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Welfare-to-Work Programs in America, 1980 to 2005: Meta-Analytic Evidence of the Importance of Job and Child Care Availability

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This meta-analysis extended a Campbell Collaboration review of welfare-to-work programs. Its synthesis of 65 randomized trials in America over the past generation replicated a small overall intervention effect. Moreover, it found (1) there was no long-term employment effect of interventions in areas where jobs were relatively unavailable, and (2) programs that provided child care were more effective than those that did not in the short and long term, even in areas of high labor market withdrawal. The availability of jobs as well as such supports as child care that enable their access seem to be key elements of welfare-to-work programs that work.

KEYWORDS *workfare, welfare reform, job training, job opportunities, labor force participation, labor market, child care services, systematic review, meta-analysis*

It seems that welfare cash assistance programs have always served as a central catalyst for political debates on the American welfare state. They are, after all, extraordinarily costly while their relative social, familial and personal benefits (or harms) have been legitimately debated for more than a generation, with reasonable social and behavioral scientists finding ample

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rational support for both conservative and liberal arguments. Passage of the Omnibus Budget Reconciliation Act in 1981 served to rouse conservative advocacy. In restricting the earnings and assets of welfare recipients so that fewer of them could remain eligible while working, it lent increasing support to the notion that such welfare programs actually serve as potent work disincentives. In response, some states began to rigorously test a variety of so-called welfare-to-work initiatives. Though their central objective was to cut costs by moving people off of welfare caseloads and into paying jobs, many scholars also studied their life space effects. The Family Support Act of 1988 further formalized welfare-to-work programs. It required states to enroll increasing proportions of their Aid to Families with Dependent Children (AFDC) recipients in various job opportunity and basic skills (JOBS) training programs and to rigorously evaluate them. The Personal Responsibility and Work Opportunity Act of 1996 then allowed states even greater freedom to experiment with various strategies (e.g., welfare time limits, work requirements, sanctions) for moving the recipients of Temporary Assistance for Needy Families (TANF), typically single women with children, from welfare to work.

It has been estimated that between two and five billion dollars have been invested in hundreds of such local, statewide, and national welfare-to-work evaluations, many of which were large randomized controlled trials (RCT) (Gorey, 2003), probably representing, in aggregate, the largest social experiment ever accomplished. Recently, teams of principally econometric analysts have begun to extract the wealth of synthetic knowledge contained in this huge national database (Bloom, Hill, & Riccio, 2003; Greenberg, Ashworth, Cebulla, & Walker, 2005). The task seems incomplete, however, as key aspects of intervention programs and study contexts have not yet been adequately addressed: job and child care availability. This study aims to extract this new knowledge from the national welfare-to-work database by means of a unique meta-analysis.

POOLED SECONDARY AND META-ANALYTIC ANALYSES

A meta-analysis or quantitative research review and a secondary pooled analysis together synthesized the findings of 123 mandatory welfare-to-work experiments that were initiated during America's pre-TANF era (Bloom et al., 2003; Greenberg et al., 2005). Intervention group members typically received job search strategic assistance, time-limited work experience, education, and/or training and were compared with control group members who typically experienced usual welfare services. Aggregate findings included (1) modest employment and earnings gains among the intervention group peaked after two to three years and diminished significantly after another two to three years of follow-up; (2) programs that emphasized getting clients into actual jobs first and which proportionally served more older and non-Hispanic white

clients seemed more effective; and (3) only very limited, equivocal support was found for the possible supportive effects of job availability in study areas (unemployment rates used as proxies) or program provision of child care. These analyses served scholarly and policy communities well, especially through their synthesis of overall or main intervention effects. However, their regression explorations of intervention moderations by client, intervention, and contextual characteristics tended to be based on small subsamples and to emphasize regression statistics and statistical significance, rather than on more readily understood effect size indicators of practical significance.

