

## **Has Welfare Reform Increased Women's Civic Participation?**

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The broad goal of the landmark welfare reform legislation in the U.S. in the 1990s was to reduce dependence on government benefits by promoting work, encouraging marriage, and reducing non-marital childbearing. The legislation represented a convergence of dissatisfaction with the welfare system on both sides of the political spectrum, with welfare participation becoming viewed by many as a cause of dependence rather than a consequence of disadvantage. The key strategy for reducing dependence was to promote employment by imposing work requirements as a condition for receiving benefits as well as time limits on receipt of cash assistance. The basic argument was that labor force participation would break a “culture of poverty” by increasing self-sufficiency and reconnecting members of an increasingly marginalized underclass to the mainstream ideals of a strong work ethic and civic responsibility (Katz 2001).

In terms of increasing employment of low-skilled women and decreasing welfare caseloads, welfare reform has been deemed a great success. Temporary Assistance to Needy Families (TANF) caseloads declined by 50% between 1997 and 2011 alone, and over half of TANF cases are now “child only,” meaning that adults in the household are not eligible (Loprest

2012). Employment rates of low-skilled mothers rose dramatically since the early 1990s, and there is strong consensus that welfare reform played a major role (Schoeni & Blank 2000; Ziliak 2006).

A handful of studies have found that welfare reform reduced undesirable behaviors that have often been ascribed to “welfare as we knew it,” providing some support for the mainstreaming argument. Paxson & Waldfogel (2002) found that work requirements under welfare decreased child maltreatment. Kaestner & Tarlov (2006) found that welfare reform reduced adult women’s binge drinking. Corman et al. (2013) found that welfare reform led to declines in illicit drug use among women at risk for relying on welfare, with some evidence indicating that the effects operate, at least in part, through work incentive policies. Corman, Dave, and Reichman (2014) found that welfare reform led to reductions in women’s property crime. This emerging literature supports the widely-embraced argument that welfare reform discourages anti-social behavior and suggests that disenfranchised women have been brought from the margins to the mainstream. However, as far as we know, the only studies that have directly tested the widely-held assumption that welfare reform encourages mainstream behavior (other than work, which is required) have focused on marriage or non-marital fertility and have revealed weak or ambiguous effects (e.g., Blank 2002, Grogger & Karoly 2005, Gennetian & Knox 2003). To directly test the “culture of poverty” argument that making welfare much less of an option encourages personal and civic responsibility, it is necessary to go beyond marital status by considering direct measures of mainstream behavior.

In this paper, we investigate the effects of welfare reform on voting, which is an important form of civic participation in democratic societies but a fundamental right that many citizens do not exercise. Exploiting changes in welfare policy across states and over time, and

comparing relevant population subgroups within an econometric difference-in-differences framework, we use the November Current Population Surveys to estimate the causal effects of welfare reform on women's voting registration and voting participation from 1990 to 2004, the period during which welfare reform unfolded. We explore the extent to which the effects appeared to operate through employment as well as the extent to which effects varied by specific state welfare policies. The findings provide important information that promises to inform culture of poverty debates and provide a more complete picture of the effects of a major policy shift in the U.S. that is still very much in effect today. The findings also make an important contribution to the multi-disciplinary literature on the determinants of voting by providing a strong test of the effects of employment, as well as to the political science literature on how citizens' experiences with government programs affect their political participation.

## **Background**

### *Welfare reform in the U.S.*

The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996, often referred to as welfare reform, ended entitlement to welfare benefits under Aid to Families with Dependent Children (AFDC) and replaced the AFDC program with TANF block grants to states. Features of the legislation were time limits on cash assistance, work requirements as a condition for receiving benefits, stricter sanctions for non-compliance with work requirements and other program rules, stronger child support enforcement, and family caps that limited benefits for additional children. The broad goals of PRWORA were to reduce dependence on government benefits by promoting work, encouraging marriage, and reducing non-marital childbearing. Although welfare reform is often dated to the landmark 1996 PRWORA legislation, reforms actually started taking place in the early 1990s when the Clinton

Administration greatly expanded the use and scope of “welfare waivers.” Many policies and features of state waivers were later incorporated into PRWORA. However, PRWORA departed from its waiver precursors by imposing a “work first” approach that was designed to not only reduce welfare dependence, but also to reconnect members of an increasingly marginalized underclass to the mainstream ideals of a strong work ethic and civic responsibility (Katz 2001). PRWORA granted considerable discretion to states in establishing welfare eligibility and program rules. As a result, there is substantial state policy variation within the broad national regime of time-limited cash assistance for which work is required.

