How Welfare Reform Affects Young Children: Experimental Findings from Connecticut—A Research Note

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Abstract

As welfare-to-work reforms increase women's labor market attachment, the lives of their young children are likely to change. This note draws on a random-assignment experiment in Connecticut to ask whether mothers' rising employment levels and program participation are associated with changes in young children's early learning and cognitive growth. Children of mothers who entered Connecticut's Jobs First program, an initiative with strict 21-month time limits and work incentives, displayed moderate advantages in their early learning, compared with those in a control group. A number of potential mechanisms for this effect are explored, including maternal employment and income, home environment, and child care. Mothers in the new welfare program are more likely to be employed, have higher income, are less likely to be married, have more children's books in their home, and take their children to libraries and museums more frequently. However, these effects explain little of the observed gain in child outcomes. Other parenting practices and the home's social environment do explain early learning, but these remained unaffected by welfare reform.

INTRODUCTION

Proponents of the latest generation of welfare reforms promise to reduce women's dependency on cash aid, raise labor market attachment, and improve the lives of children (Haskins, 2001; Mead, 1997). Considerable evidence is emerging on this third intended outcome for school-age children. This research notes focuses on younger children and asks whether welfare reform has affected their development, and if so, through what mediating economic or social processes (Duncan & Chase-Lansdale, 2001; Morris et al., 2001; Zaslow et al., 2002).

A modest gain, compared to a control group, is apparent in early learning and cognitive growth among children, averaging 2 years of age, whose mothers were participating in Connecticut's new welfare-to-work program. Four possible mediators of this effect are assessed—change in earned and total income, participation in program components intended to raise the mother's human capital, attributes of the home including parenting practices, and the use of non-parental child care. Mothers in the new welfare program are more likely to be employed, have higher income, and are less likely to be married. They also have more children's books in their home

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and take their children to libraries and museums more often. However, these factors did not mediate the overall effect of the intervention.

HOW DOES WELFARE REFORM INFLUENCE CHILD DEVELOPMENT?

Several recent studies, some with random-assignment designs, focus on the effects of welfare-to-work programs on school-age children. Morris and colleagues (2001) summarize the results of five program evaluations (one of which includes six local welfare programs) and find positive yet moderate effects on children. Positive effects mainly occur in welfare-to-work programs that effectively raise women's earnings or total income. Children's school achievement is significantly higher, with effect sizes ranging between 0.14 and 0.25 standard deviations, in all four programs that yield moderate gains in earnings. Of the seven programs without earnings gains, only one shows significantly higher achievement for children in the new welfare program. None of the welfare-to-work experiments evaluated display a consistently negative effect on elementary school children.

In contrast, the picture for adolescents is less positive. Findings from the Canadian Self-Sufficiency Project indicate that adolescents whose mothers participate in the welfare reform program have lower achievement and more school problems and drink and smoke more than those in a traditional welfare program (effect sizes of 0.11 to 0.20 [Morris and Michalopoulos, 2000]). Bloom and colleagues (2000a) examine Florida's Family Transition Program and find that adolescents in the new welfare program have lower achievement and a greater probability of being suspended (effect size of 0.14 and 0.17, respectively). Little research focuses on the effect of welfare reform on preschool children.

Why might welfare reform influence children? Gains in total income appear to be important in providing longer-term economic stability for families (McLoyd, 1990). To the extent that program participation raises income, these changes may affect children. Yet some state welfare-to-work programs effectively boost steady employment and earned income without increasing total income, since women no longer receive income support (Fuller, Kagan, and Loeb, 2002; Morris et al, 2001). It is not clear whether the magnitude of income gain associated with welfare reforms will be sufficient to markedly improve children's lives (Mayer, 1997).

Beyond changing income, maternal employment may boost mothers' acquired skills and human capital. The extent of this effect is likely to depend on the quality of job the recipients enter. Piotrkowski and Katz (1982), for example, find that when mothers report greater job demands, their school-age children are more likely to complete homework assignments. When the job demands more skills, the children show higher math achievement scores. Some jobs may provide structure, reduce stress in the household, and raise women's self-esteem (McLoyd et al., 1994).

