Does jail contribute to individuals churning in and out of the criminal legal system? A quasi-experimental evaluation of pretrial detention on time until new arrest

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Abstract

Objectives: The current study was designed to evaluate the effects of time spent in pretrial detention on the number of days from release until experiencing an arrest for a new offense and a new violent offense.

Methods: Using a sample of 16,198 individuals from three counties in the United States, the quasi-experimental evaluation relied on the doubly robust framework to estimate the effects of spending more than 7 days in pretrial detention – compared to spending 1 day or less in pretrial detention – on the number of days from release until a new arrest. The analysis estimate the Average Treatment Effects of spending than 7 days in pretrial detention on the number of days until experiencing a new arrest or new violent arrest using a fixed effects parametric survival model weighted using an Inverse Probability Weight. The primary models were replicated using spending more than 1 day in pretrial detention and spending more than 3 days in pretrial detention, in comparison to spending 1 day or less in pretrial detention

Results: The results of the current study suggest that spending more than 7 days in pretrial detention was associated with an increased probability of a new arrest and new violent arrest earlier when compared to spending 1 day or less in pretrial detention.

Conclusions: This research is consistent with the prior literature, suggesting that spending more time in pretrial detention might be criminogenic and contribute to an increased rate of churn through the county jail.

Keywords: Pretrial Detention; Time Until a New Arrest; Doubly Robust Survival Model; Jail

1. Introduction

There are approximately 7 million admissions to jail per-year in the United States, with many these admissions being associated with pretrial detention (Zeng, 2022). Scholars have dedicated a considerable amount of time examining how pretrial detention effects the lives of those detained, being that pretrial detention is commonly purported as an important mechanism for maintaining public safety (e.g., Campbell et al., 2020; Digard and Swavola, 2019; Smith, 2022). This research, largely, has challenged claims about the benefits for public safety, with evidence suggesting that longer periods of pretrial detention are associated with an increased likelihood of an individual being arrested for a new offense during pretrial relative to shorter durations (Lowenkamp et al., 2013). This pattern of findings has been supported by recent research, which has suggested that being detained for more than 1 day, more than 3 days, and more than 7 days during pretrial increases the likelihood of an individual being arrested for a new offense and new violent offense during the pretrial period (DeMichele et al., 2023). Despite the expansive literature on pretrial detention, little is known about how pretrial detention contributes to the "***enormous churn***" of individuals in and out of the criminal legal system (Sawyer and Wanger, 2023). To our knowledge, no research has examined how pretrial detention contributes to the speed at which individuals are arrested for a new offense after their release from jail to date. This gap in the literature necessitates examination, as it is important to implement policies and practices that could address the churn of the criminal legal system. Briefly, churn is referring to the process of individuals transitioning from jail to the community and then back to jail again as a continuous process.

Despite this gap in the pretrial literature, numerous empirical studies have evaluated the effects of length of confinement on how quickly post-conviction populations recidivate. The

1

mixed findings suggest that in some contexts time spent incarcerated in prison could result in increases in the time until recidivism, decreases in time until recidivism, or no effect on time until recidivism (see e.g., Jung et al., 2010; Rydberg and Clark, 2016; and Spivak and Damphousse, 2006). Although these findings can guide the development of assumptions related to the effects of pretrial detention, research on post-conviction populations has limited applicability to pretrial populations as: 1) pretrial populations are still considered innocent, 2) pretrial populations serve relatively short periods of confinement (e.g., < 60 days), and 3) pretrial populations are more diverse in regards to their offense (e.g., minor misdemeanors, felony offenses; Lowenkamp et al., 2013; Lowenkamp, 2022). The current study set forth to examine the effects of time spent in pretrial detention on the number of days until an individual experiences a new arrest or a new arrest for a violent offense. The findings of the current study provide insight into how pretrial detention may influence the speed of individuals churning in and out of the system, further enhancing our understanding of the effects of pretrial detention on community members.

2. Pretrial Detention

Pretrial is characterized as the period between being arrested for a possible offense and the conclusion of the case by the court system (e.g., case dismissed or adjudication; Appleman, 2012). Every individual involved in the criminal legal system experiences a period on pretrial, with many individuals spending less than two months on pretrial, conditional upon the speed at which the court can process the case (Holsinger & Holsinger, 2018; Lowenkamp et al., 2013). At this stage of the criminal legal system, all defendants are considered innocent until it is determined by the court that he or she committed an offense. Regardless of the presumption of innocence, it is legally permissible for the court to detain an individual during pretrial if 1) the

2

defendant is perceived as a threat to society or another individual in most states or 2) the

defendant is unlikely to show up to court if released into the community in some states (Heaton,

2020; Monaghan et al., 2022). In most instances, however, the court assigns a bail/bond to a case

as a condition of release. Bail/bond permits an individual to secure their release into the

community during pretrial by providing financial collateral to the court. These bail/bond

amounts vary – often conditional upon the offense – and could be paid by the defendant at any

point to secure release. With these pretrial policies in place, the amount of time individuals spend

in jail is highly variable, with some spending less than 24 hours and, although rare, some

spending upwards of multiple years in pretrial detention (Lowenkamp, 2022).

Decisions to detain defendants pretrial and the length of time spent on pretrial detention

are largely influenced by the perceived risk an individual poses to the community and the

perceived likelihood of an individual missing his or her court hearings. In part, pretrial detention

is intended to maintain public safety by incapacitating risky and dangerous defendants in jail

prior to adjudication (Heaton et al., 2017). Proponents of pretrial detention suggest that certain

defendants have a higher likelihood of committing a new offense if released back into the

community, and these individuals should be detained to prevent new crimes and protect

community members from potential victimization (Stevenson & Mason, 2022). In the short term,

pretrial detention can divert defendants from committing new offenses through incapacitation

(Leslie & Pope, 2017). Yet, the effectiveness of pretrial detention as a deterrent is dependent on

the accurate identification of defendants who pose a substantial risk to public safety. However,

the overuse of pretrial detention and incapacitation of defendants that are unlikely to commit a

new offense upon release may detrimentally impact defendants and lead to more adverse

consequences in the long term.

2.1. The Criminogenic Effects of Pretrial Detention

Like spending time in jail post-conviction, research has largely suggested that spending time in jail during pretrial has detrimental effects. For example, recent research by Dobbie and colleagues (2018) provided evidence suggesting that pretrial detention reduces future employment. Similarly, scholarship has demonstrated that spending time in pretrial detention is associated with the disruption of preexisting familial units (Wakefield and Andersen, 2020), diminished health (Csete, 2010), diminished residential stability, and negative impacts on dependent children (Holsinger and Holsinger, 2018). Moreover, pretrial detention generates substantive instability in an individual's life, removing a variety of prosocial opportunities and contributing to the stigma of being involved in the criminal legal system. This removal of prosocial opportunities and stigma is postulated to heighten the likelihood of future involvement in the criminal legal system by placing strain on an individual's life while in the community (Berg & Huebner, 2011; Dobbie & Yang, 2021). The detrimental impact of pretrial detention is expected to hinder success during reentry and, in turn, increase the likelihood of individuals becoming rearrested and readmitted to jail. Reentry, in the current context, is used to describe the process of an individual reentering society from jail after being detained during pretrial.

