

# Criminal Justice Administrative Records System (CJARS)

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#### Abstract

The Criminal Justice Administrative Records System (CJARS) is an integrated data repository designed to transform research and policy-making in the United States justice system. At the University of Michigan, CJARS collects longitudinal electronic records from justice-related agencies and harmonizes these records to track a criminal episode across all stages of the system. At the Census Bureau, harmonized criminal justice records can be linked at the individual-level with extensive social, demographic, and economic information from national survey and administrative data. The CJARS project is a partnership between the Census Bureau and University of Michigan, with the goal of increasing researcher access to criminal justice data.

This is a draft document. It is incomplete and may contain errors.

Any conclusions expressed herein are those of the authors and do not necessarily represent the views of the U.S. Census Bureau. This document meets all of the U.S. Census Bureau Disclosure Review Board (DRB) standards and has been assigned DRB approval numbers CBDRB-FY19-371 (approved 2019-06-03).

The project website is cjars.isr.umich.edu.

Data users who have questions about the nature and use of CJARS data may contact cjars-data-users@umich.edu.





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# 1 Project description

# 1.1 Project description and objectives

The Criminal Justice Administrative Records System (CJARS) is an integrated data repository designed to transform research and policy-making in the United States justice system. CJARS collects longitudinal electronic records from justice-related agencies and harmonizes these records to track a criminal episode across all stages of the system. Criminal justice records can then be linked at the individual-level with extensive social, demographic, and economic information from national survey and administrative data. The CJARS data infrastructure is being built from a partnership between the U.S. Census Bureau and University of Michigan.

CJARS has the following main objectives:

- Create a dataset that follows criminal cases across criminal justice agencies, from arrest through discharge from the justice system.
- Capture the progression of criminal activities over the life course by constructing longitudinal records of contact that individuals have with the justice system.
- Provide a platform with nationwide scalability to facilitate research in perpetuity through the Federal Statistical Research Data Center (FSRDC) network.
- Integrate criminal justice data with existing Census Bureau individual-level surveys and administrative records to facilitate novel research not previously possible.

# 1.2 Data collection

There is substantial variation in the way that agencies make data available for collection by outside parties. Due to this variation, CJARS pursues various methods of data collection depending on each agency it conducts outreach to. Data is collected through three different channels: (1) data use agreements, (2) public records requests, and (3) web scraping or bulk downloads.

The CJARS database relies on individual-level electronic administrative records that include process information such as the dates and outcomes of important events as well as personally identifying information (PII), such as names and dates of birth. A range of local and state entities create and maintain these records, including police departments, sheriff's offices, criminal courts, departments of corrections, and community supervision agencies. There are also some instances where criminal justice data is available through third parties that receive data from agencies.

### 1.3 Project scope

Variation also exists across states and agencies in the way that data is collected and stored. For instance, some state court agencies maintain a statewide centralized repository where all data on events that occur under the state's jurisdiction are stored. Conversely, some states have a less centralized system where data storage is the responsibility of counties, or even cities. These inter-agency differences lead to variation in the scope of data coverage across geographic region and time in CJARS.

CJARS has collected data in a number of states, which can be seen in Figure 1. Shaded states are those where CJARS has collected data in a state in at least one criminal justice domain. Using 2019 state population estimates, states with statewide CJARS coverage (in at least one criminal justice domain) constitute 48.2% of the U.S. population.

It is important to note that data coverage varies substantially from state to state. Specifically, there are differences in coverage of event type, time frame, and geography. More detailed information on coverage within states will be described in later sections.

Finally, it is worth noting the types of criminal justice events that are captured by the CJARS data infrastructure. These include: records of arrests, criminal court case filings, and terms of probation, prison, and parole. Other events that are processed through similar institutions (i.e., courts) but do not fall under the purview of a

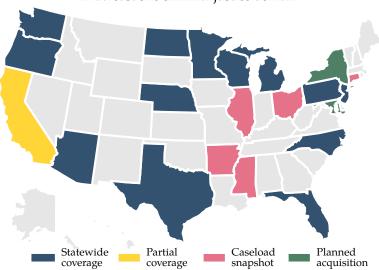


Figure 1: CJARS coverage summary map: data acquisition in at least one criminal justice domain

criminal justice event are excluded from the scope of the project (e.g., civil court filings). Juvenile records are also excluded from the scope of the CJARS data infrastructure.

#### 1.4 Data access

A major contribution of CJARS is the creation of a broadly accessible repository that will permanently enhance research infrastructure in the United States. The data collected, cleaned, and harmonized at the University of Michigan will be integrated into U.S. Census Bureau data systems and made anonymous and available through the Federal Statistical Research Data Center (FSRDC) network. Researchers can use the standard Census Bureau FSRDC proposal process to request use of CJARS. The data cannot be requested directly from the University of Michigan.

Distribution through the FSRDCs provides an ideal outlet. The FSRDC network is broadly available to researchers and provides excellent scientific computing resources, while maintaining the highest levels of information security and confidentiality protection. Researchers working in the FSRDCs have no access to sensitive PII, and can only request release of aggregate statistical material. The FSRDCs allow researchers to link CJARS records at the person-level to a wealth of socioeconomic survey and administrative data held by the Census Bureau. For more information on the FSRDC system and other available data, please visit: census.gov/fsrdc.

# 1.5 Data privacy

CJARS goes to great lengths to ensure the protection and security of its data, so that the identities and characteristics of all individuals in CJARS records are kept confidential.

The University of Michigan processes all of the criminal justice records that it collects on a data system that was built to be compliant with FBI Criminal Justice Information Services (CJIS) standards. The Michigan State Police have reviewed this system and determined that it is "substantially compliant" with all FBI CJIS policies that are applicable to an entity like CJARS. On the secure data system at the University of Michigan, PII is removed from the criminal history records at an early stage of processing. Only those individuals working on record linkage have access to the PII.

When CJARS data have been harmonized, the CJARS team at the University of Michigan transfers encrypted data files securely to the Census Bureau. The Census Bureau and its associated FSRDCs comply with all current National Institute of Standards and Technology (NIST) standards and publications in accordance with Title III of the E-Government Act of 2002 (PL107-347). All systems are fully assessed against NIST Special Publication 800-53r3 and Special Publication 800-37r1. The Census Bureau IT Security Program is reviewed annually by the Department of Commerce Office of the Chief Information Officer and Inspector General.

At the Census Bureau, received data are accessible only by a small staff responsible for inventorying the contents of the data and removing sensitive PII. Next, a data linkage team uses a probabilistic linkage process to replace sensitive PII with a unique identifier called a Personal Identification Key (PIK) that can be used to link records to other databases held at the Census Bureau. More information about PIK assignment can be found in Subsection 2.4.

Finally, anonymized CJARS records are moved to secure research servers. There, qualified researchers on approved projects can work in the FSRDCs to link CJARS records with other data held by the Census Bureau. PII is not available for researchers in order to maintain the privacy of individuals.

# **1.6 Principal investigators**

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# 1.7 Project funding

The CJARS project has been supported by National Science Foundation grant SES-1925563, as well as grants from the Laura and John Arnold Foundation and the Bill and Melinda Gates Foundation. The University of Michigan has supported the CJARS project through the following programs: Michigan Institute for Teaching and Research (MITRE), Populations Studies Center (PSC), and Poverty Solutions.

# 1.8 Acknowledgments

This project would not be possible without the hard work of a great group of people. Jordan Papp, Diana Sutton, and Matt Van Eseltine have supported the project as project managers. Jay Choi developed the CJARS web scraping system and a lot of the harmonization processes. Matt Gross developed entity resolution algorithms and harmonized a lot of data. Ben Pyle contributed to data harmonization and research. Francis Fiore and David Smith turned the web scraping system into an industrial-strength platform. Shaeq Ahmed, Luis Baldomero-Quintana, Madeleine Danes, Kenna Garrison, Lauren Lee, Lyllian Simerly, Ellen Stuart, and Peixin Yang have also supported the project as research assistants. Brittany Street has furthered CJARS research as a postdoctoral research fellow.

Carol Bowen, Kerri Cross, Violet Elder, and Lauren Tingwall have supported the project as research administrators. The following advisors have guided the project as part of the CJARS Board of Directors: Shawn Bushway, Jens Ludwig, Julia Lane, Jim Lynch, Justin McCrary, Jeff Morenoff, Amy O'Hara, Anne Piehl, Steve Raphael, Bill Sabol. The project also received guidance from members of its Scientific Advisory Council: Maggie Levenstein, Jeff Morenoff, and JJ Prescott.

At the Census Bureau, Carla Medalia and Katie Genadek have offered a lot of support for the project.

# 1.9 Data citation

Publications and research reports based on the CJARS database should cite it appropriately. The citation should include the following:

Keith Finlay and Michael Mueller-Smith. 2020. Criminal Justice Administrative Records System (CJARS) [dataset]. Ann Arbor, MI: University of Michigan. https://cjars.isr.umich.edu.

### **1.10** Documentation structure

- Section 2 provides an overview of how the CJARS project acquires data, and how it is integrated into a unified system at the University of Michigan.
- Section 3 explains the structure of the harmonized data system. Of particular interest is the variable codebook in Subsection 3.6.
- Appendices cover the project in much more detail.

- Appendix A identifies the agency sources of CJARS administrative data.
- Appendix B explains the variable harmonization process in detail.
- Appendix C lists code schemes used in the variables, including criminal classification scheme (and explains how those relate to BJS schemes).
- Appendix D explains the methods used to identify individuals and procedural episodes in the CJARS data.
- Appendix E gives an overview of how to do record linkage on Census Bureau systems using CJARS data.
- Appendix G describes a survey of state criminal history repository database designs, which provides some context for CJARS schema choices.

# 2 Data acquisition and integration

# 2.1 Mechanisms used to acquire criminal justice administrative data

CJARS utilizes a three-pronged approach to acquiring administrative criminal justice records, which include the following:

- 1. **Data use agreements.** Formal legal documents are signed which guide the obligations of CJARS when data is obtained from an agency.
- 2. **Public records requests.** A request for public records is filed in jurisdictions where legal statutes allow for such requests.
- 3. Web scraping or bulk downloads. Data that is publicly available online is collected using web scrapers or downloaded in bulk when available. Scraping is only conducted using methods that comply with an agency's terms of use.

Table 1 shows the number of records that each of these methods has contributed to the CJARS repository.

Table 1: CJARS records acquired by acquisition method				
Acquisition source	Records	Individuals		
Data use agreements	1,175,100,911	8,164,073		
Public records requests	261,831,295	10,330,761		
Web scraping or bulk downloads	301,470,747	3,352,297		

#### 2.2 Sources of criminal justice data

Data is collected within many separate parts of the justice system. For example, incarceration records are typically held and managed by a state's Department of Corrections. Conversely, arrest records are often held and managed by local police departments. To provide researchers with a clear understanding of the typical sources of CJARS data, the types of events held in this repository are described below.

- Booking and arrests. This information is typically recorded by police departments and sheriff's offices.
- Trial, dispositions, sentences, and appeals. Such information may be held by local and state courts, as well as district attorney's offices and county clerks.
- Incarceration, probation, parole, and special programs. Most of this information may be recorded by a state Department of Corrections (or its equivalent). Nevertheless, it can be also recorded by some counties or regional offices.

The sources of all data held within the CJARS repository can be found in Appendix A. Data has been collected by a mixture of state, county, and local agencies. In addition, some data has also been collected by a third party with access to data from an agency.

### 2.3 Criminal justice data integration and harmonization process

One of the major barriers to research on the criminal justice system is a lack of integration of records across agencies. For example, arrest records are rarely linkable to information that occurs at later points in the system (e.g., incarceration). CJARS implements the following steps in order to create one large integrated data platform.

- **Data requests and collection**. CJARS collects data using the three-pronged approach that is described above. All data and other relevant information describing the data are kept in a secure data enclave.
- **Data cleaning**. Original data are cleaned and harmonized to fit a common CJARS schema (described in more detail in later sections).
- Merge. The harmonized data are appended and merged with other criminal justice records in CJARS to create a single dataset spanning agencies and jurisdictions.

• **PII data**. CJARS uses personally identifiable information to link records that all belong to the same individual. This occurs in two distinct steps. The PII data is used with two purposes. First, the data with PII information is used to find the criminal justice records that belong to the same person. Second, the PII data is used to link to demographic, economic, and government-related information held at the Census Bureau. To ensure confidentiality of individuals, all PII is segmented from other CJARS data and stored separately.

Figure 2 provides a visual representation of the data integration process. This figure shows how data that is collected from data providers (first panel) is added to the UM CJARS Repository (second panel). Then once the data is processed, the data are integrated in the Census Bureau (third panel). Finally, once processed by the Census Bureau, the data are made available to external researchers (fourth panel).

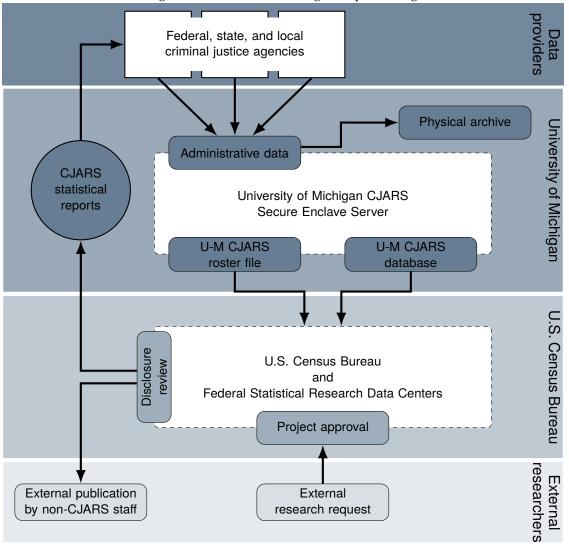


Figure 2: CJARS data exchange and processing

#### 2.4 Integration of criminal justice and Census Bureau records

At the Census Bureau and in the FSRDCs, CJARS data may be linked to other socioeconomic survey and administrative records using an anonymous identifier called a Personal Identification Key (PIK). Staff at the Census Bureau attempt to use all available PII to assign a PIK using a probabilistic record linkage system called the Person Identification Validation System (PVS). Once the PIK assignment process has occurred,

the anonymized files with PIKs attached are transferred to a secure computing environment that is available at the Census Bureau headquarters and in the FSRDCs. On those servers, approved data in approved projects can be linked at the person-level using the PIKs attached to each file, including the CJARS data.

Note that this process introduces a second round of entity resolution before the researcher has access to the CJARS data. This duplication has benefits and costs. The CJARS team has more control over the entity resolution process at the University of Michigan, and is able to use biometric identifiers and its own subject-matter expertise, but has no access to a population-level registry primarily based on the Social Security Agency's Numident file, which includes anyone who has ever received a Social Security Number (SSN) or an Individual Taxpayer Identification Number (ITIN). The Census Bureau entity resolution team has access to registry data not available outside of the Census Bureau, but it uses a relatively rigid process that ignores the criminal justice aspect of the data.

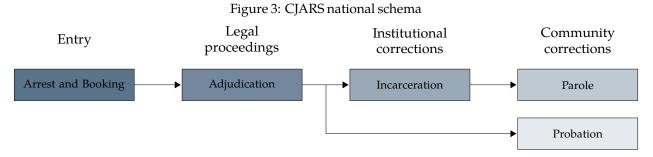
When researchers first use CJARS in the FSRDCs, they must decide how to resolve any discordances between CJARS IDs and PIKs. There are different types of identifier discordances:

- Multiple PIKs have been linked to a single CJARSID. In this case, there is sufficient variation in the PII within a CJARS ID, but across criminal justice records that Person Identification Validation System (PVS) has assigned different registry identities to a single CJARS ID. This could be caused by a poor linkage choice during UM entity resolution, by a poor linkage choice during PVS, or by low-quality PII for some of the records linked to a CJARS ID. The researcher can choose to use a single assigned PIK for analysis with a CJARS ID.
- Multiple CJARS IDs have been linked to a single PIK. In this case, there is sufficient similarity in the PII across CJARS IDs to allow a PIK to be assigned across different CJARS IDs. This can be caused by the same reasons as above. Here, the researcher can choose to link the associated CJARS IDs into a single identity for analysis.
- Some records within a CJARS ID have not been linked to a PIK. In this case, there are likely some CJARS records with low-quality PII, but UM entity resolution linked them together using CJ-specific information. In this case, researchers can decide which of the assigned PIKs should apply to the entire set.
- All records within a CJARS ID have not been linked to a PIK. In this case, the quality of the PII associated with a CJARS ID is too low, or the individual associated with a CJARS ID is not in the Census Bureau registry. The second case is possible if the individual is a citizen without an SSN, or an immigrant without an SSN or ITIN. There is no solution to this linkage problem. These records cannot be linked to other data at the Census Bureau.

# 3 Data

# 3.1 General description of the data

The goal for CJARS is to create a national database that tracks each criminal justice episode for an individual from arrest through discharge from the justice system. An episode refers to the complete chain of events as a case is processed through the justice system and can include information from numerous agencies. Due to differences across states and agencies, CJARS developed a national data schema as a standard to which disparate administrative records are linked and harmonized. The events that are included in the national data schema are shown in Figure 3. The arrows in this figure depict the expected progression of events that make up an episode through the system.



This figure of events was used to develop a data schema which facilitates the linkage of records across disparate systems. The CJARS national schema was designed in a way that strikes a balance between capturing the complexity of the way that events related to a criminal episode are processed through the system while also structuring the data so that it is usable for research purposes. More information about these linkages and design of the national data schema is described below.

# 3.2 Data linkage

A major barrier to research on the criminal justice system is a lack of integration of data across agencies. For example, unique individual identifiers are often not present that allow linking records across different agencies to an individual. In addition, there are usually no identifiers to indicate which records belong to a single criminal justice episode. CJARS has addressed these issues by leveraging machine learning models that probabilistically match records to individuals and events to episodes. The following subsections describe more about the methods used to develop these linkages and the linkages themselves.

#### 3.2.1 Data linkage via identifying personal number

CJARS has developed an algorithm that probabilistically matches records to individuals when no unique identifier is available by using names and dates of birth to identify individuals in the data. Once an individual has been identified, he or she is assigned an anonymized individual identifier (CJARS\_ID). This is done so that all personally identifiable information can be removed and the data can be used in anonymized form to protect the data.

Assignment of a CJARS\_ID allows researchers to link all records in the CJARS database that belong to an individual, to that individual. This data linkage facilitates analyzing the data to determine how many events are seen for an individual, how many offense he or she has committed, recidivism, etc.

The CJARS data is comprised of six separate databases. The six databases include a master person file and one database for each of the five types of events that are covered in Figure 3. Collectively, the five databases containing the criminal justice events are referred to as the CJARS relational databases. The master person file uses the CJARS\_ID identifier to uniquely identify every individual included in the CJARS repository. Additionally, each CJARS relational database has a unique identifier that identifies each event in the file. Specifically, the UArN uniquely identifies arrests, UCN is for court filings, UPrSN is for probation events, UISN is for incarceration events, and UPaSN is for parole events. As can be seen in Figure 4, the CJARS\_ID can be used to link all events in each CJARS relational database to the individual that they belong to based on the master person file.

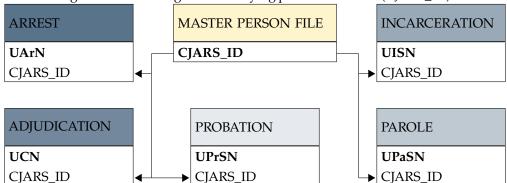


Figure 4: Data linkage via identifying personal number (CJARS\_ID)

Note: Arrows indicate linking variables between tables. Variable names listed in **bold** represent unique variables in the dataset. Variables that are not bold may have multiple entries.

#### 3.2.2 Data linkage via episode stage unique identifiers

CJARS has also developed a method of probabilistically matching criminal justice events to an episode. This linkage is created so that researchers can trace every event associated with a single criminal justice episode.

Figure 5 summarizes how the data linkage is structured based on unique identifiers of events in each CJARS relational database. Each CJARS relational database contains an identifier for that respective type of event contained in the table, but also an identifier that can be used to link to the event that led to the event described in the table. For example, a court case filing in the adjudication relation database will contain the UCN which uniquely identifies that case filing, but also the UArN when it is known that an arrest led to that case filing. This allows for the reconstruction of a chain of events which can ultimately be linked back to an individual.

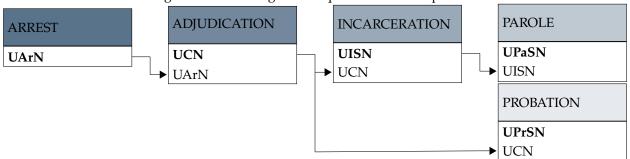


Figure 5: Data linkage via unique identifiers of episodes

Note: Arrows indicate linking variables between tables. Variable names listed in **bold** represent unique variables in the dataset. Variables that are not bold may have multiple entries.

It is important to note that reconstruction of a criminal justice episode is constrained by the availability of data. There are limitations in both geographic coverage and coverage across time. Please refer to Appendix F for more information about the constraints of the CJARS database.

### 3.3 Description of probabilistic entity resolution algorithms

The data linkages that were described above were established using probabilistic linkage algorithms. The development, validation, and nature of these algorithms are described in the following two sections. Further detail can be found in Appendix D.

#### 3.3.1 Entity resolution algorithms

A common issue in linking administrative criminal justice records across disparate sources is the absence of a unique individual identifier. As a result, researchers have to turn to other information that identifies

individuals, such as names and dates of birth. In "big data" applications, such as CJARS, this requires an algorithmic approach to make matching feasible.

There are two broad classes of entity resolution algorithms: deterministic and probabilistic. Deterministic algorithms focus on the variables common to both sets of data being matched. In some examples, paired cases must match on all common variables to be classified as a match. In other cases, with richer sets of matching variables, some flexibility can be built into the matching process. Conversely, probabilistic algorithms attempt to predict the probability that any two observations should be linked based on the relative agreement of their matching variables. This approach has benefits over deterministic models in that it more flexibly sets a decision rule that optimizes the trade-off between making more matches and limiting false matches. The decision of which method to apply is dependent upon the available set of matching variables and the type/quality of information available in those matching variables. CJARS developed a probabilistic algorithm based on the identifiable information that is usually available in criminal justice records and the quality of said data.

Development and validation of a probabilistic algorithm requires training data. This was available in data from two jurisdictions in the form of biometrically linked data (via fingerprints). A total of 2.7 million records were available in these two jurisdictions and allowed for the data to be split into two large training and validation samples. The final algorithm that was developed and implemented makes use of full name and date of birth to identify individuals.

#### 3.3.2 Episode resolution algorithm

Another common issue that researchers using administrative criminal justice data face is longitudinally tracking events that are linked to a single criminal justice episode. This is due in part to the siloing of records across different parts of the criminal justice system. As such, the CJARS project has developed a set of algorithms that can reconstruct criminal justice episodes based on the events linked to each episode.

Similar to entity resolution, CJARS used training data to develop the algorithm. There were a few instances where data that CJARS had acquired contained identifiers that allowed for linkages of events to be made (e.g., case number) so that an event and any subsequent events that occurred in a different part of the system could be tracked. Data sets that were linkable via an identifier were first merged and then split into training and validation samples.

The training data was used to develop a model using other available variables in the data to predict the likelihood that events within an individual are connected to a single event. A few examples of variables used to match events to an episode include event date and similarity of offense codes. After model development, a threshold was set to determine what events should be linked to a single episode based on predicted probability. After development of the model using the training sample and the performance of the model was checked against the true match status of events to episodes based on the available identifying variable in the training data, the model was validated on the validation sample.

### 3.4 Availability of data by state

CJARS collects data on a continual basis and so its data holdings will change over time. Therefore, the current data holdings are constrained by both geography and time. In many cases, it is possible to acquire data regarding incarceration, probation and parole at a state level, but information regarding other parts of the criminal justice process (e.g. arrests and bookings or dispositions) might not be available at the moment due to different circumstances (e.g., FOIA requests take longer than expected or jurisdictions do not have electronic records for a specific period).

Table 6 summarizes the availability of data by state (where statewide coverage is available), time frame, and event type. In this table, markings designate coverage of criminal justice domains in each state as one of: statewide coverage, partial geographic coverage in a state, "caseload snapshots" of all offenders under supervision at a single point in time, and planned coverage. Please see the legend for further detail.

Note that Table 6 only provides a general overview of CJARS data holdings. More details about the data in each jurisdiction can be found in Appendix A.

				ARS state			-				
	<19781	980	1985	1990	199	5 20	000	2005	2010	2015	202
Arizona	Arrest	+ • •				• • • •	+	·   · ·			
	Court +	+ • •									
	Probation $\vdash$	+	•••	• • • + •	•••	• • • • •	+ • • •	·   · ·			
	Prison	$+ \cdot \cdot$	· · <del>  ·</del>	•••+•	• • • +	• • • •	+ • • •				
	Parole +	$+ \cdots$	· · <del> </del> ·	· · · + ·	··· ·  -	• • • •	$+ \cdots$	·   · ·	· · ·   · · ·		+
Arkansas	Arrest	+ • •					<u> </u>				
	Court										
	Probation	<b>.</b>					<b> </b>				
	Prison	<u> </u>					<b> </b>				•••+
	Parole						<b> </b>				
California	Arrest		.								
umornu	Court +		.								
	Probation —										
	Prison										
	Parole +	1									
Connecticut	Arrest +										
	Court +	+ • •			•••	• • • •	+ • • •		* *   * *		+
	Probation —	+ • •	· · + ·	· · · + ·	•••+		+ • • •		•••	••+••	+
	Prison	+ • •		• • • + •	• • • +	• • • •	+		•••		• • • <del> </del>
	Parole ——				• • • •	• • • •	+ • • •		• • • • •		
lorida	Arrest	+ • •	• • + •	.	· · ·	• • • •	+ • • •		· ·   · ·	· ·   · ·	
	Court +	$+ \cdots$	· · + · ·								
	Probation $\vdash$	+					+				·⊕⊕∔
	Prison	<b>.</b>									
	Parole +					+ ()					
linois	Arrest										
	Court										
	Probation —										
	Prison						· · ·				
<b>6</b> 1 1	Parole +	1									•
/laryland	Arrest +	+ • •	• • + •	•••+•	• • • +	• • • •	+ • • •	• • • •	•••	••+••	
	Court	+ • •	•••	• • • + •							
	Probation $\vdash$	+ • •	••+•	· · · + ·	• • • +	• • • •	+ • • •	·   · ·	•••		
	Prison	+ • •	•••	• • • + •	····  -	• • • • •	+				•
	Parole +	+ • •		.	· · ·	• • • •	+ • • •	·   · ·	· ·   · ·		
/lichigan	Arrest	+ • •		· · · · <del>  ·</del>	····	· · · · · ·					
0	Court +										
	Probation	0									
	Prison	- <u>()</u>		+ + + + + + + + + + + + + + + + + + + +							
	Parole										
linnesota	Arrest +										
mmesota											
	Court										
	Probation $\vdash$	- · ·					_ · · ·				
	Prison +	1				• • • •	1				
<b>.</b>	Parole	1			• • • •	• • • • •					•••
lississippi	Arrest +	+ • •	· · + ·	· · ·   ·	•••		+ • • •		• •   • •	••+••	+
	Court	+ • •			····  -	• • • • •	+ • • •	-++			+
	Probation $\vdash$	$+ \cdot \cdot$	· · + ·	· · · + ·	· · ·		+ • • •	·   · ·	· ·   · ·		
	Prison 🛏	+					+				$\rightarrow \rightarrow +$
	Parole	$+ \cdots$					+ • • •	-++			
lebraska	Arrest +	+					<b> </b>				
	Court	<b>_</b>									
	Probation —	<b>_</b>					L				
	Prison										
	Parole										

New Jersey	<19781980	1985	1990	1995	2000	2005	2010	2015	202
- 5	Arrest								
	Court H								▶ • +
	Probation	· · · · · ·	· · ·   · · ·	· · ·   · · ·					+
	Prison								$\rightarrow \rightarrow +$
	Parole								+
New York	Arrest								+
	Court								
	Probation								
	Prison								
	Parole								
North Carolina	Arrest								
	Court								
	Probation								
	Prison 0								
	Parole								
North Dakota	Arrest								
Vortin Dukotu	Court								
	Probation								
	Prison								
	Parole								
Dhio	Arrest								_
51110	Court								
	Probation								
	Prison								
	Parole								•
)#0.00P									
Dregon	Arrest								
	Court			•••					
	Probation								
	Prison								
	Parole								
Pennsylvania	Arrest								
	Court	•••	• • • • •	•••					
	Probation	•••	• • • • •						
	Prison								
_	Parole Harole								+
lexas 🛛	Arrest								
	Court								+
	Probation	• • • • •	• • • • •				····		
	Prison +								╸┼
	Parole —								
Vashington	Arrest	•••							
-	Court	•••							
	Probation $\vdash$	• • + • •	• • + • •						
	Prison -								
	Parole Harole								
Visconsin	Arrest								
	Court								╸・┤
	Probation								
	Prison								
	Parole								

#### 3.5 Variables by relational table

The CJARS relational databases contain detailed information about arrests and bookings, adjudications, incarcerations, and terms of parole and probation. Users can also use a summary file of a minimal set of conviction and sanction events.

