

## **Effects of Maternal Work Incentives on Adolescent Behaviors**

Dhaval Dave  
Hope Corman  
Ariel Kalil  
Ofira Schwartz-Soicher  
Nancy E. Reichman

Acknowledgements: This research is supported by the Eunice Kennedy Shriver National Institute of Child Health & Human Development of the National Institutes of Health under Award Number R01HD086223 and by the Robert Wood Johnson Foundation through its support of the Child Health Institute of New Jersey at Robert Wood Johnson Medical School, Rutgers University (grants 67038 and 74260). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Robert Wood Johnson Foundation.

Robert Moffitt's Presidential Address to the Population Association of America in May 2014 highlighted the dramatic changes in public support for poor families over recent decades in the U.S. and pointed to the need for studies of the effects on children of the substantial (and unreversed) reduction of the cash assistance safety net for poor families that took place in the 1990s (Moffitt 2015). In this study, we address this gap by exploring the effects of welfare reform, which dramatically limited cash assistance for low-income mothers and their children, on adolescent behaviors that are not only important for children's socioeconomic trajectories and societal well-being, but also can occur within a relatively short time frame and represent early observable consequences of the reforms for the next generation as they transition to adulthood.

The U.S. 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) and similar policies that preceded it (collectively referred to as welfare reform) aimed to reduce dependence on cash assistance by aggressively encouraging maternal employment through the imposition of work requirements and time limits. The reforms have been successful in that welfare caseloads have declined dramatically—78% since their peak in

1994 (ACF 2018). Employment of low-skilled women also increased in the aftermath of the reforms and at least some of the increases can be attributed to welfare reform (Fang & Keane, 2004; Ziliak, 2016). In addition, recent studies found that welfare reform led to declines in women's substance abuse (Corman et al., 2013; Kaestner & Tarlov, 2006) and crime (Corman et al., 2014) as well as increases in women's civic participation in the form of voting (Corman, Dave & Reichman, 2017).

An implicit assumption behind the reforms was that a work-focused regime would not only encourage mainstream behaviors of mothers, but would also disrupt a transmission of welfare dependence to the next generation. However, few studies have considered how the new regime has affected social behaviors of children who are old enough to make autonomous decisions or more generally tested the intergenerational “culture of poverty” argument.<sup>1</sup> Exceptions include quasi-experimental studies finding that PRWORA led to decreased high school dropout and likely decreased teen fertility (Dave et al. 2012; Kaestner, Korenman & O'Neill 2003; Koball 2007; Lopoo & Deleire 2006; Miller & Zhang 2012; Offner 2005), at least in part through its “minor mother” restrictions that mothers under 18 years old participate in education or training activities and live with a parent or legal guardian. Thus, for these outcomes, which applied to teenage girls who were mothers or at risk of becoming mothers, welfare reform had socially favorable effects on the next generation. However,

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<sup>1</sup> Syntheses of pre-PRWORA welfare reform experiments (“waivers”), which included features such as work requirements and time limits that later were included in the PRWORA legislation did not find consistent evidence of effects of work incentives on adolescent delinquent behaviors such as having trouble with the police or being suspended or expelled from school (Gennetian et al., 2002, 2004; Grogger and Karoly 2005). However, the welfare experiments were conducted in specific contexts, tended to have small samples of adolescents, and often did not measure adolescent behavioral outcomes. Analyses based on the post-PRWORA Three-Cities Study generally found that maternal transitions into (off of) welfare were adversely (favorably) associated with teens' delinquent behaviors including substance use, while transitions into (out of) work had associations in the opposite direction (Chase-Lansdale et al., 2003; Chase-Lansdale et al., 2011; Coley et al., 2007; Lohman et al., 2004). Using the same data, Mahatmya and Lohman (2011) found no associations between welfare transitions, employment transitions, or stable employment and teen delinquency. None of the Three Cities studies addressed selection into welfare or employment transitions.

welfare reform imposed multi-faceted incentives (e.g., maternal employment, time-limited cash assistance) that applied to teens much more broadly—i.e., did not specifically target minor mothers.

