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CJARS Criminal Justice Administrative Records System

Criminal Justice Administrative Records System: A Collaborative Approach to Building Next Generation Criminal Justice Data Infrastructure

Michael Mueller-Smith

University of Michigan

November 4, 2021

Disclaimer

CJARS Criminal Justice Administrative Records System

- Any opinions and conclusions expressed herein are those of the author and do not necessarily represent the views of the U.S. Census Bureau. While this work was not subject to formal Census Bureau content review, Census staff reviewed all statistical output to ensure that no confidential information was disclosed.
- This presentation meets all of the U.S. Census Bureau's Disclosure Review Board (DRB) standards and has been assigned DRB approval numbers CBDRB-FY19-444, CBDRB-FY20-ERD002-021, CBDRB-FY21-ERD002-008.

Outline

CJARS Criminal Justice Administrative Records System

1. Project summary
2. Project detail
3. Project operations
4. Selected contributions and findings

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 National Science Foundation, the Bill and Melinda Gates Foundation, the Laura and John Arnold Foundation, the Robert Wood Johnson Foundation, the University of Michigan, and the U.S. Census Bureau

Incomplete criminal justice data infrastructure

CJARS Criminal Justice Administrative Records System

- Limits how performance is measured, which policy questions are asked
- Leads to varying definitions of recidivism
- Makes it difficult to identify effective policy levers
- Prevents comprehensive benefit-cost analyses

CJARS project goals

CJARS Criminal Justice Administrative Records System

- Collect, harmonize, and link longitudinal, multi-jurisdictional CJ data to track individuals and cases across space and time
- Embed criminal justice contact and policy within broader socio-economic data
- Enable timely and innovative federal statistical products about CJ system and justice-involved population
- Provide national research platform for qualified researchers on approved projects

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Project scope and data collection

CJARS Criminal Justice Administrative Records System

3k sheriff's offices/3k jails

3k prosecutor's offices

50 state court admins/3k criminal courts

50 state departments of corrections

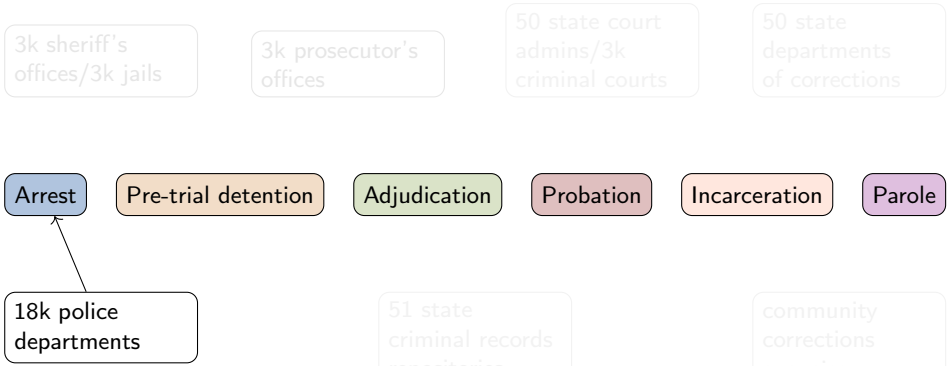
Arrest | Pre-trial detention | Adjudication | Probation | Incarceration | Parole

18k police departments

51 state criminal records repositories

community corrections agencies

Project scope and data collection



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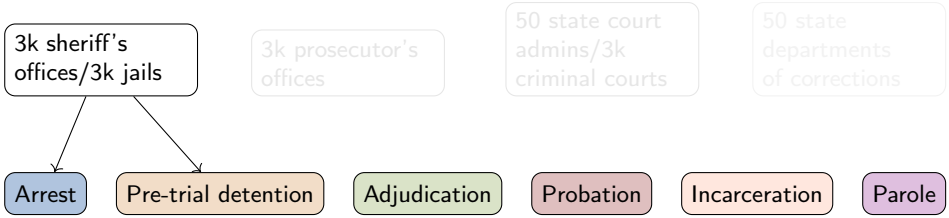

