

# Shifting Peaks and Cumulative Consequences: Disqualifying Convictions in High-security Jobs

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## Abstract

*Objectives:* Disqualifying conviction lists (DCLs) bar applicants with certain convictions within specified timeframes from employment. Using proposed federal legislative changes in the aviation sector as a case study, we examine whether convictions under the existing policy are associated with subsequent arrest. Then we consider the implications of proposed expansions—arrests instead of convictions and a longer look-back window—on employment restrictions. *Methods:* Since DCLs exclude ineligible applicants with conviction records, we use a large, single-state sample of diverse criminal histories. We compare subsequent arrest rates across offense types, consider variations in hazard patterns, and project exclusion estimates based on current and anticipated policy reforms. *Results:* Only half of the

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disqualifying offenses have consistently higher recidivism rates than non-disqualifying offense types. Over 20 percent of the sample would be barred from employment, policy extensions double this estimate, and exclusions are age-graded, shifting a peak conviction age of 20 years old to a peak “consequence age” of 28. *Conclusions:* Including a narrower set of offenses would reduce those automatically disqualified in our study context by nearly 20 percent, or 39,000 individuals. Instead of expanding the DCL scope, successful criteria should be both effective in prediction and narrow in application.

### **Keywords**

criminal background checks, transportation security, disqualifying conviction lists, recidivism, collateral consequences

Criminal background checks for non-criminal justice purposes, including employment and occupational licensing vetting, are widespread in the United States (Goggins and DeBacco 2018; Society for Human Resource Management 2018). Decision makers express concern about criminal records, and particularly felony convictions, when assessing a job applicant’s skillset, moral character, trustworthiness, and risk of recidivism (Holzer 1996; Pager 2007). Moreover, employers may be concerned about negligent hiring lawsuits if they employ a person with a criminal record (Holzer, Raphael, and Stoll 2006) since past actions are a traditional predictor of future behavior (Farrington 1987; Kurlychek, Brame, and Bushway 2006). Listing disqualifying conviction offenses is a popular strategy for using criminal histories to imply potential risks.

Disqualifying conviction lists (DCLs) have the unique feature of combining security and desistance considerations into a structured decision policy. On the security side, restricted access to select jobs is designed to prevent certain behaviors from occurring in contexts with vulnerable populations. Although offense type is traditionally a weak predictor of recidivism (Bushway and Kalra 2021), policymakers and employers focus on the previous type of conviction in risk calculations, particularly for offenses involving violence. From the desistance perspective, many policies also limit historical “look-back” windows through which decision makers can view a person’s criminal record, which aligns with research that finds most people eventually desist (Blumstein and Nakamura 2009; Kurlychek et al. 2006, 2007). DCLs can dramatically shape employment opportunities for people

with conviction records, especially in high-security positions where additional scrutiny may be justified to preserve security, but that exchange is void if the elevated scrutiny is not justifiably tied to reductions in potential risk.

In the current study we consider this tradeoff in a high-security sector (aviation), focusing on the implications of a recent federal-level policy debate that could alter the criminal background screening process for hundreds of thousands of applicants. While DCLs vary by occupational and geographic context and are rarely formally studied, the potential implications of this type of policy are vast. According to statutes maintained by the National Inventory of Collateral Consequences of Conviction (2021), there are over 11,000 mandatory disqualifications across the country that require licensing agencies to deny applicants (Rodriguez and Avery 2016). In the healthcare field, more than 3,100 businesses and 71,000 individuals were actively on the List of Excluded Individuals/Entities for federally funded healthcare programs as of July 2021<sup>1</sup>. The selected offense types vary by field, but DCLs are similar in design. Unlike the individualized assessment policies promoted by the Equal Employment Opportunity Commission (EEOC 2012), which recommend a comprehensive and holistic decision process, such mandatory bans are intended to block access to a set of jobs based on limited criteria, often without waivers or further information. While the use of look-back windows removes lifetime bans, barring job applicants for a decade or more has the unique implication of imposing age-graded collateral consequences—what we refer to in the current paper as the “age-consequence curve.” As such, DCLs deserve particular empirical attention.

We have two main research questions. First, we evaluate whether individuals with offenses on the DCL (which prohibits access to certain positions in the aviation sector) have higher recidivism rates than individuals with non-disqualifying offense types. DCL policies are anticipated to have a “chilling” effect (Harris and Keller 2005) on potential applicants because individuals with listed offenses are automatically barred from consideration. Not only are the disqualifying offenses publicly available in federal statute (49 USC part 1542.209(d)), but airports also require applicants to sign statements certifying they have not been convicted of any disqualifying offenses as part of the application process.<sup>2</sup> Therefore, the SIDA applicant pool would only consist of people without criminal records or with eligible low-level convictions. Instead of applicant or employee data, we use detailed computerized criminal history data for over 700,000 individuals in New York State to address this question. We also investigate which offenses, if any, are driving subsequent arrest patterns. Our second research question investigates the potential employment exclusion implications of

this DCL. We examine two policies proposed by the aviation sector: 1) extending the look-back period by five years, and 2) moving the disqualification standard from conviction to arrest.

While much of the employment discrimination literature involving criminal records focuses on local-level employer decisions, DCLs serve as quiet gatekeepers across an array of industries and job positions. Such policies restrict decision maker discretion and regulate economic opportunities post-release by instituting a baseline layer of automatic disqualifications. Barriers to accessing “high quality” job opportunities can raise additional policy concerns. Passing a criminal background check and securing employment can have important labor market and recidivism benefits for individuals with conviction records (Denver et al. 2017), and jobs connected to higher earnings or longer tenure can have heightened desistance maintenance benefits (Apel and Horney 2017; Jaynes 2020; Schnepel 2017, 2018). In the current study context, entry-level positions requiring a high school degree in the SIDA-badge sector have higher average wages than comparable positions in other sectors.<sup>3</sup>

In addition, researchers have begun exploring desistance signals in the employment context and examining the potential role of positive credentials as markers of success and hireability rather than solely the passage of time (e.g., Bushway and Apel 2012; Denver and Ewald 2018; DeWitt and Denver 2020; Pager 2007). DCL barriers not only reinforce the importance of observing long conviction-free periods, but also remove the opportunity to present additional information and signal desistance. DCLs at the federal level, where seemingly minor policy changes could have widespread implications, might also influence state-level policy choices, which in turn can have implications for policy-relevant desistance research in the employment context. Evidence exploring the utility of DCLs has implications for both employment policy and the theoretical development of desistance for prospective job applicants with serious conviction records.

## **Disqualifying Conviction List Policies in High-Security Settings**

Formalized risk assessment instruments for criminal justice purposes, such as making correctional placements or supervision decisions, have been prolific over the past forty years (Andrews, Bonta, and Wormith 2006; Taxman and Dezember 2017). However, vetting processes for regulatory purposes, such as employment-based criminal background checks, are conceptually and practically different than assessment strategies for those

under formal criminal justice supervision (Siwach and Bushway 2017). Hiring managers have less empirical guidance than criminal justice decision makers (King and Fliegel 2010) and many still use discretionary vetting processes (Lageson, Vuolo, and Uggen 2015). Rather than utilizing multifaceted and formalized risk assessment instruments, legislators sometimes create—and decision makers must then use—DCLs. DCLs exist across major industries, including healthcare (Office of Inspector General 2016), banking (Federal Deposit Insurance Corporation 2018), and trucking (Electronic Code of Federal Regulations 2020). However, the use of DCLs is most prevalent in professions within elevated security environments, such as ports (which require a Transportation Worker Identification Credential, or TWIC), airports (Security Identification Display Area, or SIDA), transporting HAZMAT (TWIC), and the intelligence community.

The type of offense underlying a conviction is—and has historically been—the major factor driving disqualification statutes. Concerns surrounding the “specialization” of certain offense types, or the idea that a person is likely to repeat similar criminal behavior over time, is particularly salient for prior violent or serious (i.e., felonious) offenses. The mark of violence is widespread; both the general public and employers report a stronger aversion to hiring people with violent convictions relative to other offense types (Albright and Denq 1996; Cerda et al. 2015; Denver, Pickett, and Bushway 2017; Holzer et al. 2004; Husley 1990; Pager 2007).

Yet researchers typically find that people with criminal records are generalists, rather than specialists (MacDonald et al. 2014; Piquero 2000; but see Baker et al. 2013), particularly over the longer-term (Sullivan et al. 2006). Therefore, while excluding specific offenses is intended to remove those most likely to commit those crimes, in practice such strategies may not have that intended effect. In fact, other offenses may even be better predictors of future arrest, although this depends on the criteria’s categorization. There is no standard approach to measuring offense categories in the specialization research (Mazerolle et al. 2000); some use broad clusters (e.g., Armstrong and Britt 2004) and others disaggregate into a dozen or more categories (e.g., Sullivan et al. 2009; Yan 2019). Broader categorization likely biases towards finding specialization exists, since repetition is more likely across broad offense classes than specific ones; this has sometimes been justification for—and in other cases not—aggregating offense types (Armstrong and Britt 2004; Blumstein et al. 1988; Sullivan et al. 2006). Since some laws and policies explicitly exclude individuals convicted of specific violent or serious offense types, it may be helpful to investigate more nuanced offense type information.

Beyond specialization, time is also a key component of many DCLs. Using look-back windows reduces the permanence of statutory bans and aligns with research that indicates if people maintain clean records over time, old criminal convictions are no longer strong correlates of future recidivism (Kurlychek et al. 2006). The challenge is defining what constitutes an “old” criminal record. Setting policy thresholds, such as a “10 year since last conviction” guideline in criminal background checks, can lead to overly conservative decisions that could delay or compromise the desistance process (Denver 2017). In practice, definitions for look-back windows vary not only across agencies but also across job types within agencies, and windows can have different starting points (e.g., conviction date or date of release from prison).

Early federal disqualification lists—which predated empirical research<sup>4</sup>—combined the notion of stale criminal records with disqualifying conviction types by using time limits. Legislative exclusion policies, including the SIDA disqualifying conviction list examined in the current study, also combine conviction type restrictions with look-back windows. While there is a large focus on both conviction severity and recency in practice and research (Kuhn 2019), we are only aware of one study that examines an automatic disqualifying conviction list similar to the Transportation Security Administration’s (TSA) SIDA list. Siwach and colleagues (2017) estimated risk predictions for a sample of provisionally hired job applicants in the New York State healthcare sector using entire criminal records, and then added the agency’s mandated disqualification laws to the analysis. The disqualification laws in their context identified specific felony convictions, some without look-back windows (e.g., a felony sex offense) and others with windows (e.g., a violent felony within the past ten years). The authors found the mandatory laws—which forced an emphasis on limited factors—weakened risk predictions and had an added adverse effect for certain applicants (Siwach et al. 2017). The current study applies this insight to a national DCL in the aviation sector to assess how well the policy identifies higher recidivism levels and estimate employment exclusions under varying criteria.

## **Study Motivation**

Since TSA’s founding in 2001, employee vetting has served as a central pillar of aviation security. Airport employees who need unescorted access to locations beyond security screening are required to obtain SIDA badges. An estimated 1.4 million adults currently hold a SIDA badge in the United States, including baggage handlers, concession vendors, gate agents, and

other support services within airports (TSA 2018). A key feature of the SIDA vetting process involves a list of specific disqualifying convictions and look-back windows, first established through federal law in 2002 (67 FR 8355).

In 2016, Congress passed the FAA Extension, Safety, and Security Act (PL 114-190), which required TSA to improve a number of vetting protocols for SIDA badging in light of potential insider threats. A key modification asks TSA to extend the look-back period for disqualifying convictions from 10 to 15 years post-conviction. However, if the selected offense types on the SIDA exclusion list do not have higher rates of recidivism than other offense types *and* the look-back window is extended, additional people may be blocked from an industry without simultaneous public safety gains. It is estimated that over 70 million individuals in the United States have a criminal record on file with the FBI (Fields and Emshwiller 2014), and roughly 19 million are estimated to have a felony conviction (Shannon et al. 2017). Depending on the type of felony considered, extending the look-back period could notably exacerbate the employment disparity between applicants with and without criminal record convictions.

