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Does Public Assistance Reduce Recidivism?[†]

By CRYSTAL S. YANG*

America's War on Drugs has led to the incarceration of millions of individuals for drug-related offenses. Today, approximately half a million individuals are incarcerated for a drug conviction, a ten-fold increase from 1980 (Mauer and King 2007). Drug offenders represent 16 percent of inmates in state prisons and half of all inmates in federal prison (Carson 2014).

Even after incarceration, many drug offenders continue to be punished through the federal lifetime ban on public assistance. Section 115 of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 imposed a lifetime ban on both welfare benefits and food stamps to any individual convicted of a state or federal felony involving "the possession, use or distribution of a controlled substance" for conduct occurring after August 22, 1996 (P. L. 104–93). Debated for only two minutes and adopted by unanimous consent, this lifetime ban was passed on the notion that "if we are serious about our drug laws, we ought not to give people welfare benefits who are violating the Nation's drug laws" (Senator Phil Gramm, R-TX).

However, Section 115 also allowed states to pass laws opting out of the federal ban. Since 1996, over 30 states have adopted legislation that fully or partially opts out of the federal ban, restoring eligibility for drug felons. A primary argument used by advocates for restoring eligibility is that prohibitions on public assistance increase the chances of re-offending by making it more difficult for ex-offenders to make ends

meet. Indeed, existing evidence suggests that the ban had a first-order effect on limiting access to public assistance. For example, according to a Government Accountability Office report, among offenders released in 2001, 15 percent of otherwise eligible drug felons were barred from welfare and 25 percent barred from food stamps (GAO 2005). Another estimate suggests that between 1997 and 2002, states removed at least 92,000 adults with felony drug convictions from the welfare rolls (Gustafson 2009).

In this paper, I provide the first set of estimates on the impact of public assistance eligibility on return to prison using administrative data on released offenders in 43 states. I exploit the timing of the federal public assistance ban under PRWORA of 1996, and timing of state laws that opted out of the federal ban. I also take advantage of the fact that the federal welfare and food stamp ban applied exclusively to ex-offenders with drug felony convictions. Using a triple-differences research design, I find that eligibility for welfare and food stamps at the time of release significantly reduces the risk of returning to prison within one year by up to 10 percent. These findings are largely consistent with prior work finding that economic factors affect reentry (e.g., Holzer, Raphael, and Stoll 2003; Travis 2005; Harding et al. 2014), in particular labor market opportunities at the time of release (e.g., Sabol 2007; Raphael and Weiman 2007; Schnepel 2016; Yang 2016).

I. Data and Background

National Corrections Reporting Program.—Prison release and admittance data are from the National Corrections Reporting Program (NCRP). These data are constructed using administrative corrections and parole data voluntarily provided by states. Within each state, records of prisoners are linked using inmate ID numbers, and demographic and crime characteristics. The data include rich offender

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characteristics: age, race, Hispanic ethnicity, highest grade completed, gender, prior felony incarceration, offense of conviction, convicted counts, total sentence, time served, type of prison, reason for entering into prison, and reason for release. See Rhodes et al. (2016) and Yang (2016) for additional details on the data.

For this study, I define recidivism as return to prison within one year given that the hazard rate of returning to prison is highest in the first year post-release (Yang 2016). In addition, rates of death, risky behaviors, and food insecurity are highest in the first few months after release (Binswanger et al. 2007, Wang et al. 2013).

I keep the first observed prison release for each individual offender to proxy for first-time offenders, keep individuals who are observed for at least a full year post-release, and drop any observations where prison release date and state of conviction are missing. After these sample restrictions, the data include 4,885,754 offenders. These data consist of an unbalanced panel of prisoners released in 43 states between 1971 and 2014, with the vast majority of releases occurring between 1992 and 2014.

Table 1 reports summary statistics for both drug and nondrug offenders in the sample. In general, drug offenders in the sample are slightly less likely to return to prison within one year (16.8 percent) compared to nondrug offenders (18.9 percent). Drug offenders are more likely to be black or Hispanic and serve less time on average compared to nondrug offenders.

Federal and State Law Changes.—As discussed previously, the federal ban for both welfare and food stamps applied to felony drug convictions for conduct occurring after August 22, 1996. Since then, over 30 states have opted out of the federal ban for either welfare or food stamps. I collect and code information on all state-level law changes and define these law changes as either full or partial opt-outs.

