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RESEARCH ON THE EFFECTIVENESS OF PRETRIAL
SUPPORT AND SUPERVISION SERVICES:
A GUIDE FOR PRETRIAL SERVICES PROGRAMS

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Table of Contents

Introduction.....	2
I. Court Date Reminder Systems.....	3
<i>Table 1: Summary of Court Date Reminder Studies</i>	<i>8</i>
II. Drug Testing	9
<i>Table 2: Summary of Drug Testing Studies</i>	<i>12</i>
III. Drug Treatment	12
<i>Table 3: Summary of Drug Treatment Studies</i>	<i>13</i>
IV. Electronic Monitoring	13
<i>Table 4: Summary of Electronic Monitoring Studies</i>	<i>17</i>
V. Supervised Release.....	17
<i>Table 5: Summary of Supervised Release Studies</i>	<i>25</i>
References.....	26

Introduction

Various pretrial programs have been implemented across U.S. jurisdictions in an effort to improve pretrial outcomes while reducing jail overcrowding and costs associated with pretrial detention. To support implementation of evidence-based pretrial practices, the Criminal Justice Innovation Lab (CJIL) reviewed available research on the effectiveness of various pretrial support and supervision programs on outcomes such as failures to appear (FTA) and new criminal activity (NCA). Specifically, we looked for research on the following types of pretrial support and supervision services: court date notification systems, supervised release, electronic monitoring (EM), drug testing, drug treatment, childcare, transportation, alcohol testing, alcohol treatment, and mental health services.

We found no studies for childcare, transportation, alcohol testing, alcohol treatment, or mental health. That does not mean that these services are not provided. Rather, no studies appear to have been conducted examining their effectiveness. We did however find research on the effectiveness of court date notification systems, supervised release, electronic monitoring, drug testing, and drug treatment, and each of these services is summarized and discussed in separate sections of this document. A table listing individual study findings can be found at the end of each section.

I. Court Date Reminder Systems

Court date reminder systems have been proposed to reduce jail occupancy and increase court appearance rates (Elek, Sapia, and Keilitz 2017, 1). Such systems can include postcards, text messages, and live calls. Implementation also varies regarding when and how often individuals are notified and the content of reminders.

Pretrial court date reminder systems have been evaluated in several states. Analysis of these evaluations suggests that pretrial court date reminder systems can reduce failure to appear (FTA) rates; however, the lack of statistical rigor in most of these studies limits the generalizability of their findings. Two studies calculated net savings and found that reminder programs potentially can produce overall cost savings in excess of reminder program costs. This section discusses the findings of these studies and their policy and research implications.

Arizona

In January 2006, the Criminal Justice Coordinating Council in Coconino County approved a three-month pilot to assess the effectiveness of pretrial reminders. For three days each week, a volunteer called misdemeanor defendants who had a court appearance within five to seven days. 244 individuals were included in the control group (no call), while 245 were included in the treatment group (called) (White 2006, 3).

The FTA rate in the control group was 25.4%. If a defendant could not be reached or had an invalid number, the FTA rate increased to 27.2%. The FTA rate for defendants reached by the volunteer directly was just 5.9%, a 76.7% decrease relative to the control group and the lowest rate among the population of defendants receiving calls from the volunteer. When messages were left with another person, the FTA rate decreased to 15% from the control group. When a message was left on an answering machine, the rate dropped to 21% (White 2006, 4). The overall FTA rate for the treatment group was 12.9%. Because a volunteer was used, no additional costs were associated with administering the pilot program.

In this study, the control and treatment groups were not controlled for race, criminal background, age, or other factors that may be related to the likelihood of failing to appear. The results were not tested for statistical significance. Thus, while the use of the reminder system was associated with lower FTA rates, it cannot be conclusively stated that the reminder system was responsible for the decrease in FTAs.

Colorado

In 2005, Jefferson County, Colorado implemented a pilot project involving random selection of defendants with misdemeanor and traffic offenses in the Duty Division of Jefferson County Court for live call pretrial court date reminders. Following an increase of 9 percentage points in court-appearance rates (79% to 88%) among the sample of 2,100 defendants, the County implemented a permanent call-reminder program in 2006 (Schnacke, Jones, and Wilderman 2012, 89).

Full implementation of the program was limited to defendants facing no proof of insurance (NPOI) charges, as they comprised over half of the division's cases and typically involved

additional charges (Schnacke, Jones, and Wilderman 2012, 90). During the program's first six months, approximately 5,600 defendants were targeted for a phone call reminder. Approximately 3,500 were contacted¹ and 2,100 could not be contacted. For defendants successfully contacted one week prior to their court dates, the court appearance rate increased from 77% to 89%, a change that represents a 52% decrease in the FTA rate. Later in 2006, the program was expanded to include all Duty Division defendants, as well as defendants in Division T, a division for less serious misdemeanor and traffic offenses. A 2010 review found that successfully contacted defendants appeared 92% of the time, whereas defendants who could not be contacted appeared only 71% of the time (Schnacke, Jones, and Wilderman 2012, 91-92).

Statistical significance and sampling techniques were not used to directly test the effect of the live call reminders while controlling for confounding factors. No findings are presented regarding the exact mix of demographics or offenses, and no control group was included for comparison. It is therefore possible that some of the observed effects of the reminders are due to random chance or differences between those able to be contacted and those who could not be contacted². The apparent effects of the program hold promise for court date reminders, but it cannot be conclusively stated that this program decreased FTAs. No costs were reported for this program.

Kentucky

In October 2012, Louisville, Kentucky began testing the effect of various pretrial reminders on FTAs. 10,228 individuals were sorted into five groups:

- no reminder;
- phone call reminder;
- phone call reminder with a warning of the consequences of not appearing;
- text message reminder; and
- text message reminder with a warning of the consequences of not appearing.