The Campbell Collaboration Systematic Review

A Campbell meta-analytic review that extensively searched for studies from all parts of the world included 73 North American RCTs of mandatory and voluntary welfare-to-work interventions including studies of the post-TANF era (Smedslund et al., 2006). Its observed positive, but rather small overall intervention effects on employment and earnings replicated previous meta-analytic findings. It further validated the notion that work first or labor force attachment strategies are more effective than education and training-based or human capital development strategies. It lent further credence to the notion that intervention effects tend to fade appreciably over time (e.g., observed an aggregate 10% relative diminishment in the risk of unemployment at one-year follow-up [intervention versus control group], but only a 4% risk diminishment after five years). Regrettably, its meta-analytic plan did not account for such length of follow-up differences and therefore confounded all of its moderator variable explorations. Many of these were observed to have no statistical effect (e.g., child care provision) or, though observed to be significant in a statistical sense, their practical significance could be fairly characterized as miniscule (e.g., unemployment rates in study areas). Smedslund and colleagues' (2006, p. 24) most interesting finding did not concern summary intervention effects, but rather their great variability across places. "The local context in which a program was executed had a *much* more powerful effect on the outcome than did the program itself (*italics mine*)."

NEED FOR META-ANALYTIC REFINEMENT

It seemed that the meta-analytic power of the Campbell Collaboration review might be significantly bolstered by better accounting for follow-up length and by enhancing the predictive validity of key moderator variables. This meta-analytic study aims to do just that, and in so doing make its outcomes more relevant to social welfare policy makers. Unemployment, the economic cycle, or job availability proxy used in the previous meta-analysis, is limited in a number ways. It only accounts for those who are still actively

looking for work—labor force participators. It does not meaningfully assess chronic joblessness and consequent labor force withdrawal that can occur when good jobs are not available or accessible (Kain, 1992; Kasarda, 1989). The rate of labor force withdrawal would seem a much better proxy for lack of employment opportunities than the unemployment rate. Moreover, given the extant sociological evidence and this field's typical urban underclass context, the labor market withdrawal (LMW) rate of African-American men would likely be the most predictive such sentinel indicator (Holzer, 2009; Lichter & Oliver, 2000; Wilson 1987, 1996).

The idea that child care would bolster the effectiveness of welfare-to-work interventions among typical TANF clients, women with young children, admittedly, is not ground breaking. It is supported by ample quantitative and qualitative research (Axelsen, Friesner, Rosenman, & Snarr, 2007; Carnochan et al., 2005; Cochi Ficano, Gennetian, & Morris, 2006). Thus it is surprising that previous meta-analyses have generally not supported this notion. It seems possible that some error related to the diffusion of treatment in the primary studies intruded into these meta-analyses. For example, some welfare-to-work with child care interventions may not have differed significantly from their corresponding control groups on actual child care use because of effective control group case management, especially in states that provided child care subsidies. Or case managers working to support their clients with job search and/or training interventions may have also connected more of such "intensively served" clients to child care services, even though child care was not part-and-parcel of the planned welfare-to-work intervention. This meta-analysis will go beyond the mere conceptual definition of interventions to their empirical verifications. Regardless of how an intervention was described, the following question will be asked of each study comparison: Did the intervention and control groups actually differ significantly on their use of child care services?

Key moderators in the present meta-analysis will therefore be LMW among African-American men and the intervention-integral provision of child care, and the effects of these factors will be tested within length of follow-up strata. It aims to synthesize this field's knowledge emphasizing the practical-policy significance of these factors.

METHODS

Selection of the Sample for Meta-Analysis

ORIGINAL CAMPBELL COLLABORATION REVIEW (SMEDSLUND ET AL., 2006)

The following research literature databases were searched (1963 to 2006):

- Campbell Collaboration Trials Register;
- Cochrane Controlled Trials Register;

- Sociological Abstracts;
- Social Science Citation Index;
- International Bibliography of the Social Sciences;
- ERIC;
- PsycINFO;
- Public Affairs Information Service;
- Cumulative Index to Nursing and Allied Health Literature;
- MEDLINE;
- EMBASE;
- Dissertation Abstracts International; and
- System for Information on Grey Literature.