The effects of detention are evident from prior pretrial research, which has produced empirical evidence highlighting that pretrial detention is associated with increases in failure to appear (Monaghan et al., 2022; Tafoya, 2015) and new criminal arrests (Lowenkamp, 2022). Moreover, recent research has suggested that the number of days an individual spends in pretrial detention is associated with detrimental behavioral outcomes upon reentry. DeMichele and colleagues (2023) found that individuals spending more than 7 days in pretrial detention was associated with an increased likelihood of new criminal arrest and new violent criminal arrest

4

when compared to individuals who were detained for 1 day or less during pretrial. These findings coincided with evidence suggesting that spending more than 7 days in pretrial detention resulted in substantive increases in the likelihood of failure to appear and conviction.

In addition to DeMichele et al. (2023), other scholars have reported that spending more time in pretrial detention could be detrimental for pretrial outcomes and the likelihood of being arrested for a new offense or new violent offense (Lowenkamp, 2022). While the contemporary literature has examined how the time spent in pretrial detention influences the likelihood of experiencing an arrest for a new crime, limited empirical research has considered how time spent in jail during pretrial influences the speed at which someone becomes arrested (Holsigner, 2016; Monaghan et al., 2022). It is imperative to address this gap in research as the time spent in pretrial detention could further influence how soon individuals are arrested for a new offense after pretrial detention, placing strain on the criminal legal system sooner and contributing to the *churn*.

3. Time Until Recidivism After Confinement

This gap in pretrial research, however, can be informed by contemporary research examining the speed at which individuals recidivate after spending time in jail or prison post-conviction. Despite evidence suggesting that jail and prison populations are often rearrested shortly after release, research has produced mixed findings with regards to the effect of time incarcerated on time until recidivism. For example, Jung and colleagues (2010) found that the number of days individuals spent in the jail was associated with increases in the number of days until an individual was rearrested. This finding was supported by other research, like Spivak and Damphousse (2006) who found evidence that the number of months an individual served in prison was associated with an increase in the number of days until recidivism.

5

The existing scholarship has also produced evidence that the length of time incarcerated is not associated with time until recidivism. For example, Rydberg and Clark (2016) found that the sentence length of an individual was not associated with decreases or increases in time until recidivism until about 4-years spent incarcerated and then associated with increases in time until recidivism for those individuals that spent over 4-years incarcerated. Similarly, scholarship using robust analytical techniques have demonstrated that length of incarceration appears to reduce the hazard of recidivism by approximately 10 percent (Rhodes et al., 2018). Overall, the literature – with regards to time until recidivism – is mixed, suggesting that no pattern of findings clearly exists concerning the association between time incarcerated and sentence length. Notably, this lack of consistent findings exists despite the longstanding scholarship observing the effects of the carceral environment on recidivism rates (Cullen et al., 2011; Loeffler & Nagin, 2022). The mixed findings in the post-conviction literature further highlights the importance for examining this association with pretrial populations, as the effects of time spent in jail could be more salient for individuals that have not been convicted of a crime.

4. The Current Study

Although a variety of postulations could be generated about the effects of time spent in pretrial detention, the existing literature largely suggests that spending more time in pretrial detention *would* reduce the time between release from detention and contact with the criminal legal system for a new offense (Monaghan et al., 2021; DeMichele et al., 2023). This is not expected to be a linear effect, however, where each day in pretrial detention further reduces the time between release from detention and contact with the criminal legal system for a new offense, but rather it is likely to involve a threshold effect (see DeMichele et al., 2023). This threshold effect is postulated to exist for various reasons, the foremost being that the strain

6

confinement places on an individual's life in the community is largely stable after 7 days in pretrial detention (DeMichele et al., 2023; May et al., 2014). That is, the familial disruption, loss of employment and income, residential instability, and environmental effects of the institution likely remain stable after a week in pretrial detention (Berg & Huebner, 2011; Dobbie & Yang, 2021). The effects of confinement in the county jail likely increase in magnitude until the week threshold.

Given that the extant literature has largely assessed the effects of time spent in jail/prison on time until rearrest for post-conviction populations, the current study was developed to evaluate if time spend in jail during the pretrial period decreased the time between release and experiencing an arrest for a new offense. More specifically, we focus here on two research questions (R1) does spending more than 7 days in pretrial detention decrease the time between release and experiencing an arrest for a new offense when compared to spending 1 day or less in pretrial detention?, and (R2) Does spending more than 7 days in pretrial detention decrease the time between release and experiencing an arrest for a new violent offense when compared to spending 1 day or less in pretrial detention?

These research questions are not only important for the individuals being detained, but also practitioners, policy makers, and the community more broadly. Specifically, examining the effects of pretrial detention on time until experiencing a new arrest can provide important insight into how detention during pretrial contributes to offenses that occur within the community and capacity issues with jail facilities. More importantly, this research could help guide the development of policies and practices that address not only who has contact with the criminal legal system in the future, but also how quickly individuals are arrested for a new offense. If the findings do suggest that time spent in pretrial detention is associated with individuals cycling

7

through the criminal legal system faster, practitioners and policymakers should make efforts to mitigate these criminogenic effects.

To properly evaluate the effects of time spent in pretrial detention on time until a new offense and new violent offense, the current study employs the doubly robust framework in combination with a parametric survival model using a sample of 16,198 individuals from three counties in the United States. This analytical strategy permits us to generate causal inferences about the effects of pretrial detention and, in turn, better understand how pretrial detention contributes to the cycle individuals experience when becoming involved in the criminal legal system.

5. Methods

5.1. Sample

Data for the current study comes from a multi-county project intended to provide research and technical assistance to criminal justice officials on the improvement of pretrial systems.[2] One of the goals of the project was to develop comprehensive pretrial datasets that would track cases from jail admission to final disposition, including information on pretrial release conditions, charging information, and new criminal activity while on pretrial release. The data were created by linking jail, court, and criminal history records, allowing us to evaluate factors associated with booking, detainment, and outcomes associated with pretrial release. The sample included adults admitted to county jail facilities in three counties (spread across two states) for a new criminal arrest between January 1, 2017, and December 31, 2018. We excluded adults admitted to jails for posttrial sentences, probation or parole violations, appeals, transfers, juveniles, and immigration detainees. Additionally, the sample was limited to individuals

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[2] For more information about the ongoing research and the data, please see https://advancingpretrial.org/appr/appr-research/.