Partial opt-out laws vary across states. For example, some states partially opted out of the federal ban by continuing to ban public assistance for individuals convicted of manufacturing or distributing drugs, but exempting those convicted of drug possession. Other states passed laws requiring drug treatment and testing in order to be eligible for public assistance.

During the sample period covered by the NCRP data, released drug felons had some

TABLE 1—SUMMARY STATISTICS OF RELEASED PRISONERS

| Variable | Drug | | Nondrug | |
|--|-----------|-------|-----------|--------|
| | Mean | SD | Mean | SD |
| <i>Panel A. Recidivism</i> | | | | |
| Return to prison in 1 year | 0.168 | 0.374 | 0.189 | 0.392 |
| <i>Panel B. Offender characteristics</i> | | | | |
| White | 0.430 | 0.495 | 0.540 | 0.498 |
| Black | 0.496 | 0.500 | 0.382 | 0.486 |
| Hispanic | 0.222 | 0.416 | 0.177 | 0.382 |
| Male | 0.850 | 0.357 | 0.888 | 0.316 |
| Female | 0.150 | 0.357 | 0.112 | 0.316 |
| Age at release | 33.842 | 9.850 | 33.597 | 10.636 |
| Less HS degree | 0.539 | 0.498 | 0.530 | 0.499 |
| HS degree | 0.388 | 0.487 | 0.387 | 0.487 |
| Some college | 0.060 | 0.237 | 0.066 | 0.248 |
| College degree | 0.008 | 0.089 | 0.012 | 0.109 |
| Prior felony incarceration | 0.178 | 0.383 | 0.180 | 0.384 |
| Time served (years) | 1.444 | 1.722 | 2.290 | 3.382 |
| Observations | 1,431,778 | | 3,453,976 | |

Note: This table presents summary statistics for offenders convicted of drug offenses and nondrug offenses.

eligibility for welfare in 32 states, including full eligibility for welfare in 16 states. Additionally, during the sample period, released drug felons had some eligibility for food stamps in 36 states, including full eligibility for food stamps in 22 states. While law changes for welfare and food stamps are highly correlated, states are relatively more lenient toward drug felon eligibility for food stamps compared to welfare. See online Appendix Table A1 for information on the state-years in the sample and for effective dates of all law changes. Figure A1 presents one-year recidivism trends over time and shows that recidivism rates for drug and nondrug offenders generally track one another, particularly prior to the federal ban.

II. Empirical Methodology

I estimate a linear probability model using a triple-differences research design:

$$\begin{aligned}
 (1) Y_{its} = & \beta_0 + \beta_1 \mathbf{X}_i + \beta_2 Drug_i + \gamma_t + \delta_s + \kappa_{st} \\
 & + \gamma_t \times Drug_i + \delta_s \times Drug_i \\
 & + \beta_3 Elig_{st} + \beta_4 Elig_{st} \times Drug_i + \varepsilon_{its},
 \end{aligned}$$

where Y_{its} is the probability that defendant i released in month-year t in state s returns to

prison within a year post-release. \mathbf{X}_i includes a rich set of individual-level demographic, crime, and prison characteristics described previously, and $Drug_i$ equals one for individuals convicted of drug offenses. I also control for state fixed effects (δ_s), year of release fixed effects (γ_t), and their interactions with $Drug_i$. Finally, I include state-by-year fixed effects (κ_{st}) to account for state-specific shocks that may be correlated with the passage of the state laws. Standard errors are clustered at the state-year level to account for serial correlation. In unreported results, results are similar clustering at the state level.

$Elig_{st}$ is an indicator equal to one if drug felons are eligible for public assistance in state s and month-year t . Specifically, $Elig_{st}$ is equal to one in state-month-years prior to the passage of PRWORA of 1996, equal to zero when the federal ban binds, and equal to one if and when states passed laws opting out of the federal ban.¹ In the main results, I define $Elig_{st}$ in two ways: (i) equal to one if drug felons are eligible for public assistance in any form, including if a state partially opts out of the federal ban (“any eligibility”), and (ii) equal to one if drug felons are fully eligible for public assistance (“full eligibility”) to separately assess the impact of any versus full eligibility.

Under this specification, the parameter of interest is β_4 , which can be interpreted as the differential effect of public assistance eligibility at the time of release on the recidivism of drug offenders compared to nondrug offenders. This estimate provides a causal estimate of welfare and food stamp eligibility for drug offenders if there are no contemporaneous shocks that affect the relative outcomes of released drug offenders relative to nondrug offenders in the same state-years as the laws.