Other salient exceptions are Corman et al. (2017a) and Corman et al. (2017b), which exploited the implementation of welfare reform in the U.S. across states and over time to estimate effects of welfare reform on youth arrests for drug-related (Corman et al. 2017a) and non-drug-related (Corman et al. 2017b) crime using aggregated arrest data from the Federal Bureau of Investigation. Corman et al. (2017a) found that welfare reform led to increases in drug-related arrests for teens ages 15 to 17, but cautioned that this finding was preliminary, not fully robust, and should be further explored. Corman et al. (2017b) focused on crimes categorized as serious (violent offenses such as assault, rape, and murder, as well as serious property offenses such as burglary, possession of stolen property and vandalism) and minor (such as disorderly conduct, driving under the influence, and curfew and loitering law violations) and found that welfare reform led to reduced arrests for minor crimes among youth ages 15–17 years, but that it did not affect youth arrests for serious crimes. Arrest data do not include crimes that do not result in arrests and only capture behaviors that are sufficiently severe and apparent that they result in chargeable criminal arrests, and also contain limited information on the characteristics of individuals committing the crimes. As a consequence, Corman et al. 2017a & b were limited in terms of the specific types of crime, potential mechanisms, and heterogeneous treatment effects they could explore.

Finally, Hartley, Lamarche and Ziliak (2017) estimated the effects of welfare reform on the intergenerational transmission of welfare participation using data from the Panel Study of Income Dynamics in difference-in-differences models and found that welfare reform

attenuated the intergenerational transmission of welfare participation by more than 50 percent.<sup>2</sup> However, the mechanisms underlying this finding could reflect very different processes, with starkly contrasting implications for the next generation. For example, maternal employment can increase family resources, lead mothers to model socially desirable behavior, and change youths' expectations about welfare as a long-term option, which may favorably affect adolescents' behavior and potentially their longer-term outcomes including self-sufficiency (i.e., non-reliance on welfare). However, some families may not have achieved greater financial security under the new regime or may have confronted new work/family challenges (such as time available for child supervision), which could adversely affect adolescents' behavior and potentially their longer-term outcomes. In the latter case, lack of welfare participation of the next generation would not be a marker of economic success.

In this paper, we investigate the effects of welfare reform, which was implemented in the U.S. in the 1990s but is very much in effect today—on a range of behavioral outcomes of teens or adolescents (terms we use interchangeably for brevity) ages 13–17 years. We focus on this age range, as opposed to younger children, based on: (1) the literature on identity formation (e.g., Adams & Montemayor 1983; Marcia 1980; Wigfield & Wagner 2005)—the process of integrating experiences and characteristics into a stable identity and making decisions that align with that identity, which begins in childhood but takes hold during adolescence, and (2) theoretical and empirical research showing that adverse experiences (e.g., economic pressure) lead to negative affect and conflict in the household and suboptimal parenting, which can compromise adolescents' development of competencies that protect them from those risks and increase their risky behavior (IOM 2011). These children are also at

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a critical stage of their lifecourse trajectories and their behaviors are important determinants of future economic success and health.

Using two nationally representative datasets—Monitoring the Future, which includes repeat cross-sectional surveys of junior high school or middle school and secondary school students, and the National Longitudinal Survey of Youth (NLSY) 1979, we estimate the effects of welfare reform on a range of adolescent behaviors. We consider both socially-desirable behaviors (volunteering and participating in clubs/teams/activities) and socially-undesirable activities (getting into serious fights, damaging property, hurting others, and specific types of substance use). We use data for the years 1990 to 2006, an observation window that envelops the full implementation of welfare reform. Our difference-in-difference-in-differences methodology exploits variations in the implementation of welfare reform across states, over time, and across target and comparison groups who were, respectively, at high and much lower risk of relying on welfare but otherwise similar. The Monitoring the Future data include an extremely rich set of behavioral outcomes with very large sample sizes, while the NLSY is much more limited in terms of those features but allows us to exploit the longitudinal nature of the data. We conduct numerous specification checks and tests to gauge the validity of the identification assumptions underlying our methodology; investigate differential effects by gender, as suggested by findings in the developmental psychology literature, as well as by the child's age and other characteristics; and explore the contribution of potentially mediating factors, including maternal employment, time unsupervised after school (for younger children), and the teen's own employment.

## **Preliminary results**

In Tables 1 and 2, we present preliminary results based on Monitoring the Future (MTF) data, pooled from 1991 through 2006 for children ages 13-16 (from the 8<sup>th</sup> and 10<sup>th</sup> grade MTF surveys). Means and sample sizes are presented in Table 1 for each behavioral outcome, for all teens as well as by gender. Girls were generally more likely than boys to engage in pro-social activities (volunteering and school activities), whereas boys were more likely than girls to engage in anti-social behaviors such as fighting, theft, and damaging property. There were no striking gender differences in the rates of substance use (alcohol, smoking, and marijuana).