- Arrest and booking. The arrest table contains information regarding the arrest and booking date, as well as the offense that led to the arrest.
  - cjars\_id: CJARS identifier
  - uarn: Arrest identifier
  - arr\_arr\_dt\_yyyy: Year of arrest
  - arr\_arr\_dt\_mm: Month of arrest
  - arr\_arr\_dt\_d: Day of the month of arrest
  - arr\_book\_dt\_yyyy: Year of booking
  - arr\_book\_dt\_mm: Month of booking
  - arr\_book\_dt\_dd: Day of the month of booking
  - arr\_off\_cd: CJARS standardized offense code arresting offense
  - arr\_off\_cd\_src: Raw offense code from source arresting offense
  - arr\_st\_ori\_fips: State FIPS code
  - arr\_cnty\_ori\_fips: County FIPS code
  - arr\_rec\_src\_le: Record source law enforcement agency
  - arr\_rec\_src\_crt: Record source courts
  - arr\_rec\_src\_doc: Record source department of corrections
  - arr\_rec\_src\_rep: Record source criminal history repository
  - arr\_rec\_src\_cc: Record source community corrections agency
- Adjudication. The adjudication table contains detailed information about the offense the person was charged with, disposition information, and sentencing.
  - cjars\_id: CJARS identifier
  - ucn: Court case filing identifier
  - adj\_grd\_cd: CJARS standardized offense grade
  - adj\_grd\_cd\_src: Raw offense grade from source (e.g., felony, citation, misdemeanor)
  - adj\_file\_dt\_yyyy: Year case was filed
  - adj\_file\_dt\_mm: Month case was filed
  - adj\_file\_dt\_dd: Day of month case was filed
  - adj\_chrg\_off\_cd: CJARS standardized charge offense offense charged at case filing
  - adj\_chrg\_off\_cd\_src: Raw charge offense description from source offense charged at case filing
  - adj\_disp\_dt\_yyyy: Year of disposition
  - adj\_disp\_dt\_mm: Month of disposition
  - adj\_disp\_dt\_dd: Day of the month of disposition
  - adj\_disp\_cd: CJARS standardized disposition
  - adj\_disp\_cd\_src: Raw disposition description from source
  - adj\_disp\_off\_cd: CJARS standardized disposition offense offense recorded at disposition
  - adj\_disp\_off\_cd\_src: Raw disposition offense from source offense recorded at disposition
  - adj\_off\_dt\_yyyy: Year offense was committed
  - adj\_off\_dt\_mm: Month offense was committed
  - adj\_off\_dt\_dd: Day of month offense was committed
  - adj\_sent\_dt\_yyyy: Year sentenced
  - adj\_sent\_dt\_mm: Month sentenced
  - adj\_sent\_dt\_dd: Day of the month sentenced
  - adj\_sent\_serv: Community service sentence
  - adj\_sent\_dth: Death sentence
  - adj\_sent\_inc: Incarceration length in months
  - adj\_sent\_pro: Probation length in months
  - adj\_sent\_rest: Restitution amount in dollars
  - adj\_sent\_sus: Suspended sentence

- adj\_sent\_trt: Treatment sentence
- adj\_sent\_fine: Fine amount in dollars
- adj\_sent\_inc\_min: Minimum incarceration term in months
- adj\_sent\_inc\_max: Maximum incarceration term in months
- adj\_sent\_src: Raw sentence from source
- adj\_st\_ori\_fips: State FIPS code
- adj\_cnty\_ori\_fips: County FIPS code
- adj\_rec\_src\_le: Record source law enforcement agency
- adj\_rec\_src\_crt: Record source courts
- adj\_rec\_src\_doc: Record source department of corrections
- adj\_rec\_src\_rep: Record source criminal history repository
- adj\_rec\_src\_cc: Record source community corrections agency
- Incarceration. The incarceration table contains information about the facility an individual is/was housed, entry and exit dates, as well as the current status of the person.
  - cjars\_id: CJARS identifier
  - uisn: Incarceration term identifier
  - inc\_fcl\_cd: CJARS standardized facility type
  - inc\_fcl\_cd\_src: Raw description of facility from source
  - inc\_entry\_dt\_yyyy: Year of entry into incarceration
  - inc\_entry\_dt\_mm: Month of entry into incarceration
  - inc\_entry\_dt\_dd: Day of month of entry into incarceration
  - inc\_entry\_cd: CJARS standardized entry status
  - inc\_entry\_cd\_src: Raw description of entry type into incarceration
  - inc\_exit\_dt\_yyyy: Year of exit from incarceration
  - inc\_exit\_dt\_mm: Month of exit from incarceration
  - inc\_exit\_dt\_dd: Day of month of exit from incarceration
  - inc\_exit\_cd: CJARS standardized exit status
  - inc\_exit\_cd\_src: Raw description of exit type from incarceration
  - inc\_st\_ori\_fips: State FIPS code for location of sentencing
  - inc\_cnty\_ori\_fips: County FIPS code for location of sentencing
  - inc\_st\_juris\_fips: State FIPS code of state with jurisdiction over supervision of individual
  - inc\_rec\_src\_le: Record source law enforcement agency
  - inc\_rec\_src\_crt: Record source courts
  - inc\_rec\_src\_doc: Record source department of corrections
  - inc\_rec\_src\_rep: Record source criminal history repository
  - inc\_rec\_src\_cc: Record source community corrections agency
- **Probation.** The probation table contains information on probation conditions, probation begin status and date, and probation end status and date.
  - cjars\_id: CJARS identifier
  - uprsn: Probation term identifier
  - pro\_cond\_cd: CJARS standardized probation conditions
  - pro\_cond\_cd\_src: Raw description of probation conditions from source
  - pro\_bgn\_dt\_yyyy: Year of start of probation
  - pro\_bgn\_dt\_mm: Month of start of probation
  - pro\_bgn\_dt\_dd: Day of month of start of probation
  - pro\_end\_dt\_yyyy: Year of end of probation
  - pro\_end\_dt\_mm: Month of end of probation
  - pro\_end\_dt\_dd: Day of month of end of probation
  - pro\_end\_cd: CJARS standardized probation end status
  - pro\_end\_cd\_src: Raw description of probation end status from source
  - pro\_st\_ori\_fips: State FIPS code for location of sentencing
  - pro\_cnty\_ori\_fips: County FIPS code for location of sentencing
  - pro\_st\_juris\_fips: State FIPS code of state with jurisdiction over supervision of individual
  - pro\_rec\_src\_le: Record source law enforcement agency

- pro\_rec\_src\_crt: Record source courts
- pro\_rec\_src\_doc: Record source department of corrections
- pro\_rec\_src\_rep: Record source criminal history repository
- pro\_rec\_src\_cc: Record source community corrections agency
- Parole. The parole table contains information on parole begin/end dates and exit status when available.
  - cjars\_id: CJARS identifier
  - upasn: Parole term identifier
  - par\_bgn\_dt\_yyyy: Year of start of parole
  - par\_bgn\_dt\_mm: Month of start of parole
  - par\_bgn\_dt\_dd: Day of month of start of parole
  - par\_end\_dt\_yyyy: Year of end of parole
  - par\_end\_dt\_mm: Month of end of parole
  - par\_end\_dt\_dd: Day of month of end of parole
  - par\_end\_cd: Parole end status classification
  - par\_end\_cd\_src: Raw description of parole end status from source
  - par\_st\_ori\_fips: State FIPS code for location of sentencing
  - par\_cnty\_ori\_fips: County FIPS code for location of sentencing
  - par\_st\_juris\_fips: State FIPS code of state with jurisdiction over supervision of individual
  - par\_rec\_src\_le: Record source law enforcement agency
  - par\_rec\_src\_crt: Record source courts
  - par\_rec\_src\_doc: Record source department of corrections
  - par\_rec\_src\_rep: Record source criminal history repository
  - par\_rec\_src\_cc: Record source community corrections agency

#### 3.6 Variable codebook

Each of the tables that comprise the CJARS data contains a unique set of variables that capture the core variables describing the events that are contained in each data table. The large amount of variation in data from jurisdiction to jurisdiction has led to a significant amount of effort that was put into harmonizing data from all of the disparate sources into one common format. The following tables provide a list of the harmonized variables in each table.

These tables provide basic information about the variables such as variable names, labels, formats, a description of each variable, and basic descriptives statistics. This descriptive information includes the total number of records for each variable and counts of valid, invalid, and missing values. For the sake of clarity, these terms can be defines as:

- Valid values: a value within range of what would reasonably be expected for the variable
- Invalid values: values that are outside of the range of what should be possible (e.g., a value of 32 for the day of the month of an event)
- Missing: the data was missing in the original raw data

# 3.6.1 Arrest and booking

cjars_id	
Label	CJARS identifier
Description	Uniquely identifies individuals. For more details on use of cjars_id for data linkage, refer to Section 3.2.1 and Figure 4.
Table Format	Arrest and booking string
<i>Set</i> All records	Count         Percent (%)           16,762,380         100.0

uarn

Label	Arrest identifier
Description	Uniquely identifies arrest. For more details on use of uarn for data linkage, refer to Section 3.2.2 and Figure 5.
Table Format	Arrest and booking string

#### arr\_arr\_dt\_yyyy

Label	Year of arrest							
Description	The year when the individual was arrested.							
Table Format	Arrest and booking numeric							
<i>Set</i> All records Valid records Missing values <i>Statistic</i> Mean Median Minimum Maximum	Count         Percent (%)           16,762,380         100.0           6,117,927         36.5           10,644,453         63.5           Value         2009.2           2010.0         1903           2019         2019							
	Histogram of valid arr_arr_dt_yyyy records pre-1980 1980–1984 1985–1989 1990–1994 1995–1999 2000–2004 2005–2009 2010–2014 2015–2019 post-2019 0 0.05 0.1 Prob.							

#### arr\_arr\_dt\_mm

Label	Month of arrest	st
Description	The month whe	en the individual was arrested.
Table Format Code scheme	Arrest and bool numeric month code	Jking
<i>Set</i> All records Valid records Missing values	<i>Count</i> 16,762,380 6,117,927 10,644,453	Percent (%) 100.0 36.5 63.5
<i>Statistic</i> Mean Median Minimum Maximum	Value 6.4 6.0 1 12	
	Ũ	gram of valid arr_arr_dt_mm records
	January 1 February 2 March 3 April 4 May 5 June 6 July 7 August 8 September 9 October 10 November 11 December 12	0 0.01 0.02 0.03 Prob.

#### arr\_arr\_dt\_dd

Label	Day of the month of arrest						
Description	The day of the month when the individual was arrested.						
Table Format	Arrest and booking numeric						
<i>Set</i> All records Valid records Missing values	CountPercent (%)16,762,380100.06,117,92736.510,644,45363.5						
<i>Statistic</i> Mean Median Minimum Maximum	Value 15.6 16.0 1 31						
	Histogram of valid arr_arr_dt_dd records						

# arr\_book\_dt\_yyyy

Label	Year of booking								
Description	The year when the individual was booked into jail.								
Table Format	Arrest and booking numeric								
Set All records Valid records Missing values Statistic Mean Median Minimum Maximum	Count         Percent (%)           16,762,380         100.0           14,194,209         84.7           2,568,171         15.3           Value         2002.9           2005.0         1911           2019         2019								
	Histogram of valid arr_book_dt_yyyy records pre-1980 1980-1984 1985-1989 1990-1994 1995-1999 2000-2004 2005-2009 2010-2014 2015-2019 post-2019 0 0.05 0.1 0.15 Prob.								

# arr\_book\_dt\_mm

Label	Month of booking							
Description	The month when the individual was booked into jail.							
Table Format Code scheme	Arrest and booking numeric month code							
<i>Set</i> All records Valid records Missing values	CountPercent (%)16,762,380100.014,194,20984.72,568,17115.3							
<i>Statistic</i> Mean Median Minimum Maximum	Value 6.4 6.0 1 12							
	Histogram of valid arr_book_dt_mm records							
	January 1 February 2 March 3 April 4 May 5 June 6 July 7 August 8 September 9 October 10 November 11 December 12							

# arr\_book\_dt\_dd

Label	Day of the month of booking							
Description	The day of the month when the individual was booked into jail.							
Table Format	Arrest and booking numeric							
<i>Set</i> All records Valid records Missing values	CountPercent (%)16,762,380100.014,194,20984.72,568,17115.3							
<i>Statistic</i> Mean Median Minimum Maximum	Value 15.7 16.0 1 31							
	Histogram of valid arr_book_dt_dd records							

arr_off_cd		
Label	CJARS standardized offense c	ode - arresting offense
Description	consistent offense coding is n	ode classification for arresting offense. Used when eeded across jurisdictions. For a full description method used to harmonize offense codes, please .1.
Table Format Code scheme	Arrest and booking string offense classification	
<i>Set</i> All records Valid records Invalid values Missing values	CountPercent (%)16,762,380100.015,524,17192.61,006,4986.0231,7111.4	
arr_off_cd_src		

Label	Raw offense code from source - arresting offense	
Description	Original description of the arresting offense used by the agency where data was collected. Offense descriptions are agency-specific and thus inconsistent across jurisdictions. For harmonized offense code scheme please see arr_off_cd. Even though a harmonized offense code is provided, this raw description is retained for research that is not well-suited by the harmonized offense codes and leaves the opportunity for researchers to recode the original offense descriptions as needed.	
Table Format	Arrest and booking string	
<i>Set</i> All records	Count         Percent (%)           16,762,380         100.0	

arr_st_ori_fips						
Label	State FIPS code					
Laber	State FIFS code					
Description	State-level Federal Information Processing Standards (FIPS) code where arrest occured. Used to help uniquely identifying geographic areas in the United States. Two-digit code used to identify states.					
Table	Arrest and booking					
Format	string					
Code scheme	state FIPS code					
<i>Set</i> All records Valid records	CountPercent (%)16,762,380100.016,762,380100.0					
	Histogram of valid arr_st_ori_fips records					
	California 06 Texas 48					
	0  0.2  0.4  0.6  0.8 Prob.					
	0 0.2 0.4 0.6 0.8 Prob.					

# arr\_cnty\_ori\_fips

Label	County FIPS code						
Description	County-level Federal Information Processing Standards (FIPS) code where arrest occured. Used to help uniquely identify geographic areas in the United States. Three-digit code used to identify counties within states.						
Table Format Code scheme	Arrest and booking string county FIPS code						
<i>Set</i> All records Valid records	CountPercent (%)16,762,380100.016,762,380100.0						
	Histogram of valid arr_cnty_ori_f	Eips records					
r Ri Sar San J	Kern County, CA 06029 ngeles County, CA 06037 Vevada County, CA 06057 Orange County, CA 06057 Diego County, CA 06065 Diego County, CA 06073 Deverside County, CA 06073 Diego County, CA 06077 Bexar County, TX 48029 Collin County, TX 48085 Dallas County, TX 48113 El Paso County, TX 48141 Harris County, TX 48201 Hays County, TX 48209 Tarrant County, TX 48439						
	0 0.2	0.4 0	.6 Prob.				

#### arr\_rec\_src\_le

Label	Record source - law enforcement agency							
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a law enforcement agency.							
Table Format Code scheme	Arrest and booking numeric binary code							
<i>Set</i> All records Valid records	CountPercent (%)16,762,380100.016,762,380100.0							
<i>Statistic</i> Mean Median Maximum	Value 1.0 1.0 1.0							
	Histogram of valid arr_rec_src_le records No 0 Yes 1 0 0.2 0.4 0.6 0.8 1 Prob.							

#### arr\_rec\_src\_crt

Label	Record source - courts								
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system.								
Table Format Code scheme	Arrest and booking numeric binary code								
<i>Set</i> All records Valid records <i>Statistic</i> Mean Maximum	Count         Percent (%)           16,762,380         100.0           16,762,380         100.0           Value         0.0           1.0         1.0								
	Histogram of valid arr_rec_src_crt records								
	No 0 Yes 1								
	0  0.2  0.4  0.6  0.8  1  Prob.								
arr_rec_src_doc									
Label	Record source - department of corrections								
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a department of corrections.								
Table Format Code scheme	Arrest and booking numeric binary code								
<i>Set</i> All records Valid records	CountPercent (%)16,762,380100.016,762,380100.0								
	Histogram of valid arr_rec_src_doc records								
	Histogram of valid arr_rec_src_doc records								

arr_rec_src_re	p						
Label	Record source - criminal history repository						
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a criminal history repository.						
Table Format Code scheme	Arrest and booking numeric binary code						
<i>Set</i> All records Valid records	CountPercent (%)16,762,380100.016,762,380100.0						
	Histogram of valid arr_rec_src_rep records						
	No 0						
	0 0.2 0.4 0.6 0.8 1 Prob.						
arr_rec_src_cc							
Label	Record source - community corrections agency						
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a community corrections agency.						
Table Format Code scheme	Arrest and booking numeric binary code						
<i>Set</i> All records Valid records	CountPercent (%)16,762,380100.016,762,380100.0						

Histogram of valid arr\_rec\_src\_cc records

	_		 		
No 0			 		
		0.2			Prob.

# 3.6.2 Adjudication

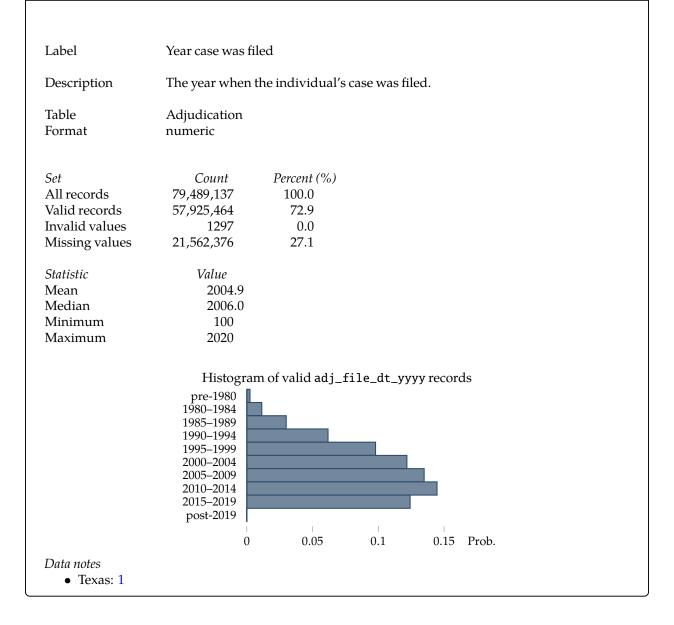
cjars_id					
Label	CJARS identifier				
Description	Uniquely identifies individuals. For more details on use of cjars_id for data linkage, refer to Section 3.2.1 and Figure 4.				
Table Format	Adjudication string				
<i>Set</i> All records	Count         Percent (%)           79,489,137         100.0				

ucn	
Label	Court case filing identifier
Description	Uniquely identifies court case filings. For more details on use of ucn for data
	linkage, refer to Section 3.2.2 and Figure 5.
Table	Adjudication
Format	string
l	

adj_grd_cd								
Label	CJARS standardized offense grade							
Description	CJARS standardized classification of an offense by its severity. For a full description of the coding categories and method used to harmonize disposition, please refer to Appendices B and C.2.2.							
Table Format Code scheme	Adjudication string charge grade code							
<i>Set</i> All records Valid records Invalid values Missing values	<i>Count</i> 79,489,137 78,066,624 13,754 1,408,759	Percent (* 100.0 98.2 0.0 1.8	%)					
	Histo	gram of vali	id ad i	ard cd	records			
Histogram of valid adj_grd_cd records Misdemeanor-level charge MI Felony-level charge FE Local ordinance or other low-level LO Not Known / Missing UU Juvenile Not Known / Missing JU								
J	uvenile felony-level o	charge JF	   0	0.1	0.2	0.3	0.4	Prob.
adj_grd_cd_src								

adj_grd_cd_src	
Label	Raw offense grade from source (e.g., felony, citation, misdemeanor)
Description	Original description of the crime severity used by the agency where data was collected. Offense grades are agency-specific and thus inconsistent across jurisdictions. For a harmonized offense grade please see adj_grd_cd. Even though a harmonized offense grade is provided, this raw description is retained for research that is not well-suited by the harmonized offense grade and leaves the opportunity for researchers to recode the original offense grade as needed.
Table Format	Adjudication string
<i>Set</i> All records	Count         Percent (%)           79,489,137         100.0

# adj\_file\_dt\_yyyy



#### adj\_file\_dt\_mm

Label	Month case was	s filed
Description	The month when	en the individual's case was filed.
Table Format Code scheme	Adjudication numeric month code	
<i>Set</i> All records Valid records Missing values	<i>Count</i> 79,489,137 57,926,756 21,562,381	Percent (%) 100.0 72.9 27.1
<i>Statistic</i> Mean Median Minimum Maximum	Value 6.5 6.0 1 12	
	Histogra	am of valid adj_file_dt_mm records
	January 1 February 2 March 3 April 4 May 5 June 6 July 7 August 8 September 9 October 10 November 11 December 12	am of valid adj_file_dt_mm records
Data notes • Texas: 1		

## adj\_file\_dt\_dd

Label	Day of month case was filed		
Description	The day of the month when the individual's case was filed.		
Table Format	Adjudication numeric		
<i>Set</i> All records Valid records Missing values <i>Statistic</i> Mean Median Minimum Maximum	Count         Percent (%)           79,489,137         100.0           57,926,756         72.9           21,562,381         27.1           Value         15.7           16.0         1           31         31		
	Histogram of valid adj_file_dt_dd records		

#### adj\_file\_dt\_dd (continued)

Data notes

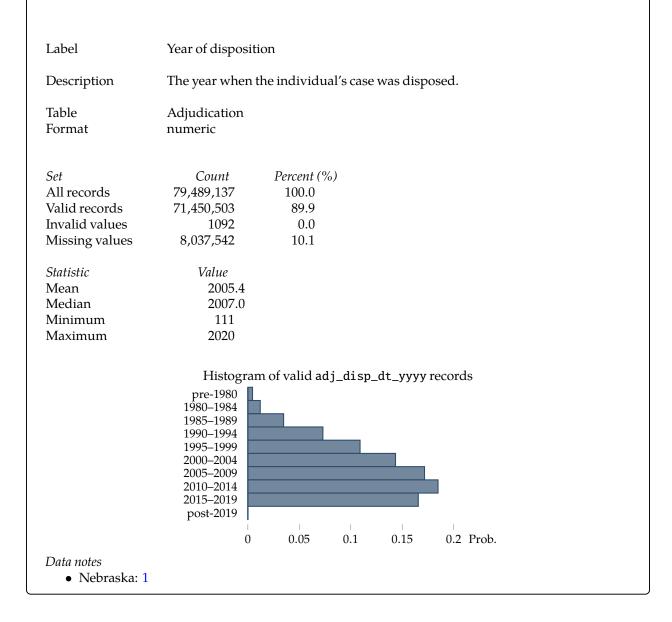
• Texas: 1

#### adj\_chrg\_off\_cd

Label	CJARS standard	dized charge offense - offense charged at case filing
Description	Used when con description of t	dized offense code classification for offense charged at case filing. Insistent offense coding is needed across jurisdictions. For a full the coding categories and method used to harmonize offense offer to Appendices B and C.2.1.
Table Format Code scheme	Adjudication string offense code	
<i>Set</i> All records Valid records Invalid values Missing values	<i>Count</i> 79,489,137 26,924,122 506,770 52,058,245	Percent (%) 100.0 33.9 0.6 65.5

#### adj\_chrg\_off\_cd\_src Label Raw charge offense description from source - offense charged at case filing Description Original description of the offense charged at case filing used by the agency where data was collected. Offense descriptions are agency-specific and thus inconsistent across jurisdictions. For harmonized offense code scheme please see adj\_chrg\_off\_cd. Even though a harmonized offense code is provided, this raw description is retained for research that is not well-suited by the harmonized offense codes and leaves the opportunity for researchers to recode the original offense descriptions as needed. Table Adjudication Format string Set Count Percent (%) All records 79,489,137 100.0

#### adj\_disp\_dt\_yyyy



## adj\_disp\_dt\_mm

Label	Month of dispos	Sition
Description	The month whe	n the individual's case was disposed.
Table Format Code scheme	Adjudication numeric month code	
<i>Set</i> All records Valid records Missing values	<i>Count</i> 79,489,137 71,451,595 8,037,542	Percent (%) 100.0 89.9 10.1
<i>Statistic</i> Mean Median Minimum Maximum	Value 6.4 6.0 1 12	
	Histogra	am of valid adj_disp_dt_mm records
	January 1 February 2 March 3 April 4 May 5 June 6 July 7 August 8 September 9 October 10 November 11 December 12	am of valid adj_disp_dt_mm records
Data notes • Nebraska: 1		

## adj\_disp\_dt\_dd

Label	Day of the month of disposition			
Description	The day of the month when the individual's case was disposed.			
Table Format	Adjudication numeric			
<i>Set</i> All records Valid records Missing values <i>Statistic</i> Mean Median Minimum	Count         Percent (%)           79,489,137         100.0           71,451,595         89.9           8,037,542         10.1           Value         15.6           15.0         1			
Maximum	31			
	Histogram of valid adj_di sp_dt_dd records			

## adj\_disp\_dt\_dd (continued)

Data notes

• Nebraska: 1

adj_disp_cd			
Label	CJARS standardized disposition		
Description	CJARS standardized disposition classification. Used when consistent disposition coding is needed across jurisdictions. For a full description of the coding categories and method used to harmonize disposition, please refer to Appendices B and C.2.3.		
Table Format Code scheme	Adjudication string disposition code		
<i>Set</i> All records Valid records Missing values	CountPercent (%)79,489,137100.073,446,74692.46,042,3917.6		
Histogram of valid adj_disp_cd records Guilty - Unclassified GU Guilty - Plea GP			
Dismissal ND Not Known / Missing UU Diversion - Unclassified DU Procedural - Unclassified PU Procedural - Transfer PT Mistrial NM Not Guilty - Unclassified NU Guilty - Court Trial GC Guilty - Jury Trial GJ Acquittal NA			
	Not Guilty Plea NP Dismissal - Insanity NI Guilty - Insanity GI 0 0.1 0.2 0.3 Prob.		

