TECHNICAL VIOLATIONS AND THEIR EFFECTS ON PRETRIAL/BOND SUPERVISION OUTCOMES

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The use of pretrial and bond supervision commonly referred to as supervised release has increased over the last several decades due to burgeoning jail and prison populations. Much research has been conducted on these release mechanisms but has yet to examine the effects of types of technical violations on pretrial failure. The current study examined the effects of technical violations committed by individuals under a felony "bond" supervision program, which included both pretrial releasees and individuals being supervised on bond awaiting a probation revocation hearing, in a large metropolitan area. The results demonstrate while technical violations are associated with pretrial failure, the effects vary by violation type. Furthermore, the findings illustrate differences in risk factors for technical violations while on pretrial/bond supervision. Relevant policy implications of the research are provided.

Keywords: bond supervision; pretrial supervision; technical violations; bond failure

INTRODUCTION

The use of pretrial and bond supervision increased during the past several decades due to burgeoning jail and prison populations. The Bureau of Justice Statistics reported that between 1974 and 2001, the prison population increased by 1.1 million individuals (Bonczar, 2003). Rising jail and prison populations can be attributed to factors such as the paradigm shift toward a "get tough" stance on crime beginning in the late 1970s (Gest, 2001; Petersilia, 2008), the passage of mandatory sentencing guidelines (Neal & Rick, 2016; Sorensen & Stemen, 2002; Tonry, 2014), increased use of capital punishment and life without parole (Tonry, 1999), and the "War on Drugs" (Baum, 1996; Pfaff, 2015). The system needed a valve to release the pressure of rising incarcerated populations; thus, supervised release became a way to monitor higher-risk individuals in the community. Although prison populations have been decreasing in recent years, the use of supervised release has remained a common practice warranting further scientific study, especially how technical violations contribute to pretrial failure and incarceration.

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LITERATURE REVIEW

A plethora of scholarship exists on supervised release mechanisms (pretrial supervision or bond supervision).[1] Research has investigated the equity of financial factors associated with bail and pretrial supervision (Garrett et al., 2019; Rabuy & Kopf, 2016; Scott-Hayward & Fradella, 2019). Other studies examine many aspects of pretrial supervision, including, but not limited to, the impact of preventive notification before orientation and court dates (Goldkamp & White, 2006); race, ethnicity, and pretrial outcomes (Donnelly & MacDonald, 2018; Fennessy & Huss, 2013; Freiburger & Hilinski, 2010; Menefee, 2018; Zettler & Morris, 2015); the effectiveness of pretrial risk assessments (Cadigan & Lowenkamp, 2011; Cooprider, 2009; DeMichele et al., 2018; Desmarais et al., 2021; Lowenkamp & Whetzel, 2009; Milgram et al., 2014); conditions of release related to failure to appear (FTA; Azari, 2019; Belenko et al., 1992; Siddiqi, 2002); the effectiveness of electronic monitoring (Grommon et al., 2017; Lemke, 2009; Sainju et al., 2018; Wolff et al., 2017); needs and failure (Gehring & Van Voorhis, 2014); and predictors of pretrial failure (Bechtel et al., 2011; Clipper et al., 2021; Siddiqi, 2002). As individuals on pretrial supervision are released back into the community pending their disposition, understanding which factors are associated with failure is of particular concern to pretrial supervision agencies.

PREDICTORS OF PRETRIAL FAILURE

There is a wealth of evidence covering pretrial misconduct among those released before their case disposition. In a national sample of felony pretrial releasees, Cohen and Reaves (2007) found approximately one third engaged in one or more types of pretrial misconduct (e.g., FTA and new offense arrest). Similarly, among individuals released before their federal case disposition, 19% engaged in pretrial misconduct and 90% of misconduct was for technical violations (Cohen, 2012). However, these were violations discovered by pretrial supervision officers and no research to date has focused on self-reported violations for pretrial releasees. Some research does exist on self-incriminating statements, but these studies generally involve persons on supervision for sex offenses who must undergo polygraphs (Fausset, 2012) or admitted drug use in court-ordered therapy programs (Berg, 1993; Knight et al., 1998).

Prior research has investigated risk factors associated with pretrial outcomes, most often measured as FTA and rearrest while on release. In a meta-analysis on predictors of pretrial failure, Bechtel and colleagues (2011) identified risk factors most strongly associated with rearrest, including age, community supervision violations, FTA, jail incarceration, prior convictions, prior felonies, prior misdemeanors, and prior violent, property, or drug offenses. Several studies have examined predictors of failure specifically for those on pretrial supervision. For example, among individuals in a federal pretrial release program, being younger, male, having a substance use problem, being a racial/ethnic minority, prior FTA, prior escapes, and failure to complete high school (HS) were associated with an increased likelihood of failure (Fennessy & Huss, 2013). In a sample of individuals released via a pretrial services agency, Zettler and Morris (2015) found indigent individuals were more likely to FTA, while other factors associated with FTA varied by race and gender. Bolger and Phillips (2021) examined predictors of pretrial failure for 286 individuals participating in a pretrial supervision program, concluding that criminal

history and education level were predictive of failure. In contrast, an analysis of pretrial defendants from four jurisdictions found that while the use of bond and electronic monitoring had little impact on pretrial misconduct, more frequent monitoring was associated with misconduct across all risk levels (Lowder & Foundray, 2021). Thus, it is plausible that pretrial defendants with more conditions of release may have poorer outcomes than those who have less restrictive conditions.

Empirical investigations have considered the effectiveness of GPS or electronic monitoring on pretrial outcomes. Using a sample of individuals arrested for intimate partner violence, Grommon et al. (2017) found pretrial GPS supervision was no more effective than traditional pretrial supervision in reducing FTA or rearrest. However, GPS supervision reduced the risk of failure to report to a pretrial supervision officer. In contrast, among federal pretrial releasees, location monitoring significantly decreased arrest, but had a null effect on FTA or technical violations (Wolff et al., 2017).

One underexplored area of supervised release is the effects of various types of technical violations on pretrial or bond failure—or a violation other than the commission of a new crime. Although technical violations are the most common form of pretrial misconduct (Cohen, 2012), prior research has focused almost exclusively on FTA violations (Bechtel et al., 2011; Bornstein et al., 2011, 2012; Cooprider, 1992). To improve pretrial release outcomes, more research is needed on other forms of technical violations and the interaction among these variables. Although discretion, probation officer decision-making, characteristics of probation officers and judges, and judicial philosophy can influence pretrial outcomes, our research is focused on a quantitative examination of technical violations associated with pretrial/bond failure.

CURRENT STUDY

The current study utilizes data from an adult probation department in a large metropolitan area in the Southwest United States. We examine the effects of technical violations, defined as violations of the conditions of release (not a rearrest) on supervised release failure. We define supervised release failure as those who had their bond revoked and were incarcerated awaiting disposition in their case.

