Criminal Justice Involvement and Well-Being in Old Age

Jennifer Doleac\textsuperscript{1}  Jonathan Eggleston\textsuperscript{2}  William Gale\textsuperscript{3}  Michael Mueller-Smith\textsuperscript{4}  
Briana Sullivan\textsuperscript{2*}

\textsuperscript{1}Arnold Ventures  \quad \textsuperscript{2}U.S. Census Bureau  \quad \textsuperscript{3}Brookings Institution  \quad \textsuperscript{4}University of Michigan & NBER

Summer 2023

*Any opinions and conclusions expressed herein are those of the authors and do not reflect the views of the U.S. Census Bureau or the Bureau of Labor Statistics. The Census Bureau’s Disclosure Review Board and Disclosure Avoidance Officers have reviewed this product for unauthorized disclosure of confidential information and have approved the disclosure avoidance practices applied to this release. #CBDRO-FY2022-CES010-002, #CBDRO-FY2023-CES005-005.
Outline

1. Introduction

2. Forecasting rates of justice involvement of retirement cohorts

3. Justice involvement and relationship with well-being in old age

4. Causal effect of access to safety net assistance in old age for justice-involved population

5. Conclusion
Justice involvement and old age?

1. Millions in US have criminal records
   - Substantial increase over 1980’s and 1990’s
   - Wave of justice-involved individuals are nearing old age
   - What will this look like and is our safety net ready?

2. Justice involvement can make it more difficult to find and keep legal work
   - May not qualify for Social Security, won’t have pensions, may not have private savings
   - Previous approaches to safety net may not work for this group
What we do

1. Integrate CJARS, Census, and SSA microdata to describe old age for those with criminal histories

2. Forecast grow rate in share of retirement-age population with criminal histories
   - Fairly reliable for next 30 years given bulk of justice initiation occurs during teens and 20s

3. Leverage change in enforcement of a “fugitive felon” rule to measure causal effect of SSI/OASDI receipt on the well-being for people with felony records aged 50-70 years old
   - Diff-in-diff will help evaluate the causal benefits of expanded safety net spending on this population in the coming decades
What is CJARS?

CJARS, founded in 2016, is a joint data infrastructure project between University of Michigan and the U.S. Census Bureau

Building a novel data platform to modernize research and statistical reporting on the U.S. criminal justice system, including:

- Event-level criminal justice data with nationwide scope
- Tracking across key milestones in the justice system
- Capacity to link with individual-level survey and administrative data at the U.S. Census Bureau

Financial support from the NSF, Gates Foundation, Arnold Ventures, Robert Wood Johnson Foundation, Annie E Casey Foundation, the University of Michigan, and the Census Bureau
CJARS data coverage

- Data from ~2,400 counties
- States with coverage of state court, state DOC, and/or state repository represent ~84% of U.S. population
- 3b records
- ~200m CJ events
- >40m unique individuals
Outline

1. Introduction
2. Forecasting rates of justice involvement of retirement cohorts
3. Justice involvement and relationship with well-being in old age
4. Causal effect of access to safety net assistance in old age for justice-involved population
5. Conclusion
Recent changes in the U.S. justice system
A lagged impact on the retiring population
A lagged impact on the retiring population
A lagged impact on the retiring population
Forecasting model

Linear model to predict share of cohort $c$ with first-time CJ event at age $a$:

$$P_{a,c} = \alpha_0 + \alpha_1 P_{a-1,c} + \alpha_2 P_{a-2,c} + \alpha_3 P_{a-3,c} + \alpha_4 Age_a + \alpha_5 Age_a^2 + \epsilon_{a,c}$$

With complementary mortality rate prediction model:

$$D_{a,c,j} = \beta_{0,j} + \beta_1 P_{a-1,c,j} + \beta_2 P_{a-2,c,j} + \beta_3 P_{a-3,c,j} + \beta_4,j Age_a + \beta_5,j Age_a^2 + \epsilon_{a,c,j}$$

Resulting in the following count of individuals alive at 62 with and without a history of justice-involvement and the rate of justice-involvement:

$$N_{c,62,j} = B_c * \left( \sum_{a=18}^{62} P_{a,c} \right) * \left( 1 - \sum_{a=18}^{62} D_{a,c,j} \right)$$