adj_disp_cd_sr	rc
Label	Raw disposition description from source
Description	Original description of the disposition used by the agency where data was col- lected. Dispositions are agency-specific and thus inconsistent across jurisdictions. For a harmonized disposition code please see adj_disp_cd. Even though a har- monized disposition code is provided, this raw description is retained for research that is not well-suited by the harmonized disposition code and leaves the oppor- tunity for researchers to recode the original disposition descriptions as needed.
Table Format	Adjudication string
<i>Set</i> All records	Count         Percent (%)           79,489,137         100.0

# adj\_disp\_off\_cd

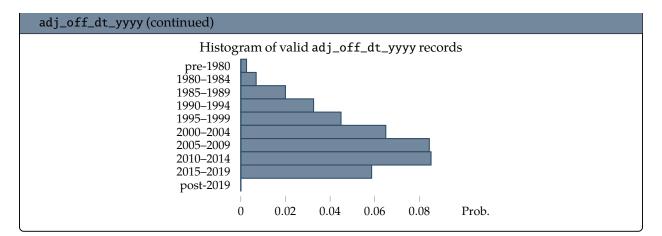
Label	CJARS standard	dized disposition offense - offense recorded at disposition
Description	full description	rdized offense code for offense recorded at disposition. For a of the coding categories and method used to harmonize offense efer to Appendices B and C.2.1.
Table Format Code scheme	Adjudication string offense classific	cation
<i>Set</i> All records Valid records Invalid values Missing values	<i>Count</i> 79,489,137 66,238,509 4,280,954 8,969,674	Percent (%) 100.0 83.3 5.4 11.3

## adj\_disp\_off\_cd\_src

Label	Raw disposition offense from source - offense recorded at disposition	
Description	Original description of the offense recorded at disposition used by the agency where data was collected. For a harmonized disposition offense please see the following: adj_disp_off_cd, Disposition code descriptions are agency-specific and thus inconsistent across jurisdictions.	
Table Format	Adjudication string	
<i>Set</i> All records	Count         Percent (%)           79,489,137         100.0	

# adj\_off\_dt\_yyyy

Label	Year offense was committed		
Description	The year when the individual committed the offense.		
Table Format	Adjudication numeric		
<i>Set</i> All records Valid records Invalid values Missing values	<i>Count</i> 79,489,137 31,812,037 115 47,676,985	Percent (%) 100.0 40.0 0.0 60.0	
<i>Statistic</i> Mean Median Minimum Maximum	Value 2004.7 2006.0 100 5007		



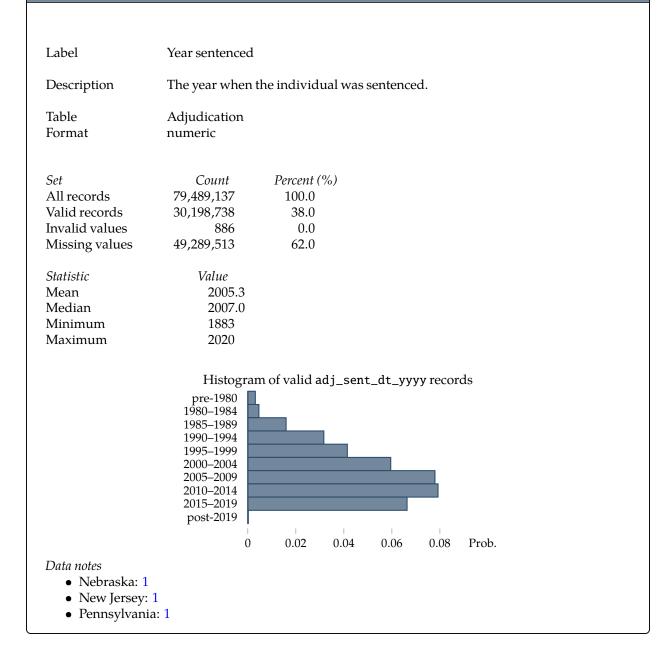
#### adj\_off\_dt\_mm

Label	Month offense was committed
Description	The month when the individual committed the offense.
Table Format Code scheme	Adjudication numeric month code
<i>Set</i> All records Valid records Missing values	CountPercent (%)79,489,137100.031,812,15240.047,676,98560.0
<i>Statistic</i> Mean Median Minimum Maximum	Value 6.5 6.0 1 12
	Histogram of valid adj_off_dt_mm records January 1 February 2 March 3 April 4 May 5 June 6 July 7 August 8 September 9 October 10 November 11 December 12 

#### adj\_off\_dt\_dd

Label	Day of month offense was committed
Description	The day of the month when the individual committed the offense.
Table Format	Adjudication numeric
<i>Set</i> All records Valid records Missing values	CountPercent (%)79,489,137100.031,812,15240.047,676,98560.0
<i>Statistic</i> Mean Median Minimum Maximum	Value 15.4 15.0 1 31
	Histogram of valid adj_off_dt_dd records

#### adj\_sent\_dt\_yyyy



#### adj\_sent\_dt\_mm

Label	Month sentence	ced
Description	The month whe	nen the individual was sentenced.
Table Format Code scheme	Adjudication numeric month code	
<i>Set</i> All records Valid records Missing values	<i>Count</i> 79,489,137 30,199,624 49,289,513	Percent (%) 100.0 38.0 62.0
<i>Statistic</i> Mean Median Minimum Maximum	Value 6.4 6.0 1 12	
	Histogra January 1 February 2 March 3 April 4 May 5 June 6 July 7 August 8 September 9 October 10 November 11 December 12	rram of valid adj_sent_dt_mm records
Data notes • Nebraska: 1 • New Jersey: • Pennsylvania	1 a: 1	0 0.01 0.02 0.03 Prob.

#### adj\_sent\_dt\_dd

Label	Day of the mont	h sentenced		
Description	The day of the m	onth when the	e individual	was sentenced.
Table Format	Adjudication numeric			
Set All records Valid records Missing values Statistic Mean Median Minimum Maximum	Count 79,489,137 30,199,624 49,289,513 Value 15.5 15.0 1 31	Percent (%) 100.0 38.0 62.0		
	Histogram 1 2 3 4 5 6 7 8 9 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 - 0	m of valid adj	_sent_dt_dd	l records

#### adj\_sent\_dt\_dd (continued)

Data notes

- Nebraska: 1
- New Jersey: 1
- Pennsylvania: 1

#### adj\_sent\_serv Label Community service sentence Description Whether the individual's sentence involved community service. Table Adjudication Format numeric Code scheme binary code Set Count Percent (%) 79,489,137 100.0 All records Valid records 38,013,136 47.8 Missing values 41,476,001 52.2 Value Statistic Mean 0.0 Maximum 1 Histogram of valid adj\_sent\_serv records No 0 Yes 1 0 0.1 0.2 0.3 0.4 0.5 Prob. Data notes • New Jersey: 1 • Pennsylvania: 1 • Texas: 1

adj_sent_dth						
Label	Death sentence					
Description	Whether the inc	lividual receiv	ved a deatl	n sentence	·.	
Table Format Code scheme	Adjudication numeric binary code					
<i>Set</i> All records Valid records Missing values <i>Statistic</i> Mean	Count 79,489,137 25,403,918 54,085,219 Value 0.0	Percent (%) 100.0 32.0 68.0				
Maximum	Ŭ	ram of valid a	dj_sent_d	lth record	S	
	No 0 Yes 1	0.1	0.2	0.3	Prob.	
Data notes <ul> <li>New Jersey: 1</li> <li>Pennsylvania</li> <li>Texas: 1</li> </ul>						

#### adj\_sent\_inc

Label	Incarceration le	ength in months	
Description		-	sentenced to serve in prison.
Table Format	Adjudication numeric		
<i>Set</i> All records Valid records Invalid values Missing values	<i>Count</i> 79,489,137 20,125,425 77,771 59,285,941	Percent (%) 100.0 25.3 0.1 74.6	
<i>Statistic</i> Mean Median Minimum Maximum	Value -319.8 1.0 -99,999.0 108,595.0		
0.030	0	ram of valid adj_sent_inc	e records
0.020 Hrequency	-		
9.010	-		
0.000	0	100	200
Data notes <ul> <li>New Jersey: 1</li> <li>Pennsylvania</li> <li>Texas: 1</li> </ul>			

## adj\_sent\_pro

Label	Probation lengt	h in months			
Description	The number of 1	months the indivi	dual was sentend	ced to serve on proba	tion.
Table Format	Adjudication numeric				
<i>Set</i> All records Valid records Invalid values Missing values <i>Statistic</i>	Count 79,489,137 48,069,898 149 31,419,090 Value	Percent (%) 100.0 60.5 0.0 39.5			
Mean Minimum	8.5 –99,999.0				
Maximum	108,655.4				
0.080 - 0.060 - 0.040 - 0.020 - 0.000 -	Histog	ram of valid adj_s	sent_pro record	s 10	
Data notes					
<ul><li>New Jersey: 1</li><li>Pennsylvania</li></ul>					
• Texas: 1					

#### adj\_sent\_rest

Label	Restitution amo	ount in dollars	
Description	The amount in	dollars of restitution the individ	dual had to pay.
Table Format	Adjudication numeric		
<i>Set</i> All records Valid records Invalid values Missing values	<i>Count</i> 79,489,137 11,585,027 6 67,904,104	Percent (%) 100.0 14.6 0.0 85.4	
<i>Statistic</i> Mean Minimum Maximum	Value 441.0 -86.7 10,000,000.0		
0.002 Aredneucy 0.001		<del>am of valid adj_sent_rest rec</del>	ords
0.000	0	2,000	4,000
Data notes • New Jersey: • North Carol • Pennsylvani • Texas: 1	ina: 1		

-	
Label	Suspended sentence
Description	Whether the individual received a suspended sentence.
Table Format Code scheme	Adjudication numeric binary code
<i>Set</i> All records Valid records Missing values	CountPercent (%)79,489,137100.054,796,90168.924,692,23631.1
<i>Statistic</i> Mean Maximum	Value 0.1 1
	Histogram of valid adj_sent_sus records
	No 0 Yes 1 0 0.2 0.4 0.6 Prob.
Data notes • New Jersey: • Pennsylvani • Texas: 1	1 a: 1

adj\_sent\_sus

## adj\_sent\_trt

Label	Treatment sente	ence
Description	Whether the inc	dividual received a treatment-oriented sentence.
Table Format Code scheme	Adjudication numeric binary code	
<i>Set</i> All records Valid records Missing values <i>Statistic</i> Mean Maximum	Count 79,489,137 8,220,040 71,269,097 Value 0.0 1	Percent (%) 100.0 10.3 89.7
Data notes • New Jersey:	Histogr No 0 Yes 1 0	gram of valid adj_sent_trt records 0.02 0.04 0.06 0.08 0.1 Prob.
<ul> <li>Pennsylvania</li> <li>Texas: 1</li> </ul>	a: 1	

#### adj\_sent\_fine

Label	Fine amount in	dollars		
Description	The amount in	dollars the individu	al was fined.	
Table Format	Adjudication numeric			
<i>Set</i> All records Valid records Invalid values Missing values	<i>Count</i> 79,489,137 27,666,051 1193 51,821,893	Percent (%) 100.0 34.8 0.0 65.2		
<i>Statistic</i> Mean Minimum Maximum	Value 139.3 –35,492.0 9,999,999.0			
	Histog	cam of valid adj_se	nt_fine records	
0.004 H 0.002	_			
占 0.002 0.000				
0.000	0	500	1,000	1,500
Data notes New Jersey: North Caroli North Dakot Pennsylvania Texas: 1 Wisconsin: 1	na: 1 a: 1			

## adj\_sent\_inc\_min

Label	Minimum incar	ceration term in mo	onths	
Description	The minimum n	umber of months th	e individual was senten	ced to serve in prison.
Table Format	Adjudication numeric			
<i>Set</i> All records Valid records Invalid values Missing values	<i>Count</i> 79,489,137 27,639,032 5459 51,844,646	Percent (%) 100.0 34.8 0.0 65.2		
<i>Statistic</i> Mean Minimum Maximum	Value -14.5 -99,999.0 12,654.0			
	Histograu	<del>n of valid adj_sent</del>	_inc_min records	
0.150	_			
0.100 J. J. D.	-			
ی بل 0.050	-			
0.000				
Data notes <ul> <li>New Jersey: 1</li> <li>Pennsylvania</li> <li>Texas: 1</li> </ul>		20	40	60

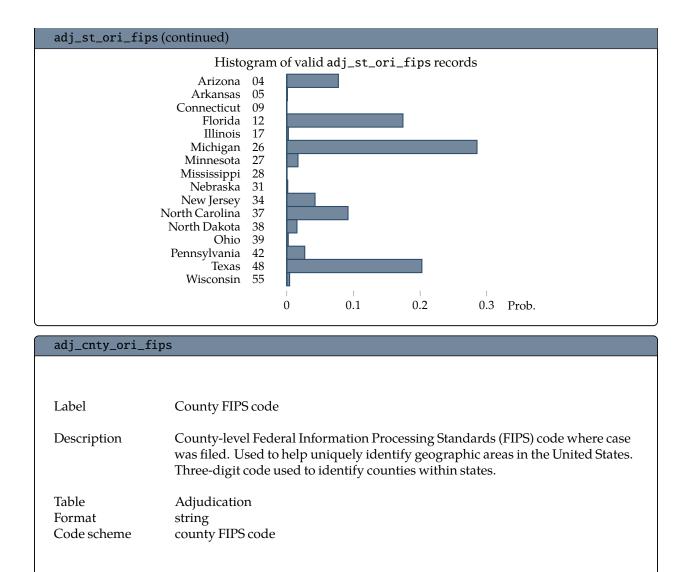
#### adj\_sent\_inc\_max

Label	Maximum inca	reprotion torm	in months		
Label		i ceration term	mmonuns		
Description	The maximum r	number of mon	ths the individ	ual was sentenced t	o serve in prison.
Table Format	Adjudication numeric				
<i>Set</i> All records Valid records Invalid values Missing values <i>Statistic</i> Mean	Count 79,489,137 29,790,655 40,298 49,658,184 Value -115.5	Percent (%) 100.0 37.5 0.1 62.5			
Minimum Maximum	-99,999.0 67,084.1				
0.040 - Angle 1.00 0.020 - 0.000 -		n of valid adj_			
	0	50	100	150	200
Data notes <ul> <li>New Jersey:</li> <li>Pennsylvania</li> <li>Texas: 1</li> </ul>					

adj_sent_src	
Label	Raw sentence from source
Description	Original description of the sentence given by the agency where data was collected. Sentencing is agency-specific and thus inconsistent across jurisdictions. For a harmonized sentence please see the following: adj_sent_serv, adj_sent_dth, adj_sent_inc, adj_sent_pdiv, adj_sent_pro, adj_sent_rest, adj_sent_sus, adj_sent_trt, adj_sent_fine, adj_sent_inc_min, adj_sent_inc_max. Even though harmonized sentencing information is provided, this raw description is retained for research that is not well-suited by the harmonized sentence and leaves the opportunity for researchers to recode the original descriptions as needed.
Table Format	Adjudication string
<i>Set</i> All records	CountPercent (%)79,489,137100.0

#### adj\_st\_ori\_fips

Label	State FIPS code	
Description	was filed. Used	eral Information Processing Standards (FIPS) code where case to help uniquely identify geographic areas in the United States. used to identify states.
Table Format Code scheme	Adjudication string state FIPS code	
<i>Set</i> All records Valid records Missing values	<i>Count</i> 79,489,137 75,064,074 4,425,063	Percent (%) 100.0 94.4 5.6



Set	Count	Percent (%)
All records	79,489,137	100.0
Valid records	73,141,014	92.0
Invalid values	1,923,060	2.4
Missing values	4,425,063	5.6
-		

Label	Record source - law enforcement agency
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a law enforcement agency.
Table Format Code scheme	Adjudication numeric binary code
<i>Set</i> All records Valid records	CountPercent (%)79,489,137100.079,489,137100.0
	Histogram of valid adj_rec_src_le records
	No 0
	0  0.2  0.4  0.6  0.8  1  Prob.
adj_rec_src_crt	t
Label	Record source - courts
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system.
Table	
Format Code scheme	Adjudication numeric binary code
	numeric
Code scheme Set All records	numeric binary code <i>Count Percent</i> (%) 79,489,137 100.0
Code scheme Set All records Valid records Statistic Mean Median	numeric binary code Count Percent (%) 79,489,137 100.0 79,489,137 100.0 Value 0.2 1.0

#### adj\_rec\_src\_doc

<b>.</b>	
Label	Record source - department of corrections
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a department of corrections.
Table Format Code scheme	Adjudication numeric binary code
<i>Set</i> All records Valid records	CountPercent (%)79,489,137100.079,489,137100.0
<i>Statistic</i> Mean Maximum	Value 0.2 1.0
	Histogram of valid adj_rec_src_doc records No 0 Yes 1 0 0.2 0.4 0.6 0.8 Prob.

## adj\_rec\_src\_rep

Label	Record source - criminal history repository
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a criminal history repository.
Table Format Code scheme	Adjudication numeric binary code
<i>Set</i> All records Valid records	CountPercent (%)79,489,137100.079,489,137100.0
<i>Statistic</i> Mean Maximum	Value 0.1 1.0
	Histogram of valid adj_rec_src_rep records
	Yes 1 0 0.2 0.4 0.6 0.8 Prob.

adj_rec_src_cc	
Label	Record source - community corrections agency
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a community corrections agency.
Table Format Code scheme	Adjudication numeric binary code
<i>Set</i> All records Valid records	CountPercent (%)79,489,137100.079,489,137100.0
	Histogram of valid adj_rec_src_cc records No 0 0 0.2 0.4 0.6 0.8 1 Prob.

#### 3.6.3 Incarceration

cjars_id	
Label	CJARS identifier
Description	Uniquely identifies individuals. For more details on use of cjars_id for data linkage, refer to Section 3.2.1 and Figure 4.
Table Format	Incarceration string
<i>Set</i> All records	CountPercent (%)10,369,060100.0

#### uisn

Label	Incarceration term identifier
Description	Uniquely identifies term of incarceration. For more details on use of uisn for data linkage, refer to Section 3.2.2 and Figure 5.
Table Format	Incarceration string

<pre>inc_fcl_cd</pre>							
Label	CJARS standardize	ed facility ty	/pe				
Description	consistent offense	coding is n gories and	eeded a metho	across j d used	urisdic	tions. I	housed. Used when For a full description offense facility type,
Table Format Code scheme	Incarceration string incarceration facili	ty type					
<i>Set</i> All records Valid records Invalid values Missing values	<i>Count</i> 10,369,060 10,368,704 311 45	Percent (%) 100.0 100.0 0.0 0.0					
	Histogra	m of valid i	inc fc	lcdre	cords		
	Not Known / Missing Medium Minimum - Low Community Other ximum - High or Close State Prison	UU MD MN CM OT MX SP LJ	0.1	0.2	0.3	0.4	0.5 Prob.

inc_fcl_cd_src	
Label	Days description of facility from source
Description	Raw description of facility from source The agency's description of the facility that the individual is/was housed. For harmonized facility type please see inc_fcl_cd. Even though a harmonized facility type is provided, this raw description is retained for research that is not well-suited by the harmonized facility types and leaves the opportunity for researchers to recode the original descriptions as needed.
Table Format	Incarceration string
<i>Set</i> All records	Count         Percent (%)           10,369,060         100.0

## inc\_entry\_dt\_yyyy

Label	Year of entry into incarceration
Description	The year when the individual entered incarceration.
Table Format	Incarceration numeric
<i>Set</i> All records Valid records Missing values	CountPercent (%)10,369,060100.010,232,39398.7136,6671.3
<i>Statistic</i> Mean Median Minimum Maximum	Value 2003.8 2005.0 1901 2019
	Histogram of valid inc_entry_dt_yyyy records pre-1980 1980–1984 1985–1989 1990–1994 1995–1999 2000–2004 2005–2009 2010–2014 2015–2019 post-2019 0 0.05 0.1 0.15 0.2 Prob.

#### inc\_entry\_dt\_mm

Label	Month of entry into incarceration
Description	The month when the individual entered incarceration.
Table Format Code scheme	Incarceration numeric month code
<i>Set</i> All records Valid records Missing values	CountPercent (%)10,369,060100.010,228,70398.6140,3571.4
<i>Statistic</i> Mean Median Minimum Maximum	Value 6.4 6.0 1 12
	Histogram of valid inc_entry_dt_mm records
	January 1 February 2 March 3 April 4 May 5 June 6 July 7 August 8 September 9 October 10 November 11 December 12

#### inc\_entry\_dt\_dd

Label	Day of month of entry into incarceration				
Description	The day of the month when the individual entered incarceration.				
Table Format	Incarceration numeric				
<i>Set</i> All records Valid records Missing values	CountPercent (%)10,369,060100.010,228,70398.6140,3571.4				
<i>Statistic</i> Mean Median Minimum Maximum	Value 15.6 16.0 1 31				
	Histogram of valid inc_entry_dt_dd records				

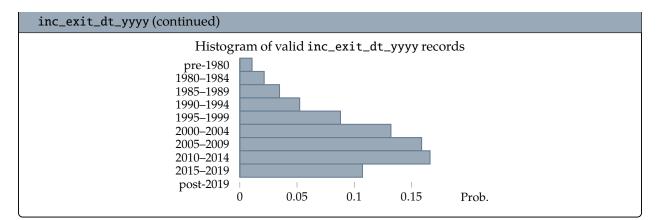
inc\_entry\_cd

Label CJARS standardized entry status Description CJARS standardized entry status into incarceration. Used when consistent coding is needed across jurisdictions. For a full description of the coding categories and method used to harmonize entry status, please refer to Appendices B and C.2.6. Table Incarceration Format string Code scheme incarceration entry code Set Count Percent (%) All records 10,369,060 100.0 Valid records 9,431,937 91.0 Invalid values 4486 0.0 Missing values 932,637 9.0 Histogram of valid inc_entry_cd records Not Known / Missing UU Court Commitment CC Other OT Probation Revocation - No New Sent PN Parole Revocation - No New Sent PN Parole Revocation - New Sentence RW Parole Revocation - New Sentence RW Parole Revocation - New Sentence RW Parole Revocation - No Informat EI Suspended Sentence Imposed SS Unsentenced Commitment UC								
is needed across jurisdictions. For a full description of the coding categories and method used to harmonize entry status, please refer to Appendices B and C.2.6. Table Incarceration Format string Code scheme incarceration entry code Set Count Percent (%) All records 10,369,060 100.0 Valid records 9,431,937 91.0 Invalid values 4486 0.0 Missing values 932,637 9.0 Histogram of valid inc_entry_cd records Not Known / Missing UU Court Commitment CC Other OT Probation Revocation - No New Sentence PW Parole Revocation - No Information RI Probation Revocation - New Sentence RW Parole Revocation - No Information RI Escapee/AWOL Returned - No Informat EI Suspended Sentence Imposed SS Unsentenced Commitment UC	Label	CJARS standardized entry status						
Format       string         Code scheme       incarceration entry code         Set       Count       Percent (%)         All records       10,369,060       100.0         Valid records       9,431,937       91.0         Invalid values       4486       0.0         Missing values       932,637       9.0         Histogram of valid inc_entry_cd records         Histogram of valid inc_entry_cd records         Not Known / Missing       UU         Court Commitment       CC         Other       OT         Probation Revocation - No New Sent       PN         Parole Revocation - No Information       RI         Probation Revocation - New Sentence       RW         Parole Revocation - No Informa       EI         Suspended Sentence Imposed       SS         Unsentenced Commitment       UC	Description	is needed across jurisdictions. For a full description of the coding categories and						
All records 10,369,060 100.0 Valid records 9,431,937 91.0 Invalid values 4486 0.0 Missing values 932,637 9.0 Histogram of valid inc_entry_cd records Not Known / Missing UU Court Commitment CC Other OT Probation Revocation - No New Sent PN Parole Revocation - No New Sent PN Parole Revocation - No Information RI Probation Revocation - New Sentence PW Parole Revocation - New Sentence RW Parole Revocation - New Sentence RW Parole Revocation - No Informat EI Suspended Sentence Imposed SS Unsentenced Commitment UC	Format	string	de					
Not Known / MissingUU Court CommitmentUU CCOtherOTOtherOTProbation Revocation - No New SentPNParole Revocation - No InformationRIProbation Revocation - New SentencePWParole Revocation - New SentenceRWParole Revocation - No New SentenceRWParole Revocation - No New SentenceRNTransferTREscapee / AWOL Returned - No InformaEISuspended Sentence ImposedSSUnsentenced CommitmentUC	All records Valid records Invalid values	10,369,060 10 9,431,937 4486	00.0 01.0 0.0	)				
Not Known / MissingUU Court CommitmentUU CCOtherOTOtherOTProbation Revocation - No New SentPNParole Revocation - No InformationRIProbation Revocation - New SentencePWParole Revocation - New SentenceRWParole Revocation - No New SentenceRWParole Revocation - No New SentenceRNTransferTREscapee / AWOL Returned - No InformaEISuspended Sentence ImposedSSUnsentenced CommitmentUC		Histogram of	valid i	nc_ent	ry_cd reco	ords		
Other OT Probation Revocation - No New Sent PN Parole Revocation - No Information RI Probation Revocation - New Sentence PW Parole Revocation - New Sentence RW Parole Revocation - No New Sentence RN Transfer TR Escapee/AWOL Returned - No Informa EI Suspended Sentence Imposed SS Unsentenced Commitment UC		Ũ	ig UU		,			
Probation Status - Pending Revocation PR Parole Status - Pending Revocation PP Escapee/AWOL Returned - New Sentence EW Returned from Appeal or Bond RA 0 0.2 0.4 0.6 Prob.	Parole Rev Probation Parole Parole Re Escapee/AWC St Probation Parole Escapee/AWC	Court Commitme Oth Revocation - No New Sent. vocation - No Information. n Revocation - New Senten e Revocation - New Senten evocation - No New Senten Transf DL Returned - No Informa. uspended Sentence Impose Unsentenced Commitme Status - Pending Revocatio Status - Pending Revocatio DL Returned - New Senten	nt CC er OT . PN . RI ce PW ce RW ce RW ce RW ce RW ce RN er TR . EI d SS nt UC on PR on PP ce EW					

inc_entry_cd_s	src
Label	Raw description of entry type into incarceration
Description	The agency's description of the entry status into incarceration. For harmonized entry status please see <b>inc_entry_cd</b> . Even though a harmonized entry status is provided, this raw description is retained for research that is not well-suited by the harmonized entry status and leaves the opportunity for researchers to recode the original descriptions as needed.
Table Format	Incarceration string
<i>Set</i> All records	Count         Percent (%)           10,369,060         100.0

# inc\_exit\_dt\_yyyy

Label	Year of exit from incarceration				
Description	Year when the individual exited incarceration.				
Table Format	Incarceration numeric				
<i>Set</i> All records Valid records Invalid values Missing values	<i>Count</i> 10,369,060 7,998,040 1 2,371,019	Percent (%) 100.0 77.1 0.0 22.9			
<i>Statistic</i> Mean Median Minimum Maximum	Value 2004.4 2006.0 1513 2019				



#### inc\_exit\_dt\_mm

Label	Month of exit from incarceration
Description	Month when the individual exited incarceration.
Table Format Code scheme	Incarceration numeric month code
<i>Set</i> All records Valid records Missing values	CountPercent (%)10,369,060100.07,998,04177.12,371,01922.9
<i>Statistic</i> Mean Median Minimum Maximum	Value 6.5 7.0 1 12
	Histogram of valid inc_exit_dt_mm records January 1 February 2 March 3 April 4 May 5 June 6 July 7 August 8 September 9 October 10 November 11 December 12 0 0.02 0.04 0.06 Prob.