### *Employment, welfare, and voting*

Glaeser, Laibson & Sacerdote (2002) examined individual investments in activities that create “social capital,” defined broadly as connections within social networks such as community organizations and religious institutions. Individuals choose to engage in such behaviors if the benefits outweigh the costs. By increasing employment, welfare reform may increase civic participation (including, perhaps, voting) by shifting women from the individualistic job of homemaker to more socially interactive occupations and increasing their participation in unions, but it could also decrease civic participation through an increase in the opportunity cost of time. Welfare reform may also increase civic participation as a result of the new normative climate of increased personal and civic responsibility. In terms of voting in particular, Feddersen (2004) offered theoretical reasons why individuals vote even though doing so imposes a cost and is unlikely to affect the outcome, one of which involves belonging to a social network that has a stake in the election’s outcome.

Consistent with much empirical literature, Farber (2009) found using the 2004 and 2006 November Current Population Surveys that more educated individuals are more likely to vote

and that voter turnout is substantially higher among those employed in the public sector than in either the private sector or among the non-employed, suggesting that both employment and connections to government may increase political participation. Findings by Schur (2003), using data from two nationally-representative U.S. household surveys conducted by the Rutgers Center for Public Interest Polling following the November elections in 1998 and 2000, suggest that being employed increases an individual's political activities through increased income, civic skills, political efficacy, and recruitment at work. However, although voting behavior has been studied by political scientists, psychologists, survey researchers, and economists, and we know that employment is a strong correlate of voting behavior, existing studies have not produced strong evidence of causal effects of employment on voting.

As far as we know, no studies have examined the causal effects of welfare policy on voting or any other form of civic participation. However, a growing literature in political science suggests that citizens' experiences with social welfare programs can affect political participation—e.g., by giving recipients a stake in maintaining or enhancing program benefits or by providing resources that facilitate political action (see Bruch, Feree & Soss (2010)). A qualitative study of community leaders found that the time constraints of complying with TANF requirements reduce community-building activities on the part of women (Jennings 2001). This finding—that time and resource constraints detract from civic participation—stands in contrast to assumptions on both sides of the political spectrum that welfare reform encourages mainstream behaviors. It also stands in contrast with the literature on socioeconomic characteristics and voting behavior, which suggests that employment increases voting but has not focused on the important but specific population of women at risk for relying on welfare. On the other hand, Andersen, Curtis & Grabb (2006) found that civic participation of American women decreased

during the 1990s while it increased in other developed countries, and speculated that increasing time commitment to paid work alongside declining levels of public support may be responsible. However, the links between welfare, employment, and civic participation in the U.S. were not empirically established in that study. Moreover, voting—which the authors did not study—is likely to impose fewer time constraints than would other forms of civic engagement.

### **Data and measures**

We use data from the November Current Population Surveys (CPS) with the added Voting and Registration Supplement for the years 1990 through 2004, which span the implementation of welfare reform. The supplemental survey takes place bi-annually in even years, when Congressional elections occur. Thus, every second supplement takes place during a presidential election, when voting turnout is higher.

The general CPS is a nationally representative survey of over 50,000 households per year, which collects detailed information on labor force participation as well as sociodemographic characteristics of each household member. The Voting and Registration Supplement, which takes place at the end of November, asks household members if they are eligible to vote, whether they had registered to vote by the election that occurred that month, and whether they voted in that election. As described below in the Methods section, we focus on women at risk for relying on welfare, defined as unmarried mothers with a high school education or less. We include only women who are at least 21 years old and up to age 49, a group that is both eligible to vote and likely to have minor children living in their household. We compare this group (low-educated unmarried mothers) to various other groups of women age 21 to 49: (1) married mothers with a high school education or less, (2) childless women with a high school education or less, and (3) unmarried mothers with at least some college education. We only

include only women who are eligible to register to vote (e.g., citizens). Important features of the data, measures, and comparison groups are summarized below in Table 1.