The broader literature on whether maternal employment exerts an effect on young children's early learning has yet to yield definitive conclusions. Most studies of maternal employment effects focus on middle-class children. Hoffman and Youngblade (1999), in an extensive review of the literature, find few, if any, direct effects of employment on these children. Studies focusing on children from low-income families tend to find positive (or at least non-negative) effects, especially in terms of children's cognitive growth. Still, these early studies may not be generalizable, since government-induced employment may differ from mothers' voluntarily employment (Hoffman and Nye, 1978; Zaslow and Emig, 1997).

When welfare-to-work programs appreciably raise total income or when human capital gains alter maternal behavior, the material resources available for children

may improve. Significant gains in income could allow migration to a safer neighborhood or to a community with stronger child care or school opportunities. On a smaller scale, gains in income may result in a somewhat richer home environment, including reduced stress and conflict among adults in the home or the acquisition of children's books and other pro-developmental resources.

Alternatively, when mothers work, they are likely to spend less time with their children (Hoffman and Youngblade, 1999). Stay-at-home mothers may engage more steadily in pro-developmental activities (Zaslow et al., 1985), although some studies find that employed mothers compensate for time away by engaging in more activities in the evenings and on weekends (Hoffman, 1984; Moorehouse, 1991). Studies focusing on home environment find very few effects of welfare reform (Chase-Lansdale and Pitman, 2002; McGroder, 2000). Evidence is clear, however, that women who work more outside the home spend less time with their preschool-age children, as their youngsters spend upward of 38 hours a week in nonparental care (Fuller, Kagan, and Loeb, 2002). The type and quality of this care will influence children's development (Zaslow, Oldham, and Moore, 1998).

Here, we assess the effect of Connecticut's welfare reform on the development of young children and the processes through which this effect may occur. In keeping with the literature, we focus on the mediating effects of income, potential human capital enhancement, home environment, and child care.

DESIGN, DATA, AND METHODS

The Jobs First Experiment

Connecticut began its welfare-to-work experiment in January 1996 under a federal waiver of the old rules governing Aid to Families with Dependent Children (AFDC). Compared with AFDC, Jobs First increases work incentives and work supports. It has a relatively generous income-disregard provision, allowing participants to retain all earned income without any reduction in cash, as long as that earned income does not exceed the poverty line. AFDC, on the other hand, disregarded only 33 percent of earned income, plus $120 for the first four months of work. Jobs First allows greater accumulation of assets, three times higher than the old AFDC limit. The reform also provides more generous non-monetary benefits than did AFDC, including guaranteed 2 years of transitional Medicaid coverage compared with AFDC's 1 year, and 2 years of child-care assistance for families whose income was below 75 percent of the state's median compared with AFDC's 1 year.

On the other hand, Jobs First requires employment-related activities, such as job club, and has much stricter time restrictions and less generous aid increases for additional children than did AFDC. Jobs First places a time limit of 21 months on welfare receipt, allowing for possible extensions. No time limits were in place under AFDC. It also only exempts participants from employment-related mandates if they have children younger than 1 year old who were not conceived while the mother was on welfare. AFDC exempted parents of children under 2, regardless of when the child was conceived. AFDC provided parents with an additional $100 (approximately) per month per child conceived while on welfare. Jobs First reduces this to $50 (Bloom et al., 2000b).

The Connecticut welfare agency in 1996–1997 randomly assigned welfare applicants who were deemed eligible for Jobs First to either the program group or a control group that would face AFDC rules and benefit levels. The random assignment

occurred in the Manchester and New Haven field offices, working with the Manpower Demonstration Research Corporation (MDRC). All sampled participants completed a one-page form describing their demographic and socioeconomic characteristics at the time of random assignment. The state also compiled administrative data on each individual's cash aid and food stamp payments, as well as any earnings and employment reported through the unemployment insurance system, starting a year before random assignment. MDRC sampled a total of 964 participants for the interim client survey, and 772 for the entire maternal interview in 1998, about 18 months after random assignment (Bloom et al., 2000b).