Cohort $c$ exposure $= N_{c,62,1}/(N_{c,62,1} + N_{c,62,0})$
Forecasting model

Linear model to predict share of cohort $c$ with first-time CJ event at age $a$:

$$P_{a,c} = \alpha_0 + \alpha_1 P_{a-1,c} + \alpha_2 P_{a-2,c} + \alpha_3 P_{a-3,c} + \alpha_4 Age_a + \alpha_5 Age_a^2 + \epsilon_{a,c}$$

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Resulting in the following count of individuals alive at 62 with and without a history of justice-involvement and the rate of justice-involvement:

$$N_{c,62,j} = B_c \times \left( \sum_{a=18}^{62} P_{a,c} \right) \times \left( 1 - \sum_{a=18}^{62} D_{a,c,j} \right)$$

Cohort $c$ exposure = $N_{c,62,1}/(N_{c,62,1} + N_{c,62,0})$
Forecasting model

Linear model to predict share of cohort $c$ with first-time CJ event at age $a$:

$$P_{a,c} = \alpha_0 + \alpha_1 P_{a-1,c} + \alpha_2 P_{a-2,c} + \alpha_3 P_{a-3,c} + \alpha_4 Age_a + \alpha_5 Age_a^2 + \epsilon_{a,c}$$

With complementary mortality rate prediction model:

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Resulting in the following count of individuals alive at 62 with and without a history of justice-involvement and the rate of justice-involvement:

$$N_{c,62,j} = B_c \ast \left( \sum_{a=18}^{62} P_{a,c} \right) \ast \left( 1 - \sum_{a=18}^{62} D_{a,c,j} \right) \quad \text{Cohort } c \text{ exposure } = \frac{N_{c,62,1}}{N_{c,62,1} + N_{c,62,0}}$$
Results of forecasting exercise

All race/ethnicity groups, all gender groups
### Results of forecasting exercise

All race/ethnicity groups, Men

<table>
<thead>
<tr>
<th>Year</th>
<th>Any charge</th>
<th>Felony charge</th>
<th>Felony conviction</th>
<th>Prison</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>0.05</td>
<td>0.1</td>
<td>0.15</td>
<td>0.2</td>
</tr>
<tr>
<td>2024</td>
<td>0.2</td>
<td>0.3</td>
<td>0.25</td>
<td>0.3</td>
</tr>
<tr>
<td>2030</td>
<td>0.25</td>
<td>0.4</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>2036</td>
<td>0.3</td>
<td>0.5</td>
<td>0.35</td>
<td>0.5</td>
</tr>
<tr>
<td>2042</td>
<td>0.35</td>
<td>0.6</td>
<td>0.4</td>
<td>0.6</td>
</tr>
<tr>
<td>2048</td>
<td>0.4</td>
<td>0.7</td>
<td>0.45</td>
<td>0.7</td>
</tr>
</tbody>
</table>

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Justice Involvement and Old Age
Results of forecasting exercise

All race/ethnicity groups, Women

![Chart showing share of population at age 62 from 2018 to 2048 with lines for Any charge, Felony charge, Felony conviction, and Prison.]
Results of forecasting exercise

Black, non-Hispanic Men

<table>
<thead>
<tr>
<th>Year</th>
<th>Any charge</th>
<th>Felony charge</th>
<th>Felony conviction</th>
<th>Prison</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
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<tr>
<td>2036</td>
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<tr>
<td>2042</td>
<td></td>
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<tr>
<td>2048</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

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Justice Involvement and Old Age

Summer 2023
Results of forecasting exercise

White, non-Hispanic Men

<table>
<thead>
<tr>
<th>Year</th>
<th>Any charge</th>
<th>Felony charge</th>
<th>Felony conviction</th>
<th>Prison</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>0.1</td>
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Justice Involvement and Old Age

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Evidence on effects of justice involvement

Criminal justice involvement could impact a range of life-cycle outcomes that influence well-being in old age:

1. Employment and earnings (important for OASDI eligibility)
2. Health
3. Family structure and household attachment

But, little work has studied issue because criminal records are formed much earlier in life, often decades before reaching retirement age.
## Well-being of older justice-involved individuals