8

released on pretrial from jail facilities who served 1 day or less ($n = 10,902$) or more than 7 days in pretrial detention prior to release ($n = 5,296$).[3]

5.2. Measures

5.2.1 Detained for More than 7 Days or 1 Day or Less

To evaluate the time spent in pretrial detention and legal system outcomes, a treatment condition was created of individuals detained for more than 7 days in pretrial detention and a control condition of individuals detained for 1 day or less. Being detained for 1 day or less represents a reasonable counterfactual condition for the current study as individuals detained for 1 day or less experience the conditions of pretrial detention but are unlikely to endure other negative facets associated with pretrial detention (e.g., lose a job, time spent away from family, criminogenic features of jail culture; Stevenson & Mayson, 2017).

5.2.2. Legal System Outcomes

The two outcomes of interest for the current study are the *days until a new criminal arrest (NCA)* and *days until a new violent criminal arrest (NVCA).* The post-detention observational period is the time of release from pretrial detention to the final disposition associated with the current charge, or December 31st, 2019, for individuals that did not have a new arrest in the observation period. Included in the dataset is the date that an individual was released from pretrial detention and, if there was a new criminal arrest, the date of the new arrest. Days until a new criminal arrest and new violent criminal arrest were created by subtracting the date of new arrest from the date of release from pretrial detention.

5.2.3. Covariates of Interest

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[3] Only the first booking into jail for everyone was included in the analytical sample.

9

Fourteen covariates were included in the analysis to adjust for the potential influence on the number of days until a new criminal or violent arrest. First, lifetime conviction was measured as the number of criminal convictions prior to the current charge. Second, age at current arrest was the defendant's age when arrested for the current charge. Third, current offense violent was a dichotomous variable identifying if the defendant's current charge was defined as violent by the jurisdiction being examined ("0" = No; "1" = Yes). Fourth, prior incarceration was a dichotomous indicator of whether a defendant has ever been incarcerated prior to the current offense ("0" = No; "1" = Yes). Fifth, pending charge was a dichotomous indicator if the defendant had another pending charge(s) when booked into jail for the current charge ("0" = No; "1" = Yes). Sixth, the total number of charges was measured as the number of charges for defendants at the time of booking. Seventh, misdemeanor was a dichotomous variable indicating if a defendant's most serious charge was a misdemeanor ("1") or a felony ("0"). Eighth, the current offense type was measured utilizing four dichotomous indicators for violent offense ("0" = No; "1" = Yes), property offense ("0" = No; "1" = Yes), public order offense ("0" = No; "1" = Yes), and other offenses ("0" = No; "1" = Yes). The current offense type was defined using the National Corrections Reporting Program (NCRP) offense categories created by the Bureau of Justice Statistics (Perkins, 1993). Drug offenses serves as the reference category for current offense type. Ninth, the county that the defendant was charged is measured with two dichotomous variables for County 2 ("0" = No; "1" = Yes) and County 3 ("0" = No; "1" = Yes), with County 1 serving as the reference category. Tenth, a race measure was included that indicated that a defendant was white ("1") or People of Color ("0").[4] Finally, sex was included as

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[4] The non-white category was created due to the low number of Asian, Native American, and Hispanic defendants included in the sample. Defendants listed as Black were the greatest proportion of those included in the non-white category.

a dichotomous variable indicating if the defendant's biological sex was listed as male ("1") or female ("0").

5.3. Analytical Strategy

The first step in the analytical strategy was conducting descriptive statistics for the entire sample, the treatment group, and the control group. The second step was to calculate the predicted probability – propensity score – of individuals being detained more than 7 days. To do so, detained more than 7 days ("0" = detained less than 1 day; "1" = Yes) was regressed on fifteen covariates using a fixed effects binary logistic regression model. The unstandardized slope coefficients from this model were then used to calculate the predicted probability of an individual being detained more than 7 days given their characteristics across the covariates. The third step was to calculate the Average Treatment Effect (ATE) Inverse Probability Weight (IPW) using the predicted probabilities (Guo & Fraser, 2014; see Appendix A). The fourth step was estimating doubly robust parametric survival models for the two outcomes of interest: 1) number of days until new criminal arrest, and 2) number of days until new violent criminal arrest. A parametric survival was preferred as the outcomes did not satisfy the proportional hazard assumption associated with a Cox model. As a sensitivity analysis, two replications were conducted comparing individuals detained for more than 3 days to individuals detained for 1 day or less, and comparing individuals detained for more than 1 day to individuals detained for 1 day or less. The results of these replications are provided in Appendix B and Appendix C and support the findings presented in the primary text.

5.3.1. Doubly Robust Parametric Survival Models

Survival modeling can be utilized in conjunction with quasi-experimental techniques to generate causal inferences about the ATE of a treatment on the time-to-event (Monnery, 2015;

11

Sant'Anna & Zhao, 2020). Although a variety of techniques can be used in conjunction with survival models (e.g., matching), weighting methods such as IPW provide the ability to maintain the size of the analytical sample while still estimating the ATE of being detained for more than 7 days. Briefly, IPW minimizes the differences between the treatment and control groups, emulating the counterfactual condition created by randomization despite non-random treatment exposure (Guo & Fraser, 2014). A doubly robust survival model can be estimated when the IPW is included in conjunction with covariates when the treatment is used to predict the time until the outcome of interest occurred (Cunningham, 2021).

Incorporating IPW into the survival models consist of obtaining the inverse probability of being assigned to the treatment group. To do so, a fixed effect logistic regression was utilized to regress the treatment of detained for more than 7 days on the covariates of interest, producing the logged odds of being exposed to the treatment (see Equation 1).

[Equation 1]

$$ln\left(\frac{T_i}{1 - T_i}\right) = \beta_0 + \beta_1 County_2 + \beta_2 County_3 + \beta_c X_i + \varepsilon_i$$

Next, the probability of individuals in the sample being detained for more than 7 days in pretrial detention was calculated as the weighted sum of the scores across the covariates of interest (Guo & Fraser, 2014; see Equation 2).

[Equation 2]

$$p(T_i) = \frac{\exp(\beta_0 + \beta_1 County_2 + \beta_2 County_3 + \beta X_i + \varepsilon_i)}{[1 + \exp(\beta_0 + \beta_1 County_2 + \beta_2 County_3 + \beta X_i + \varepsilon_i)]}$$

After obtaining the predicted probabilities, the IPWs can be calculated for the treatment and control groups. The IPW for the treatment group were calculated as $\frac{1}{p(T_i)}$, while the IPW for the control group was calculated as $\frac{1}{1 - p(T_i)}$, (Guo & Fraser, 2014). The IPWs can then be

12

incorporated into the survival model as a weight to increase the similarities between the treatment (detained for more than 7 days) and the control groups (detained for 1 day or less) and obtain the ATE of being detained for more than 7 days on time until being arrested for a new offense of a new violent offense (Austin, 2016).

After the IPW procedures, doubly robust parametric survival models were estimated to calculate the ATE of the being detained more than 7 days on the days until a new criminal arrest and days until a new violent criminal arrest. Briefly, a doubly robust parametric survival model permits the estimation of the ATE if one of the model specifications are incorrect, increasing confidence in the observation of a statistical association between detained for more than 7 days and the number of days until a new criminal arrest and days until a new violent criminal arrest. Regarding the model, parametric survival models represent the most appropriate analytical tool when the outcome of interest is a variable measured using time until failure (i.e., number of days until a new criminal arrest or new violent criminal arrest) and the proportional change assumption cannot be satisfied (Krebs et al., 2009).