**Table 1: Outcomes, data, comparison groups, and means**

<b>Outcome</b>	<b>Data</b>	<b>Target Group</b>	<b>Comparison Groups</b>	<b>Sample/Mean</b>
a) Was registered to vote in Nov. of that year a) Voted in biannual election b) Voted in presidential election c) Voted in non-presidential year	November Current Population Survey with added Voting and Registration Supplement 1990–2004; collected bi-annually	Unmarried mothers, 21–49 years old, high school graduate or less	(i) Same as target but married (ii) Same as target but childless (iii) Same as target but some college	<b>N~94,000</b> Registered=.64 Voted=.44

For our main models, we follow the standard in the welfare reform literature of using state-specific and time-varying indicators for both AFDC waivers and TANF (Blank 2002). 29 states enacted AFDC waivers, across various months, from 1992–1996. We include a dichotomous variable that = 1 if a given state in time period t (month & year) had a statewide waiver in place that substantially altered the nature of AFDC with respect to time limits, sanctions, or work requirements. We also include a dichotomous indicator for whether the state had implemented TANF in time period t. To capture variations within a given year, we use the exact month of interview to identify implementation at the year-by-month level. The data on whether states had waivers and when they enacted TANF come from U.S. Department of Health & Human Services (1997; 1999). Although the new welfare regime is very much in effect today, our observation window coincides with, and exploits, maximum policy and implementation change.

In addition to using the broad measures of welfare reform implementation that are standard in the literature and which will allow us to directly frame our findings to those

established in the literature for employment and income, we use measures of state-specific welfare policies to stratify the sample and test for differential effects based on state policies. As a starting point, we use a measure developed by Blank & Schmidt (2001) that incorporates various features of states' TANF programs (benefit generosity, earnings disregards, sanctions, and time limits) and categorizes states as strong, weak, or mixed in overall work incentives.

We control for the following individual-level variables: age, race, Hispanic origin, marital status, number of children in household, number of adults in household, and metropolitan statistical area (MSA) residence. We append year and state-level data to the individual data set and control for the following at the state/year level: unemployment rate, personal income per capita, female population, poverty rate, welfare caseloads, percent of the state legislature that is Democratic/Republican, and party of the Governor.

## Methods

We employ a quasi-experimental research design—akin to a pre- and post-comparison with treatment and control groups—in conjunction with multivariate regression methods, broadly referred to as difference-in-differences models, to estimate the effects of welfare reform on women's voting. We will conduct numerous specification checks and tests to gauge the validity of the identification assumptions underlying our methodology. Once robust estimates are obtained, we will explore heterogeneity across subgroups and dose-response effects.

The basic model can be expressed as follows, where Y refers to the outcome for the *i*th individual residing in state *s* at time *t*:

$$(1) \quad Y_{ist} = \alpha_1 + \pi_1 (\text{AFDCWaiver}_{st}) + \pi_2 (\text{TANF}_{st}) + X_{ist} \beta + Z_{st} \delta + \text{State}_s \lambda + \text{Year}_t \varphi + (\text{State}_s * t) \varphi + \varepsilon_{ist}$$

AFDC Waiver and TANF are dichotomous variables indicating whether a major waiver or TANF had been implemented. These standard measures of welfare reform are noted in the



specifications for convenience of exposition. We also utilize more refined measures that capture differences in work incentives (e.g., state-level variation in earnings disregards, sanctions, benefit generosity, and time limits).  $X$  represents a vector of individual characteristics (e.g., dichotomous indicators for age, race, ethnicity, highest grade completed, residence in metropolitan area, residence in center city, and residence in suburban area), and  $Z$  represents a vector of state-level characteristics including economic conditions, Medicaid policy, strictness of child support enforcement, and state Earned Income Tax Credit (EITC), as well as indicators for a presidential election year, senate election year, and party of state legislature. A full set of state (State) and year and month (Year) fixed effects are included to capture unobserved time-invariant state-specific factors, as well as overall national trends. We also include interactions between a linear trend  $t$  and State indicators to control for unobserved time-varying state-specific factors. In subsequent analyses, alternatives to the linear interactions (such as additional state-specific quadratic trends) will be explored. In the above specification,  $\alpha_1$ ,  $\pi_1$ ,  $\pi_2$ ,  $\beta$ ,  $\delta$ ,  $\lambda$ ,  $\phi$ , and  $\Phi$  represent the vector of parameters to be estimated.