Given the focus on mothers and young children, we worked with MDRC to develop a supplement to the maternal interview and a procedure for observing child-care settings. These additional protocols yielded more extensive information on youngsters' early learning and cognitive development and detailed data on child care. This study considers the 308 single mothers who had at least one child, 12 to 42 months of age, in 1998. The 308 represent a 90 percent response rate of the 342 women who met these young-child sampling criteria[1]. Because the children in our sample are all at least 12 months of age, we do not assess the effect of the reform on children during the first year of life.

Measures[2]

Child Outcomes—Early Language and Cognitive Development

The outcome measures for this analysis are mothers' reports of their child's word recognition and usage and the complexity of their language, as measured with the Communicative Development Inventory (commonly known as the MacArthur CDI; Fenson et al., 1994). We use two forms of the MacArthur, one for older infants and young toddlers and another for older toddlers. The first form (for children, aged 12 to 23 months of age) asks mothers about words their young toddler recognizes and a set of subscales related to communicative complexity, including gesturing and more complex phrases. The form for older toddlers (for children, aged 24 to 42 months) asks mothers about a range of words that the child uses in everyday speech and communicative complexity, related to more grammatically correct sentences.[3] Researchers have investigated the psychometric properties of both forms with large samples. Scores on the MacArthur are predictive of cognitive proficiency and some school readiness measures (Hemmer and Ratner, 1994). Feldman et al. (2000) find that the predictive validity of the infant-young toddler form is lower than that for the older toddler form. We obtain MacArthur scores for at least one subscale for 288 or 93 percent of the sample. For most of the analyses we use a composite measure of the child's language and cognitive proficiency, though we report results for standardized subscale scores, as well.

[1] Design details and descriptions of all measures used in the interim survey appear in Bloom et al. (2000b) and Fuller, Kagan, and Loeb (2002).

[2] Descriptive statistics on all sample variables are available upon request.

[3] On the language development scale, our sample averages 16.2 (standard deviation of 3.3) out of 20 for children 12 to 23 months and 15.5 (4.1) for children 24 to 36 months. On the gestures scale the 12- to 23-month-olds averaged 2.7(0.3) out of 3 and on the cognitive development scale the 24- to 36-month-olds averaged 6.4 (2.7) out of 10.

Income and Employment.

The administrative data allow us to examine income streams over the first two years following random assignment, including income from cash aid and from employment earnings. We also obtained supplementary information on the characteristics of jobs, including hours, shifts, and benefits; however, there was little difference between the treatment and control groups in the non-pecuniary job characteristics.

Participation in Human Capital Raising Activities

Interviewers asked several questions about the extent to which participants engage in training programs, including group job search activities, English classes, adult basic education or GED classes, agency-sponsored job training, classroom training programs, and job clubs.

Home Environment

We spent ample time during the maternal interview learning about various features of the home environment. Items from the HOME inventory were included that are typically used in the National Longitudinal Study of Youth and other major field studies (Bradley, 1993; Zaslow et al., 2002). These items ask about the frequency with which parents read with their young child, play games, and sing songs; counts of children's books in the household; and the propensity to engage in pro-development activities, such as visits to the library and setting rules on television viewing. Mothers also report on their emotional reactions to their focal child, including items, such as "the child smiles and laughs as much [or more] than I expected." These items have been used in similar field studies (McGroder, 2000). Mothers were also asked about social conflicts and sources of stress in the household, including verbal conflicts, physical abuse, and uncertainties around utilities being shut off. The final series of questions was about social support including the extent to which a mother had friends who would listen to her when she was upset.

Child-Care Utilization

Mothers were asked about their current and previous child-care providers. For the present paper, we focus simply on whether women used nonparental child care at least 10 hours per week and the type of provider selected: center, family child-care home, or individual caregiver. An earlier paper isolates the influence of child-care type, duration, and quality on multiple measures of child development (Loeb et al., in press). Just 13 percent of our sample selected a center program for the focal child, 18 months after random assignment. While this is not surprising, given that the children were between 2- and 2-1/2-years-old on average, significantly higher center enrollment rates are observed among similar children in other states (Fuller et al., 2002).

Demographics

Background attributes were collected for mothers and children, including mother's education level, age, and ethnicity. Mothers have little education, with 38 percent without a high school diploma and only 3 percent with a college degree. Of the sam-

ple 41 percent is non-Hispanic white; 39 percent is African-American; and almost 20 percent is Hispanic.