Detailed key word search schemes may be summarized as follows: (welfare-to-work or workfare or numerous acronymic program names [e.g., A Better Chance (ABC), Greater Avenues to Independence (GAIN), Job Opportunities and Basic Skills Training (JOBS), etc.]) and (employment or job or work or income or earnings). These searches were augmented with bibliographic reviews of retrieved manuscripts, a search of the book *The Digest of Social Experiments* (Greenberg & Shroder, 2004), World Wide Web searches of policy research center and government websites, and contact with key informants within this field's scholarly network. In addition, studies had to meet these inclusion criteria:

1. used a randomized controlled trial design;
2. included participants who received welfare cash assistance (Aid to Families with Dependent Children [AFDC] or Temporary Aid for Needy Families [TANF]) and/or food stamps;
3. included interventions with labor force attachment (e.g., time-limited work experience, job search assistance) and/or human capital development (e.g., remedial education, vocational training) components; and
4. assessed work status among intervention and control groups.

Intervention programs that were tested in different places or over different lengths of follow-up were treated as independent hypothesis tests. Seventy-three such independent study endpoints or outcomes comprised the original meta-analytic database (see Table 1 and Included References, Smedslund et al., 2006).

SAMPLE EXTENSION AND REFINEMENT

This study's sampling frame was extended to include *Social Work Abstracts* and *Social Service Abstracts* and searches were extended to January of 2009. Seven independent study outcomes that had been ongoing at the time of the original meta-analysis were added to this study's database (Bloom,

TABLE 1 Primary Study Sample Descriptive Profiles: Percentage Distributions Across 65 Study Outcomes

Contexts	%	Interventions ^b and participants	%
Year Begun ^a		Child Care Provided	30.8
1982 to 1989	29.2	Mandated	87.7
1990 to 1999	60.0	Sanctions enacted	61.5
2000 to 2002	10.8	Time limits	27.7
<i>Mdn</i> = 1992, <i>M</i> = 1992, <i>SD</i> = 4.85		Financial incentives	27.7
Maximum Length of Follow-Up (Years)		Intervention Focus	
1	15.4	Employment alone	41.5
2 to 4	61.5	Employment and education	57.0
5 to 6	23.1	Education/training alone	1.5
<i>Mdn</i> = 2.00, <i>M</i> = 2.79, <i>SD</i> = 1.42			
Region of the United States		Intervention and Control Sample	
Midwest	29.2	444 to 999	10.8
West and Northwest	26.3	1,000 to 2,999	27.7
Northeast	18.5	3,000 to 4,999	32.3
Southwest	13.5	5,000 to 9,999	13.8
South and Southeast	12.3	10,000 to 29,795	15.4
		<i>Mdn</i> = 3,939, <i>M</i> = 5,373, <i>SD</i> = 5264	
Urbanity		Sample Percentage Female	
City-based	75.4	90 to 100%	68.3
Statewide	23.1	80 to 89%	25.4
Rural	1.5	66 to 79%	6.3
		<i>Mdn</i> = 93.00, <i>M</i> = 91.80, <i>SD</i> = 7.13	
African-American Men 16 Years of Age And Over Not in Labor Force		Sample Percentage Minority	
8.7 to 33.2%	36.9	75 to 100% ^c	38.5
33.3 to 39.9%	47.7	50 to 74% ^c	44.6
40.0 to 63.3%	15.4	2 to 49%	16.9
<i>Mdn</i> = 34.20, <i>M</i> = 34.37, <i>SD</i> = 7.56		<i>Mdn</i> = 65.00, <i>M</i> = 64.43, <i>SD</i> = 21.30	

^aTwelve study samples (18.5%) were during the post-TANF era (i.e., 1996 or later).