Equation 1 provides direct estimates of the impact of welfare reform policies ( $\pi_1$  and  $\pi_2$ ) and addresses a major identification problem that is present in any policy analysis—disentangling the effects of policy shifts from other factors that may also vary over time. This methodology is known as difference-in-differences (DD) and is standard in the economics literature on evaluating the effects of welfare reform and other policies. In the DD framework, the impact of welfare reform is identified using the substantial variation in the timing and incidence of welfare reform across states. In addition to estimating Equation 1, we also—for outcomes with appropriate comparison groups—estimate difference-in-difference-in-differences (DDD) models as represented by Equation 2 below, in which Target represents a dichotomous indicator equal to

one if the individual is in the target group (population at risk of being on welfare) and zero if the individual is in the comparison group (population not at risk of being on welfare).

$$(2) \quad Y_{ist} = \alpha' + (\alpha_1 - \alpha_1^*)Target_i + (\pi_1 - \pi_1^*)(AFDCWaiver_{st} * Target_i) + (\pi_2 - \pi_2^*)(TANF_{st} * Target_i) + \pi_1^*(AFDCWaiver_{st}) + \pi_2^*(TANF_{st}) + X_{ist}\beta' + Z_{st}\delta' + State_s\lambda' + Year_t\phi' + (State_s * t)\phi' + \eta_{ist}$$

The choice of target and comparison groups is integral to a valid implementation of the DDD methodology. Following the literature, we employ target and comparison groups that are conventionally defined. Identifying the target group—individuals who are at risk of being on public assistance—is straightforward; welfare recipients have traditionally come from low-educated single-parent households. The assumption necessary for the DDD effect to represent an unbiased estimate is that in the absence of welfare reform, unobserved state-varying factors would affect the target and comparison groups similarly. If this assumption is valid, then  $\pi^*1$  and  $\pi^*2$  will capture the impact of the unmeasured factors that are correlated with welfare reform. As in the DD specifications, all models include an extensive set of relevant state-varying and individual-level controls. We implement several checks to assess the validity of the comparison groups (i.e., how adequate the comparison group is as a counterfactual for the target group). Using multiple comparison groups also highlights any residual differences in outcome levels and trends across the target and various comparison groups, and provides information about the robustness and consistency of the estimates. The choice of the target and comparison groups has strong underpinnings from the welfare reform literature, and the plausibility of our comparison groups has been validated in prior work on the effects of welfare reform on women’s education (Dave et al. 2011, 2012), drug use (Corman et al. 2013), and crime (Corman, Dave, and Reichman 2014).

We estimate linear probability models for our dichotomous voting outcomes, but to gauge potential differences in the results due to the choice of estimation method, we also estimate baseline specifications via logistic regression and probit methodologies.

### **Preliminary results**

Preliminary results suggest that welfare reform led to increases in registration and voting among both welfare recipients and women at risk for relying on welfare, compared to women who were not at risk for relying on welfare. Figures 1 and 2 show the raw time series data for registration (Figure 1) and voting (Chart 2), for our target group (unmarried mothers age 21–49 with at most a high school education) and a comparison group of women the same age and with the same education level but were childless (both groups consist of women who were legally eligible to vote). Of the three different comparison groups, this particular control group had registration and voting behaviors most similar to those of our target group. Several points are evident from these figures: More women were registered and more women voted in presidential election years. The target group exhibited behavior more like the control group as the implementation of welfare reform took place. Until about 1998, the women in the target group were less likely to register to vote than those in the control group. After that, the two groups of women had almost identical behaviors. Similarly, the difference in voting between the target group and control groups became much smaller as welfare reform unfolded. This convergence in registration and voting patterns between women most at risk of welfare receipt and women unlikely to be impacted by welfare policy, even without conditioning on any other factors, is suggestive that welfare reform may have played some role in increasing the probability of voting among low-educated single mothers. However, these trends may be confounded by other

changes occurring over this period, and the multivariate analyses from the DDD specifications in Table 2 address this concern.

Table 2 presents a summary of regression results from linear probability models predicting the four outcomes of interest: registered to vote by Election Day, voted in a biannual election, voted in the last presidential election year, and voted in a non-presidential year. The rows present estimates using the three different comparison groups described above. Each model included state and year indicators; age, age squared, race (black, other), Hispanic origin, education within the broad categories defining the target and comparison groups, marital status, number of children in household, number of adults in household, and MSA residence; and current and past year state unemployment rate, current and past year state personal income per capita, log female population in state, state poverty rate, current state welfare caseloads, 1-year lag of state welfare caseloads, 2-year lag of state welfare caseloads, state minimum wage, % state legislature Democrat/Republican, and party of Governor. Standard errors were clustered at the state level. In all cases, women in the target group had significantly higher rates of civic participation after welfare reform. In particular, they were between 2.3 and 2.6 percentage points more likely to be registered (4–5% relative to the sample mean). Although the models of voting were estimated with less precision, we find some preliminary evidence suggesting that welfare reform increased voting by between 1 and 2 percentage points (3-6% relative to the sample mean), with most of this effect being driven by a higher propensity to vote during a presidential election.