### inc\_exit\_dt\_dd

Label	Day of month of	exit from inca	rceration		
Description	Day of the mont	h when the inc	lividual e	exited incarceration.	
Table Format	Incarceration numeric				
<i>Set</i> All records Valid records Missing values	<i>Count</i> 10,369,060 7,998,041 2,371,019	Percent (%) 100.0 77.1 22.9			
Statistic Mean Median Minimum Maximum	Value 14.9 15.0 1 31				
	Histogra 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 	m of valid inc.	_exit_d	L_dd records	
Data notes • Florida: 1	0	0.02	0.04	0.00 1100.	

### inc\_exit\_cd

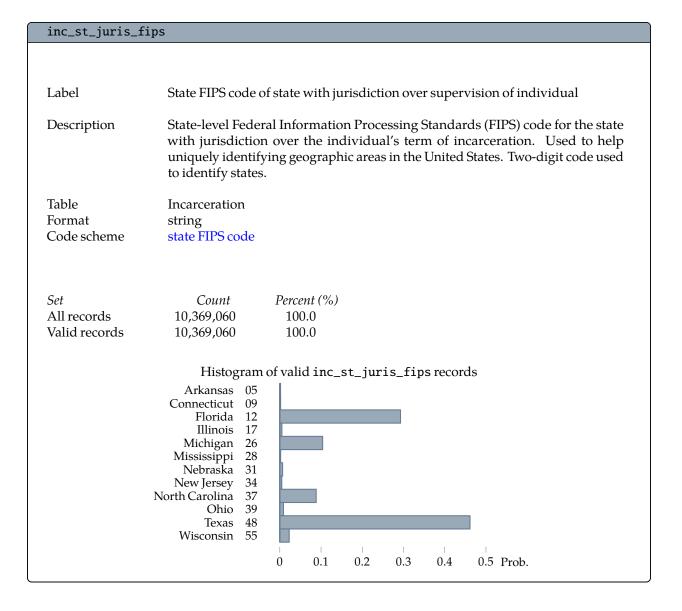
Label	CJARS standardiz	zed exit sta	atus				
Description	CJARS standardi offense coding is r categories and me B and C.2.8.	needed act	ross jurisd	ictions. F	or a full desc	cription of t	ne coding
Table Format Code scheme	Incarceration string incarceration exit	code					
<i>Set</i> All records Valid records Invalid values Missing values			%) d inc_exi	t_cd reco	ords		
Release to C Ot	Custody, Detainer, Wai Probation Rel Trai Other D	ence ES ease MR sion PD ease OR VOL EA uses DN ther OT rrant RC ease PR usfer TR eath OD tition EX ease UR rdon CP					
			0	0.2	0.4	0.6 Pr	rob.

<pre>inc_exit_cd_src</pre>	
Label	Raw description of exit type from incarceration
Description	The agency's description of the exit status from incarceration. For harmonized exit status please see inc_exit_cd. Even though a harmonized exit status is provided, this raw description is retained for research that is not well-suited by the harmonized exit status and leaves the opportunity for researchers to recode the original descriptions as needed.
Table Format	Incarceration string
<i>Set</i> All records	CountPercent (%)10,369,060100.0

# inc\_st\_ori\_fips

Label	State FIPS code	for location of sentencing
Description	location where t	eral Information Processing Standards (FIPS) code for the the individual was sentenced. Used to help uniquely identifying as in the United States. Two-digit code used to identify states.
Table Format Code scheme	Incarceration string state FIPS code	
<i>Set</i> All records Valid records Missing values	<i>Count</i> 10,369,060 10,309,358 59,702	Percent (%) 100.0 99.4 0.6

inc_st_ori_fips	(continued)						
	Histogr	am of valid in	c_st_oi	ri_fips	record	S	
	Arkansas 0 Connecticut 0 Florida 1 Illinois 1 Michigan 2 Mississippi 2 Nebraska 3 New Jersey 3 North Carolina 3 Ohio 3 Texas 4 Wisconsin 5	9					
		0 0.1	0.2	0.3	0.4	0.5 Prob.	
inc_cnty_ori_fi	ps						
Label	County FIPS c	ode for locatio	n of sent	encing			
Description	location where	e the individua	l was sei	ntenced	. Used	ndards (FIPS) code f to help uniquely ident ode used to identify co	tifying
Table Format Code scheme	Incarceration string county FIPS co	ode					
<i>Set</i> All records Valid records Invalid values Missing values	<i>Count</i> 10,369,060 5,713,813 4,595,545 59,702	Percent (% 100.0 55.1 44.3 0.6	)				
Data notes <ul> <li>Wisconsin:</li> </ul>	1						



inc_rec_src_le	
Label	Record source - law enforcement agency
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a law enforcement agency.
Table Format Code scheme	Incarceration numeric binary code
<i>Set</i> All records Valid records	CountPercent (%)10,369,060100.010,369,060100.0
	Histogram of valid inc_rec_src_le records
	No 0
	0  0.2  0.4  0.6  0.8  1  Prob.
inc_rec_src_crt	
inc_rec_src_crt	
inc_rec_src_crt	Record source - courts
Label	Record source - courts A binary variable that indicates that the record was fully, or partially generated
Label Description Table Format	Record source - courts A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system. Incarceration numeric
Label Description Table Format Code scheme <i>Set</i> All records	Record source - courts         A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system.         Incarceration numeric binary code         Count       Percent (%) 10,369,060         10,369,060       100.0
Label Description Table Format Code scheme <i>Set</i> All records	Record source - courts A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system. Incarceration numeric binary code <u>Count Percent (%)</u> 10,369,060 100.0 10,369,060 100.0

inc_rec_src_doc	
Label	Record source - department of corrections
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a department of corrections.
Table	Incarceration
Format	numeric
Code scheme	binary code
Set	Count Percent (%)
All records	10,369,060 100.0
Valid records	10,369,060 100.0
Statistic	Value
Mean	0.9
Median	1.0
Maximum	1.0
	Histogram of valid inc_rec_src_doc records
	No 0
	Yes 1
	0 0.2 0.4 0.6 0.8 1 Prob.

#### inc\_rec\_src\_rep

Label	Record source - criminal history repository
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a criminal history repository.
Table Format Code scheme	Incarceration numeric binary code
<i>Set</i> All records Valid records	CountPercent (%)10,369,060100.010,369,060100.0
<i>Statistic</i> Mean Maximum	Value 0.1 1.0
	Histogram of valid inc_rec_src_rep records No 0 Yes 1
	0 0.2 0.4 0.6 0.8 1 Prob.
inc_rec_src_cc	

Label	Record source - community corrections agency
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a community corrections agency.
Table Format Code scheme	Incarceration numeric binary code
<i>Set</i> All records Valid records	CountPercent (%)10,369,060100.010,369,060100.0
	Histogram of valid inc_rec_src_cc records No 0 0 0.2 0.4 0.6 0.8 1 Prob.

## 3.6.4 Probation

cjars_id	
Label	CJARS identifier
Description	Uniquely identifies individuals. For more details on use of cjars_id for data linkage, refer to Section 3.2.1 and Figure 4.
Table Format	Probation string
<i>Set</i> All records	CountPercent (%)9,386,602100.0

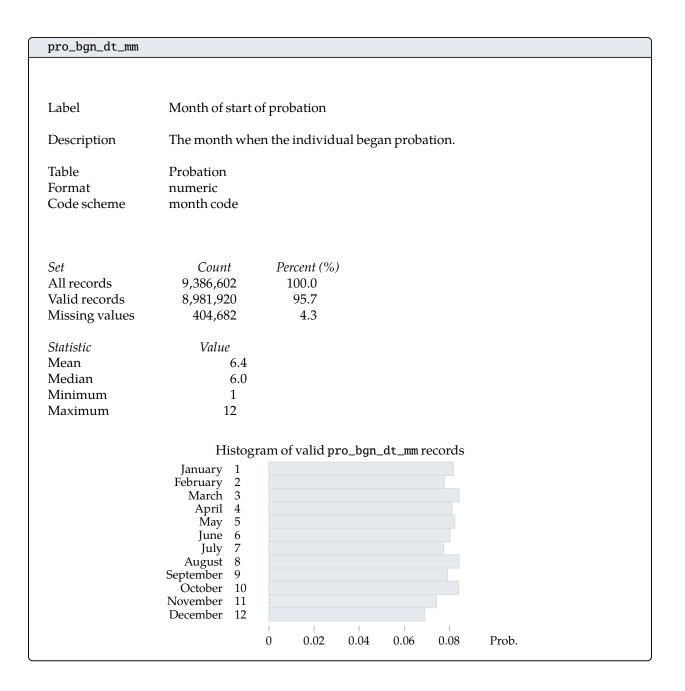
uprsn	
Label	Probation term identifier
Description	Uniquely identifies terms of probation. For more details on use of uprsn for data linkage, refer to Section 3.2.2 and Figure 5.
Table Format	Probation string

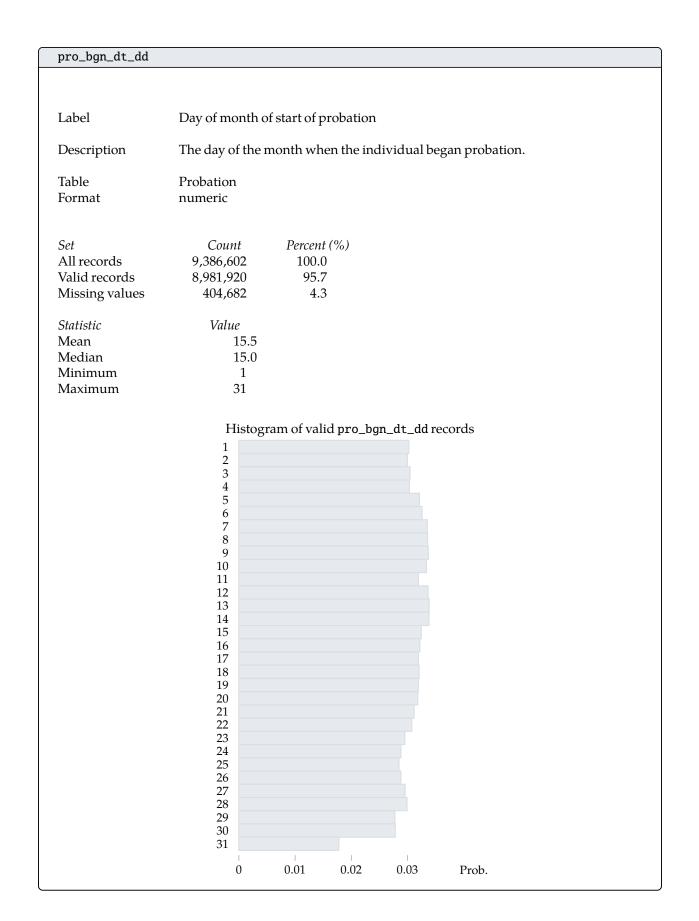
pro_cond_cd	
Label	CJARS standardized probation conditions
Description	CJARS standardized probation conditions classification. Used when consistent coding is needed across jurisdictions. For a full description of the coding categories and method used to harmonize probation conditions descriptions, please refer to Appendices B and C.2.4.
Table	Probation
Format	string
Code scheme	probation condition code
<i>Set</i> All records Valid records	CountPercent (%)9,386,602100.09,386,602100.0
	Histogram of valid pro_cond_cd records
Probation W	Not Known / Missing UU Straight Probation SP Alcohol/Drug Residential AD /ith Community Residential PR 0 0.2 0.4 0.6 0.8 1 Prob.

pro_cond_cd_sro	2	
Label	Raw description	n of probation conditions from source
Description	provides the rav probation conc description of p for research tha	of the conditions of probation for an individual. This variable w description that was provided from the agency. For harmonized ditions please see pro_cond_cd. Even though a harmonized probation conditions is provided, this raw description is retained at is not well-suited by the harmonized description of probation d leaves the opportunity for researchers to recode the original needed.
Table Format	Probation string	
<i>Set</i> All records	<i>Count</i> 9,386,602	<i>Percent (%)</i> 100.0

# pro\_bgn\_dt\_yyyy

Label	Year of start of probation
Description	The year when the individual began probation.
Table Format	Probation numeric
Set All records Valid records Invalid values Missing values Statistic Mean Median Minimum Maximum	Count         Percent (%)           9,386,602         100.0           8,981,868         95.7           52         0.0           404,682         4.3           Value           2007.2           2008.0           177           2019
	Histogram of valid pro_bgn_dt_yyyy records pre-1980 1980–1984 1985–1989 1990–1994 1995–1999 2000–2004 2005–2009 2010–2014 2015–2019 post-2019





# pro\_end\_dt\_yyyy

Label	Year of end of probation
Description	The year when the individual's probation ended.
Table Format	Probation numeric
<i>Set</i> All records Valid records Invalid values Missing values	CountPercent (%)9,386,602100.03,418,82236.410.05,967,77963.6
<i>Statistic</i> Mean Median Minimum Maximum	Value 2007.0 2008.0 179 2019
	Histogram of valid pro_end_dt_yyyy records pre-1980 1980–1984 1985–1989 1990–1994 1995–1999 2000–2004 2005–2009 2010–2014 2015–2019 post-2019 0 0.02 0.04 0.06 0.08 Prob.

#### pro\_end\_dt\_mm

Label	Month of end o	of probation
Description	The month whe	en the individual's probation ended.
Table Format Code scheme	Probation numeric month code	
<i>Set</i> All records Valid records Missing values	<i>Count</i> 9,386,602 3,418,823 5,967,779	Percent (%) 100.0 36.4 63.6
<i>Statistic</i> Mean Median Minimum Maximum	Value 6.5 6.0 1 12	
	Histog	ram of valid pro_end_dt_mm records
	January 1 February 2 March 3 April 4 May 5 June 6 July 7 August 8 September 9 October 10 November 11 December 12	
		0 0.01 0.02 0.03 Prob.

### pro\_end\_dt\_dd

Label	Day of month of end of probation
Description	The day of the month when the individual's probation ended.
Table Format	Probation numeric
<i>Set</i> All records Valid records Missing values	CountPercent (%)9,386,602100.03,418,82336.45,967,77963.6
<i>Statistic</i> Mean Median Minimum Maximum	Value 15.7 16.0 1 31
	Histogram of valid pro_end_dt_dd records
	31 0 0.005 0.01 Prob.

pro_end_cd	
Label	CJARS standardized probation end status
Description	CJARS standardized probation end status classification. Used when consistent coding is needed across jurisdictions. For a full description of the coding categories and method used to harmonize probation end status, please refer to Appendices B and C.2.5.
Table Format Code scheme	Probation string probation exit code
<i>Set</i> All records Valid records Missing values	CountPercent (%)9,386,602100.09,341,08599.545,5170.5
	Histogram of valid pro_end_cd records
	Not Known / MissingUUCompletionCOIncarceratedINAbsconded/EscapedABOther Unsatisfactory ExitOUOtherOTed to Another Probation ATRDeathDEo Custody/Detainer/WarDI
	0 0.2 0.4 0.6 0.8 Prob.

pro_end_cd_src	
Label	Raw description of probation end status from source
Description	A descrption of the probation end status for an individual. This variable provides the raw description that was provided from the agency. For harmonized probation end status please see pro_end_cd. Even though a harmonized description of probation end status is provided, this raw description is retained for research that is not well-suited by the harmonized description of probation end status and leaves the opportunity for researchers to recode the original descriptions as needed.
Table Format	Probation string
<i>Set</i> All records	Count         Percent (%)           9,386,602         100.0

pro\_st\_ori\_fips

Label	State FIPS code for location of sentencing
Description	State-level Federal Information Processing Standards (FIPS) code for location where the individual was sentenced. Used to help uniquely identifying geographic areas in the United States. Two-digit code used to identify states.
Table Format Code scheme	Probation string state FIPS code
<i>Set</i> All records Valid records Missing values	CountPercent (%)9,386,602100.09,236,82598.4149,7771.6
	Histogram of valid pro_st_ori_fips records Arkansas 05 Florida 12 Michigan 26 North Carolina 37 Texas 48 Wisconsin 55 0 0.1 0.2 0.3 Prob.

pro_cnty_ori_fi	ps	
Label	County FIPS co	ode for location of sentencing
Description	where the ind	ederal Information Processing Standards (FIPS) code for location ividual was sentenced. Used to help uniquely identifying as in the United States. Three-digit code used to identify counties
Table Format Code scheme	Probation string county FIPS coo	de
<i>Set</i> All records Valid records Invalid values Missing values	<i>Count</i> 9,386,602 8,311,547 925,278 149,777	Percent (%) 100.0 88.5 9.9 1.6

#### pro\_st\_juris\_fips Label State FIPS code of state with jurisdiction over supervision of individual Description State-level Federal Information Processing Standards (FIPS) code for the state with jurisdiction over the individual's term of probation. Used to help uniquely identifying geographic areas in the United States. Two-digit code used to identify states. Table Probation Format string Code scheme state FIPS code Set Count Percent (%) All records 9,386,602 100.0 Valid records 9,386,602 100.0 Histogram of valid pro\_st\_juris\_fips records Arkansas 05 Florida 12 Michigan 26 North Carolina 37 Texas 48 Wisconsin 55 0.2 0 0.1 0.3 Prob.

pro_rec_src_le	
Label	Record source - law enforcement agency
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a law enforcement agency.
Table Format Code scheme	Probation numeric binary code
<i>Set</i> All records Valid records	CountPercent (%)9,386,602100.09,386,602100.0
	Histogram of valid pro_rec_src_le records
	No 0
	0 0.2 0.4 0.6 0.8 1 Prob.
pro_rec_src_crt	
pro_rec_src_ere	
Label	Record source - courts
	Record source - courts A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system.
Label	A binary variable that indicates that the record was fully, or partially generated
Label Description Table Format	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system. Probation numeric
Label Description Table Format Code scheme <i>Set</i> All records	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system. Probation numeric binary code          Count       Percent (%)         9,386,602       100.0
Label Description Table Format Code scheme Set All records Valid records Valid records Statistic Mean	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system. Probation numeric binary code Count Percent (%) 9,386,602 100.0 9,386,602 100.0 Value 0.3
Label Description Table Format Code scheme Set All records Valid records Valid records Statistic Mean	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system. Probation numeric binary code Count Percent (%) 9,386,602 100.0 9,386,602 100.0 Value 0.3 1.0



pro_rec_src_doc	
Label	Record source - department of corrections
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a department of corrections.
Table	Probation
Format	numeric
Code scheme	binary code
Set	Count Percent (%)
Set All records	<i>Count Percent</i> (%) 9,386,602 100.0
Valid records	9,386,602 100.0
valid records	7,500,002 100.0
Statistic	Value
Mean	0.6
Median	1.0
Maximum	1.0
	Histogram of valid pro_rec_src_doc records
	No 0
	Yes 1
	0 0.2 0.4 0.6 Prob.

pro\_rec\_src\_rep Label Record source - criminal history repository Description A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a criminal history repository. Table Probation Format numeric Code scheme binary code Set Count *Percent* (%) All records 9,386,602 100.0 Valid records 9,386,602 100.0 Statistic Value Mean 0.2 Maximum 1.0 Histogram of valid pro\_rec\_src\_rep records No 0 Yes 1 0 0.2 0.8 0.4 0.6 Prob.

pro_rec_src_cc		
Label	Record source - community corrections agency	
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a community corrections agency.	
Table	Probation	
Format	numeric	
Code scheme	binary code	
<i>Set</i> All records Valid records	CountPercent (%)9,386,602100.09,386,602100.0	
Histogram of valid pro_rec_src_cc records		
	No 0	
	0 0.2 0.4 0.6 0.8 1 Prob.	

## 3.6.5 Parole

cjars_id		
Label	CJARS identifier	
Description	Uniquely identifies individuals. For more details on use of cjars_id for data linkage, refer to Section 3.2.1 and Figure 4.	
Table Format	Parole string	
<i>Set</i> All records	CountPercent (%)2,211,726100.0	

## upasn

Label	Parole term identifier
Description	Uniquely identifies terms of parole. For more details on use of upasn for data linkage, refer to Section 3.2.2 and Figure 5.
Table Format	Parole string

# par\_bgn\_dt\_yyyy

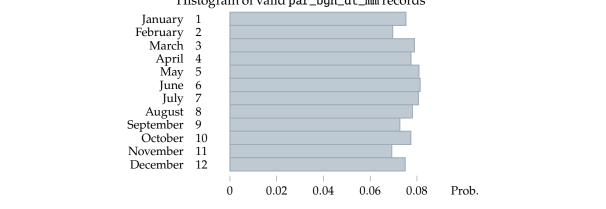
<b>T</b> 1 1	
Label	Year of start of parole
Description	The year when the individual began parole.
Table Format	Parole numeric
Set All records Valid records Invalid values Missing values Statistic Mean Median Minimum Maximum	Count         Percent (%)           2,211,726         100.0           2,026,872         91.6           1         0.0           184,853         8.4           Value         2003.6           2005.0         1013           2019
	Histogram of valid par_bgn_dt_yyyy records pre-1980 1980–1984 1985–1989 1990–1994 1995–1999 2000–2004 2005–2009 2010–2014 2015–2019 post-2019 0 0.05 0.1 0.15 Prob.

## par\_bgn\_dt\_mm

Label	Month of start of parole		
Description	The month when the individual began parole.		
Table Format Code scheme	Parole numeric month code		
<i>Set</i> All records Valid records Missing values	<i>Count</i> 2,211,726 2,026,873 184,853	Percent (%) 100.0 91.6 8.4	

Statistic	Value
Mean	6.5
Median	6.0
Minimum	1
Maximum	12

## Histogram of valid par\_bgn\_dt\_mm records



## par\_bgn\_dt\_dd

Label	Day of month of start of parole
Description	The day of the month when the individual began parole.
Table Format	Parole numeric
<i>Set</i> All records Valid records Missing values	CountPercent (%)2,211,726100.02,026,87391.6184,8538.4
<i>Statistic</i> Mean Median Minimum Maximum	Value 15.2 15.0 1 31
	Histogram of valid par_bgn_dt_dd records

## par\_end\_dt\_yyyy

Label	Veen of and of menale
Label	Year of end of parole
Description	The year when the individual's parole ended.
Table Format	Parole numeric
Set All records Valid records Invalid values Missing values Statistic Mean Median Minimum Maximum	Count       Percent (%)         2,211,726       100.0         1,128,546       51.0         1       0.0         1,083,179       49.0         Value       2002.7         2004.0       1013         2019
	Histogram of valid par_end_dt_yyyy records pre-1980 1980–1984 1985–1989 1990–1994 1995–1999 2000–2004 2005–2009 2010–2014 2015–2019 post-2019 0 0.02 0.04 0.06 0.08 Prob.

#### par\_end\_dt\_mm

Label	Month of end of parole		
Description	The month when the individual's parole ended.		
Table Format Code scheme	Parole numeric month code		
<i>Set</i> All records Valid records Missing values	CountPercent (%)2,211,726100.01,128,54751.01,083,17949.0		
<i>Statistic</i> Mean Median Minimum Maximum	Value 6.5 6.0 1 12		
	Histogram of valid par_end_dt_mm records		
	January 1 February 2 March 3 April 4 May 5 June 6 July 7 August 8 September 9 October 10 November 11 December 12		

#### par\_end\_dt\_dd

Label	Day of month of end of parole
Description	The day of the month when the individual's parole ended.
Table Format	Parole numeric
<i>Set</i> All records Valid records Missing values <i>Statistic</i> Mean Median	Count         Percent (%)           2,211,726         100.0           1,128,547         51.0           1,083,179         49.0           Value         15.5           15.0
Minimum Maximum	1 1 31
	Histogram of valid par_end_dt_dd records

par_end_cd	
Label	Parole end status classification
Description	CJARS standardized parole end status classification. Used when consistent coding is needed across jurisdictions. For a full description of the coding categories and method used to harmonize parole end descriptions, please refer to Appendices B and C.2.9.
Table Format Code scheme	Parole string parole exit code
Set	Count Percent (%)
All records	2,211,726 100.0
Valid records	2,095,782 94.8
Missing values	115,944 5.2
	Histogram of valid par_end_cd records
	Not Known / Missing UU
	Completion CO
Returned	Absconded/Escaped AB to Incarceration - Revoca RV
Retuilleu	Death DE
Г	Fransferred to Another State TR
Determine	Other OT
Returned	to Incarceration - Other / RO
	0 0.2 0.4 0.6 Prob.
par_end_cd_src	
Label	Raw description of parole end status from source
Description	A descrption of the parole end status for an individual. This variable provides the raw description that was provided from the agency. For harmonized parole end status please see par_end_cd. Even though a harmonized description of parole end status is provided, this raw description is retained for research that is not well-suited by the harmonized description of parole end status and leaves

is not well-suited by the harmonized description of parole end status and leave the opportunity for researchers to recode the original descriptions as needed.

Table Format	Parole string	
<i>Set</i>	<i>Count</i>	<i>Percent</i> (%)
All records	2,211,726	100.0

par_st_ori_fip	S
Label	State FIPS code for location of sentencing
Description	State-level Federal Information Processing Standards (FIPS) code for the location where the individual was sentenced. Used to help uniquely identifying geographic areas in the United States. Two-digit code used to identify states.
Table Format Code scheme	Parole string state FIPS code
<i>Set</i> All records Valid records Missing values	CountPercent (%)2,211,726100.02,141,33196.870,3953.2
	Histogram of valid par_st_ori_fips records
	Florida 12 Illinois 17 Michigan 26 Nebraska 31 North Carolina 37 Ohio 39 Texas 48 0 0.2 0.4 Prob.

par_cnty_ori_fips		
Label	County FIPS co	ode for location of sentencing
Description	location where	Federal Information Processing Standards (FIPS) code for the the individual was sentenced. Used to help uniquely identifying as in the United States. Three-digit code used to identify counties
Table Format Code scheme	Parole string county FIPS coo	de
<i>Set</i> All records Valid records Invalid values Missing values	<i>Count</i> 2,211,726 949,246 1,192,085 70,395	Percent (%) 100.0 42.9 53.9 3.2

## par\_st\_juris\_fips

Label	State FIPS code of state with jurisdiction over supervision of individual
Description	State-level Federal Information Processing Standards (FIPS) code for the state with jurisdiction over the individual's term of parole. Used to help uniquely identifying geographic areas in the United States. Two-digit code used to identify states.
Table Format Code scheme	Parole string state FIPS code
<i>Set</i> All records Valid records	CountPercent (%)2,211,726100.02,211,726100.0
	Histogram of valid par_st_juris_fips records
	Florida 12 Illinois 17 Michigan 26 Nebraska 31 North Carolina 37 Ohio 39 Texas 48 0 0.2 0.4 Prob.
	0 0.2 0.4 Prob.

par_rec_src_le	
Label	Record source - law enforcement agency
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a law enforcement agency.
Table Format Code scheme	Parole numeric binary code
<i>Set</i> All records Valid records	CountPercent (%)2,211,726100.02,211,726100.0
	Histogram of valid par_rec_src_le records
	No 0
	0 0.2 0.4 0.6 0.8 1 Prob.
par_rec_src_cr	t
-	
Label	Record source - courts
	Record source - courts
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system.
Description Table Format Code scheme	A binary variable that indicates that the record was fully, or partially generated
Table Format	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system. Parole numeric
Table Format Code scheme <i>Set</i> All records	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system. Parole numeric binary code          Count       Percent (%)         2,211,726       100.0
Table Format Code scheme <i>Set</i> All records	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a court system. Parole numeric binary code           Count       Percent (%)         2,211,726       100.0         2,211,726       100.0

par\_rec\_src\_doc

Label	Record source - department of corrections
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a department of corrections.
Table Format Code scheme	Parole numeric binary code
<i>Set</i> All records Valid records	CountPercent (%)2,211,726100.02,211,726100.0
Statistic	Value
Mean	0.9
Median	1.0
Maximum	1.0 Histogram of valid par_rec_src_doc records No 0 Yes 1 0 0.2 0.4 0.6 0.8 Prob.

par\_rec\_src\_rep

Label	Record source - criminal history repository
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a criminal history repository.
Table Format Code scheme	Parole numeric binary code
<i>Set</i> All records Valid records	CountPercent (%)2,211,726100.02,211,726100.0
<i>Statistic</i> Mean Maximum	Value 0.1 1.0
	Histogram of valid par_rec_src_rep records No 0 Yes 1 0 0.2 0.4 0.6 0.8 Prob.
nar rec src cc	

par_rec_src_cc	
Label	Record source - community corrections agency
Description	A binary variable that indicates that the record was fully, or partially generated using information that was sourced from a community corrections agency.
Table Format Code scheme	Parole numeric binary code
<i>Set</i> All records Valid records	CountPercent (%)2,211,726100.02,211,726100.0
	Histogram of valid par_rec_src_cc records No 0 0.2 0.4 0.6 0.8 1 Prob.