Prior research has not fully investigated various types of technical violations and their association with supervised release failure. The current study adds to the literature by considering the effects of technical violations on failure as well as isolating the effects of specific types of technical violations (e.g., failure to pay, failure to report, and positive drug tests). Furthermore, the current study investigates predictors of technical violations during supervised release. Specifically, the current study aims to answer the following research questions:

Research Question 1 (RQ1): What factors are associated with technical violations during supervised release?

Research Question 2 (RQ2): Which factors are associated with specific categories of technical violations?

Research Question 3 (RQ3): Does the overall number of technical violations predict supervised release failure?

Research Question 4 (RQ4): Do specific categories of technical violations predict supervised release failure?

METHOD

DATA

The current study relies on secondary data from a felony bond supervision program in a large probation department in an urban, southwestern county. The sampling frame consisted of a total of 1,765 felony individuals currently or previously on supervised release (pretrial or bond supervision) between June 2015 and June 2016. Data were collected in late 2017 to allow a 12-month follow-up period. A random sample of 320 individuals was drawn by the jurisdiction for a separate study and was then provided to researchers.

The felony bond program[2] targets individuals either on felony pretrial supervision awaiting a disposition to their criminal case(s) or with a pending probation revocation hearing for a felony offense. Individuals on pretrial release are supervised by the probation department's Bond Unit officers. One officer in the unit was assigned all individuals court-ordered to electronic/GPS monitoring. Individuals with various types of felony cases, including but not limited to murder, intoxication manslaughter, drug manufacturing, sale, or possession, felony driving while intoxicated, burglary, theft, engaging in organized criminal activity, and sex offenses, are examples of types of cases supervised by the Bond Unit officers.

In the jurisdiction, reporting technical violations is not a discretionary decision made by supervision officers. Rather, each felony district court has written court policies and guidelines for probation officers to follow regarding new-offense and technical violations. If a violation occurs, it must be reported to the court and revocation of the pretrial supervision/bond is solely up to the judge's discretion.

Data collected for this study consisted of demographic data and pretrial/bond supervision-related data, such as the instant offense, level and degree of offense, types of violations of supervision conditions, frequency of violations, including drug testing results, and criminal history data. The criminal history data were obtained from the state crime records repository and examined for arrests while on pretrial supervision.

MEASURES

Technical Violations

The primary independent variable of interest in the study is whether a defendant had technical violations during pretrial supervision. The number of technical violations was measured as the total number of violations each defendant had during pretrial supervision as a categorical variable (0 = no technical violations, 1 = 1 technical violation, 2 = 2 technical violations, 3 = 3 technical violations, 4 = 4 technical violations, 5 = 5+ technical violations).[3] On average, individuals had 2.6 technical violations during 1 year of pretrial supervision. Next, technical violations were collapsed into five different variables based on violation type: failure to pay, failure to report, GPS violations, drug test violations, and other violations. Failure to pay was measured as whether a defendant failed to pay supervision or court-ordered fees (0 = no failure to pay, 1 = any failure to pay).[4] The next variable failure to report was measured as a dichotomous variable (0 = no failure to report, 1 = one or more failure to report), which included any instance when individuals failed to report as directed to any appointment with the supervision officer (e.g., office visit, assessment, violation hearing, and warning hearing). GPS violations were measured as a dichotomous variable (0 = no GPS violations, 1 = one or more GPS violation). Drug test violations (0 = no

drug test violations, 1 = one or more drug test violations) included any positive drug tests, including admissions of use where an individual was not given a test, but admitted to illegal use of drugs or alcohol as well as dilute or failing to provide a sample as ordered. Last, a measure of other violations (0 = no "Other" violations, 1 = one or more "Other" violations) included all other types of technical violations less frequently observed, including failure to notify an officer of an address change, failure to remain in the county without permission to leave, and failure to avoid people/places of disreputable or harmful character.

Pretrial Failure

An outcome variable labeled pretrial failure was included to indicate whether individuals failed to complete pretrial supervision, defined as having their bond revoked and being sentenced to incarceration until case disposition (1 = failure, 0 = successful completion). Pretrial failures in these data represent individuals who failed to complete pretrial supervision due to either technical violations and/or those arrested for a new offense. Failure types were collapsed into one measure as there were no significant differences between models predicting pretrial arrests and models predicting any failure.[5] Of the entire sample, 59% of pretrial releasees had their bond revoked during pretrial supervision (n = 193). Of those revoked, 29% committed a new offense while on bond (n = 56).

Demographic and Criminal History Variables

Several demographic and supervision-related variables were included in the analyses. A continuous measure of age (measured in years) was included as a potential control variable (Bechtel et al., 2011; Cohen & Reaves, 2007; Fennessy & Huss, 2013). Sex has also been linked to pretrial outcomes and a dichotomous measure was included (0 = male, 1 = female; Demuth & Steffensmeier, 2004). Prior research demonstrates race and ethnicity may be associated with pretrial success (Fennessy & Huss, 2013). Race/ethnicity was coded in these data as a series of three dichotomous variables, White[6] (1 = White, 0 = non-White), Black (1 = Black, 0 = non-Black), and Hispanic (1 = Hispanic, 0 = non-Hispanic). Marital status was included as a dichotomous measure (0 = not married, 1 = married). In addition, both education and employment are correlated with risk of pretrial failure (Gehring & Van Voorhis, 2014). A dichotomous measure of Employment at the time of supervision was included (1 = employed, 0 = unemployed). In addition to employment status, a categorical measure Annual Income was included (1 = US$0–US$10,000, 2 = US$10,001–US$19,999; 3 = US$20,000–US$29,999, 4 = US$30,000–US$439,999, 5 = US$40,000 or above). To capture educational attainment, the variable HS diploma/general educational development (GED) or higher was measured as a dichotomous variable (0 = no HS/GED, 1 = HS/GED or above). A dichotomous variable measuring mental health was included to consider whether the defendant had a history of a diagnosis, including a current Axis 1 or Axis 2 diagnosis or report experiencing or taking medication for a mental health diagnosis (0 = no mental health diagnosis, 1 = any mental health diagnosis).

Several criminal-history control variables were included. To account for the type of offense an individual was on release for, a series of dichotomous variables were measured: drug (0 = no drug charge, 1 = drug charge), alcohol (0 = no alcohol charge, 1 = alcohol

charge), violent (0 = no violent charge, 1 = violent charge), sex-related (0 = no sex-related charge, 1 = sex-related charge), and property/other (0 = no property/other charge, 1 = property/other charge). A measure indicating the severity of the offense labeled Offense Level (1 = state jail felony,[7] 2 = third-degree felony, 3 = second-degree felony, 4 = first-degree felony) was considered. Last, Bond Length was measured as the number of months the individual was on pretrial release supervision. Prior research reports shorter times on pretrial supervision are correlated with pretrial failure (Lowenkamp & VanNostrand, 2013).