^bThirty-three study outcomes were from three welfare-to-work programs: Greater Avenues to Independence (GAIN, 7), Job Opportunities and Basic Skills Training/National Evaluation of Welfare-to-Work Strategies (JOBS/NEWWS, 19) and the Employment Retention and Advancement (ERA, 7) Project. The remaining 32 outcomes were from 25 other programs.

^cOf 54 such study samples, 39 were predominantly African American and 15 Hispanic.

Hendra, & Page, 2006; Bloom, Miller, & Azurdia, 2007; Le Blanc, Miller, Martinson, & Azurdia, 2007; Martinson, & Hendra, 2006; Navarro, van Dok, & Hendra, 2007). Fifteen study outcomes that were included in the original meta-analysis were excluded from this one. These were contextual outliers that would likely diminish meta-analytic power. They were excluded for one or more of the following reasons: not United States (two Canadian study outcomes), accomplished prior to 1980 (five study outcomes), sampled teens only (one outcome) or focused on men (four outcomes), were very small (two studies had fewer than 100 participants), followed participants for less than a year (three outcomes) or produced a single gross intervention effect estimate across numerous aggregated places (five outcomes) (Bell &

Orr, 1994; Carcagno, Cecil, & Ohls, 1982; Friedman et al., 1980; Goldman, Friedlander, & Long, 1986; Gordon & Agodini, 1999; Lerman et al., 1986; Masters, 1981; Maynard, Nicholson, & Rangarajan, 1993; Michalopoulos, Card, Gennetian, Harknett, & Robins, 2000; Nelson, 1984; Puma & Burstein, 1994; Quets, Robins, Pan, Michalopoulos, & Card, 2002; Wilkinson & Ross, 1972; Zambrowski, Gordon, & Berenson, 1993). A total of 65 independent study outcomes were included in this meta-analysis.

Meta-Analysis: Labor Market Withdrawal and Child Care Provision Within Follow-Up Strata

The original meta-analysis explored both fixed and random effects models whose pooled findings were essentially identical (Smedslund et al., 2006). That is, their pooled risk ratios typically differed by only a few thousandths of a decimal place. This meta-analysis, on the other hand, specifically contrasted study outcomes by key methodological (short-term versus long-term follow-up), contextual (relatively low versus high labor market withdrawal among African-American men in the study area) and intervention program (child care provided or not) characteristics. Therefore, it used fixed effects models as it assumed substantial homogeneity of intervention effects within specific categories of interest. None of the original meta-analysis' explorations of 31 bivariate moderations of the overall employment effect by all available participant, methodological, and contextual characteristics accounted for length of follow-up (LFU) (see Tables 9, 13 and 14 in Smedslund et al., 2006). Because it essentially averaged the moderation of effects of such disparate studies as those that, for example, followed participants for merely one year with those that followed participants for five years, it confounded the effects of each potential moderator with follow-up length. The present multivariate meta-analysis aimed to solve these problems by focusing on two key moderators—labor market withdrawal and child care provision—and testing their intervention moderating effects within LFU strata: short term and long term.

PROCEDURAL DEFINITIONS OF JOB AND CHILD CARE AVAILABILITIES

The prevalence of labor force nonparticipation among adult African-American men in each study area (metropolitan area, county or state) and time period was taken from the nearest population census, 1990 or 2000 (U.S. Bureau of the Census, 2008). Regardless of each study's conceptual definition of child care, this meta-analytic study's procedural definition was based on the empirical comparison of prevalent child care use among intervention and control groups. When the study's intervention group was significantly ($p < .05$) more able to use child care, it was coded "yes" on child care provision.

Otherwise, it was coded "no." When such data were not available in the primary study reports, similar to previous meta-analyses, conceptual definitions were used. This review's child care definition differed from the Campbell Collaboration review's in six of 65 instances. These variables were abstracted and coded from primary study reports by two raters whose initial agreement was 88.5%. All inter-rater disagreements were then resolved through discussion of differences and recoding of any discordant study reports.