#### 3.7 ID variables used to link tables

The tables in the section above show that there are several ID variables contained in each of the CJARS data tables. The variables are used to identify individuals, events, episodes, and the linkages among these three. Refer to Sections 3.2.1 and 3.2.2 for more information about how these linkages are structured. Table 2 also provides a description of the key linking variable in each CJARS relational database and how it can be used to link with records in other CJARS relational databases.

		Table 2: Variables to link tables				
CJARS relational table	Key identi- fying event variable	Preceding event	Linking variable for preceding event	Description of linkage		
arrest	uarn	none	none	n/a		
adjudication incarceration	ucn uisn	arrest adjudication	uarn ucn	The ucn is a unique identifier of a court case filing that can be linked to the arrest(s) that led to the case filing via the uarn. The uisn is a unique identifier of a term of incarceration that can be linked to the court case filing(s) that led		
probation	uprsn	adjudication	ucn	to the incarceration term via the ucn. The uprsn is a unique identifier of a term of probation that can be linked to the court case filing(s) that led to the probation term via the ucn.		
parole	upasn	incarceration	uisn	The upasn is a unique identifier of a term of parole that can be linked to the incarceration term(s) that led to the parole term via the uisn.		
master person file	cjars_id	n/a	n/a	The cjars_id is a unique identifier for individuals. It can be used to connect events across the relational databases to an individual.		

# Appendices

## A Data sources

State	Level	Domain	Provider
Arkansas	State	Corrections	Arkansas Department of Corrections
Arizona	State	Corrections	Arizona Department of Corrections
Arizona	State	Judiciary	Arizona Administrative Office of the Courts
California	County	Sheriff	Nevada County Sheriff's Office
California	Municipal	Police	Anaheim Police Department
California	Municipal	Police	Bakersfield Police Department
California	Municipal	Police	Long Beach Police Department
California	Municipal	Police	Los Angeles Police Department
California	Municipal	Police	Riverside Police Department
California	Municipal	Police	San Diego Police Department
California	Municipal	Police	Stockton Police Department
Connecticut	State	Corrections	Connecticut Department of Correction
Florida	County	Judiciary	Hillsborough County Clerk of Courts
Florida	State	Corrections	Florida Department of Corrections
Illinois	State	Corrections	Illinois Department of Corrections
Michigan	State	Corrections	Michigan Department of Corrections
Michigan	State	Judiciary	Michigan State Court Administrative Office
Minnesota	State	Judiciary	Minnesota State Court Administrator's Office
Mississippi	State	Corrections	Mississippi Department of Corrections
North Carolina	State	Repository	North Carolina Department of Public Safety
North Dakota	State	Judiciary	North Dakota Court System
Nebraska	State	Corrections	Nebraska Department of Correctional Services
New Jersey	State	Corrections	New Jersey Department of Corrections
New Jersey	State	Judiciary	Superior Court of New Jersey
Ohio	State	Corrections	Ohio Department of Rehabilitation and Correction
Oregon	State	Judiciary	Oregon Judicial Department
Pennsylvania	State	Judiciary	Administrative Office of Pennsylvania Courts
Texas	County	Judiciary	Bexar County Clerk
Texas	County	Judiciary	Bexar County District Clerk
Texas	County	Sheriff	Bexar County Sheriff's Office
Texas	County	Judiciary	Collin County Courts
Texas	County	Sheriff	Collin County Sheriff's Office
Texas	County	Sheriff	Dallas County Sheriff's Office
Texas	County	Judiciary	El Paso County Clerk
Texas	County	Judiciary	Harris County District Clerk
Texas	County	Sheriff	Harris County Sheriff's Office
Texas	County	Judiciary	Hays County Courts at Law
Texas	County	Sheriff	Hays County Sheriff's Office
	•	Sheriff	
Texas Texas	County Municipal	Police	Tarrant County Sheriff's Office Fort Worth Police Department
Iexas	wiuncipai		
	Stato	Corroctions	
Texas	State	Corrections	Texas Department of Criminal Justice
Texas Texas	State	Repository	Texas Department of Public Safety
Texas			

Table 3: Agencies whose data have been integrated into CIARS

State	Level	Domain	Provider
Wisconsin	State	Corrections	Wisconsin Department of Corrections
Wisconsin	State	Judiciary	Wisconsin Court System

## **B** Variable harmonization

Variation in legal statutes and across jurisdictions leads to substantial differences in the way that data are coded, processed, and stored from agency to agency. This results in significant barriers for researchers attempting to analyze data from multiple sources. To address this issues, the CJARS data infrastructure includes harmonized versions of key variables that describe criminal justice events. These include variables such as event dates, offense descriptions, disposition and sentencing information, and descriptions of begin/end status of probation, incarceration, and parole.

In addition, while the harmonized variables may be well-suited for research that extends across multiple jurisdictions, they may not fit all research questions well. For this reason, the original versions of variables received from the source are retained in the CJARS infrastructure so that researchers can chose to recode variables in the way that is most fitting for their research if they choose to do so.

#### **B.1** Process

Data brought into the CJARS project goes through numerous steps in order to produce the harmonized set of variables that are available for research. Figure 7 gives an overview of the steps in the CJARS variable harmonization process. As can be seen from this figure, data processing is broken up into one of two divisions: PII and anonymized. The PII data is used for matching purposes while the anonymized data contains the information that is relevant for describing criminal justice events.

Harmonization begins when data is obtained from data provides and put onto the CJARS data system (intake). Following intake, the raw data is localized, which involves converting it into a Stata data file to prepare for processing. During localization, each record is also assigned a unique record identifier. Next, the data go through standardization. This involves processing all of the personally identifiable information to prepare for entity resolution (see Appendix D) and further harmonization.

The PII that is processed through entity resolution is used to create a roster of all individuals in the CJARS data, which is ultimately used at the Census Bureau for matching purposes. Alternatively, the cleaned data that was anonymized goes into the anonymized division for further processing. This involves variable harmonization, episode resolution (see Appendix D), and then finally a complete CJARS research database is built that can be sent and integrated into the Census Bureau's records.

While there are many steps in data processing, variable harmonization is a key aspect of this process (harmonized variable schemes can be found in Appendix C). Variable harmonization is a complex task that employs many techniques including hand coding, employing the use of regular expression commands, and machine learning techniques.

Offense descriptions are standardized to the offense classification scheme found in Appendix C. For classifying the string offense descriptions, a multi-level classification model for predicting "parent group" (broader offense category) and for predicting "child group" (more detailed offense code). For parent group classification, CountVectorizer is used to generate a matrix of token counts while TfidfVectorizer (Term Frequency-Inverse Document Frequency) is used for generating features in child group classification. The design rationale for this multi-level model is to allow the model to focus on most common words or phrases during the parent group classification, and to give more weight to less frequent words or phrases during the child group classification. During parent group classification, only one multi-layer perceptron model is trained to predict all of the parent group classes. Afterwards, one multi-layer perceptron classifier is trained for each parent group. As a result, if there are three parent groups (e.g. Violent Offense, Drug Offense, Property Offense), then the algorithm will train three multi-layer perceptron models during the child group classification.

More details about the harmonization of other variables in each of the five CJARS relational databases are included below in Table 4.

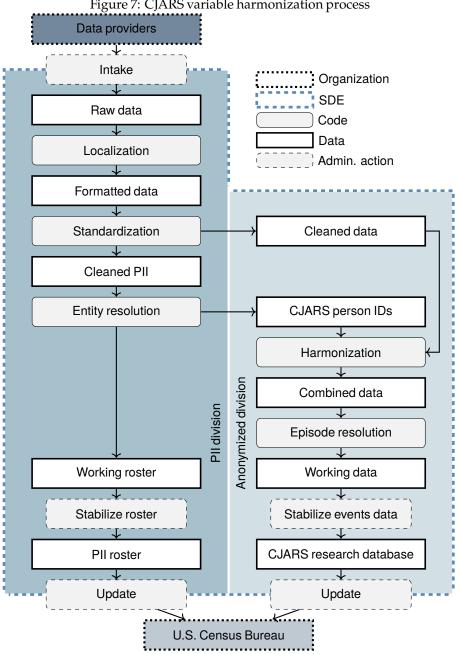


Figure 7: CJARS variable harmonization process

CJARS	lubic	4: Variable harmonization	
relational			
database	Information	Variable(s)	Coding method(s)
arrest	arrest date	arr_arr_dt_yyyy, arr_arr_dt_mm, arr_arr_dt_dd	recorded as separate variables for year, month, and day
arrest	booking date	arr_book_dt_yyyy, arr_book_dt_mm, arr_book_dt_dd	split into year, month, and day
arrest	offense classification	arr_off_cd	machine learning employed to generate a standardized offense type, (see Appendix B.1 for more details).
adjudication	offense grade	adj_grd_cd	hand-coded and use of regular expressions
adjudication	case filing date	adj_file_dt_yyyy, adj_file_dt_mm, adj_file_dt_dd	split into year,month, and day
adjudication	charge offense classification	adj_chrg_off_cd	machine learning employed to generate a standardized offense type, (see Appendix B.1 for more details).
adjudication	disposition date	adj_disp_dt_yyyy, adj_disp_dt_mm, adj_disp_dt_dd	split into year,month, and day
adjudication	disposition description	adj_disp_cd	hand-coded and use of regular expressions
adjudication	disposition offense classification	adj_disp_off_cd	machine learning employed to generate a standardized offense type, (see Appendix B.1 for more details).
adjudication	sentence date	adj_sent_dt_yyyy, adj_sent_dt_mm, adj_sent_dt_dd	split into year,month, and day
adjudication	sentencing details	<pre>adj_sent_serv, adj_sent_dth, adj_sent_inc, adj_sent_pdiv, adj_sent_pro, adj_sent_rest,</pre>	hand-coded and use of regular expressions
		<pre>adj_sent_sus, adj_sent_trt, adj_sent_fine, adj_sent_inc_min, adj_sent_inc_max</pre>	
incarceration	n facility type	inc_fcl_cd	hand-coded and use of regular expressions
incarceration	n entry date	<pre>inc_entry_dt_yyyy, inc_entry_dt_mm, inc_entry_dt_dd</pre>	split into year, month, and day
incarceration	n entry status	inc_entry_cd	hand-coded and use of regular expressions

CJARS			
relational database	Information	Variable(s)	Coding method(s)
incarceratio	on exit date	<pre>inc_exit_dt_yyyy,</pre>	split into year, month, and day
		<pre>inc_exit_dt_mm,</pre>	
		<pre>inc_exit_dt_dd</pre>	
incarceratio	on exit status	<pre>inc_exit_cd</pre>	hand-coded and use of regular expressions
probation	conditions	pro_cond_cd	hand-coded and use of regular expressions
probation	begin date	pro_bgn_dt_yyyy,	split into year, month, and day
		pro_bgn_dt_mm,	
		pro_bgn_dt_dd	
probation	end date	pro_end_cd	split into year, month, and day
probation	end status	pro_end_dt_yyyy,	hand-coded and
		<pre>pro_end_dt_mm,</pre>	use of regular expressions
		pro_end_dt_dd	
parole	begin date	par_bgn_dt_yyyy,	split into year, month, and day
		<pre>par_bgn_dt_mm,</pre>	
		par_bgn_dt_dd	
parole	end date	par_end_dt_yyyy,	split into year, month, and day
		<pre>par_end_dt_mm,</pre>	
		par_end_dt_dd	
parole	end status	par_end_cd	hand-coded and use of regular expressions

## C Code schemes including crime classifications

## C.1 Geographic codes

#### C.1.1 State FIPS and abbreviations

This scheme is used for the following variables:

- adj\_st\_ori\_fips
- arr\_st\_ori\_fips
- inc\_st\_ori\_fips
- inc\_st\_juris\_fips
- par\_st\_ori\_fips
- par\_st\_juris\_fips
- pro\_st\_ori\_fips
- pro\_st\_juris\_fips

02AKAlaska04AZArizona05ARArkansas06CACalifornia08COColorado09CTConnecticut10DEDelaware11DCDistrict of Columbia12FLFlorida13GAGeorgia15HIHawaii16IDIdaho17ILIllinois18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMississippi26MIMinesota27MNMinseota28MSMissouri30MTMontana31NENebraska32NVNevada33NHNew Hampshire	State FIPS	State abbreviation	State name
04AZArizona05ARArkansas06CACalifornia08COColorado09CTConnecticut10DEDelaware11DCDistrict of Columbia12FLFlorida13GAGeorgia15HIHawaii16IDIdaho17ILIllinois18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMississippi26MIMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNevada33NHNew Hampshire	01	AL	Alabama
05ARArkansas06CACalifornia08COColorado09CTConnecticut10DEDelaware11DCDistrict of Columbia12FLFlorida13GAGeorgia15HIHawaii16IDIdaho17ILIllinois18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMississippi26MIMinnesota27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNevada33NHNew Hampshire	02	AK	Alaska
06CACalifornia08COColorado09CTConnecticut10DEDelaware11DCDistrict of Columbia12FLFlorida13GAGeorgia15HIHawaii16IDIdaho17ILIllinois18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMississippi26MIMinnesota28MSMissouri30MTMontana31NENebraska32NVNevada33NHNew Hampshire	04	AZ	Arizona
08COColorado09CTConnecticut10DEDelaware11DCDistrict of Columbia12FLFlorida13GAGeorgia15HIHawaii16IDIdaho17ILIllinois18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMississippi26MIMinnesota28MSMissouri30MTMontana31NENebraska32NVNevada33NHNew Hampshire	05	AR	Arkansas
09CTConnecticut10DEDelaware11DCDistrict of Columbia12FLFlorida13GAGeorgia15HIHawaii16IDIdaho17ILIllinois18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMississippi26MIMinnesota28MSMissouri30MTMontana31NENebraska32NVNevada33NHNew Hampshire	06	CA	California
10DEDelaware11DCDistrict of Columbia12FLFlorida13GAGeorgia15HIHawaii16IDIdaho17ILIllinois18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNewada33NHNew Hampshire	08	CO	Colorado
11DCDistrict of Columbia12FLFlorida13GAGeorgia15HIHawaii16IDIdaho17ILIllinois18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNew Hampshire	09	CT	Connecticut
12FLFlorida13GAGeorgia15HIHawaii16IDIdaho17ILIllinois18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNew Hampshire	10	DE	Delaware
13GAGeorgia15HIHawaii16IDIdaho17ILIllinois18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNew Hampshire	11	DC	District of Columbia
15HIHawaii16IDIdaho17ILIllinois18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNew Hampshire	12	FL	Florida
16IDIdaho17ILIllinois18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNew Hampshire	13	GA	Georgia
17ILIllinois18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNew Hampshire	15	HI	Hawaii
18INIndiana19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMossachusetts26MIMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNew Hampshire	16	ID	Idaho
19IAIowa20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMassachusetts26MIMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNew Hampshire	17	IL	Illinois
20KSKansas21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMassachusetts26MIMichigan27MNMinnesota28MSMissouri30MTMontana31NENebraska32NVNew Hampshire	18	IN	Indiana
21KYKentucky22LALouisiana23MEMaine24MDMaryland25MAMassachusetts26MIMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNevada33NHNew Hampshire	19	IA	Iowa
22LALouisiana23MEMaine24MDMaryland25MAMassachusetts26MIMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNevada33NHNew Hampshire	20	KS	Kansas
23MEMaine24MDMaryland25MAMassachusetts26MIMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNew Hampshire	21	KY	Kentucky
24MDMaryland25MAMassachusetts26MIMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNew Hampshire	22	LA	Louisiana
25MAMassachusetts26MIMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNevada33NHNew Hampshire	23	ME	Maine
26MIMichigan27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNevada33NHNew Hampshire	24	MD	Maryland
27MNMinnesota28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNevada33NHNew Hampshire	25	MA	Massachusetts
28MSMississippi29MOMissouri30MTMontana31NENebraska32NVNevada33NHNew Hampshire	26	MI	Michigan
29MOMissouri30MTMontana31NENebraska32NVNevada33NHNew Hampshire	27	MN	Minnesota
30MTMontana31NENebraska32NVNevada33NHNew Hampshire	28	MS	Mississippi
31NENebraska32NVNevada33NHNew Hampshire	29	MO	Missouri
32NVNevada33NHNew Hampshire	30	MT	Montana
33 NH New Hampshire	31	NE	Nebraska
1	32	NV	Nevada
34 NJ New Jersey	33	NH	New Hampshire
	34	NJ	New Jersey

Table 5: State FIPS codes and abbreviations

State FIPS	State abbreviation	State name
35	NM	New Mexico
36	NY	New York
37	NC	North Carolina
38	ND	North Dakota
39	OH	Ohio
40	OK	Oklahoma
41	OR	Oregon
42	PA	Pennsylvania
44	RI	Rhode Island
45	SC	South Carolina
46	SD	South Dakota
47	TN	Tennessee
48	TX	Texas
49	UT	Utah
50	VT	Vermont
51	VA	Virginia
53	WA	Washington
54	WV	West Virginia
55	WI	Wisconsin
56	WY	Wyoming
60	AS	American Samoa
66	GU	Guam
72	PR	Puerto Rico
78	VI	Virgin Islands of the U.S.

#### C.1.2 County FIPS

This scheme is used for the following variables:

- adj\_cnty\_ori\_fips
- arr\_cnty\_ori\_fips
- inc\_cnty\_ori\_fips
- par\_cnty\_ori\_fips
- pro\_cnty\_ori\_fips

To see a list of all county FIPS codes, please see www.census.gov/geographies/reference-files/2018/demo/popest/2018-fips.html.

## C.2 Criminal justice event codes

#### C.2.1 Offense classification

This scheme is used for the following variables:

• adj\_chrg\_off\_cd

#### • adj\_disp\_off\_cd

• arr\_off\_cd

		Offense cat-		Offense	
Charge code	Charge code description	egory code	Offense category description	type code	Offense type description
010	Murder	1	Murder	1	Violent
011	Attempted Murder	1	Murder	1	Violent
012	Conspiracy to Commit Murder	1	Murder	1	Violent
015	Unspecified Homicide	2	Unspecified homicide	1	Violent
016	Unspecified Homicide, Attempted	2	Unspecified homicide	1	Violent
017	Unspecified Homicide, Conspiracy	2	Unspecified homicide	1	Violent
020	Voluntary Manslaughter	3	Voluntary/nonnegligent manslaughter	1	Violent
021	Voluntary Manslaughter, Attempted	3	Voluntary/nonnegligent manslaughter	1	Violent
022	Voluntary Manslaughter, Conspiracy	3	Voluntary/nonnegligent manslaughter	1	Violent
025	Vehicular Manslaughter	3	Voluntary/nonnegligent manslaughter	1	Violent
026	Vehicular Manslaughter, Attempted	3	Voluntary/nonnegligent manslaughter	1	Violent
027	Vehicular Manslaughter, Conspiracy	3	Voluntary/nonnegligent manslaughter	1	Violent
030	Involuntary Manslaughter	4	Manslaughter - non-vehicular	1	Violent
031	Involuntary Manslaughter, Attempt	4	Manslaughter - non-vehicular	1	Violent
032	Involuntary Manslaughter, Conspiracy	4	Manslaughter - non-vehicular	1	Violent
035	Kidnapping	5	Kidnapping	1	Violent
)36	Kidnapping, Attempted	5	Kidnapping	1	Violent
037	Kidnapping, Conspiracy	5	Kidnapping	1	Violent
040	Rape	6	Rape - force	1	Violent
041	Rape, Attempted	6	Rape - force	1	Violent
)42	Rape, Conspiracy	6	Rape - force	1	Violent
045	Statutory Rape	7	Rape - statutory - no force	1	Violent
046	Statutory Rape, Attempted	7	Rape - statutory - no force	1	Violent
047	Statutory Rape, Conspiracy	7	Rape - statutory - no force	1	Violent
050	Child Molestation	8	Lewd act with children	1	Violent
051	Child Molestation, Attempted	8	Lewd act with children	1	Violent
052	Child Molestation, Conspiracy	8	Lewd act with children	1	Violent
)55	Sexual Assault	9	Sexual assault - other	1	Violent
056	Sexual Assault, Attempted	9	Sexual assault - other	1	Violent
057	Sexual Assault, Conspiracy	9	Sexual assault - other	1	Violent
060	Human Trafficking, Sex - child	10	Human Trafficking	1	Violent
065	Human Trafficking,	10	Human Trafficking	1	Violent
	Sex - adult or no age specified				

#### Table 6: Offense classification scheme

		Offense cat-		Offense		
Charge code	Charge code description	egory code	Offense category description	type code	Offense type description	
070	Human Trafficking, Labor - child	10	Human Trafficking	1	Violent	
075	Human Trafficking,	10	Human Trafficking	1	Violent	
	Labor - adult or no age specified		-			
080	Human Trafficking, Unspecified - child	10	Human Trafficking	1	Violent	
085	Human Trafficking,	10	Human Trafficking	1	Violent	
	Unspecified - adult or no age specified		0			
086	Human Trafficking, Attempted	10	Human Trafficking	1	Violent	
087	Human Trafficking, Conspiracy	10	Human Trafficking	1	Violent	
)90	Armed Robbery	11	Armed robbery	1	Violent	
091	Armed Robbery, Attempted	11	Armed robbery	1	Violent	
)92	Armed Robbery, Conspiracy	11	Armed robbery	1	Violent	
095	Unarmed Robbery	12	Unarmed robbery	1	Violent	
096	Unarmed Robbery, Attempted	12	Unarmed robbery	1	Violent	
097	Unarmed Robbery, Conspiracy	12	Unarmed robbery	1	Violent	
100	Aggravated Assault	13	Aggravated assault	1	Violent	
101	Aggravated Assault, Attempted	13	Aggravated assault	1	Violent	
102	Aggravated Assault, Conspiracy	13	Aggravated assault	1	Violent	
105	Assault of an Officer	14	Assaulting public officer	1	Violent	
.06	Assault of an Officer, Attempted	14	Assaulting public officer	1	Violent	
107	Assault of an Officer, Conspiracy	14	Assaulting public officer	1	Violent	
110	Child Abuse	15	Child abuse	1	Violent	
111	Child Abuse, Attempted	15	Child abuse	1	Violent	
112	Child Abuse, Conspiracy	15	Child abuse	1	Violent	
115	Simple Assault	16	Simple assault	1	Violent	
116	Simple Assault, Attempted	16	Simple assault	1	Violent	
117	Simple Assault, Conspiracy	16	Simple assault	1	Violent	
120	Extortion/Threat	17	Blackmail/extortion/intimidation	1	Violent	
121	Extortion/Threat, Attempted	17	Blackmail/extortion/intimidation	1	Violent	
122	Extortion/Threat, Conspiracy	17	Blackmail/extortion/intimidation	1	Violent	
25	Hit and Run with Bodily Injury	18	Hit and run driving - injury	1	Violent	
126	Hit	18	Hit and run driving - injury	1	Violent	
	and Run with Bodily Injury, Attempted			-		
127	Hit	18	Hit and run driving - injury	1	Violent	
	and Run with Bodily Injury, Conspiracy		······································	-		
130	Violent Offense, Other	19	Violent offenses - other	1	Violent	
131	Violent Offense Other, Attempted	19	Violent offenses - other	1	Violent	
132	Violent Offense Other, Conspiracy	19	Violent offenses - other	1	Violent	
35	Burglary	20	Burglary	2	Property	
.36	Burglary, Attempted	20	Burglary	2	Property	
37	Burglary, Conspiracy	20	Burglary	2	Property	
40	Arson	20 21	Arson	2	Property	
140	Arson, Attempted	21	Arson	2	Property	
141	Arson, Conspiracy	21 21	Arson	2	Property	
142	Auto Theft	21	Auto theft	2	Property	
	Auto Theft, Attempted	22	Auto theft	2	Property	
146						

-1 -		Offense cat-	0."	Offense	
Charge code	Charge code description	egory code	Offense category description	type code	Offense type description
150	Forgery/Fraud	23	Forgery/fraud	2	Property
.51	Forgery/Fraud, Attempted	23	Forgery/fraud	2	Property
.52	Forgery/Fraud, Conspiracy	23	Forgery/fraud	2	Property
.55	Grand Theft (>\$500)	24	Grand larceny - theft over \$500	2	Property
.56	Grand Theft (>\$500), Attempted	24	Grand larceny - theft over \$500	2	Property
57	Grand Theft (>\$500), Conspiracy	24	Grand larceny - theft over \$500	2	Property
60	Petty Theft (=<\$500)	25	Petty larceny - theft equal or under \$500	2	Property
61	Petty Theft (=<\$500), Attempted	25	Petty larceny - theft equal or under \$500	2	Property
62	Petty Theft (=<\$500), Conspiracy	25	Petty larceny - theft equal or under \$500	2	Property
65	Theft, Value Unknown	26	Larceny/theft - value unknown	2	Property
66	Theft, Value Unknown, Attempted	26	Larceny/theft - value unknown	2	Property
67	Theft, Value Unknown, Conspiracy	26	Larceny/theft - value unknown	2	Property
70	Financial Crimes	27	Financial Crimes	2	Property
71	Financial Crimes Attempted	27	Financial Crimes	2	Property
72	Financial Crimes Conspiracy	27	Financial Crimes	2	Property
75	Sale of Stolen Property	28	Stolen property - trafficking	2	Property
76	Sale of Stolen Property, Attempted	28	Stolen property - trafficking	2	Property
77	Sale of Stolen Property, Conspiracy	28	Stolen property - trafficking	2	Property
80	Receiving Stolen Property	29	Stolen property - receiving	2	Property
81	Receiving Stolen Property, Attempted	29	Stolen property - receiving	2	Property
82	Receiving Stolen Property, Conspiracy	29	Stolen property - receiving	2	Property
85	Destruction of Property	30	Destruction of property	2	Property
86	Destruction of Property, Attempted	30	Destruction of property	2	Property
87	Destruction of Property, Conspiracy	30	Destruction of property	2	Property
90	Hit and	31	Hit and run driving - property damage	2	Property
50	Run Driving with Property Damage	51	intund funditing property damage	2	rioperty
91	Hit and Run Driving, Attempted	31	Hit and run driving - property damage	2	Property
92	Hit and Run Driving, Conspiracy	31	Hit and run driving - property damage	2	Property
95	Unauthorized use of Vehicle	32	Unauthorized use of vehicle	2	Property
96	Unauthorized use of Vehicle, Attempted	32	Unauthorized use of vehicle	2	Property
97	Unauthorized	32	Unauthorized use of vehicle	2	Property
	use of Vehicle, Conspiracy		characterized abe of vehicle	-	- Topony
.00	Criminal Trespass	33	Trespassing	2	Property
.01	Criminal Trespass, Attempted	33	Trespassing	2	Property
.02	Criminal Trespass, Conspiracy	33	Trespassing	2	Property
.05	Other Property Offense	34	Property offenses - other	2	Property
.06	Other Property Offense, Attempt	34	Property offenses - other	2	Property
.07	Other Property Offense, Conspiracy	34	Property offenses - other	2	Property
10	Possession of Property Crime Tools	34	Property offenses - other	2	Property
10	Possession	34	Property offenses - other	2	Property
	of Property Crime Tools, Attempted	01	reperty onenses other	-	Toperty
212	Possession	34	Property offenses - other	2	Property
.14	of Property Crime Tools, Conspiracy	01	roperty onenses - other	<u> </u>	rioperty
15	Distribution Heroin	35	Distribution - heroin	3	Drug
16	Distribution, Heroin, Attempted	35 35	Distribution - heroin	3	Drug
	Distribution, Heroni, Attempted	55		5	Diug