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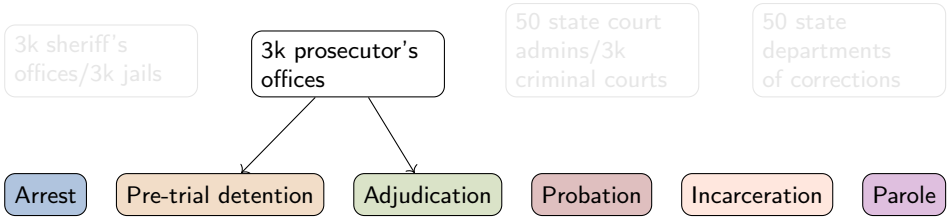

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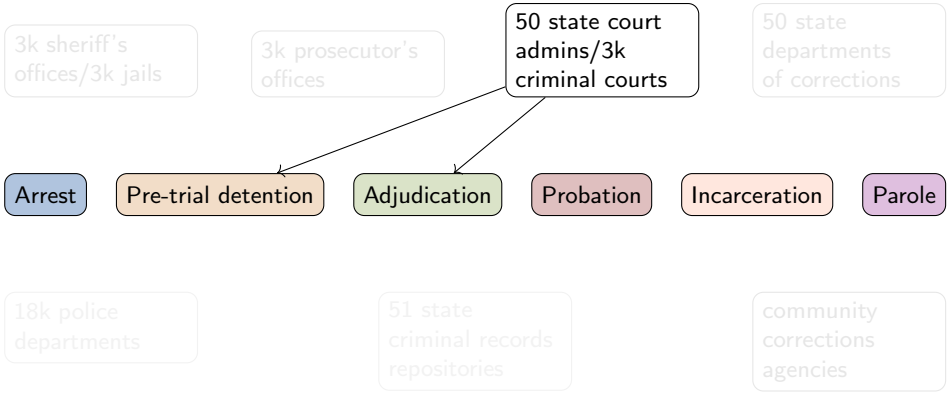

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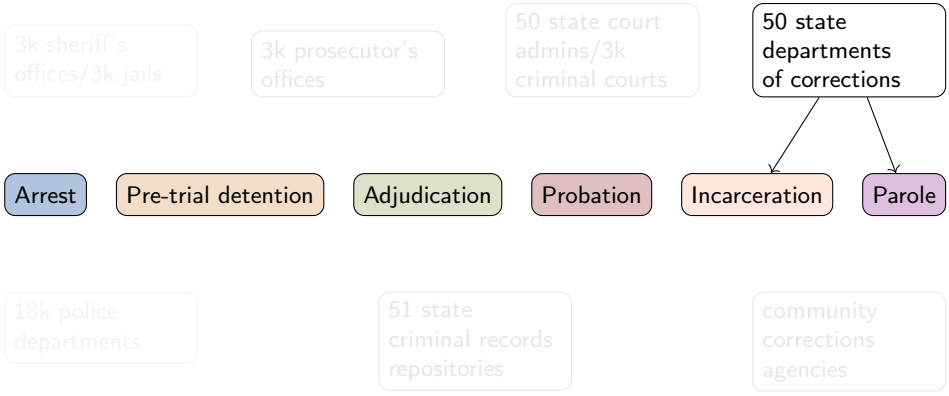
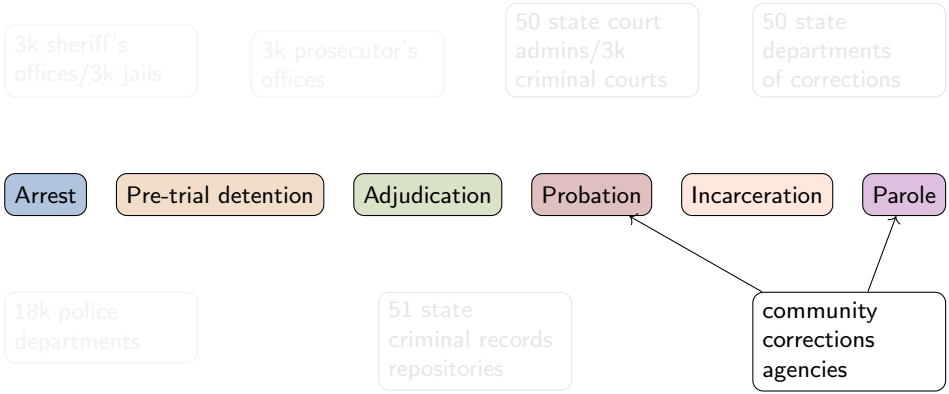