Analytical Plan

Data were analyzed using a series of regression models to assess the relationship between technical violations and pretrial outcomes. Before conducting the analyses, multivariable correlations were calculated to assure multicollinearity was not an issue in these data (mean variance inflation factor [VIF] = 1.97).[8] Furthermore, all variables were checked for univariate normality.[9] First, a negative binomial regression model identified predictors of technical violations during pretrial supervision.[10] Next, a series of logistic regression models examined predictors of technical violations during supervision. Third, models examined the relationship between the total number of technical violations and pretrial failure. Last, a model assessed the relationship between specific violation categories and failure.

RESULTS

DESCRIPTIVE AND BIVARIATE STATISTICS

Table 1 reports the descriptive statistics for individuals on pretrial bond supervision in the sample ($N = 320$). Approximately 59% of individuals failed to complete their bond supervision, with 16% of individuals rearrested before case disposition. The average number of technical violations was 2.57. Drug test violations were the most common type of violation, with 51% of individuals having at least one violation during supervision. The prevalence of other technical violations was as follows: failure to pay (47%), failure to report (16%), "other" violations (13%), and GPS violations (9%). Approximately 30% of the sample had both a drug test and failure to pay violation ($n = 99$). The average length of bond supervision was 5.52 months and drug charges were the most common charge (36%).

Next, differences between pretrial failures and individuals who successfully completed bond supervision were examined. Individuals who failed to complete supervision had significantly more total violations ($t = -5.82$, $p < .001$), failure to pay violations ($\chi^2 = 13.79$, $p < .001$), drug test violations ($\chi^2 = 20.19$, $p < .001$), "other" violations ($\chi^2 = 9.09$, $p = .002$), had a higher number of total prior arrests ($t = -6.77$, $p < .001$), and were more likely to be charged with a property/other offense ($\chi^2 = 7.67$, $p = .009$) than individuals who successfully completed supervision. Individuals who failed to complete supervision were significantly less likely to be employed ($\chi^2 = 33.24$, $p < .001$) and be charged with a violent offense ($\chi^2 = 9.85$, $p = .004$).

MULTIVARIABLE RESULTS

RQ1: What Factors Are Associated With Technical Violations During Supervised Release?

To answer the first research question, a negative binomial regression was used to identify predictors of technical violations during pretrial supervision. Negative binomial regression

TABLE 1: Descriptive Statistics

	Full sample ($N = 320$)			Successful ($n = 129$)			Unsuccessful ($n = 191$)			
Variable	*M*	*SD*	Range	*M*	*SD*	Range	*M*	*SD*	Range	Difference test statistic (t, χ^2)
Total no. of bond violations	0.59	1.97	0–5	1.85	1.89	0–5	3.09	1.84	0–5	$t = -5.82^{***}$ *(p = .000)*
Failure to pay	2.57	0.5	0–1	0.35	0.47	0–1	0.56	0.49	0–1	$\chi^2 = 13.79^{***}$ *(p = .000)*
Failure to report	0.47	0.36	0–1	0.16	0.37	0–1	0.16	0.36	0–1	$\chi^2 = 0.00$
GPS violations	0.16	0.29	0–1	0.05	0.21	0–1	0.13	0.33	0–1	$\chi^2 = 5.68^{*}$ *(p = .015)*
Drug test violations	0.09	0.5	0–1	0.36	0.48	0–1	0.61	0.49	0–1	$\chi^2 = 20.19^{***}$*(p = .000)*
Other violations	0.51	0.34	0–1	0.06	0.24	0–1	0.18	0.38	0–1	$\chi^2 = 9.09^{**}$ *(p = .001)*
Age	0.13	11.15	19–68	35.58	12.36	19–68	36.45	10.43	19–63	$t = -0.61$
Sex	36.45	0.39	0–1	0.39	0.40	0–1	0.19	0.39	0–1	$\chi^2 = 0.12$
White	0.2	0.49	0–1	0.44	0.50	0–1	0.46	0.49	0–1	$\chi^2 = 0.04$
Black	0.45	0.46	0–1	0.33	0.46	0–1	0.29	0.45	0–1	$\chi^2 = 0.27$
Hispanic	0.33	0.42	0–1	0.22	0.41	0–1	0.23	0.42	0–1	$\chi^2 = 0.08$
HS/GED or higher	0.22	0.49	0–1	0.56	0.48	0–1	0.51	0.49	0–1	$\chi^2 = 0.63$
Employed	0.53	0.5	0–1	0.71	0.46	0–1	0.37	0.48	0–1	$\chi^2 = 33.24^{***}$ *(p = .000)*
Annual income	0.52	0.94	1–5	1.65	1.01	1–5	1.39	0.87	1–4	$\chi^2 = 8.96$
Married	1.5	0.38	0–1	0.22	0.42	0–1	0.13	0.34	0–1	$\chi^2 = 4.25^{*}$*(p = .045)*
Mental health diagnosis	0.17	0.39	0–1	0.26	0.43	0–1	0.13	0.33	0–1	$\chi^2 = 8.91^{**}$*(p = .001)*
Bond length	0.19	5.18	0–28	4.71	3.85	0–21	5.79	5.60	1–28	$t = -1.90$
Total prior arrests	5.52	6.07	0–30	3.53	4.85	0–30	7.83	6.19	0–30	$t = -6.77^{***}$ *(p = .000)*
Drug charge	6.2	0.48	0–1	0.26	0.44	0–1	0.43	0.49	0–1	$\chi^2 = 9.15^{**}$ *(p = .005)*
Alcohol charge	0.36	0.26	0–1	0.09	0.29	0–1	0.06	0.23	0–1	$\chi^2 = 1.45$
Violent charge	0.07	0.45	0–1	0.39	0.48	0–1	0.23	0.42	0–1	$\chi^2 = 9.85^{**}$ *(p = .004)*
Sex-related charge	0.29	0.34	0–1	0.17	0.38	0–1	0.09	0.28	0–1	$\chi^2 = 4.78^{*}$ *(p = .032)*
Property/other charge	0.13	0.36	0–1	0.08	0.17	0–1	0.20	0.36	0–1	$\chi^2 = 7.67^{**}$ *(p = .009)*
Offense level	2.36	0.97	1–4	2.39	0.92	1–4	2.31	1.00	1–4	$t = 0.71$

Note. *SD* = standard deviation; HS = high school; GED = general educational development.
$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