<table>
<thead>
<tr>
<th>Demographic Traits</th>
<th>ACS Respondents, age 50-70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Justice event pre-50</td>
<td>No pre-50 event</td>
</tr>
<tr>
<td>% Currently married</td>
<td>33.26</td>
</tr>
<tr>
<td>% Ever married</td>
<td>76.84</td>
</tr>
</tbody>
</table>

### Educational Attainment

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>ACS Respondents, age 50-70</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Justice event pre-50</td>
</tr>
<tr>
<td>% with less than HS diploma</td>
<td>24.4</td>
</tr>
<tr>
<td>% with HS diploma</td>
<td>39.54</td>
</tr>
<tr>
<td>% with some college</td>
<td>28.03</td>
</tr>
<tr>
<td>% with at least a Bachelor’s</td>
<td>8.03</td>
</tr>
<tr>
<td>% with a Disability</td>
<td>36.02</td>
</tr>
</tbody>
</table>
Well-being of older justice-involved individuals

<table>
<thead>
<tr>
<th>Household Traits</th>
<th>ACS Respondents, age 50-70</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Justice event pre-50</td>
</tr>
<tr>
<td>Avg Household Size</td>
<td>2.33</td>
</tr>
<tr>
<td>% with at least one minor in household</td>
<td>16.74</td>
</tr>
<tr>
<td>% with nonrelative in household</td>
<td>19.82</td>
</tr>
<tr>
<td>% residing in nursing home/health facility</td>
<td>0.48</td>
</tr>
<tr>
<td>% residing in residential treatment centers</td>
<td>0.31</td>
</tr>
<tr>
<td>% residing in emergency/transitional shelters</td>
<td>0.4</td>
</tr>
</tbody>
</table>
Well-being of older justice-involved individuals

<table>
<thead>
<tr>
<th>Economic Traits</th>
<th>ACS Respondents, age 50-70</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Justice event pre-50</td>
</tr>
<tr>
<td>% Living in Poverty</td>
<td>35.81</td>
</tr>
<tr>
<td>Average HH Income</td>
<td>$55,690</td>
</tr>
<tr>
<td>Average Person-level Income</td>
<td>$25,200</td>
</tr>
<tr>
<td>% with pension income</td>
<td>7.55</td>
</tr>
<tr>
<td>% with any HI</td>
<td>73.5</td>
</tr>
<tr>
<td>% with Private HI</td>
<td>36.36</td>
</tr>
<tr>
<td>% with Public HI</td>
<td>45.03</td>
</tr>
</tbody>
</table>
Well-being of older justice-involved individuals

<table>
<thead>
<tr>
<th>Criminal Justice Background</th>
<th>ACS Respondents, age 50-70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Justice event pre-50</td>
<td></td>
</tr>
<tr>
<td>Avg number of pre-age 50 convictions</td>
<td>3.8</td>
</tr>
<tr>
<td>Avg number of pre-age 50 felony convictions</td>
<td>2.4</td>
</tr>
<tr>
<td>Avg number of pre-age 50 years spent in prison</td>
<td>8.5</td>
</tr>
<tr>
<td>% No CJ Contact after age 50</td>
<td>74.1</td>
</tr>
<tr>
<td>Years since last criminal charge pre-age 50</td>
<td>8.2</td>
</tr>
<tr>
<td>No pre-50 event</td>
<td></td>
</tr>
<tr>
<td>Avg number of pre-age 50 convictions</td>
<td></td>
</tr>
<tr>
<td>Avg number of pre-age 50 felony convictions</td>
<td></td>
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<tr>
<td>Avg number of pre-age 50 years spent in prison</td>
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<td>Years since last criminal charge pre-age 50</td>
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Outline

1. Introduction
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Programs to support low-income older adults

1. Old Age and Survivors Insurance (OASI)
   - Provides 90+% of income for 14% of those age 65+, and more than half of income for 40% of those age 65+ (Dushi Trenkamp, 2021)
   - Can begin claiming benefits at ages 62-70; benefit amount is adjusted accordingly Eligibility is based on legal work history:
     - Monthly retirement benefits are progressive with respect to average indexed annual wages
     - Must have worked at least 10 years (40 quarters)

