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Effects of Welfare and Employment Policies on Young Children: New Findings on Policy Experiments Conducted in the Early 1990s

Pamela A. Morris, Lisa A. Gennetian, and Greg J. Duncan

Abstract

Over the past 30 years, welfare and other public programs for poor families have focused increasingly on promoting parents' self-sufficiency by requiring and supporting employment. Evidence from a diverse set of random-assignment experiments now reveals some of the conditions under which promoting work among low-income, single parents helps or hurts children. This report summarizes the results of recent research conducted as part of the Next Generation Project, a collaboration between researchers at MDRC and several leading research universities, which draws on data from welfare and employment experiments launched in the early 1990s aimed at increasing the self-sufficiency of low-income parents in the U.S. and Canada.¹ In addition to providing evidence for policymakers to assess evolving welfare policies, this research helps advance our understanding of the effects of parents' economic circumstances and child care arrangements on the development of low-income children.

A prior SRCD policy report on this topic (Morris, 2002) provided evidence that the effects of welfare policies on younger children in the short term (two to three years after parents entered the program) depended on the type of policy and its resulting effects on parents' employment and income (see also Morris, Huston, Duncan, Crosby, & Bos, 2001; Morris & Duncan, 2002). Programs that increased both employment and income had beneficial effects on school achievement for a broad group of preschool and early school-age children. Programs that increased employment alone had few effects, either positive or negative, on these young children. Subsequent work showed that these same policies had negative effects for adolescents (Gennetian et al., 2002).

This report summarizes three types of new findings regarding the effects on younger children:

- The precise pattern of effects of welfare and employment programs on school achievement across the ages and stages of childhood—i.e., from toddlerhood to preschool, from preschool to middle childhood, and from early to later middle childhood.
- The longer-term effects on the achievement of preschoolers—up to five years after their parents were randomly assigned to a welfare and employment program.
- An analysis of the role of increased income and increased use of center-based child care arrangements as mediating pathways of the effects of welfare and employment programs on the achievement of preschoolers.

Owing to space limitations we confine our discussion to results on children who were assigned to programs prior to their adolescent years. Readers should bear in mind that there are different, and more negative, impacts for older children that our future research will aim to understand better.

Overall, our analysis shows that younger children—those who are ages 2-5 when their parents enter a program—show small improvements in their school achievement when their parents participate in a program that includes earnings supplements, a benefit that is reduced as program effects on parents' economic outcomes decline. These effects on children appear to be due to increased family income and, perhaps, to increased use of center-based child care arrangements.

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sherrod@fordham.edu

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From the Editor

Welfare reform, initially begun in the mid-1990s under the Clinton administration, has been one of the major social experiments of recent times. This legislation represented a major shift in political ideology. AFDC, Aid for Families with Dependent Children, was enacted in the 1930s specifically to allow mothers singled mainly through widowhood to stay home with their children. The 1996 legislation, the Personal Responsibility and Work Opportunity Reconciliation Act, sought to move mothers into the workforce as quickly as possible rather than providing a means for them to stay home. When this legislation was enacted, the consequences for children were unknown; for example, children might benefit from the increased self sufficiency of their parents or they might be harmed by the loss of a safety net.

Thankfully the need for research to address the impact on children was recognized. The Department of Health and Human Services, state governments, and private foundations funded a series of welfare-to-work demonstrations in several states and Canada. Many of these became part of the Next Generation Project, which represents a collaboration of university-based researchers and MDRC. This kind of collaboration is exactly what is needed to launch research of this nature.

This *Social Policy Report* offers a synthesis of findings from this body of research. We have, in fact, had a series of *SPRs* addressing the consequences of welfare reform for children; one previous issue was written by the senior author of the current article. The current article examines whether children's well-being was influenced by these welfare-to-work demonstrations. Three sets of findings are reviewed: (1) how effects vary by the age at which the child experiences the policy; (2) long-term effects; and (3) the role of income and form of child care, two centerpieces of most programs. These are critical developmental considerations, research that is truly worthy to be in SRCD's major journals such as *Child Development*. I will not review the findings here, but I am sure you will agree that they are important and noteworthy. The commentaries address methodological issues. The one by Howard Rolston addresses the experimental method and asks whether differences even though significant are worth it. The one by Associate Editor Jeanne Brooks-Gunn considers how the demonstration results augment what is known about welfare, work, income, and children's outcomes.

I think this is exemplary work. I really hope that SRCD and publications such as this one can play a role in making sure that reauthorization of the Act is based in what we have learned during the past decade about the impact of this social revolution on disadvantaged families and children. However, I also worry a bit. For example, this article, like so much of the work, focuses on school achievement. This is, of course, an important outcome that is quite popular in social policy circles these days. However, I think it reflects a simplistic view of child development. Head Start and many other developmentally sound programs have adopted a whole child approach. School achievement, especially in young children, relates to emotional development, nutritional and health status, family relationships, neighborhood and school quality, and so forth. My somewhat idealistic goal for research is that it would lead the cart not just follow it and offer some guidance on what we should be attending to, in addition to offering that attention.

Lonnie Sherrod, Ph.D., Editor
Fordham University

I am thankful to Pamela Morris and Jeanne Brooks-Gunn for offering much useful feedback on an initial draft of this statement.

Effects of Welfare and Employment Policies on Young Children: New Findings on Policy Experiments Conducted in the Early 1990s

Pamela A. Morris and Lisa A. Gennetian, MDRC
Greg J. Duncan, Northwestern University

Background

With the 1996 passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), welfare changed from an entitlement program to a federally funded block grant allowing for considerable state and local discretion. Because this overhaul of the welfare system had substantial implications for parental employment and, in some cases, family income, these policy changes were also likely to have important consequences for children. At the time, however, there was little research on the likely effects of welfare policies on children that could help inform policymakers' decisions (Duncan & Chase-Lansdale, 2001).

Developmental research suggests that policies targeted at increasing employment and income among welfare recipients might well affect children's development. For low-income families headed by single mothers, the associations between maternal employment and children's cognitive and social development tend to be neutral or positive, but much of this difference is a function of preexisting differences between mothers who are and are not employed (Chase-Lansdale et al., 2003; Harvey, 1999; Huston, 2002; Vandell & Ramanan, 1992; Zaslow & Emig, 1997). However, the effects of maternal employment on children's development appear to depend on the characteristics of employment (its quality, extent, and timing), on the child's age (with some evidence of negative effects for very young children), and on whether work is mixed with welfare (Brooks-Gunn, Han, & Waldfogel, 2002; Dunifon, Kalil, & Danziger, 2003; Harvey, 1999; Parcel & Menaghan, 1994). Finally, for very young children, the effects of maternal employment are also influenced by the quantity, stability, and quality of child care arrangements; stable, high-quality care has been associated with benefits to children's cognitive development (NICHD Early Child Care Research Network & Duncan, 2003; Vandell & Wolfe, 2000). Type of care, independent of quality, also appears to matter: holding quality of care constant, center-based care arrangements are associated with better cognitive outcomes (see Fuller et al., 2002).

With regard to income, studies consistently show that poverty has a negative association with young children's development, particularly their cognitive development. But here, as in the research listed previously, there is considerable controversy about the causal role of income *per se*, as opposed to other correlates of poverty (Bradley & Corwyn, 2002; Duncan & Brooks-Gunn, 1997; Duncan, Brooks-Gunn, & Klebanov, 1994; Duncan, Yeung, Brooks-Gunn, & Smith, 1998; Mayer, 1997; McLoyd, 1998).

The early research from the Next Generation Project was consistent with this prior nonexperimental research, showing few effects of programs that increase parents' employment but not income and positive effects on young children of programs that increase income (Morris et al., 2001). However, it is also important to note that these welfare and employment policies also had small adverse effects on some school outcomes among adolescents aged 12-18 years old at follow-up (Gennetian et al., 2002; in press). The most pronounced negative effects on school outcomes occurred for the group of adolescents who had a younger sibling. As they increased their employment, parents may have had less time to monitor their adolescents' schooling and might have expected adolescents to take on more responsibilities in the home, especially with these younger siblings. As indicated earlier, we leave the full investigation of these important effects to another discussion.