The study found that the groups had FTA rates ranging from 11% to 13%, and there were no statistically significant differences between them (Lowenkamp, Holsinger, and Dierks 2018, 173). The authors suggest that low overall FTA rates for all groups made a finding of statistical significance difficult and that a larger sample size might have found a significant FTA rate reduction for the text message reminders in particular. Nonetheless, the study found no clear reduction in FTA rates for any of the four methods of court date reminders. No costs were reported in this study.

Louisiana

In September 2014, Lafayette Parish Sheriff's Office Information Officers began calling defendants five to nine days before their pretrial court appearances. Defendants included anyone who had a court appearance for an arraignment, traffic, misdemeanor, or felony pretrial court hearing (Howat et al. 2016, 80).

¹ Defined as either speaking directly to the defendant or leaving a message on the machine or with a third party.

² Differences such as a history of FTAs, supervision length, offense type, etc. could potentially explain observed differences in FTA rates.

On average, court appearance rates increased from 48% to 62% (statistically significant), though this change was not consistent across charge type and proceedings. For arraignment, appearances increased 11 percentage points from 48% to 59% (statistically significant). For misdemeanors, appearance rates increased from 60% to 76%, though this was not a statistically significant finding. For traffic court, appearances increased from 38% to 48%, though this was not statistically significant. Finally, for felony hearings, the rate fell from 94% to 93%, though this also was not statistically significant (Howat et al. 2016, 82-84).

Appearance rates also varied depending on the level of contact with the defendant. When the officer spoke directly to the defendant, the appearance rate was 78%. Leaving a voicemail corresponded with a 76% appearance rate. No answer corresponded to a 68% appearance rate. An inoperable number had a 50% appearance rate. Speaking with a family member resulted in a 38% appearance rate (Howat et al. 2016, 84).

Collectively, these results suggest that court date reminders can increase court appearances. However, the study did not control for potentially confounding factors. Thus, it cannot be conclusively said that the program is responsible for the changes in appearance rates. However, the spread in appearance rates for different contact types suggests that the way in which a defendant is contacted can influence FTA outcomes. No costs were discussed in the study.

Nebraska

Between March 2009 and May 2010, 7,865 misdemeanor defendants from 14 counties in Nebraska were sorted into four groups in order to test the effects of pretrial court date reminders:

- no reminder;
- a postcard reminder of upcoming court dates (reminder-only);
- a postcard reminder of upcoming court dates and the potential consequences of not appearing (reminder-consequences); and
- a postcard reminder of upcoming court dates, potential consequences of a FTA, and the benefits of appearing (reminder-combined).

If defendants were able to waive their court appearance³, they were excluded from the study. The authors found that defendants in the control group were more likely to FTA (12.6%) compared to each intervention group (10.9% for reminder-only; 8.3% for reminder-consequences; 9.8% for reminder-combined; and 9.1% for reminder-consequences and reminder-combined together). Defendants in the control group were more likely to FTA compared to the other three groups as a whole (12.6% vs. 9.7%) (Bornstein et al. 2013, 74). The authors did not discuss whether their sample was representative, nor did they state whether the type and number of offenses in their sample were typical. It is therefore not possible to state whether these findings are generalizable, though the interventions had a statistically significant effect upon FTA rates in the sample. No costs were reported in this study.

A later study conducted a cost-benefit analysis of the Nebraska project. It estimated the costs associated with FTAs (bench warrants, bond processing, jail utilization, etc.) and used the costs

³ Nebraska defendants can waive their court appearance for most minor traffic violations and disturbing the peace, disorderly conduct, and open container offenses.

of running the postcard program to conduct the analysis. It found that, when using an automated system to identify eligible cases, there was a net cost savings of \$22,628 when eliminating 651 FTAs (the 3.5 percentage point reduction associated with reminder-consequences and reminder-combined together). If the system was not automated, increased labor costs limited these benefits to \$5,999 (Rosenbaum et al. 2012, 186). These estimates indicate that court date reminder systems can reduce overall judicial system costs; however, choices in implementation and automation may affect the extent of savings.

New York

Study of March 2016 to September 2017 Data

From March 2016 to September 2017, New York City implemented a court date reminder system to reduce FTAs for individuals receiving court appearance tickets for low-level offenses. Defendants were placed in groups to receive one of three message types seven days before court, three days before court, and one day before court. Those groups are as follows (Cooke et al. 2018, 12-14):

- messages detailing the costs of not appearing (consequences);
- messages focused on helping defendants make plans to appear by asking if the defendant knew where to go, had marked the date on their calendar, or needed to make any arrangements to be at court (plan-making)
- messages combining the two previous approaches (combined)

This study included approximately 20,000 individuals with court appearance tickets. The study notes the use of a randomized controlled trial design, but no further details are available. The control group had a 37.8% FTA rate. Consequences messages were associated with a 28.9% FTA rate, while plan-making messages had a 31.8% FTA rate and combined messages had a 28.1% FTA rate, making them the most effective notification type (Cooke et al. 2018, 16-17). There was no significant discussion of costs, but the authors estimated that sending texts to all summons recipients in 2014 (320,000) would have cost less than \$7,500 (Cooke et al. 2018, 18).

Study of November 2017 to January 2018 Data

In New York, Desk Appearance Tickets (DATs) can be issued for some arrests. Most DATs are issued for misdemeanors, which allow arrestees to be released subject to the requirement that they return for arraignment. In September 2017, following the bankruptcy of the vendor it used for court date phone call reminders, the New York Criminal Justice Agency (CJA) conducted a randomized controlled trial to determine the effectiveness of its reminder program in getting individuals with DATs to appear for their court dates (Ferri 2019, 2).