Analytic Strategy: Identifying Mediators of Child Development

This analysis aims to assess the possible effect of welfare-to-work programs on children's early learning; then to identify possible mechanisms through which this effect occurs. We begin by using OLS regression of child's early language and cognitive proficiency scores on a dummy variable indicating the mother's assignment to Jobs First or to the control group. The estimated coefficient on the dummy variable tells the difference in standard deviation units between the average scores for children in the two groups.

Given that we find Jobs First participation has a positive influence on children's early learning, we consider four sets of mediating factors: mother's income and employment, participation in human capital enhancement activities, home environment, and use of non-parental child care. To be considered as a mediator, these factors must be sensitive to Jobs First participation and, in turn, affect children's learning. We assessed differences between treatment and control groups for each potential mediator using OLS regression for continuous measures, logit for binary measures, and multinomial logit for the one categorical measure, marital status. If the binary variable distinguishing treatment from control is statistically and socially significant the conclusion will be that the treatment had an effect on these outcomes. Finally, to the initial regression of MacArthur scores on treatment we add the possible mediating factors that display experimental effects, observing how estimates of the treatment effect are affected by inclusion of these possible mediators. If the treatment estimates in the outcome equations decrease with the introduction of the potential mediators, this suggests that the treatment effect may well be working through these intermediate processes.

FINDINGS: EFFECTS OF JOBS FIRST ON CHILDREN'S EARLY LEARNING

Table 1 shows that young children whose mother is in the Jobs First group score approximately 0.26 standard deviation units higher on the MacArthur composite index than do children in the control group (the coefficient on the treatment variable in the OLS regression of child outcomes). This is a moderately large treatment effect. Five-year-olds attending kindergarten, for instance, improve their pre-reading skills by about half a standard deviation, on average, over the course of a year (West, Denton, and Reaney, 2001). The magnitude of effect in this sample, however, is not entirely consistent between the two age groups. The treatment effect is 0.30 for communicative complexity among the toddlers (aged 12 to 24 months), but insignificant for complexity among preschoolers (aged 24 to 42 months).

Effect of Jobs First on Possible Mediators

Maternal Income and Employment

Quarterly administrative data were examined over the 42-month period following random assignment. Figure 1 plots total income, earned income, and welfare income by quarter for Jobs First and the control groups. The two groups display almost identical incomes at random assignment. By the end of these observations, Jobs First

Table 1. Regression results for the impact of the jobs first program on early learning and potential mediators.

Learning:	Composite*	Language Development	Gestures (12–24 months)	Sentence Complexity (24–42 months)
	0.26	0.18	0.30	–0.048
	(2.21)	(1.46)	(1.73)	(–0.28)
Income:	Total income year 2	Earned income year 2	Welfare income year 2	
	1629	1210	498	
	(2.81)	(2.09)	(1.91)	
Marital status:	Married & living with spouse	Separated	Divorced	Widowed
	0.25	0.56	0.56	0.28
	(2.75)	(1.63)	(1.23)	(0.71)
Home:	Attends church	Visits library or museum	20 or more books	Weekend television
	0.56	1.93	1.86	1.00
	(2.33)	(2.47)	(2.27)	(1.56)
Mother/child interaction:	Child smiles as expected	Child giggles or laughs often	Can do own interest w/ child	Child makes me feel good
	0.15	0.19	0.13	0.02
	(1.77)	(2.74)	(1.06)	(0.12)
Support:	Anyone listens when upset	Help with children	See relatives most days	Adult time in hours per day
	1.80	1.46	1.09	–0.13
	(1.81)	(1.06)	(0.35)	(0.40)
Family functioning:	Fighting	Criticizing	Utilities cut-off	Household stress: drugs
	0.74	0.88	1.15	0.27
	(0.58)	(0.35)	(0.49)	(2.25)
Child care and job club:	Use child care	Use center (of care users)	Job club	Hours in job club
	1.42	1.13	2.87	0.55
	(1.47)	(0.25)	(3.10)	(0.18)