Project scope and data collection

CJARS Criminal Justice Administrative Records System



Project scope and data collection

CJARS Criminal Justice Administrative Records System

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3k prosecutor's offices

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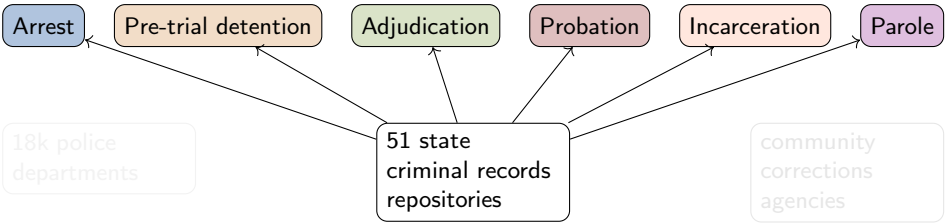

18k police departments

community corrections agencies

Project scope and data collection

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Project scope and data collection

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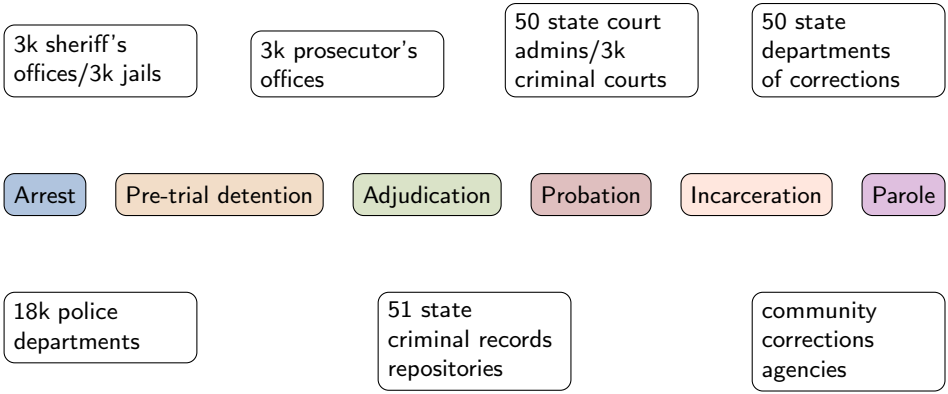


Out of scope: civil court proceedings, traffic offenses below misdemeanor level, crime reports not associated with arrest, juvenile records not transferred to criminal court, records without PII

