

# Strategies for Ensuring the Accuracy and Completeness of an Establishment Frame

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## **Abstract**

Establishment data collections rely on the foundation of an accurate and complete sampling frame. Longitudinal establishment studies have the additional challenge of tracking changes to their frames because of openings and closures or changes in contact information. To address the challenges associated with maintaining frame accuracy and a high level of coverage over time, a variety of strategies is required.

The Bureau of Justice Statistics (BJS) oversees several longitudinal data collections that involve gathering information from and about locally operated correctional facilities (i.e., jails). Whether the collection is a census of all facilities (such as the Census of Jails or the Mortality in Correctional Institutions study) or a survey involving a sample of facilities (such as the Annual Survey of Jails), development of a complete frame of every jail in the United States is critical to ensure accurate representation in these studies.

This paper/presentation will enumerate, describe, and assess each of the strategies RTI International and BJS have used to maintain and enhance the jail frame over time. Strategies include regular annual maintenance and special efforts carried out when RTI first began working with BJS on these collections and in advance of each COJ.

**Key Words:** Jails, Frame

## **1. Introduction**

The incarceration rate in the United States is commonly acknowledged as the highest in the world (National Research Council, 2014). The casual observer may not realize that the number of adults supervised across all U.S. adult correctional systems (e.g., federal and state prisons, jails) has actually dropped for 11 consecutive years, declining 12.3% between 2008 and 2018 (Maruschak & Minton, 2020). Interestingly, though, the proportion of the total supervised population that is confined in jails grew slightly over that period from 10.6% to 11.2%. Such important facts would not be known without research sponsored by the Bureau of Justice Statistics (BJS).

BJS has as its mission to collect data, analyze results, and share findings regarding crime and justice to provide information critical to the development of crime-related policy and the fair and efficient administration of justice. To meet its mission, BJS is responsible for the collection of crime and justice data. BJS oversees three collections that entail gathering data about jail facilities and the inmates they hold: the Census of Jails (COJ), the Annual

Survey of Jails (ASJ), and Mortality in Correctional Institutions (MCI).<sup>1</sup> The Bureau of the Census served as the data collection agent for the COJ from 1970 to 2005 and the ASJ from 1982 to 2012. RTI International has been the data collection agent for the MCI since its inception in 2009 and began collecting data for the COJ in 2013, followed by the ASJ in 2016.

One of RTI's key tasks for these BJS jail establishment surveys is to establish and maintain a frame of eligible jail facilities. Whether the collection is a census of all facilities (such as the COJ or MCI), or a survey involving a sample of facilities (such as ASJ), development of a complete frame of every jail in the United States is critical. For both types of collections, every jail should have the opportunity to be included (in the collection or the sample). If the jail frame is incomplete, it has a negative impact on representativeness of the data and can result in an undercounting of inmates or inmate deaths. A complete frame is also essential to produce the most accurate post-collection analytic weights.

The purpose of this paper is to describe the procedures for completing this task. The sections below provide an overview of jails and these BJS collections, discuss eligibility criteria, and describe the establishment of the initial jail frame for the 1970 COJ and how RTI has updated the jail frame over time from 2009 to today.