		Offense cat-		Offense		
Charge code	Charge code description	egory code	Offense category description	type code	Offense type description	
220	Distribution of amphetamines	36	Distribution - amphetamines	3	Drug	
221	Distribution	36	Distribution - amphetamines	3	Drug	
	of amphetamines, Attempted		1		0	
222	Distribution	36	Distribution - amphetamines	3	Drug	
	of amphetamines, Conspiracy		1		0	
225	Distribution Cocaine or Crack	37	Distribution - cocaine or crack	3	Drug	
226	Distribution	37	Distribution - cocaine or crack	3	Drug	
	Cocaine or Crack, Attempted				0	
227	Distribution	37	Distribution - cocaine or crack	3	Drug	
	Cocaine or Crack, Conspiracy				0	
230	Distribution of opioids	38	Distribution of opioids	3	Drug	
231	Distribution of opioids, Attempted	38	Distribution of opioids	3	Drug	
232	Distribution of opioids, Conspiracy	38	Distribution of opioids	3	Drug	
235	Distribution of prescription drugs	39	Distribution of prescription drugs	3	Drug	
236	Distribution	39	Distribution of prescription drugs	3	Drug	
	of prescription drugs, Attempted		0		5	
237	Distribution	39	Distribution of prescription drugs	3	Drug	
	of prescription drugs, Conspiracy		1 1 0		0	
240	Distribution	40	Distribution	3	Drug	
	Other Controlled Substances		<ul> <li>other controlled substances</li> </ul>		0	
241	Distribution Other	40	Distribution	3	Drug	
	Controlled Substances, Attempted		- other controlled substances		0	
242	Distribution Other	40	Distribution	3	Drug	
	Controlled Substances, Conspiracy		- other controlled substances		0	
245	Distribution Marijuana	41	Distribution marijuana/hashish	3	Drug	
246	Distribution Marijuana, Attempted	41	Distribution marijuana/hashish	3	Drug	
247	Distribution Marijuana, Conspiracy	41	Distribution marijuana/hashish	3	Drug	
250	Distribution, Drug Unspecified	42	Distribution - drug unspecified	3	Drug	
251	Distribution,	42	Distribution - drug unspecified	3	Drug	
	Drug Unspecified, Attempted		0 1		0	
252	Distribution,	42	Distribution - drug unspecified	3	Drug	
	Drug Unspecified, Conspiracy		0 1		U U	
255	Possession/Use of Heroin	43	Possession/use - heroin	3	Drug	
256	Possession/Use of Heroin, Attempted	43	Possession/use - heroin	3	Drug	
257	Possession/Use of Heroin, Conspiracy	43	Possession/use - heroin	3	Drug	
260	Possession of amphetamines	44	Possession of amphetamines	3	Drug	
261	Possession of amphetamines, Attempted	44	Possession of amphetamines	3	Drug	
262	Possession	44	Possession of amphetamines	3	Drug	
	of amphetamines, Conspiracy		±		U U	
265	Possession/Use of Cocaine or Crack	45	Possession/use - cocaine or crack	3	Drug	
266	Possession/Use	45	Possession/use - cocaine or crack	3	Drug	
	of Cocaine or Crack, Attempted		·		5	
267	Possession/Use	45	Possession/use - cocaine or crack	3	Drug	
	of Cocaine or Crack, Conspiracy				0	
270	Possession of opioids	46	Possession of opioids	3	Drug	
271	Possession of opioids, Attempted	46	Possession of opioids	3	Drug	

There and Charge and de suit time		Offense cat-	0%	Offense	
Charge code	Charge code description	egory code	Offense category description	type code	Offense type description
272	Possession of opioids, Conspiracy	46	Possession of opioids	3	Drug
275	Possession of prescription drugs	47	Possession of prescription drugs	3	Drug
76	Possession	47	Possession of prescription drugs	3	Drug
	of prescription drugs, Attempted				-
.77	Possession	47	Possession of prescription drugs	3	Drug
	of prescription drugs, Conspiracy		1 1 0		0
280	Possession/Use	48	Possession/use	3	Drug
	of Other Controlled Substance		- other controlled substances		0
81	Possession/Use of	48	Possession/use	3	Drug
	Other Controlled Substance, Attempted		<ul> <li>other controlled substances</li> </ul>		0
.82	Possession/Use of Other	48	Possession/use	3	Drug
	Controlled Substance, Conspiracy		- other controlled substances		C
85	Possession/Use of Marijuana	49	Possession/use - marijuana/hashish	3	Drug
86	Possession/Use	49	Possession/use - marijuana/hashish	3	Drug
	of Marijuana, Attempted		, , ,		0
.87	Possession/Use	49	Possession/use - marijuana/hashish	3	Drug
	of Marijuana, Conspiracy		, , ,		0
90	Possession/Use of Unspecified Drug	50	Possession/use - drug unspecified	3	Drug
91	Possession/Use,	50	Possession/use - drug unspecified	3	Drug
	Drug Unspecified, Attempted		,		0
92	Possession/Use,	50	Possession/use - drug unspecified	3	Drug
	Drug Unspecified, Conspiracy	00	roocconon, ace anaganopeentea	Ū.	2146
.95	Heroin Violation, Offense Unspecified	51	Heroin violation - offense unspecified	3	Drug
00	Amphetamines, Offense unspecified	52	Amphetamines - offense unspecified	3	Drug
05	Cocaine/Crack	53	Cocaine	3	Drug
00	Violation, Offense Unspecified	00	or crack violation offense unspecified	0	Diag
10	Prescription	54	Prescription	3	Drug
10	of opioid drugs, offense unspecified	01	of opioid drugs - offense unspecified	0	Ding
15	Prescription, offense unspecified	55	Prescription - offense unspecified	3	Drug
20	Other Controlled Substance	56	Controlled	3	Drug
20	Violation, Offense Unspecified		substance - offense unspecified	0	2145
25	Marijuana	57	Marijuana/hashish	3	Drug
	Violation, Offense Unspecified		violation - offense unspecified	0	Drug
30	Fraudulent Drug Offense	58	Other Drug Offense/Paraphernalia	3	Drug
30	Fraudulent Drug Offense, Attempted	58	Other Drug Offense/Paraphernalia	3	Drug
32	Fraudulent Drug Offense, Conspiracy	58	Other Drug Offense/Paraphernalia	3	Drug
35	Drug Paraphernalia	58	Other Drug Offense/Paraphernalia	3	Drug
36	Drug Paraphernalia, Attempted	58 58	Other Drug Offense/Paraphernalia	3	0
36 37	Drug Paraphernalia, Conspiracy	58 58	Other Drug Offense/Paraphernalia	3	Drug Drug
40	Other Drug Offense	58 58	Other Drug Offense/Paraphernalia	3	Drug
45	0	58 59	Driving while intoxicated	3 4	DUI Offense
	Driving While Intoxicated	59 59			
46 47	Driving While Intoxicated, Attempted	59 59	Driving while intoxicated	4 4	DUI Offense
	Driving While Intoxicated, Conspiracy		Driving while intoxicated		DUI Offense
50 51	Driving Under the Influence of Alcohol	60 60	Driving Under the Influence	4 4	DUI Offense
351	Driving Under the Influence of Alcohol, Attempted	60	Driving Under the Influence	4	DUI Offense

		Offense cat-		Offense	
Charge code	Charge code description	egory code	Offense category description	type code	Offense type description
352	Driving Under	60	Driving Under the Influence	4	DUI Offense
	the Influence of Alcohol, Conspiracy		0		
355	Driving Under the Influence of Drugs	61	Driving under influence - drugs	4	DUI Offense
356	Driving Under	61	Driving under influence - drugs	4	DUI Offense
	the Influence of Drugs, Attempted		0 0		
357	Driving Under	61	Driving under influence - drugs	4	DUI Offense
	the Influence of Drugs, Conspiracy		0 0		
360	Riot	62	Rioting	5	Public Order
361	Riot, Attempting to Incite	62	Rioting	5	Public Order
362	Riot, Conspiracy to Incite	62	Rioting	5	Public Order
365	Escape from Custody	63	Escape from custody	5	Public Order
366	Escape from Custody, Attempted	63	Escape from custody	5	Public Order
367	Escape from Custody, Conspiracy	63	Escape from custody	5	Public Order
370	Flight to Avoid Prosecution	64	Flight to avoid prosecution	5	Public Order
371	Flight to Avoid Prosecution, Attempted	64	Flight to avoid prosecution	5	Public Order
372	Flight to Avoid Prosecution, Conspiracy	64	Flight to avoid prosecution	5	Public Order
375	Weapons Offense	65	Weapon offense	5	Public Order
376	Weapons Offense, Attempted	65	Weapon offense	5	Public Order
377	Weapons Offense, Conspiracy	65	Weapon offense	5	Public Order
380	Habitual Offender	66	Habitual offender	5	Public Order
385	Parole Violation	67	Parole violation	5	Public Order
390	Probation Violation	68	Probation violation	5	Public Order
400	Contempt of Court/Violate Court Order	69	Contempt of court	5	Public Order
401	Contempt of	69	Contempt of court	5	Public Order
101	Court/Violate Court Order, Attempted	0)	Contemptor court	0	i ubile order
402	Contempt of	69	Contempt of court	5	Public Order
102	Court/Violate Court Order, Conspiracy	0)	Contemptor court	0	i ubile Order
405	Other Court Offense	70	Offenses against	5	Public Order
105	other court offense	70	courts, legislatures and commissions	5	i ubile ofder
406	Other Court Offense, Attempted	70	Offenses against	5	Public Order
100	Outer Court Onense, Attempted	70	courts, legislatures and commissions	5	i ubiic Oidei
407	Other Court Offense, Conspiracy	70	Offenses against	5	Public Order
107	Outer Court Onense, Conspiracy	70	courts, legislatures and commissions	5	i ubiic Oidei
410	Family or Custody Related Offense	71	Family related offenses	5	Public Order
410 411	Family of Custody Related Offense	71 71	Family related offenses	5	Public Order
<b>T</b> 11	or Custody Related Offense, Attempted	/1	ranning related onenses	5	i ublic Oluel
412	Family	71	Family related offensor	5	Public Order
<del>1</del> 12	5	/1	Family related offenses	5	i ublic Oldel
415	or Custody Related Offense, Conspiracy	70	Morals / decongr. offense	5	Public Order
	Offense Against Morals/Decency Offense	72 72	Morals/decency - offense Morals/decency - offense	5 5	
416		12	worals/ decency - offense	3	Public Order
417	Against Morals/Decency, Attempted	70	Manala / da ann an affanaa	F	Problin Onder
417	Offense	72	Morals/decency - offense	5	Public Order
420	Against Morals/Decency, Conspiracy	70	T 1	-	
420	Immigration Violation	73	Immigration violations	5	Public Order
421	Immigration Violation, Attempted	73	Immigration violations	5	Public Order
422	Immigration Violation, Conspiracy	73	Immigration violations	5	Public Order

		Offense cat-		Offense	
Charge code	Charge code description	egory code	Offense category description	type code	Offense type description
25	Obstruction/Resisting	74	Obstruction - law enforcement	5	Public Order
26	Obstruction/Resisting, Attempted	74	Obstruction - law enforcement	5	Public Order
27	Obstruction/Resisting, Conspiracy	74	Obstruction - law enforcement	5	Public Order
.30	Invasion of Privacy	75	Invasion of privacy	5	Public Order
31	Invasion of Privacy, Attempted	75	Invasion of privacy	5	Public Order
32	Invasion of Privacy, Conspiracy	75	Invasion of privacy	5	Public Order
.35	Commercialized Vice	76	Commercialized vice	5	Public Order
.36	Commercialized Vice, Attempted	76	Commercialized vice	5	Public Order
37	Commercialized Vice, Conspiracy	76	Commercialized vice	5	Public Order
40	Contributing	77	Contributing to delinquency of a minor	5	Public Order
	to the Delinquency of a Minor			-	
445	Disorderly Conduct Offense	78	Drunkenness/Vagrancy/Disorderly Conduct	5	Public Order
146	Disorderly Conduct Offense, Attempted	78	Drunkenness/Vagrancy/Disorderly Conduct	5	Public Order
47	Disorderly	78	Drunkenness/Vagrancy/Disorderly	5	Public Order
-1/	Conduct Offense, Conspiracy	70	Conduct	5	T ublic Order
.50	Liquor Law Violation	79	Liquor law violations	5	Public Order
50 51	Liquor Law Violation, Attempted	79	Liquor law violations	5	Public Order
52	Liquor Law Violation, Attempted	79	Liquor law violations	5	Public Order
52 55	Taxation Offense	80	Taxation Offenses	5	Public Order
55 56	Taxation Offense, Attempted	80 80	Taxation Offenses	5	
56 57		80 80		5 5	Public Order
	Taxation Offense, Conspiracy		Taxation Offenses	5 5	Public Order
60	Bribery/Conflict of Interest	81	Bribery and conflict of interest		Public Order
61	Bribery/Conflict of Interest, Attempt	81	Bribery and conflict of interest	5	Public Order
62	Bribery/Conflict of Interest, Conspiracy	81	Bribery and conflict of interest	5	Public Order
65	Public Order Offense, Other	82	Public order offenses - other	5	Public Order
66	Public Order Offense, Other, Attempted	82	Public order offenses - other	5	Public Order
67	Public Order Offense, Other, Conspiracy	82	Public order offenses - other	5	Public Order
70	Juvenile Offense	83	Juvenile offenses	8	Exclude
75	Traffic Offense, Minor	84	Traffic offenses - minor	6	Criminal traffic
80	Unspecified Felony	85	Felony - unspecified	999	Not known/Missing
81	Unspecified Felony, Attempt	85	Felony - unspecified	999	Not known/Missing
82	Unspecified Felony, Conspiracy	85	Felony - unspecified	999	Not known/Missing
85	Unspecified Misdemeanor	86	Misdemeanor - unspecified	999	Not known/Missing
86	Unspecified Misdemeanor, Attempt	86	Misdemeanor - unspecified	999	Not known/Missing
87	Unspecified Misdemeanor, Conspiracy	86	Misdemeanor - unspecified	999	Not known/Missing
90	Other Offense	87	Other	7	Other
00	Flag for Removal	500	Flag for Removal	500	Flag for Removal
05	Call for service	505	Call for service	505	Call for service
10	Federal charges	510	Federal charges	510	Federal charges
77	Variable not available in county	777	Variable not available in county	777	Variable not available in county
388	Not applicable	888	Not applicable	888	Not applicable
999	Not Known/Missing	999	Not Known/Missing	999	Not Known/Missing

#### C.2.2 Offense charge grade

This scheme is used for the following variables:

• adj\_grd\_cd

Table 7: Charge grade classification scheme		
Charge grade code	Charge grade description	
FE	Felony-level charge	
MI	Misdemeanor-level charge	
LO	Local ordinance or other low-level charge	
UU	Not Known / Missing	
JF	Juvenile felony-level charge	
JM	Juvenile misdemeanor-level charge	
JL	Juvenile local ordinance or other low-level charge	
JU	Juvenile Not Known / Missing	

#### C.2.3 Court disposition

This scheme is used for the following variables:

• adj\_disp\_cd

Disposition code	Disposition parent code	Disposition child code	Disposition description
DU	D	IJ	Diversion - Unclassified
GC	G	C	Guilty - Court Trial
GJ	G	Ţ	Guilty - Jury Trial
GP	G	Р	Guilty - Plea
GI	G	Ι	Guilty - Insanity
GU	G	U	Guilty - Unclassified
NA	Ν	А	Acquittal
ND	Ν	D	Dismissal
NI	Ν	Ι	Dismissal - Insanity
NM	Ν	М	Mistrial
NP	Ν	Р	Not Guilty Plea
NU	Ν	U	Not Guilty - Unclassified
PT	Р	Т	Procedural - Transfer
PU	Р	U	Procedural - Unclassified
UU			Not Known / Missing

Table 8: Court disposition classification scheme

#### C.2.4 Probation conditions

This scheme is used for the following variables:

• pro\_cond\_cd

Table 9: Probation conditions classification scheme		
Probation condition code	Probation condition description	
PJ	Probation With Jail	

Probation condition code	Probation condition description
SP	Straight Probation
AD	Alcohol/Drug Residential
PR	Probation With Community Residential
UU	Not Known / Missing

#### C.2.5 Probation exit

This scheme is used for the following variables:

• pro\_end\_cd

Table 10: Probation exit classification scheme		
Probation exit code	Probation exit description	
СО	Completion	
IN	Incarcerated	
AB	Absconded/Escaped	
DI	Discharged to Custody/Detainer/Warrant	
OU	Other Unsatisfactory Exit	
TR	Transferred to Another Probation Agency	
DE	Death	
OT	Other	
UU	Not Known / Missing	

### C.2.6 Incarceration entry

This scheme is used for the following variables:

• inc\_entry\_cd

Table 11: Incarceration entry	v classification scheme
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Incarceration entry code	Incarceration entry description
CC	Court Commitment
RA	Returned from Appeal or Bond
TR	Transfer
RW	Parole Revocation - New Sentence
RN	Parole Revocation - No New Sentence
RI	Parole Revocation - No Information on New Sentence
MW	Mandatory Parole Release - New Sentence
MN	Mandatory Parole Release - No New Sentence
MI	Mandatory Parole Release - No Information on New Sentence
SS	Suspended Sentence Imposed
EW	Escapee/AWOL Returned - New Sentence
EN	Escapee/AWOL Returned - No New Sentence
EI	Escapee/AWOL Returned - No Information on New Sentence
PP	Parole Status - Pending Revocation
MP	Mandatory Parole Release Status - Pending
PW	Probation Revocation - New Sentence
PN	Probation Revocation - No New Sentence
OT	Other

Incarceration entry code	Incarceration entry description
PR	Probation Status - Pending Revocation
UC	Unsentenced Commitment
IE	Illegal Entry
UU	Not Known / Missing

#### C.2.7 Incarceration facility type

This scheme is used for the following variables:

• inc\_fcl\_cd

Table 12: Incarceration la	cinty type classification scheme
Incarceration custody code	Incarceration custody description
СМ	Community
MN	Minimum - Low
MD	Medium
MX	Maximum - High or Close
CX	Complex (Federal Only)
AD	Administrative (Federal Only)
FD	Federal Prison
SP	State Prison
LJ	Local Jail
OT	Other
UU	Not Known / Missing

Table 12: Incarceration facility type classification scheme

#### C.2.8 Incarceration exit

This scheme is used for the following variables:

• inc\_exit\_cd

Table 13: Incarceration exit classification scheme

Incarceration exit code	Incarceration exit description
PD	Parole Board Decision
MR	Mandatory Parole Release
PR	Probation Release
OR	Other Conditional Release
ES	Expiration of Sentence
СР	Commutation/Pardon
RC	Release to Custody, Detainer, Warrant
UR	Other Unconditional Release
DN	Death, Natural Causes
SU	Suicide
HI	Homicide by Another Inmate
OH	Other Homicide
EX	Execution
OD	Other Death
TR	Transfer
RA	Release on Appeal or Bond
OT	Other

Incarceration exit code	Incarceration exit description
EA	Escape/AWOL
AI	Accidental Injury to Self
IE	Illegal Entry
UU	Not Known / Missing

### C.2.9 Parole exit

This scheme is used for the following variables:

• par\_end\_cd

Parole exit code	Parole exit description
СО	Completion
RN	Returned to Incarceration - New Sentence
RV	Returned to Incarceration - Revocation
RO	Returned to Incarceration - Other/Unknown
AB	Absconded/Escaped
OU	Other Unsatisfactory Exit
TR	Transferred to Another State
DE	Death
OT	Other
UU	Not Known / Missing

Table 14: Parole exit classification scheme

## D Notes on record linkage

Records from disparate criminal justice agencies most often lack identifiers that allow for linkage of records to an individual or across criminal justice episodes. These issues were overcome here by developing probabilistic matching algorithms that identify individuals and episodes across disparate sources of records. The two following sections describe in more detail the methods that were developed to accomplish entity resolution and episode resolution.

### D.1 Entity resolution to identify unique individuals

A common issue in linking administrative criminal justice records across disparate sources is the absence of a unique individual identifier. As a result, it is usually necessary to turn to other information that identifies individuals, such as name and date of birth. In "big data" applications, this requires an algorithmic approach to make matching feasible.

There are two broad classes of entity resolution algorithms, deterministic and probabilistic. Deterministic algorithms focus on the variables common to two sets of data being matched. In some examples, paired observations must match on all common variables to be classified as a match. In other settings with a rich set of matching variables, multiple linkage rules are defined to allow for more flexibility in the matching process. The last class of deterministic models use an "iterative method" of rules to identify matches.

In contrast, probabilistic algorithms attempt to predict the probability that any two observations are the same identity based on the relative agreement of their matching variables. This approach has benefits over deterministic models in that it more flexibly sets a decision rule that optimizes the trade-off between making more matches and limiting false matches. A common method used in probabilistic matching is the implementation of a weighting system that places different value on each variable used to determine match status. Modern applications of this strategy employ the use of machine or supervised learning techniques to estimate match weights. For best implementation of this strategy, training data is used for algorithmic development.

Training data came in the form of biometrically linked records obtained from the Texas Department of Criminal Justice and the Harris County Court System. These sources of data have varying personally identifiable information which allowed for us to build a predictive model to match individuals based on agreement of their name and date of birth. The algorithm was trained by using blocking rules to partition the data and generate candidate pairs of all potential matches. True match status of the pairs is known based on a biometric identifier, which assisted with generating and refining a model to determine probability of true match status based on name and date of birth. The true match status was then used to set a threshold used to determine a statistical match status that maximizes precision and recall.

## D.2 Episode resolution to link sequences of events

Another barrier to linking administrative criminal justice records is connecting criminal justice events to a single episode. For instance, often times there is no identifier in criminal justice data that allows for court records to be linked back to arrest records to determine which arrest led to a case being filed against an individual in criminal court. In addition, there is also often no information that allows for the linkage of court records to supervision outcomes whether that be in the community or in a secure facility.

To overcome this issue and to reconstruct the series of criminal justice events that are all connected to a single episode in the CJARS data, probabilistic matching techniques were employed for episode resolution. Similar to entity resolution, training data was used to create a model that predicts the likelihood that events associated to an individual are associated with a single criminal justice episode. One example of the training data that was used came from the Harris County Sheriff's Office which provided a case number which could be used to identify which arrest(s) was/were associated with which court case filing.

To generate the matching model, all criminal justice records were first linked to an individual and then data from the arrest and court records were merged to determine all possible combinations of events within an individual. Next, the court case number was used to determine true match status which generated the data that was necessary to train the matching model. Then a model was estimated using variables that would help to predict

whether various events were related to a single episode. Some predictors included the date events occurred, similarity of offense type, number of arrests in arrest data, and number of cases filed in court data. This resulted in a model that estimated the likelihood that events were linked to an episode, which allowed a threshold to be set to determine statistical match status. It is important to note that this process was also iterated through for various linkages (court to incarceration) to estimate predictive models for these series of events as well.

## E Record linkage at the U.S. Census Bureau

#### E.1 Record linkage rates

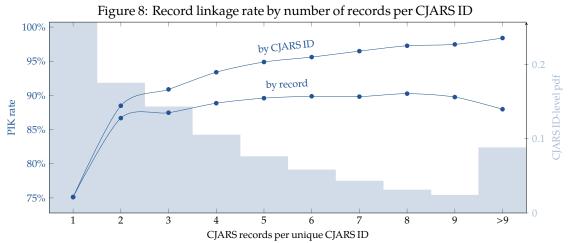
Completed roster files and CJARS databases are assigned a version number before distribution. The data and complete code base are permanently archived to maintain long-term reproducibility.

The roster file and anonymized criminal justice database are then transferred securely to the Census Bureau, where they are processed by the Person Identification Validation System (PVS), the Census Bureau's probabilistic record linkage system that assigns anonymized Personal Identification Keys (PIKs) to sensitive microdata records (Wagner and Layne 2014). When the CJARS roster file is processed by PVS, unique CJARS IDs can be linked to unique PIKs. Since PIKs are used for all record linkage throughout the Census Bureau, this allows the CJARS data to be linked to the full set of data held by the Census Bureau Data Linkage Infrastructure.

Record linkage rates at the Census Bureau are a function of the quality of Personally Identifiable Information (PII) as well as the degree to which the underlying population intersects with the reference file that the Census Bureau uses for linkage, which is based on the Social Security Administration's Numident file. For example, arrests records have lower quality PII on average, so we expect lower match rates. And in regions with a higher number of immigrants *who have not been assigned Social Security Numbers or Individual Taxpayer Identification Numbers*, we also expect lower match rates.

Conversely, we expect the match rate to increase for individuals for which CJARS has multiple event records from multiple agencies. These individuals are more likely to have biometric ids, and are more likely to have had their PII updated.

Figure 8 shows these predictions borne out in record linkage at the Census Bureau. The X-axis identifies the number of records received by CJARS for a unique individual, identified by a CJARS ID. The bars show the distribution of CJARS IDs by the number of records. The lines show the proportion of records (by CJARS ID or event record) that have been assigned a PIK at the Census Bureau. When CJARS has only a single record for an individual, the PIK rate is about 75%. When a second record is available, the PIK rate jumps about 85%. This trend increases until individuals with more than nine records have PIK rates of about 98%. We see a decline in the PIK rate when the rate is calculated by event record, which is likely caused by some superclusters of records which all contain poor PII. As CJARS grows, we expect the PIK rate to increase as indicated in the figure.



Source: Authors' calculations from the CJARS PIK crosswalk. All results were approved for release by the U.S. Census Bureau Disclosure Review Board (DRB), authorization number CBDRB-FY19-371. All numerators and denominators were rounding according to DRB rounding rules for unweighted counts.