The Experimental Data Used for This Analysis

The analyses conducted under the Next Generation Project are based on seven random-assignment studies that together evaluate the effects of 13 employment-based welfare and antipoverty programs in the United States and two Canadian provinces. All told, information on over 30,000 low-income children, primarily from single-parent families, is available from these experimental studies. All of the studies began in the early- to mid-1990s (prior to 1996) and were designed to estimate the effects on low-income families and children of programs aimed at increasing parental employment. Many of these evaluations were implemented under waivers of the rules governing Aid to Families with Dependent Children (AFDC), the welfare system that was replaced in 1996 by Temporary Assistance for Needy Families (TANF). So, although most of the studies were under way by 1996, they were capable of testing the effects of many program features that have since been implemented by the states under TANF.

The great contribution of these studies derives from their design, in which participants were randomly assigned to a "program group" that received the welfare reform package or to a "control group" that continued to live

under the old rules, which for the U.S. studies was the AFDC program. In all but one of the studies, parents were applying for welfare or renewing eligibility when they were randomly assigned; in the case of the New Hope Study, all geographically eligible low-income parents were eligible to participate, and thus control group parents were eligible for benefits available to low-income families. Random assignment provides the best foundation for assessing causal impacts of the welfare and employment treatment packages. At the same time, the treatments in these experiments represent neither the full range of TANF programs implemented by states nor the variety of macroeconomic conditions—both good and bad—that states currently face or are likely to face in the next decade.

Although many policies were tested, the approaches taken in these studies fall into two main categories: programs with *earnings supplements* that are designed to encourage work and increase income by supplementing low-wage work, and programs with *mandatory employment services and time-limits*, which attempt to boost work through the use of services, sanctions, and time limits. A third important (but secondary) dimension of some of these programs is *expanded child care assistance*, aimed at enhancing access to subsidies and child care information (Gennetian, Crosby, Huston, & Lowe, 2004; Crosby, Gennetian, & Huston, in press).

More specifically, five of the programs offered generous earnings supplements and other employment-related services that made work more financially rewarding by providing families with monthly cash supplements or by increasing the amount welfare recipients could keep when they went to work. Seven of the programs provided only mandatory employment services (without earnings supplements or time limits)—such as education, training, or immediate job search—in which parents were required to participate to be eligible to receive cash welfare benefits. Two of the programs put time limits on families' eligibility for welfare benefits (together with employment services and, sometimes, earnings supplements), restricting eligibility to a certain number of

months in a specified period. Several of these programs also changed child care policies to support efforts to increase work by welfare recipients and low-wage workers, although changes in child care were not the sole policy change being tested in any of these studies. These enhancements included greater resource and referral, encouragement of formal care, higher income-eligibility limits, direct payment to providers, and reduced bureaucratic barriers. These policy changes (earnings supplements, mandatory services, time limits, and child care assistance) were not mutually exclusive—in reality, the programs mixed and matched more than one of these policies.

These policies were tested in the following evaluations: Connecticut Jobs-First (CT Jobs First; Bloom et al., 2002), Florida's Family Transition Program (FTP; Bloom et al., 2000), Los Angeles Jobs-First GAIN (LA GAIN; Freedman, Knab, Gennetian, & Navarro, 2000), the Minnesota Family Investment Program (MFIP; testing the effects of two programs, Full MFIP and MFIP Incentives Only, at multiple follow-up points; Gennetian & Miller, 2002; Gennetian, Miller, & Smith, forthcoming), National Evaluation of Welfare-to-Work Strategies (NEWWS; testing the effects of six programs in three sites across two follow-up points; Hamilton et al., 2001; McGroder et al., 2000), New Hope (testing the effects of one program at two follow-up points; Bos et al., 1999; Huston et al., 2003), and the Canadian Self-Sufficiency Project (SSP; testing the effects of two programs at two follow-up points; Morris & Michalopoulos, 2000; Michalopoulos et al., 2002). Note that some of the analyses reported in this policy report (particularly the analyses of the effects of income and child care as key mediating processes) relied on a subset of these studies represented here, appropriately chosen for the particular research questions posed.

To estimate average effects across these studies, the Next Generation Project pooled data from all of them.² Our sample for this analysis includes 27,180 child observations taken from 15,779 children (children assessed with multiple measures at multiple follow-up points) living in 11,502 families. Children ranged in age from 2-9 at the

Younger children show small improvements in their school achievement when their parents participate in a program that includes earnings supplements.

Random assignment provides the best foundation for assessing causal impacts of the welfare and employment treatment packages.

Family Income and Children's Cognitive Development **Howard Rolston, The Brookings Institution**

Numerous studies have established a strong relationship between family income and child outcomes, but until about a decade ago, little was known about the extent to which this relationship reflected causality or omitted-variable bias. This paper, along with related work in the Next Generation project by Pamela Morris, Lisa Gennetian, and other researchers at MDRC; Greg Duncan of Northwestern; and Aletha Huston at the University of Texas, is part of a major advance in our understanding of the effects of income on child development. These studies use random assignment status in a large experimental data set to create instrumental variables for mediators such as income and use of center-based child care to control for the potential for omitted-variable bias. Taken together, these studies provide strong evidence that income does affect cognitive outcomes of younger children ages 2-5. In addition, the programs that produced these income gains also improved young children's cognitive scores through the increased use of center-based child care. This particular paper finds that the effects diminish over time, and they are not large.

Although the use of random assignment status to create instrumental variables produces much stronger evidence for causality than correlational approaches, much stronger assumptions, including an exclusion restriction, i.e., that there are not other uninstrumented pathways, and monotonicity, are required than for simple experimental/control comparisons. Thus, causality findings based on these approaches are not as firmly established. For example, the assumption of monotonicity requires that if a program has an average effect of increasing a potential mediator such as use of center-based child care, it not decrease that mediator for any individual. In the current study, this condition could be violated because one of the interventions, MFIP-Incentives Only, very likely caused some individuals to reduce their earnings, and potentially their need for center-based care. It is not possible to determine directly whether this happened, or, if it did, whether it biases the estimates. It is possible to assess these possibilities more indirectly and less definitively, and our confidence in the results should depend on what these kinds of assessments indicate.

Are the small, transitory cognitive gains a \$1,000 annual increase in income produces worth it? Much more costly interventions (\$15-40,000) that are directly aimed at increasing cognitive functioning produce much larger effects. But earning supplements can cost far less than the increase in family income that results because, on average, they increase income both through the supplement and through stimulating higher earnings (especially where they're conditioned on full time work). So \$3-400 spent on supplements could increase average family income by \$1,000. Nonetheless, as the paper indicates, a \$1,000 increase in family income produces a very small and transitory effect on young children's cognitive skills. Of course, it would be wrong to dismiss the importance of this income gain, which also has other important effects on family well-being.

Would a much larger supplement produce a much larger benefit? Given the size of the current EITC, how much more earnings supplementation is possible? Similarly, would continuing a benefit longer produce a more sustained effect, even though initiating one with school age children does not produce a benefit? Are there ways to reach families where a parent does not work, and the children are most likely to have poor outcomes? Are child allowances, which would be much more expensive than work-based supplements, politically viable?

While this paper further establishes that increasing low-income families' income can increase young children's cognitive skills, the small size and relatively short term effects do suggest that poverty reduction strategies should not be the centerpiece of efforts to improve low-income children's cognitive functioning.

Welfare and employment programs affect children somewhat differently depending on their age and developmental stage.

point of random assignment. Random assignment is a critical point of reference because it marks the time at which children begin to experience the policy-induced changes in employment and income on the part of their parents. Children's achievement was assessed at least two and sometimes as long as five years after

parents entered the programs, meaning that most children were in school when we assessed their achievement outcomes (across the studies, the youngest child was age 4 at the time of the follow-up and the oldest child age 15).