Between November 2017 and January 2018, CJA enrolled 2,219 individuals with DATs in the study and placed them into four groups:

- no reminder;
- a reminder three days before arraignment;
- a reminder the same day as arraignment; and

- both a three-day and same-day arraignment.

The study had statistically significant findings for all three interventions. Individuals with no reminder had an 18.9% FTA rate compared to 13.4% for the three-day reminder, 12.8% for the same-day arraignment, and 10.1% for the combined reminders. The author tested for factors that he identified as potentially confounding (race, gender, age, time to arraignment) and found no relationship with FTA rate, indicating that the treatment groups were successfully randomized according to those factors. These findings indicate that, for misdemeanor defendants, court date reminders can lead to a reduction in FTAs. No costs were reported for this program.

Oregon

In May 2005, Multnomah County, Oregon implemented a pilot Court Appearance Notification Systems (CANS) program with the goal of reducing FTA rates. Calls were placed in 2,391 cases. From these cases, a sample of successfully called defendants (n=243), unsuccessfully called defendants⁴ (n=191), and defendants receiving no call (n=272) was created in order to test the program's effects (Nice 2006, 3-4). After controlling for defendants who were in custody at the time of their court date, the study found that reminders had a statistically significant effect upon FTAs. Defendants who were successfully called were 12 percentage points less likely to FTA (16% vs. 28%), and even those defendants who could not be reached after three calls were 5 percentage points less likely to FTA (23% vs. 28%). These statistically significant findings suggest that reminder calls, even when not answered, may reduce the likelihood of FTAs.

Based upon estimated costs of failures to appear (Nice 2006, 9-10), the study estimated that the program saved \$232,836 in FTA costs over a six-month period. The program was funded at \$20,000, for a net savings of \$212,836 in six months. These numbers suggest that court date reminders can be a cost-effective mechanism for reducing FTAs and may reduce overall costs.

Washington

In September 1998, the Shoreline Reminder Project was started in King County, Washington with the purpose of reducing FTAs and jail occupancy. The program was implemented in the Shoreline Division of the King County District Court.⁵ For misdemeanor defendants with a court date on a Monday, volunteers made reminder calls on the Friday evenings, Saturdays, or Sundays before their court date. For those defendants appearing on a Thursday, calls were made on Monday and Tuesday (Crozier 2000). Following the program's implementation, the FTA rate decreased from 17.3% to 16%, though no test was conducted for statistical significance.

In 1999, an additional three courts implemented similar programs. In Kent Municipal Court, calls were placed every other week starting in February 1999. Defendants receiving calls appeared 72% of the time, while those who were not called appeared 50% of the time. In Tukwila Municipal Court, a program was implemented in March 1999, and calls were placed the Tuesday or Wednesday prior to Monday appearances. The program led to a 5.1 percentage point decrease in FTAs for those who received reminders. In the Northeast Division of King County District

⁴ Defendants were declared unsuccessful calls after three failed calls.

⁵ Responsible for traffic infractions, misdemeanors, gross misdemeanors, search warrants, impounds, civil lawsuits, small claims, domestic violence orders for protection, anti-harassment orders, name changes, and weddings and passport acceptance.

Court, defendants were called a week before their court date beginning in June 1999. FTA rates decreased from 36.3% to 25.9% (Crozier 2000, 28-33). None of these findings are the result of experimental design, and the lack of controls and sampling means these results could be unrelated to the intervention. Thus, it cannot be conclusively stated whether the reminders were responsible for the decrease in FTA rates.

Conclusion

The court date reminder studies with statistically significant findings were those in Louisiana, Nebraska, New York, and Oregon. Between Nebraska, New York, and Oregon, these systems appear to have potential for reducing FTAs, particularly if defendants are contacted more than once. However, the Kentucky study found that the control and intervention groups had nearly identical FTA rates, which suggests that reminder systems do not guarantee reductions in FTAs.

Future analysis is needed to understand the contexts in which court date reminder systems are most effective and how communication methods, frequencies of contact, and contact timelines impact program effectiveness. While most studies detailed here did not apply experimental design or statistically rigorous methods to their analysis, their consistent decrease in FTA rates holds promise for court date reminder systems as a means to efficiently reduce FTAs.

Table 1: Summary of Court Date Reminder Studies

Study Site	Date	Sample Size	Findings	Cost Estimates
Arizona	2006	244	1.8 percentage point increase in FTA for defendants who could not be reached 19.5 point reduction for defendants who were reached directly 15 point decrease when a message was left with another person 4.4 point decrease when message was left on answering machine	None
Colorado	2005	5,600	12 percentage point increase in appearance rate for contacted defendants	None
Kentucky	2012	10,228	No statistically significant differences between no notifications, notification calls, notification calls with warnings, text message notifications, and text message notifications with warnings	None
Louisiana	2014		14 percentage point increase in overall appearances** 11 point increase in arraignment appearances* 16 point increase in misdemeanor appearances 10 point increase in traffic appearances 1 point decrease in felony appearances	None
Nebraska	Mar. 2009 - May 2010	7,865	1.7 percentage point FTA reduction for a post card reminder*** 4.3 point reduction for post card with sanctions*** 2.8 point reduction for post card with sanctions and benefits***	Between \$5,999 and \$22,628 for 3.5% FTA reduction
New York	Mar. 2016 - Sept. 2017	~20,000	8.9 percentage point decrease in FTAs for consequence messages 6 point decrease for plan-making messages 9.7 point decrease for combined messages	None
New York	Nov. 2017 - Jan. 2018	2,219	5.5 percentage point FTA reduction for three-day reminders** 7.1 point reduction for same-day reminders** 8.8 point reduction for combined reminders***	None
Oregon	May 2005 - Nov. 2005	706	12 percentage point FTA reduction when successfully receiving reminders* 5 point FTA reduction for those who could not be reached*	\$212,836 savings in 6 months
Washington	Sept. 1998 - Oct. 1999	5,271	1.3 percentage point FTA reduction in Shoreline Division of King County 22 point higher appearance rate for those receiving calls in Kent Municipal Court 5.1 point decrease in FTAs in Tukwila Municipal Court 10.4 point decrease in FTAs in the Northeast Division of King County	None