As Congress debated the look-back provisions, some in the aviation community noted that the use of conviction data ignores the criminal justice *process* in the construction of a criminal record. Specifically, individuals plead to lower charges, masking the potential risk indicators that an arrest for a SIDA-disqualifying offense might provide. A federal advisory committee to TSA, the Aviation Security Advisory Committee (ASAC), recommended that TSA broaden the set of criminal activities beyond convictions that could be correlated with an elevated risk to transportation security, including arrest records (ASAC 2015). The use of arrest rather than conviction presents a number of ethical issues, as in many cases the originating arrest was spurious to the embedded criminal act, translating variations in police processing into hard-coded risk factors (D'Alessio and Stolzenberg 2003; Kochel, Wilson, and Mastrofski 2011; Richards and Tittle 1981). Police wield tremendous discretionary powers (Alpert, MacDonald, and Dunham 2005; Goldstein 1960; Schulenberg 2015) and including arrest records introduces a number of potential sources of bias. Family scuffles can become aggravated assaults, depending on the interaction between responding officers and citizens. Using arrest records could also dramatically sway the availability of employment for those whose records show formal contact with the police rather than formal conviction in a court of law.

Both policy propositions stand to dramatically impact the aviation vetting process, and with it, potential access to jobs for individuals with

criminal records. As an industry which employs over half a million people across every state and territory in the United States (Bureau of Labor Statistics 2020a), airport workers represent an important venue for examining the potential consequences of expansive exclusionary policies for those with a criminal record. Although incorporating the age of the criminal record acknowledges the potential for desistance, such policies can also serve as barriers to employment by extending too far, leading to age-graded collateral consequences during prime wage-earning years. In this study, we generate a set of estimates for how changing this policy might increase employment restrictions for individuals with criminal records in the SIDA decision context.

## **Study Context and Data**

Employment vetting for SIDA badges in the United States is simultaneously local and federal. Initiated by individual airport operators as part of an employment application, a fingerprint-based scan is submitted to the FBI Interstate Identification Index (III) program for an interstate criminal history record check (CHRC), along with a Security Threat Assessment via assorted terrorist watchlists. Individuals who have been convicted of a felony on the DCL<sup>5</sup> within the past 10 years are disqualified from the SIDA process. Although criminal disqualification criteria are standardized across airports, individual airport operators compare the CHRC against the disqualifying crimes list to make eligibility determinations. While individual operators cannot remove the minimum disqualification criteria set in the SIDA statute, they can include additional disqualifying offenses. In addition to the potential applicant chilling effects described earlier, TSA does not keep records of previous applications, limiting the ability to use decision data to evaluate rejected applicants' recidivism. Mandatory disqualification criteria create an additional methodological complication by removing a subset of the criminal record population—likely a highly selected group—from TSA's consideration.

For these reasons, we used computerized criminal history (CCH) data from the New York State Division of Criminal Justice Services (DCJS) as a referent sample for a general criminal record population.<sup>6</sup> This provides several advantages for examining the relationship between criminal records and disqualifying offenses. New York State (NYS) has one of the largest and most comprehensive criminal history files in the country, with over 90 percent of all arrests in their system containing a final disposition code (Goggins and DeBacco 2018). It is the fourth-most populous state in the



country and its airports handle roughly 52 million passengers every year. It is one of the most diverse states, with a broad ethnic and racial heterogeneity that closely aligns with national demographics (30 percent non-White in NYS; 24 percent non-White in the United States [U.S. Census Bureau 2019]<sup>7</sup>). There are also major international, regional, and rural airports employing nearly 35,000 workers (NYS Department of Labor 2020), all of which are required to abide by the federally mandated background check process for SIDA badging.

We were granted access to the CCH top-charge file, which contains the most serious incident occurring during the processing of a single case (from arrest through disposition). In other words, if a person was charged with multiple offenses within the same arrest event in New York State, the dataset includes only the most serious of those charges. Sample inclusion is defined by three key criteria. First, we began with the population of individuals whose first in-state adult arrest (over the age of 15)<sup>8</sup> occurred between 1990 and 2005. Second, an individual must have at least one in-state misdemeanor or felony conviction at some point in their criminal history. Given specific limitations of the New York data, only arrests that result in a person's first conviction—or occur after that conviction—are included; individuals do not establish a permanent unique identifier (or NYSID) within the CCH file until their first conviction.<sup>9</sup> Third, alongside New York State Penal Law offenses, we also include misdemeanors and felonies for operating a vehicle under the influence (captured in NYS Vehicle and Traffic Law). In extending past penal code offenses, our estimates should be interpreted as conservative. Finally, arrests and dispositions through September 30, 2019 are included, providing at least a 15-year follow-up period for our sample. Our final initial sample consists of 756,063 unique people and over 2.4 million in-state cycles (i.e., criminal events for which a person was fingerprinted).

Since the SIDA statute refers to time since last conviction, conviction dates were used throughout the analysis. Approximately 37 percent of conviction dates are missing in the top-charge file; for these cases, we imputed values based on available disposition date information. To estimate the imputation values, we used cases with complete information to calculate the median time between the sentencing date (included in the disposition date variable) and conviction dates depending on offense severity—felony (49 days) or misdemeanor (0 days).<sup>10</sup> We then subtracted that number from the existing disposition dates for all cases missing conviction date information. After imputation, we are missing conviction dates for less than 4 percent of all observations ( $n = 97,020$  cycles for 74,447 unique individuals).

Of these cases, the vast majority are missing both disposition and conviction dates, indicating that the case may not yet be resolved.<sup>11</sup> In addition, another 266 cycles had an arrest date occurring after the conviction date for the same event, most likely due to input error. In those cases, we replaced the conviction year with the arrest year.<sup>12</sup>

While New York State provides potentially the best state-level dataset to examine the current research questions, we are unable to consider certain SIDA offenses for which there are not equivalent state statutes. These are specific federal offenses primarily focused on aviation-related activity or federal-only offenses, including aircraft piracy, interference with flight crew members, sedition, and treason. However, we include approximately 19 SIDA offenses that have comparable state statutes and are more common conviction types that airport operators encounter when conducting SIDA reviews (see Appendix Table A1). Conducting state-level analyses provides a starting point for understanding vetting implications for SIDA-related offenses in the transportation industry and may be relevant for other employment and licensure contexts.

## **Methods**

We conduct two main analyses in the current study: comparing SIDA and non-SIDA recidivism rates by offense type, and examining how adjusting disqualification parameters could exacerbate existing employment restrictions for those with a criminal record. We discuss the methodological approaches for each in the following subsections.

### ***Disqualifying SIDA Convictions***

To be eligible for a SIDA badge, applicants must not have been convicted of one of 36 specific offenses<sup>13</sup> within the previous 10 years prior to application. The presupposition is that individuals who are convicted of one of these disqualifying offenses exhibit a qualitatively different risk to their potential profession than those who do not. To address this question, the first analysis considers whether individuals who would be disqualified based on the current SIDA classification system have higher recidivism rates (measured as a subsequent arrest within 10 years) than people with criminal records who would not have been disqualified. We examine both general and SIDA subarrests, with a focus on the latter.

Although multiple events can be used to start a recidivism clock, our analysis observes what happens after an individual's *first* conviction. This is

advantageous for maximizing follow-up time for individuals in the sample and is a common occurrence in the study context—approximately half of the individuals in our New York State sample have only one conviction. Prior research examining criminal records in state-mandated criminal background checks suggests job applicants with criminal records who have initial success in the early stages of the hiring process may have lower numbers (e.g., 1-2) of prior convictions on average (Denver, Siwach, and Bushway 2017).<sup>14</sup> In some jobs with strict screening requirements, applicants with a single conviction can qualify for exceptions to blanket bans, making this an interesting group to consider.<sup>15</sup> While using first conviction as the starting point means there is not extensive criminal record information available to assess, it is useful from a policy perspective.

Our aim is to compare subarrest rates between individuals who would (or would not) be automatically disqualified from SIDA badge consideration both in the aggregate (any SIDA) and by specific SIDA offense types. Since we have the full population of adult arrest records within a state in a given time period, we report the actual (descriptive) rates rather than probabilistic estimates in our main analysis. We compare recidivism rates across SIDA and non-SIDA<sup>16</sup> categories for any subarrest and any SIDA subarrest within 10 years using two starting points for the recidivism clock. We start with the date of conviction (the current SIDA policy), followed by an estimated time of release from prison/jail (to balance time periods across the varying offense types and only account for time people were “eligible” for subsequent arrest). We also consider different ways of measuring recidivism (events occurring within 5, 7, and 15 years) and a sub-analysis of only those individuals with full 15-year follow-up windows of data.<sup>17</sup>

### *The Relative Consequences of Adjusting Disqualifying Criteria*

To consider the potential consequences of adjusting disqualification criteria proposed during recent policy negotiations, we also examine the implications of extending look-back periods (i.e., looking further back in a person’s criminal record) on employment opportunities. To simulate this estimate, we explore 10 and 15-year conviction look-back periods for our sample, constructed at four different age groups (26, 31, 36, and 41 years old). These age groups were selected to represent potential applicant ages for the SIDA badging process. We then calculated the total percentage of each subsample that would have a SIDA-related disqualifying conviction on their criminal history for both look-back periods. To address recommendations made by the ASAC (2015), we replicate this analysis using arrests rather than

convictions as the disqualifying standard. In sum, we compare the independent and interactive implications of both policy options on the disqualification potential of our sample of adults with conviction records.

## **Results**

### *Descriptive Statistics*

Table 1 displays the descriptive characteristics for our full sample and SIDA and non-SIDA subgroups. Consistent with other studies of criminal justice involved individuals, the majority (around 80 percent) of the sample is comprised of men. Approximately 57 percent is White and close to a third is Black.<sup>18</sup> The average age at first conviction in New York State is 30 (median = 27). As displayed in Table 1, around 28 percent of individuals in our sample had a felony as their first conviction, with a slightly lower proportion (26 percent) having a SIDA conviction. Although there may be a notable distinction between all felonies and SIDA felonies in concept, there is a sizable overlap in practice. In fact, close to 94 percent of all individuals with felony first convictions in our sample would be excluded. Finally, we broadly classified first conviction offense type.<sup>19</sup> Outside of the “other” category, property offenses were the most common (27 percent), followed by drug (20 percent) and violent (16 percent). Although not included in Table 1, the top five SIDA offenses were distribution of a controlled substance (33 percent of SIDA first convictions), robbery (13 percent), possession of a controlled substance (11 percent), weapon offenses (9 percent), and burglary (7 percent).

When comparing the full sample to the SIDA first conviction subgroup, several key differences emerge. Those classified as having SIDA convictions are more likely to be male (86 percent), non-White (e.g., 46 percent of individuals with SIDs are Black), and younger (median age = 24). They are also more likely to have violent (25 percent vs. 16 percent) or drug (44 percent vs. 20 percent) convictions than the overall sample (and similarly, the non-SIDA subgroup). The SIDA subgroup has a higher general subarrest (46 percent compared to 43 percent) and SIDA subarrest (32 percent vs. 23 percent) rate within 10 years. Overall, the top five SIDA subarrest offenses across the total sample were distribution (32 percent), burglary (9 percent), robbery (9 percent), theft (9 percent), and fraud (8 percent).

While the aggregate SIDA subarrest rate suggests the policy might be working as intended (i.e., identifying a group of people with a higher likelihood of being arrested for the identified convictions of interest), collapsing over a dozen conviction types into one category can mask

**Table 1.** Sample Descriptive Statistics.

Variables	Full sample (percent)	SIDA First Convictions	Non-SIDA First Convictions	SIDA/Non-SIDA Comparison (t-test) <sup>a</sup>
Male	79.3	85.6	77.0	88.41
Race	—	—	—	—
White	57.2	37.9	64.0	206.54
Black	31.0	45.6	25.9	-155.60
Other/Multiple	6.9	9.3	6.1	-44.09
Missing/Unknown	4.9	7.3	4.0	-51.05
Age of First Conviction (Years)	—	—	—	—
16-19	15.0	21.0	12.8	-80.51
20-24	28.5	32.7	27.1	-46.74
25-29	17.5	16.7	17.8	10.95
30-34	13.0	11.2	13.6	28.68
35-39	9.8	7.6	10.5	40.66
40-44	6.7	4.7	7.5	46.39
45+	9.5	6.1	10.8	69.21
First Conviction Type	—	—	—	—
Felony	27.8	100	2.3	-4,826.56
SIDA-disqualifying	26.1	100	0.0	—
First Conviction Crime Category	—	—	—	—
Violent	16.0	25.0	12.8	-114.04
Property	27.0	20.4	29.3	81.31
Drug	19.5	44.4	10.7	-281.88
Other	37.5	10.2	47.2	387.77
Subsequent Arrest within 10 Years	—	—	—	—
At Least One Subarrest	43.6	46.1	42.7	-26.01
At Least One Violent Subarrest	10.5	12.0	10.0	-23.65
At Least One SIDA Subarrest	23.2	32.1	20.1	-101.07
Subsequent Arrest Within 15 Years	—	—	—	—
	47.1	50.1	46.0	-31.52

(continued)

**Table 1.** (continued)

Variables	Full sample (percent)	SIDA First Convictions	Non-SIDA First Convictions	SIDA/Non-SIDA Comparison (t-test) <sup>a</sup>
At Least One Subarrest				
At Least One Violent Subarrest	12.2	14.3	11.4	-31.66
At least one SIDA subarrest	25.7	35.5	22.3	-108.58
Sample size	756,063	196,983	559,080	

Note.  $n = 756,063$ . The most serious offense is recorded above. We rank severity in the order listed above, where violent is most serious and other is least.