We focus on the policy effects on children's cognitive performance and school achievement for two reasons: first, research on the effects of income and poverty suggests that these outcomes, unlike measures of social behavior and health, may be most sensitive to increases in income (Duncan, Yeung, Brooks-Gunn, & Smith, 1998); second, measures of achievement and cognitive performance were available in these studies and are salient across stages of children's development, allowing for the comparison across differing periods of childhood. Measures of school achievement are based in most studies on a single-item measure that assesses parents' reports of how children are doing in school; in some cases, we also have information from standardized tests and surveys conducted with teachers, as well as with the children themselves. Our parent report measure is admittedly weak; thus, we thought it critical to test the robustness of these effects to the source of the achievement report (parent report or test score, for which we had measures with much stronger validity). These analyses showed that our results did not depend on the measure

assessed (Morris, Duncan, & Clark-Kauffman, in press).

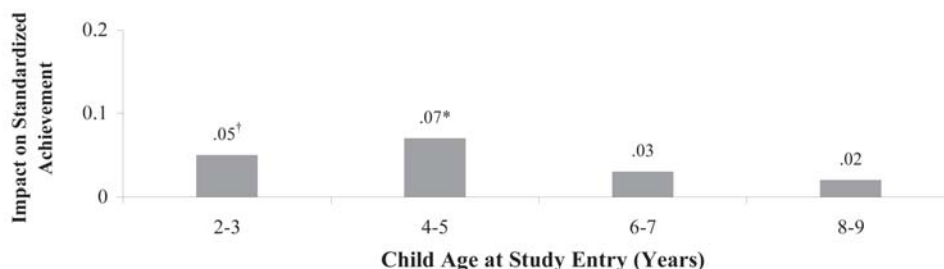
This report is organized as follows: We focus first on program impacts on children's school achievement across all welfare and employment program models, and then show how these same effects vary by type of welfare policy approach. Next, we examine whether short-term benefits of a particular subset of programs are sustained into the longer term. We end by describing some ways in which these programs might have affected children and describe policy implications of these results.

Effects of Welfare Policies on Young Children's School Achievement

First, we describe some analyses that were conducted to estimate the effects of these welfare policies on children's achievement two to five years after parents entered the studies (in some cases, multiple follow-ups are included). These findings are described in more detail in Morris et al. (in press). These analyses differ from those presented in the earlier policy report (Morris, 2002) by estimating the precise pattern of policy effects across the ages and stages of childhood—i.e., from toddlerhood to the preschool period, from early middle childhood to later middle childhood.

Figure 1 shows program impacts—differences in the standardized school achievement of the children in the program and control groups—across the various programs. Each bar represents the effect, averaged across program models³, for each age group of children, by age at study entry. Bars above the horizontal axis indicate that programs had a positive effect for each age group. Stars above the bars indicate those program effects that are large enough

Figure 1: Impacts on Children's School Achievement Across Developmental Periods, by Age at Study Entry



Note: 'Impact' is the difference between randomly assigned programs and control groups. Statistical significance levels are indicated as: † $p < 0.10$ * $p < .05$ ** $p < .01$.

Data include assessments of children's school achievement based on parent report, test score, and teacher reports two to five years after parents entered the programs (see Morris, Duncan, & Clark-Kauffman, in press).

to be statistically significant. For example, the first bar shows that the programs had a positive but marginally significant ($p < .10$) effect on the eventual school achievement of children who were 2-3 years old at the start of the programs. The point estimate of this effect suggests an increase by 5% of a standard deviation in children's school achievement.

As is clear from the figure, welfare and employment programs affect children somewhat differently depending on their age and developmental stage at the point of random assignment. Our analyses point to one particularly sensitive transition period of young children's development: the transition into middle childhood and elementary school (ages 4-5 at baseline). But the program effect for those children is not large, representing a 7% of a standard deviation increase in child achievement, as measured 2-5 years after parents entered the programs. This is equivalent in magnitude to slightly more than a single point on a typical IQ test. Additional analyses have indicated that these differences in effects across child age groups cannot be attributed to variation in family characteristics that coincide with having children in differing age groups (i.e., parents of older children may have longer histories of welfare receipt or otherwise face greater risk factors than parents of younger children).

Figure 2 shows these same effects by program model—for programs with generous earnings supplements (those that provided financial supplements tied to work) and other program models (programs with mandatory employment services and a program with time limits, both without generous supplements). We find positive (albeit small) impacts more pronounced in those programs

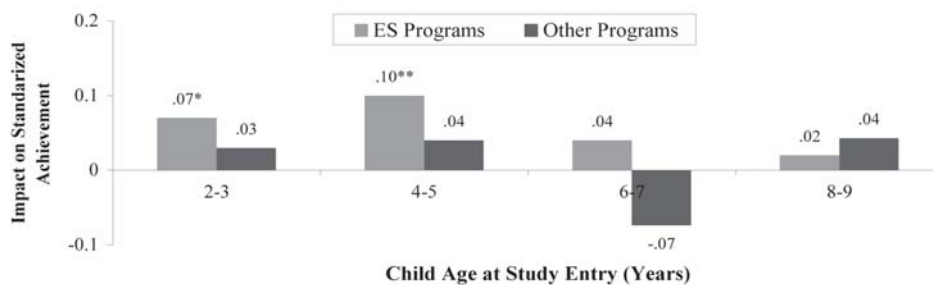
with generous earnings supplements for the children ages 2-3 years and 4-5 years at the beginning of these studies. The other programs have no statistically significant impacts, either positive or negative. While suggestive, differences in impacts between the two sets of programs are not statistically significant.

Short- vs. Longer-Term Effects of Earnings Supplement Programs

Are the benefits of earnings supplement programs for preschool children sustained over the longer term? Because the policy interventions being evaluated ended after three years, and because evidence suggests that effects on parents' economic outcomes largely faded soon after the policies ended, longer-term follow-up on children can assess whether benefits to children are sustained in the absence of continuing effects for their parents. New data available allow us to investigate the effects of these policies for a subset of children in a subset of the studies for which we have data in both the short term (2-3 years after parents

We find positive (albeit small) impacts more pronounced in those programs with generous earnings supplements for the children ages 2-3 years and 4-5 years at the beginning of these studies.

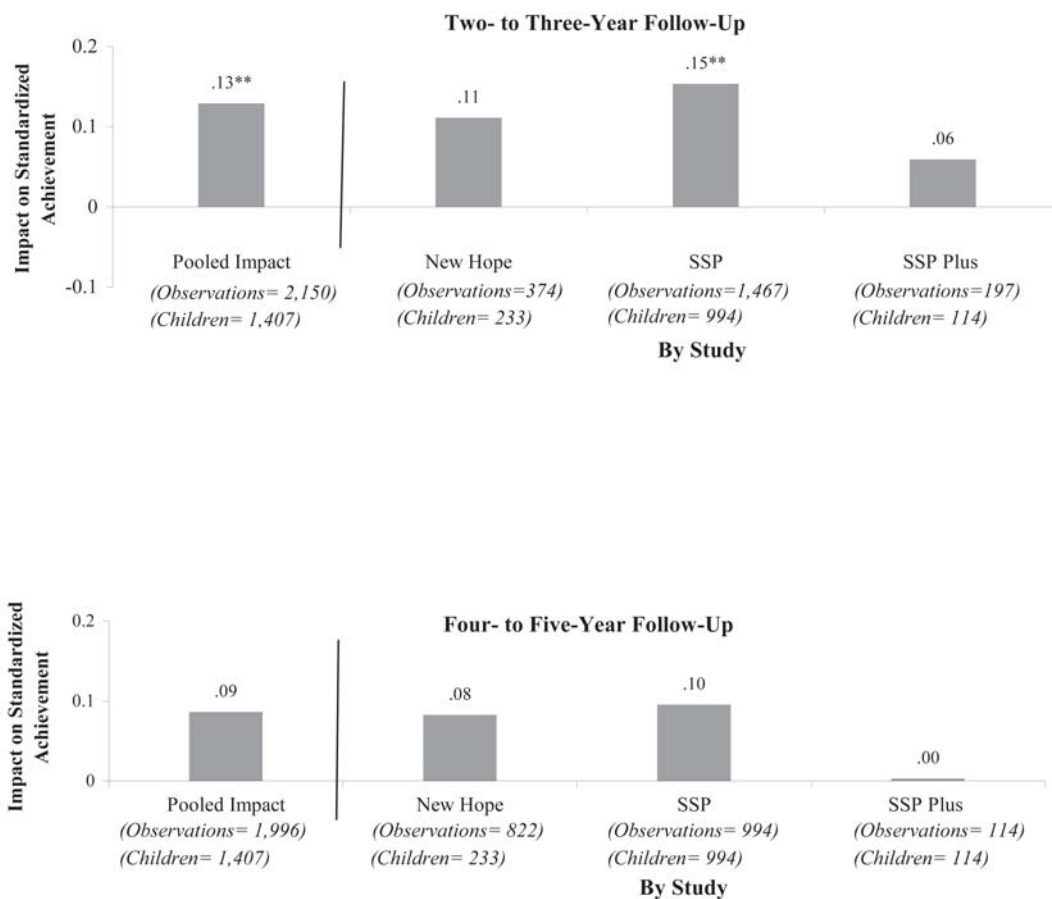
Figure 2: Impacts on Children's School Achievement Across Developmental Periods, by Age and Program Type