These DDD estimates are consistent with the trends presented in Figures 1 and 2, and indicate that welfare reform was associated with an increase in registration and voting among low-educated single mothers. In ongoing work, we will extend these analyses in several ways:

First, we will exploit detailed labor market histories including employment, hours worked, occupation and industry of work, personal earnings, and family income to disentangle the relative importance of key hypothesized pathways underlying the effects of welfare reform on civic participation. Specifically, we will assess the extent to which the observed effects on registration and voting are driven by time and work constraints (which were tightened under welfare reform), income constraints (which the literature suggested were loosened under welfare reform for many women, in that their incomes increased as a result of welfare reform), and sector of employment (for instance, public vs. private; industry and occupation).

Second, we will explore heterogeneity of effects based on characteristics that may shift the costs and benefits of civic participation. For instance, time constraints may become more pronounced and binding with a greater number of children, or become less binding with a larger household size due to economies of scale in household and child care production. Additionally, states differed substantially in their generosity of welfare benefits and the degree to which they emphasized and enforced the work requirements under the new welfare regime. Thus, the costs and benefits of voting and civic participation would vary depending on whether states were relative more or less stringent in their “push” towards work. Research also suggests that the least educated single mothers may have not have fared as well under the new welfare regime, and may have experienced a decrease in total income as the loss of welfare benefits are not being fully compensated by the increase in earnings from work. Hence, for these women on the lowest tail of the education distribution, welfare reform may have exacerbated both time and income constraints. Furthermore, it is also likely that the effects of welfare reform are heterogeneous across states based on political preference (for instance, “red” vs. “blue” vs. swing states). We will therefore investigate whether and to what extent voting behaviors exhibited differential

effects across these groups and characteristics, and in conjunction with our study of the mediating pathways, inform the reasons underlying the potential heterogeneity.

Third, we will implement various robustness and specification checks. These include fully accounting for unobserved confounding from other time-varying state level policies. We will also implement a DDD research design based on a synthetic control group (Abadie, Diamond, and Hainmueller 2010), a recent advance in policy analysis, which ensures similarity between the “treated” and control groups prior to policy enactment in terms of both levels and trends in outcomes, thus increasing the level of confidence that observed conditional differences in outcomes post-policy enactment are driven by the actual policy under study. Finally, we will implement a dose-response check to ascertain that the effects of welfare reform on voting are larger in magnitude among those states that experienced larger declines in welfare caseloads, a finding which would further test our hypothesis that the policy shift affected civic participation by breaking women’s reliance on welfare and increasing work participation.