TABLE 2: Negative Binomial Regression Predicting Total Number of Violations

Variable	*b* (*SE*)	Exp(*b*)	% Exp(*b*)
Age[a]	–0.00 (0.00)	0.99	–0.1
Sex	0.12 (0.12)	1.13	13
Black	0.04 (0.10)	1.04	3.7
Hispanic	–0.08 (0.12)	0.92	–7.9
HS/GED or higher	–0.05 (0.09)	0.95	–5.3
Employed	–0.06 (0.11)	0.95	–5.4
Annual income	–0.03 (0.06)	0.97	–2.8
Marital status	–0.22 (0.13)	0.79	–20.1
Mental health diagnosis	–0.07 (0.12)	0.93	–6.9
Bond length[a]	0.03 (0.01)	1.03	2.8***
Total prior arrests[a]	0.02 (0.01)	1.02	2.0**
Drug charge	0.26 (0.14)	1.29	29.7
Alcohol charge	0.43 (0.19)	1.53	53.0*
Violent charge	0.19 (0.15)	1.21	21.3
Sex-related charge	0.21 (0.19)	1.23	22.8
Offense level	–0.00 (0.05)	0.99	–0.1

Note. $N = 320$. AIC = 864.97, BIC = 932.75. *SE* = standard error; HS = high school; GED = general educational development; AIC = Akaike information criterion; BIC = Bayesian information criterion.
[a]The variables age, total prior arrests, and bond length were log-transformed prior to analysis.
*$p < .05$. **$p < .01$. ***$p < .001$.

was selected as overdispersion was present in these data (Land et al., 1996). Furthermore, the model was chosen after comparing fit statistics (Akaike information criterion [AIC] and Bayesian information criterion [BIC]) to ensure the best fitting model. Table 2 presents the results from the negative binomial regression; the first column reports the regression coefficient (*b*) along with the standard error (*SE*), and the second column provides the factor change in the expected count of total violations (Exp(*b*)). The last column, and the primary focus, can be interpreted as a one-unit increase in the independent variable is associated with a ± % change in the expected number of violations, holding all other factors constant (% Exp(*b*)). Three predictors were found to be significant: bond length significantly increased the expected count of violations by 2.8% ($p < .001$), total prior arrests increased the expected count of violations by 2.0% ($p = .006$), and being charged with an alcohol offense increased the expected count of violations by 53% ($p = .031$).

RQ2: Which Factors Are Associated With Specific Categories of Technical Violations?

A series of logistic regression models were conducted to determine which factors were associated with specific violations. The results of these models are reported in Table 3 and provide evidence that predictors vary by violation type. Bond length (odds ratio [OR] = 1.17, $p < .001$) significantly increased the odds of failure to pay, whereas being married (OR = 0.28, $p = .001$) significantly decreased the odds of failure to pay. Having a mental health diagnosis (OR = 2.31, $p = .040$) and being charged with a sex-related offense (OR = 4.21, $p = .049$) significantly increased the odds of failure to report, whereas having a HS diploma/GED (OR = 0.47, $p = .037$) and being employed (OR = 0.42, $p = .041$) significantly decreased the odds of failure to report. Both being married (OR = 0.20, $p = .048$) and being charged with a drug offense (OR = 0.17, $p = .020$) significantly decreased the odds of GPS violations. Finally, bond length (OR = 1.06, $p = .045$), total

TABLE 3: Predictors of Types of Technical Violations ($N = 320$)

	Failure to pay		Failure to report		GPS violations		Drug test violations	
Variable	OR	*SE*	OR	*SE*	OR	*SE*	OR	*SE*
Age[a]	1.02	0.01	0.98	0.02	1.01	0.02	0.99	0.01
Sex	0.79	0.27	0.81	0.37	0.88	0.56	1.82	0.60
Black	1.78	0.53	0.91	0.35	0.52	0.26	1.01	0.29
Hispanic	1.18	0.39	0.71	0.32	1.14	0.59	1.04	0.34
HS/GED or higher	0.85	0.22	0.47*	0.16	1.11	0.48	0.86	0.22
Employed	0.84	0.25	0.42*	0.17	1.90	0.93	0.77	0.23
Annual income	0.95	0.15	1.37	0.29	0.56	0.20	0.91	0.15
Marital status	0.28**	0.11	0.48	0.29	0.20*	0.16	0.74	0.26
Mental health diagnosis	0.71	0.24	2.31*	0.91	0.52	0.32	0.88	0.29
Bond length[a]	1.17***	0.04	0.97	0.03	1.01	0.03	1.06*	0.03
Total prior arrests[a]	1.00	0.02	0.99	0.03	1.04	0.03	1.07**	0.02
Drug charge	1.12	0.43	1.33	0.73	0.17*	0.14	3.19**	1.23
Alcohol charge	2.81	1.69	2.27	0.73	0.37	0.43	0.67	0.39
Violent charge	1.22	0.51	2.27	1.74	1.13	0.72	1.19	0.49
Sex-related charge	0.76	0.43	4.21*	3.01	2.00	1.51	0.79	0.43
Offense level	1.05	0.15	0.73	0.15	1.28	0.31	0.82	0.12
Log likelihood	−191.65		128.06		−85.53		−193.30	
Pseudo R^2	.13		.10		.16		.13	
AUC	0.73		0.71		0.79		0.73	

Note. OR = odds ratio; *SE* = standard error; HS = high school; GED = general educational development; AUC = area under the curve.
[a]The variables age, total prior arrests, and bond length were log-transformed prior to analysis.
*$p < .05$. **$p < .01$. ***$p < .001$.

prior arrests (OR = 1.07, $p = .002$), and being charged with a drug offense (OR = 3.19, $p = .002$) significantly increased the odds of drug test violations.

RQ3: Does the Overall Number of Technical Violations Predict Pretrial Failure?

To answer the third research question, a logistic regression model assessed the relationship between the overall number of violations and pretrial failure. Fit statistics are reported, including the pseudo R^2 and area under the curve (AUC), suggesting good model fit. Table 4 reports the results using ORs. The results indicate each additional technical violation significantly increased the odds of pretrial failure (OR = 1.42, $p < .001$). Furthermore, having a longer bond period (OR = 1.07, $p = .049$) and a higher number of prior arrests (OR = 1.15, $p < .001$) significantly increased the odds of failure. Factors that significantly decreased the odds of failure include employment (OR = 0.28, $p < .001$), mental health diagnosis (OR = 0.43, $p = .048$), and having an alcohol (OR = 0.22, $p < .038$), violent (OR = 0.22, $p = .006$), or sex-related charge (OR = 0.20, $p = .019$) compared with property/other charges.[11]

RQ4: Do Specific Categories of Technical Violations Predict Pretrial Failure?