Notes: ES=Earning Supplement Program. 'Impact' is the difference between randomly assigned programs and control groups. Statistical significance levels are indicated as: † $p < 0.10$ * $p < .05$ ** $p < .01$. Data include assessments of children's school achievement based on parent report, test score, and teacher reports two to five years after parents entered the programs (see Morris, Duncan, & Clark-Kauffman, in press).

entered the programs) and the longer term (at least 4-5 years after parents entered the programs). For simplicity, we focus on the children age 2-5 at the beginning of these studies together because positive impacts were found for both of these preschool-age groups (ages 2-3 and 4-5).

Figure 3: Impacts on School Achievement for Two- to Five-Year Olds at Study Entry for Generous Earnings Supplement Programs, by Length of Follow-up



Notes: SSP = Canadian Self-Sufficiency Project. 'Impact' is the difference between randomly assigned programs and control groups. Statistical significance levels are indicated as:
 † $p < 0.10$ * $p < 0.05$ ** $p < 0.01$.

In Figure 3, we present the pooled impacts for programs with generous earnings supplement policies with more than one follow-up point, as well as the impacts separately by study. Unfortunately, our data for these analyses rely on only three programs tested in two studies—the Self Sufficiency Project and the New Hope Project. As shown, we find that these programs, averaged together, increased children’s achievement in the short term, while the policy interventions were in place, but effects faded after the programs ended. At 2-3 years of follow-up, these programs increased children’s school achievement by 13% of a standard deviation, a statistically significant increase. At 4-5 years of follow-up, the effects are slightly smaller, 9% of a standard deviation increase, and just approaching statistical significance ($p = .10$).

These effects (at both time points) are small, corresponding to a few percentage point increase in the percentile score on the standardized tests that were used in some of these studies.

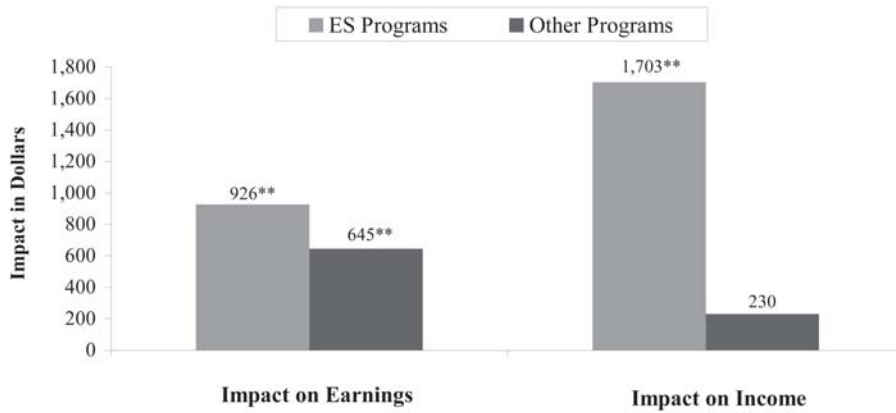
Each of these experiments ended after three years, and thus, by the time of this second follow-up, parents in the program and control group were subject to the same policy or program. At this point, effects on parents’ economic outcomes—the targets of these programs—faded almost completely.⁴ Effects on children show a declining pattern as well. Notably, however, these effects are based on only a limited number of

studies for which we were able to conduct this analysis. Moreover, it is possible that effects endure for those children for whom effects are sustained for parents, or for other subgroups of children, an issue we plan to address in future work.

Why Did Young Children Benefit From Earnings Supplement Policies?

Two possible ways these programs might have benefited children are by increasing earnings and incomes of their parents and by changing the amount and kind of child care arrangements children experienced while parents worked. Earnings supplement programs were intended to increase parents’ earnings, by providing a financial incentive for parents to increase their work effort, and parents’ income, by supplementing the earnings of

Figure 4: Effects on Earnings and Income for Parent's of Two- to Five-Year Old Children, by Program Type



Notes: ES=Earning Supplement Program. 'Impact' is the difference between randomly assigned programs and control groups. Statistical significance levels are indicated as: † $p < 0.10$ * $p < .05$ ** $p < .01$.

those parents who did work. The type of child care arrangements children experienced could be affected in two ways—through expanded child care assistance policies that increased access and availability of center-based arrangements and through program-induced increases in income generated by earnings supplement programs.⁵

First, how do these programs affect parents' earnings and income? Figure 4 shows the effects of these programs on earnings are positive and significant for both programs where earnings supplements are a key policy feature and other programs for parents of 2- to 5-year-old children. Impacts on total family income are found consistently only in the programs with earnings supplements, however. In non-earnings supplement programs, parents' increased earnings were offset by declines in welfare payments resulting in few income gains, whereas programs with earnings supplements effectively increased income by supplementing earnings with welfare payments or supplements provided outside the welfare system. Programs with earnings supplements increased income by \$1,700 per year, whereas other programs increased income by a statistically insignificant \$230 per year. With the average level of income at \$11,854 in the control group, this is a substantial gain for the program group families in the programs with earnings supplements.

The experimental data alone cannot clarify whether it was income alone, or some combination of income, employment, and center-based care that might have brought about the benefits seen for young children.

income, employment, and center-based care that might have brought about the benefits seen for young children.

To answer these questions, we took advantage of both the large sample size and the policy variation available across these studies to estimate the effects of economic circumstances and child care arrangements on outcomes for children. Key to our approach is the fact that random assignment of parents to program and control groups serves as a source of variation in our predictors of interest (income and type of child care) that is unrelated to characteristics of families and children before they entered the programs. Our analyses, using an instrumental variables approach, uses *only* the variation in income and child care

It may appear straightforward to assume that the benefits we observe for children's achievement in programs with earnings supplements are due to the increased income they generated for parents (given the more neutral effects on children's achievement of those programs without earnings supplements that increased earnings alone). A great virtue of experimental analyses is confidence in identifying the causal effect of policy. Such analyses, however, cannot, on their own, disentangle the process by which children were affected. While we know that all of the programs with generous earnings supplements increased employment and income, and several of them also increased the use of center-based child care arrangements, the experimental data alone cannot clarify whether it was income alone, or some combination of

Figure 5: Individual Study Impacts on Parents' Income and Children's School Achievement for Two- to Five-Year Olds