META-ANALYSIS

Study effects (natural logarithm of their relative risks [RR]) were weighted by their inverse variances, computed from estimated standard errors ($1/SE^2$) so that larger, more precise studies, weighed more. Such precision weighted effects were then pooled within key categories using weighted regression models. Pooled relative risks within 95% confidence intervals (CI) were calculated from regression statistics as were tests of heterogeneity within pooled groups (χ^2) and comparisons between groups (z) (Greenland, 1987; Grizzle, Starmer, & Koch, 1969). Sensitivity explorations found that the overall pooled intervention effect (RR = 1.04 [95% CI 1.03, 1.05], 65 study outcomes) differed significantly between the following two groups: followed for less than four years (RR = 1.06 [1.05, 1.07], 48 study outcomes) or for four or more years (RR = 1.03 [1.02, 1.04], 17 study outcomes), $z = 1.73$, $p < .05$. Therefore, the moderation of intervention effects by labor market withdrawal and child care provision will be tested separately within these follow-up strata: short term (1–3 years) and long term (4–6 years).

PRACTICAL POLICY SIGNIFICANCE INDICES

It is well known among experienced meta-analysts that such aggregations of relatively large numbers of studies with relatively large numbers of participants typically render the assessment of statistical significance nearly moot. The overall intervention effect estimate, even if practically miniscule, is bound to be deemed significant in a statistical sense (i.e., 95% CIs will very likely not include the null RR value of 1.00). So in addition to pooled RR estimates, a number of other intervention effect size indices were calculated to shed as much light as possible on the practical policy significance of this study's findings. First, preventive fractions (PF) were calculated from each pooled RR (PF = $[RR - 1]/RR$ (Miettinen, 1974)). In this study's context, this may be defined as the proportion of undesirable outcomes (chronic joblessness) likely prevented by welfare-to-work interventions. Next, the number needed to treat (NNT) was calculated. The NNT is the inverse of the absolute risk reduction (ARR) where the ARR is the difference between the intervention and control group event rates (Laupacis, Sackett, & Roberts,

1988). In this instance it is an estimate of the number of intervention participants needed to produce one employed participant. For example, if closely corresponding to this field's overall pooled effect, a given welfare-to-work intervention resulted in a 55% employment rate among its participants, one would need to enroll 50 initially unemployed participants to produce one additional employed participant ($NNT = 1/[.55 - .53]$, 53% was the aggregate event or employment rate among the control group at follow-up). This metric can be helpful in thinking about intervention cost/benefit ratios. And finally, average annual intervention-control group earnings differences in 2006-equivalent dollars were calculated (Officer & Williamson, 2007). The practical life space significance of this metric among typically low-wage earners attempting to exit welfare seems obvious.

RESULTS

Sample Description

This review of the practical impacts of labor market forces and child care on the short- and long-term effectiveness of welfare-to-work interventions in America is based on 65 study outcomes of employment initiated between 1982 and 2002, followed until 2005 (see Table 1). Most of this research was accomplished in urban areas. Three-quarters of the samples were city-based (75.4%) with the majority of the statewide samples (23.1%) also representative of urban areas. In typical study areas that were dominated by northeastern, western, and midwestern metropolitan areas, approximately one-third of all African-American men had withdrawn from the labor force ($Mdn = 34.2\%$). Boding well for this meta-analysis' power, such labor force nonparticipation varied quite widely, from less than 10% in certain study areas to more than half in some others.

As for the welfare-to-work interventions, nearly all were mandated (87.7%) with some employment component (98.5%, typically job search or time-limited job experience). Sanctions were enacted in the majority of the studies (61.5%), typically affecting one of every five program participants. Time limits and financial incentives were incorporated less often (27.7%), more typically used in post-TANF (1996) experiments. Nearly one-third of the studied interventions provided tangible child care assistance (30.8%), either in-house, through additional subsidies and/or active case management and referral to existing resources. Again, such child care categorical variance served to ensure adequate meta-analytic subsamples for analysis. Finally, consistent with AFDC and TANF service missions, most of the nearly 350,000 people who participated in these experiments were women (93.0%, typically with two children). Two-thirds of the aggregate review sample was comprised of racial or ethnic minority people, predominantly African Americans and Hispanic people, who in fact, were the majority in most of

the studies (84.1%). Clearly, this study's aggregate sample seems highly representative of the urban underclass who received welfare assistance during an extended era of social welfare transitions in America.