Next, a logistic regression model examined the effects of specific categories of violations on pretrial failure. Table 5 provides the full results, with three categories of technical violations significantly increasing the odds of pretrial failure: failure to pay (OR = 2.05,

TABLE 4: Logistic Regression of Total Violations and Pretrial Failure

Variable	Odds ratio	*SE*	$p > z$	Confidence interval
Total no. of bond violations	1.42***	0.11	0.00	[1.22, 1.67]
Age[a]	0.99	0.01	0.73	[0.97, 1.02]
Sex	0.79	0.30	0.55	[0.37, 1.68]
Black	0.70	0.24	0.31	[0.35, 1.39]
Hispanic	1.27	0.49	0.53	[0.59, 2.72]
HS/GED or higher	1.70	0.53	0.09	[0.93, 3.12]
Employed	0.28***	0.95	0.00	[0.15, 0.55]
Annual income	1.05	0.18	0.79	[0.75, 1.47]
Marital status	0.83	0.34	0.65	[0.37, 1.85]
Mental health diagnosis	0.43*	0.16	0.03	[0.19, 0.92]
Bond length[a]	1.07*	0.04	0.05	[0.99, 1.14]
Total prior arrests[a]	1.15***	0.04	0.00	[1.08, 1.23]
Drug charge	0.78	0.34	0.59	[0.31, 1.94]
Alcohol charge	0.22*	0.15	0.03	[0.06, 0.85]
Violent charge	0.22**	0.11	0.00	[0.08, 0.59]
Sex-related charge	0.20*	0.13	0.01	[0.06, 0.69]
Offense level	1.12	0.19	0.52	[0.79, 1.56]

Note. $N = 320$. Log likelihood = –153.13, pseudo $R^2 = .29$, AUC = 0.84. *SE* = standard error; HS = high school; GED = general educational development; AUC = area under the curve.
[a]The variables age, total prior arrests, and bond length were log-transformed prior to analysis.
*$p < .05$. **$p < .01$. ***$p < .001$.

TABLE 5: Logistic Regression of Violation Types and Pretrial Failure

Variable	Odds ratio	*SE*	$p > z$	Confidence interval
Failure to pay	2.05*	0.65	0.02	[1.09, 3.84]
Failure to report	0.98	0.41	0.97	[0.44, 2.21]
GPS violations	4.95**	2.86	0.00	[1.59, 15.33]
Drug test violations	1.91*	0.61	0.04	[1.02, 3.55]
Other violations	1.84	0.91	0.21	[0.71, 4.84]
Age[a]	0.99	0.01	0.58	[0.97, 1.02]
Sex	0.89	0.34	0.76	[0.43, 1.87]
Black	0.73	0.25	0.37	[0.36, 1.46]
Hispanic	1.15	0.44	0.72	[0.54, 2.45]
HS/GED or higher	1.61	0.51	0.13	[0.87, 2.99]
Employed	0.27***	0.09	0.00	[0.14, 0.54]
Annual income	1.08	0.19	0.65	[0.77, 1.51]
Marital status	0.94	0.39	0.89	[0.42, 2.13]
Mental health diagnosis	0.46*	0.18	0.05	[0.22, 1.01]
Bond length[a]	1.08*	0.04	0.04	[1.00, 1.15]
Total prior arrests[a]	1.15***	0.04	0.00	[1.08, 1.23]
Drug charge	0.91	0.43	0.85	[0.36, 2.29]
Alcohol charge	0.34	0.21	0.08	[0.36, 2.29]
Violent charge	0.26*	0.13	0.00	[0.09, 0.69]
Sex-related charge	0.22*	0.14	0.02	[0.06, 0.78]
Offense level	1.11	0.19	0.55	[0.79, 1.56]

Note. $N = 320$. Log likelihood = –152.16, pseudo $R^2 = .29$, AUC = 0.85. *SE* = standard error; HS = high school; GED = general educational development; AUC = area under the curve.
[a]The variables age, total prior arrests, and bond length were log-transformed prior to analysis.
*$p < .05$. **$p < .01$. ***$p < .001$.

$p = .022$), GPS violations (OR = 4.95, $p = .005$), and drug test violations (OR = 1.91, $p = .036$). Like the first model, variables that increased the odds of failure were bond length (OR = 1.08, $p = .035$) and prior arrests (OR = 1.15, $p < .001$). Employment (OR = 0.27, $p < .001$), mental health diagnosis (OR = 0.46, $p = .039$), and being charged with a violent (OR = 0.26, $p = .016$) or sex-related offense (OR = 0.22, $p = .032$) significantly decreased the odds of failure.

DISCUSSION AND CONCLUSION

Overall, the results of this quantitative examination of technical violations of pretrial/bond supervision support prior research (Cohen, 2012; Cohen & Reaves, 2007). However, our research also considered the effects of specific types of technical violations. Among these violations, the most frequent were drug test violations, failure to pay, and failure to report. Nearly 40% of those on pretrial supervision were for drug-related charges; thus, many were being frequently drug tested. However, it should be noted that submitting to random drug testing is a condition of release for all individuals on pretrial release in this jurisdiction.

As expected, we found a higher number of total violations was associated with an increased likelihood of failure. One factor that increased the odds of failure was supervision length. Contrary to our findings, Lowenkamp and VanNostrand (2013) found individuals supervised for longer periods were significantly less likely to be arrested and FTA before their disposition. However, the authors did not look at other categories of technical violations. Thus, it might be possible that longer bond periods increase the likelihood of technical violations rather than new offense violations. More research is necessary to examine the relationship between bond length and pretrial outcomes. We also found that the number of prior arrests was associated with an increased likelihood of failure, consistent with previous research (Bechtel et al., 2011; Bolger & Phillips, 2021; Visher & Linster, 1990).

We identified several factors that decreased the odds of pretrial failure, including employment, mental health diagnosis, and being on supervision for alcohol, violent, or sex-related charges. Prior scholarship supports our finding that employment is a protective factor against supervision failure (McGinnis et al., 1977; Morgan, 1995; Sims & Jones, 1997; Stevens-Martin et al., 2014; Stevens-Martin & Liu, 2017; Whitehead, 1991). Stevens-Martin and colleagues (2014) found that employed individuals on supervision were 10 times more likely to complete supervision successfully. Moreover, Sims and Jones (1997) found employment was positively correlated with successful completion of supervision. Our finding related to the seriousness of the offense is similar to Cooprider (1992) who found that offense seriousness decreased the likelihood of pretrial misconduct. It may be the case that individuals under pretrial supervision for more serious crimes are facing long periods of incarceration and are motivated to comply with the terms of release, but more research is needed to investigate this relationship. An unexpected finding was that having a mental health diagnosis decreased the odds of failure. It is possible that individuals with a mental health diagnosis are referred to various resources in the community and are provided a support system. Future research should focus on examining whether judges consider employment and mental health diagnoses when making bond revocation decisions.