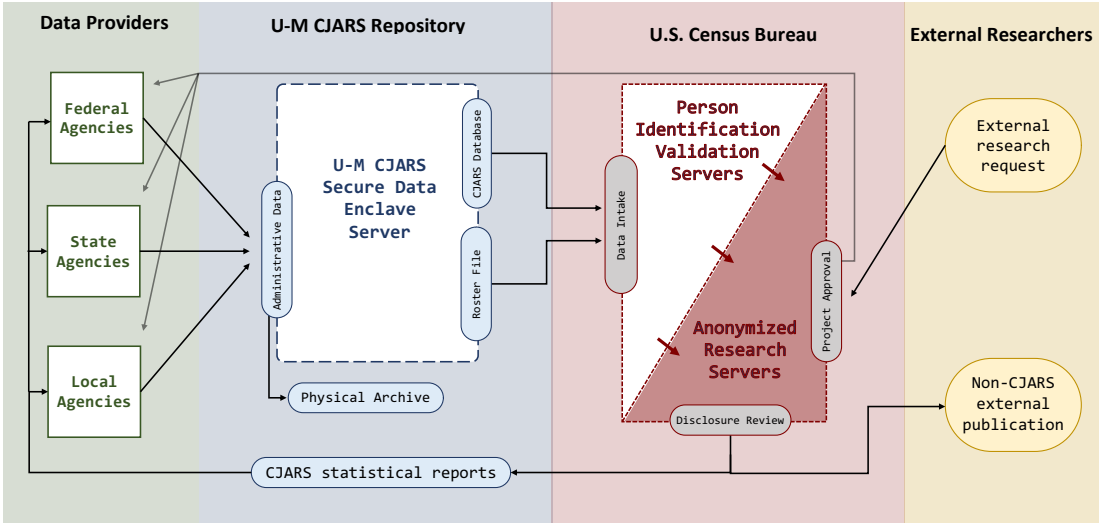
CJARS stakeholders

CJARS Criminal Justice Administrative Records System

- **University of Michigan** acquires and harmonizes data from **criminal justice agencies**, including law enforcement, judicial, and corrections agencies
- **Census Bureau** links CJARS with other socioeconomic data to build data products for data providers, host CJARS access through FSRDC network, develop new data products, and improve operations
- Qualified **researchers** on approved projects analyze CJARS in the FSRDCs
- **Communities and policymakers** use CJARS-derived statistical products to understand the performance of the criminal justice system

CJARS at a glance

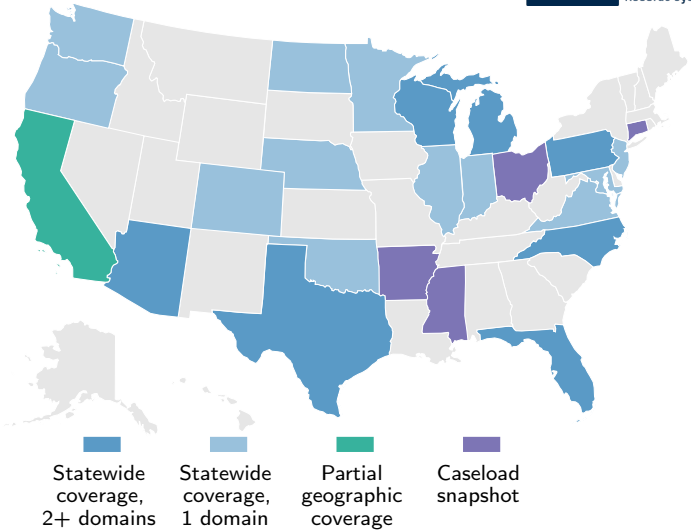
CJARS Criminal Justice Administrative Records System



CJARS data coverage

CJARS Criminal Justice Administrative Records System

- 100–300 data providers
- States with coverage of state court, state DOC, and/or state repository represent 48% of U.S. population
- 2b records
- 175m CJ events
- 36m unique individuals



Project documentation and resources

CJARS Criminal Justice Administrative Records System

Data Documentation

CJARS Criminal Justice Administrative Records System

Criminal Justice Administrative Records System (CJARS)

Keith Finlay[1] and Michael Mueller-Smith[2]

[1]U.S. Census Bureau
[2]University of Michigan

2021-03-04

Abstract

The Criminal Justice Administrative Records System (CJARS) is a nationally integrated data repository designed to transform research and policymaking on the United States criminal justice system. As the University of Michigan, CJARS collects longitudinal electronic records from a growing number of state and local criminal justice agencies to support research on all aspects of the system. At the U.S. Census Bureau, harmonized criminal justice records can be linked anonymously at the person-level with extensive social, demographic, and economic information from surveys and administrative records. CJARS is a joint project between researchers at the Census Bureau and University of Michigan with the goal of expanding research and statistical reporting on the criminal justice system.

The project website is https://cjars.umich.edu. The latest version of the data documentation can always be found there. Data users who have questions about CJARS can contact cjars-data-user@umich.edu.

Any conclusions expressed herein are those of the authors and do not necessarily represent the views of the U.S. Census Bureau or the University of Michigan. All results have been reviewed by University of Michigan except for those explicitly labeled as cleared Census Bureau data protected by 13 USC §9. This document meets all of the U.S. Census Bureau Disclosure Review Board (DRB) standards and has been assigned DRB approval number CBDRB-FY19-37 (approved 2019-06-05).