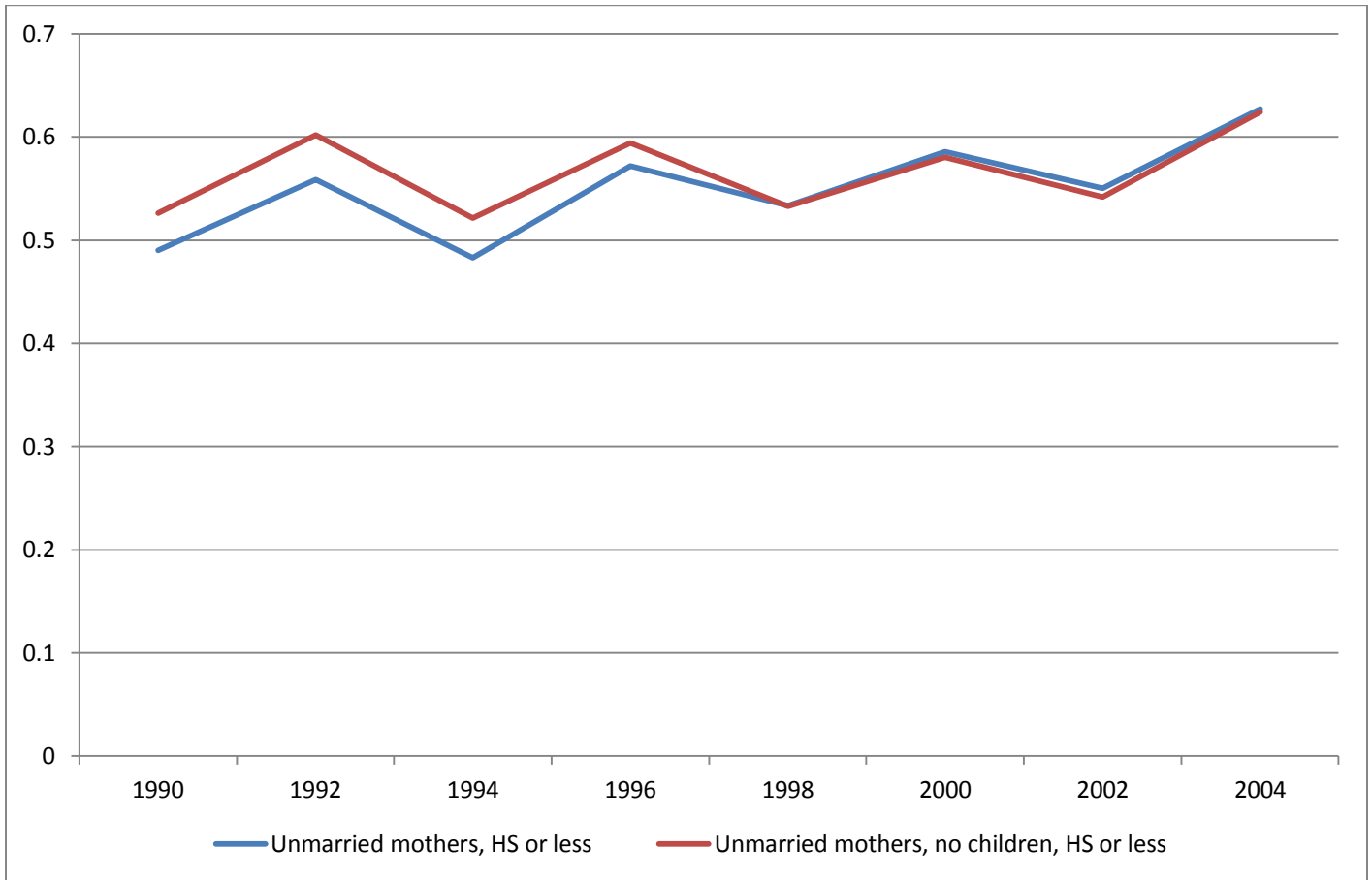
## References

- Abadie, A., Diamond, A., & Hainmueller, J. (2010). Synthetic control methods for comparative case studies: Estimating the effect of California's tobacco control program. *Journal of the American Statistical Association*, 105(490): 493–505.
- Anderson, R., Curtis, J., Grabb, E. (2006), Trends in Civic Association Activity in four Democracies: The Special Case of Women in the United States. *American Sociological Review*, 71(3), 376–400.
- Blank, R.M. (2002). Evaluating Welfare Reform in the United States. *Journal of Economic Literature*, 40(4), 1105–66.
- Blank, R.M., Schmidt, L. (2001). Work, Wages, and Welfare, in *The New World of Welfare*, Rebecca M. Blank and Ron Haskins, eds. Washington, D.C.: Brookings Institution.
- Bruch, S. K., Ferree, M.M., Soss, J.B. (2010). From Policy to Polity: Democracy, Paternalism, and the Incorporation of Disadvantaged Citizens. *American Sociological Review*, 75(2), 205–26.
- Corman, H., Dave, D., Reichman, N.E. (2014). Effects of Welfare Reform on Women's Crime. *International Review of Law and Economics*, 40, 1–14.
- Corman, H., Dave, D., Das, D., Reichman, N.E. (2013). Effects of Welfare Reform on Illicit Drug Use of Adult Women. *Economic Inquiry*, 51(1), 653–74.
- Dave, D., Corman, H., Reichman, N.E. (2012). Effects of Welfare Reform on Education Acquisition of Adult Women. *Journal of Labor Research*, 33(2), 251–82.
- Dave, D., Reichman, N., Corman, H., Das, D. (2011). Effects of Welfare Reform on Vocational Education and Training. *Economics of Education Review*, 30(6), 1399–415.
- Farber, H. (2009). Increasing Voter Turnout: Is Democracy Day the Answer? Unpublished working paper, available at: <http://www.princeton.edu/ceps/workingpapers/181farber.pdf>.
- Feddersen, T.J. (2004). Rational Choice Theory and the Paradox of Not Voting." *Journal of Economic Perspectives*, 18(1), 99–112.
- Gennetian, L.A., Knox, V. (2003). *Staying Single: The Effects of Welfare Reform Policies on Marriage and Cohabitation*. New York, NY: MDRC.
- Glaeser, E.L., Laibson, D., Sacerdote, B. (2002). An Economic Approach to Social Capital. *Economic Journal*, 112(483), F437–58.
- Grogger, J., Karoly, L.A. (2005). *Welfare Reform: Effects of a Decade of Change*. Cambridge, MA: Harvard University Press.
- Jennings, J. (2001). Welfare Reform and Neighborhoods: Race and Civic Participation. *The Annals of the American Academy of Political and Social Science*, 577, 94–106.
- Katz, M.B. (2001). *The Price of Citizenship: Redefining the American Welfare State*. New York, NY: Metropolitan Books, Henry Holt & Co.
- Kaestner, R., Tarlov, E. (2006). Changes in the Welfare Caseload and the Health of Low-Educated Mothers. *Journal of Policy Analysis and Management*, 25(3), 623–43.
- Loprest, P.J. (2012). How Has the TANF Caseload Changed Over Time?. Available at: <http://www.urban.org/UploadedPDF/412565-How-Has-the-TANF-Caseload-Changed-Over-Time.pdf>
- Paxson, C., Waldfogel, J. (2002). Work, Welfare, and Child Maltreatment. *Journal of Labor Economics*, 20(3), 435–74.
- Schur, L. (2003). Employment and the Creation of an Active Citizenry. *British Journal of Industrial Relations*, 41(4), 751–71.