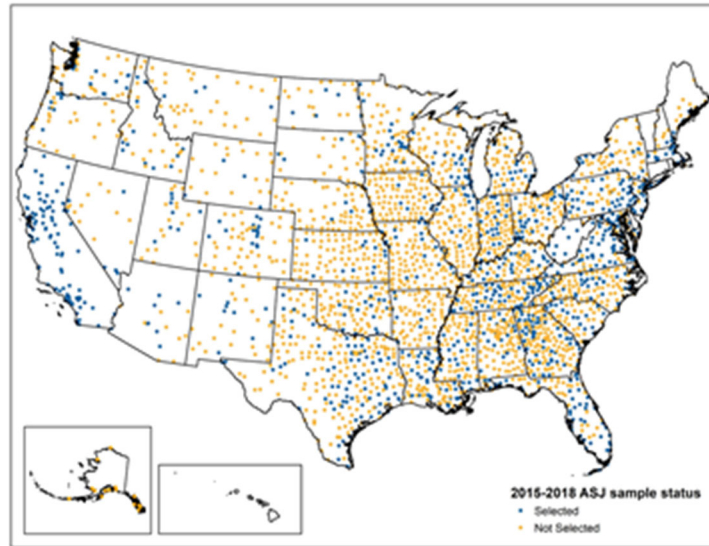
## 1.1 Overview of Jails

Jails in the United States are confinement facilities that operate under the authority of local governments by entities such as cities, counties, or towns; federal government (e.g., a handful of detention centers operated by the Federal Bureau of Prisons; BOP); regional facilities jointly operated by one or more counties; or private companies that are contracted to hold inmates for government entities. Jails are responsible for processing and detaining more than 10.3 million individuals admitted each year and serve as the intermediary between law enforcement and the courts (Zeng & Minton, 2021). They are generally facilities that hold individuals awaiting trial or sentencing or convicted misdemeanants sentenced to a term of less than 1 year. Functions include receiving individuals pending arraignment, holding probationers and parolees who have been returned to custody for technical violations or new charges, and confining sentenced misdemeanants (35% of jail inmates based on 2019 COJ data [Zeng & Minton, 2021]).

As of June 28, 2020, there were 2,850 jail jurisdictions operating 3,119 facilities across the United States (Zeng & Minton, 2021). *Figure 1* shows the location of eligible jails by 2015–2018 ASJ sample membership. These jurisdictions vary greatly in size, and the majority are county-level facilities that are overseen by a sheriff. In 2019, the 27 largest jail jurisdictions had an average daily population (ADP) of more than 5,000 inmates and held 18% of the total inmate population. In contrast, the 991 smallest jail jurisdictions had an ADP of 20 inmates and held 2.7% of the total inmate population, despite accounting for 35% of all jail jurisdictions (Zeng & Minton, 2021). As short-term facilities, jails have high turnover rates and short expected lengths of stay. In 2019 the average weekly turnover rate of all jails was 53%, and the average expected length of stay was 26 days. Smaller jails had higher inmate turnover rates and shorter expected lengths of stay than larger jails. The weekly turnover rate for small jails (ADP of fewer than 100 inmates) was 97% (Zeng & Minton, 2021).

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<sup>1</sup> The Mortality in Correctional Institutions collection was previously referred to as the Deaths in Custody Reporting Program.



**Figure 1:** U.S. Jails, Including 2015–2018 ASJ Sample Status

## 1.2 Overview of Jail-Focused Data Collections

The COJ is BJS’s oldest jail-based collection. Started in 1970,<sup>2</sup> the COJ is the only collection that enumerates local jails and the 12 BOP facilities that function as jails in the United States and provides inmate counts at the jail facility level. It provides the sampling frame for the ASJ, the National Inmate Survey, and the Survey of Inmates in Local Jails. Unlike COJ, which collects population data on every jail jurisdiction in the United States, the ASJ collects detailed population information on a sample of jails that includes both the largest jail jurisdictions and a random sample of other jails. Based on a sample of approximately 950 local jails (city, county, regional, and private) nationwide, the ASJ provides national estimates on inmate populations and jail jurisdiction characteristics. As the name implies, the ASJ has been conducted annually since 1982, except for years the COJ was conducted.

The Death in Custody Reporting Act (DICRA) (Public Law 106-297), passed by Congress in 2000, authorized BJS to collect data on deaths in state prisons and correctional facilities operated by local governments. Prior to this legislation, BJS had collected only aggregate counts of deaths in correctional facilities and there were no standardized reporting requirements, which rendered basic statistics on the total number of deaths in custody impossible, let alone information about causes of death. The Death in Custody Reporting Act of 2013 (Public Law 113-242) was passed in December 2014 and expanded its focus to include federal facilities. The MCI collection was conducted annually from 2000 to 2019.