*findings statistically significant at .05 level (95% chance findings are not due to random chance)

**findings statistically significant at the .01 level (99% chance findings are not due to random chance)

***findings statistically significant at the .001 level (99.9% chance findings are not due to random chance)

II. Drug Testing

Under the 1961 California Civil Addict Program, convicted persons determined to be addicted or in danger of addiction were eligible for drug testing and treatment. A subsequent evaluation (McGlothlin et al. 1977, 42) found testing and treatment lowered the rate of new criminal activity for those receiving them, signaling that testing and treatment programs could be used to potentially reduce criminal activity. As a result of this evidence and new drug testing technology (Henry and Clark 1999, 2), use of drug testing grew to include pretrial services programs, and 68% of pretrial programs reported using drug testing as of 1999 (Clark and Henry 2003, 39).

As the use of pretrial drug testing expanded, the National Institute of Justice (NIJ) funded a 1984 Washington, D.C., study to better understand its effects. The Bureau of Justice Assistance (BJA) later funded six studies between 1987 and 1991 in Maricopa County, AZ; Pima County, AZ; Milwaukee County, WI; Prince George's County, MD; Multnomah County, OR; and New Castle County, DE⁶. These studies constitute the available literature on the effects of drug testing programs on pretrial outcomes⁷. Their findings indicate that pretrial drug testing is no guarantee of reduced FTA or rearrest rates and may worsen these outcomes. Further, variations in the sanctions used to compel drug testing compliance suggest that the type of sanctions used (referral to drug treatment programs in particular) may affect drug testing compliance and pretrial outcomes. This section summarizes the research findings and discusses implications for future programs and research.

Washington, D.C.

In D.C., a policy to test for opiate, cocaine, PCP, amphetamine, and methadone use when arrestees were brought to Superior Court lockup⁸ prior to pretrial release determination predated the study. Defendants who tested positive could be ordered into weekly urine-testing. Successful completion of the program was defined as appearing for four tests, including the initial test while in custody. Defendants who failed⁹ were given a choice between entering a treatment program or undergoing more intensive testing. A subsequent failure resulted in administrative sanctions, which required more frequent testing, or a recommendation of contempt of court, which typically resulted in 1-3 days of incarceration (Toborg, National Institute of Justice, and Toborg Associates Inc. 1989, 1-2).

The study included 2,000 defendants arrested between June 1984 and January 1985. To test for the effects of drug monitoring, defendants testing positive for drug use were assigned to one of three groups: testing, treatment, or control (Toborg, National Institute of Justice, and Toborg Associates Inc. 1989, 12). Defendants who successfully completed drug testing were less likely to be rearrested pretrial (16.4% vs. 20.7%) or FTA (16.9% vs. 18.6%) compared to the control

⁶ Insufficient data in Oregon and Delaware prevented any evaluation. These studies are not included here.

⁷ This paper does not address pretrial alcohol testing such as the 24/7 breathalyzer program examined here: Kilmer, Beau and Gregory Midgette, *Using Certainty and Celerity to Deter Crime*. Santa Monica, CA: RAND Corporation, 2019. https://www.rand.org/pubs/working_papers/WR1190-1.html.

⁸ Nearly all arrestees, other than those charged with Federal offenses or minor crimes, were first brought to Superior Court lockup.

⁹ Failure was defined as failing two consecutive tests, failing a test and failing to appear in court in consecutive weeks, or having three positive tests or FTAs in a 3-month period.

group. However, defendants who failed to appear for drug tests had significantly higher rates of pretrial arrest (33.1%) and FTAs (33.4%) compared to the control (Toborg, National Institute of Justice, and Toborg Associates Inc. 1989, 13-14). The study's statistically significant findings indicate that successfully attending four drug tests is associated with improved pretrial outcomes, but requiring drug tests as a condition of release does not guarantee improved outcomes for defendants.

Pima County, Arizona

In Pima County, two samples of defendants arrested between May and October of 1988 and April and June of 1989 who would have been assigned to periodic drug testing¹⁰ were randomly selected for no drug testing. Defendants with a positive drug testing result received a verbal warning outlining the consequences of future failures. A second positive test resulted in a written warning. A third positive led to referral to a treatment program, where subsequent test failure would be met with a petition for the court to reconsider release conditions (Britt, Gottfredson, and Goldkamp 1992, 66-67). Failing to submit for testing followed a similar pattern of sanction, with the third such failure instead directly leading to a petition for review of release conditions.

In the first sample (78 in control and 153 in drug testing), those assigned to drug monitoring were less likely to FTA (17% vs. 18%) and have a pretrial arrest (4% vs. 12%), though only the pretrial arrest finding was statistically significant. In the second sample (64 in control and 74 in drug testing), there were no rearrests in either group. The group in drug testing was more likely to FTA than the control (16% vs. 11%), but this finding was not statistically significant (Britt, Gottfredson, and Goldkamp 1992, 72). These results collectively suggest that drug monitoring may reduce the likelihood of pretrial arrest; however, it is unclear whether pretrial drug testing affects FTAs.

Maricopa County, Arizona

The study conducted in Maricopa was similar¹¹ to that of Pima, with one exception. In the first sample, defendants in the control group were released on recognizance, the least restrictive condition. In the second sample, defendants in the control group received ordinary assignment of pretrial release conditions (other than drug testing), as was the case in both Pima samples. In both samples, a positive test or failure to provide a sample were both treated as noncompliance. The first failure resulted in a verbal warning detailing the consequences of future failures; a second, non-consecutive failure resulted in increased scheduled testing; a second consecutive failure led to a written warning; and a third consecutive failure resulted in a petition to revoke release (Britt, Gottfredson, and Goldkamp 1992, 69).