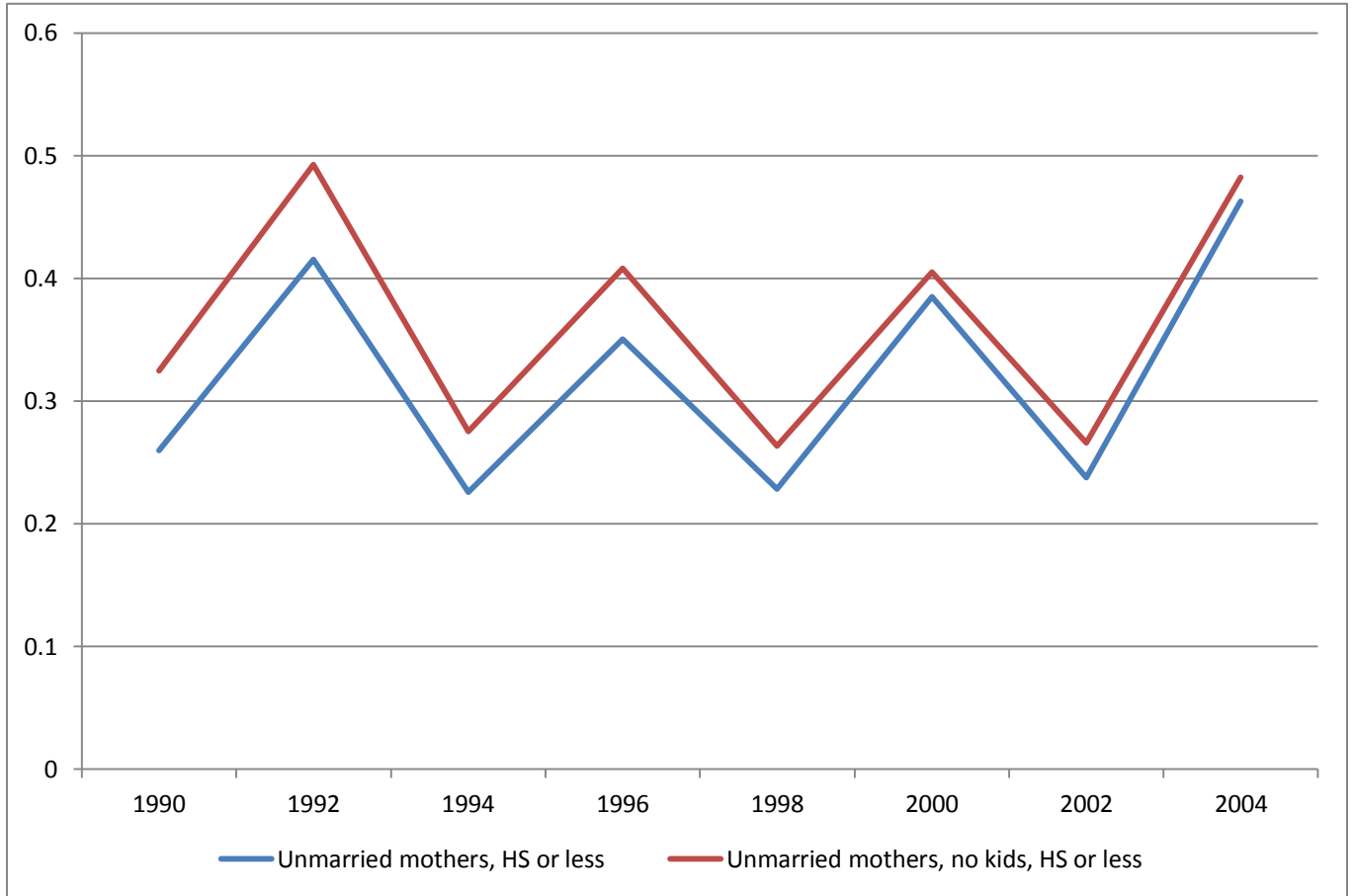
- Schoeni, R.F., Blank, R.M. (2000). What Has Welfare Reform Accomplished? Impacts on Welfare Participation, Employment, Income, Poverty, and Family Structure." National Bureau of Economic Research Working Paper #7627.
- U.S. Department of Health and Human Services. (1997). Setting the Baseline: A Report on State Welfare Waivers. Washington, D.C.: Office of the Assistant Secretary for Planning and Evaluation. Accessed 2/29/12 from: <http://aspe.hhs.gov/hsp/isp/waiver2/title.htm>.
- U.S. Department of Health and Human Services. (1999). State Implementation of Major Changes to Welfare Policies, 1992–1998. Washington, D.C.: Office of the Assistant Secretary for Planning and Evaluation. Accessed 2/29/12 from: [http://aspe.hhs.gov/hsp/waivepolicies99/Table\\_A.htm](http://aspe.hhs.gov/hsp/waivepolicies99/Table_A.htm).
- Ziliak, J.P. (2006). Taxes, Transfers, and the Labor Supply of Single Mothers. Unpublished working paper, 2006. Available at: <http://www.nber.org/~confer/2006/URCf06/ziliak.pdf>.