Collecting data from jails requires an understanding of their organizational nuances and differences. Some local county (parish in Louisiana) or municipal jail **jurisdictions** administer one or more local jail facilities. The ASJ sample is selected at the jurisdiction level. Some jurisdictions with more than one facility have requested to split their submissions among two or more **reporting units** or **agencies**, each of which can have one

<sup>2</sup> The COJ has been administered in 1970, 1972, 1978, 1983, 1988, 1993, 1999, 2005/2006, 2013, and 2019.

or more facilities under it. In most cases the jurisdiction and reporting units are one and the same. MCI and ASJ data are collected from reporting units and can be aggregated to the jurisdiction level. Eligible jail **facilities** include confinement facilities operated by local law enforcement, holding adults (or adults and juveniles) beyond arraignment. The COJ data are collected at the facility level. The jail frame must document information at these multiple levels to enable different types of collections.

### **1.3 Jail Facility and Reporting Unit/Jurisdiction Eligibility**

The COJ and ASJ collections include all confinement facilities administered by a local or regional law enforcement agency. The facilities are intended for adults but sometimes hold juveniles. Eligible facilities include:

- Jails and city/county or regional correctional centers
- Special jail facilities operated under the authority of local or regional correctional agencies, including medical centers, treatment centers, release centers, halfway houses, or work farms
- Private facilities operated under contract to local, regional, or federal correctional authorities
- Temporary holding or lockup facilities if they are part of a jail's combined jail function

In addition to maintaining a list of all eligible jails in the United States, RTI documents information on facilities known to be ineligible. A jail facility is ineligible for the COJ and the ASJ if it:

- Holds only juveniles (no adults are held)
- Is administered by a federal, state,<sup>3</sup> tribal, military, or community corrections agency
- Operates only as a temporary holding or lockup facility (inmates are usually transferred within 72 hours and not held beyond arraignment) that is not part of a jail's combined function
- Is closed on the reference date of the collection (the last weekday in June of each year)<sup>4</sup>

Information documented on ineligible facilities includes agency and facility name and address; reason for ineligibility, permanent or temporary status (e.g., has the facility been permanently closed or is it temporarily closed because of renovations or staffing shortages); a descriptive summary of the ineligibility information; date the facility became ineligible (if it was previously eligible); and any identifiers or latitude/longitude coordinates (for facilities that were previously eligible).

### **1.4 Initial Jail Frame Development**

To establish the first jail frame for the 1970 COJ, the Census Bureau sent COJ forms to county sheriffs and police chiefs in cities of 25,000 or greater population and to police chiefs in municipalities of less than 25,000 population. Census Bureau staff compared the resulting list of jails that met the eligibility criteria to “a number of independent source

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<sup>3</sup> For the MCI collection, a facility was ineligible if it held only state inmates but was operated by a local corrections agency (e.g., Georgia County Prisons). Such agencies are eligible for the COJ and ASJ.

<sup>4</sup> For the MCI collection, a facility was eligible if it was open for any part of the calendar year, even if closed on the reference date.

materials” for accuracy and completeness. In the 1970 COJ Codebook (U.S. Department of Justice, 2005), the authors indicated that they erred on the side of over-inclusion. There were 4,037 jails in the 1970 COJ. The Census Bureau continued to update the jail frame during the time that it was responsible for carrying out the jail-focused collections, from 1970 to 2008.

## **2. Jail Frame Updates**

### **2.1 Transition to RTI as the Data Collection Agent**

RTI has maintained the jail frame for BJS since 2009. When RTI began serving as the data collection agent for the 2009 MCI data collection, BJS provided the 2008 Census Bureau COJ mailing file to use as a starting point. This initial mailing file contained the points of contact (POCs) and addresses, but it did not indicate whether the addresses represented the governing agency, the facility, or the POCs. Moreover, the file did not contain the official name of the governing agency, and telephone numbers were not consistently provided. Consequently, in December 2009, RTI staff conducted passive web searches to fill in some of these gaps. We developed codes to track the results of the jurisdiction or facility web searches (e.g., no supplemental information found, needed resolution about the jurisdiction or facility status, notes indicating something had changed about the jurisdiction or facility, such as changes in the population held or closures).