6. Results

6.1. Descriptive Statistics

Descriptive statistics for the entire sample, treatment, and control groups are included in Table 1. Sixty-seven percent of the sample was detained for less than 1 day, with 33 percent of the sample being detained for more than 7 days. With regards to new criminal arrest, 33 percent of individuals detained for more than 7 days experienced a new criminal arrest, while 17 percent of individuals detained for 1 day or less experienced a new criminal arrest. Similarly, 10 percent of individuals detained for more than 7 days experienced a new violent criminal arrest and 5 percent of individuals detained for 1 day or less experienced a new violent criminal arrest. Of

13

those who experienced a new criminal arrest, individuals detained for more than 7 days experienced the new criminal arrest 154 days after release, while individuals detained for 1 day or less experienced the new criminal arrest 156 days after release. Individuals detained for more than 7 days experienced the new criminal arrest 197 days after release, while individuals detained for1 day or less experienced the new criminal arrest 176 days after release.

Insert Table 1 About Here

6.2. Doubly Robust Survival Model Results

Prior to estimating the parametric survival model, the distributional qualities of the dependent variables were examined to ensure the proper specification of the survival model. Utilizing the global fit statistics – Akaike Information Criteria (AIC) and Bayesian Information Criteria (BIC) – for exponential, log-normal, Weibull, and log-logistic distributions, it was determined that the exponential distribution was the most appropriate given the qualities of the time until experiencing a new criminal arrest or a new violent criminal arrest. To estimate the doubly robust survival model, the probability of being detained for more than 7 days was regressed on 15 covariates and the county fixed effects indicators using a binary logistic regression model. The results of this model are presented in Table A1 of Appendix A and suggest that most of the covariates are statistically associated with the likelihood of being detained for more than 7 days. As a reminder, the IPW calculated from the model results in Table A1 of Appendix A were introduced as sampling weights when estimating the doubly robust survival models presented in Table 2 and Table 3.

The results of the doubly robust survival model examining the number of days until a new criminal arrest are included in Table 2. The estimates demonstrate that being detained for more than 7 days has a statistically significant and negative association with the number of days

14

until a new criminal arrest (β = -.309; $p < .001$). This association corresponded with a 26 percent reduction in the time until a new criminal arrest for individuals detained for more than 7 days when compared to individuals detained for 1 day or less (Time Ratio = .735). Similarly, as presented in Table 3 being detained for more than 7 days was associated with shorter time periods until a new violent criminal arrest (β = -.281; $p < .001$) compared to individuals detained for 1 day or less. Individuals detained for more than 7 days experienced a 24 percent reduction in the time until a new criminal arrest when compared to individuals detained for 1 day or less (Time Ratio = .755). The results of the replications suggest that while the magnitude of effects is attenuated, spending more than 1 day and more than 3 days in jail was associated with reductions in time until a defendant experienced an arrest for a new offense or a new violent offense (see Appendices B and C).

<div align="center">***Insert Table 2 and Table 3 About Here***</div>

The cumulative probabilities of a new criminal arrest and new violent criminal arrest were plotted for defendants detained for 7 days or more and defendants detained for 1 day or less. As shown in Figure 1, Panel A illustrates that approximately 42 percent of defendants detained for 7 days or more would have a new criminal arrest within 360 days from release. In comparison, approximately 30 percent of defendants detained for 1 day or less were estimated to have a new criminal arrest within 360 days from release. Additionally, Panel B shows that around 13 percent of defendants detained for 7 days or more and around 9 percent of defendants detained 1 day or less would have a new violent criminal arrest within 360 days from release. The findings suggest that longer periods of time in pretrial detention was associated with reductions in the time until a new criminal arrest and new violent criminal arrest sooner than being detained for less than 1 day in jail.

7. Discussion

Despite this existing evidence and the known effects of pretrial detention on community and legal system outcomes, limited research has directly examined how pretrial detention contributes to how quickly individuals experience an arrest for a new offense after being released from detention (Lowenkamp, 2022). That is, little is known about the effects of confinement in jail during pretrial on the time until contact with the criminal legal system for a new offense (Smith, 2016). The current study sought to address this gap in the literature by examining how the time spent in pretrial detention – more than 7 days in pretrial detention – influenced the time until an individual experiences a new arrest and/or a new arrest for a violent offense. Three key findings from the current study should be highlighted, as they directly pertain to the effects of time spent in pretrial detention on the individuals, the criminal legal system, and the community more broadly.

First, and foremost, the results of the current study produced evidence suggesting that individuals detained for longer periods (more than 3 days and more than 7 days) have a higher likelihood of being rearrested before their case is adjudicated compared to individuals detained for less than one day. This association persisted after adjusting the analysis for 15 covariates using IPW and a multi-variable parametric survival model (following the doubly robust framework). These findings were largely unsurprising, as prior research on the topic has suggested that the length of pretrial detention directly contributes to the likelihood of individuals cycling through the criminal legal system (Lowenkamp et al., 2013).

Second, the doubly robust survival model produced findings indicating that being detained for more than 7-days was associated with a reduction in the time until being arrest for a

16

new offense and the time until being arrested for a new violent offense. The estimates equate to individuals detained for more than 7-days being arrested approximately 26 days earlier for a new offense and 24 days earlier for a new violent offense when compared to those detained for 1 day or less. This finding, supported by the supplemental comparisons of more than 3-days to less than 1-day and more than 1-day to less than 1-day (see Appendices B and C), largely suggest that the time an individual spends in pretrial detention speeds up the rate at which they cycle through the criminal legal system for a new offense.

Finally, the cumulative probability plots suggest that individuals detained for more than 7 days start having an increased probability of experiencing an arrest for a new offense and an arrest for a new violent offense 1-month after being released from detention, which widens until then end of the first year. At the conclusion of the first year, individuals detained for more than 7 days have approximately a 23 percent higher probability of experiencing an arrest for a new offense and approximately an 88 percent increase in the probability of experiencing an arrest for a new violent offense when compared to individuals detained for 1 day or less. This directly equates to an increased probability of experiencing a new arrest sooner, a pattern observed succeeding the first month. These findings confirm the model results, suggesting that individuals confined for longer periods of time during pretrial will likely be arrested quicker than their counterparts detained for shorter periods of time (Smith, 2022).