**Figure 1: Registered to vote**  
**November CPS with Voting and Registration Supplement**  
**1990–2004**



**Figure 2: Voted in November election**  
**November CPS with Voting and Registration Supplement**  
**1990–2004**



**Table 2**  
**Preliminary Estimates of the Effect of Welfare Reform on Voting Behaviors, Women Age 21–49**  
**Using Three Different Comparison Groups**  
**November CPS with Voting and Registration Supplement**  
**1990–2004**

<b>Target group: Unmarried Mothers With High School Education or Less</b>	<b>Registered to Vote (mean=.546)</b>	<b>Voted (mean=.318)</b>	<b>Voted in Presidential Year (mean=.404)</b>	<b>Voted Non-Presidential Year (mean=.239)</b>
<i>Comparison Group:</i>				
<b>(1) Married Mothers With High School Education or Less</b>	2.5 percentage points**	2.0 percentage points**	3.1 percentage points**	1.5 percentage points
<b>(2) Childless Women With High School Education or Less</b>	2.3 percentage points**	1.3 percentage points	1.9 percentage points*	0.5 percentage points
<b>(3) Unmarried mothers With Any College</b>	2.6 percentage points**	.9 percentage points	2.3 percentage points	1.1 percentage points
<b>Range of effect as percent of overall mean</b>	4–5%	3–6%	5–8%	2–6%

**Notes:** All groups are limited to women who were eligible to vote. Each estimate in rows (1)–(3) is from a different model. The reported estimates represent the coefficient on the interaction term between being in the target group and any welfare reform (AFDC or TANF) having taken place. All models include state and year effects, age, age squared, race (black, other), Hispanic origin, education within categories distinguishing target and comparison groups, marital status, number of children in household, number of adults in household, MSA residence, current and past year state unemployment rate, current and past year state personal income per capita, log female population in state, state poverty rate, current (and 1-year and 2-year lags) of state welfare caseloads, state minimum wage, % state legislature Democrat/Republican, and party of Governor. Standard errors clustered at state level. \*\* p <= .05; \* p <= .10.