	30.20	30.09	28.02	27.63	27.73	27.46
Race (%):								
Black	22.86	19.38	49.82	46.10	69.40	65.93	44.53	44.87
White	62.86	65.00	24.54	29.95*	28.88	31.86	53.58	53.99
Latino	14.29	14.38	25.27	23.77	.43	.88	1.13	1.14
Other	.00	1.25	.37	.18	1.29	1.33	.75	.00
Marital status (%):								
Never married	62.86	58.13	72.16	72.41	57.76	60.18	53.21	52.85
Separated or divorced	35.71	38.75	27.11	26.86	40.52	39.82	45.66	46.01
Married	.00	1.25	.55	.18	1.72	.00*	1.13	1.14
Parent education, employment, and income:								
Received high school degree or GED (%)	64.29	66.25	63.74	58.98	50.86	54.42	64.53	57.03 ⁺
Employed in year prior to random assignment (%)	55.71	51.88	52.93	47.19 ⁺	47.84	47.35	45.66	47.15
Earnings in year prior to random assignment (in \$1,000s)	2.97	3.70	3.35	2.42*	2.15	2.33	2.13	2.12
Time on own or other parent AFDC case (1–3)	2.66	2.54	2.70	2.68	2.60	2.54	2.48	2.40
Family composition and child age:								
Average age of youngest child	4.43	4.58	4.33	4.40	3.42	3.41	3.41	3.53
Average number of children in family	2.03	2.15	2.25	2.27	2.33	2.32	2.09	2.04
N	140	160	546	551	232	226	265	263

NOTE.—GED = General Equivalency Diploma. AFDC = Aid to Families with Dependent Children program; N = sample size. Two-tailed *t*-tests were applied to differences between the program and control group covariates.

⁺ $p < .10$.

* $p < .05$.

A Selected Baseline and Demographic Characteristics by Research Group and by Office, NEWWS, Atlanta and Grand Rapids, MI

Table A4

	ATLANTA						GRAND RAPIDS	
	LFA		HCD					
	Control	Program	Control	Program	Control	Program	Control	Program
Parent characteristics:								
Average age of parent	28.81	29.53 ⁺	28.81	29.75 [*]	26.89	27.15		
Race (%):								
Black	95.96	94.78	95.96	96.25	36.84	37.05		
White	3.37	3.73	3.37	2.88	53.59	54.92		
Latino	.34	1.12	.34	.58	7.18	5.96		
Other	.34	.37	.34	.29	2.39	2.07		
Marital status (%):								
Never married	71.72	76.49	71.72	71.76	59.33	59.59		
Separated or divorced	26.60	22.76	26.60	27.38	38.28	37.56		
Married	1.68	.75	1.68	.86	2.39	2.85		
Parent education, employment, and income:								
Received high school degree or GED (%)	65.32	63.43	65.32	65.71	56.46	62.95		
Employed in year prior to random assignment (%)	37.37	32.84	37.37	34.29	60.77	52.59 ⁺		
Earnings in year prior to random assignment (in \$1,000s)	1.21	1.12	1.21	.90	2.70	2.35		
Time on own or other parent AFDC case (1–3)	2.79	2.79	2.79	2.79	2.73	2.70		
Family composition and child age:								
Average age of youngest child	3.80	3.88	3.80	3.83	3.02	3.00		
Average number of children in family	2.19	2.25	2.19	2.36 ⁺	2.11	2.10		
Sample size	297	268	297	347	209	386		

NOTE.—NEWWS = National Evaluation of Welfare-to-Work Strategies; LFA = labor force attachment program group; HCD = human capital development program group; GED = General Equivalency Diploma; AFDC = Aid to Families with Dependent Children program. Two-tailed *t*-tests were applied to differences between the program and control group covariates.

⁺ $p < .10$.

^{*} $p < .05$.

