Locked Out of the Labor Force: The Rise of Criminalization and the Fall in Work

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**Research question**: how much has the rise in the share of Americans living in the community with a criminal record contributed to the fall in the labor force participation rate and employment share?

**Contributions:**

* Focuses on the connection between two first-order economic and policy issues
  + Falling labor force participation rates
  + Rise in share of adults with a felony record
* Leverages first state-year estimates of the share of adult population with a felony record.

**Motivation:** An increasing share of Americans are living in the community with a felony record having paid their debt to society. Between 1980 and 2010, the share of American adults living in the community with a felony record rose from 2.4 percent to 6.2 percent (Shannon et al 2017). Younger people are more likely to be arrested and convicted meaning that the rise among prime-age adults is likely much larger than this, although more age-specific estimates are not available.

Falling prime-age male labor force participation presents a troubling challenge for the American economy. The fall has been particularly steep among men with the least education (CEA 2016). Among those with a high school degree or less, participation fell by about 8 percentage points between 1980 and 2010, consistent with a trend extending back to the 1960s. Since 2003, prime-age female labor force participation has also fallen.

Looney (2018) finds a large negative relationship between individual past incarceration and employment. Abraham and Kearney (2018) point out that because the share of formerly incarcerated is small, this channel cannot explain much of the overall decline in employment probability.

We focus on the role of having a felony record rather than being formerly incarcerated. This group is about three times larger (Shannon et al 2017). CEA (2016): “nearly 3,000 mandatory license exclusions for individuals with a felony record (American Bar Association 2016). In addition, evidence shows that, even in the absence of legal restrictions, employers are less likely to hire someone with a criminal record (Holzer 2007)… (Holzer, Offner, and Sorensen 2005; Holzer 2007; Pager 2003).

Eberstadt (2017) …

Prior evidence constrained by lack of annual data available below the national level. Our main contribution derives from studying the relationship between new state-year estimates of the share of adults in the community with a felony record, built from the estimation machinery of Shannon et al 2017, to Current Population Survey state-year measures of engagement in the labor market. This enables state-level generalized difference-in-difference models to estimate the association between changes in the share of state populations with felony record to changes in labor market engagement over the period 1980 to 2010.

**Data and design**

*Population and sample:* we focus on the national population of civilian, non-institutionalized, prime-age (25-54 years old) adults as sampled in the Current Population Survey from 1980 to 2010.

*Outcomes (Yst):* our primary outcome is the prime-age population’s rate of non-employment in each state and year. We focus on the not-employed rate instead of its more-conventional complement, the employment-to-population ratio, simply for the expositional convenience of having an expected positive relationship between the dependent and independent variables.

A supplementary outcome is the population’s idleness rate, which deducts the share of the population in school or in unemployment (actively searching for work).

A third outcome, available only from year TBA forward, is the rate of people not in the labor force reporting that this is primarily because they can’t find work.

*Predictor (Fst):* the share of the state-year adult population living in the community with a felony record having paid their debt to society. This excludes incarcerated individuals or those on probation. Shannon et al 2017 pioneered creation of these estimates and reported state-level decennial estimates for 1980 through 2010. Noone has had such estimates before. State-representative surveys do not ask these questions. Shannon et al harness available aggregate data on flows into and out of conviction, imprisonment, probation, and death these of the stocks of people with a felony record based on. We use the underlying annual state-level estimates.

The estimates are for the share of adults (age 18+). More-refined estimates by age or education are not available. Estimates by gender and race are available but noisier.

Because the big rise in convictions happened in the mid-1980s and primarily among the young, focusing on outcomes among prime-age adults has the dual benefits of focusing on the group where (1) most of the change in felony-record share has occurred and (2) the fall in work is most troubling.