More pertinent to the current study, we examined the impact of types of technical violation on pretrial failure. We found that GPS violations, failure to pay, and drug test violations significantly increased the odds of pretrial failure. Generally, individuals on pretrial

supervision for more serious cases are placed on GPS monitoring (Cooprider, 1992; Wolff et al., 2017). Moreover, in our study failure to report and other violations had a null effect on failure. Prior scholarship on the effects of pretrial drug testing indicates it may worsen outcomes for pretrial releasees and does not guarantee reduced incidences of FTA or rearrest (Britt et al., 1992), which confirms our finding that drug testing violations increased the likelihood of failure. As noted in prior research,

> it is possible that the chosen consequences for failure affect compliance with drug tests and FTA or rearrest . . . and the current body of research does not yet establish a conclusive relationship between pretrial drug testing and pretrial outcomes. (Hatton & Smith, 2020, p. 12)

Finally, the current study assessed predictors of technical violations during pretrial/bond supervision. The results indicated bond length, total prior arrests, and being on supervision for an alcohol charge increased the number of total violations. We also found that no factor consistently predicted all violation types. For example, mental health diagnosis and being on supervision for a sex-related charge significantly increased the odds of failure to report, whereas arrest history predicted drug test violations.

In contrast, higher education level and employment significantly decreased the odds of failure to report. Bond length increased the odds of failure to pay and drug test violations while being married significantly decreased the likelihood of failure to pay and GPS violations. Being on supervision for a drug charge had mixed effects, as it decreased the likelihood of GPS violations but increased the odds of drug test violations. Overall, these findings indicate the heterogeneous effects of pretrial violations on pretrial failure.

POLICY IMPLICATIONS

There are several relevant policy implications of the current study. First, because our study found a substantial percentage of individuals failed to complete pretrial/bond supervision (59%), this indicates possible issues with pretrial release criteria and court-ordered conditions. Upon further investigation, this jurisdiction did not use a standardized set of criteria used among all the criminal courts for pretrial release decision-making. Furthermore, no pretrial risk assessment was used to assist in determining the appropriateness of release and risk to the community.

A plethora of research exists on the implementation and use of pretrial risk assessments and judge decision aids in release decision-making and the importance of their predictive validity of risk to the community (Cadigan & Lowenkamp, 2011; Desmarais et al., 2021; Lowenkamp & Whetzel, 2009). For instance, the federal system has adopted and validated the Pretrial Risk Assessment Instrument (PTRA) that is effective in predicting the likelihood of pretrial misconduct, including FTA, revocations, and arrests for new offenses (Cadigan et al., 2012; Cohen et al., 2018). In a systematic review of the predictive validity of pretrial risk assessments, Desmarais and colleagues (2021) found evaluations of these tools generally report good to excellent predictive validity of pretrial misconduct. However, there are some potential ethical concerns associated with the use of risk assessments, including discretionary decisions that are made when administering and assessing risk (Hannah-Moffat, 2015) that might result in sentencing disparities (Starr, 2014).

The issue of technical violations and incarceration has long been a concern of justice advocates and pretrial reformers. Our study revealed pretrial releasees in the jurisdiction with GPS, failure to pay, and drug test violations were significantly more likely to fail to

complete supervision. The Pretrial Justice Institute (PJI, 2019) argues that "what qualifies as a technical violation is the subject of much discretion and what limited data available on this topic shows significant racial disproportionality in terms of revocation of release" (p. 1). They advocate for several solutions to decrease pretrial violations, such as "imposing fewer conditions, thus creating fewer opportunities for violations, incorporating community-based support to increase pretrial success, and changing responses to people who do not comply with all conditions and offering incentives for those who do" (PJI, 2019, p. 1).

Moreover, the PJI (2019) points out that individuals on pretrial supervision are presumed innocent; thus, they should have the least restrictive conditions imposed to ensure a return to court. However, Weinrath and colleagues (2019) found there is motivation for treatment among individuals on pretrial release, despite the concern for "innocent until proven guilty." Considering many individuals in the current study had drug test violations, one option is to implement a voluntary substance abuse evaluation process followed by substance abuse treatment options depending on the severity of use. These community support mechanisms could reduce the frequency of these violations (Bahr et al., 2012; Jensen & Kane, 2012). On the contrary, Meyers (1991) argues that using drug testing violations to restrict a person's freedom is a violation of due process.

Another consideration is the judges' views on substance use and the decision to revoke bond. It should be noted that in the current study each court has its own set of "guidelines" and policies for how to handle certain types of violations. We discovered one judge's policy was to file a motion to revoke/adjudicate or to issue a warrant after two positive drug tests for certain illicit substances. Interestingly, positive drug tests for marijuana were not treated as harshly as positive tests for other substances such as methamphetamines or cocaine. Further research on "court guidelines" and instructions for probation staff could shed light on the interplay of judicial philosophy and probation administration.

LIMITATIONS AND CONCLUSION

The current study is not without its limitations. First, our sample included those on felony bond supervision, both individuals bonded out awaiting a disposition in a probation revocation hearing, and those under pretrial supervision with no disposition in their criminal case, in a single jurisdiction. We did not explore the differences in failure between these two groups. Furthermore, we had a relatively small sample size; thus, there was limited statistical power in our analyses. Consequently, the generalizability of our findings is limited. There were several factors related to pretrial failure that we did not have access to, including prior pretrial misconduct, technical violations, bond revocation, family and community ties (Lowenkamp, 2009), and other psychological factors, including specific mental health diagnoses (Bechtel et al., 2011). Another limitation is we did not examine the types of release conditions ordered. Future research should consider how these factors are associated with pretrial outcomes.

In sum, the current study highlights the importance of understanding the relationship between technical violations of pretrial supervision and misconduct. We found while the number of technical violations increased the likelihood of pretrial failure, the effects vary by violation type. Furthermore, we found several differences among specific types of technical violations. These results demonstrate the heterogeneous effects of technical violations on pretrial outcomes. Our study provides more detailed information for community supervision and pretrial release personnel to utilize interventions aimed at reducing technical violations.

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NOTES

1. Parole is also a form of supervised release, but is not the focus of this article. And because our data include individuals both on pretrial supervision and bond supervision due to a motion to adjudicate/revoke filed on probation revocation, we use the term *supervised release* in our article to encompass both types of releasees.

2. Misdemeanor pretrial releasees were supervised by a different county agency, not the probation department. Individuals out on bond for misdemeanors awaiting a revocation hearing were not included in this study, as the jurisdiction provided only information on felony defendants. The jurisdiction provided this data set after utilizing it for different purposes, such as reviewing bond amounts, bonds held insufficient, and the overall "fairness" of pretrial release.

3. Violations were collapsed into categorical variables (0–5+) as the distribution of violations in these data were highly skewed.

4. Measures of technical violations were changed to dichotomous variables as they were non-normally distributed.

5. Predictors of rearrest on bond were not substantively different than predictors of overall pretrial failure. Results predicting rearrest on bond are available upon request.

6. As less than 1% of the total sample was of another race/ethnicity (coded "Other"), they were dropped from the analyses.

7. The "State Jail Felony (SJF)" was created in the early to mid-90s as a unique way to secure additional funding to build more prisons during a time of severe overcrowding. Legislation was written to "reclassify" around 65 different third-degree felonies as SJFs and require they only be housed in a state jail (SJ) facility, which there were none at that time. Thus, the legislature appropriated funds to build 18 SJ facilities across Texas.