<sup>a</sup>All of the t-test results reported above are statistically significant at the .001 alpha level.

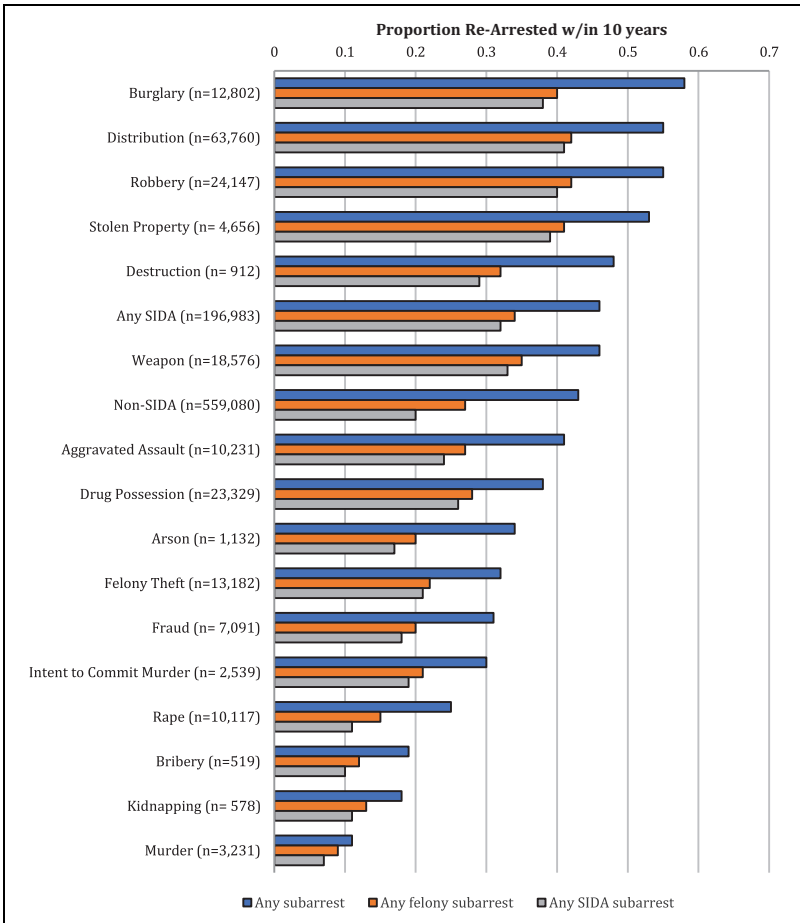
important variation. Next, we compare general and SIDA subarrest rates for each offense type following current SIDA policy (within a 10-year window from first conviction) and under full 10-year window specifications (i.e., estimated 10-year windows from institutional release).

### *Disqualifying SIDA Convictions*

*Post-conviction rate comparisons.* Figures 1 and 2 display the same set of recidivism values by SIDA first conviction type, but the former orders the SIDA offenses from highest to lowest by overall subarrest rates while the latter orders by SIDA subarrest rate to show the two key comparisons of interest.<sup>20</sup>

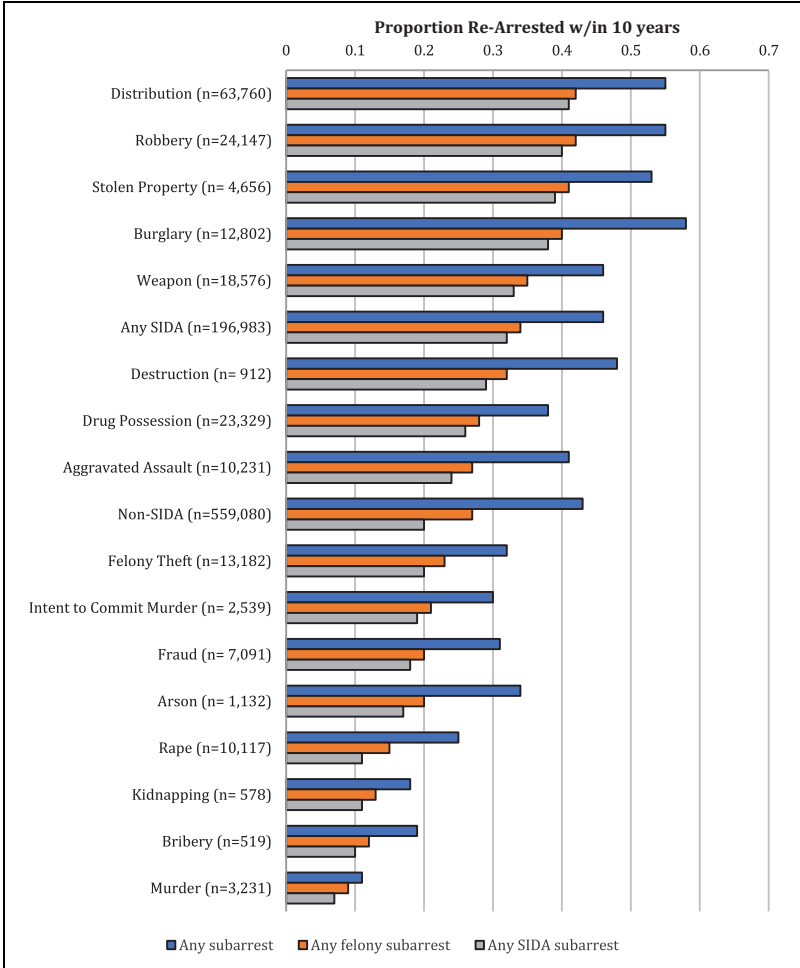
The DCL specifies a set of offense types as automatically disqualifying, and from an instrumental/risk reduction perspective, individuals convicted of these offenses should have higher recidivism rates than those convicted of offenses outside of the list. The “non-SIDA” category, which comprises over 238,000 individuals with subsequent arrests and non-SIDA first convictions, is ranked eighth in Figure 1. In other words, the group with a non-SIDA first conviction offense has higher overall recidivism rates than 10 of the offenses listed on the DCL. The SIDA offenses with a higher subarrest rate include burglary, distribution of a controlled substance, robbery, stolen property, destruction, and weapon offense (along with the overarching “any SIDA” category).

Turning to the SIDA subarrest graph (Figure 2), two additional SIDA first conviction types have a higher rate of recidivism than non-SIDA first convictions: drug possession and aggravated assault. While the DCL captures



**Figure 1.** Offense type comparisons: sorted by any subarrest rate. Note. The numbers listed in the x-axis represent the number of unique individuals with that offense type as their first conviction. Threat, extortion, and controlled substance importation/manufacturing have too few cases to report here.

additional offenses under the SIDA subarrest measure compared to general subarrests, non-disqualifying offenses still have a higher SIDA subarrest rate than half (eight out of 16) of the individual SIDA conviction types for that outcome measure. If the SIDA criteria was limited to just include the top eight conviction types, 21 percent of the sample ( $n = 158,413$ ) would be



**Figure 2.** Offense type comparisons: sorted by SIDA subarrest rate. *Note.* The numbers listed in the x-axis represent the number of unique individuals with that offense type as their first conviction. Threat, extortion, and controlled substance importation/manufacturing have too few cases to report here.

automatically ineligible for a SIDA badge instead of slightly over a quarter of individuals with a conviction record. However, the SIDA offenses with the lowest recidivism rates are also those whose exclusion might be morally concerning—convictions such as murder, rape and sexual assault, and



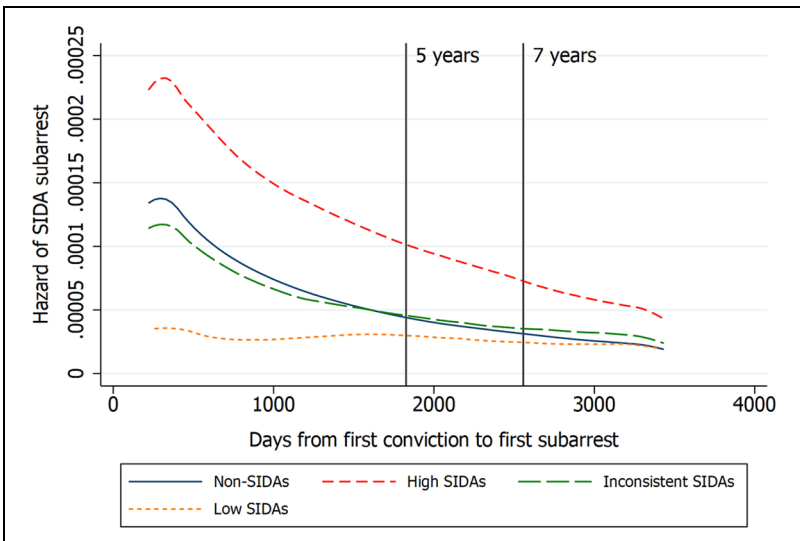
kidnapping. In this sense, an offense-based disqualification system can lead to a clash between instrumental and expressive concerns. The formal goal may be risk reduction, but policymakers may find it politically controversial to exclude certain violent offense types (Pfaff 2017).

*Post-release rate comparisons.* An important consideration is that people with SIDA convictions are potentially serving long periods in prison, and may not be counted as recidivating within the selected look-back windows due to incarceration stays. In other words, some people may appear to have a lower risk of recidivism because they are not back in the community yet, and therefore not “eligible” for rearrest. Creating more comparable eligibility windows across offense types could also be useful. To adjust for time served, we shifted the start of everyone’s recidivism clock based on the median total time served (state+ jail totals in days) for first felony conviction offense type (Hayes 2007: Section 3).<sup>21</sup> Approximately 4,758 and 3,852 people were added to our any subarrest and SIDA subarrest variables (respectively) when using the post-release measurement.

When reproducing recidivism rates accounting for time served, one offense was added for any subarrest: aggravated assault (results not displayed). For the SIDA subarrest outcome, eleven SIDA offenses have higher recidivism rates than the non-SIDA comparison (see Appendix Table A2). This includes the full original list in the main results plus felony theft, arson, and intent to murder. Without more accurate data at the individual-level we may be misestimating time served, and the current SIDA policy only considers time since conviction (without taking incarceration time into account). However, our current findings suggest that SIDA offense types alone—at least as currently specified—are not adequate indicators of recidivism as a whole, and several of the potentially most controversial SIDA offense types have consistently lower ranked recidivism rates than non-SIDAs regardless of the event that starts the recidivism clock.

*Alternative specifications.* In addition to examining the SIDA policy in place, we also consider how different measures of recidivism and shorter or longer look-back windows can influence SIDA subarrest rate comparisons. Regardless of how subarrest is measured (within 5, 7, 10 or 15 years), the same eight SIDA offenses have a higher SIDA subarrest rate than the group of offenses designated as non-SIDAs. The same set of results holds when reproducing the rates for just those individuals with a full 15-year follow-up window of data.<sup>22</sup> (Results available upon request.)

*Time to SIDA subsequent arrest.* While the SIDA policy does appear to accurately identify several offenses with higher recidivism rates than other conviction types, narrowing in on the consistently strong SIDAs can strengthen the DCL. Figure 3 displays four hazard patterns for SIDA subarrest outcomes. The SIDA offenses with higher recidivism rates than non-SIDAs in the main results (burglary, distribution of a controlled substance, robbery, stolen property, destruction, weapon offense, drug possession, and aggravated assault) are consistently and notably higher over time, and only become close to converging after a decade. Non-SIDAs and the SIDAs with inconsistent results across specifications (fraud, theft, arson, and intent to murder) have similar and overlapping hazard patterns. The consistently lower-rate SIDA offense group (which includes murder, bribe, rape and kidnapping) is about a fifth of the starting recidivism level of the high SIDA group and around 2.5 times lower than the starting point for the other two hazard patterns, and this low rate remains stable over time. By five to seven years since conviction, the hazard



**Figure 3.** Security Identification Display Area (SIDA) subarrest hazard patterns. Note. Four groups are included above, all of which are first conviction types: non-SIDAs, four offenses with lower recidivism rates than the non-SIDA group (low), eight with higher rates than the non-SIDA group (high), and four with inconsistent results across specifications (inconsistent).

rates are all at similar levels and stabilized, with the exception of the eight SIDA offenses in the “high rate” group.