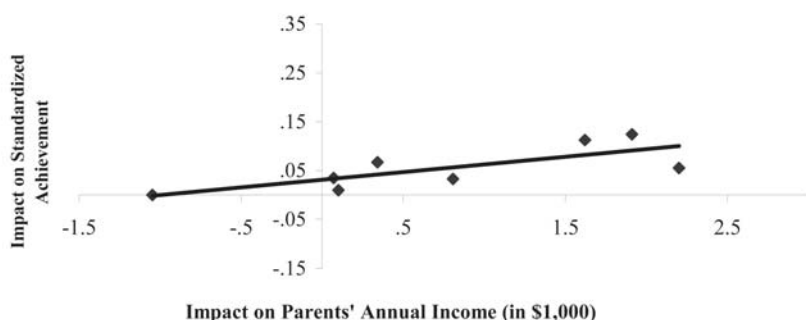


Figure 6: Individual Study Impacts on Parents' Income and Center-Based Child Care for Three- to Five-Year Olds

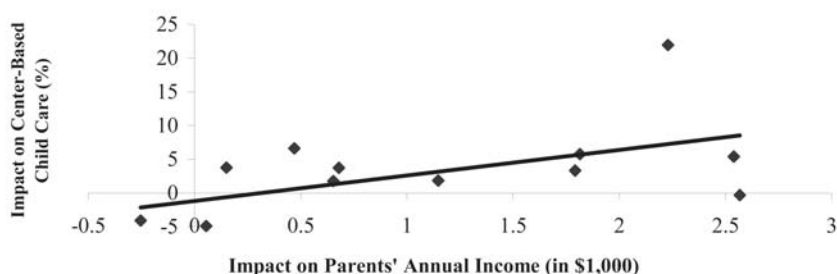
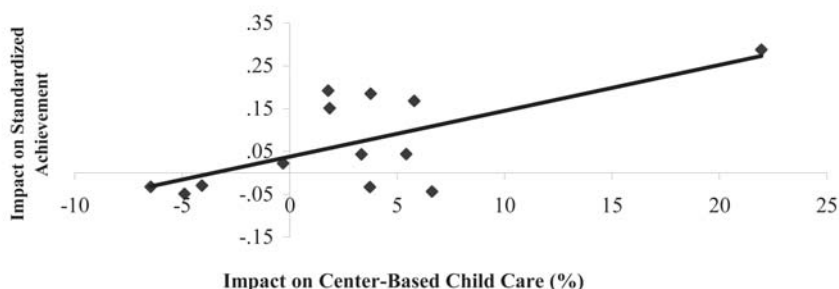


Figure 7: Individual Study Impacts on Center-Based Child Care and Children's School Achievement for Three- to Five-Year Olds



Note: 'Impact' is the difference between randomly assigned programs and control groups. Each point represents the impact from a single study. Data include assessments of children's school achievement based on parent report, test score, and teacher reports two to five years after parents entered the programs (see Morris, Duncan, Rodrigues, 2004; Gennetian, Crosby, Dowsett, and Huston, 2004).

subject to biases that are extremely difficult to identify or control.

Creating a set of instruments from random assignment studies ensures the satisfaction of one key assumption for identifying an instrumental variables model—that the change in income or child care is due to random assignment and not other differences between families. Another key assumption that we pay special attention to is called “the exclusion restriction.” This restriction requires that we have modeled all of the relevant effects of the treatment on child achievement, in estimating the effects of parents’ income or child care on children.

We pursue a variety of methods to address this issue. First, we include other mediators in our models in addition to the mediator of primary interest (including, for example, extent of employment and welfare receipt in models estimating the effects of income). Second, we exclude programs from our analysis that might include alternative pathways to outcomes for children. In the analyses focused on the effects of income, for example, programs that have been shown to have direct effects on the type of child care used by families (those with the expanded child care assistance that was discussed earlier) are excluded, obviating the need to additionally control for child care type. (These methods and findings are described in more detail in Gennetian, Bos, Morris, & Bloom, in press; Gennetian, Crosby, Dowsett, & Huston, 2004; and Morris, Duncan, & Rodrigues, 2004). It is important to note, however, that because these analyses estimate relations between variables that go beyond the experimental analysis, the findings do not meet the same

caused by random assignment to estimate the impacts of these two variables. By comparison, most research to date has been forced to rely on naturally occurring variation in income, child care, and outcomes for children, and is thus

standards in being able to determine causality as pure experimental impacts in well-designed random-assignment studies. In part this is because we can not empirically verify many of the assumptions that underlie the success

of generating estimates using an instrumental variables technique.

Analyses using these methods show that young children's school achievement is improved by the income gains generated by these programs but is not affected by changes in parental employment and welfare receipt occurring at the same time. Driving these results is the pattern of impacts shown in Figure 5, with each point showing impacts on income and child achievement in a single program and site. Programs' impacts on children's achievement are generally larger in the case of programs with the largest impacts on income. Our analysis, that controls for the simultaneous effects on employment and welfare receipt (not shown in the figure), suggests that a \$1,000 increase in annual income sustained on average across 2-5 years of follow-up boosts child achievement by 6% of a standard deviation. Programs with earnings supplements boosted family income for younger children by between \$800 and nearly \$2,200 per year, which corresponds to achievement effect sizes ranging from 5-12% of a standard deviation.

Does use of center-based care partially explain the positive effects of income on children's achievement? For these analyses we broadly focus on the effects of the use of center-based arrangements as compared to home-based care. In Figure 6, we show how impacts on income and center-based care are related. The upward and linear slope suggests that those programs that increased income also increased the use of center-based child care. In fact, additional analyses find that \$1,000 in annual income increases center-based care by a little more than 2 percentage points. At the same time, we find that income has no statistically significant effect on the use of home-based care arrangements.

Figure 7 further presents the relationship between program impacts on center-based care and children's achievement. Similar to the pattern of effects shown in Figure 5, program impacts on the use of center-based child care arrangements are positively associated with program impacts on children's achievement. Our instrumental variables estimates show that the use of center-based care, as opposed to care in someone's home, during a child's preschool years indeed has a positive effect on

school achievement in the early grades of elementary school. Effect sizes are small—an increase of .10 in the probability of being exclusively in center-based care during the preschool years increases achievement by about 10% of a standard deviation. Without controls for child care, these analyses also show a positive effect of increased income for this same age group, a finding that is comparable to the aforementioned findings on the direct effects of income on children's achievement. Once center-based care is included in the model, the positive income effect on children's achievement substantially decreases in magnitude. This finding is not entirely surprising having known the strong relationship between program impacts on income and program impacts on center-based care discussed earlier.

We conclude that both policy-induced increases in income and policy-induced increases in use of center-based care are important determinants of children's cognitive development through these employment- or income-based programs.

We conclude that both policy-induced increases in income and policy-induced increases in use of center-based care are important determinants of children's cognitive development through these employment- or income-based programs. It is difficult to uniquely attribute improvements to children's achievement to one pathway—through income *or* center-based care—possibly because of the indirect effect of program-induced increases in income on center-based care in some of the programs with earning supplements. That any positive effect of center-based care exists for this very low-income sample of children is broadly consistent with prior nonexperimental work showing the

benefits of participation in structured, center-based programs for children's cognitive functioning, even when controlling for the quality of care (Currie, 2001; Currie & Thomas, 1995; Garces, Currie, & Thomas, 2002; Loeb, Fuller, Kagan, & Carrol, 2004; NICHD Early Child Care Research Network, 2002; NICHD ECCRN & Duncan, 2003), as well as with our own hypotheses about the way in which the increased income may have benefited children.

Conclusion and Recommendations

These findings show that welfare and employment policies may provide small benefits for children, although only for children at a particular point in their development and particularly in programs that boost family income. Relative to control-group children, children who are making the transition to elementary school (ages 4-5) when their parents enter a welfare and employment program show improvements in school achievement from

employment-focused welfare policies, and a larger group of preschool children (ages 2-5) appear to benefit from programs with earnings supplements. Because these effects are small and concentrated in particular age groups of children, they support neither the soaring hopes of welfare reform advocates nor the worst fears of welfare reform critics. And, the effects on children begin to fade as impacts on parents' economic outcomes weaken. While not a focus of this report, it is critical to remember that our earlier findings also show that attention should be paid to the possibly negative consequences of welfare and employment policies for adolescents, who seem to face increased difficulties when single parents go to work.