8. Offense category variables drug, violent, property, sex, and alcohol had variance inflation factor (VIF) $>$ 2 (Hair et al., 1995); however, all variables had VIF $<$ 10 (Tabachnick & Fidell, 2007).

9. Age, total prior arrests, and bond length were log-transformed prior to analyses.

10. Poisson and negative binomial models were compared, and a negative binomial model was selected due to the overdispersion of zeroes and as it improved model fit.

11. Property/other charge was used as the reference category in this and subsequent models.

REFERENCES

Azari, A. M. (2019). *The impact of pretrial supervision conditions: Evaluating pretrial release orders of one Colorado county* [Master's thesis, University of Northern Colorado]. Scholarship & Creative Works @ Digital UNC. https://digscholarship.unco.edu/theses/99/

Bahr, S. J., Masters, A. L., & Taylor, B. M. (2012). What works in substance abuse treatment programs for offenders? *The Prison Journal*, *92*(2), 155–174. https://doi.org/10.1177/0032885512438836

Baum, D. (1996). *Smoke and mirrors: The war on drugs and the politics of failure* (p. 21). Little, Brown.

Bechtel, K., Lowenkamp, C. T., & Holsinger, A. (2011). Identifying the predictors of pretrial failure: A meta-analysis. *Federal Probation*, *75*(2), 78–88.

Belenko, S. R., Mara-Drita, I., & McElroy, J. E. (1992). *Pre-arraignment drug tests in the pretrial release decision: Predicting defendant failure to appear*. New York City Criminal Justice Agency.

Berg, J. W. (1993). Give me liberty or give me silence: Taking a stand on fifth amendment implications for court-ordered therapy programs. *Cornell Law Review*, *79*(3), 700–734.

Bolger, M. A., & Phillips, M. J. (2021). The impact of pretrial release programming on rearrest: Results from an Eastern Pennsylvania county sample. *Corrections: Policy, Practice and Research*. Advance online publication. https://doi.org/10.1080/23774657.2021.1878071

Bonczar, T. P. (2003). *Prevalence of imprisonment in the U.S. population, 1974-2001*. Office of Justice Programs, U.S. Department of Justice.

Bornstein, B. H., Tomkins, A. J., & Neeley, E. M. (2011). *Reducing courts' failure to appear rate: A procedural justice approach*. National Institute of Justice, Office of Justice Programs, U.S. Department of Justice.

Bornstein, B. H., Tomkins, A. J., Neeley, E. M., Herian, M. N., & Hamm, J. A. (2012). Reducing courts' failure-to-appear rate by written reminders. *Psychology, Public Policy, and Law*, *19*(1), 70–80.

Britt, C. L., Gottfredson, M. R., & Goldkamp, J. S. (1992). Drug testing and pretrial misconduct: An experiment on the specific deterrent effects of drug monitoring defendants on pretrial release. *Journal of Research in Crime and Delinquency*, *29*(1), 62–78.

Cadigan, T. P., Johnson, J. L., & Lowenkamp, C. T. (2012). The re-validation of the federal Pretrial Services Risk Assessment (PTRA). *Federal Probation*, *76*(2), 3–9.

Cadigan, T. P., & Lowenkamp, C. T. (2011). Implementing risk assessment in the federal pretrial services system. *Federal Probation*, *75*(2), 30–34.

Clipper, S. J., Harper, A. J., & Fisher, T. (2022). Risk of revocation: Assessing correlates of failure in a pretrial services program. *Justice Evaluation Journal*, *5*(1), 144–161. https://doi.org/10.1080/24751979.2021.2009312

Cohen, T. H. (2012). *Pretrial release and misconduct in federal district courts, 2008-2010*. Office of Justice Programs, Bureau of Justice Statistics, U.S. Department of Justice.

Cohen, T. H., Lowenkamp, C. T., & Hicks, W. E. (2018). Revalidating the federal Pretrial Risk Assessment Instrument (PTRA): A research summary. *Federal Probation*, *82*(2), 23–29.

Cohen, T. H., & Reaves, B. A. (2007). *Pretrial release of felony defendants in state courts* (pp. 1–18). Office of Justice Programs, Bureau of Justice Statistics, U.S. Department of Justice. https://www.bjs.gov/content/pub/pdf/prfdsc.pdf

Cooprider, K. W. (1992). Pretrial bond supervision: An empirical analysis with policy implications. *Federal Probation*, *56*(3), 41–49.

Cooprider, K. W. (2009). Pretrial risk assessment and case classification: A case study. *Federal Probation*, *73*(1), 12–22.

DeMichele, M., Comfort, M., Misra, S., Barrick, K., & Baumgartner, P. (2018, April 25). The intuitive-override model: Nudging judges toward Pretrial Risk Assessment Instruments. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3168500

Demuth, S., & Steffensmeier, D. (2004). The impact of gender and race-ethnicity in the pretrial release process. *Social Problems*, *51*(2), 222–242.

Desmarais, S. L., Zottola, S. A., Duhart Clarke, S. E., & Lowder, E. M. (2021). Predictive validity of pretrial risk assessments: A systematic review of the literature. *Criminal Justice and Behavior*, *48*(4), 398–420.

Donnelly, E. A., & MacDonald, J. M. (2018). The downstream effects of bail and pretrial detention on racial disparities in incarceration. *Journal of Criminal Justice, Law & Criminology*, *108*(4), 775–814.

Fausset, A. J. (2012). Answer me or go to Jail: Why court ordered polygraph testing to treat probationers violated the fifth amendment. *American University Journal of Gender, Social Policy & the Law*, *21*(2), 455–480.

Fennessy, M., & Huss, M. T. (2013). Predicting success in a large sample of federal pretrial offenders: The influence of ethnicity. *Criminal Justice and Behavior*, *40*(1), 40–56.

Freiburger, T. L., & Hilinski, C. M. (2010). The impact of race, gender, and age on the pretrial decision. *Criminal Justice Review*, *35*(3), 318–334.

Garrett, B. L., Greene, S. S., & Levy, M. K. (2019). Fees, fines, bail, and the destitution pipeline. *Duke Law Journal*, *69*(7), 1463–1472.

Gehring, K. S., & Van Voorhis, P. (2014). Needs and pretrial failure: Additional risk factors for female and male pretrial defendants. *Criminal Justice and Behavior*, *41*(8), 943–970.

Gest, T. (2001). *Crime and politics: Big government's erratic campaign for law and order*. Oxford University Press.

Goldkamp, J. S., & White, M. D. (2006). Restoring accountability in pretrial release: The Philadelphia pretrial release supervision experiments. *Journal of Experimental Criminology*, *2*(2), 143–181.

Grommon, E., Rydberg, J., & Carter, J. G. (2017). Does GPS supervision of intimate partner violence defendants reduce pretrial misconduct? Evidence from a quasi-experimental study. *Journal of Experimental Criminology*, *13*(4), 483–504.