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United States Census Bureau

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Benchmarking Report

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CJARS Criminal Justice Administrative Records System

Benchmarking the Criminal Justice Administrative Records System's Data Infrastructure

Jordan Papp
University of Michigan

Michael Mueller-Smith
University of Michigan

Abstract

The goal of the Criminal Justice Administrative Records System (CJARS) is to build a data infrastructure to support individual-level research and administration of the U.S. criminal justice system. Achieving this goal requires validation of the data collected and processed by CJARS against other reliable sources of data. The purpose of this report is to convey the findings of a series of exercises that were conducted to benchmark the CJARS data infrastructure against other widely-used sources of data on justice-involved populations (i.e., Uniform Crime Report, State Court Processing Statistics, National Prisoners Statistics Program, National Corrections Reporting Program, Annual Probation Survey, and Annual Parole Survey). This involved comparing counts of events and caseload characteristics reported in these data series to similar estimates produced using CJARS. Results indicated that there was a high degree of alignment between the counts of events and caseload characteristics that were estimated using CJARS as compared to the data series that were used for benchmarking. The findings reviewed in this report provide a substantial amount of evidence in support of the efficacy of the CJARS data infrastructure.

Report citation:

Papp, J., & Mueller-Smith, M. (2021). *Benchmarking the Criminal Justice Administrative Records System's Data Infrastructure*. Ann Arbor, MI: University of Michigan. https://cjars.isr.umich.edu/benchmarking-report-download/

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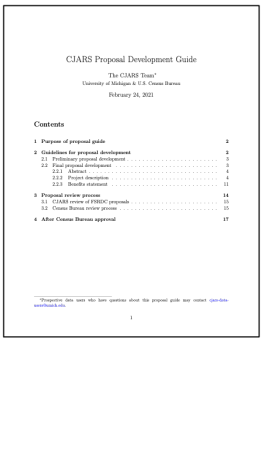
Proposal Guide



CJARS Proposal Development Guide

The CJARS Team*
University of Michigan & U.S. Census Bureau

February 24, 2021

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*Prospective data users who have questions about this proposal guide may contact cjars-data-user@umich.edu.

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Fellowship Solicitation

INSTITUTE FOR SOCIAL RESEARCH UNIVERSITY OF MICHIGAN

CJARS Criminal Justice Administrative Records System

NSF-CJARS Fellowship Competition, 2021

Solicitation release date: March 5th, 2021
Application deadline: May 28th, 2021 by 5 PM (Eastern Time)
Submission portal: https://cjars.isr.umich.edu/2021-fellowships-portal

Fellowship overview

The Criminal Justice Administrative Records System (CJARS) is a nationally integrated repository designed to transform research and policymaking on the criminal justice system for all investigators. This solicitation seeks to cultivate a diverse CJARS user base by encouraging interested researchers from a range of backgrounds to incorporate CJARS into their ongoing research activities or to develop original research projects that feature CJARS data infrastructure.

Proposals may focus on a range of themes, including but not limited to studying the causes and consequences of criminality in the U.S., improving measurement of the scope of the U.S. criminal justice system, measuring the effects of criminal justice reforms on the U.S. population, and examining the organizational operations of the U.S. criminal justice system.

Research using CJARS must occur in a Federal Statistical Research Data Center (FSRDC). FSRDCs are secure U.S. Census Bureau facilities for conducting research with restricted microdata. Research in the FSRDCs must be for a statistical purpose, produce a benefit to the Census Bureau, generate only aggregate statistical output, and be approved by the Census Bureau. Chosen applicants will receive a $10,000 stipend to support their proposed research activities, which can support time needed to write an FSRDC proposal, travel to the FSRDC, and publication costs. Receipt of the stipend is not guaranteed. Although we cannot guarantee your Census Bureau project approval, selected fellows will also receive feedback and mentorship on their FSRDC proposal prior to submission to help increase the likelihood of a successful outcome.

Fellows will be invited to present their research plan and/or disclosed findings at one of the annual CJARS board of directors meetings.

Proposals will be evaluated on the basis of intellectual merit, the compatibility of CJARS data infrastructure with the proposed research, the benefit to the research community, and the applicant's experience and training. Priority will be given to early stage researchers, demographic groups underrepresented in science and engineering, and research fields underrepresented in the FSRDC system.