In Table 2, we present difference-in difference-in-differences estimates of the effects of effects of welfare reform on each of the teen behaviors, for teens overall as well as by gender. These regressions compare teens in a “target” group (those whose mothers were unmarried and had a high school education or less) to their peers with similarly low-educated mothers, but whose mothers were married and thus less likely to be eligible for welfare. Each cell indicates the estimated effect of welfare reform and its p-value for a different outcome/sample as indicated in the corresponding rows and columns, controlling for the child, mother, and state characteristics detailed in the table notes. These preliminary results suggest that welfare reform led to a reduction in volunteer activities and increases in fighting, damaging property, and marijuana use among teens, with the effects on the delinquent behaviors confined to boys. With only one exception (school activities for girls), the results consistently suggest that welfare reform resulted in worse teen behavior (less pro-social behavior and more anti-social behavior).

These preliminary findings suggest that while welfare reform may have had favorable effects on social behaviors of mothers (at least in terms of reduced crime and increased civic participation (voting), the only social outcomes previously studied in this context), the

intergenerational effects on adolescent social behavior were, for the most part, unfavorable and do not support longstanding culture of poverty arguments.

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**Table 1: Means and sample sizes, overall and by gender, for each behavioral outcome**

<b>Behavioral Outcome:</b>	<b>All children Ages 13-16 years</b>		<b>Males Ages 13-16 years</b>		<b>Females Ages 13-16 years</b>	
	Mean	N	Mean	N	Mean	N
<b>Volunteers</b> (at least once a month)	0.24	166,887	0.21	73,855	0.27	90,903
<b>Engages in school activities/clubs</b>	0.43	68,681	0.33	29,930	0.51	37,986
<b>Engaged in serious fight</b> (past year)	0.23	55,246	0.29	23,952	0.19	30,613
<b>Damaged property</b> (past year)	0.16	68,982	0.21	29,795	0.13	38,325
<b>Stole something</b> (past year)	0.27	69,427	0.34	30,028	0.23	38,529
<b>Cut school</b> (past 4 weeks)	0.16	158,510	0.15	69,702	0.16	86,848
<b>Any alcohol</b> (past 30 days)	0.32	157,556	0.33	69,594	0.32	86,022
<b>Any marijuana</b> (past 30 days)	0.12	164,805	0.14	72,841	0.11	89,891
<b>Smoked</b> (past 30 days)	0.21	164,862	0.20	72,991	0.22	89,788

Data source: Monitoring the Future Surveys, 8th and 10th graders, 1991-2006

Note: Ns are numbers of cases available for analysis, which varied by outcome—even for the same group—owing to the structure of the data collection (i.e., some questions were asked only of subsamples of respondents).

**Table 2: Difference-in-difference-in-differences estimates of the effects of welfare reform on youth behaviors**

<b>Behavioral Outcome:</b>	<b>All children Ages 13-16 years</b>	<b>Males Ages 13-16 years</b>	<b>Females Ages 13-16 years</b>
<b>Volunteers</b> (at least once a month)	-0.01*** (.01)	-.01* (.06)	-.01* (.08)
<b>Engages in school activities/clubs</b>	.01 (.52)	-.02 (.28)	.02** (.07)
<b>Engaged in serious fight</b> (past year)	.01** (.05)	.03** (.03)	.00 (.86)
<b>Damaged property</b> (past year)	.01** (.02)	.02 (.14)	.01 (.33)
<b>Stole something</b> (past year)	.01 (.27)	.02 (.34)	-.00 (.74)
<b>Cut school</b> (past 4 weeks)	.00 (.91)	.01 (.44)	-.00 (.65)
<b>Any alcohol</b> (past 30 days)	-.01 (.19)	-.00 (.76)	-.01 (.15)
<b>Any marijuana</b> (past 30 days)	.02*** (.01)	.02*** (.01)	.02*** (.01)
<b>Smoked</b> (past 30 days)	.01 (.32)	.00 (.81)	.01 (.27)

Data source: Monitoring the Future Surveys, 8<sup>th</sup> and 10<sup>th</sup> graders, 1991-2006

Notes: Each cell of figures indicates the estimated effect of welfare reform on the behavioral outcome (OLS estimate, with p-value in parentheses) from a separate model that controlled for the child's age, grade, gender, and race; mother's education and mother's marital status; month and year of interview; state-level measures of unemployment rate, poverty rate, EITC rate, refundable state EITC, minimum wage, Medicaid beneficiaries, personal income, school lunch participation, school breakfast participation, and population. \* p < .10; \*\* p < .05; \*\*\* P < .01