To unpack this finding, it appears that spending longer periods of time in pretrial detention directly decreases the time until their next arrest. Concerning the individual being detained, this association highlights that pretrial detention not only places individuals at a heightened risk of failure when reentering society after confinement, but also increases the rate of failure. This increased rate of failure likely means that individuals detained for longer periods

17

of time will experience future periods of pretrial detention sooner and more arrests and more periods of pretrial detention over the life-course. Although additional empirical research is needed at the individual level, these findings suggest that longer periods of pretrial detention could contribute to the frequency at which individuals cycle through the criminal legal system. With regards to the criminal legal system, these findings directly suggest that longer periods of pretrial detention contribute to the rate at which individuals come back into contact with the system and the jail. In turn, longer periods of pretrial detention influences jail capacity in two ways: 1) by confining individuals in jail for longer periods of time and 2) by influencing the rate at which individuals return to jail. This dual effect on jail capacity suggests that placing individuals in pretrial detention for longer periods of time might put unnecessary stress on the system, creating carceral environments that cannot be sustained.

The findings call into question the current practices of determining who will be detained during pretrial, as they might not increase public safety as desired. One of the intentions of pretrial detention is to prevent future crimes and protect public safety by incapacitating potentially risky defendants prior to adjudication (Leslie & Pope, 2017). However, similar to findings from other studies (Lowenkamp et al., 2013; DeMichele et al., 2023), the results from the current study suggest that pretrial detention increases the likelihood that a defendant is arrested for a new criminal offense or a new violent criminal offense when released back into the community. This finding suggests that current practices guiding the implementation of pretrial detention might not be contributing to the observed criminogenic effect of confinement. For example, if court officials are detaining the individuals at a low risk of rearrest for longer during pretrial, this time in jail could place substantive strain on their lives and, in turn, contribute to an increased likelihood of being rearrested quicker than if the court released them into the

18

community earlier. This, nevertheless, remains an empirical question that necessitates examination. However, the current findings suggested that pretrial detention, as it current functions, does not positively impact public safety by reducing future criminal events. Rather, defendants detained for more than 7 days in pretrial detention are at an increased risk to be arrested for a new criminal event when released.

The current study is not without limitations, three of which should be highlighted. First, and foremost, due to data limitations the current study could not directly examine how one's first period of pretrial detention influences subsequent contact with the criminal legal system and if the magnitude of effects of pretrial detention on arrest differs between initial contact with the criminal legal system and subsequent periods of contact with the criminal legal system. Future scholarship should consider examining this issue, as it could provide additional insight into the effects of the pretrial detention on involvement in the cycle of the criminal legal system. Second, while a causal framework is employed to examine if spending more than 7 days in pretrial detention influences reductions in the time until a new criminal arrest, the findings of the current study cannot generalize beyond the three counties examined in the current study. Future research should replicate the current study in other jurisdictions. Finally, due to data censorship, we were unable to track if an individual experienced a new criminal arrest or a new violent criminal arrest after December 31, 2019. Although there is limited evidence that the censorship differentially influenced the rate of new arrests and new violent arrests for individuals detained more than 7 days and individuals detained for less than 1-day, future research should extend their follow up period to mitigate any concerns related to censorship.

7.1. Policy Implications

19

The findings of the current study suggest that the criminal legal system could mitigate the effects of pretrial detention on the rate at which individuals cycle through the system in two ways. First, and foremost, the criminal legal system should – when possible – limit the amount of time individuals spend in pretrial detention. Judges and practitioners should be aware of the potential detrimental effects of longer periods in jail during pretrial on recidivism and, in turn, only use this form of detention when necessary. If pretrial detention is employed to align with this research, the number of individuals detained for more than 7 days could be reduced and potentially result in increases until new criminal arrest, enhancing public safety for longer periods of time. As observed, the magnitude of the effects on the time until a new arrest or new violent arrest appears to attenuate as individuals spend shorter periods of time in pretrial detention. In this sense, it appears that the criminal legal system and, the court officials specifically, can diminish the rate at which individuals become reinvolved in the system by diminishing the amount of time they spend in pretrial detention.

This is not to say that in certain circumstances pretrial detention is not necessary, but when an individual does not pose a threat to community safety the court should only detain individuals for short periods of time. One potential avenue for guiding decision making related to pretrial detention is the implementation of a risk-based release model. Potentially, court officials could reduce the number of individuals detained in jail for longer periods of time and, more importantly, only detain the highest risk individuals to diminish the criminogenic effects of pretrial detention on new arrests in the community. Overall, practitioners and policymakers should strive to reduce the amount of time individuals spend in pretrial detention as it influences the rate at which individuals become reinvolved in the system through, potentially, the deleterious effects on reentry.

20

Second, jail and court officials should invest in policies, practices, and programs that help individuals reenter society from pretrial detention, like the investments made in reentry services for post-conviction individuals (Doleac et al., 2020; Jonson and Cullen, 2015). Although variation does exist, reentry programs that mitigate the difficulties individuals face when rejoining society do appear to reduce the likelihood of individuals coming back into contact with the system and could potentially diminish the association between pretrial detention time until experiencing a new arrest. The development and implementation of reentry programs for pretrial populations, however, has been limited across the United States. As such, this not only represents a potential area for policymakers to mitigate the effects of pretrial detention, but also a new avenue of research for pretrial scholarship. If the effects of pretrial detention can be mitigated through the implementation of reentry programs, individuals may cycle through the legal system slower over time.

7.2. Conclusion

Overall, the current study suggests that efforts should be made to mitigate the effects of pretrial detention on time until experiencing a new arrest, as it appears to increase the rate at which individuals cycle through the criminal legal system. By mitigating these effects, the criminal legal system can begin to address one of the major challenges – continued involvement in the system – early in the criminal legal system process. Additionally, policymakers should reevaluate the use of pretrial detention as a public safety measure and a deterrent of new offenses. The current study adds to the growing body of literature highlighting the potential criminogenic effects of pretrial detention and the ineffectiveness as a means for pretrial compliance. Efforts are needed to continue to understand how to effectively utilize detention in the pretrial process, who should be detained pretrial, and how to mitigate the negative

21

consequences of pretrial detention. Defendants detained on pretrial make up a sizeable portion of the United States jail population, and a more limited use of pretrial detention may help to alleviate the strains of overcrowding in jail facilities while also fulfilling the goals of pretrial compliance. Nonetheless, future research is needed to better understand the balancing act of detaining defendants while not causing undue harm onto other individuals involved in the pretrial process.

22

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23

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Table 1.
Descriptive Statistics for the Total Sample, Detained 1 Day or Less Subsample, and Detained More than 7-Days Subsample.