Taken together, our analysis provides several key findings. First, from our sample of individuals who experienced their first adult arrest in New York State between 1990 and 2005 and had a subsequent conviction, the group with SIDA first convictions has a higher general and SIDA subarrest rate than non-disqualifying first convictions. When disaggregated into individual SIDA offense types, four SIDA offenses always have lower SIDA recidivism rates than the non-SIDA group, which increases to eight when including SIDA offenses that typically have lower (but inconsistent) rates. The time served analysis is largely consistent with the main results, but the extended period leads to the inclusion of three additional SIDA. Finally, with the exception of theft in the 15-year follow-up analysis, the main findings are consistent across SIDA subarrest measures and when considering only individuals with extensive available follow-up data.

### *The Relative Consequences of Adjusting Conviction Look-Back Periods*

In the second main analysis, we examine two policy proposals relevant to disqualifying offenses in the aviation context. First, we examine increasing the look-back window from 10 to 15 years to consider its potential influence on employment opportunities. Table 2 contains the current (10 year) and proposed (15 year) conviction look-back windows for four age groups. We only include the age 26 group for the 10-year window, since they do not have a full 15-year look-back available. The last set of rows displays the percentage of people with at least one SIDA felony for each age group and look-back period, along with the disqualification type (high, inconsistent, and low).

Under current guidelines, approximately 21 percent of the adults with conviction records in our sample would be disqualified for a SIDA-related conviction at age 26. This is primarily driven by distribution of controlled substances (7.7 percent) and robbery (4.1 percent). Other notable convictions include possession of controlled substances (2.8 percent), possession of an explosive/weapon (2.7 percent) and burglary (2.3 percent). As the sample ages, the relative implications of a criminal record, often received during late teens and early 20s, is mitigated. Had the individuals in this sample applied for a SIDA badge, approximately 21 percent of 31-year-old applicants, 15 percent of 36-year-old applicants, and 12 percent of 41-year-old applicants would be automatically disqualified for a SIDA-related conviction under a 10-year look-back period. As displayed in the last set

**Table 2.** Proportion of Sample with SIDA Disqualifying Conviction, by Offense Type and Look-back Window.

	26 yr old	31 yr old	31 yr old	36 yr old	36 yr old	41 yr old	41 yr old
Sample Size	755,597	752,062	752,062	693,569	693,569	566,700	566,700
Retrospective Window	10 year	10 year	15 year	10 year	15 year	10 year	15 year
Crimes Against Persons							
Aggravated Assault	1.4	1.3	1.9	0.9	1.6	0.6	1.1
Assault with Intent to Murder	0.4	0.3	0.5	0.2	0.3	0.1	0.2
Kidnapping/Hostage Taking	0.1	0.1	0.1	0.0	0.1	0.0	0.1
Murder	0.5	0.4	0.6	0.2	0.4	0.1	0.3
Rape or Aggravated Sexual Abuse	0.8	0.9	1.2	0.8	1.2	0.7	1.1
Crimes Against Property							
Arson	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Bribery	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Burglary	2.3	1.9	2.9	1.3	2.2	0.9	1.4
Destruction/Damage of Property	0.2	0.2	0.2	0.1	0.2	0.1	0.1
Dishonesty, Fraud or Misrepresentation	0.6	0.9	1.0	0.8	1.2	0.8	1.1
Larceny/Theft	1.2	1.4	1.8	1.3	1.8	1.2	1.8
Robbery	4.1	2.5	4.6	1.2	2.8	0.8	1.5
Stolen Property Possession/Distribution	0.8	0.6	1.0	0.4	0.8	0.3	0.5

(continued)

**Table 2.** (continued)

	26 yr old	31 yr old	31 yr old	36 yr old	36 yr old	41 yr old	41 yr old
Crimes Against Society							
Controlled Substance Distribution	7.7	7.8	10.1	5.9	9.6	4.7	7.6
Controlled Substance Possession	2.8	3.1	3.9	2.3	3.8	1.7	2.9
Possession, Use, Distribution of Explosive or Weapon	2.7	2.4	3.4	1.3	2.6	0.8	1.5
At Least One SIDA Felony	21.4	20.6	26.9	15.1	24.5	11.9	18.9
Disqualification Type							
High SIDA	18.8	17.5	23.2	12.2	20.4	9.2	15.0
Inconsistent SIDA	2.3	2.6	3.3	2.3	3.4	2.1	3.1
Low SIDA	1.4	1.4	1.9	1.1	1.7	0.9	1.5

Note: Threat, extortion, and controlled substance importation/manufacturing have too few cases to report here. In addition, percentages reported in each offense type will not sum to the total percentage with at least one SIDA felony, as individuals may have more than one disqualifying offense in their look-back window. Similarly, the three disqualification types may not sum to the "At least one SIDA felony" row.

of rows, the eight SIDA offenses in the “high rate” group capture the majority of the disqualifications across groups and periods.

Across age groups, the primary drivers of disqualification are felony distribution and felony possession of controlled substances. Only a handful of felonies (rape/aggravated sexual assault, fraud, larceny, and possession or distribution of controlled substances) were in a larger portion of the 31-year-old sample than the 26-year-old sample, and the increases were minor. The offense-specific changes reiterate the finding that criminal records are often established early in adulthood, and the proportion of individuals with conviction records who would be disqualified for a SIDA-related conviction diminishes over time.

Extending the conviction look-back window from 10 to 15 years shifts the consequences of earlier offending patterns into later adult life. While this results in a six-percentage point increase in the proportion of disqualified 31-year olds, the difference is 10 percentage points for 36-year olds. These shifts appear minor, but given the size of our justice-involved sample in just one state, they translate to an increase of over 47,000 individuals disqualified at age 31, and over 65,000 individuals disqualified at age 36. Moreover, specific offense types become particularly influential in disqualifying older individuals. Roughly the same proportion of individuals in our sample would be disqualified for felony controlled substance distribution at age 26 (for 10-year look-back) and age 41 (for 15-year look-back). Results from this first analysis suggest that extending the look-back window to 15 years disproportionately excludes those whose convictions were for crimes against society (drugs and weapons possession).

Second, although not in the final language, the discussion of using arrest records as a disqualifying mechanism is still prevalent within the aviation security community. To address the potential implications of this for applicants with arrest records, Table 3 replicates the above results for SIDA disqualifying arrests. Moving standards from conviction to arrest greatly increases the proportion of those with a criminal record disqualified under SIDA. Regardless of age group, moving the standard to a disqualifying arrest rather than disqualifying conviction translates into roughly a 60–80 percent increase in individuals excluded from employment who would have qualified under current SIDA requirements. Depending on the age category, this would equate to an additional 53,800 to 97,500 potential automatic disqualifications using the sample in this analysis. Shifting to a 15-year window on top of the arrest standard only increases the proportion who are disqualified. Overall, a restriction of 15 years since last arrest (as opposed to 10 years since last conviction) would automatically disqualify

**Table 3. Proportion of Sample with SIDA Disqualifying Arrest, by Offense Type and Look-back Window.**

	26 yr old	31 yr old	31 yr old	36 yr old	36 yr old	41 yr old	41 yr old
	10 year	10 year	15 year	10 year	15 year	10 year	15 year
Sample Size	755,597	752,062	752,062	693,569	693,569	566,700	566,700
Retrospective Window							
Crimes Against Persons							
Aggravated Assault	3.6	3.4	4.8	2.5	4.2	2.0	3.2
Assault with Intent to Murder	1.1	0.8	1.3	0.5	1.0	0.3	0.6
Kidnapping/Hostage Taking	0.1	0.2	0.2	0.1	0.2	0.1	0.1
Murder	1.2	0.8	1.4	0.4	0.9	0.3	0.5
Rape or Aggravated Sexual Abuse	1.5	1.5	2.0	1.2	2.0	1.1	1.7
Crimes Against Property							
Arson	0.2	0.2	0.3	0.2	0.3	0.1	0.2
Bribery	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Burglary	4.4	3.4	5.5	2.4	4.0	1.9	2.9
Destruction/Damage of Property	1.9	1.5	2.4	1.1	1.8	0.8	1.3
Dishonesty, Fraud or Misrepresentation	3.0	3.6	4.5	3.2	4.7	2.9	4.3
Larceny/Theft	4.3	4.4	6.1	3.9	5.9	3.6	5.4
Robbery	5.6	3.5	6.5	2.1	4.0	1.4	2.5
Stolen Property Possession/Distribution	1.9	1.4	2.4	1.0	1.7	0.7	1.2

(continued)

**Table 3.** (continued)

	26 yr old	31 yr old	31 yr old	36 yr old	36 yr old	41 yr old	41 yr old
Crimes Against Society							
Controlled Substance Distribution	10.9	10.7	14.0	8.3	13.0	6.9	10.5
Controlled Substance Possession	3.2	3.6	4.5	2.8	4.4	2.2	3.5
Possession, Use, Distribution of Explosive or Weapon	3.6	3.1	4.6	2.0	3.6	1.3	2.3
At Least One SIDA Felony	34.3	32.7	42.6	25.7	39.1	21.4	32.0
Disqualification Type							
High SIDA	27.3	25.0	33.4	18.9	29.2	14.8	22.6
Inconsistent SIDA	8.3	8.6	11.4	7.4	11.2	6.6	10.0
Low SIDA	2.9	2.5	3.7	1.8	3.2	1.5	2.5

Note: Threat, extortion, and controlled substance importation/manufacturing have too few cases to report here. In addition, percentages reported in each offense type will not sum to the total percentage with at least one SIDA felony, as individuals may have more than one disqualifying offense in their look-back window. Similarly, the three disqualification types may not sum to the "At least one SIDA felony" row.

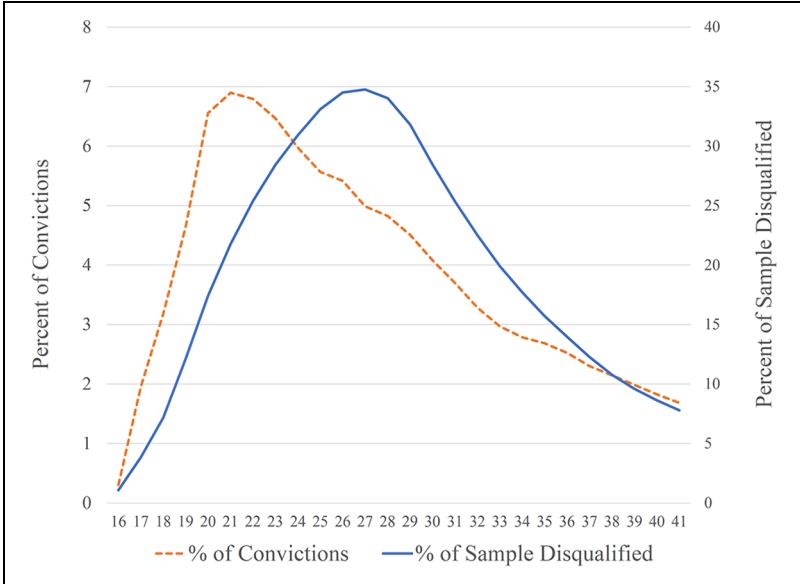


between 2 and 2.7 times the number of people in our sample rejected outright based on current guidelines. This discrepancy could be slightly reduced if policymakers focused on just the “high” SIDA, but even then, around 2 to 2.5 times the amount of people would be rejected by imposing both of these more stringent guidelines.

### *Shifting Peaks and Cumulative Consequences*

Extending look-back windows has net-widening implications across all age groups, but the magnitude is not equivalent at each age. The age-crime curve, which represents the proportion of people engaging in crime and the criminal justice system, is curvilinear and skews young, peaking in the teenage years (Farrington 1986; Hirschi and Gottfredson 1983; Quetelet 1831; Sampson and Laub 2005). Age-crime curves based on conviction data push the peak slightly later (Blokland, Nagin, and Nieuwbeerta 2005), which may reflect criminal justice system processing delays and/or imposing different sanctions for younger people. In practice, disqualification lists prohibit industry-wide employment for a set timeframe post-conviction (e.g., 10 years for SIDA badges), shifting such prohibitions to the next phase of one’s life course. Our initial analysis projects the age-graded consequences a standardized employment restriction may have by considering the distribution of SIDA convictions across age groups for our sample.