In the first sample (116 in control and 118 in drug testing), no statistically significant differences were found between the tested and control groups for either FTAs or pretrial rearrests. In the second sample (465 in control and 425 in drug testing), the group receiving testing was more likely to either FTA (35% vs. 27%) or have a rearrest (45% vs. 37%), and both results were statistically significant (Britt, Gottfredson, and Goldkamp 1992, 74). The results of the Maricopa

¹⁰ The drugs included for testing in Pima County were not listed.

¹¹ The drugs included for testing in Maricopa County were not listed.

evaluation ran contrary to expectations, suggesting that the use of a drug monitoring program either had no effect upon pretrial outcomes or led to more frequent FTAs and rearrests.

Milwaukee County, Wisconsin

In Milwaukee County, defendants eligible for drug testing¹² were randomly assigned to either an experimental group, where typical conditions of release were assigned along with drug tests, and a control group, where all normal conditions of release were assigned other than drug testing. A failure to provide a sample and a positive drug test were both considered noncompliance. The first instance of noncompliance resulted in counseling and discussion of treatment options. The second instance led to increased testing. The third violation led to a request for a court hearing to review conditions of release. A fourth violation resulted in a hearing that would either lead to a bench warrant or a revocation of release for 3-5 days (Goldkamp and Jones 1992, 451).

Between March and December of 1989, 389 defendants were assigned to the experimental group, and 348 were assigned to the control group. Defendants who received drug monitoring as a condition of release were more likely to FTA (25.9% vs. 20.8%) and less likely to be rearrested (13.6% vs. 18.4%); however, neither of these results was statistically significant. In sum, the evaluation revealed no clear effect of pretrial drug monitoring on either FTAs or rearrests.

Prince George's County, Maryland

The Prince George's County study used the same methodology¹³ as the Milwaukee County study, except that it employed a different set of sanctions for noncompliance. Following a defendant's first violation, the frequency of drug testing was increased. A second violation required participation in a program that discussed treatment and referral services. The third violation led to placing the defendant in a county treatment program where testing would be continued. Following a fourth violation, a court hearing was requested and temporary incarceration (3-5 days) was recommended. A fifth violation resulted in a recommendation for a longer confinement period (10 days) and no recommendation for readmission to the drug testing program (Goldkamp and Jones 1992, 444).

Between August of 1988 and February of 1989, 298 defendants were assigned to each of the treatment and control groups. Treatment group defendants were less likely to be rearrested (10.4% vs. 11.8%) and more likely to FTA (27.2% vs. 16.3%). Neither result was statistically significant, and no clear relationship between pretrial drug monitoring programs and FTA or rearrest rate could be established.

Conclusion

Of these evaluations, only the D.C. and Arizona studies had statistically significant results. Completion of drug tests in D.C. was associated with reduced FTAs (1.7 percentage points) and rearrests (4.3 percentage points) relative to the control group, though failing to complete testing was correlated with the highest rates of FTAs (14.8 percentage points higher) and rearrest (12.4 percentage points higher) relative to the control group. In the first Pima County sample, there was a significant (8 percentage points) decrease in rearrests for drug-monitored defendants but no

¹² The drugs included for testing in Milwaukee County were not listed.

¹³ The drugs included for testing in Prince George's County were not listed.

statistically significant findings in the second sample. In Maricopa County, both statistically significant results were in the second sample, where drug-monitored defendants had a higher FTA rate (8 percentage points) and rearrest rate (8 percentage points).

These results indicate it is not yet clear if pretrial drug testing programs improve pretrial outcomes. Given the variations in the penalties used to compel compliance with drug testing programs in each of these evaluations (counseling, increased testing, revocation of release, etc.), it is possible that the chosen consequences for failure affect compliance with drug tests and FTA or rearrest rates. For example, Maricopa County sanctions included no treatment services, whereas D.C. and Pima County included treatment. These distinctions may be critical for program development and are worth exploring in future research, but the current body of research does not yet establish a conclusive relationship between pretrial drug testing and pretrial outcomes. In addition, the Arizona studies were the only ones to mention costs, citing average annual costs between \$400,000 and \$500,000 for each program (no per person costs were reported), and no study detailed the time costs of implementing or managing their programs. Further analysis of these costs is needed to determine whether drug testing is a cost-effective model for improving pretrial outcomes.

Table 2: Summary of Drug Testing Studies

Study Site	Date	Sample Size	Findings
D.C.	Jun. 1984 - Jan. 1985	2,000	1.7 percentage point decrease in FTA rate* 4.3 point decrease in rearrest rate*
Pima County Sample One	May - Oct. 1988	231	1 percentage point decrease in FTA rate 8 point decrease in rearrest rate**
Pima County Sample Two	Apr. - Jun. 1989	138	5 percentage point increase in FTA rate
Maricopa County Sample One	May - Oct. 1988	234	8 percentage point decrease in FTA rate 1 point increase in rearrest rate
Maricopa County Sample Two	Apr. - Jun. 1989	890	8 percentage point increase in FTA rate*** 8 point increase in rearrest rate***
Milwaukee County	Mar. - Dec. 1989	737	5.1 percentage point increase in FTA rate 4.8 point decrease in rearrest rate
Prince George's County	Aug. 1988 - Feb. 1989	596	10.9 percentage point increase in FTA rate 1.4 point decrease in rearrest rate

*Statistically significant, but the author did not note the level of significance

**Findings statistically significant the .10 level (90% chance findings are not due to random chance)

***Findings statistically significant at the .05 level (95% chance findings are not due to random chance)

III. Drug Treatment

In an effort to reduce jail overcrowding, recidivism, and drug-related offenses, policymakers have at times sought to incorporate drug diversion, testing, and treatment into pretrial services programs (Anglin, Longshore, and Turner 1999, 169-171). The effectiveness of diversion courts is beyond the scope of this paper, and drug testing is discussed in Section II above. We identified two studies that examined the effects of pretrial drug treatment programs.