	Total Sample			Detained 1-Day or Less		Detained More than 7-Days	
	Mean (%)	SD	Min, Max	Mean (%)	SD	Mean (%)	SD
Dependent Variable							
NCA	23%	--	0, 1	17%	--	33%	--
Days until NCA (with NCA)	155.06	163.70	1, 952	156.22	164.62	153.76	162.71
NVCA	7%	--	0, 1	5%	--	10%	--
Days until NVCA (with NVCA)	186.74	184.28	1, 976	176.44	183.59	197.40	184.55
Days Detained							
Detained 1-Day or Less	67%	--	0, 1	--	--	--	--
Detained More Than 7-Days	33%	--	0, 1	--	--	--	--
Covariates							
Lifetime Failure to Appear	55%	--	0, 1	52%	--	61%	--
Lifetime Conviction	56%	--	0, 1	49%	--	71%	--
Lifetime Violent Conviction	24%	--	0, 1	17%	--	39%	--
Age at Current Arrest	34.73	11.68	18, 90	34.54	11.68	35.13	11.66
Current Offense Violent (Jurisdiction)	28%	--	0, 1	21%	--	41%	--
Prior Incarcerations	35%	--	0, 1	29%	--	48%	--
Pending Charge	21%	--	0, 1	19%	--	26%	--
Total Number of Charges	2.23	1.99	1, 79	1.77	1.2	3.18	2.8
Current Offense Felony (NCRP)	50%	--	0, 1	36%	--	79%	--
Current Offense Misdemeanor (NCRP)	50%	--	0, 1	64%	--	21%	--
Current Offense Drug (NCRP)	12%	--	0, 1	10%	--	16%	--
Current Offense Property (NCRP)	27%	--	0, 1	26%	--	29%	--
Current Offense Public Order (NCRP)	24%	--	0, 1	30%	--	11%	--
Current Offense Violent (NCRP)	34%	--	0, 1	29%	--	44%	--
County 1	49%	--	0, 1	60%	--	26%	--
County 2	38%	--	0, 1	25%	--	66%	--
County 3	13%	--	0, 1	15%	--	8%	--
White	48%	--	0, 1	57%	--	31%	--
Male	72%	--	0, 1	68%	--	81%	--
N		16,198			10,902		5,296

28

Table 2.
Effect Estimates of Covariates on Survival Time to New Criminal Arrest

DV: Days Until NCA	b	se	p-value	95% CI		Time Ratios	Time Ratio 95% CI	
Key Independent Variable								
Detained More Than 7-Days	-0.309	0.017	.000	-0.343	-0.274	0.735	0.710	0.760
Covariates of Interest								
Lifetime Conviction	-0.400	0.023	.000	-0.444	-0.356	0.670	0.641	0.701
Age at Current Arrest	0.016	0.001	.000	0.014	0.017	1.016	1.014	1.017
Current Offense Violent (Jurisdiction)	-0.042	0.034	.219	-0.110	0.025	0.959	0.896	1.026
Prior Incarcerations	-0.205	0.023	.000	-0.250	-0.161	0.815	0.779	0.852
Pending Charge	-0.292	0.020	.000	-0.332	-0.253	0.747	0.718	0.776
Total Number of Charges	0.018	0.002	.000	0.014	0.023	1.018	1.014	1.023
Current Offense Misdemeanor (NCRP)	0.217	0.019	.000	0.179	0.254	1.242	1.196	1.290
Current Offense Other (NCRP)	0.278	0.055	.000	0.170	0.385	1.320	1.185	1.470
Current Offense Property (NCRP)	-0.223	0.028	.000	-0.278	-0.167	0.801	0.757	0.846
Current Offense Public Order (NCRP)	0.383	0.035	.000	0.315	0.450	1.466	1.370	1.569
Current Offense Violent (NCRP)	0.436	0.040	.000	0.358	0.513	1.546	1.430	1.671
County 2	0.539	0.022	.000	0.496	0.582	1.714	1.642	1.790
County 3	0.992	0.029	.000	0.935	1.049	2.697	2.548	2.854
White	0.218	0.020	.000	0.180	0.256	1.243	1.197	1.292
Male	-0.280	0.020	.000	-0.319	-0.241	0.756	0.727	0.786
Intercept	6.223	0.045	.000	6.135	6.312	--	--	--

Model Log Likelihood	-60988
Intercept Only Log Likelihood	-62,566.8
N	16,189

Notes: Following the AIC, it was determined that the parametric survival model should be estimated using an exponential distribution.

Table 3.
Effect Estimates of Covariates on Survival Time to New Violent Criminal Arrest

DV: Days Until NVCA	b	se	p-value	95% CI		Time Ratios	Time Ratio 95% CI	
Key Independent Variable								
Detained More Than 7-Days	-0.281	0.029	.000	-0.338	-0.223	0.755	0.713	0.800
Covariates of Interest								
Lifetime Conviction	-0.288	0.036	.000	-0.358	-0.219	0.750	0.699	0.804
Age at Current Arrest	0.013	0.001	.000	0.010	0.016	1.013	1.011	1.016
Current Offense Violent (Jurisdiction)	-0.276	0.054	.000	-0.382	-0.170	0.759	0.682	0.844
Prior Incarcerations	0.080	0.039	.041	0.003	0.156	1.083	1.003	1.169
Pending Charge	0.136	0.037	.000	0.064	0.207	1.145	1.066	1.230
Total Number of Charges	-0.074	0.003	.000	-0.080	-0.067	0.929	0.923	0.935
Current Offense Misdemeanor (NCRP)	-0.048	0.032	.135	-0.111	0.015	0.953	0.895	1.015
Current Offense Other (NCRP)	-0.925	0.076	.000	-1.075	-0.775	0.397	0.341	0.461
Current Offense Property (NCRP)	-0.707	0.060	.000	-0.824	-0.591	0.493	0.439	0.554
Current Offense Public Order (NCRP)	-0.198	0.070	.005	-0.335	-0.060	0.821	0.715	0.942
Current Offense Violent (NCRP)	-0.490	0.074	.000	-0.635	-0.344	0.613	0.530	0.709
County 2	0.711	0.037	.000	0.638	0.784	2.036	1.892	2.190
County 3	1.143	0.059	.000	1.027	1.259	3.136	2.793	3.521
White	0.338	0.033	.000	0.273	0.402	1.402	1.314	1.494
Male	-0.834	0.044	.000	-0.920	-0.749	0.434	0.399	0.473
Intercept	8.781	0.092	.000	8.601	8.962	--	--	--
Model Log Likelihood				-23,073.4				
Intercept Only Log Likelihood				-23,564.8				
N				16,189				

Notes: Following the AIC, it was determined that the parametric survival model should be estimated using an exponential distribution.