Once this work was completed, RTI staff compared and filled in the results with other documents provided by BJS, including the 2006 Deaths in Custody Reporting Program jail jurisdiction file, the 2006 Census of Jails Facilities file, and the American Jail Association (AJA) directory file. The resulting frame included 2,903 jail jurisdictions representing 3,185 facilities. The jail frame includes the following information:

- Name and address for all jail reporting units and facilities that are eligible for BJS jail collections
- Jail jurisdiction agency POC and Agency Head contact information; flag for ASJ sample members; most recent jail population data (e.g., confined population, average daily population); facility, reporting unit, and jurisdiction identifiers; and reporting unit-level FIPS codes, ANSI codes, and geographic latitude and longitude coordinates
- Jail facility linked to jail jurisdiction name and address; facility POC contact information; flags for regional, private, or booking facilities; and facility-level FIPS, ANSI, and latitude and longitude identification information
- Detailed list of changes to the jail universe over time (e.g., consolidations, permanent facility closures, temporary facility closures, new reporting units)

RTI subsequently developed a process to update the frame that is primarily proactive but also allows for reaction to new findings throughout the calendar year (e.g., POC communications during data collection). RTI has used multiple strategies to ensure an accurate and complete listing of correctional agencies and facilities. Some strategies help RTI to verify the accuracy of information for facilities and POCs already in the jail frame; others have focused on identifying potential new facilities.



## Rolling Updates



## Annual Updates



## Periodic Updates

### 2.2 Rolling Updates

RTI has made updates to the jail frame on a rolling basis using information from several sources, including returned mailings, telephone contacts from POCs, information relayed to RTI from BJS, and news alerts (once verified). The news alerts serve as an important source for potential new facilities and facility closures. RTI staff have set up Google Alerts (see <https://www.google.com/alerts>) using the following key words: “jail closed,” “jail closure,” “jail merger,” “jail opening,” and “new jail.” Between 300 and 900 items are flagged each month (i.e., approximately 300 in April 2021 and 900 in June 2020), with summer months tending to produce more alerts. Staff scan the results to identify potentially relevant news articles, flagging an average of 50 articles per year. From those articles, an average of 15 relevant changes are usually identified.

### 2.3 Annual Updates

Every year from 2009 to 2019, prior to the next cycle of MCI data collection, RTI has conducted verification calls to jail reporting units to confirm eligibility of facilities, discuss any status changes for facilities, and update contact information for agency heads and POCs. RTI staff contact all open and temporarily closed jails to confirm their jail frame variables and the POC for study communications. All data collected through verification calls are then reviewed using a web-based reporting tool. Staff seek clarification from the POCs if additional information is needed regarding suspected jail closures, openings, mergers, or other unclear status changes. Response rates for this effort have typically been at 95% and, thus, this activity works well to ensure that we get as many updates as possible from the agencies already on the frame.

In preparation for the 2019 MCI, RTI opted for a less intensive web-based verification effort under the assumption that the 2019 COJ collection had gathered relatively recent POC contact and facility eligibility information. Agencies were asked to use a self-administered, web-based interface to confirm POC and Agency Head contact information, as well as agency and facility addresses. They could also indicate whether any facilities had opened or closed, and RTI staff followed up to confirm eligibility changes. The web-based verification response rate was only 54.8%, which highlights the importance of the direct, repetitive outreach employed in RTI’s standard verification approach.

### 2.4 Periodic Updates

RTI has carried out several additional frame enhancements and updates in preparation for the COJ collections. Prior to the 2013 COJ, BJS funded a frame enhancement task that entailed comparing the current frame against the most recent directory published by the American Correctional Association (ACA) and a review of companies operating private facilities. RTI chose to focus this effort on the ACA directory because a comparison had already been made with the AJA directory as part of the efforts to establish the 2009 jail

frame. RTI staff made special verification calls to 178 potential new facilities identified to determine eligibility, and 89 eligible facilities were added to the frame.

In the fall of 2018, to support the upcoming 2019 COJ collection, RTI leveraged the contacts already being made as part of the annual MCI frame update to “crowd-source” potential new facilities. At the end of the existing questions, we asked about other jail facilities in POCs’ county that might be eligible for MCI (i.e., not temporary holding or lockup facilities and do not exclusively hold inmates 17 or younger). We asked, “Are you aware of any jail facilities in your county that are not operated by your agency (for example, a locally or privately operated jail)?” If POCs said they did, we asked for the name and address (or city if address unknown). Ninety-nine agencies offered 126 suggestions, of which 17 were eligible.