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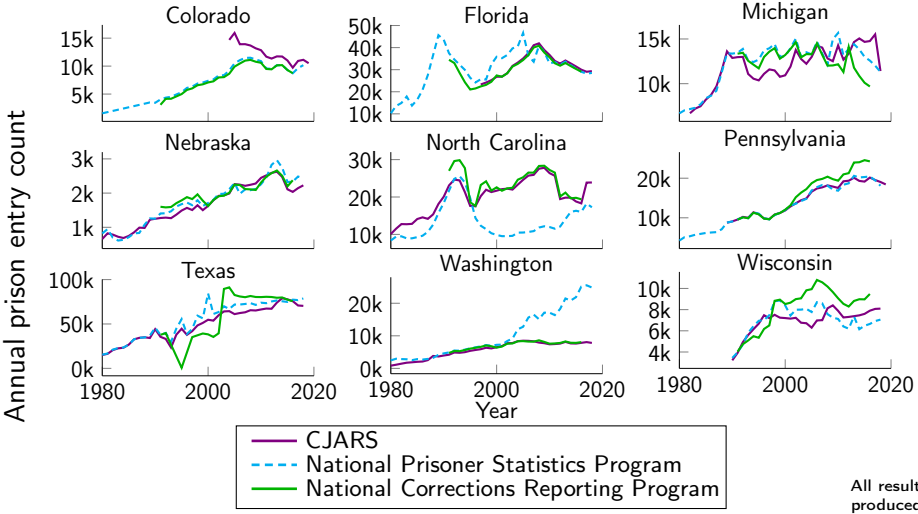
CJARS can replicate BJS series



All results were produced without the use of Title 13 data.

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Funding/resources

CJARS Criminal Justice Administrative Records System

- UM has raised about $7m for project so far
- Census resources
- Increasingly difficult to fund general operations
- Growing research obligations could slow collection, harmonization, and Census production activities
- 2–3 year cycles increase risk of losing subject-matter expertise

Current staff

CJARS Criminal Justice Administrative Records System

University of Michigan

- Lead: Mike Mueller-Smith
- 2 project managers
- 3 RAs
- 1 post-doc
- 2 PT grad students
- 2 PT undergrad programmers

US Census Bureau

- Lead: Keith Finlay
- Civic Digital Fellows (4 since 2020)
- 3 add'l researchers working on topical research projects

Governance

CJARS Criminal Justice Administrative Records System

- Census Bureau acquiring UM data under legal agreement through 2026
  - Access to IRS tax data available through 2024
- Strategic data decisions consensus based
- Board of Directors/Scientific Advisory Board
- Census/FSRDC proposal review at UM is as light as possible

Project challenges

CJARS Criminal Justice Administrative Records System

- Representative data system requires significantly more data acquisition
- Limited economies of scale in data acquisition and harmonization
  - Trade-offs in geographic coverage, procedural scope, schema detail, data quality
- Cannot depend on grant funds to UM for core Census Bureau outputs

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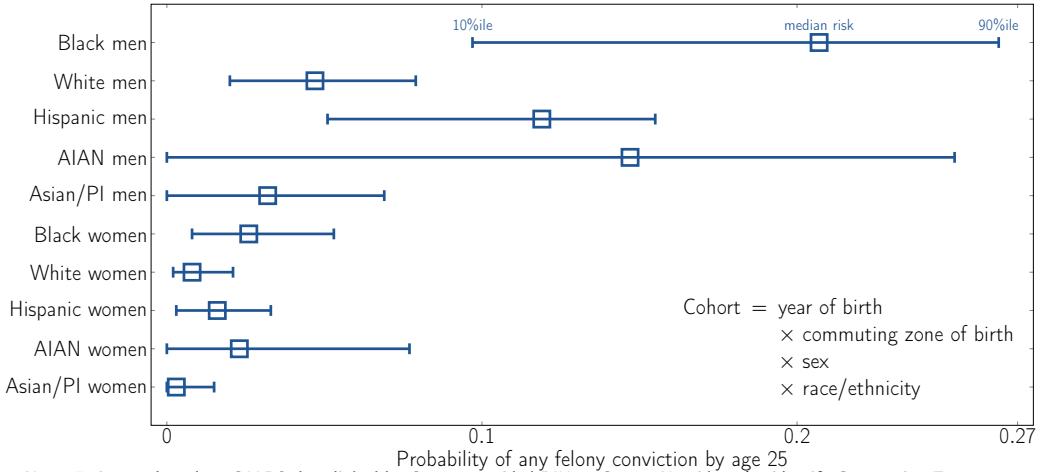
Innovations in data science/measurement