Eastern District of Pennsylvania

This study examined defendants in the Eastern District of Pennsylvania who were referred to the Mirmont Residential Treatment Program between 1990 and 1992. The author found that, of those 66 defendants referred to Mirmont, 16.7% failed to appear for a subsequent court appearance over the course of 1990-1992, compared to 3% and 3.2% nationally in 1990 and 1991 and 1.7% and 3.8% in the Eastern District of Pennsylvania in 1990 and 1991. Similarly, the Mirmont group had a 7.6% rearrest rate compared to 3.1% and 3.0% nationally in 1990 and 1991 and 2.5% and 1.5% in the Eastern District of Pennsylvania in 1990 and 1991.

The author notes two caveats to these findings. First, there was no control group. As such, the study was unable to directly examine the pretrial outcomes of defendants referred to Mirmont relative to similar defendants who were not referred. Second, the author notes many defendants in the national and Eastern District of Pennsylvania groups were assessed as lower risk¹⁴ and less likely to FTA or have a rearrest. In sum, while this study found that those referred to drug treatment services in Pennsylvania had higher FTA and rearrest rates, it cannot be conclusively stated that this is due to those services due to the lack of a control or comparison group.

Washington, D.C.

As a part of the drug testing study described in Section II, the authors also examined the effects of referrals to pretrial drug treatment services. Of the 2,000 defendants included in the study, a portion were randomly assigned to drug treatment services (others were assigned either to no pretrial services or to pretrial drug testing).

Drug treatment was associated with a lower rate of pretrial rearrest (20.4% vs. 20.7%) and a higher rate of FTA (19.7% vs. 18.6%) compared to the control group, though the authors did not note if these differences were statistically significant. Given the small changes in FTA and rearrest rates, as well as the study’s lack of statistical significance, it is not clear that the drug treatment services had an effect on pretrial outcomes.

Table 3: Summary of Drug Treatment Studies

Study Site	Date	Sample Size	Findings
D.C.	Jun. 1984 - Jan. 1985	2,000	Rearrest rate .3 percentage points lower for treatment group 1.1 point higher FTA rate for drug treatment group 16.7% FTA rate for drug treatment compared to national rates of 3.0% and 3.2% and local rates of 1.7% and 3.8%
Eastern District of Pennsylvania	1990 - 1992	66	7.6% rearrest rate for drug treatment group compared national rates of 3.1% and 3.0% and local rates of 2.5% and 1.5%

IV. Electronic Monitoring

Since becoming commercially available in 1984, electronic monitoring (EM) has been used as a condition of pretrial release both in federal and state systems. However, few studies have examined the effect of EM on pretrial outcomes, such as failure to appear (FTA), re-arrest for a

¹⁴ No mention is made of what tool was used to make risk assessments.

new crime while on release, or technical violations, such as curfew violations, unauthorized absences, or tampering with EM equipment (Cooprider and Kerby 1990, 32). This section discusses the origins of EM and the literature concerning its effects on these pretrial outcomes.¹⁵

A Short History of Pretrial EM

EM technology first became commercially available in 1984 (Baumer, Maxfield, and Mendelsohn 1993, 121-122) when the 1984 Bail Reform Act was passed and federal courts were showing a greater willingness to order states to resolve jail overcrowding (Baumer, Maxfield, and Mendelsohn 1993, 123, Cole and Call 1992, 29, 35-36, Wolff et al. 2017, 8). Alongside a growing desire to alleviate some of the negative consequences of pretrial detention, this environment led to the operation of EM programs in all states by 1990¹⁶ (Baumer, Maxfield, and Mendelsohn 1993, 121).

Early uses of pretrial EM were limited by radio frequency (RF) technology, which is restricted to alerting an officer when an individual leaves a preset area, deviates from an approved schedule, or tampers with the equipment (Wolff et al. 2017, 8-9). In later years, GPS emerged as another EM option. GPS can continuously track defendants, has greater programming flexibility, and can track defendants over a much larger area than RF (Gur, Ibarra, and Erez 2016, 34-35). A 2003 survey of state and federal pretrial services programs found that 54% use at least one form of electronic monitoring (Clark and Henry 2003, viii). Similarly, a 2009 survey of 171 state and local jurisdictions found that nearly half reported having the capability to use GPS for pretrial monitoring, and 64% reported being able to supervise home confinement with EM (Pretrial Justice Institute 2009, 36).

Early Studies of Pretrial EM

Early EM research is limited to two studies. Cooprider and Kerby (1990) examined whether pretrial EM had an effect on FTA rates, rearrests, and technical violations in Lake County, IL. After comparing 334 non-EM defendants to 219 EM defendants, they found that those with EM were more likely to fail their supervision than those released without EM. However, this was primarily due to an increase in technical violations (7.76% vs. 1.20%), which was expected given that the use of EM creates more opportunity for such violations (tampering with equipment). The study found that differences in FTA rates (6.89% vs. 6.85%) were negligible and EM defendants were rearrested less often than non-EM defendants (3.65% vs. 4.79%). Notably, over 95% of defendants in both groups were not rearrested pretrial. The study also did not report on the nature of rearrests for either group, e.g., violent offenses versus non-violent ones. The overall high

¹⁵ Research on the effectiveness of EM post-trial is beyond the scope of this paper. However, we note that the purposes of pretrial supervision are not the same as post-conviction supervision. Pretrial supervision, including EM, may be used to reasonably assure the defendant's appearance in court and to reasonably assure public safety during the pretrial period. Post-conviction supervision may be imposed to, among other things, punish and incapacitate. Because of this, relevant success metrics may differ in the pretrial and post-conviction context. Also, research has found that individuals subject to EM behave differently in pre and post-trial settings. Researchers believe this may be attributable to defendants in a pretrial setting believing they can avoid consequences by failing to appear. Meanwhile, those under post-trial EM may see completing the program and moving out of the system as a benefit, which makes them less likely to fail (Baumer, Maxfield, and Mendelsohn 1993, 135-136).