Because these effects are small and concentrated in particular age groups of children, they support neither the soaring hopes of welfare reform advocates nor the worst fears of welfare reform critics.

While these analyses have focused on the effects of welfare policies on young children's cognitive performance and school achievement, we do not mean to imply that effects on socio-emotional aspects of young children's development are unimportant. Prior research has shown that young children's cognitive development may be most sensitive to increases in income (Duncan et al., 1998) and that social development might be sensitive to the type and quality of child care (NICHD ECCRN, 2000, 2003). From prior work not discussed here, our analyses show that, consistent with expectations, the benefits of earnings supplement programs *are* most consistent for school achievement and cognitive test scores as compared to measures of children's social behavior, although effects on social behavior that are observed are positive as well. Furthermore, to date, we find few consistent effects of center-based care on children's social behavior (Crosby, Dowsett, Gennetian, & Huston, 2004). Further work is needed to address the pathways to these effects of welfare and employment policies.

How to think about these effect sizes and their relevance for policy? For young children, our estimates on achievement were 6% of a standard deviation per \$1,000 increase in family income. Translated into an IQ-type scale, this amounts to about one point. The actual earnings supplement programs we tested boosted income by \$1,700 and achievement by 7-10% of a standard deviation for

children who were preschoolers at baseline, and who were between 4-15 when their school achievement was assessed. Unfortunately, we do not know whether an income twice or five times as large would produce proportionately larger achievement impacts. These programs with earnings supplement do come at a modest cost to the government, ranging from \$600 per program group member per year to about \$4,000 per program group member per year, depending on the extent of the employment services offered and the welfare savings generated from the program.

How do the increases in income we observed in these programs compare to those in policies currently in effect? The federal Earned Income Credit (EIC) currently provides nearly \$4,000 per year to a parent with two children who works full time

at a minimum-wage job, a level similar to those in the generous policies examined here. While many states have implemented an "enhanced earnings

Even with the potential benefits offered by these programs, these children in low-income families continue to be at risk for academic failure.

disregard" as part of their welfare reform strategy, in only a few states are the enhanced earnings disregards as generous as the supplements examined here or more so (e.g., Connecticut). Thus, while income increases of this magnitude are not common among welfare recipients, the policies tested are not out of the range of policies currently available to low-income families.

Experimental studies of early preschool intervention programs offering very high-quality services provide one useful point of reference. Effect sizes on IQ were 75-100% of a standard deviation (depending on the length of follow-up examined) for the Abecedarian Project and 60% for the Perry Preschool Project. But costing \$40,000 and \$15,000 per student, respectively, these large effect sizes came at great expense. The Tennessee class size experiment showed that, for \$7,500 per student, smaller K-3 class sizes increased achievement by about one-fifth of a standard deviation (Krueger & Whitmore, 2001).

First, Do No Harm: Welfare and Maternal Employment **Jeanne Brooks-Gunn, Columbia University**

The sea of change that is known as welfare reform has altered the debate about maternal employment, at least for poor children. As of the mid-1990s, no longer were (mostly single, poor) mothers of preschoolers going to be provided financial support; they were going to enter the work force at a level similar to near-poor and more middle-class mothers. The series of *Social Policy Reports* on welfare reform illustrate the changed discourse. This report from the invaluable Next Generation Project synthesizes what has been learned vis-à-vis young children's well-being, or, to be more specific, one aspect of well-being. The emphasis on school achievement reflects the pairing of achievement and readiness, even though the definition of the latter is much broader. As any good report, this one causes reflection and raised several issues for me.

First, I am heartened by the congruence between the current findings with previous research, which for the most part was not experimental. Charting changes in maternal transitions off and onto welfare and into and out of the work place, longitudinal studies suggested that moving off of welfare and into work had no negative effects on preschoolers (Chase-Lansdale et al., 2003; Smith et al., 2001). Indeed, moving off of welfare and ending up with income above the poverty threshold seemed to be associated with better child outcomes (Smith et al., 2001). Related is the link between higher verbal ability scores and lower behavior problem scores and working, for mothers who were on welfare (Brooks-Gunn et al., 2001; Smith et al., 2000). Prior to welfare reform, a majority of mothers receiving welfare also worked, often "off the books," in order to make ends meet, given the erosion in the purchasing power of welfare stipends (as they were not indexed to the CPI, and so were worth less and less over the 1970s and 1980s). Indeed, these earlier results would suggest that worry over harm from working might have been exaggerated, at least for many poor preschoolers.

Second, the authors emphasize that the economic returns to working for poor mothers in the Next Generation Project studies were small yet significant (echoing findings from other sources). Without earnings supplements, moving from welfare to work is not altering the economic well-being of poor families with young children as much as we might have hoped but perhaps about as much as we might have expected (given the low wage employment market, the instability of work, and the high number of mothers working nonstandard hours).

Third, the authors investigate one pathway through which increased income and work might influence young children, specifically child care arrangements. Other mediators or pathways might be operating. Two of the most likely, and ones in which longitudinal studies have found to account for more variance than child care type and quality, are maternal responsiveness and provision of learning experiences in the home (Brooks-Gunn & Markman, 2005; NICHD Early Child Care Research Network, 2002, 2003).

Fourth, for the most part, moving into the work force during the preschool years does not harm and, under some circumstances, might have some benefits on achievement, as this report indicates. However, we do not know if this is true for the very young. Some studies are finding that full-time work in the first year of life (particularly if the mother is not very responsive and child care quality is poor) has negative consequences for preschoolers (Brooks-Gunn et al., 2002). This research has not looked specifically at poor single mothers. However, since the extant literature indicates that the negative effects, when found, occur in more advantaged groups of mothers, it is possible that similar effects will not occur in more disadvantaged mothers, which are affected by welfare reform. We also do not know whether requiring employment will make a difference. About one-half of the states mandate that mothers on welfare go to work during the child's first year of life (i.e., if they do not, the year is counted in their welfare limit). Will these regulations increase the number of poor mothers of infants who are working, and, if so, will children be harmed? Will poor mothers be able to find high-quality infant care, given that infant care overall is of less quality than toddler or preschool care?

References

- Brooks-Gunn, J., Klebanov, P. K., & Lee, K. (2001). Effects of combining public assistance and employment on mothers and their young children. *Woman and Health, 32*, 179-210.
- Brooks-Gunn, J., & Markman, L. (2005). The contribution of parenting to ethnic and racial gaps in school readiness. *The Future of Children, 15*, 139-168.
- Brooks-Gunn, J., Waldfogel, J., & Han, W-J. (2002). Maternal employment and child outcomes in the first three years of life: The NICHD study of early child care. *Child Development, 73*, 1052-1072.
- Smith, J. R., Brooks-Gunn, J., Klebanov, P.K., & Lee, K. (2000). Welfare and work: Complementary strategies for low-income mothers? *Journal of Marriage and the Family, 62*, 808-821.

By comparing the effect sizes for income supplement and early education policies, we do not mean to imply that the two kinds of programs serve the same purpose. Child development is the explicit target of educational interventions, but only one of many possible goals for income supplement policies. But our results suggest that child impacts should figure into the cost/benefit calculus of income transfer programs. And even with the potential benefits offered by these programs, these children in low-income families continue to be at risk for academic failure. In our one study that measured achievement with standardized tests, children scored at about the 25th percentile in the absence of the policy changes, and only at about the 30th percentile with them. While these programs may have meaningful effects on parental employment and income, they have limitations as primary strategies to help most low-income children achieve in school.

Our findings suggest that these program effects on preschool children are, as expected, due in part to the increased income that is generated by the earnings supplement policies. Because achievement by preschool but not school-aged children appears to be affected by family income, perhaps child tax credits or child allowances should be geared to the age of children, with larger credits for the youngest children (Duncan & Magnuson 2003). France's Allocation de Parent Isolé (API) has this feature, with generous income supplements extended only to single-parent families with children under the age of three.