One potential concern is if these law changes are correlated with changes in the characteristics

of released drug offenders relative to nondrug offenders. To assess potential compositional changes, I combine all offender-level observable characteristics into a single ex ante risk index by estimating the probability of one-year return to prison as a function of demographic, crime, and prison characteristics. In online Appendix Table A2, I find no significant relationship between welfare and food stamp eligibility and the predicted risk of drug offenders versus nondrug offenders, suggesting that compositional changes are unlikely to drive the results.

III. Results

Table 2 presents the main results. Columns 1 and 2 present results for welfare eligibility, columns 3 and 4 present results for food stamps eligibility, and columns 5 and 6 present results for joint eligibility for both welfare and food stamps. Panel A presents results for the full sample of released offenders. Column 1 indicates that any eligibility for welfare reduces the recidivism rate of newly released drug offenders by 1.7 percentage points relative to nondrug offenders, a 10.1 percent decrease from the drug offender mean. Being fully eligible for welfare decreases the recidivism rate by 1.5 percentage points for drug offenders relative to nondrug offenders (column 2). Turning to food stamp eligibility, I find minimal evidence that any eligibility reduces the recidivism risk of drug offenders relative to nondrug offenders (column 3). In contrast, full eligibility for food stamps with no restrictions has a significant effect. Drug offenders fully eligible for food stamps at the time of release are 2.2 percentage points less likely to return to prison in one year compared to nondrug offenders, a 13.1 percent decrease from the drug offender mean.

Unsurprisingly, given these results, eligibility for both welfare and food stamps also reduces the risk of recidivism. Under a regime of any eligibility for both, drug offenders are 1.3 percentage points less likely to return to prison compared to nondrug offenders (column 5), and under full eligibility for both, drug offenders are 1.5 percentage points less likely to return to prison relative to nondrug offenders (column 6). Overall, these results suggest that public assistance eligibility, in particular full eligibility, substantially decreases recidivism among newly released drug offenders.

¹In practice, my estimates are likely downward biased for two main reasons. First, under the federal ban, only those who were convicted of drug-related felonies for conduct occurring after August 22, 1996 were ineligible for public assistance. Unfortunately, the NCRP data do not contain exact offense date, so I treat all drug felons released from prison after December 1997 as ineligible for public assistance under the federal ban given that the average time served is approximately 1.4 years. Second, I treat all drug offenders as affected by law changes despite the fact that many drug offenders may not have been otherwise eligible for welfare and food stamps in the absence of a drug conviction.

TABLE 2—MAIN RESULTS: RETURN TO PRISON IN ONE YEAR

| | Welfare | | Food stamps | | Both | |
|----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| <i>Panel A. Full sample</i> | | | | | | |
| Any eligibility × drug | −0.017 (0.004) | | 0.002 (0.004) | | −0.013 (0.004) | |
| Full eligibility × drug | | −0.015 (0.005) | | −0.022 (0.004) | | −0.015 (0.005) |
| Observations | 4,885,754 | 4,885,754 | 4,885,754 | 4,885,754 | 4,885,754 | 4,885,754 |
| <i>Panel B. Served ≤ 2 years</i> | | | | | | |
| Any eligibility × drug | −0.019 (0.004) | | −0.003 (0.004) | | −0.015 (0.004) | |
| Full eligibility × drug | | −0.025 (0.006) | | −0.026 (0.005) | | −0.025 (0.006) |
| Observations | 3,524,163 | 3,524,163 | 3,524,163 | 3,524,163 | 3,524,163 | 3,524,163 |

Notes: This table presents main OLS estimates. Each column represents a separate regression. Defendant and crime controls include: race, ethnicity, gender, age, age squared, highest grade completed, prior felony incarceration indicator, main offense type, number of convicted counts, total sentence imposed, type of prison admission, type of facility, reason for release, time served, time served squared. All specifications include year of release fixed effects, state fixed effects, and state-by-year fixed effects. Standard errors are clustered at the state-year level.

Panel B presents analogous results for a sample of offenders who served no more than two years in prison. This sample may yield more appropriate comparisons given that drug offenders in the sample serve substantially less time on average than nondrug offenders (see Table 1). Results are very similar in this subsample. Specifically, under a regime of any eligibility for both welfare and food stamps, recently released drug offenders are 1.5 percentage points less likely to return to prison compared to nondrug offenders (column 5), and under a regime of full eligibility, drug offenders are 2.5 percentage points less likely to return to prison (column 6).