BJS also funded a frame update task in preparation for the 2019 COJ that involved efforts to locate potential eligible facilities by (1) searching for facilities in counties not represented on the current jail frame, (2) searching for lists of local facilities on state Department of Corrections (DOC) websites and comparing them against the current jail frame, (3) verifying the current status of jails flagged as “temporary hold” facilities on the list of ineligible facilities and verifying the current status of facilities flagged as temporary closures, and (4) identifying facilities that are contained on the jail and prison frame to determine which frame each one should be assigned to for facility census purposes.

#### *2.4.1 Unrepresented Counties*

To address possible undetected undercoverage with the jail frame, RTI designed and conducted an investigative effort focused at the county level. There are 3,007 counties in the United States and, when the task was initiated, there were 2,641 counties with eligible jails in the jail universe. Sixty-four additional counties had only a municipal facility listed and no county facility, so RTI recommended including those counties in the investigation. Counties from the five states with combined prison/jail systems (which therefore do not report to the ASJ and COJ collections) were excluded, leaving 395 counties to research.

RTI searched for county-run and municipal facilities within each of the 395 counties. In the process of doing web searches, RTI staff discovered a relatively comprehensive directory called PrisonFinder (see <https://prisonfinder.org/>). The site administrators agreed to send RTI an export of their database containing 17,585 facilities—police department jails, city jails, county jails, private facilities, community-based facilities, state prisons, and tribal facilities—including addresses, phone numbers, websites, and a county indicator. RTI merged the PrisonFinder list with the list of 395 counties to identify 613 potentially eligible facilities. We checked these facilities against our list of ineligible facilities to flag them for no additional follow-up (described below in section 3.3.5).

#### *2.4.2 State DOC Web Searches*

RTI visited the websites of all 50 state DOCs to identify any that happened to include a listing of local jails. All jails listed on state DOC websites were compiled and matched to the jail frame to identify potential new eligible facilities; we found 236 to research further.

#### *2.4.3 Temporary Holds and Temporary Closures*

Facilities sometimes change function to hold inmates for less than 72 hours and are labeled as “temporary hold” facilities; it’s possible for those facilities to change function again and hold inmates longer than 72 hours. RTI sorted the list of ineligible facilities by date of last

contact and filtered for “temporary hold” facilities that had ever been active/eligible in the frame to identify facilities that might have changed status or function in ways that would make them eligible again. Agencies contacted during 2018 verification were excluded, under the assumption that the information gained within the last year was still accurate. RTI also identified ineligible facilities flagged as (1) temporary closures with no recent contact, and (2) “permanent closures” with notes about possibly reopening. RTI identified 31 “temporary hold” facilities and 7 “temporary closure” facilities for further follow-up (described below).