2. Disability Insurance (DI)
   - For those who cannot work due to long-term disability
   - Like OASI, eligibility depends on time spent in the legal workforce
3. Supplemental Security Income (SSI)
   − Provides last resort, means-tested benefits to the low-income elderly, blind, and disabled
   − Does not depend on work history
   − Benefit levels are typically near the bottom of the OASDI benefit schedule
   − Also available to all adults with qualifying disabilities
CJ involvement can affect SSA eligibility

Criminal justice involvement can affect eligibility for all of the above:

- Permanent exclusion: disabilities caused or exacerbated by felonious acts or incarceration
- People currently incarcerated are not eligible for SSI benefits
- Cannot be a “fugitive felon” (fleeing prosecution/punishment for felony crimes, including owing outstanding debts); part of PRWORA (1996)

Enforcement of fugitive felon rule:

- Question on SSA application form asks the applicant if they are fleeing to avoid prosecution, custody, or recapture for certain felonies (including any outstanding criminal legal debt)
- SSA also compares information on benefit rolls with FBI’s National Crime Information Center (NCIC) data on arrest warrants
Changes in fugitive felon enforcement

- Original rule: SSA denied or suspended benefits to any individual confirmed to have an outstanding felony arrest warrant
  - This could be triggered by something as minor as having outstanding court debt
  - In 2009 (prior to the Martinez settlement), 58,000 individuals were identified as fugitive felons and had benefits suspended
- Two major lawsuits against SSA:
  1. Martinez v. Astrue 2009
  2. Clark v. Astrue 2011
- Fugitive felon suspensions down to only 830 individuals overall by 2014
Martinez v. Astrue 2009

First major class action lawsuit:
- Argued that SSA was not doing enough to confirm that someone was actually “fleeing” - they might simply be unaware of an outstanding warrant
- SSA agreed to:
  1. enforce only on individuals with outstanding warrants related to escape or flight
  2. retroactively pay benefits to those with wrongful suspensions

Policy change implemented **April 1, 2009**
Clark v. Astrue 2011

Second major class action lawsuit:

- Challenged enforcement for individuals with warrants due to a violation of probation or parole
- SSA agreed to:
  1. prove that an alleged warrant before it can suspend benefits
  2. confirm active pursuit by law enforcement

Policy change implemented May 9, 2011

- Final appeal was denied in 2012
Changes in take-up: OASDI/SSI take-up

![Graph showing changes in OASDI/SSI take-up for Non-justice involved and Justice-involved individuals from 2006 to 2018.]

- Non-justice involved
- Justice-involved

Year:
- 2006
- 2009
- 2012
- 2015
- 2018
Changes in take-up: OASDI/SSI benefits
Changes in take-up: SSI take-up

![Graph showing changes in SSI take-up over years (2006-2018) for non-justice involved and justice-involved individuals. The graph indicates an increase in SSI take-up for justice-involved individuals around 2009, with fluctuations and a peak around 2018. The non-justice involved line remains relatively stable.]
Changes in take-up: SSI benefits

![Graph showing changes in take-up of SSI benefits by year, with two lines indicating non-justice involved and justice-involved groups. The graph shows an increase in both groups, with the justice-involved group having a more significant increase.]
Empirical strategy

Compare outcomes of those with and without documented justice-involvement (felony conviction or prison record) before and after expansion in access to OASDI/SSI benefits:

- Diff-in-diff to estimate average effect over follow-up period (2010-2019)
- Event study to delve into dynamics over time
- SE clustered at state × year × justice-type grouping

Data:

- Criminal Justice Administrative Records System (CJARS)
- American Community Survey
- Other admin data: Numident, SSA benefit files

Weighting:

- Re-weight ACS person weights of non-justice involved group to fit population characteristics of justice-involved group based on: race/ethnicity, sex, educational attainment, birth cohort, state
Other sample details

Restrict to those:

- In 2006-2019 ACS (except for mortality)
- Living in a CJARS covered states: AZ, CO, FL, GA, IL, IN, MD, MI, MN, MT, NE, NJ, NC, ND, OK, OR, PA, TX, UT, WA, WI
- Ages 50 to 80 at time of survey*
- Birth cohorts 1940-1965

Health insurance questions only added to ACS in 2008

*Insufficient historical CJARS data coverage → most individuals are aged 50 - 65 years old at survey.
Event study of OASDI/SSI take-up
Event study of OASDI/SSI benefit levels

<table>
<thead>
<tr>
<th>Year</th>
<th>Total value of SSA benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>-400</td>
</tr>
<tr>
<td>2007</td>
<td>-200</td>
</tr>
<tr>
<td>2008</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>200</td>
</tr>
<tr>
<td>2010</td>
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<td>2015</td>
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<tr>
<td>2016</td>
<td>0</td>
</tr>
<tr>
<td>2017</td>
<td>-200</td>
</tr>
<tr>
<td>2018</td>
<td>-400</td>
</tr>
</tbody>
</table>

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Justice Involvement and Old Age
Event study of SSI take-up
Event study of SSI benefit levels
SSA benefits and health insurance

- OASDI and SSI can mechanically increase health insurance coverage through Medicaid and Medicare
- Estimated effects will be difficult to differentiate financial support versus health insurance mechanisms
Is the ACA a confounder? Not really...

Has OASDI/SSI benefit? Has public health insurance?
Is the ACA a confounder? Although...

Subsidies for ACA exchanges do eventually increase private insurance take-up.
Broad range of potential outcomes

1. Health outcomes
   - Disability, nursing home usage, mortality
2. Labor market activity
   - Employment, wages, self-employment
3. Crime
   - Criminal/felony charges
4. Poverty and destitution
   - Living in poverty, homeless shelter usage, drug treatment facility
5. Household structure
   - Total household members, married, living with minor child
Health outcomes

Event Study

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Justice Involvement and Old Age
Labor market behavior

Event Study
Crime outcomes

- Criminal charge within 1 year
- Felony charge within 1 year
Poverty outcomes

Event Study

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Household structure outcomes

Event Study

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Additional results

- Subgroup analysis by:
  - Race
  - Sex
  - Age

- Spillover outcomes on children and romantic partners
  - Still work in progress, to be disclosed

- Relative impact of *anticipated* and *unanticipated* access to support during retirement
  - Leverage whether lawsuits occurred before or after turning 62
  - Struggling with sufficient sample
    - Need justice-involved individuals born before 1948
    - Prime crime years during 1960's where little data exists
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Discussion

- U.S. will experience a wave of individuals reaching retirement with criminal records over next two decades
  - Little formal analysis of what this experience will look like
  - Unclear whether our safety net is structured in a way to support them
- In terms of measurement, we:
  - Provide first descriptive evidence on this group as they near retirement age
    - Indications of severe disadvantage along multiple indicators
  - Formally forecast growth rates in this population
    - Will be even larger if we are able to increase life expectancy in this population
  - Show heightened dependence on SSI over OASDI
    - Important fiscal implications for funding safety net for elderly population
Conclusion

- Through analyzing changes in SSA’s fugitive felon rule, we estimate quasi-experimental estimate on the impact of safety net assistance (financial support + health insurance) on older justice-involved individuals
- We find that support:
  - Improves health
  - Lowers use of costly emergency care/assistance
  - Moves individuals out of poverty
  - Strengthens families and household units
- Supporting the justice-involvement population into/through retirement will be costly, but comes with important societal benefits
Thanks!

Questions, comments, and suggestions welcome.
- mgms@umich.edu, @Econ_Mike

Learn more about integrating CJARS into your research:
- https://cjars.org

Join our pilot training workshop on October 5, 2023:
- https://cjars.org/2023-workshop/
- Funding support available, application due August 7
1 year mortality risk

![Graph showing 1 year mortality risk from 2006 to 2018. The graph indicates fluctuations in mortality risk across different years.]
Any criminal charges in 1 year
Living in poverty
Total household members

![Graph showing the total number of household members over years. The x-axis represents the years 2006 to 2018, and the y-axis represents the total people in household. The graph shows trends and variations in the number of household members across the years.]