*Model:* we use a generalized difference-in-differences design that relates changes in states’ not-employed rate (*Yst*) over time to their change in share of adults in the community with a felony record (*Fst*). We will include state fixed effects (γs) to capture average stable, unobserved influences on each state’s outcome and year fixed effects (γt) to capture average unobserved influences across states within each year. The identifying assumption is that changes in unobserved influences within state are mean independent of changes in *Fst.* In order to enhance the credibility of this condition more credible, we will also condition on various observable, time-varying state-year characteristics (*Xst*).

*Control variables/potential confounders (Xst):*

*Control variables*:

Share of population having felony conviction on their record, or

Could do all analysis at individual level with T\_st = state-year ex-felon share.

*Relevant subpopulations*: age, education, gender, race/ethnicity.

Could be analysis of outcomes and predictors conditional on subpopulation.

Could be unconditional outcomes with controls for subpopulation shares.

**Should we do analysis at state-year, state-year-subgroup, or individual level?** The literature tends, where possible, to model subgroups separately. Only wrinkle is that *T* not at subpop level. Could stack subpopulation observations or stack individual observations.

Explain Y of less-educated using Y of prime-age college-educated men as a control for labor market conditions?

*Other predictors (X):*

*Other policies:*

Minimum wage = max{state,federal} by state-year adjusted for inflation to 2016$

Disability:

Share of individual level in CPS, or

SSDI case loads and spending back to late 1990s. Where is older data?

<https://www.ssa.gov/policy/docs/statcomps/>

<https://www.ssa.gov/disability/data/ssa-sa-fywl.htm>

<https://www.ssa.gov/policy/docs/statcomps/oasdi_sc/index.html>

TANF max benefit and UI replacement rate

*Population/individual*

For 25–54 year olds conditions on indicators for being married with children and married with a young child (under age 6)?

*Economic*

Lags of unemployment rate to control for business cycle?

*Unobservables*

State indicators

Year indicators

State-year trends?

*Invest more up-front before first submission or be quick and invite more work on revision?*

Literature:

Aaronson, Davis, Hu (2012)

<https://ideas.repec.org/a/fip/fedhle/y2012imarn296.html>

In particular, we use the U.S. Bureau of Labor Statistics’ Current Population Survey (CPS), covering the years 1987–2007, to associate the probability that an individual aged 16–79 is in the labor force with that individual’s gender, age, year of birth, race, and education, as well as a measure of where the national economy is in the business cycle. We include indicators for every single age to account for the typical lifetime pattern of labor force participation—e.g., individuals work less frequently while in school and later in life. Year-of-birth indicators reflect unobservable work behavior, ethics, and norms that are specific to birth cohorts (“cohort effects”); e.g., the model allows that, at the same age, a cohort born in, say, 1954 might be more or less likely to work than another born in 1978. We estimate this model separately for 44 combinations of age (16–19, 20–24, 25–54, 55–70, and 71–79), gender, and educational attainment (less than high school, high school graduates, some college, college graduates, and some postcollege education). This allows the cohort effects and other controls to flexibly vary across age, gender, and education. Finally, we introduce additional conditioning variables to the base model that are specific to certain demographic groups. In particular, the model for 16–19 and 20–24 year olds conditions on the real state minimum wage and the ratio of the average youth hourly wage to average adult hourly wage; that for 25–54 year olds conditions on indicators for being married with children and married with a young child (under age 6); and that for 55–70 and 71–79 year olds includes gender-specific life expectancies.

Because of the negligible sample sizes, we do not estimate the model for college graduates aged 16–19, those with some postcollege education aged 16–19, and those with some postcollege education aged 20–24. This leaves us with (5 × 2 × 5) – (2 × 3) = 44 groups.

See, e.g., Smith (2011). The minimum wage is measured in deviations from the sample mean. The wage ratio is measured from the CPS March supplement and estimated using the Hodrick–Prescott filter.

Life expectancies are taken from Felicitie C. Bell and Michael L. Miller, 2005, “Life tables for the United States Social Security area, 1900–2100,” Social Security Administration, Office of the Chief Actuary, actuarial study, No. 120, August. Missing years are linearly interpolated.