¹⁶ Usage of EM continues to vary significantly both between states and between state and federal systems.

success rate for all defendants and the small improvement offered by EM (1.14%) with respect to rearrest rate may be read by some as undermining its potential value given implementation costs.

Cadigan's (1991) study also focused on FTA and rearrest rates, though his study did not include technical violations and instead compared outcomes for 168 EM federal defendants in 17 districts to their non-EM counterparts. Contrary to Coopriider and Kerby's findings, Cadigan found that EM defendants were more likely to have a FTA (5.4% vs. 3.0%) or rearrest (3.6% vs. 2.1% for felonies and 2.4% vs. 1.0% for misdemeanors) than non-EM defendants in the same district (Cadigan 1991, 29-30). As in Coopriider and Kerby's study, overall success rates in this study, both for court appearance and no rearrest were very high for both groups—94+% for both metrics for both EM and non-EM defendants. However, this study shows that EM defendants had worse pretrial success rates, as measured against both FTA and rearrest, though observed differences were small.

These findings should be interpreted with caution. When comparing the EM and non-EM groups, neither study adjusted for the severity of charges, criminal backgrounds, or any other factors that might influence pretrial outcomes. Both studies noted that there were significant differences between the two populations that had not been factored into the analysis (Cadigan 1991, 30, Coopriider and Kerby 1990, 33), and neither explored whether their findings were statistically significant, which means we cannot conclusively state that EM had an effect on pretrial outcomes. The contradictory findings of early studies, alongside these design limitations, suggest that there is little definitive evidence concerning the effects of pretrial EM from the early years of its implementation.

Recent Studies of Pretrial EM

Three¹⁷ more recent studies have explored the association between EM and pretrial failure. In the first, researchers compared 310 EM defendants to 310 non-EM defendants in the Federal District of New Jersey. By controlling for demographic factors (age, sex, and race), pretrial risk assessment (PTRA)¹⁸ category, offense type, supervision length, and additional conditions of release, the researchers were able to better compare similar released individuals who either received EM conditions or did not. The researchers found that EM defendants were no more or less likely to FTA (both 3.2%) and were less likely to be rearrested (6.8% vs. 10.6%). They were also more likely to commit a technical violation (44.8% vs. 32.6%) and less likely (27.7% vs. 32.6%) to commit a technical violation unrelated to the EM than non-EM defendants, though these findings were not statistically significant (Wolff et al. 2017, 12). The authors added that the record of technical violations did not distinguish which penalties led to revocation of pretrial release. Notably this study also finds that the vast majority of defendants successfully complete the pretrial period without FTA or rearrest regardless of whether or not EM is used as an intervention. Here, 97% of defendants—regardless of whether or not they had EM—had no FTA.

¹⁷ Grommon, Rydberg, and Carter's (2017) study was not included, as it focused narrowly on domestic violence cases.

¹⁸ PTRA is a risk assessment tool used by the U.S. Pretrial Services system. It contains 11 scored items that establish a risk category for defendants and has been tested and shown to be a predictor of FTA, rearrest, and technical violations.

Although 93% of defendants on EM had no rearrest, the vast majority of non-EM defendants (89%) also had no new charges during the pretrial period.

Using the same methodology (with two differences), Sainju et al. (2018) examined EM defendants at the county level in Santa Clara County, CA. Sainju et al. did not include a risk assessment tool, instead using FTAs, arrests, and incarcerations as control factors (Sainju et al. 2018, 6). In addition, all technical violations in their analysis resulted in the revocation of supervised release. Their analysis of 208 EM defendants and 208 non-EM defendants found that EM defendants were more likely to commit technical violations (16.82% vs. 4.32%) but were far less likely to have a FTA (8.17% vs. 22.59%) than those defendants who were not electronically monitored (Sainju et al. 2018). While the authors did find that EM defendants were slightly more likely to be rearrested (4.80% vs. 4.32%), this finding was not statistically significant. Although this study shows a significant positive impact of EM on FTA, again, the vast majority of EM and non-EM defendants (95+% of both groups) had no rearrest, and most of both groups had no FTAs.

In a third study, Lowder and Foudray examined whether defendants who received EM in four counties in Indiana where a Pretrial Pilot Program was implemented in 2017 were more or less likely to experience pretrial failure (defined as new criminal activity, failing to appear, or committing a technical violation). Their analysis included 1,505 defendants. After controlling for charge severity, risk level, supervision length, and county, the authors found that individuals released without EM had 1.1 times the odds of pretrial failure, but these findings were not statistically significant (Lowder and Foudray 2021, 6-16). In conclusion, the authors found no evidence that the use of EM was associated with significantly higher or lower odds of pretrial failure.

Conclusion

The findings of the recent studies present a mixed picture. In the federal analysis, use of EM was associated with a decline in rearrests and no change in FTAs, whereas the Santa Clara analysis found EM was associated with a decline in FTAs and no change in rearrests. Both studies found EM defendants were more likely to commit technical violations, though federal EM defendants were less likely to commit these violations when violations associated with the technology (tampering) were removed. In addition, neither study examined how EM systems and processes contributed to these results.