A Selected Baseline and Demographic Characteristics by Research Group and by Office, NEWS, Cities of Riverside, CA, and Hemet, CA

Table A5

VARIABLE	CITY OF RIVERSIDE				CITY OF HEMET			
	LFA		HCD		LFA		HCD	
	Control	Program	Control	Program	Control	Program	Control	Program
Parent characteristics:								
Average age of parent	29.35	29.08	29.20	29.19	30.35	31.64	30.87	29.30
Race (%):								
Black	28.48	26.67	22.43	19.79	9.80	3.70	6.06	9.38
White	37.34	44.00	32.71	40.63	56.86	48.15	30.30	40.63
Latino	30.38	28.00	40.19	36.46	31.37	37.04	60.61	40.63
Other	3.80	1.33	4.67	3.13	1.96	11.11 ⁺	3.03	9.38
Marital status (%):								
Never married	47.47	48.00	46.73	48.96	49.02	44.44	57.58	62.50
Separated or divorced	50.63	50.67	52.34	48.96	49.02	55.56	39.39	37.50
Married	1.90	1.33	.93	2.08	1.96	.00	3.03	.00
Parent education, employment, and income:								
Received high school degree or GED (%)	51.90	60.00	28.97	25.00	47.06	48.15	18.18	21.88
Employed in year prior to random assignment (%)	24.05	22.67	21.50	21.88	35.29	18.52	36.36	37.50
Earnings in year prior to random assignment (in \$1,000s)	1.77	1.79	1.28	.79	2.27	.62	2.44	1.47
Time on own or other parent AFDC case (1–3)	2.70	2.67	2.77	2.76	2.80	2.78	2.88	2.84
Family composition and child age:								
Average age of youngest child	3.59	3.48	3.62	3.39 [*]	3.47	3.63	3.42	3.63
Average number of children in family	2.21	2.29	2.29	2.34	2.14	2.44	2.27	2.00
N	158	75	158	96	51	27	51	32

NOTE.—NEWS = National Evaluation of Welfare-to-Work Strategies; LFA = labor force attachment program group; HCD = human capital development program group; GED = General Equivalency Diploma; AFDC = Ad to Families with Dependent Children program; N = sample size. Two-tailed *t*-tests were applied to differences between the program and control group covariates.

⁺ *p* < .10.

^{*} *p* < .05.

A Selected Baseline and Demographic Characteristics by Research Group and by Office, NEWWS, Cities of Rancho Mirage, CA, and Lake Elsinore, CA

Table A6

	CITY OF RANCHO MIRAGE				CITY OF LAKE ELSINORE			
	LFA		HCD		LFA		HCD	
	Control	Program	Control	Program	Control	Program	Control	Program
Parent characteristics:								
Average age of parent	29.54	29.81	29.56	29.65	29.86	32.17 ⁺	30.84	31.04
Race (%):								
Black	12.50	8.11	5.00	7.69	12.73	15.38	16.13	17.86
White	32.14	27.03	67.50	25.64	60.00	57.69	35.48	46.43
Latino	53.57	62.16	27.50	64.10	27.27	23.08	48.39	32.14
Other	1.79	2.70	.00	2.56	.00	3.85	.00	3.57
Marital status (%):								
Never married	32.14	40.54	30.00	48.72 ⁺	41.82	26.92	38.71	35.71
Separated or divorced	62.50	56.76	65.00	46.15 ⁺	58.18	69.23	61.29	57.14
Married	5.36	2.70	5.00	5.13	.00	3.85	.00	7.14
Parent education, employment, and income:								
Received high school degree or GED (%)	44.64	45.95	22.50	15.38	58.18	69.23	25.81	25.00
Employed in year prior to random assignment (%)	46.43	37.84	40.00	35.90	23.64	26.92	19.35	35.71
Earnings in year prior to random assignment (in \$1,000s)	2.27	1.56	1.65	2.65	.97	1.32	.61	1.37
Time on own or other parent AFDC case (1–3)	2.54	2.62	2.63	2.64	2.67	2.73	2.81	2.75
Family composition and child age:								
Average age of youngest child	3.52	3.38	3.43	3.59	3.47	3.50	3.61	3.50
Average number of children in family	2.25	2.57	2.45	2.31	2.04	2.31	2.35	2.39
N	56	37	56	39	55	26	55	28

NOTE.—NEWWS = National Evaluation of Welfare-to-Work Strategies; LFA = labor force attachment program group; HCD = human capital development program group; GED = General Equivalency Diploma; AFDC = Aid to Families with Dependent Children program; N = sample size. Two-tailed *t*-tests were applied to differences between the program and control group covariates.

⁺ *p* < .10.