Moderating Effects of Job and Child Care Availability

A significant meta-analytic interaction—LMW by LFU—is depicted in the top of Table 2. The moderating effect of LMW differed by LFU strata. Modest intervention effects were consistently observed for short-term evaluations whether labor market withdrawal among African-American men in study areas was relatively low or high, respectively, relative risk (RR) = 1.06 (95% CI 1.05, 1.07) and RR = 1.05 (1.03, 1.07), $z = 0.40$, NS. This effect was only maintained in long-term evaluations in study areas where LMW was relatively low (RR = 1.07 [1.04, 1.10]), whereas, there was no longer evidence of any significant employment effect of welfare-to-work interventions in high LMW study areas (RR = 0.98 [0.96, 1.01]), $z = 4.68$, $p < .05$. When the focus was on an arguably well-resourced homogeneous program such as GAIN, that incidentally provided child care support, a similar intervention effect moderation by LMW was observed even in the short term: low LMW (RR = 1.18 [1.14, 1.22]) and high LMW (RR = 1.09 [1.02, 1.16]), $z = 2.18$, $p < .05$. Although long-term GAIN evaluations were not reported, the aggregate evidence suggests that GAIN's effects have probably been maintained in the majority of the areas studied (three-quarters of the study areas were low LMW areas).

A significant main meta-analytic effect of child care is depicted on the bottom of Table 2. It did not appear to interact with LFU as its protective effects were similar in the short and long term. Welfare-to-work interventions that provided child care support were significantly more effective than those that did not provide such support less than four years (RR = 1.11 [1.09, 1.13] versus RR = 1.03 [1.02, 1.04]), $z = 7.54$, $p < .05$) and up to six years later (RR = 1.11 [1.06, 1.17] versus RR = 1.02 [1.00, 1.04]), $z = 3.26$, $p < .05$). As for practical significance, they were three times as likely to prevent chronic unemployment (9.9% versus 2.9%) and to likely do so with lower cost/benefit ratios. It seems that programs that do not provide child care support need to enroll nearly four times as many participants as do programs with child care to prevent each incidence of chronic joblessness (62 versus 17 participants) and that such child-care-supported welfare recipients end up earning significantly more when they exit welfare to a job.

A child care by LMW interaction was not observed for short-term evaluations (Table 3). Child care had a similar protective impact in study areas where the prevalence of LMW among African-American men was relatively low (RR = 1.12 [1.10, 1.14] versus RR = 1.03 [1.02, 1.04]), $z = 6.41$, $p < .05$) or high (RR = 1.12 [1.09, 1.15] versus RR = 1.02 [1.01, 1.03]), $z = 4.60$, $p < .05$).

TABLE 2 Summary of Welfare-to-Work Intervention Effects Moderated by Length of Follow-up and by Key Labor Market and Intervention Characteristics