Hair, J. F., Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate data analysis* (3rd ed.). Macmillan.

Hannah-Moffat, K. (2015). The uncertainties of risk assessment: Partiality, transparency, and just decisions. *Federal Sentencing Reporter*, *27*(4), 244–247.

Hatton, R., & Smith, J. (2020). *Research on the effectiveness of pretrial support and supervision services: A guide for pretrial services programs*. Criminal Justice Innovation Lab, UNC School of Government. https://cjil.sog.unc.edu/wp-content/uploads/sites/19452/2020/05/Research-on-the-Effectiveness-of-Pretrial-Support-Supervision-Services-5.28.2020.pdf

Jensen, E. L., & Kane, S. L. (2012). The effects of therapeutic community on recidivism up to four years after release from prison: A multisite study. *Criminal Justice and Behavior*, *39*(8), 1075–1087.

Knight, K., Hiller, M. L., Simpson, D. D., & Broome, K. M. (1998). The validity of self-reported cocaine use in a criminal justice treatment sample. *The American Journal of Drug and Alcohol Abuse*, *24*(4), 647–660.

Land, K. C., McCall, P. L., & Nagin, D. S. (1996). A comparison of Poisson, negative binomial, and semiparametric mixed Poisson regression models: With empirical applications to criminal careers data. *Sociological Methods & Research*, *24*(4), 387–442.

Lemke, A. J. (2009). *Evaluation of the pretrial release pilot program in the Mesa municipal court*. Court Executive Development Program.

Lowder, E. M., & Foundray, C. M. A. (2021). Use of risk assessments in pretrial supervision decision-making and associated outcomes. *Crime & Delinquency*, *67*(11), 1765–1791. https://doi.org/10.1177/00111287211022642

Lowenkamp, C. T., & VanNostrand, M. (2013). *Exploring the impact of supervision on pretrial outcomes*. Laura and John Arnold Foundation.

Lowenkamp, C. T., & Whetzel, J. (2009). The development of an actuarial risk assessment instrument for U.S. Pretrial Services. *Federal Probation*, *73*(2), 33–36.

McGinnis, R. D., Klocksiem, K. L., & Wiedeman, C. (1977). Probation and employment: A report on the Bergen County NJ probation department. *Offender Rehabilitation*, *1*(4), 323–334.

Menefee, M. R. (2018). The role of bail and pretrial detention in the reproduction of racial inequalities. *Sociology Compass*, *12*(5), 1–9. https://doi.org/10.1111/soc4.12576

Meyers, P. H. (1991). Pretrial drug testing: Is it vulnerable to due process challenges. *BYU Journal of Public Law*, *5*(2), 285–340.

Milgram, A., Holsinger, A. M., Vannostrand, M., & Alsdorf, M. W. (2014). Pretrial risk assessment: Improving public safety and fairness in pretrial decision making. *Federal Sentencing Reporter*, *27*(4), 216–221.

Morgan, K. D. (1995). Variables associated with successful probation completion. *Journal of Offender Rehabilitation*, *22*(3–4), 141–153.

Neal, D., & Rick, A. (2016). The prison boom and sentencing policy. *The Journal of Legal Studies*, *45*(1), 1–41.

Petersilia, J. (2008). California's correctional paradox of excess and deprivation. *Crime and Justice*, *37*(1), 207–278.

Pfaff, J. F. (2015). The war on drugs and prison growth: Limited importance, limited legislative options. *Harvard Journal on Legislation*, *52*(1), 173–220.

Pretrial Justice Institute. (2019). *Smarter pretrial solutions: Responding to technical violations*. https://multco-web7-psh-files-usw2.s3-us-west-2.amazonaws.com/s3fs-public/Compliance_Smarter%20Pretrial%20Solutions%20Technical%20Violations%20-%20PJI%202019.pdf

Rabuy, B., & Kopf, D. (2016). *Detaining the poor: How money bail perpetuates an endless cycle of poverty and jail time*. Prison Policy Initiative. https://www.prisonpolicy.org/reports/incomejails.html

Sainju, K. D., Fahy, S., Hamilton, B. A., Baggaley, K., Baker, A., Minassian, T., & Filippelli, V. (2018). Electronic monitoring for pretrial release: Assessing the impact. *Federal Probation*, *82*(3), 3–10.

Scott-Hayward, C. S., & Fradella, H. F. (2019). *Punishing poverty: How bail and pretrial detention fuel inequalities in the criminal justice system*. University of California Press.

Siddiqi, Q. (2002). *Prediction of pretrial failure to appear and an alternative pretrial release risk-classification scheme in New York City: A reassessment study*. New York City Criminal Justice Agency.

Sims, B., & Jones, M. (1997). Predicting success or failure on probation: Factors associated with felony probation outcomes. *Crime & Delinquency*, *43*(3), 314–327.

Sorensen, J., & Stemen, D. (2002). The effect of state sentencing policies on incarceration rates. *Crime & Delinquency*, *48*(3), 456–475.

Starr, S. B. (2014). The risk assessment era: An overdue debate. *Federal Sentencing Reporter*, *27*(4), 205–206.

Stevens-Martin, K., & Liu, J. (2017). Fugitives from justice: An examination of felony and misdemeanor probation absconders in a large jurisdiction. *Federal Probation*, *81*(1), 41–51.

Stevens-Martin, K., Oyewole, O., & Hipolito, C. (2014). Technical revocations of probation in one jurisdiction: Uncovering the hidden realities. *Federal Probation*, *78*(3), 16–20.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Pearson Education.

Tonry, M. (1999). Why are US incarceration rates so high? *Crime & Delinquency*, *45*(4), 419–437.

Tonry, M. (2014). Remodeling American sentencing: A ten-step blueprint for moving past mass incarceration. *Criminology & Public Policy*, *13*(4), 503–533. https://doi.org/10.1111/1745-9133.12097

Visher, C. A., & Linster, R. L. (1990). A survival model of pretrial failure. *Journal of Quantitative Criminology*, *6*(2), 153–184.

Weinrath, M., Carrington, J., & Tess, C. (2019). Pretrial detainees, sentenced prisoners, and treatment motivation. *International Journal of Offender Therapy and Comparative Criminology*, *63*(15–16), 2693–2712.

Whitehead, J. T. (1991). The effectiveness of felony probation: Results from an eastern state. *Justice Quarterly*, *8*(4), 525–543.

Wolff, K. T., Dozier, C. A., Muller, J. P., Mowry, M., & Hutchinson, B. (2017). The impact of location monitoring among US pretrial defendants in the district of New Jersey. *Federal Probation*, *81*(3), 8–14.

Zettler, H. R., & Morris, R. G. (2015). An exploratory assessment of race and gender-specific predictors of failure to appear in court among defendants released via a pretrial services agency. *Criminal Justice Review*, *40*(4), 417–430.

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