To better demonstrate the relative disconnect between conviction patterns and the cumulative consequences that disqualifying criteria can have, we compare both for a subsample of 118,506 individuals.<sup>23</sup> For this subsample, we tabulated 385,093 convictions through the age of 41 (or 25 years after the age of majority in New York State). First, building on earlier work on the age-crime curve, we calculated the proportion of total sample convictions by age (or incidence). Second, using the current SIDA disqualification criteria (specific felony offense types for 10-years post conviction), we calculated the sample proportion who would have been SIDA-disqualified during a specific age (prevalence). For example, if someone was convicted of a SIDA-disqualifying offense at age 22, they would be disqualified for the next 10 years (to age 31). If the same individual also was convicted of a SIDA-disqualifying offense at age 28, that period would last until they are 37 years old. Therefore, that person would be disqualified from the age of 22 to 37 years old. We term this the *age-consequence* curve, which is a representation of the age-graded collateral consequence from conviction disqualification criteria.



**Figure 4.** Age-conviction (incidence) and age-consequence (prevalence), different axes.

In Figures 4 and 5, we compare the age-conviction curve and the age-consequence curve in different ways to demonstrate two important findings. First, in Figure 4, we show the two curves along the same X-axis, but with different Y-axes proportional to the peak of their independent distributions (6.89 percent for age-conviction; 34.75 percent for age-consequence). When scaled proportionally, we can see an important shift in the peaks of the two curves. Specifically, while the age curve for all convictions skews younger, the age-consequence curve peaks later in life. This could be due to the later age of people with SIDA-disqualifying felonies in comparison to the broader category of offenses. In addition, specialization—or the type of repeat behavior that disqualification lists target—tends to increase over the life course (Nieuwbeerta et al. 2011).

Second, in Figure 5, when the two curves are plotted along the same Y-axis, we see the cumulative magnitude of these disqualifying criteria. For those younger than 18 years old, the proportion of convictions are roughly similar to the proportion of people disqualified. But as conviction rates drop over the subsequent 23 years, disqualification dramatically increases, and ultimately peaks at 27 years old. Moreover, by the age of 41, nearly

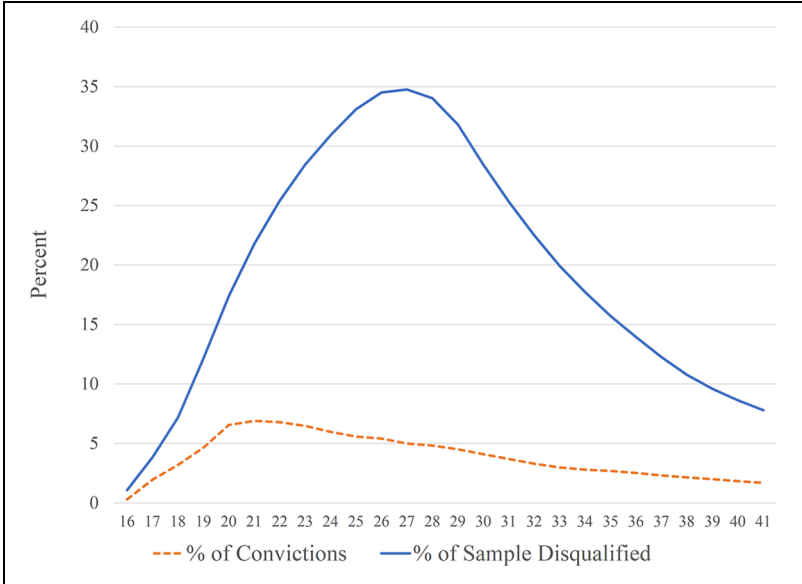


Figure 5. Age-conviction (incidence) and age-consequence (prevalence), same axis.

44 percent of our subsample would have been disqualified for 1 or more years, and nearly 8 percent would be disqualified for more than 15 years (due to overlapping disqualification periods). Combined with the limitations in using a broad set of disqualifying offenses, these shifting peaks and cumulative consequences can dramatically limit employment opportunities for individuals with conviction records.

### Discussion and Conclusion

In a recent annual review piece, Bersani and Doherty (2018:312) describe two “distinct directions in the conceptualization of desistance”: learning more about the underlying process of desistance, including set-backs (theory-based) and identifying when, on average, people with criminal records have comparable probabilities of future criminal justice system events as those without records (policy-based). While both approaches include theoretical and policy implications, the latter emphasizes providing guidance to decision makers external to the criminal justice system, such as evidence about look-back windows to employers (e.g., Blumstein and Nakamura 2009; Kurlychek et al. 2006). Rather than promoting desistance, the goal

appears to be identifying “desisters,” or prospective employees who do not pose a significant risk of subsequent illegal behavior (particularly in the workplace). For decision makers interested in identifying offense types perceived to be relevant for the job in question (EEOC 2012), combining a look-back window with a list of offenses can create a simple and transparent assessment criterion. We refer to such lists as disqualifying conviction lists, or DCLs.

DCLs are policy choices that incorporate information about the absence of criminal justice system involvement, but having disqualification lists in place can also potentially influence desistance trajectories. As Maruna (2009: 56) succinctly states, “Desistance is both a cause and a consequence of reintegration.” Employment exclusions, along with other social and economic barriers to reintegration, can stall or challenge desistance. This notion led Maruna (2009) to question whether time since last policies—which often are installed prior to or without empirical guidance (as in the current case, with the SIDA policy taking effect in 2002)—might serve as self-fulfilling prophecies. In other words, it is not clear whether the imposed time frame accurately identifies when people naturally desist, or inadvertently stalls desistance until these labor market opportunities become available. At a more fundamental level, while DCL policies exist across industries and often prohibit job applicants from consideration, there is a lack of research on whether the offense types specified in DCLs are meaningfully connected to recidivism, and the scope of employment exclusion for such policies.

In the current study, we consider the implications of a federal and widespread DCL for both identifying higher recidivism rates and inducing age-graded collateral consequences among a diverse population of adults with conviction records in a populous state. When collapsed into a single policy, offenses classified as automatically SIDA disqualifying within 10 years post-conviction have higher general and SIDA recidivism rates than non-SIDAs. However, there is wide heterogeneity across SIDAs. When focusing on SIDA subarrests as the outcome of interest, eight SIDA first convictions (burglary, distribution of a controlled substance, robbery, stolen property, destruction, weapon offense, drug possession, and aggravated assault) had consistently higher recidivism rates over time relative to non-disqualifying offenses (i.e., non-SIDAs). This group makes up 80 percent of convictions in the original SIDA DCL, and using this narrower set of offenses would exclude 20.9 percent of the sample instead of 26.0 percent—nearly 39,000 fewer people.

This result raises two immediate questions. First, could the SIDA policy be refined to better capture key offenses of interest? The hazard analysis

depicted four groups with varying substantive contributions to the SIDA policy (non-SIDAs, top SIDAs, inconsistent SIDAs, and unreliable SIDA offenses). The top eight SIDA offenses had almost double the subsequent arrest rate of the non-SIDA or inconsistent offenses (and around 3.7 times higher than the unreliable SIDA group). The top SIDA group also excluded the highest number of people (see Tables 2 and 3). Still, if the implied goal is instrumental (risk reduction and enhanced workplace safety), removing the unreliable or inconsistent SIDA offenses could sharpen the focus on high-risk offenses while also reducing the number of individuals automatically excluded without further criminal record contextualization. Yet decision makers are sensitive to the expressive sentiments (or moral outrage) of certain offenses within public perception,<sup>24</sup> and the four SIDA offenses with consistently lower SIDA recidivism rates (murder, bribe, rape and kidnapping) may be viewed as too morally egregious to remove. Similarly, the SIDA offenses with inconsistent results across specifications (fraud, theft, arson, intent to murder, and aggravated assault) do not perform notably better than the non-SIDA group, yet but may also be considered morally objectionable.<sup>25</sup> In short, DCLs are promoted for instrumental purposes, but once constructed are imbued with moral statements about rehabilitative potential that limit their estimation of risk.

While the recidivism analysis replicates key findings in other studies—mainly, that certain serious offense types, such as murder or kidnapping, have low recidivism rates—the SIDA recidivism measure used here is unique. Specialization research typically focuses on specific (e.g., burglary-to-burglary) or general (property-to-property) offense comparisons. The SIDA policy differs in that it blends offense types to identify a subset of felonies that are perceived to be the most serious threats to public safety across violent, property and drug categories. In other words, SIDA prioritizes the charging statute, rather than a qualitative difference between offense types. A felony assault is included in the DCL, but a misdemeanor assault is not. Examining recidivism rates for specific offenses using a felony blend outcome aligns well with the interests of federal policymakers and is an important consideration for criminal background check research.

For employers, making decisions based solely on the risk of recidivism can be challenging both politically and internally. While there are social implications of the decision to deny individuals with conviction records a job, employers evaluate potential risks to their enterprise rather than conducting broader societal cost-benefit analyses (Bushway and Kalra 2021). Ultimately for decision makers, it comes down to their risk tolerance levels and perceived losses in the exclusion/inclusion employment trade-off. Employers can still justify

exclusions for low base rate offenses (such as violent crimes) if they perceive the cost of hiring an employee who commits a future violent crime as vastly greater than missing out on a good hire (Bushway 2011). This low risk/high cost imbalance—where the crimes that are the least likely to reoccur are the most concerning—is a persistent and vexing policy issue.

While employment contexts with high security or vulnerable populations may not always be the best starting position for people convicted of the most serious violent felonies, relaxing automatic disqualification policies provides agency to decision makers and enables flexibility for certain cases. In a recent book on second chance hiring, a banking executive reviews Bureau of Justice Statistics data and similarly points to low recidivism rates among individuals with violent convictions. As he describes, “The point is not that employers should be looking to hire ex-murderers, but rather to recognize that the crime of the past does not provide deep insight into the person today” (Korzenik 2021: 49). In his interactions with employers, the number of automatic disqualifiers often decreased as employer exposure to individuals with criminal records expanded (Korzenik 2021). Similarly, DCLs (or components of DCLs) that do not serve instrumental risk purposes could be converted into flexible decision rules that enable disqualification after an individualized review. In other words, if there is uncertainty about potential workplace risk, rather than automatically banning the individual for a predetermined period, decision makers could collect additional information to assess the “person today.”

The second imminent question is whether policymakers need the full 10-year window. We consider what proportion of people would have experienced a SIDA subsequent arrest within 10 years and *also* within seven years post-conviction (the timeframe for the larger TWIC program also administered by TSA). In other words, how much overlap exists between the two windows, and does the 10-year window notably expand information available to decision makers? For those with a SIDA subarrest 10 years post-conviction or less, around 89 percent (~ 156,000) experienced a SIDA subarrest within 7 years. This comparison is similar whether including all SIDA offenses or just the cases with a “top SIDA” at first conviction. As look-back windows are primarily products of the authorizing legislation rather than evidence-based standards, efforts to harmonize these windows across other access control programs administered by the federal government that use 7-year windows (United States Government Accountability Office 2017) could improve programmatic consistency without a substantial expansion of risk.

Rather than refining the SIDA policy within its predetermined boundaries, policymakers should also consider whether this type of DCL should

be replaced with more comprehensive assessment strategies. Relative to a full blanket ban, time-restricted DCLs can meaningfully increase employment and earnings for individuals with conviction records, but identifying an ideal look-back window threshold across offenses is challenging (Denver 2017). While there are not readily available public risk assessments for employment purposes (Siwach and Bushway 2017), a working paper examining the predictive accuracy of using a DCL compared to comprehensive and interactive criminal conviction information indicates the latter can better distinguish between those who go on to recidivate or not and reduce racial disparities (Siwach et al. 2017). Time since last offense research offers similar conclusions. While 7–10 years is a common average empirical estimate for a look-back window, the type of offense (Blumstein and Nakamura 2009), number of prior convictions and age at last conviction (Bushway, Nieuwebeerta, and Blokland 2011) can help to refine the estimated number of years. Taking more detailed information into account, including evidence of rehabilitation and the circumstances surrounding the offense(s), also follows the spirit of the EEOC (2012) individualized assessment guidance. Conversely, evidence of rehabilitation can also be difficult to effectively identify and standardize in practice, which has the potential to weaken decision accuracy (Denver 2020).

In addition, policies that rely on only two pieces of information are more susceptible to the politicization of offense types than “whole person” (Lundquist et al. 2018) reviews. For example, federal charging strategies in recent years have oscillated considerably around mandatory approaches for low-level drug felonies. In 2013, the Department of Justice revised federal prosecutorial policy to reduce charges for individuals arrested for low-level non-violent drug crimes if they did not have a significant criminal history (Holder 2013)—a policy reversed by Attorney General Jeff Sessions in 2017 (Sessions 2017). Compounded with the high rate of plea bargaining, initial charging decisions can dramatically influence who would meet the SIDA disqualification threshold and be deemed a “risk” to aviation security. In the current context, distribution of a controlled substance is the most common offense type for both SIDA first convictions and SIDA subarrests. Within this category, criminal possession with intent to sell (NYPL §220.16) and criminal sale (NYPL §220.39) of a controlled substance in the third-degree—the offenses referenced in the Holder memo and overturned by the Sessions memo—account for 85 percent of distribution-related subarrests. If one removes these two sections from the SIDA classification, the 10-year SIDA subarrest rate drops considerably for SIDA first conviction (32 percent rearrest vs. 23 percent without the controversial

drug felonies) vs. non-SIDA first conviction (20 percent vs. 18 percent SIDA re-arrest rate without these drug felonies). If SIDA criteria excluded these offenses, most of the original first conviction SIDA offenses still have higher recidivism rates than non-SIDAs,<sup>26</sup> but the number of people excluded from employment due to first conviction would drop considerably. While prior research demonstrates that the absence of criminal justice system events over time can be informative to employers, the current analysis emphasizes how seemingly minor adjustments to DCL policies that incorporate these look-back windows can alter the consequences of such decision criteria.