* For all except marital status, coefficients and corresponding t-statistics reported. The marital status results come from a multinomial logit and relative risk ratios are reported. All other results represent the impact of the treatment on the above outcome in a separate analysis. All specifications include controls for Mother's education, ethnicity and child age. The composite includes language development and gestures. Reading across and then down the sample sizes are (283, 263, 142, 118, 308, 308, 308, 308, 308, 308, 308, 288, 288, 288, 288, 288, 288, 288, 288, 288, 289, 288, 288, 281, 288, 289, 276, 306, 152, 293, 47).

mothers have higher total income, higher earned income, and lower welfare income. Regression analysis, not shown, indicates that in the fourth year after random assignment, Jobs First participants have total incomes averaging $1371 higher than the control group; earned income, $2293 higher; and welfare income, $669 lower on average. Table 1 gives the corresponding results for 2 years after random assignment. These estimates adjust for maternal education, ethnicity, child age, city of residence, and the corresponding income value at six months prior to random assignment. Tobit regressions yield similar estimates. Earned and total income tend to rise until

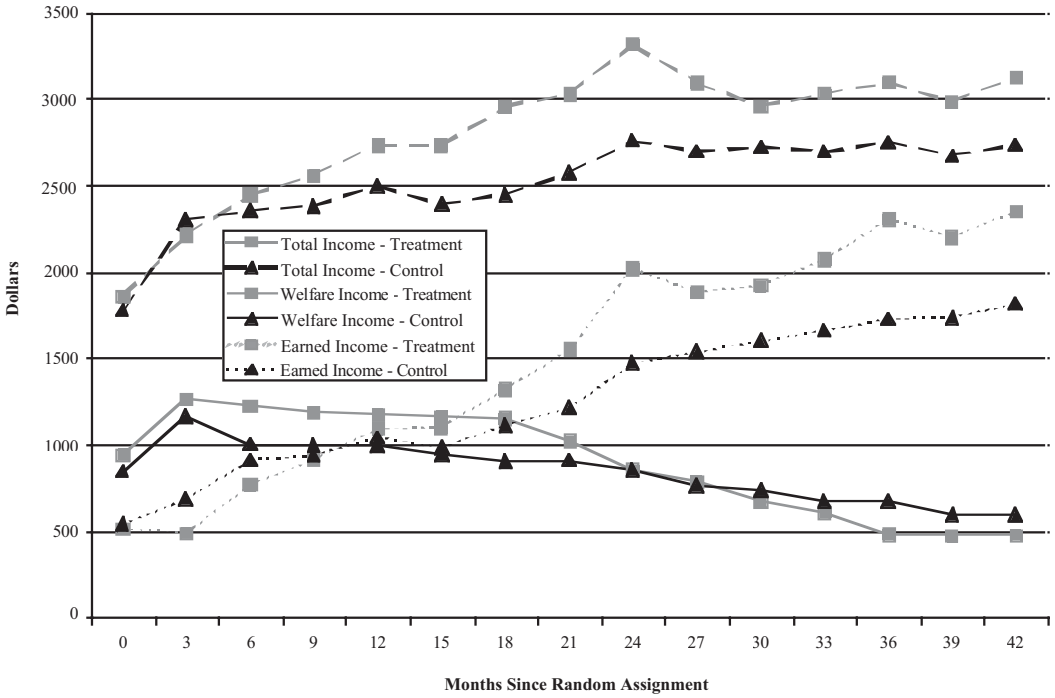

Figure 1. Income trends for the treatment and control groups.

two years after random assignment, just past the quarter that women would have hit their 21-month lifetime limit on cash if they were on welfare for the full period.

Jobs First participants are more likely to be employed. Eighteen months after random assignment, 53 percent of Jobs First mothers are employed, compared with 48 percent of the control group. Similarly, the treatment group is almost twice as likely to be employed sometime during each of the second, third and fourth year after random assignment (odds ratio = 1.96, t = 2.61), indicating that Jobs First participants may benefit from more stable employment as well. No difference was apparent when job characteristics of workers were tested for difference between the treatment and control groups. Approximately one-third of both groups work part-time and just over half work regular daytime shifts. About 40 percent of both groups are covered by a health plan.