These findings also point to child care being one pathway by which benefits of income occurred, as programs appear to increase income, and, in turn, children's use of center-based care arrangements. Interestingly, parents do appear to increase their use of center-based care arrangements when child care assistance policies expand access to such arrangements. As policymakers grapple with meeting the needs of low-income working families and their children, they should note that these findings suggest that center-based programs could offer benefits that prepare children for school, and that welfare and employment programs can indeed change parents' use of care arrangements in ways that can influence young children's development.

In sum, it is clear that policies that affect parents' economic resources can have implications for the academic success of young children. That these effects can be tied to the income gains of parents and the center-based care experiences of children provides critical information to policymakers about the important secondary effects of strategies to promote the self-sufficiency of low-income parents.

While these programs may have meaningful effects on parental employment and income, they have limitations as primary strategies to help most low-income children achieve in school.

References

- Bloom, D., Kemple, J., Morris, P., Scrivener, S., Verma, N., & Hendra, R. (2000). The Family Transition Program: Final report on Florida's initial time-limited welfare program. New York: MDRC.
- Bloom, D., Scrivener, S., Michalopoulos, C., Morris, P. A., Hendra, R., Adams-Ciardullo, D., et. al. (2002). *Jobs First: Final report on Connecticut's welfare reform initiative*. New York: MDRC.
- Bos, J., Huston, A., Granger, R., Duncan, G., Brock, T., & McLoyd, V. (1999). *New Hope for People with Low Incomes*. New York: MDRC.
- Bradley, R. H., & Corwyn, R. (2002). Socioeconomic status and child development. *Annual Review of Psychology*, 53, 371-399.
- Brooks-Gunn, J., Han, W., & Waldfogel, J. (2002). Maternal employment and child cognitive outcomes in the first three years of life: The NICHD study of early child care. *Child Development*, 73(4), 1052-1072.
- Chase-Lansdale, P. L., Moffitt, R. A., Lohman, B. J., Cherlin, A. J., Coley, R. L., Pittman, L. D., Roff, J., Votruba-Drzal, E. (2003). Mothers' transitions from welfare to work and the well-being of preschoolers and adolescents. *Science*, 299, 1548-1552.
- Crosby, D., Dowsett, C., Gennetian, L., & Huston, A. (2004). Effects of center-based care on the problem behavior of preschool-aged children in low-income, single mother families. Unpublished manuscript. New York: MDRC.
- Currie, J. (2001). Early Childhood Intervention Programs: What do we Know? *Journal of Economic Perspectives*, 15 (2), 218-38.
- Currie, J., & Thomas, D. (1995). Does Head Start Make a Difference? *The American Economic Review*, 85 (3), 341-64.
- Duncan, G. J., & Brooks-Gunn, J. (1997). Income effects across the life span: Integration and interpretation. In G. J. Duncan & J. Brooks-Gunn (Eds.), *Consequences of growing up poor* (pp. 596-610). New York: Russell Sage Foundation.
- Duncan, G. J., Brooks-Gunn, J., & Klebanov, P. K. (1994). Economic Deprivation and Early Childhood Development. *Child Development*, 65, 296-318.
- Duncan, G. J., & Chase-Lansdale, P. (2001). *For Better or For Worse: Welfare Reform and the Well-Being of Children and Families*. New York: Russell Sage.
- Duncan, G., & Magnuson, K. (2003). Promoting the healthy development of young children. In I. Sawhill (Ed.), *One Percent for Kids* (pp. 16-39), Washington, D.C.: Brookings Institution.
- Duncan, G. J., Yeung, W., Brooks-Gunn, J., & Smith, J. R. (1998). Does poverty affect the life chances of children? *American Sociological Review*, 63(3), 406-423.
- Dunifon, R., Kalil, A., & Danziger, S. (2003). Maternal work behavior under welfare reform: How does the transition from welfare to work affect child development? *Children and Youth Services Review*, 25, 55-82.
- Freedman, D., Knab, J., Gennetian, L., & Navarro, D. (2000). The Los Angeles Jobs-First GAIN evaluation: Final report on a work first program in a major urban center. New York: MDRC.
- Fuller, B., Kagan, S., Loeb, S., Carroll, J., McCarthy, J., Krelcher, G., et al., (2002). *New Lives for Poor Families? Mothers and Young Children Move Through Welfare Reform*. The University of California - Berkeley, Teacher's College - Columbia University, Stanford University; Yale University: The Growing Up in Poverty Project.
- Garces, E., Currie, J., & Thomas, D. (2002). Longer Term Effects of Head Start, *American Economic Review*, 92 (4), 999-1012.
- Gennetian, L. A., Bos, J., Morris, P., & Bloom, H. (in press). Constructing instrumental variables from experimental data to explore how treatments produce effects. Chapter 3 in Bloom, H. (ed.) *Learning More From Social Experiments: Evolving Analytic Approaches*. New York: Russell Sage Foundation.
- Gennetian, L. A., Crosby, D. A., Dowsett, C., & Huston, A.C. (2004). Center-based care and the achievement of low-income children. New York: MDRC. Unpublished manuscript.
- Gennetian, L. A., Crosby, D. A., Huston, A. C., & Lowe, T. (2004). How child care assistance in welfare and employment programs can support the employment of low-income families. *Journal of Policy Analysis and Management*, 23, 723-43.
- Gennetian, L., G. Duncan, V., Knox, W., Vargas, E., Clarke-Kauffman, and London, A. (2002). *How Welfare and Work Policies for Parents Affect Adolescents*. New York, NY: MDRC.
- Gennetian, L., G. Duncan, V., Knox, W., Vargas, E., Clark-Kauffman, & London, A. (in press). How Welfare Policies Can Affect Adolescents: A Synthesis of Evidence from Experimental studies. *Journal of Research on Adolescence* 14(4).
- Gennetian, L. A., & Miller, C. (2002). Children and Welfare Reform: A View From an Experimental Welfare