## **F** Variable availability by jurisdiction

## F.1 Notes on data availability from Arizona

Variables	Notes
	Data collected from the AZ DOC was scraped
	from records made publicly available through their Inmate Datasearch
	system. This system does not record date of birth. However,
	date of birth was available through our court record holdings, which
	were linked to DOC records via exact match on name and court case
	number. Notably, because our data holdings from the AZ court system
	are known to have coverage gaps (e.g., geographically), these gaps
	also impact the coverage of DOC records. What is more, the timeframe
	of data coverage of the Inmate Datasearch system is uncertain.
	Communications with the AZ DOC in May of 2020 indicated
	that they estimate the system contains historical records dating
	back approximately 15 years, but this is only their best approximation

## F.2 Notes on data availability from Florida

Variables	Notes
inc_exit_dt_dd	There is a concentration of dates on the first of the month. This may reflect a standard release date, or it may reflect data warehouse processes that record some types events as always occurring on the first of the month. See Blomberg et al. (2011, p. 20).

## F.3 Notes on data availability from Michigan

Variables	Notes
	Probation records
	in Michigan were collected from the state's Department of Corrections.
	The responsibility of probation supervision in Michigan is
	split between the Department of Corrections (felony convictions) and
	the counties (non-felony convictions). For this reason, our coverage of probation records in Michigan only includes felony-level convictions.

## F.4 Notes on data availability from Minnesota

Variables	Notes
	The adjudication relational
	table only includes cases files in the state that resulted in a conviction.

## F.5 Notes on data availability from North Carolina

Variables	Notes
adj_sent_rest	There are a relatively small number of negative values. This may represent data input errors, payments, elimination of outstanding payments, etc. These negative values were left as is because their explanation is unknown.
adj_sent_fine	There are a relatively small number of negative values. This may represent data input errors, payments, elimination of outstanding payments, etc. These negative values were left as is because their explanation is unknown.

## F.6 Notes on data availability from North Dakota

Variables	Notes
adj_sent_fine	There are a relatively small number of negative values. This may represent data input errors, payments, elimination of outstanding payments, etc. These negative values were left as is because their explanation is unknown.

## F.7 Notes on data availability from Nebraska

Variables	Notes
<pre>adj_disp_dt_yyyy, adj_disp_dt_mm, adj_disp_dt_dd, adj_sent_dt_yyyy, adj_sent_dt_mm, adj_sent_dt_dd</pre>	The data acquired from the Nebraska Department of Corrections only includes the beginning and end dates of the sentence term. It does not include the disposition date or the date of sentencing.

## F.8 Notes on data availability from New Jersey

Variables	Notes
<pre>adj_sent_dt_yyyy, adj_sent_dt_mm, adj_sent_dt_dd, adj_sent_serv, adj_sent_dth, adj_sent_inc, adj_sent_pro, adj_sent_rest, adj_sent_sus, adj_sent_trt, adj_sent_fine, adj_sent_inc_min, adj_sent_inc_max</pre>	The data provided by the Superior Court of New Jersey includes information at the charge-level for each case, with the exception of sentencing information. Sentencing information is only recorded at the case-level. This leads to situations where cases have both relatively less serious and relatively more serious charges, but the sentencing is recorded the same for all charges, which can make it appear as though a severe sentence is associated with a low-level offense.

#### F.9 Notes on data availability from Pennsylvania

Variables	Notes
<pre>adj_sent_dt_yyyy, adj_sent_dt_mm, adj_sent_dt_dd, adj_sent_serv, adj_sent_dth, adj_sent_inc, adj_sent_pro, adj_sent_rest, adj_sent_sus, adj_sent_trt, adj_sent_fine, adj_sent_inc_min, adj_sent_inc_max</pre>	The data acquired from the Administrative Office of Pennsylvania Courts does not currently include sentencing information. Case data are limited to offense, offense date, file date, and disposition information.

#### F.10 Notes on data availability from Texas

Variables	Notes
<pre>adj_file_dt_yyyy, adj_file_dt_mm, adj_file_dt_dd, adj_sent_serv, adj_sent_dth, adj_sent_inc, adj_sent_pro, adj_sent_rest, adj_sent_sus, adj_sent_trt, adj_sent_fine, adj_sent_inc_min, adj_sent_inc_max</pre>	Filing date and sentencing information is missing for all records.

#### F.11 Notes on data availability from Wisconsin

Variables	Notes
inc_cnty_ori_fips	Data acquired through public information
	request from the Wisconsin Department of Corrections did not include
	county of conviction. County of conviction was obtained from the
	DOC website for a small number of individuals in the active caseload.
adj_sent_fine	There are a relatively
	small number of negative values. This may represent data input
	errors, payments, elimination of outstanding payments, etc. These
	negative values were left as is because their expanation is unknown.

## G State computerized criminal history systems

As part of the process of developing a national CJARS data schema, we surveyed the data systems that states use to track individuals and events of the criminal justice system. We received data schemas from 18 states. This section briefly summarizes those schemas and provides an overview figure of the data structures. In some cases, we did not receive an explicit data schema, but a less formal summary of the system. For these states, the models are described as "presumed" to indicate that we are attempting to reconstruct a schema from an informal description.

#### G.1 Arizona

Arizona does not have one single comprehensive criminal justice database. The Arizona Computerized Criminal History (ACCH) is housed within the Criminal History Records Section of the Arizona Department of Public Safety. The ACCH contains information about arrests (including arrest date and offense), dispositions (including date and offense), and sentence summary variables (confinement, fine, restitution, etc.). We believe that ACCH is maintained at the arrest level. Information in the ACCH files is taken directly from arrest fingerprint cards, disposition report forms, and court order information that is submitted to the Central State Repository (CSR) by law enforcement and criminal justice agencies throughout Arizona. CSR employees then enter the information into the appropriate ACCH file.

The Arizona Department of Corrections (ADC) maintains a separate database called the Automated Inmate Management System (AIMS). The online, searchable version of this database includes information on inmates who were in the custody of ADC in 1985 and anyone who has entered into the custody of ADC since then. The database includes over 112,000 inmate records, including around 26,000 records of active inmates. Inmates are identified by a 6-digit ADC number. An inmate record includes: basic inmate data, commitment information, sentence information, profile classification, infractions, parole action, parole placement, work program, detainer/warrant information, and aliases.

The ACCH and AIMS could theoretically be linked, but our understanding is that, given the current structure of these databases, a given arrest is not associated with a particular incarceration spell. Figure 9 approximates our understanding of the layout of the two databases.

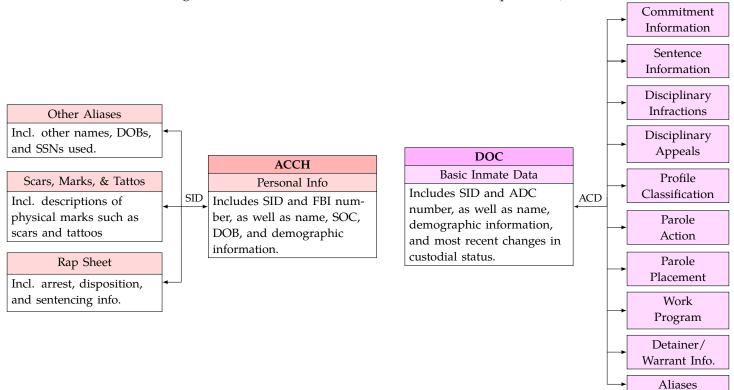


Figure 9: Arizona ACCH & DOC AIMS database model (presumed)

## G.2 California

California's Bureau of Criminal Information and Analysis (housed within the Department of Justice (DOJ)) maintains the Automated Criminal History System (ACHS).<sup>1</sup> ACHS is an Oracle database consisting of 87

<sup>&</sup>lt;sup>1</sup>The California DOJ maintains additional data, including the Monthly Arrest and Citations Record (MACR) database, which covers adult (18+) arrests in California from 1980 to the present. This database has a record of individuals who were arrested and then released

"entities" (tables). These tables contain information relating to all stages of the criminal justice system. Figure 10 shows the names of some of the tables that contain information for each stage. It is not clear from the list of tables and their associated variables how the tables link together. It seems as if some tables are able to contain information about different types of events (e.g., Arrest vs. Probation) and have codes that indicate which type of even the stored information pertains to.

The ACHS includes individuals who are fingerprinted. ACHS retains misdemeanor arrests (with or without conviction) and felony arrests (without conviction) for 10 years from the date of arrest, misdemeanor conviction with a prior and felony convictions until the subject is 70 years old, and convictions of registrable sex offenses until the subject is 100 years old.

Figure 10: Description of some tables from Camornia ACHS		
Arrest	Institutional Corrections	
• COUNT (incl. arresting	• INSTITUTION (incl. descrip-	
agency)	tion of institution to which	
• EVENT (incl. type of event,	sentenced)	
e.g. booking number)	• INSTITUTION NUMBER (incl.	
• STEP (incl. event date, if step	inmate number assigned by the	
code = Arrest)	institution)	
Legal Proceedings	Community Corrections	
<b>Legal Proceedings</b> • CONVICTED OFFENSE (incl.	<b>Community Corrections</b> • SENTENCE TYPE (incl. length,	
0 0		
CONVICTED OFFENSE (incl.	• SENTENCE TYPE (incl. length,	
<ul> <li>CONVICTED OFFENSE (incl. offense code)</li> <li>CONVICTED STATUS (incl. level of conviction)</li> </ul>	• SENTENCE TYPE (incl. length, if sentence type = Probation)	
<ul> <li>CONVICTED OFFENSE (incl. offense code)</li> <li>CONVICTED STATUS (incl. level of conviction)</li> <li>DISPOSITION (incl. descrip-</li> </ul>	<ul> <li>SENTENCE TYPE (incl. length, if sentence type = Probation)</li> <li>COUNT (incl. from and to</li> </ul>	
<ul> <li>CONVICTED OFFENSE (incl. offense code)</li> <li>CONVICTED STATUS (incl. level of conviction)</li> <li>DISPOSITION (incl. description of the disposition code)</li> </ul>	<ul> <li>SENTENCE TYPE (incl. length, if sentence type = Probation)</li> <li>COUNT (incl. from and to</li> </ul>	
<ul> <li>CONVICTED OFFENSE (incl. offense code)</li> <li>CONVICTED STATUS (incl. level of conviction)</li> <li>DISPOSITION (incl. descrip-</li> </ul>	<ul> <li>SENTENCE TYPE (incl. length, if sentence type = Probation)</li> <li>COUNT (incl. from and to</li> </ul>	

#### Figure 10: Description of some tables from California ACHS

## G.3 Connecticut

disposition falls)

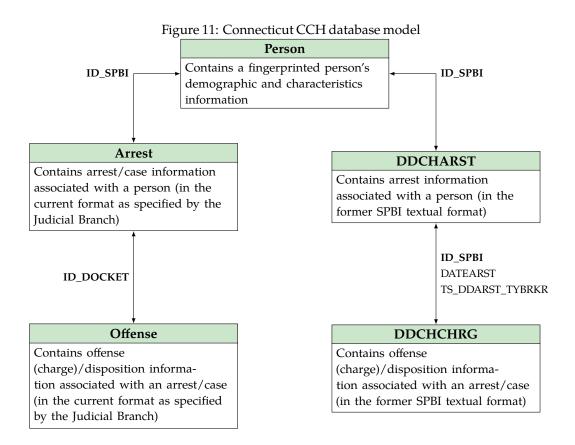
The Computerized Criminal History (CCH) is maintained by the Connecticut State Police (a division of the Connecticut Department of Public Safety, which itself is housed in the Connecticut Department of Emergency Services and Public Protection). The database is maintained in an IBM DB2 UDB database on an IBM hardware platform using a relational database structure, which is reproduced below in Figure 11.

The database contains information provided to the Division of State Police by courts and criminal justice agencies. The database is not static and individual records are subject to change as new information is received. The database includes individuals who were arrested, but it is unclear if the database contains the universe of individuals who were arrested or only individuals whose case went court. We do not know how far back the database goes.

## G.4 Florida

The Florida Department of Corrections (DOC) hosts a publicly available dataset for download on their website. This dataset represents a subset of the data collected by the Florida DOC, but the subset still provides a significant amount of information. The publicly available database is a Microsoft Access file with 19 data tables.

<sup>(</sup>unlike ACHS, which only includes anyone who is fingerprinted) and therefore tends to catch more misdemeanors than ACHS. The DOJ also has the JCPSS, which contains juvenile records dating back to 2003.



As shown in Figure 12, the 19 tables can be organized by the types of people included in each table: active inmates, released inmates, and offenders currently under community supervision. Information on both current and prior offenses is included. Only individuals who were sentenced to state prison or state supervision are included in these tables. Records could be linked between datasets by DCNumber, but the records are not set-up so that it is immediate, e.g., which arrest record is associated with which incarceration spell.

#### G.5 Illinois

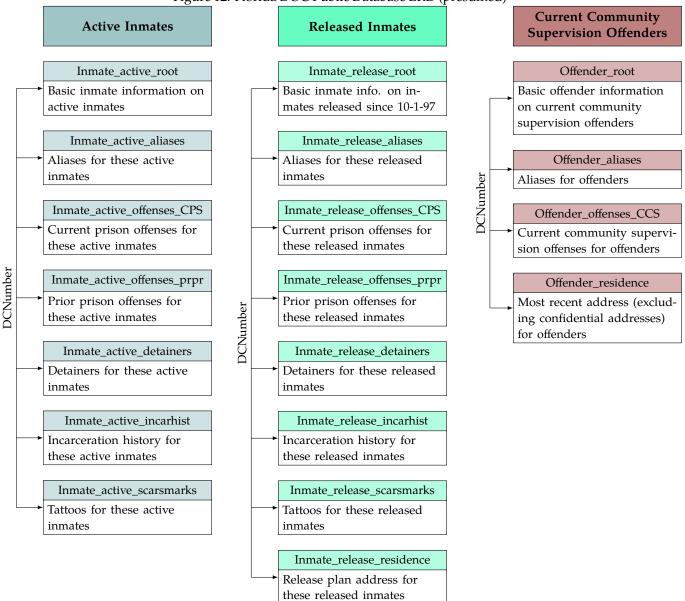
Criminal history records are maintained by the Illinois State Police in the Computerized Criminal History (CCH) database. There are currently over 1,000 Illinois policing bodies that submit arrest data to ISP. Clerk's offices submit disposition and sentencing information, while county jails and the Illinois Department of Corrections (IDOC) report custodial information. The CCH database uses fingerprint information to link arrests and custodial records for a single individual when creating a rap sheet.

The Illinois Criminal Justice Information Authority (Authority) has access to a subset of this data called the Criminal History Record Information (CHRI) Ad Hod data (the "Ad Hoc Database").<sup>2</sup>. The Ad Hoc Database is stored in an Oracle Database comprised of 61 tables. The extracted CHRI Ad Hoc data is organized into five tables (see Figure 13) for each year between 1990-2005.<sup>3</sup> Adult and juvenile records are stored in separate yearly databases.

The Ad Hoc Database is comprised of "arrest cycles," which link arrest and disposition information for an individual based on a single arrest. The State Identification Number (SID) can be used to link all arrest events in an individual's criminal history. The Ad Hoc Database does not include the custodial information contained in CCH.

<sup>&</sup>lt;sup>2</sup>Outside researchers who have signed a user's agreement with the Authority (jointly with ISP) are given access to a public version of the Ad Hoc Database for approved research purposes

<sup>&</sup>lt;sup>3</sup>Databases for 1960-1989 are being developed as staff resources allow. ISP has been designated as the CHRI state central repository since 1931. At this time, only a few records from 1931-1960 have been automated.



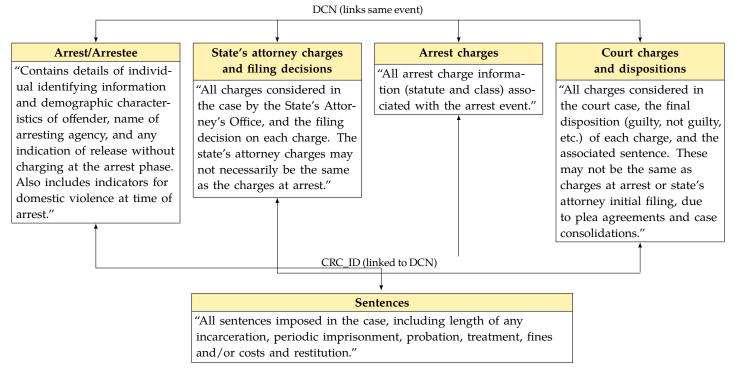
#### Figure 12: Florida DOC Public Database ERD (presumed)

#### G.6 Kansas

The Kansas Bureau of Investigation (KBI) and the Kansas Highway Patrol (KHP) share the administrative and operational responsibilities for core KCJIS functions.<sup>4</sup> As part of this, KBI operates Kansas's Central Repository for Criminal History Record Information (CHRI). The Kansas Central Repository is a system of connected data sources that contains information about felony and misdemeanor arrests, court convictions, dispositions, and incarceration in state-operated facilities. The Central Repository database receives summary information for these events from contributing police departments, sheriff's offices, prosecutors and courts throughout the state. This information is summarized in Kansas Disposition Report (KDR; see Figure 14). KBI receives incarceration information from the Kansas Adult Supervised Population Electronic Repository

<sup>&</sup>lt;sup>4</sup>Criminal history information is also collected by the Kansas Sentencing Commission (which is also the Kansas SAC). The Sentencing commission has been collecting sentencing data and probation revocation disposition data since 1998. They receive prison data from Kansas Department of Corrections (KDOC) and arresting data from Kansas Bureau of Investigation (KBI) for the prison population. The Sentencing Commission collects this information into two SPSS databases which are updated annually based on policy change.

#### Figure 13: Illinois CHRI Ad Hoc database model (presumed)



(KASPER), which is a website maintained by the Kansas Department of Corrections that provides current information on offenders currently incarcerated or on parole.

It is not entirely clear from the available information how the different tables link together. Figure 14 shows the Kansas Disposition Report (KDR) Class Diagrams based off of a presentation given in 2006. The ERD displayed in the presentation does not say which variables link the different tables together.

## G.7 Kentucky

The Computerized Criminal History (CCH) is maintained by the Kentucky State Police. Information is contributed by arresting officers, the Administrative Office of the Courts, and prison facilities. Arrest information is originally collected by the arresting officer and a citation is created. The citation is provided to the jail, who is responsible for taking fingerprints. The information from the citation is "attached" to the fingerprints, and jointly that information makes up the arrest section of the CCH. Disposition information comes from the Administrative Office of the Courts and is listed with each arrest. When an individual is committed to a prison facility they are fingerprinted. The data from the court judgment is "attached" to those fingerprints, and jointly that data creates the Commitment section of the CCH record.

Anyone with access to the CCH system can look up an offender by SID and then flip through the data contained in the 6 tables shown in Figure 15.

#### G.8 Minnesota

The Criminal History System (CHS) is maintained by the Justice Information Services (MNJIS) section of the Bureau of Criminal Apprehension (BCA), which is housed within the Minnesota Department of Public Safety. In January 2014, BCA requested proposals to replace their old Computerized Criminal History (CCH) system. The old Criminal History Record information had 1,105,121 State Identification Numbers (SIDs), including 53,070 juvenile SIDs, and 1,770,195 names (74,010 juvenile).

It is not entirely clear how to follow an incident through these tables, or how these tables link together. Figure

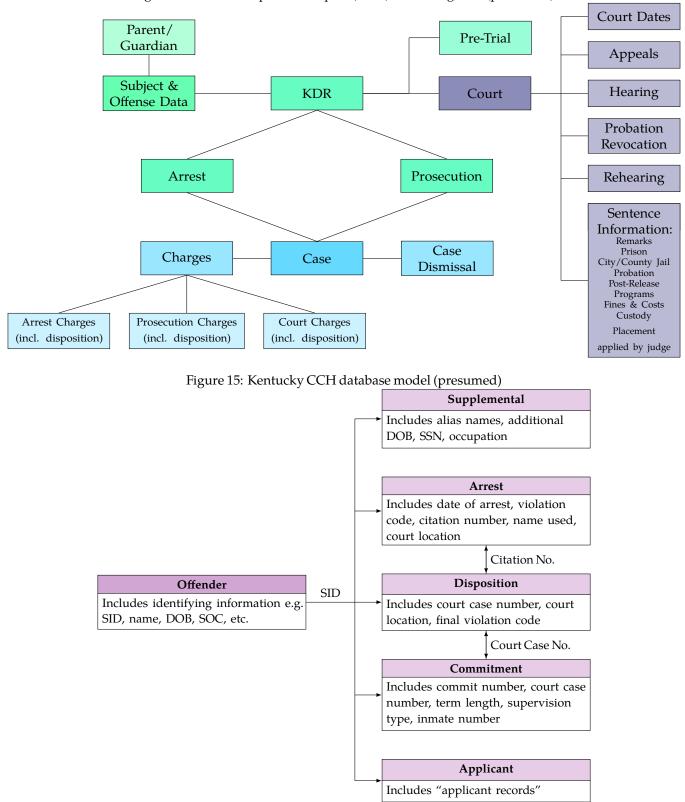
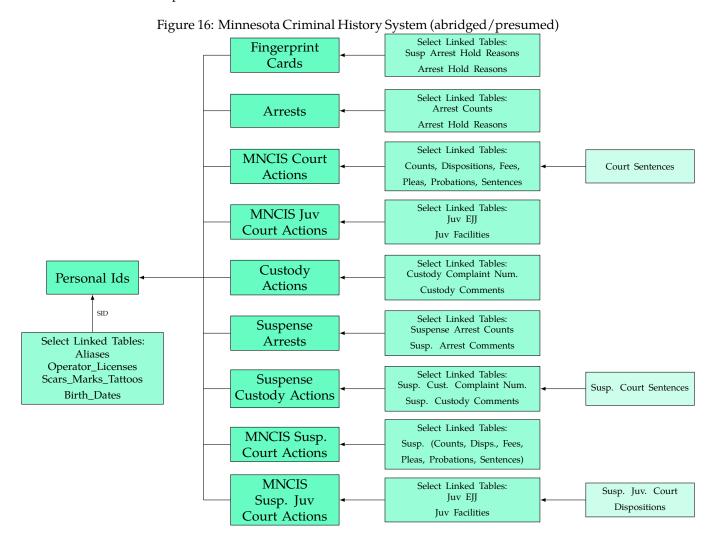


Figure 14: Kansas Disposition Report (KDR) Class Diagrams (presumed)

16 shows the Entity Relationship Diagram (ERD) for the old CCH system updated based on our understanding of the RFP documents. The old ERD diagram gave Primary and Foreign Keys for each table, but the variables listed as keys are not always included in the linked tables. The RFP documents also do not specify where BCA receives various pieces of information.



#### G.9 Nevada

The Computerized Criminal History (CCH) is part of the Nevada Criminal Justice Information System (NCJIS) environment.<sup>5</sup> CCH (also referred to as the Nevada Criminal History Repository) acts as a centralized storage facility for Nevada Arrest and Disposition Records. It is maintained by the Records Bureau of the General Services Division of the Nevada Department of Public Safety on Oracle SQL Servers.

Authorized users from around the state contribute to CCH. Booking and arresting agencies collect fingerprints at the time of arrest, which are submitted to the state repository for inclusion in the criminal history. Criminal history records also contain information regarding individuals who are placed on parole or probation and supervised by the Division of Parole and Probation.

Figure 17 is based on the rap sheet and the four major categories of information represented by the data elements included in the CCH data element list. These four major categories are: Person Data, Employment

<sup>&</sup>lt;sup>5</sup>NCJIS links to other systems such as the Offender Tracking Information System (OTIS) and the database of NV persons with concealed weapons permits (CCW) through a Master Person Record.

Information, Arrest Information, Charge Information. NCJIS is currently undergoing a "modernization" process that includes updates to CCH. The CCH project is scheduled to be completed by June 30, 2017.

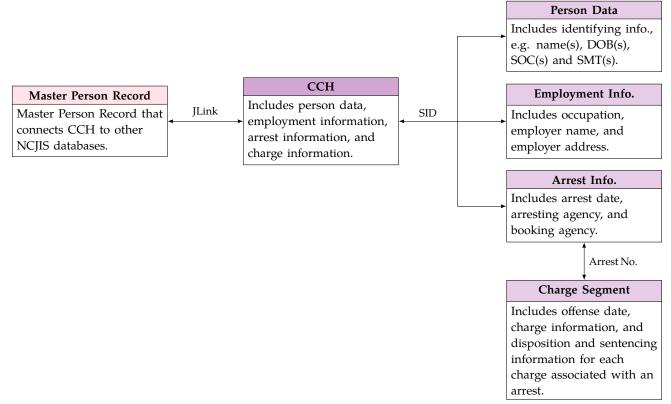


Figure 17: Nevada CCH database model (presumed)

#### G.10 New Mexico

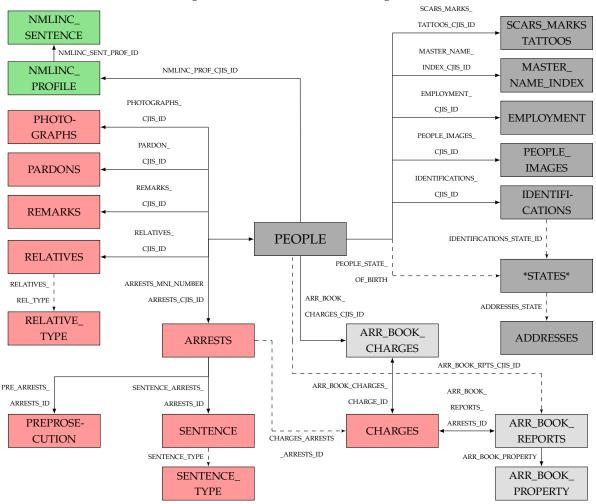
The New Mexico Department of Public Safety Information Technology Department (DPS ITD) serves all local law enforcement and criminal justice agency programs within New Mexico including state police, motor transportation division officers, and special investigations division officers. DPS ITD is responsible for a network of state-wide databases as well as maintaining links to national database systems.

The Criminal Justice Information System (CJIS) is comprised of 10 different, interconnected databases, including the Computerized Criminal History (CCH), which includes arrest information, and Law Enforcement Network with Corrections (LINC), which includes inmate information from the New Mexico Department of Corrections. The 8 additional databases are titled: Intelligence; Arrest Booking; Unidentified Body; Core; Sexual Offender; Field Interview; NMIBRS (New Mexico Incident Based Reporting System); Missing Person.

Although each table can be connected back to the main PEOPLE table, it is not clear that an individual can easily be followed through the different databases except by their person ID (as opposed to an incident ID connecting an incarceration spell to a specific arrest). Figure 18 re-creates the relationship between the CAI/CCH and Arrest Booking tables (in red), the LINC tables (in green), and some of the Core (in gray).

#### G.11 New York

The Computerized Criminal History (CCH) is maintained by the Division of Criminal Justice Services. CCH contains the criminal history records of all persons arrested and prosecuted since 1970 for crimes who were fingerprintable. An individual's criminal history includes a record of all arrests for that individual who were fingerprintable, as well as the charges reported with the arrest, disposition information, and information related to sentencing (including alcohol treatment and community service) if the individual was convicted.