Panel A: New Criminal Arrest

Panel B: New Violent Criminal Arrest
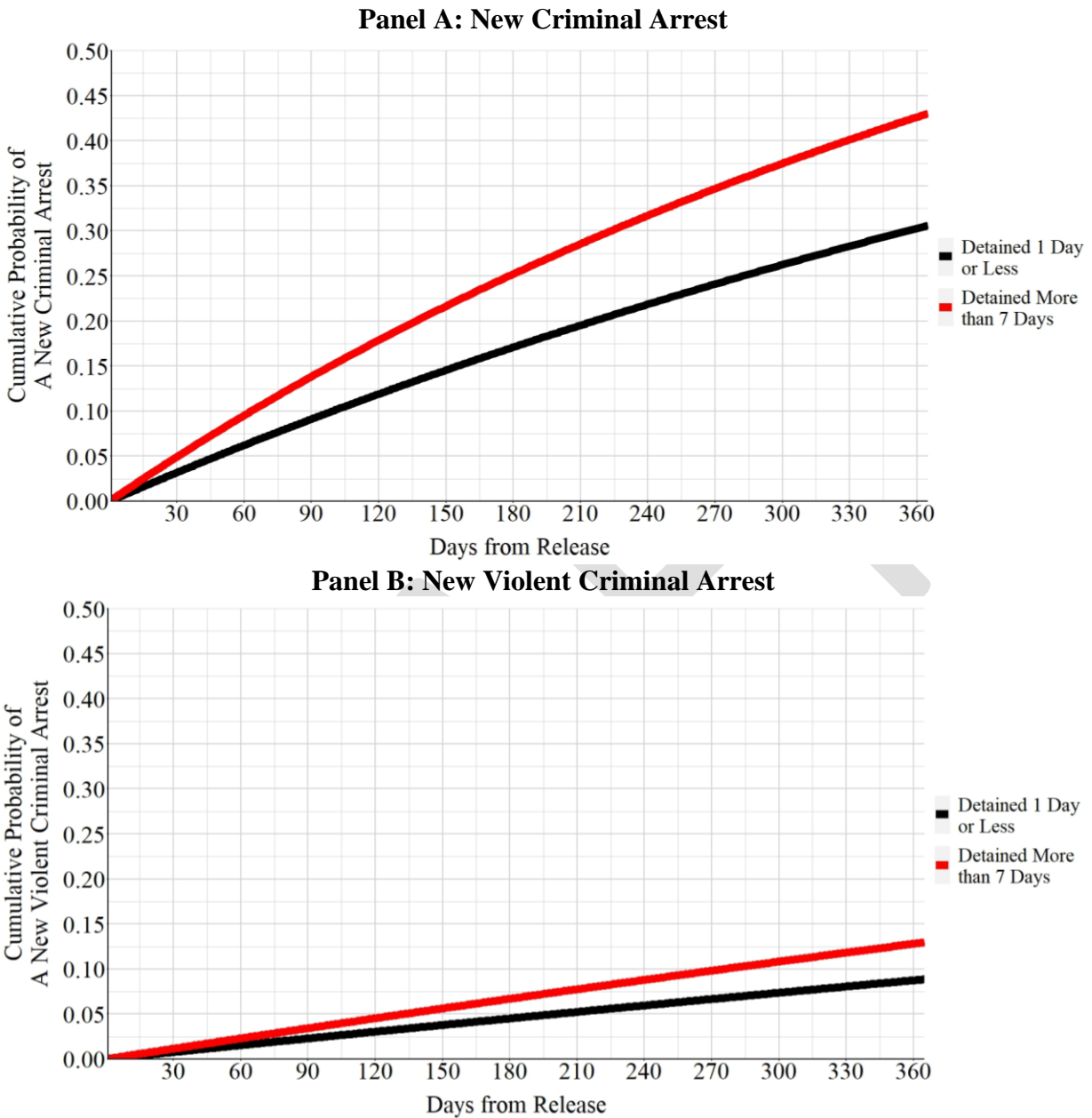

Figure 1.

Cumulative Probability of Event After Spending More than 7 Days in Pretrial Detention or 1 Day or Less in Pretrial Detention.

Notes: Cumulative probability of the event derived from the predicted survival for the groups using the Model presented in Table 1 (Panel A) and Table 2 (Panel B).

Supplemental Materials
For Online Publication Only

Table Of Contents:

Table A1: Logistic Regression Model with Effect Estimates on Pretrial Detainment more than 7-Days

DV: Detained More Than 7-Days	b	se	p-value	Odds Ratios	Odds Ratio 95% CI	
Covariates of Interest						
Lifetime Failure to Appear	0.502	0.062	< .001	1.652	1.464	1.866
Lifetime Conviction	0.324	0.065	< .001	1.382	1.217	1.570
Lifetime Violent Conviction	0.330	0.060	< .001	1.392	1.238	1.564
Age at Current Arrest	-0.005	0.002	< .001	0.995	0.991	0.999
Current Offense Violent (Jurisdiction)	0.569	0.091	< .05	1.766	1.480	2.111
Prior Incarcerations	0.770	0.066	< .001	2.160	1.899	2.458
Pending Charge	0.406	0.056	< .001	1.500	1.343	1.676
Total Number of Charges	0.320	0.015	< .001	1.377	1.337	1.420
Current Offense Misdemeanor (NCRP)	-1.796	0.055	< .001	0.166	0.150	0.185
Current Offense Other (NCRP)	-1.409	0.182	< .001	0.245	0.169	0.346
Current Offense Property (NCRP)	0.457	0.071	< .001	1.579	1.373	1.816
Current Offense Public Order (NCRP)	0.852	0.090	< .001	2.344	1.966	2.797
Current Offense Violent (NCRP)	0.857	0.106	< .001	2.355	1.915	2.896
County 2	2.468	0.065	< .001	11.794	10.399	13.396
County 3	0.049	0.072	> .05	1.050	0.911	1.208
White	-0.022	0.053	> .05	0.978	0.882	1.085
Male	0.346	0.052	< .001	1.414	1.276	1.567
N				16,189		

33

Appendix B: Replication with Detained for More than 3 days

Table B1: Effect Estimates of Covariates on Survival Time to New Criminal Arrest (3-Day)

DV: Days Until NVCA	b	se	p-value	95% CI		Time Ratios	Time Ratio 95% CI	
Key Independent Variable								
Detained More Than 3-Days	-0.208	0.016	0.000	-0.239	-0.176	0.900	0.878	0.922
Covariates of Interest								
Lifetime Conviction	-0.431	0.021	0.000	-0.473	-0.389	0.600	0.581	0.620
Age at Current Arrest	0.022	0.001	0.000	0.020	0.023	1.026	1.025	1.027
Current Offense Violent (Jurisdiction)	-0.005	0.034	0.872	-0.072	0.061	0.984	0.929	1.042
Prior Incarcerations	-0.305	0.022	0.000	-0.347	-0.263	0.698	0.674	0.721
Pending Charge	-0.299	0.019	0.000	-0.337	-0.261	0.686	0.666	0.708
Total Number of Charges	0.008	0.002	0.000	0.004	0.012	0.986	0.983	0.990
Current Offense Misdemeanor (NCRP)	0.230	0.019	0.000	0.193	0.267	1.261	1.223	1.301
Current Offense Other (NCRP)	0.426	0.055	0.000	0.318	0.533	1.431	1.331	1.540
Current Offense Property (NCRP)	-0.226	0.026	0.000	-0.277	-0.174	0.880	0.845	0.916
Current Offense Public Order (NCRP)	0.422	0.033	0.005	0.357	0.487	1.529	1.449	1.613
Current Offense Violent (NCRP)	0.367	0.039	0.000	0.291	0.444	1.463	1.371	1.561
County 2	0.493	0.021	0.000	0.453	0.533	1.632	1.578	1.687
County 3	1.153	0.032	0.000	1.090	1.216	2.793	2.645	2.949
White	0.165	0.019	0.000	0.127	0.202	1.103	1.069	1.138
Male	-0.329	0.020	0.000	-0.367	-0.290	0.725	0.703	0.747
Intercept	6.159	0.044	0.000	6.072	6.245	--	--	--