- Program in Minnesota. *Child Development*, 73(2), 601-620.
- Gennetian, L.A., Miller, C., & Smith, J. (forthcoming). Reforming Welfare and Rewarding Work: Effects of the Minnesota Family Investment Program Six Years Later. New York: MDRC.
- Hamilton, G., Freedman, S., Gennetian, L. A., Michalopoulos, C., Walter, J., Adams-Ciardullo, D., Gassman-Pines, A., McGroder, S., Zaslow, M., Brooks, J., & Ahluwalia, S. (2001). *How effective are different welfare-to-work approaches? Five-year adult and child impacts for eleven programs*. Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation and Administration for Children and Families, and U.S. Department of Education.
- Harvey, E. (1999). Short-term and long-term effects of early parental employment on children of the National Longitudinal Survey of Youth. *Developmental Psychology*, 35(2), 445-459.
- Huston, A. (2002). Reforms and child development. *Future of Children*, 12(1), 59-78.
- Huston, A. C., Miller, C., Richburg-Hayes, L., Duncan, G. J., Eldred, C. A., Weisner, T. S., Lowe, E., McLoyd, V. C., Crosby, D. A., Ripke, M. N., Redcross, C. (2003). *The New Hope Project Effects on Families and Children After Five Years*. New York: MDRC.
- Krueger, A., & Whitmore, D. (2001). The Effect of Attending a Small Class in the Early Grades on College-Test Taking and Middle School Test Results: Evidence from Project STAR, *Economic Journal*, 11, 1-28.
- Lipsey, M., & Wilson, D.B. (1996). *Toolkit for Practical Meta-analysis*. Vanderbilt University, Unpublished manuscript.
- Loeb, S., Fuller, B., Kagan, S. L., & Carrol, B. (2004). Child Care in Poor Communities: Early Learning Effects of Type, Quality, and Stability. *Child Development*, 75, 47-65.
- Mayer, S. E. (1997). *What money can't buy: Family income and children's life chances*. Cambridge: Harvard University Press.
- McGroder, S. M., Zaslow, M. J., Moore, K. A., & LeMenestrel, S. M. (2000). *Impacts on Young Children and Their Families Two Years After Enrollment: Findings from the Child Outcomes Study*. National Evaluation of Welfare-to-Work Strategies. Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation and Administration for Children and Families; and U.S. Department of Education, Office of the Under Secretary and Office of Vocational and Adult Education.
- McLoyd, V. C. (1998). Children in poverty, development, public policy, and practice. In I. E. Siegel & K. A. Renninger (Eds.), *Handbook of child psychology* (4th ed.), New York: Wiley.
- Michalopoulos, C. (forthcoming). The effects of earnings supplement policies on parents' economic outcomes in the long term. New York: MDRC.
- Michalopoulos, C., Tattree, D., Miller, C., Robins, P. K., Morris, P., Gyarmati, D., Redcross, C., Foley, K., Ford, R. (2002). *Making work pay: Final report on the Self Sufficiency Project for long-term welfare recipients*. New York: MDRC.
- Morris, P. (2002). The effects of welfare reform policies on children. *Social Policy Report, Society for Research in Child Development*. Vol. XVI (1), 4-18.
- Morris, P., & Duncan, G. (2002). What welfare reforms are best for children? In I. V. Sawhill, R. K. Weaver, R. Haskins, and A. Kane (Eds.) *Welfare reform and beyond: The future of the safety net*. Washington, DC: The Brookings Institution.
- Morris, P., Duncan, G., & Clark-Kauffman, E. (in press). Child well-being in an era of welfare-reform: The sensitivity of transitions in development to policy change. *Developmental Psychology*.
- Morris, P., Duncan, G., & Rodrigues, C. (2004). Does money really matter? Estimating impacts of family income on children's achievement with data from social policy experiments. New York: MDRC. Unpublished Manuscript.
- Morris, P., Huston, A. C., Duncan, G. J., Crosby, D. A., & Bos, J. M. (2001). *How Welfare and Work Policies Affect Children: A Synthesis of Research*. New York: MDRC.
- Morris, P., & Michalopoulos (2000). *The Self-Sufficiency Project at 36 Months: Effects on Children of a Program That Increased Employment and Income*. New York: MDRC.
- NICHD Early Child Care Research Network (1997). Poverty and patterns of child care. In J. Brooks-Gunn & G. Duncan (Eds.), *Consequences of Growing Up Poor* (pp. 100-131). New York: Russell-Sage.
- NICHD Early Child Care Research Network (2000). Early child care and children's peer relationships at 24 and 36 months: The NICHD Study of Early Child Care. *Child Development*, 72, 1478-1500.
- NICHD Early Child Care Research Network (2002). Early child care and children's development prior to school entry: results from the NICHD Study of Early

Child Care. *American Educational Research Journal*, 39, 133-164.

NICHD Early Child Care Research Network (2003).

Does amount of time spent in child care predict socioemotional adjustment during the transition to kindergarten? *Child Development*, 74, 976-1005.

NICHD Early Child Care Research Network & Duncan, G. J. (2003). Modeling the impacts of child care quality on children's preschool cognitive development. *Child Development*, 74, 1454-1475.

Parcel, T. L., & Menaghan, E. G. (1994). *Parent's jobs and children's lives*. New York: Aldine de Gruyter.

Vandell, D. L., & Ramanan, J. (1992). Effects of early and recent maternal employment on children from low-income families. *Child Development*, 63(4), 938-949.

Vandell, D., & Wolfe, B. (2000). Child care quality: Does it matter and does it need to be improved? Commissioned Report to the U. S. Department of Health and Human Services.

Zaslow, M. J., & Emig, C. A. (1997). When low-income mothers go to work: Implications for children. *Future of Children*, 7(1), 110-115.

Footnotes

¹For more information on the Next Generation Project, see www.mdrc.org/NextGeneration.

²All seven of the studies were conducted by MDRC and gathered data with virtually identical methods. An alternative approach to synthesis is to apply meta-analytic techniques (Lipsey & Wilson, 1996) to impacts estimated from the individual studies. The overall results from pooling are identical to those obtained by meta-analysis, and pooling provides considerably more flexibility for estimating the kinds of age-of-child interactions that are central to our research.

³Our analysis pools the data across the studies and estimates child age by experimental status interactions, controlling for site and study indicators. Standard errors are adjusted to account for the nonindependence of observations on siblings and of multiple measures for individual children.

⁴Effects on employment and earnings faded primarily because of increasing employment rates among families in the control group; effects on income faded primarily because program benefits were no longer available once the experiment ended; Gennetian, Miller, & Smith, forthcoming; Michalopoulos, forthcoming.

⁵Each of these programs generally increased the employment of parents of young children and, in turn, increased their use of paid child care arrangements (Gennetian & Michalopoulos, 2003).

⁶That low-income families can generally access an organized care setting that is similar to the quality of care accessed by the families in these programs and that it is of higher quality than home-based care settings is an underlying assumption in our analysis because we do not have information about the quality of care. Although developmental theories and research emphasize quality as the critical dimension determining whether child care will have positive or negative effects, the *type* of care also predicts academic skills independently of observed quality (see Fuller et al., 2002).

About the Authors

Pamela A. Morris is a Senior Research Associate at MDRC and Deputy Director of MDRC's policy area on family well-being and children's development. An expert on the effects of welfare and antipoverty policies on children, Morris leads MDRC's effort to examine the effects of social policies on children's development. She has published numerous articles, including several that use cutting-edge analytic techniques to advance knowledge about the effects of income-based social policies on child development. As a William T. Grant Foundation scholar, Morris' newest work leverages data from an experimental study to examine how changes in parents' depression affect the development of children and adolescents in low-income families. She received a bachelor's degree from Columbia University and a doctorate in developmental psychology from Cornell University.

Lisa A. Gennetian is a Senior Research Associate at MDRC. Gennetian's expertise is in the application of experimental and nonexperimental techniques to answer questions about the effects of social programs on the development of low-income children and the well-being of their families. She is a senior researcher in MDRC's children and families' policy area and has written numerous articles in leading academic journals and policy reports. In her research, Gennetian has applied instrumental variables techniques to experimental data to examine the effects of welfare, employment, and anti-poverty policies on children's outcomes, family structure and relationships, and child care. Gennetian holds a Ph.D. in economics, specializing in economics of the family, from Cornell University.

Greg J. Duncan is the Edwina S. Tarry Professor of Education and Social Policy and a Faculty Fellow at the Institute for Policy Research at Northwestern University. Prior to joining the Northwestern faculty in 1995, Duncan served as principal investigator of the Panel Study of Income Dynamics project at Michigan for the previous 13 years. An economist, Duncan has published extensively on issues of income distribution, child poverty, and welfare dependence, with publications such as *For Better and For Worse: Welfare Reform and the Well-Being of Children and Families* (co-edited with Lindsay Chase Lansdale), *Consequences of Growing Up Poor* (co-edited with Jeanne Brooks-Gunn), and *Neighborhood Poverty* (co-edited with Jeanne Brooks-Gunn and Lawrence Aber). Duncan is a member of the Family and Child Well-Being Research Network of the National Institute of Child Health and Human Development, the National Scientific Council on the Developing Child, the MacArthur Network on the Family and the Economy, and he co-chairs the National Research Council/Institute on Medicine Committee on Evaluation of Children's Health. He was elected to the American Academy of Arts and Sciences in 2001 and to the Governing Council of SRCD in 2005.

Howard Rolston is currently a Nonresident Guest Scholar with the Brookings Institution. Previously he was the Director of Planning, Research and Evaluation in the Administration for Children and Families, U.S. Department of Health and Human Services. For 25 years Rolston had responsibilities in policy and research areas related to welfare and other children and family programs. These responsibilities have included the design and funding of numerous major experimental evaluations. Prior to joining the Department in 1975, Rolston was assistant professor of philosophy at Georgetown University.

Jeanne Brooks-Gunn is the Virginia and Leonard Marx Professor at Columbia University's Teachers College and the College of Physicians and Surgeons. She directs the National Center for Children and Families at Teachers College and Columbia University's Institute of Child and Family Policy.

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