#### Figure 18: New Mexico ERD (abridged)

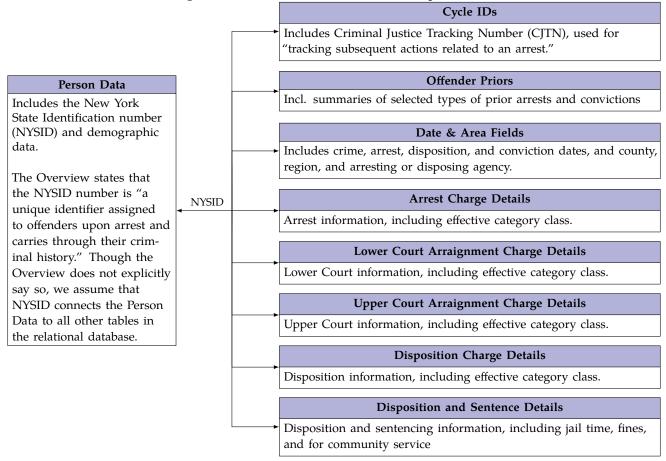
Arresting agencies submit fingerprints. Case disposition information is submitted throughout the processing of the case by the courts. Corrections records are submitted by various supervising agencies post-conviction

The underlying CCH data is stored in a series of Oracle tables containing approximately 21 million criminal history records. The Office of Justice Research and Performance (OJRP) extracts data from the CCH once a month and stores the data in a relational database structure called the OJRP Analytic Database. The OJRP Analytic Database is used to create specialized files for analysis, including the "CCH Top Charge file." The unit of event is a criminal event cycle, representing processing of a single case from arrest and prosecution through the court system, including sentencing information.

The CCH Top Charge file is divided into the 9 sections shown in Figure 19, except that the Arrest Charge Details, Lower and Upper Court Arraignment Charge Details, and Disposition Charge Details are called, e.g., "Top Arrest Charge Details." In the CCH Top Charge file, only the "top (most serious) charge is stored" for each of these tables. We assume that the data for every charge in a criminal even cycle is stored in the underlying Oracle tables.

## G.12 North Carolina

The North Carolina State Bureau of Investigation (SBI) collects, stores, maintains, and disseminates criminal history information. SBI operates the North Carolina Computerized Criminal History (CCH) system, which includes criminal records of individuals who have been arrested with a valid criminal fingerprint card, historical misdemeanor fingerprint cards, and Juvenile Investigative Records for those adjudicated delinquent



#### Figure 19: New York CCH database model (presumed)

#### and fingerprinted.

In addition to biographical and biometric information on individuals with CCH records, CCH records normally consist of three components that are merged together and associated with these individuals electronically (presumably by State Identification Number): arrest, court disposition, and custody. Law enforcement agencies submit arrest data with records of an individual's crime for which they were fingerprinted. Court disposition data is supplied by the North Carolina Administrative Office of the Courts (AOC) after dispositions are released. Custody data includes custodial/prison information supplied by the North Carolina Department of Corrections.

The data maintained by the AOC is called the Automated Criminal / Infractions System (ACIS). ACIS is a mainframe computer system that has been enhanced and maintained for over 30 years. It interfaces with several in-house systems as well as several outside agencies, including the Department of Motor Vehicles (DMV), the State Bureau of Investigation (SBI), and the Department of Correction (DOC). ACIS is accessible through public computer terminals that are stationed inside the clerk's office in each county. See Figure 20 for an approximation of how ACIS is organized. These data are linked to other criminal history data through SID by the SBI.

#### G.13 Oregon

Oregon does not have a unified criminal history database. The Oregon Statistical Analysis Center (the "Criminal Justice Commission") works to collect and merge data cross systems. The three datasets most frequently used by the Criminal Justice Commission are from the state police, courts, and the Department of Corrections.

The Oregon State Police maintain the LEDS data. Computerized Criminal History (CCH) records are kept in the LEDS system. The LEDS data starts at arrest. The LEDS data also contains disposition information

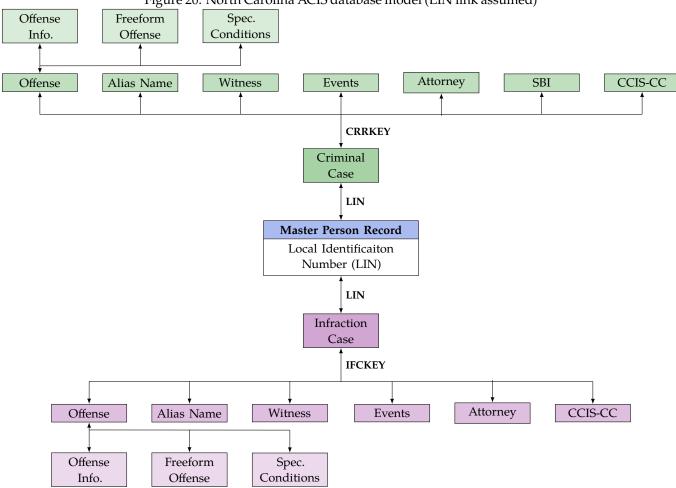


Figure 20: North Carolina ACIS database model (LIN link assumed)

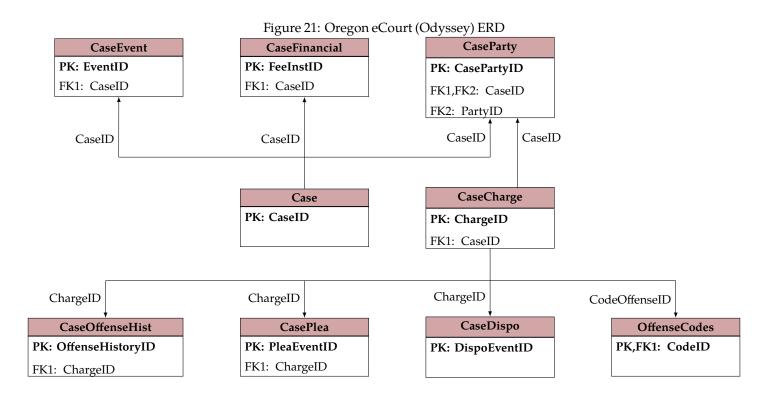
entered from the court, though many dispositions are missing.

The court data has recently transferred to a new system called "Oregon eCourt" (a.k.a. "Odyssey"). This data is at the charge level. The data comes from Oregon's 36 circuit courts. The courts enter disposition information into LEDS (i.e., much of the information in Odyssey is also contained in LEDS–there just can be a lag for when information becomes available). The ERD for the Odyssey system SQL tables is reproduced in Figure 21.

The Department of Corrections data contains all felony convictions from Oregon's 36 circuit courts. The sentences include felony probation, felony local control (jail), and prison sentences. Each row in the data file is a felony sentence.

## G.14 Pennsylvania

There is no unified source of criminal justice data in Pennsylvania. There has been some collaboration among several several Commonwealth adult criminal justice agencies to produce the Pennsylvania Criminal Justice Data Dictionary (CJDD), which contains data elements and their individual agency specific definitions. The participating agencies are the Administrative Office of Pennsylvania Courts (AOPC), the Department of Corrections (DOC), the Pennsylvania Board of Probation and Parole (PBPP), the Pennsylvania Commission on Crime and Delinquency (PCCD), and the Pennsylvania Commission on Sentencing (PCS). Though there is no schema that shows how individual cases can be tracked through these different datasets, we can use



State ID data element to link these databases together (see Figure 22).<sup>6</sup>

One of the primary sources of criminal justice in Pennsylvania is the Pennsylvania State Police. The PA State Police is responsible for collecting all the Uniform Crime Report data for the Commonwealth and opted not to participate in the data dictionary process. In 2015, the Pennsylvania Uniform Crime Reporting Program received data from 1,925 jurisdictions. For UCR purposes, an adult arrests are counted for each adult processed by arrest, citation, or summons, including those individuals arrested and released without a formal charge being placed against them.

#### G.15 Texas

The Computerized Criminal History (CCH) is maintained by the Crime Records Service of the Texas Department of Public Safety. CCH includes information on arrests, prosecutions and the disposition of the case for persons arrested for Class B misdemeanor (or greater) violation of Texas criminal statutes. Many different agencies contribute information to CCH. Police Departments, Sheriff's Offices or any other criminal justice agency in Texas that arrests a person for a Class B misdemeanor or higher violation of a Texas statute is required to report that event to DPS within seven days. County Attorney, District Attorney or other prosecutor receiving a class B misdemeanor or greater offense must report to DPS the decision to accept, reject, change, or add to the charge for trial. Finally, County Clerks, District Clerks, or others clerks whose courts try Class B misdemeanor or greater violations of Texas statutes must report the disposition of the case to DPS. The CCH database model is reproduced below in Figure 23.

CCH only comprises one aspect of the Texas Criminal Justice Information System (CJIS). The other component of CJIS is the Corrections Tracking System (CTS) managed by the Department of Criminal Justice (DCJ). Incident Tracking Number (TRN) and Incident Tracking Number Suffix (TRS) are used as the keys for linking charges from arrest through adjudication.

<sup>&</sup>lt;sup>6</sup>Generally speaking, each agency makes data requests to each other. The notable exception to that is PA Commission on Sentencing (PCS), whose Sentencing Guidelines Software (SGS) Web system interfaces with AOPC's court records.

Clssnp (1) Ethnic identity AOPC dbo\_tblRISPDATA (32) Data Elements: 117 Drug and alcohol related Contains offense and court dbo\_Perrec (118) information. All data Drug, military info kept in the "Court Case Management Systems." dbo\_Senrec (26) SID SID state\_id\_num HReSidNo Sentence info dbo\_Mischg (17) DOC PBPP Counts of guilty pleas state id num Data Elements: 176 Data Elements: 340 dbo\_tblSearchInmateInfo (57) HReSidNo Contains inmate and facility Contains parole and treat-Facility info (dorm-level) information. There are 11 ment information. All data possible "Element Location" kept in either "PBPP Data SID dbo\_Miscon (34) SID values. Warehouse" or "LSIR DB." SID Misconduct info dbo\_Movrec (20) state\_id\_num HReSidNo Movement data HReSidNo SID ite\_id\_nun dbo\_tblEval/Hist (19) SID After care program info PCCD PCS dbo\_tblInmTestScore/Hist (19) Data Elements: 79 SID Data Elements: 398 Correctional plan info Contains drug and alcohol Contains summary criminal dbo\_tblRecmdPrgm/Hist (19) use related information. All history and probation data kept in the "D&A RIP Program recommendation information. All data kept in D3P System." the "SGS Web Data Set."

#### Figure 22: Pennsylvania database relationship (presumed)

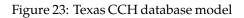
#### G.16 Utah

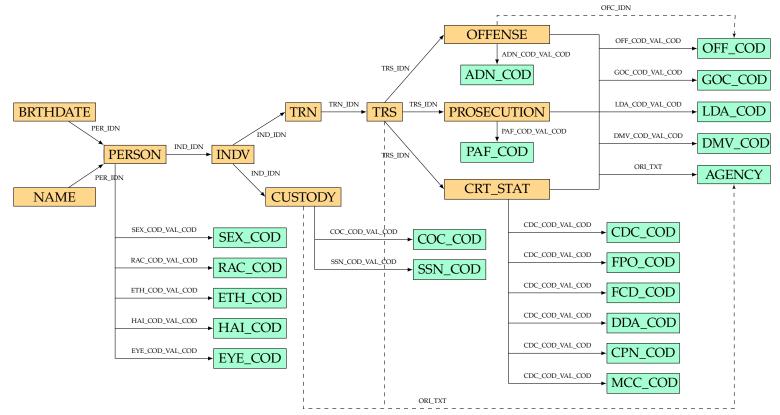
Criminal history data is kept by the Utah Department of Public Safety, Department of Technology Services division. The information we received was centered around the organization of the data (see Figure 24); we received no little information about what data is collected, who collects the data and submits it to DPS, how this data might connect with criminal justice data collected by other agencies, etc.

#### G.17 Vermont

The Vermont Criminal Information Center (VCIC) is the central repository of all criminal record information generated by criminal justice agencies statewide. The VCIC Criminal History Repository contains information documenting an individual's contact with the criminal justice system, including data regarding identification, arrest or citation, arraignment, judicial disposition, custody and supervision. The VCIC CCH system is provided by CPI. The CCH user interface operates from the CPI OpenFox<sup>TM</sup> Desktop Web Portal as Java applications running under the Java Runtime Environment.

The CCH system interfaces with several other systems that exchange data with CCH, including the MorphoTrak Automated Fingerprint Identification System (AFIS), the Sex Offender Registry (SOR) system, and the Department of Corrections (DOC) system (see Figure 25). The fields DOC Supervision Status and Supervising Officer in the CCH system are updated every night from the DOC system.



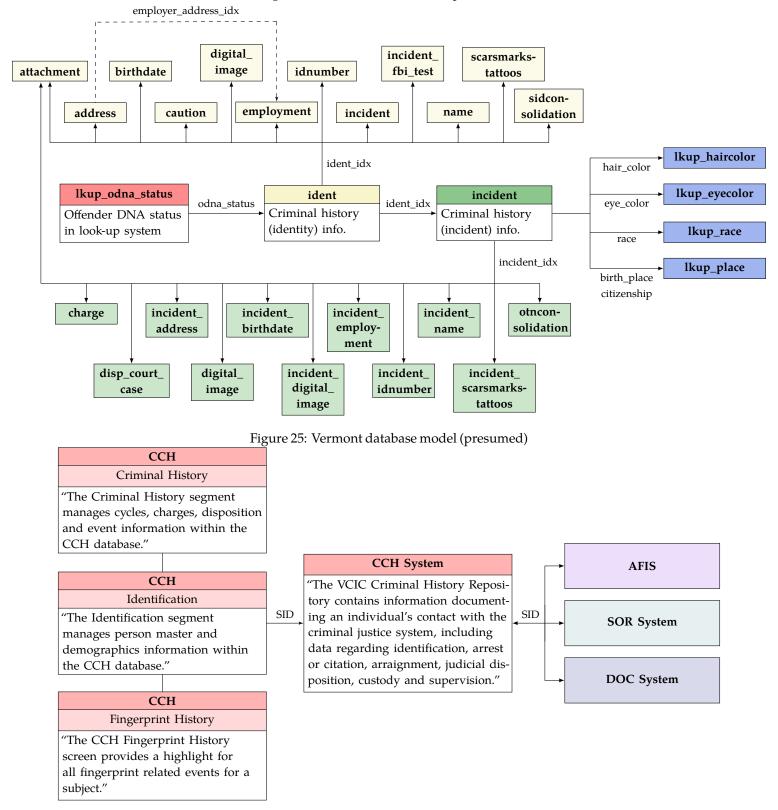


## G.18 Washington

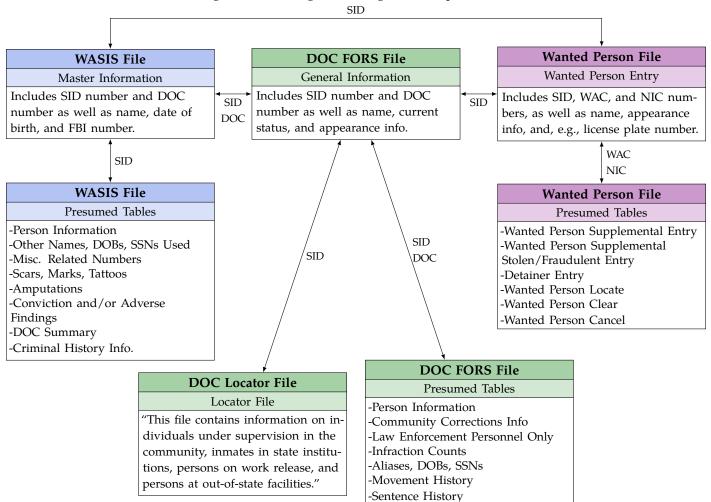
The centralized criminal history repository in Washington is called A Central Computerized Enforcement Service System (ACCESS). It is maintained by the Information Technology Division of the Washington State Patrol (WSP). These records include criminal history on convicted criminals, persons who have been arrested but not charged with a crime, applicants fingerprinted as a result of employment with a law enforcement agency, and fingerprint data retained for compromised identification purposes. ACCESS extracts data from multiple places, including the Washington Crime Information Center (WACIC), the Department of Corrections (DOC), the National Crime Information Center (NCIC), and the Washington State Identification System (WASIS).

Most records are placed directly into the WACIC and NCIC systems by an originating agency (agency holding a warrant, missing person report, or theft report, etc.) WASIS is the Criminal History Record Information (CHRI) database maintained by the Criminal Records Division of WSP. The CHRI consists of fingerprint-based records and disposition information submitted by law enforcement agencies and courts throughout the state.

It's not entirely clear how the information from these different organizations can be linked together; figure 26 is an estimate of how the information in these files could be connected.



#### Figure 24: Utah database model (presumed)



#### Figure 26: Washington data organization (presumed)

## **Bibliography**

- Abowd, John M., Joelle Abramowitz, Margaret C. Levenstein, Kristin McCue, Dhiren Patki, Trivellore Raghunathan, Ann M. Rodgers, Matthew D. Shapiro, and Nada Wasi. 2019. *Optimal Probabilistic Record Linkage: Best Practice for Linking Employers in Survey and Administrative Data.* Working Papers 19-08. Center for Economic Studies, U.S. Census Bureau. https://ideas.repec.org/p/cen/wpaper/19-08.html.
- Bailey, Martha, Connor Cole, Morgan Henderson, and Catherine Massey. 2017. How Well Do Automated Linking Methods Perform? Lessons from U.S. Historical Data. Working Paper, Working Paper Series 24019. National Bureau of Economic Research. http://www.nber.org/papers/w24019.
- Belin, Thomas R., and Donald B. Rubin. 1995. A Method for Calibrating False-Match Rates in Record Linkage. *Journal of the American Statistical Association* 90 (430): 694–707. https://www.tandfonline.com/doi/abs/10.1080/ 01621459.1995.10476563.
- Blomberg, Thomas G., Jim Clark, Leslie Hill, Bill Bales, and Karen Mann. 2011. Correctional Operations Trend Analysis System (COTAS): An Independent Validation. Report prepared for the Florida Department of Corrections. https://criminology.fsu.edu/wp-content/uploads/Correctional-Operations-Trend-Analysis-System-An-Independent-Validation.pdf.
- Bonczar, Thomas P., and Allen J. Beck. 1997. Lifetime Likelihood of Going to State or Federal Prison. Bureau of Justice Statistics, NCJ 160092. https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=160092.
- Breiman, Leo. 2001. Random Forests. *Machine Learning* 45 (1): 5–32. https://doi.org/10.1023/A:1010933404324.
- Christen, Peter. 2006. A Comparison of Personal Name Matching: Techniques and Practical Issues. Technical Report, Joint Computer Science Technical Report Series 06-02. The Australian National University.
- Coffin, Marie, and Shashikala Sukhatme. 1997. Receiver Operating Characteristic Studies and Measurement Errors. *Biometrics* 53 (3): 823–37. http://www.jstor.org/stable/2533545.
- Doherr, Thorsten. 2018. BRAIN: Stata module to provide neural network. Boston College Department of Economics.
- Feigenbaum, James J. 2016. A Machine Learning Approach to Census Record Linking. Technical report. http://scholar.harvard.edu/files/jfeigenbaum/files/feigenbaum-censuslink.pdf?m=1423080976.
- Fellegi, Ivan P., and Alan B. Sunter. 1969. A Theory for Record Linkage. *Journal of the American Statistical* Association 64 (328): 1183–210. https://doi.org/10.1080/01621459.1969.10501049.
- Ferrie, Joseph P. 1996. A New Sample of Males Linked from the Public Use Microdata Sample of the 1850 U.S. Federal Census of Population to the 1860 U.S. Federal Census Manuscript Schedules. Last updated -2013-02-23, *Historical Methods* 29 (4): 141. http://proxy.lib.umich.edu/login?url=https://search.proquest.com/ docview/1300162525?accountid=14667.
- Finlay, Keith, and Michael Mueller-Smith. 2020. Criminal Justice Administrative Records System (CJARS) [dataset]. Ann Arbor, MI: University of Michigan. https://cjars.isr.umich.edu.
- Fortini, Marco, Brunero Liseo, Alessandra Nuccitelli, and Mauro Scanu. 2001. On Bayesian Record Linkage. *Research in official statistics* 4:185–98.
- Guenther, Nick, and Matthias Schonlau. 2016. Support Vector Machines. The Stata Journal 16 (4): 917–37.
- Hastie, Trevor, Robert Tibshirani, and Jerome Friedman. 2016. The Elements of Statistical Learning, Springer Series in statistics.
- Hof, Michel H., Anita C. Ravelli, and Aeilko H. Zwinderman. 2017. A Probabilistic Record Linkage Model for Survival Data. *Journal of the American Statistical Association* 112 (520): 1504–15. https://doi.org/10.1080/ 01621459.2017.1311262.
- Jaro, Matthew A. 1989. Advances in Record-Linkage Methodology as Applied to Matching the 1985 Census of Tampa, Florida. *Journal of the American Statistical Association* 84 (406): 414–20. https://www.tandfonline.com/ doi/abs/10.1080/01621459.1989.10478785.

- Kaplan, Andee, Brenda Betancourt, and Rebecca C. Steorts. 2018. Posterior Prototyping: Bridging the Gap between Bayesian Record Linkage and Regression. *arXiv e-prints*, arXiv:1810.01538: arXiv:1810.01538.
- Lahiri, P, and Michael D Larsen. 2005. Regression Analysis With Linked Data. *Journal of the American Statistical Association* 100 (469): 222–30. https://doi.org/10.1198/016214504000001277.
- Lait, A.J., and B. Randell. 1996. *An Assessment of Name Matching Algorithms*. Technical Report, Department of Computing Science Technical Report Series 550. University of Newcastle upon Tyne.
- Layne, Mary, Deborah Wagner, and Cynthia Rothhaas. 2014. Estimating Record Linkage False Match Rate for the Person Identification Validation System. Center for Administrative Records Research and Applications Working Paper Series 2014-02. https://www.census.gov/content/dam/Census/library/workingpapers/2014/adrm/carra-wp-2014-02.pdf.
- National Academies of Sciences, Engineering, and Medicine. 2016. *Modernizing Crime Statistics: Report 1: Defining and Classifying Crime*. Washington, DC: National Academies Press. https://doi.org/10.17226/23492.
- ------. 2018. *Modernizing Crime Statistics: Report 2: New Systems for Measuring Crime.* Washington, DC: National Academies Press. https://doi.org/10.17226/25035.
- Neal, Derek, and Armin Rick. 2016. The Prison Boom and Sentencing Policy. *Journal of Legal Studies* 45 (1): 1–41. https://doi.org/10.1086/684310.
- Newcombe, H. B., J. M. Kennedy, S. J. Axford, and A. P. James. 1959. Automatic Linkage of Vital Records. *Science* 130 (3381): 954–59. http://www.jstor.org/stable/1756667.
- Pérez, Aritz, Pedro Larrañaga, and Iñaki Inza. 2009. Bayesian classifiers based on kernel density estimation: Flexible classifiers. Special Section on The Imprecise Dirichlet Model and Special Section on Bayesian Robustness (Issues in Imprecise Probability), *International Journal of Approximate Reasoning* 50 (2): 341–62. http://www.sciencedirect.com/science/article/pii/S0888613X08001400.
- Sadinle, Mauricio. 2018. Bayesian propagation of record linkage uncertainty into population size estimation of human rights violations. *The Annals of Applied Statistics* 12 (2): 1013–38. http://dx.doi.org/10.1214/18-A0AS1178.
- Sadinle, Mauricio, and Stephen E. Fienberg. 2013. A Generalized Fellegi-Sunter Framework for Multiple Record Linkage With Application to Homicide Record Systems. *Journal of the American Statistical Association* 108 (502): 385–97. https://doi.org/10.1080/01621459.2012.757231.
- Sayers, Adrian, Yoav Ben-Shlomo, Ashley W Blom, and Fiona Steele. 2015. Probabilistic record linkage. *International Journal of Epidemiology* 45 (3): 954–64. https://doi.org/10.1093/ije/dyv322.
- Schonlau, Matthias. 2019. *RFOREST: Stata module to implement Random Forest algorithm.* Boston College Department of Economics.
- Setoguchi, Soko, Yin Zhu, Jessica Jalbert, Lauren A. Williams, and Chih-Ying Chen. 2014. Validity of Deterministic Record Linkage Using Multiple Indirect Personal Identifiers: Linking a Large Registry to Claims Data. *Circulation: Cardiovascular Quality & outcomes* 7 (3): 475–80.
- Steorts, Rebecca C., Rob Hall, and Stephen E. Fienberg. 2016. A Bayesian Approach to Graphical Record Linkage and Deduplication. *Journal of the American Statistical Association* 111 (516): 1660–72. https://doi.org/10.1080/01621459.2015.1105807.
- Tahamont, Sarah, Zubin Jelveh, Aaron Chalfin, Shi Yan, and Benjamin Hansen. 2019. *Administrative Data Linking and Statistical Power Problems in Randomized Experiments*. Working Paper, Working Paper Series 25657. National Bureau of Economic Research. http://www.nber.org/papers/w25657.
- Tancredi, Andrea, and Brunero Liseo. 2011. A hierarchical Bayesian approach to record linkage and population size problems. *The Annals of Applied Statistics* 5 (2B): 1553–85. https://doi.org/10.1214/10-A0AS447.
- Tran, Khoi-Nguyen, Dinusha Vatsalan, and Peter Christen. 2013. GeCo: An Online Personal Data Generator and Corruptor. In Proceedings of the 22Nd ACM International Conference on Information & Knowledge Management, 2473–76. CIKM '13. San Francisco, California, USA: ACM. http://doi.acm.org/10.1145/2505515.2508207.

- Tromp, Miranda, Anita C. Ravelli, Gouke J. Bonsel, Arie Hasman, and Johannes B. Reitsma. 2011. Results from simulated data sets: probabilistic record linkage outperforms deterministic record linkage. *Journal of Clinical Epidemiology* 64 (5): 565–72. http://www.sciencedirect.com/science/article/pii/S0895435610002258.
- Vick, Rebecca, and Lap Huynh. 2011. The Effects of Standardizing Names for Record Linkage: Evidence from the United States and Norway. *Historical Methods: A Journal of Quantitative and Interdisciplinary History* 44 (1): 15–24. https://doi.org/10.1080/01615440.2010.514849.
- Wagner, Deborah, and Mary Layne. 2014. The Person Identification Validation System (PVS): Applying the Center for Administrative Records Research and Applications' (CARRA) Record Linkage Software. Center for Administrative Records Research and Applications Working Paper Series 2014-01. https: //www.census.gov/content/dam/Census/library/working-papers/2014/adrm/carra-wp-2014-01.pdf.
- Winkler, William E. 1990. String Comparator Metrics and Enhanced Decision Rules in the Fellegi-Sunter Model of Record Linkage.
  - —. 2006. *Overview of Record Linkage and Current Research Directions*. Working Paper, Research Report Series #2006-2. Statistical Research Division, U.S. Census Bureau.
  - -----. 2014. Matching and record linkage. *Wiley Interdisciplinary Reviews: Computational Statistics* 6 (5): 313–25. https://onlinelibrary.wiley.com/doi/abs/10.1002/wics.1317.
- Yancey, William E. 2002. *BigMatch: A Program for Extracting Probable Matches from a Large File for Record Linkage.* Working Paper, Research Report Series #2002-1. Statistical Research Division, U.S. Census Bureau.
- Zhu, Ying, Yutaka Matsuyama, Yasuo Ohashi, and Soko Setoguchi. 2015. When to conduct probabilistic linkage vs. deterministic linkage? A simulation study. *Journal of Biomedical Informatics* 56:80–86. http://www.sciencedirect.com/science/article/pii/S1532046415000921.

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