Human Capital Enhancement

We examine the extent to which women engage in training activities. There is no significant difference between the treatment and control group in group job search activities (57 percent of the sample), English classes (4.2 percent), adult basic education or GED classes (16.9 percent), agency-sponsored job training (3.9 percent), or classroom training programs (16.6 percent). However a substantially greater portion of the treatment group attends job clubs (22.8 percent compared to 10.2 percent), so we carry the variable forward to examine possible relationships with child outcomes (Table 1). The extent to which such participation results in maternal learning or motivation that may influence children, or leads to other opportunities for mothers, which, in turn, affect children's growth, is an empirical question.

Home Environment

The home environment is characterized by the household's demographic structure, mother and child interactions, children's books in the home, social support, quality of family functioning, and emotional stress as reported by the mother. Jobs First mothers are less likely to get married during the 18 months following random assignment. Just 4 percent of the experimental group report being married and living with their spouse, compared with 12 percent among the control group. These probabilities remain significantly different after controlling for maternal education, ethnicity, child age, and income (Table 1). Differences in parenting practices are less evident. Taking into account the background controls, no difference in direct reading behavior or television viewing is evident. However, the Jobs First group is more than 80 percent more likely to report that the child had 20 or more children's books in the household and almost twice as likely to have taken their child to a library or museum in the previous month. The Jobs First group is 44 percent less likely to attend church more than twice a month. Including mother's total income in year 2 as a control does not change the magnitude of these treatment effects.

Jobs First mothers report somewhat less positive interactions with their children. While the difference is not statistically significant in whether the mother thinks she can do things that interest her when the child is around, or whether the mother feels that the child acts to make her feel good, the treatment group is about 80 percent less likely to report that the focal child giggles and laughs often or that the child smiles as much as expected. This could be the result of change in mothers' attitudes or simply the effect of spending less time with the child.

The social support indicators tend to favor the Jobs First mothers. For example, the treatment group is 80 percent more likely to report that they have a friend or kin member who is always available to listen when they get upset. A Jobs First participant is about 45 percent more likely to report she has "enough help as a mother" in raising her child, although this odds ratio is not statistically significant.

The Jobs First group reports less household stress on one important dimension: they are far less likely to report a housemate with substance abuse problems, compared with the control group. However, the incidence of drug use is low enough (6.5 percent of the sample) that large percentage changes do not imply large changes in incidence. The other measures of family functioning favor the experimental group but the differences are not statistically significant. Thus, evidence that household stress is lower under the reform is only suggestive.

Child-Care Utilization

Jobs First mothers are 42 percent more likely to use a child-care provider at least 10 hours per week, corresponding to their higher employment rate. Once a control is added for whether the mother is currently employed, the treatment effect drops by half. No difference was detected in the treatment group's propensity to select center-based programs. Just 13 percent of the entire sample selected a center-based care at 18 months after random assignment.

Effects of Mediators and Jobs First on Children's Early Learning

While Jobs First appears to have affected a number of potential mediating factors, these particular factors seem not to help explain the treatment effect of the Jobs First program on children's early learning. To test this a series of regressions of the

Table 2. Impact of potential mediators on the treatment effect.

	No Mediators	Work	Marriage	Home	All
Treatment	0.26	0.23	0.25	0.26	0.20
	(2.21)	(1.90)	(2.09)	(2.14)	(1.56)
Earned income		1.5e–5			1.5e–5
		(1.24)			(1.22)
Aid income		4.4e–5			6.7e–5
		(1.81)			(2.64)
Employment		–0.15			–0.22
		(1.03)			(1.43)
Married			–0.047		0.043
			(0.21)		(0.18)
Divorced			–0.18		–0.33
			(0.99)		(1.82)
Separated			0.088		0.10
			(0.36)		(0.41)
Widowed			–0.62		–0.24
			(0.86)		(0.34)
Attends church				0.22	0.20
				(1.75)	(1.64)
Uses the library				0.10	0.10
				(0.72)	(0.76)
Reads often				0.27	0.26
				(1.87)	(1.79)
Plays often				–0.48	0.67
				(1.65)	(2.24)
Has many books				0.16	0.22
				(1.16)	(1.16)
Watches weekend TV				–0.03	–0.03
				(2.49)	(2.68)
Regularly listens				–0.09	0.13
				(0.57)	(0.77)
Fights				0.13	0.03
				(0.47)	(0.12)
Criticizes				–0.39	–0.32
				(1.89)	(1.55)
Uses drugs				–0.10	–0.09
				(0.41)	(0.36)
Uses care					0.07
					(0.51)

Coefficients and corresponding t-statistics given. All specifications include controls for Mother's education, ethnicity and child age. Sample size = 283.