Model Log Likelihood	-70898.6
Intercept Only Log Likelihood	-72946.8
N	19,497

34

Table B2: Effect Estimates of Covariates on Survival Time to New Violent Criminal Arrest (3-Day)

DV: Days Until NVCA	b	se	p-value	95% CI		Time Ratios	Time Ratio 95% CI	
Key Independent Variable								
Detained More Than 3-Days	-0.162	0.027	0.000	-0.215	-0.109	0.851	0.807	0.897
Covariates of Interest								
Lifetime Conviction	-0.293	0.035	0.000	-0.362	-0.224	0.746	0.696	0.800
Age at Current Arrest	0.027	0.002	0.000	0.024	0.030	1.027	1.024	1.030
Current Offense Violent (Jurisdiction)	-0.257	0.055	0.000	-0.365	-0.150	0.773	0.694	0.861
Prior Incarcerations	-0.097	0.038	0.012	-0.172	-0.022	0.908	0.842	0.979
Pending Charge	0.111	0.035	0.002	0.041	0.180	1.117	1.042	1.197
Total Number of Charges	-0.088	0.003	0.000	-0.094	-0.081	0.916	0.911	0.922
Current Offense Misdemeanor (NCRP)	-0.044	0.033	0.176	-0.108	0.020	0.957	0.898	1.020
Current Offense Other (NCRP)	0.022	0.097	0.824	-0.169	0.213	1.022	0.844	1.237
Current Offense Property (NCRP)	-0.613	0.052	0.000	-0.715	-0.511	0.542	0.489	0.600
Current Offense Public Order (NCRP)	-0.062	0.065	0.341	-0.191	0.066	0.940	0.827	1.068
Current Offense Violent (NCRP)	-0.464	0.070	0.000	-0.602	-0.326	0.629	0.548	0.722
County 2	0.593	0.035	0.000	0.525	0.661	1.809	1.691	1.936
County 3	1.282	0.066	0.000	1.154	1.410	3.604	3.170	4.097
White	0.308	0.033	0.000	0.243	0.372	1.360	1.275	1.450
Male	-0.781	0.043	0.000	-0.864	-0.697	0.458	0.422	0.498
Intercept	8.362	0.087	0.000	8.191	8.533	--	--	--

Model Log Likelihood	-26398.9
Intercept Only Log Likelihood	-27053.5
N	19,497

35

Appendix C: Replication with Detained for More than 1 days

Table C1: Effect Estimates of Covariates on Survival Time to New Criminal Arrest (1-Day)

DV: Days Until NVCA	b	se	p-value	95% CI		Time Ratios	Time Ratio 95% CI	
Key Independent Variable								
Detained More Than 1-Days	-0.106	0.013	0.000	-0.130	-0.081	0.900	0.878	0.922
Covariates of Interest								
Lifetime Conviction	-0.511	0.017	0.000	-0.543	-0.478	0.600	0.581	0.620
Age at Current Arrest	0.026	0.001	0.000	0.024	0.027	1.026	1.025	1.027
Current Offense Violent (Jurisdiction)	-0.016	0.029	0.585	-0.073	0.041	0.984	0.929	1.042
Prior Incarcerations	-0.360	0.017	0.000	-0.394	-0.327	0.698	0.674	0.721
Pending Charge	-0.376	0.016	0.000	-0.407	-0.345	0.686	0.666	0.708
Total Number of Charges	-0.014	0.002	0.000	-0.018	-0.010	0.986	0.983	0.990
Current Offense Misdemeanor (NCRP)	0.232	0.016	0.000	0.201	0.263	1.261	1.223	1.301
Current Offense Other (NCRP)	0.359	0.037	0.000	0.286	0.432	1.431	1.331	1.540
Current Offense Property (NCRP)	-0.128	0.021	0.000	-0.168	-0.088	0.880	0.845	0.916
Current Offense Public Order (NCRP)	0.424	0.027	0.005	0.371	0.478	1.529	1.449	1.613
Current Offense Violent (NCRP)	0.381	0.033	0.000	0.316	0.445	1.463	1.371	1.561
County 2	0.490	0.017	0.000	0.456	0.523	1.632	1.578	1.687
County 3	1.027	0.028	0.000	0.973	1.081	2.793	2.645	2.949
White	0.098	0.016	0.000	0.067	0.129	1.103	1.069	1.138
Male	-0.322	0.016	0.000	-0.353	-0.292	0.725	0.703	0.747
Intercept	6.175	0.035	0.000	6.107	6.244	--	--	--

Model Log Likelihood	-110347.8
Intercept Only Log Likelihood	-113664.2
N	31,588

Table C2: Effect Estimates of Covariates on Survival Time to New Violent Criminal Arrest (1-Day)

DV: Days Until NVCA	b	se	p-value	95% CI		Time Ratios	Time Ratio 95% CI	
Key Independent Variable								
Detained More Than 1-Days	-0.127	0.022	0.000	-0.169	-0.084	0.881	0.844	0.920
Covariates of Interest								
Lifetime Conviction	-0.275	0.029	0.000	-0.332	-0.218	0.760	0.718	0.805
Age at Current Arrest	0.029	0.001	0.000	0.027	0.032	1.030	1.027	1.032
Current Offense Violent (Jurisdiction)	-0.206	0.049	0.000	-0.301	-0.111	0.814	0.740	0.895
Prior Incarcerations	-0.297	0.032	0.000	-0.359	-0.235	0.743	0.699	0.791
Pending Charge	-0.060	0.029	0.036	-0.116	-0.004	0.942	0.891	0.996
Total Number of Charges	-0.077	0.003	0.000	-0.082	-0.004	0.926	0.921	0.931
Current Offense Misdemeanor (NCRP)	0.019	0.028	0.494	-0.036	0.074	1.019	0.965	1.077
Current Offense Other (NCRP)	0.347	0.082	0.000	0.186	0.508	1.415	1.205	1.662
Current Offense Property (NCRP)	-0.322	0.038	0.000	-0.398	-0.248	0.724	0.672	0.781
Current Offense Public Order (NCRP)	0.027	0.050	0.584	-0.071	0.126	1.028	0.932	1.134
Current Offense Violent (NCRP)	-0.343	0.057	0.000	-0.454	-0.231	0.710	0.635	0.793
County 2	0.606	0.030	0.000	0.548	0.664	1.834	1.730	1.943
County 3	1.007	0.052	0.000	0.905	1.109	2.738	2.472	3.032
White	0.292	0.027	0.000	0.238	0.345	1.339	1.269	1.413
Male	-0.518	0.030	0.000	-0.577	-0.458	0.596	0.562	0.632
Intercept	7.991	0.064	0.000	7.866	8.116	--	--	--
Model Log Likelihood				-39740.9				
Intercept Only Log Likelihood				-40536.7				
N				31,588				