Aligning DCLs with relevant correlates of recidivism and reducing potential biases from politicization of offense types addresses only the potential harm of misidentification. Our second main analysis more comprehensively examines the harmful costs of exclusion. We consider the potential implications of policies that expand the definition of a criminal record in two ways: by extending the SIDA disqualification look-back window (which pulls in older criminal records for consideration) and the use of arrest records. Under the current guidelines (10 years post-conviction), around one in five adults in our justice-involved sample would be disqualified for a SIDA-related conviction at age 31. This shifts to almost 27 percent with a 15-year conviction look-back window for this age group, 33 percent for a 10-year arrest look-back window, and almost 43 percent under the 15-year arrest look-back window. In other words, the most expansive criminal background check policy guideline change would more than double the number of people in New York in their early 30s who would automatically be excluded from an industry that hires thousands of SIDA-badged employees in that state. However, if disqualifying criteria were limited to the eight SIDA conviction types<sup>27</sup> with the highest rate of SIDA re-arrest (what we term “High SIDA” in Tables 2 and 3), between 9 percent (at age 41) and 19 percent (at age 26) of the sample would be disqualified, a substantial reduction. Even if we were to extend the look-back window to 15 years for High SIDAs, the highest proportion disqualified would be 23 percent at age 31, in contrast to the 27 percent disqualified with all SIDA offense types. Therefore, certain disqualification criteria for criminal records background checks may have merit, although replication using other data sources would verify these results.

Our final analysis highlights the enduring barriers disqualification policies can pose. Introducing the *age-consequence curve*, we demonstrate that while criminal activity peaks at younger ages, the cumulative consequence in employment restrictions lasts well into middle adulthood. At peak, 35 percent of the sample was disqualified, with eight percent disqualified for



15 years or more. These results indicate that seemingly small policy shifts in disqualifying criteria have the potential for substantial labor impacts within the aviation sector—just one of many who use disqualifying criteria for employment vetting. Age-graded collateral consequences limit employment opportunities, especially during re-entry periods, for entry-level occupations that employ hundreds of thousands around the country. Furthermore, as many occupational licensing prohibitions identified by the National Inventory of Collateral Consequences (2021) focus on felony convictions, the same group (or an overlapping set of individuals) is likely continuously blocked across a host of occupations within a variety of industries. Without a comprehensive dataset linking employment exclusions, it is difficult to estimate the full exclusionary impact for individuals with a felony conviction, but future research could build from the strategies employed here to generate national exclusion estimates.

The nature of DCLs also has important implications from a theoretical perspective. Criminologists, legal scholars, and economists are pursuing the utility of collateral consequence relief mechanisms and positive credentials in the hiring context, including certificates of rehabilitation, evidence of program completion, and reference letters from prior employers (e.g., - DeWitt and Denver 2020; Doleac 2016; Leasure and Anderson 2016). Such strategies create the potential for reducing criminal record stigma without waiting for 7–10 years to pass, enabling job applicants to sort themselves and signal desistance (Bushway and Apel 2012). These efforts also rely on the opportunity to apply and be considered, which is unavailable under the DCL policy. While time-restricted DCLs are not lifetime bans, they can cover a large portion of a person’s prime working years and derail the potential for establishing a strong career path, accumulating wealth, and maintaining desistance. Future studies with large employers that are open to novel approaches and relaxing binary decision rules will be critical next steps in desistance research, and examining alternatives to DCLs could alleviate some of the policy challenges detected here.

The current study has several limitations. Due to both anticipated “chilling effects” and the inability to use individual-level SIDA-badge applicant data based on current application screening processes, we used the New York State data to access detailed information on a large sample of individuals with in-state criminal records. As such, the results here are restricted to one state and employment context. While examining first convictions has several advantages, this approach does not capture the escalating nature of many criminal justice trajectories, and is an important area for future research. SIDA applicants may also differ in important ways

from a general population of adults with criminal records, and comparing the groups could be useful. In future research, it would be beneficial to study a group of people applying for SIDA badges who are eligible under the current DCL—both those who are ultimately successful and unsuccessful—and track their employment and recidivism outcomes over time to learn more about the internal assessment process. That type of study could also explore the potential risk suppression (or inflation) that employment (or denial) has on recidivism, a critical but often overlooked relationship (e.g., Bushway and Smith 2007).

A comparison with known insider threats and known/suspected terrorists would also advance research in this policy area. Two major challenges in preventing extreme events (such as terrorism) are rare events are difficult to predict a priori (Monahan 2012; Pressman and Flockton 2012) and many identified extremists and terrorists in the United States do not have prior criminal records (LaFree et al. 2018). Evidence on the use of criminal history records to identify risk for transportation security is still nascent, and while examining correlates of subsequent arrests through disqualifying conviction list policies is useful, assessments focusing only on criminal records may not fully capture the concept of transportation security risk. As Williams and colleagues (2020:64) describe, “reliance on criminal history as an isolated risk factor of terrorism to indiscriminately disqualify all applicants with criminal backgrounds will invariably lead to overwhelming numbers of false positives—that is, someone assessed to be a security risk who presents no actual terrorism threat.” In that sense, further broadening the scope of criminal record exclusion policies is even more problematic. Our results indicate that caution, rather than rapid expansion, should accompany the use of disqualification criteria for employment purposes.

Our results also indicate DCLs can become an architecture of collateral consequences lasting far beyond the majority age of conviction. While criminal history records can be used outside of the criminal justice system to identify desisters, the codification of instrumental and expressive sentiments into DCLs can also actively inhibit desistance and reintegration. The application of extensive look-back windows and broad offense categorizations exacerbates unequal access to widely-available employment for those with a criminal record. Unnecessary expansion of disqualified populations through unevaluated DCLs may also shift incentives *towards* re-offending. Pressure in recent years to not only use—but to expand—DCL criteria has come from both Congress (10- to 15-year windows) and the aviation community (shifting from conviction to an arrest standard). In the absence of other compelling reasons, our results support a narrow use of DCLs—conviction rather than

arrest data and only those disqualifying convictions that are meaningfully correlated with outcomes of interest. Ultimately, broad DCLs can penalize individuals with a criminal record by homogenizing riskiness among a heterogeneous population with long-lasting consequences.

### Appendix

**Table A1.** Comparison of SIDA/Non-SIDA Felony Offense Lists.

	Non-SIDA	SIDA
<b>Crimes Against Persons</b>		
Aggravated Assault		X
Assault with a Deadly Weapon	X	
Assault with Intent to Murder		X
Explosive Threat	X	
Kidnapping/Hostage Taking		X
Murder		X
Rape or Aggravated Sexual Abuse		X
Threat		X
<b>Crimes Against Property</b>		
Arson		X
Bribery		X
Burglary		X
Destruction/Damage of Property		X
Dishonesty, fraud or misrepresentation		X
Embezzlement	X	
Extortion		X
Larceny/Theft		X
Perjury	X	
Robbery		X
Stolen Property Possession/Distribution		X
<b>Crimes Against Society</b>		
Controlled Substance Distribution		X
Controlled Substance Importation/Manufacture		X
Controlled Substance Possession		X
Explosive Possession, Use, Distribution or Manufacture		X
Firearm Possession/Distribution/Use	X	

Note: The “other crimes” list contains several dozen conviction types, including misdemeanor larceny, other controlled substance possession, simple (misdemeanor) assault, misdemeanor fraud, and other fingerprintable offenses. Explosive threat is defined as “making any threat, or maliciously conveying false information knowing the same to be false, concerning the deliverance, placement, or detonation of an explosive or other lethal device in or against a place of public use, a state or government facility, a public transportation system, or an infrastructure facility.”

**Table A2.** SIDA Subarrest Rate Comparison: Post-conviction and Post-release by SIDA First Conviction Offense Type.

	Post-conviction (Percent)	Post-release (Percent)	Time Served (Years)
Non-SIDA Offenses	20	20	—
Any SIDA Offense	32	34	—
Crimes Against Persons			
Aggravated Assault	24	27	4.2
Assault with Intent to Murder	19	26	7.9
Kidnapping/Hostage Taking	11	13	6.2
Murder	7	13	24.6
Rape or Aggravated Sexual Abuse	11	13	2.8
Crimes Against Property			
Arson	17	21	5.0
Bribery	10	10	2.0
Burglary	38	41	3.2
Destruction/Damage of Property	29	31	2.0
Dishonesty, fraud or misrepresentation	18	19	1.1
Larceny/Theft	20	21	1.2
Robbery	40	43	2.9
Stolen Property Possession/ Distribution	39	40	1.1
Crimes Against Society			
Controlled Substance Distribution	41	42	1.1
Controlled Substance Possession	26	27	1.3
Explosive Possession, Use, Distribution or Manufacture	33	35	2.1

Note: Threat, extortion, and controlled substance importation/manufacturing have too few cases to report here. Time served is measured in days for the analysis but converted to years for the table. As noted in the results section, we estimated median time served by offense type from Hayes (2007) and Kohler-Hausmann (2018).

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### **Notes**

1. This list is updated monthly and available online: [https://oig.hhs.gov/exclusions/exclusions\\_list.asp](https://oig.hhs.gov/exclusions/exclusions_list.asp)
2. For example, the Gainesville-Alachua County Regional Airport Authority lists each disqualifying conviction type and instructs the applicant to sign and date to certify the absence of any of these convictions within 10 years. Above the signature line, the application states: “I understand that a knowing and willful false statement on this application can be punished by fine or imprisonment or both (see Section 1001 of Title 18 United States Code.” Available online: [https://gra-gnv.com/flygainesville.com/wp-content/uploads/2019/01/SIDA\\_Appl\\_12-2018.pdf](https://gra-gnv.com/flygainesville.com/wp-content/uploads/2019/01/SIDA_Appl_12-2018.pdf). From our review of SIDA applications from the ten largest airports in the United States (based on enplanements at commercial service airports; FAA/ACAIS 2021), the full list of disqualifying convictions is displayed prominently on all main applications, with one potential exception (which had a one-page form listing the disqualifying offenses that appeared to accompany the main application). The way this information was displayed ranged from “please explain” to explicit denial (e.g., “A conviction for any offense (even a misdemeanor offense) listed in 49 CFR 1542.209 will disqualify an individual from receiving a MLB security identification badge.”)
3. As an example, laborers and freight handlers have a median wage of \$19.37 in the Air Transportation Sector (mean = \$22.89), which is notably higher than the

same positions in the Warehousing and Storage sector, with a median of \$15.71 and mean of \$16.69 (Bureau of Labor Statistics 2020b).

4. For example, Blumstein and Nakamura (2009: footnote 7) mention a federal website that discusses exclusion rules for obtaining a TWIC card where certain convictions are disqualifying if they occurred within the past seven years.
5. Disqualifying convictions include: murder, intent to commit murder, rape, felony weapons offenses, aggravated assault, kidnapping, arson, distribution of a controlled substance, drug possession, importing drugs, robbery, burglary, extortion, fraud, felony threat, bribery, stolen property, destruction, and theft.
6. DCJS considers data access requests from researchers through an application process ([dcjs.researchrequests@dcjs.ny.gov](mailto:dcjs.researchrequests@dcjs.ny.gov)). The authors will provide Stata .do files for replication upon request.
7. Note that ethnicity is captured in a different Census item, and these figures do not take ethnicity into account.
8. In New York State, the age of majority was 16 years old during the timeframe of our study. It was raised to 17 years in October 2018, and 18 years old in October 2019, but neither change impacts the results of this study (as our inclusion period is first arrest between 1990 and 2005, when the age of majority was constant).
9. For example, if a person has their first in-state arrest in 2000 and the case is dismissed, the NYSID is destroyed. If that same person has an arrest that leads to a conviction in 2002, the new NYSID becomes permanent and contains the arrest and disposition information. The person's permanent NYSID cannot be linked to the 2000 arrest event, but will be connected to all future in-state arrests and convictions for that person. As a result, our second set of results will be conservative estimates. We define recidivism as arrests that occur after a conviction, so these data complications do not influence measurement error for our outcome of interest.
10. We also explored imputation based on offense type (violent, property, drug, other), and the results were substantively the same.
11. 43,970 cycles have either an interim or no disposition information; 2,105 cases resulted in a disposition for an infraction; 89,490 cycles have no disposition information. Individuals with cycles containing missing dates for their first conviction are removed from the sample (since they do not have a conviction date to start a look-back window).
12. If the arrest month was after the month of the disposition, we used the following year. The results are the same when the 266 cycles are excluded from the analysis.
13. 49 CFR § 1542.209(d). The 36 offenses are nested within 28 conviction types. Out of those, 13 offenses are airport or aircraft-related, and an additional three

offenses are federal only (treason, sedition, and espionage) and are not captured in state criminal record databases. Finally, an additional listed offense was conspiracy to commit any of the other disqualifying offenses. In New York State, conspiracy charges are nested within the original criminal offense, and therefore captured within other disqualifying crime categories. In total, 17 of the specific offenses were not included in the analysis due to their context-specificity, inclusion within other offense types, or being outside the jurisdiction of state criminal history repositories.