MacArthur composite on the treatment introduces blocks of potential mediators as controls. Table 2 displays these results. In column 2, for example, income from aid can be seen to be positively related to higher MacArthur scores. The estimates suggest that a $10,000 increase in total income is associated with a gain of 0.44 standard deviations on the MacArthur. But inclusion of all income and employment predictors reduces the point estimate only slightly from 0.26 to 0.23. Column 3 of Table 2 introduces the marital status variables. No significant effect of marital status can be seen on child development, though the few children with a widowed mother perform substantially worse.

The fourth column includes other home environment measures. Mothers reading often to their children has a positive effect on child development, whereas television viewing and criticism among adults in the household have negative effects. However, again these differences do not explain the treatment effect. No effect of either job club or child-care usage can be seen on child outcomes or on the treatment effect (not reported).

DISCUSSION

In assessing the effect of Connecticut's Jobs First program on the development of preschool age children and potential mechanisms for this effect, we find that a child whose mother was randomly assigned to the Jobs First program scores moderately higher (approximately 25 percent of a standard deviation) on the MacArthur Communicative Development Inventory than a child whose mother was randomly assigned to the traditional welfare program. In addition, mothers in the Jobs First program are substantially more likely to be employed and have higher earned income than do those in AFDC, though many of the non-pecuniary characteristics of their jobs are similar. Eighteen months after random assignment, Jobs First families actually receive more cash aid than the control group, a result of the income incentives embedded in Jobs First. Four years after random assignment, cash aid is lower for Jobs First participants than for those on traditional welfare and, as a result, total income differences between the groups are not as great as differences in earned income.

Like previous studies, such as Chase-Lansdale and Pittman (2000), little effect of welfare reform was evident on many aspects of children's home environment. In particular, measures of social supports available to families, household stress, and family functioning are similar between the two groups on most measures. However, this sample does show some home environment differences. Jobs First mothers are less likely to be married, and their children spend more time in libraries or museums and have more books in the home than those in the control group. As for differences in human capital acquisition and child-care use, little difference between the two groups could be found once employment was controlled for.

A number of measures of income and home environment help predict child development. As examples, children who are read to more often or watch television less often display more advanced learning. However, we are not able to identify the specific mediating factors through which the treatment effect occurs. A number of explanations could account for this failure. While we went to great lengths to collect information on the children's home environment, we may have missed key elements or we may not have measured the elements as precisely as needed. Our analysis suggests that some, but not all, aspects of the home changed. More detailed surveys, interviews, or observations may be needed to achieve the necessary understanding of these changes. Similarly, a second possible source of error is our lack of information on children's child-care experiences. The use and type of child care again may not provide the necessary detail. Additionally, our outcome measures are mother-reported. The positive effect of the treatment may reflect a more positive perspective of the mother instead of true cognitive gains for the children. Finally, there may simply be a program effect. For example, the reform itself may produce optimism among welfare workers and recipients that affects children. Such an effect may not change most measurable aspects of life and, is likely, in fact, to be short-lived, but may influence child development during the first years of reform. We have not been able to sort-out these or other possible explanations in our analysis.

While we have not identified mediating factors, this study contributes to the literature on the effect of welfare reform by addressing young children and showing that welfare reform programs, at least those with certain characteristics, can positively influence early child development. Clearly our measures of home and child-care environment are not perfect. We could be leaving out important aspects of the home that are affected by reform and that, in turn, affect children. Because of this, our estimates should not be seen as capturing the full effect of these environments or the full extent to which changes in these environments mediate the impact of welfare reform on children. They do provide evidence, however, that welfare reform holds the potential of boosting children's early development, as well as maternal labor market experience and particular aspects of children's lives. More work is necessary to identify the mechanisms through which these reforms may operate to advance pro-development activities for young children.

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