CJARS Criminal Justice Administrative Records System

- Entity resolution at UM
  - Agency-validated identifiers across datasets/PII realizations used to algorithmically identify high-quality matches
- Automated offense string classification
  - Partnered with Measures for Justice
  - New offense categorization scheme based on FBI/BJS standard
  - ML model estimated from 400k hand-coded offense strings
  - Public classification service
- Family and residential history crosswalks at Census
  - Link residentially unstable people to families and local labor markets

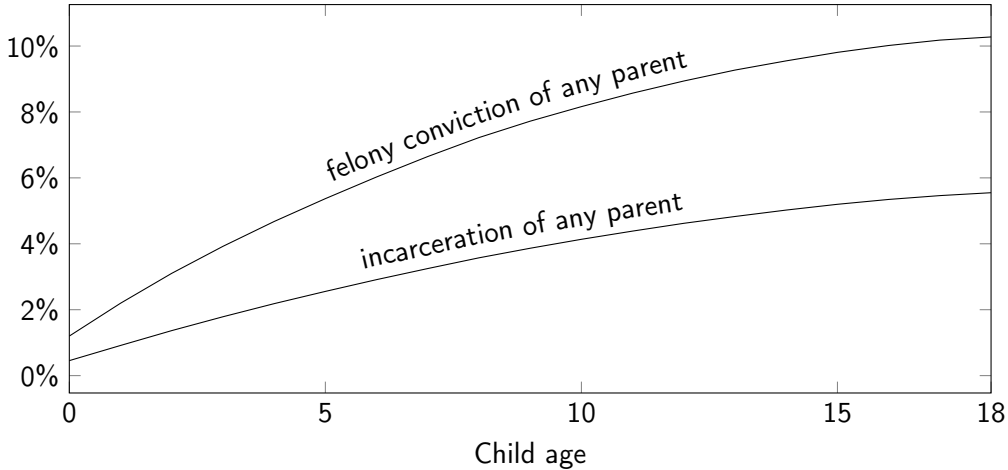
Cohort-level cumulative felony conviction risk

CJARS Criminal Justice Administrative Records System



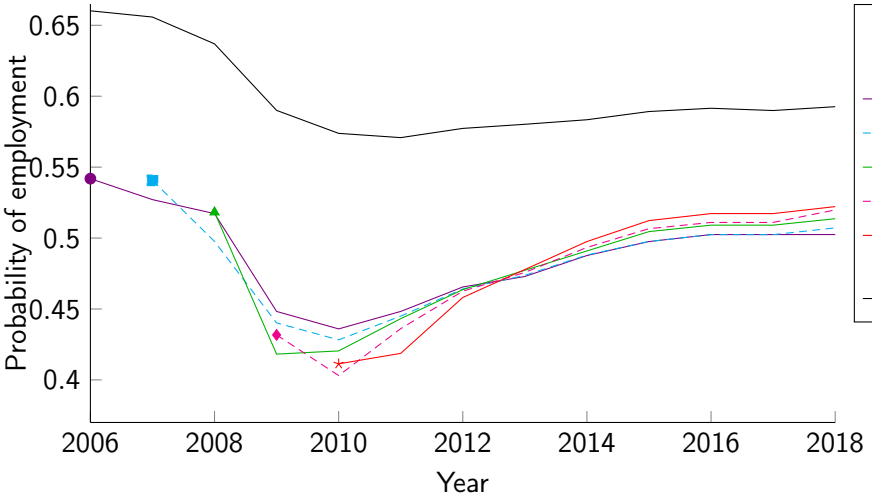
Note: Estimates based on CJARS data linked by Census-provided PIK to Census Numident (to identify Commuting Zone of birth, sex, race, and ethnicity). These results were disclosed by the U.S. Census Bureau's Disclosure Review Board with approval number CBDRB-FY19-444.

Children exposed to parental justice involvement



Note: Estimates based on CJARS data linked by Census-provided PIK to family relation crosswalk that was synthesized from a variety of survey and administrative data. These results were disclosed by the U.S. Census Bureau's Disclosure Review Board with approval number CBDRB-FY20-ERD002-021.

Employment of the justice involved



All figures have been rounded according to Census Bureau DRB rules. All results were approved for release by the Census Bureau, authorization number CBDRB-FY21-ERD002

Thank you

CJARS Criminal Justice Administrative Records System

Michael Mueller-Smith
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Learn more:
`https://cjars.isr.umich.edu`