14. The use of conviction data and the process of defendants pleading to lower charges can mask potential risk indicators that arrest information might provide. However, in addition to the ethical issues described earlier, federal guidance also recommends using conviction rather than arrest information in most cases (EEOC 2012). We use conviction events as the starting point and subsequent arrests as a recidivism measure.
15. For example, while there is a prohibition for serving in any branch of military with a felony record (10 U.S.C. 504), applicants with a single felony conviction can apply for a waiver (Lundquist, Pager and Strader 2018).
16. Most non-SIDA offenses are misdemeanors. Common non-SIDA felonies include driving while intoxicated, distribution of obscene material, prostitution, and intimidation. While there may be other relative comparisons of interest, researchers have found it difficult to establish baseline recidivism estimates, and caution that employers and industries have varying risk tolerance thresholds (DeWitt et al. 2017). Rather than developing our own threshold for acceptable risk levels, we use the offense types intentionally excluded from SIDA legislation—which undergo discretionary review rather than automatic disqualification—as a comparison.
17. In a set of supplemental models we also control for demographic variables that are common correlates of recidivism and notably vary by SIDA classification in our descriptive statistics—sex, age, and race—in logit regression models to explore whether the comparisons change under those conditions. In those models the reference group is any non-SIDA felony or misdemeanor. Six of the eight offenses identified in the main results were the same (exceptions: aggravated assault and destruction), and two new offenses appeared as positively correlated with recidivism (fraud and theft). Individuals with these first convictions were more likely to be female (37 percent for theft and 40 percent for fraud, compared with 14 percent for any SIDA first conviction) and older (33 years old at first conviction for both offense types, compared with an average first conviction age of 27 years old across SIDAs) than others with a SIDA first conviction. Full results are available upon request.

18. DCJS data prior to 2002 did not record a separate ethnicity indicator for Hispanic/Non-Hispanic. As such, it is difficult to estimate the proportion of the overall sample that was Hispanic.
19. In cases with multiple cycles for a person with the same conviction date listed as the earliest, we rank ordered severity as the following: violent (most serious), property, drug, and other (least serious). We used the National Incident-Based Reporting System (NIBRS) classification structure, which is more inclusive than the FBI's Uniform Crime Reporting system (Akiyama, Yoshio, and Nolan 1999).
20. The felony subarrest rates are similar to the SIDA rates, with the exception of the non-SIDA category. These rates are displayed but not separately discussed here because all SIDAs are felony-level offenses.
21. Although time served for non-SIDA offenses was not as readily available, we used estimates from Hayes (2007) for the felony non-SIDAs. The most common non-SIDA felonies were all around 24 months. For misdemeanors, we used estimates from Kohler-Hausmann's (2018) book *Misdemeanorland*, which uses DCJS data in New York City. She writes: "In recent years, just under half of the jail sentences imposed were ten days or shorter; between 70-84% were 30 days or shorter. The actual time spent in custody is less than the imposed sentences . . ." (p. 70, fig. 2.3). We selected 15 days as a conservative estimate.
22. The one exception is theft, which appears for three of the SIDA subarrest variables in the follow-up window analysis.
23. Our original sample focused on individuals whose first adult arrest (age 16 and older) occurred between 1990 and 2005. This group reflects individuals who could apply for employment within the aviation sector and who also had a long-enough follow-up period for calculating disqualification windows of 10 years post-conviction. While suited for those original analyses, the selection criteria remove individuals who were old enough to be included (i.e., at least age 16 by 2005), but whose first arrest occurred outside the timeframe. To conduct an analysis where we know everyone had the same timeframe of coverage, we needed to subsample on individuals not old enough to be excluded (no older than 16 years old in 1990) and whose first arrest occurred before December 31, 2005. Thus, we subsample on individuals born between 1974 and 1977, which provides the universe of known individuals with criminal records in New York State who were 16 years old between 1990 and 1993, assuming two criteria are fulfilled: 1) they were convicted of their first offense (inclusion criteria for our original sample); and 2) they started their adult criminal justice system involvement before the age of 28 (those born in 1977 would have been 28 in 2005, the end of our inclusion period).
24. This group also consists of several offenses with longer potential incarceration stays than the average SIDA. However, the analysis accounting for time served



- did not alter these results, and with the exception of murder, the offenses in this group had a median stay of under eight years (i.e., not the full decade timeframe).
25. Theft may be an exception, depending on the employment context, because nonviolent crimes are often easier to compensate relative to violent crimes in the workplace. For example, the federal bonding program provides business insurance to employers for monetary or property losses as a result of employee dishonesty, and covers certain nonviolent offenses (theft, forgery, larceny or embezzlement).
  26. The exception is the drug possession rate dropping below the non-SIDA recidivism rate.
  27. The eight offenses include: burglary, distribution of a controlled substance, robbery, stolen property, destruction, weapon offense, drug possession, and aggravated assault.

## References

- Akiyama, Yoshio and James Nolan. 1999. "Methods for Understanding and Analyzing NIBRS Data." *Journal of Quantitative Criminology* 15:225-38.
- Albright, Shelley and Furjen Denq. 1996. "Employer Attitudes toward Hiring Ex-offenders." *The Prison Journal* 76(2):118-37.
- Alpert, Geoffrey P., John M. MacDonald, and Roger G. Dunham. 2005. "Police Suspicion and Discretionary Decision Making During Citizen Stops." *Criminology* 43:407-34.
- Andrews, Don A., James Bonta, and Stephen Wormith. 2006. "The Recent Past and Near Future of Risk and/or Need Assessment." *Crime & Delinquency* 52:7-27.
- Apel, Robert and Julie Horney. 2017. "How and why does Work Matter? Employment Conditions, Routine Activities, and Crime among Adult Male Offenders." *Criminology* 55(2):307-43.
- Armstrong, Todd A. and Chester L. Britt. 2004. "The Effect of Offender Characteristics on Offense Specialization and Escalation." *Justice Quarterly* 21:843-76.
- Aviation Security Advisory Committee. 2015, July. *Final Report of the Aviation Security Advisory Committee's Working Group on Airport Access Control*. Washington, DC: Security Administration.
- Baker, Thomas, Christi Falco Metcalfe, and Wesley G. Jennings. 2013. "What Are the Odds? Predicting Specialization in Offending Over the Life Course." *Criminal Justice and Behavior* 40(8):909-32.
- Bersani, Bianca E. and Doherty Elaine E.. 2018. "Desistance from Offending in the Twenty-First Century." *Annual Review of Criminology* 1: 311-334.

- Blokland, Arjan A. J., Daniel Nagin, and Paul Nieuwebeerta. 2005. "Life Span Offending Trajectories of a Dutch Conviction Cohort." *Criminology* 43(4): 919-54.
- Blumstein, Alfred, Jacqueline Cohen, Somnath Das, and Soumyo D. Moitra. 1988. "Specialization and Seriousness during Adult Criminal Careers." *Journal of Quantitative Criminology* 27:303-45.
- Blumstein, Alfred and Kiminori Nakamura. 2009. "Redemption in the Presence of Widespread Criminal Background Checks." *Criminology* 47:327-59.
- Bureau of Labor Statistics. 2020a. *Industries at a Glance: Air Transportation, NAICS 481*. Retrieved March 30, 2020 (<https://www.bls.gov/iag/tgs/iag481.htm>).
- Bureau of Labor Statistics. 2020b. National Industry-Specific Occupational Employment and Wage Estimates. Retrieved July 2021 ([https://www.bls.gov/oes/current/naics3\\_481000.htm](https://www.bls.gov/oes/current/naics3_481000.htm)).
- Bushway, Shawn D. 2011. "Estimating Empirical Blackstone Ratios in Two Settings: Murder Cases and Hiring." *Albany Law Review* 74:1087-104.
- Bushway, Shawn D. and Robert Apel. 2012. "A Signaling Perspective on Employment-based Reentry Programming: Training Completion as a Desistance Signal." *Criminology & Public Policy* 11(1):21-50.
- Bushway, Shawn D. and Nidhi Kalra. 2021. "A Policy Review of Employers' Open Access to Conviction Records." *Annual Review of Criminology*. doi: 10.1146/annurev-criminol-061020-021622
- Bushway, Shawn D., Paul Nieuwebeerta, and Arjan Blokland. 2011. "The Predictive Value of Criminal Background Checks: Do Age and Criminal History Affect Time to Redemption?" *Criminology* 49(1):27-60.
- Bushway, Shawn and Jeffrey Smith. 2007. "Sentencing using Statistical Treatment Rules: What We Don't Know Can Hurt Us." *Journal of Quantitative Criminology* 23(4):377-87.
- Cerda, Jessica A., Douglas M. Stenstrom, and Mathew Curtis. 2015. "The Role of Type of Offense and Work Qualifications on Perceived Employability of Former Offenders." *American Journal of Criminal Justice* 40(2):317-35.
- D'Alessio, Stewart J. and Lisa Stolzenberg. 2003. "Race and the Probability of Arrest." *Social Forces* 81:1381-97.
- Denver, Megan. 2017. "Evaluating the Impact of 'Old' Criminal Conviction Decision Guidelines on Subsequent Employment and Arrest Outcomes." *Journal of Research in Crime and Delinquency* 54(3):379-408.
- Denver, Megan. 2020. "Criminal Records, Positive Credentials and Recidivism: Incorporating Evidence of Rehabilitation into Criminal Background Check Employment Decisions." *Crime & Delinquency* 66(2):194-218.

- Denver, Megan and Alec Ewald. 2018. "Credentialing Decisions and Criminal Records: A Narrative Approach." *Criminology* 56(4):715-49.
- Denver, Megan, Justin T. Pickett, and Shawn D. Bushway. 2017. "The Language of Stigmatization and the Mark of Violence: Experimental Evidence on the Social Construction and Use of Criminal Record Stigma." *Criminology* 55(3): 664-90.
- Denver, Megan, Garima Siwach, and Shawn D. Bushway. 2017. "A New Look at the Employment and Recidivism Relationship through the Lens of a Criminal Background Check." *Criminology* 55(1):174-204.
- DeWitt, Samuel E., Shawn D. Bushway, Garima Siwach, and Megan C. Kurlychek. 2017. "Redeemed Compared to Whom? Comparing the Distributional Properties of Arrest Risk across Populations of Provisional Employees with and Without a Criminal Record." *Criminology & Public Policy* 16(3):963-97.
- DeWitt, Samuel E. and Megan Denver. 2020. "Criminal Records, Positive Employment Credentials, and Race." *Journal of Research in Crime and Delinquency* 57(3):333-68.
- Doleac, Jennifer L. 2016. *December 15. Forget "Ban the Box" and Give Ex-Prisoners Employability Certificates*. Op-Ed, Brookings Institute.
- Electronic Code of Federal Regulations. 2020. *Title 49: Transportation*. Retrieved February 17, 2020 ([https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&ty=HTML&h=L&mc=true&=PART&n=pt49.5.391#se49.5.391\\_115](https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&ty=HTML&h=L&mc=true&=PART&n=pt49.5.391#se49.5.391_115)).
- Equal Employment Opportunity Commission (EEOC). 2012. *EEOC Enforcement Guidance: Consideration of Arrest and Conviction Records in Employment Decisions under Title VII of the Civil Rights Act of 1964*. Washington DC: U.S. EEOC. [http://www.eeoc.gov/laws/guidance/upload/arrest\\_conviction.pdf](http://www.eeoc.gov/laws/guidance/upload/arrest_conviction.pdf).
- FAA/CAIS. 2021. Preliminary CY 2020 Enplanements at Commercial Service Airports, Rank Order. Retrieved June 9, 2021 ([https://www.faa.gov/airports/planning\\_capacity/passenger\\_allcargo\\_stats/passenger/media/preliminary-cy20-commercial-service-enplanements.pdf](https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/media/preliminary-cy20-commercial-service-enplanements.pdf)).
- Farrington, David P. 1986. "Age and Crime." *Crime and Justice* 7:189-250.
- Farrington, David P. 1987. "Predicting Individual Crime Rates." *Crime and Justice* 9:53-101.
- Federal Deposit Insurance Corporation (FDIC). 2018. *FDIC Statement of Policy for Section 19 of the FDI Act*. Retrieved February 17, 2020 (<https://www.fdic.gov/regulations/laws/rules/5000-1300.html>).
- Fields, Gary and John R. Emshwiller. 2014. "As Arrest Records Rise, Americans Find Consequences Can Last a Lifetime." *Wall Street Journal*, August 18. Retrieved July 1, 2020. <https://www.wsj.com/articles/as-arrest-records-rise-americans-find-consequences-can-last-a-lifetime-1408415402>.