	Followed 1–3 years		Followed 4–6 years	
	Prevalence of African American men not in labor force ^a			
	Low*	High*	Low	High
Study outcomes	33	15	14	3
Total participants	156,481	84,628	63,272	44,837
Risk Ratio (95% CI)	1.06 (1.05,1.07)	1.05 (1.03,1.07)	1.07 (1.04,1.10)	0.98 (0.96,1.01)
Preventive fraction	5.6%	4.8%	6.5%	NA
Number needed to treat	31	37	27	NA
Earnings difference (N) ^b	\$660 (30)	\$730 (14)	\$935 (7)	NA
GAIN: Greater Avenues to Independence Program Prevalence African-American Men Not in Labor Force ^c				
	Low	High		
Study outcomes	5	2	—	
Total participants	32,128	6,410		
Risk Ratio (95% CI)	1.18 (1.14,1.22)	1.09 (1.02,1.16)		
Preventive fraction	15.3%	8.3%		
Number needed to treat	10	21		
Earnings difference (N)	\$1,985 (5)	\$870 (2)		
Child care provided as part of the intervention				
	Yes*	No*	Yes	No
Study outcomes	18	30	2	15
Total participants	72,372	168,737	7,573	100,536
Risk Ratio (95% CI)	1.11 (1.09,1.13)	1.03 (1.02,1.04)	1.11 (1.06,1.17)	1.02 (1.00,1.04)
Preventive fraction	9.9%	2.9%	9.9%	NA
Number needed to treat	17	62	17	NA
Earnings difference (N)	\$1,130 (16)	\$425 (28)	\$1,055 (2)	NA

^aHighest quartile (high [38% or more not in labor force]) compared with the lower three quartiles (low [less than 38% not in labor force]).

^bAnnual intervention-control group earnings difference in 2006-equivalent dollars (N = number of studies reporting earnings).

^cHighest quartile (high [40% or more not in labor force]) compared with the lower three quartiles (low [less than 40% not in labor force]).

*Distribution significantly heterogeneous (χ^2 statistic), $p < .05$.

Of the four effect distributions displayed in Table 3, only one, child care not provided within high LMW study areas, was significantly heterogeneous, $\chi^2 (9) = 37.14$, $p < .05$. Explorations found a significantly larger intervention effect among studies of older participants (two study outcomes, mean age 32 and older, RR = 1.11 [1.07, 1.15]) as compared with those of younger participants (eight study outcomes, mean age less than 32, RR = 1.01 [1.00, 1.02]), $z = 2.49$, $p < .05$. No other participant, intervention program, contextual,

TABLE 3 Summary of Welfare-to-Work Intervention Effects Moderated by Child Care Provision within Levels of Labor Market Nonparticipation: Followed Less Than Four Years

	Prevalence of African American men not in labor force ^a			
	Low		High	
	Child care provided as part of the intervention			
	Yes ^b	No ^b	Yes	No*
Study outcomes	13	20	5	10
Total participants	56,751	99,730	15,621	69,007
Risk Ratio (95% CI)	1.12 (1.10,1.14)	1.03 (1.02,1.04)	1.12 (1.09,1.15)	1.02 (1.01,1.03)
Preventive fraction	10.7%	2.9%	10.7%	2.0%
Number needed to treat	16	62	16	94
Earnings difference (N) ^c	\$1,090 (11)	\$400 (19)	\$1,225 (5)	\$450 (9)

Note. There was not enough meta-analytic power to test the 2-way child care by LMW interaction among long-term studies or the 3-way child care by LMW by LFU interaction. One analytic cell was empty (followed 4–6 years, high LMW and no child care).

^aHighest quartile (high [38% or more not in labor force]) compared with the lower three quartiles (low [less than 38% not in labor force]).

^bExcluding one study outcome, not significantly heterogeneous.

^cAnnual intervention-control group earnings difference in 2006-equivalent dollars (N = number of studies reporting earnings).

*Distribution significantly heterogeneous (χ^2 statistic), $p < .05$.

or study methodological characteristic was significantly related to this outcome variability.

DISCUSSION

This meta-analysis of 65 large RCT outcomes of welfare-to-work interventions in America systematically replicated the overall precision weighted finding of a previous one (Smedslund et al., 2006). Both estimated that, on average, such interventions probably diminish the risk of chronic unemployment among welfare recipients by only 4%. The previous Campbell Collaboration review provocatively observed that local study contexts seemed to influence outcomes more than did the programs themselves, but could not adequately account for such study context variability in its analyses. Improving key variable validities and extending the sample of studies well into the post-TANF era, this review generated evidence strongly suggesting that the availability of jobs in the areas studied and the provision of child care support with welfare-to-work interventions accounts for most such contextual outcome variability. In fact, this review clearly demonstrated that such job and child care resources were not only more influential than the welfare-to-work interventions themselves, but that they probably accounted for nearly all apparent program successes. For example, aggregate long-term

intervention effects in areas of hypothesized low job availability (i.e., high LMW areas) or of programs that did not provide any additional child care support were null, and their combined short-term effects (i.e., high LMW and no child care) were nil, that is, they had a statistically significant though practically near meaningless impact on employment.