Online Appendix Tables A2 and A3 present several robustness checks. Online Appendix Table A2 presents results using a more balanced panel of 16 states that provided data for the majority of the sample period. Online Appendix Table A3 presents marginal probit and hazard model estimates. Results are robust to these alternative specifications.

IV. Conclusion

In this paper, I find that eligibility for welfare and food stamps significantly decreases recidivism among newly released drug offenders, potentially because public assistance helps

ex-offenders make ends meet when other economic prospects are dire. Future work assessing the impact of public assistance eligibility on ex-offenders and their families is essential given recent initiatives to release nonviolent drug offenders. For instance, in 2015, more than 6,000 federal drug offenders were released early under a re-sentencing effort for people convicted of nonviolent drug crimes, with many states following suit. The US Sentencing Commission has also recently reduced prison terms retroactively for certain drug offenses as part of an effort to reduce the federal prison population.

REFERENCES

- Binswanger, Ingrid A., Marc F. Stern, Richard A. Deyo, Patrick J. Heagerty, Allen Cheadle, Joann G. Elmore, and Thomas D. Koepsell.** 2007. "Release from Prison—A High Risk of Death for Former Inmates." *New England Journal of Medicine* 356 (2): 157–65.
- Carson, E. Ann.** 2014. *Prisoners in 2014*. Washington, DC: United States Department of Justice.
- General Accountability Office.** 2005. *Drug Offenders: Various Factors May Limit the Impacts of Federal Laws That Provide for Denial of Selected Benefits*. Washington, DC: United States Government Accountability Office.

- Gustafson, Kaaryn.** 2009. "Criminal Law: The Criminalization of Poverty." *Journal of Criminal Law and Criminology* 99 (3): 643–716.
- Harding, David J., Jessica Wyse, Cheyney Dobson, and Jeffrey Morenoff.** 2014. "Making Ends Meet After Prison." *Journal of Policy Analysis and Management* 33 (2): 440–70.
- Holzer, Harry J., Steven Raphael, and Michael A. Stoll.** 2003. "Employment Barriers Facing Ex-Offenders." Paper presented at the Urban Institute Reentry Roundtable Employment Dimensions of Reentry: Understanding the Nexus between Prisoner Reentry and Work, New York.
- Mauer, Marc, and Ryan King.** 2007. *A 25-Year Quagmire: The War on Drugs and Its Impact on American Society*. Washington, DC: The Sentencing Project.
- Raphael, Steven, and David F. Weiman.** 2007. "The Impact of Local Labor-Market Conditions on the Likelihood that Parolees Are Returned to Custody." In *Barriers to Reentry? The Labor Market for Released Prisoners in Post-Industrial America*, edited by Shawn D. Bushway, Michael A. Stoll, and David Weiman, 304–32. New York: Russell Sage Foundation.
- Rhodes, William, Gerald Gaes, Jeremy Luallen, Ryan Kling, Tom Rich, and Michael Shively.** 2016. "Following Incarceration, Most Released Offenders Never Return to Prison." *Crime and Delinquency* 62 (8): 1003–25.
- Sabol, William J.** 2007. "Local Labor-Market Conditions and Post-Prison Employment: Evidence from Ohio." In *Barriers to Reentry? The Labor Market for Released Prisoners in Post-Industrial America*, edited by Shawn D. Bushway, Michael A. Stoll, and David F. Weiman, 257–303. New York: Russell Sage Foundation.
- Schnepel, Kevin.** 2016. "Good Jobs and Recidivism." *Economic Journal*. doi: 10.1111/ecoj.12415.
- Travis, Jeremy.** 2005. *But They All Come Back: Facing the Challenges of Prisoner Reentry*. Washington, DC: Urban Institute.
- Wang, E. A., G. A. Zhu, L. Evans, A. Carroll-Scott, R. Desai, and L. E. Fiellin.** 2013. "A Pilot Study Examining Food Insecurity and HIV Risk Behaviors among Individuals Recently Released from Prison." *AIDS Education and Prevention* 25 (2): 112–23.
- Yang, Crystal S.** 2016. "Local Labor Markets and Criminal Recidivism." *Journal of Public Economics*. doi: 10.1016/j.jpubeco.2016.12.003.