- Goggins, Becki R. and Dennis A. DeBacco. 2018. *Survey of State Criminal History Information Systems, 2016: A Criminal Justice Information Policy Report*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Goldstein, Joseph. 1960. "Police Discretion Not to Invoke the Criminal Process: Low-visibility Decisions in the Administration of Justice." *The Yale Law Journal* 69:543-94.
- Harris, Patricia M. and Kimberly S. Keller. 2005. "Ex-offenders Need Not Apply: The Criminal Background Check in Hiring Decisions." *Journal of Contemporary Criminal Justice* 21(1):6-30.
- Hayes, Michael T. 2007. *Statistical Overview: Year 2006 Discharges*. Albany: State of New York Department of Correctional Services.
- Hirschi, Travis and Michael Gottfredson. 1983. "Age and the Explanation of Crime." *American Journal of Sociology* 89:552-84.
- Holder, Eric. 2013. *Memorandum to the United States Attorneys and Assistant Attorney General for the Crime Division*. Washington, DC: Office of the Attorney General. Retrieved June 15, 2021. <https://www.justice.gov/sites/default/files/oip/legacy/2014/07/23/ag-memo-department-policyon-charging-mandatory-minimum-sentences-recidivist-enhancements-in-certain-drugcases.pdf>.
- Holzer, Harry J. 1996. *What Employers Want: Job Prospects for Less-educated Workers*. New York: Russell Sage Foundation.
- Holzer, Harry J., Steven Raphael, and Michael A. Stoll. 2004. "How Willing Are Employers to Hire Ex-offenders?" *Focus* 23(2):40-43.
- Holzer, Harry J., Steven Raphael, and Michael A. Stoll. 2006. "Perceived Criminality, Criminal Background Checks, and the Racial Hiring Practices of Employers." *Journal of Law and Economics* 49:451-80.
- Husley, Lonnie F. 1990. *Attitudes of Employers with Respect to Hiring Released Prisoners*. Mankato, MN: Mankato State University.
- Jaynes, Chae M. 2020. "The Relationship between Job Quality and Crime: Examining Heterogeneity in Treatment and Treatment Effect." *Journal of Research in Crime and Delinquency* 57(6):693-740.
- King, Allan G. and Rod M. Fliegel. 2010. "Conviction Records and Disparate Impact." *ABA Journal of Labor and Employment Law* 26:405.
- Kochel, Tammy Rinehart, David B. Wilson, and Stephen D. Mastrofski. 2011. "Effect of Suspect Race on Officers' Arrest Decisions." *Criminology* 49: 473-512.
- Kohler-Hausmann, I. (2018). *Misdemeanorland: Criminal Courts and Social Control in an Age of Broken Windows Policing*. Princeton, NJ: Princeton University Press.

- Korzenik, Jeffrey D. (2021). *Untapped Talent: How Second Chance Hiring Works for Your Business and the Community*. Nashville, TN: HarperCollins Leadership.
- Kuhn, Kristine M. 2019. "Is It Disqualifying? Practitioner Responses to Criminal Offenses in Hiring Decisions." *Equality, Diversity and Inclusion: An International Journal* 38(5):547-63.
- Kurlychek, Megan C., Robert Brame, and Shawn D. Bushway. 2006. "Scarlet Letters and Recidivism: Does an Old Criminal Record Predict Future Offending?" *Criminology and Public Policy* 5:483-504.
- Kurlychek, Megan C., Robert Brame, and Shawn D. Bushway. 2007. "Enduring Risk? Old Criminal Records and Predictions of Future Criminal Involvement." *Crime & Delinquency* 53:64-83.
- LaFree, Gary, Michael A. Jensen, Patrick A. James, and Safer-Lichtenstein Aaron. 2018. "Correlates of Violent Political Extremism in the United States." *Criminology* 56:233-68.
- Lageson, Sarah E., Mike Vuolo, and Christopher Uggen. 2015. "Legal Ambiguity in Managerial Assessments of Criminal Records." *Law & Social Inquiry* 40(01): 175-204.
- Leasure, Peter and Tia Stevens Andersen. 2016. "The Effectiveness of Certificates of Relief as Collateral Consequence Relief Mechanisms: An Experimental Study." *Yale Law & Policy Review* 35:11-22.
- Lundquist, Jennifer Hickes, Devah Pager, and Eiko Strader. 2018. "Does a Criminal Past Predict Worker Performance? Evidence from one of America's Largest Employers." *Social Forces* 96(3):1039-1068.
- MacDonald, John M., Amelia Haviland, Rajeev Ramchand, Andrew R. Morral, and Alex R. Piquero. 2014. "Linking Specialization and Seriousness in Criminal Careers." *Advances in Life Course Research* 20:43-55.
- Maruna, S. (2009). "'Virtue's Door Unsealed is Never Sealed Again': Redeeming Redemption and the Seven-Year Itch." Pp. 52-60 in *Contemporary Issues in Criminal Justice Policy: Policy Proposals From the American Society of Criminology Conference*, edited by Natasha A. Frost, Joshua D. Freilich, and Todd R. Clear. Belmont, CA: Cengage/Wadsworth.
- Mazerolle, Paul, Robert Brame, Ray Paternoster, Alex Piquero, and Charles Dean. 2000. "Onset Age, Persistence, and Offending Versatility: Comparisons across Gender." *Criminology* 38:1143-72.
- Monahan, James. 2012. "The Individual Risk Assessment of Terrorism." *Journal of Psychology, Public Policy and Law* 18:167-205.
- National Inventory of Collateral Consequences of Conviction. 2021. Retrieved July 1, 2020. <https://niccc.nationalreentryresourcecenter.org/>
- New York State Department of Labor. 2020. Major Areas, Current Employment Estimates: Employment by Industry. Seasonally Adjusted Employment Data for

- New York State and Metro Areas. Estimates as of March 2020. Retrieved July 1, 2020. <https://labor.ny.gov/stats/lscsmaj.shtm>
- Nieuwebeerta, P., A. A. Blokland, A. R. Piquero, and G. Sweeten. 2011. "A Life-course Analysis of Offense Specialization across age: Introducing a New Method for Studying Individual Specialization Over the Life Course." *Crime & Delinquency* 57(1):3-28.
- Office of Inspector General. 2016. *National Background Check Program for Long-Term-Care Employees: Interim Report*. Department of Health and Human Services (OEI-07-10-00420).
- Pager, Devah. 2007. *Marked: Race, Crime, and Finding Work in an Era of Mass Incarceration*. Chicago, IL: University of Chicago Press.
- Pfaff, John. 2017. *Locked in: The True Causes of Mass Incarceration-and how to Achieve Real Reform*. New York, NY: Basic Books.
- Piquero, Alex R. 2000. "Frequency, Specialization, and Violence in Offending Careers." *Journal of Research in Crime and Delinquency*. 37:392-418.
- Pressman, D. Elaine and John Flockton. 2012. "Calibrating Risk for Violent Political Extremists and Terrorists: The VERA 2 Structured Assessment." *Journal of Forensic Practice* 14:237-51.
- Quetelet, Adolphe. 1831. *Research on the Propensity to Crime of Different Ages*. Brussels, Belgium: Hayez.
- Richards, Pamela and Charles R. Tittle. 1981. "Gender and Perceived Chances of Arrest." *Social Forces* 59:1182-99.
- Rodriguez, Michelle N. and Beth Avery. 2016. *Unlicensed & Untapped: Removing Barriers to State Occupational Licenses for People with Records*. Washington, DC: National Employment Law Project.
- Sampson, Robert J. and John H. Laub. 2005. "A Life-course View of the Development of Crime." *The Annals of the American Academy of Political and Social Science* 602(1):12-45.
- Schnepel, Kevin T. 2018. "Good Jobs and Recidivism." *The Economic Journal* 128(608):447-69.
- Schnepel, Kevin T. 2017. "Do Post-prison Job Opportunities Reduce Recidivism?" *IZA World of Labor* 399. Retrieved June 15, 2021. <https://doi.org/10.15185/izawol.399>.
- Schulenberg, Jennifer L. 2015. "Moving Beyond Arrest and Reconceptualizing Police Discretion: An Investigation into the Factors Affecting Conversation, Assistance, and Criminal Charges." *Police Quarterly* 18:244-71.
- Sessions, J. 2017. *Memorandum for All Federal Prosecutors*. Washington, DC: Office of the Attorney General. <https://www.justice.gov/opa/press-release/file/965896/download>

- Shannon, Sarah K. S., Christopher Uggen, Jason Schnittker, Melissa Thompson, Sara Wakefield, and Michael Massoglia. 2017. "The Growth, Scope, and Spatial Distribution of People with Felony Records in the United States, 1948–2010." *Demography* 54:1795-1818.
- Siwach, Garima and Shawn D. Bushway. 2017. "Adaption of Risk Tools to the Employment Context." Pp. 292-311 in *Risk and Need Assessment: Theory and Practice*, edited by F.S. Taxman and A. Dezember. Abingdon, VA: Routledge.
- Siwach, Garima, Shawn D. Bushway, and Megan Kurlychek. 2017. "Legal Mandates in Criminal Background Checks: An Evaluation of Disparate Impact in New York State" (June 14, 2017). SSRN Working Paper #2986384.
- Society for Human Resource Management. 2018. "Workers with Criminal Records: A Survey by the Society for Human Resource Management and the Charles Koch Institute." Retrieved July 1, 2020. <https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/pages/second-chances.aspx>
- Sullivan, Christopher J., Jean Marie McGloin, Travis C. Pratt, and Alex R. Piquero. 2006. "Rethinking the 'Norm' of Offender Generality: Investigating Specialization in the Short-term." *Criminology* 44(1):199-233.
- Sullivan, Christopher J., Jean Marie McGloin, James V. Ray, and Michael S. Caudy. 2009. "Detecting Specialization in Offending: Comparing Analytic Approaches." *Journal of Quantitative Criminology* 25(4):419-41.
- Taxman, Faye and Amy Dezember. 2017. "The Value and Importance of Risk and Need Assessment (RNA) in Corrections and Sentencing." Pp. 1-20 in *Risk and Need Assessment: Theory and Practice*, edited by F.S. Taxman and A. Dezember. Abingdon, VA: Routledge.
- Transportation Security Administration. 2018. *SIDA Airport Security: Fiscal Year 2017 Report to Congress*. Washington, D.C.: U.S. Department of Homeland Security.
- U.S. Census Bureau. 2019. *Quick Facts: 2019*. Retrieved July 1, 2020. <https://www.census.gov/quickfacts/>
- U.S. Government Accountability Office. 2017. Critical Infrastructure Protection: Additional Actions by DHS Could Help Identify Opportunities to Harmonize Access Control Efforts (GAO-17-182). Report to Congressional Committees. Washington, DC: U.S. Government Accountability Office.
- Williams, Heather J., Kristin Van Abel, David Metz, James V. Marrone, Edward W. Chan, Katherine Costello, Ryan Michael Bauer, Hill Devon, Véronneau Simon, Chang Joseph C., Mitch Ian, Traub Joshua L., Soliman Sarah, Haldeman Zachary, Klima Kelly, and Ligor Douglas. 2020. *The Risk-Mitigation Value of the*

*Transportation Worker Identification Credential: A Comprehensive Security Assessment of the TWIC Program*. Document Number: RR-3096-DHS. Homeland Security Operational Analysis Center operated by the RAND Corporation. Yan, Shi. 2019. "Does Criminal Specialization Predict Case Processing?" *Crime & Delinquency* 65(12):1648-88.

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