Interpretations of the generally small effects of welfare-to-work interventions by this and previous of this field's meta-analyses ought to consider their typically, quite conservative, comparator; that is, aggregate control group members who typically received usual welfare program—AFDC or TANF—services. Recall that more than half of this meta-analysis' control group (53%) had exited welfare to a job by the time of aggregate study end-points. During a period of economic growth, the majority of welfare recipients found jobs without benefit of welfare-to-work program mandates, sanctions or typically meagre training and work experience. This finding not only provided a resounding refutation of the welfare dependency myth, but also a reasonable defense for use of a usual welfare service control group. Given this meta-analysis's focus—the effects of environmental, social-economic, forces—it seems to have great policy utility. It essentially provided precise control for the personal behavioral characteristics of welfare recipients themselves, which were, after all, the target of many welfare reform policies. This study's central findings suggested that they are, in fact, of near inconsequence, whereas, social forces seem clearly to be of great consequence. Social policies, the economy, and even the physical contexts of contemporary urban environments shape the availability and accessibility of employment and other opportunities (Coulton, 2003; Kain, 1992; Kasarda, 1989; Wilson, 1987, 1996; Ziliak, Figlio, Davis, Connolly, 2000). This study's findings are consistent with the notion that welfare recipients are as likely as other Americans to avail themselves of all such opportunities that are truly available to them. Policy makers grappling with challenges in the future would better serve all Americans by focusing on so shaping social, economic, and physical environments, rather than the people who live in them.

Possible Meta-Analytic Review Limitations

An asymmetrical “trimmed and filled” funnel plot (Duval & Tweedie, 2000) of study standard errors by the natural logarithm of their employment relative risks provided some indication of publication bias in the Campbell Collaboration review (Smedslund et al., 2006). The same was true of this review, thus it is likely that a few of the smaller studies with larger, statistically significant, effects were published, whereas, some null findings may not have been. It should be noted though that any such bias that may have intruded would serve to make this study's aggregate small effect (e.g., $RR = 1.04$), if anything, an overestimate of the truth (de Smidt & Gorey, 1997; Grenier & Gorey, 1998). None of the primary studies of the employment

effectiveness of welfare-to-work interventions, however, were designed to test the specific effect modifiers that this meta-analysis did: labor market withdrawal and child care provision. For this and the following reasons publication bias seems highly unlikely to be a potent alternative explanation for this review's findings: (1) sample sizes were quite large (only one was less than 500) and did not differ significantly between key strata of meta-analytic variables (LFU, LMW or child care); (2) sample sizes were not significantly associated with effect sizes within such key strata; and (3) exemplary fail-safe N s at $p < .05$ for two key findings (13 study outcomes of child care provision in low LMW areas and 5 such outcomes in high LMW areas, Table 3), were found to be 198 and 34, respectively (Rosenthal, 1979). These are the estimated number of studies with null findings that would have to exist in file drawers to change this review's central conclusions. These fail-safe N s were approximately 15 and 7 times the number of respective study outcomes included in this review, so it seems highly resistant to the potential impact of unretrieved null results.

CONCLUSION

Child care clearly seems the key element of welfare-to-work programs that work. It ought to be integral in any future interventions to assist welfare recipients or other families at similar risk of joblessness. It seems equally clear that it is the availability of good jobs that ultimately matters most. Pro-active social economic policies that positively affect such job availability will always be more effective than reactive social welfare policies that aim to affect the jobless themselves.

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