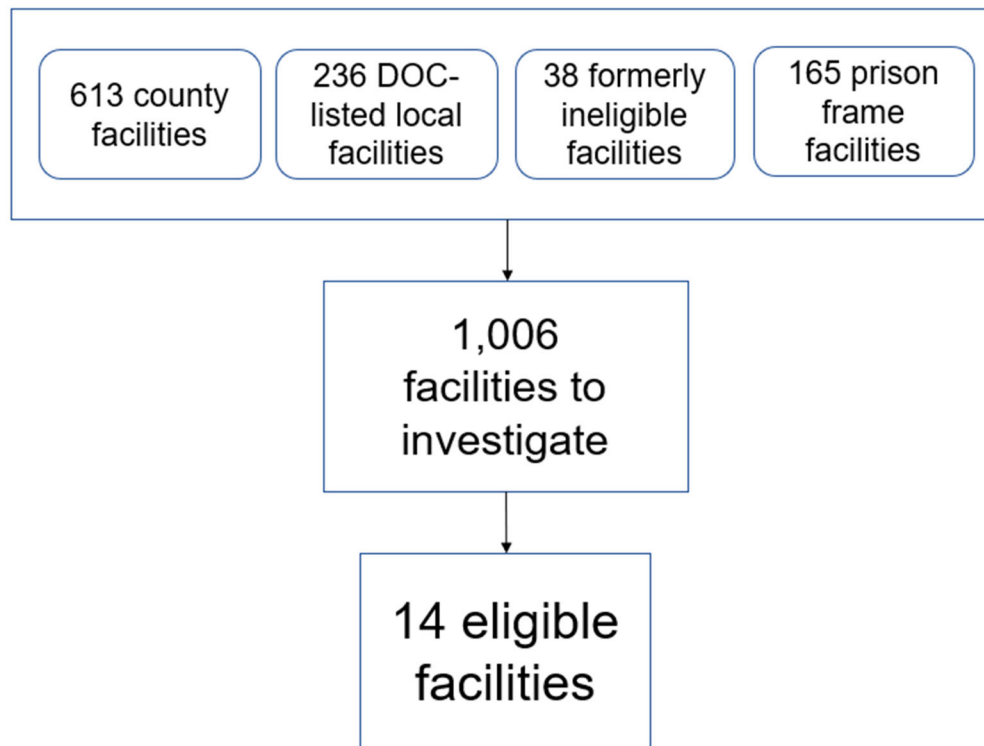
#### *2.4.4 Cross-references with the Prison Facility Frame*

BJS staff compared the current prison facility frame to the jail facility frame using a fuzzy match procedure to identify potential duplicate facilities in both frames. The match variables included facility name, street address, and state. Because all matches were not necessarily duplicates, RTI reviewed each pair and researched available information to determine whether the facility was in fact a match. RTI also manually reviewed facilities not identified as matches, looking for indications that the facility might be a match. Once the duplicative facilities were identified, RTI made recommendations for which frame the facility would ultimately be assigned to based on the facility operator and the number of inmates being held by authority type. If the facility is operated by local authorities the facility was assigned to the jail facility frame. For facilities operated under contract by private companies, the determining factor for assignment was based on the authority for which the majority of inmates were being held. For example, privately operated facilities holding primarily for state or federal authorities were assigned to the prison facility frame. These determinations often required contacting facilities to make an appropriate frame assignment. The prison facility frame also included several facilities flagged as “local jails.” This activity resulted in 151 possible duplicate facilities, and 14 facilities flagged as local jails.

#### *2.4.5 Results of the Pre-2019 Update*

As shown in Figure 2, RTI identified a total of 1,006 facilities through the above efforts (and through Google news alerts and verification efforts from that year). If existing documentation did not lead to a clear recommendation, RTI staff contacted each facility to confirm their current status and eligibility. RTI found six new eligible facilities and seven facilities that had changed from ineligible to eligible because of a change in function or a reopening. RTI also confirmed 10 facilities that were ineligible for MCI but eligible for COJ and ASJ (locally operated facilities holding only state inmates). The six new eligible facilities were all identified through the county-focused search; one was also listed on a DOC website. None of the other activities resulted in the identification of a *new* facility. Having carried out these comprehensive activities, the two searches that seemed most productive were looking for facilities in unrepresented counties and rechecking the statuses of previously eligible facilities. Having completed the county-focused search, it seems unlikely that repeating that effort in the future would be fruitful.





**Figure 2:** Results of the Jail Frame Update conducted prior to the 2019 Census of Jails

### 3. Conclusion

An accurate frame of establishments requires both regular maintenance and creative periodic updates to “shake the trees” and “turn over stones.” Detailed documentation of eligible and ineligible organizations is also critical to avoid contacting a potentially new organization that is already known to be ineligible. Important regular maintenance activities include annual verification contacts to all frame units, Google alerts for potential new or closing units, and comprehensive documentation of information shared by POCs. Helpful periodic update activities have included comparing the facilities on the frame against existing directories such as the AJA and ACA directories, asking existing frame units about other possibly eligible agencies in their area, reviewing websites such as companies operating private facilities and state DOCs, and comparing the frame with other similar lists of facilities. These strategies work together to identify (1) changes among **known** facilities through annual verification and POC outreach, (2) **new and closing** facilities through Google news alerts, and (3) **existing but unknown** facilities through comparison against other sources.

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