Nonetheless, there is some indication between these two recent studies that the use of EM can have an effect upon pretrial outcomes. In each case, the use of EM was associated with a decrease in either FTA or rearrest rates, though this appears to come with the tradeoff of increased technical violations. Furthermore, neither FTA nor rearrest rates increased with the use of EM in each study. Without knowing what elements of the federal or local court systems contributed to these results, it is impossible to generalize these findings to other jurisdictions. Future studies will need to examine what specific components of federal, state, and local programs contribute to these pretrial outcomes. And finally, all of the studies showed that the vast majority of defendants succeed pretrial with respect to court appearance and new criminal activity, and only the Santa Clara study found benefits of EM as to any metric to exceed 5%

(8.17% versus 22.59%, there for FTAs). EM, whether using RF or GPS equipment, requires significant costs, including both the monitoring and fitting of equipment and the staff required to implement the programs. In these studies, there has been little examination of these costs for either defendants or the court system, and the vast majority of defendants succeed with respect to FTAs and rearrests. Local pretrial success rates may thus factor into a jurisdiction’s cost benefit analysis with respect to implementing or continuing EM.

Table 4: Summary of Electronic Monitoring Studies

Study Site	Date	Sample Size	Findings
Lake County, IL	1986 - 1988	553	FTA rate .04 percentage points higher Rearrest rate 1.14 points lower
17 Federal Districts	1989	168	FTA rate 2.4 percentage points lower 1.5 point higher rearrest rate for felony defendants 1.4 point higher rearrest rate for misdemeanor defendants
Federal District of New Jersey	2012 - 2016	620	Rearrest rate 3.8 percentage points lower**
Santa Clara County, CA	Jun. 1, 2013 - Dec. 31, 2015	416	FTA rate 14.42 percentage points lower*** Rearrest rate .48 points higher
Four Counties in Indiana	2017	1,505	1.1 higher odds of pretrial failure for non-EM defendants compared to EM defendants

**Finding is statistically significant at the .01 level (99% chance the finding is not due to random chance)

***Finding is statistically significant at the .001 level (99.9% chance the finding is not due to random chance)

V. Supervised Release

Supervised pretrial release has been offered as a means to reducing jail occupancy, limiting failure to appear (FTA) rates, and lowering incidents of rearrest during the pretrial period (Austin, Krisberg, and Litsky 1985, Lowenkamp and VanNostrand 2013). Yet the type and amount of pretrial supervision can vary substantially, requiring in some cases bi-weekly phone call check-ins and in others weekly face-to-face contact, with behavioral health and other services.

This section presents the findings of eight studies that constitute the available literature on the effectiveness of supervised pretrial release. As discussed below, five studies (1-5 below) found that supervised release may reduce FTAs, limit rearrests, or increase compliance with pretrial conditions of release, though only three of those studies produced statistically significant results. One study (6 below) found that supervision, particularly if it was too high or low relative to a defendant’s risk level, could negatively impact pretrial outcomes and does not necessarily perform better when compared to defendants with no supervision, though none of these results were statistically significant. Another study (7 below) had statistically significant results showing that defendants with supervised release were more likely to FTA than those released on surety

bonds¹⁹. A final study (8 below) found that more frequent pretrial supervision (monthly meetings) was associated with greater odds of pretrial failure, particularly among medium- and high-risk defendants.

1. Dade County, FL, Multnomah County, OR, and Milwaukee County, WI

In March 1980, the National Institute of Justice (NIJ) began piloting a supervised pretrial release program (SPR) in Dade County, Florida, Multnomah County, Oregon, and Milwaukee County, Wisconsin. Felony defendants who were denied initial release were first reviewed by SPR staff. If recommended for SPR, a judge then reviewed the recommendation. If approved by the judge, cases were then randomly assigned to a supervision only group²⁰ and a supervision plus services²¹ group (Austin, Krisberg, and Litsky 1985). Defendants in both treatment groups were similar to the control group in terms of prior arrests and charge type, but no other comparisons were noted in the study. 1,258 individuals were selected for SPR.

In Multnomah County, SPR release was associated with a statistically significant 9.2 percentage point increase (94.4% vs. 85.2%) in appearance rate compared to those who received financial conditions and a 10.4-point increase (94.4% vs. 84%) relative to other non-financial conditions of release. In Milwaukee, there was a statistically significant increase in appearance rate relative to both financial release (90.6% vs. 74.3%) and non-financial release (90.6% vs. 75.8%). In Dade, there was a decrease in appearance rate (82% vs. 89.1%) compared to financial release and a slight increase relative to non-financial release (82% vs. 81.8%); however, these findings were not statistically significant (Austin, Krisberg, and Litsky 1985, 96).

Collectively, these results suggest that SPR has the potential to reduce FTAs. Two caveats should be noted. First, the study also found that, although the supervision plus services groups had lower FTA rates, the difference was not statistically significant. It is possible that the

¹⁹ Research found three other studies that are not discussed in the text. In the first, U.S. Bureau of Justice Statistics (BJS) data from California's large urban counties between 1990 and 2000 was used to compare the performance of Surety Bonds with Release on Own Recognizance (ROR) and Conditional or Supervised Release (CR). 20,811 cases were studied. 31.8% of those released with ROR/CR failed to make a court appearance. Those released on Surety Bonds failed to appear 20.1% of the time. The author estimated that replacing 7% of ROR/CR with Surety Bonds could reduce FTAs by 1,018 and save \$1.3 million (Block 2005, 2). However, because ROR and CR were combined, it is not possible to directly assess the effect of CR on FTA rates. Also, although the study had a large sample size and large difference in its findings (31.8% vs. 20.1%), there was no direct discussion of statistical significance in this study. Because of these factors, it is not possible to draw any significant conclusions about the use of supervised release from this study and it is not discussed in the text.

A second study in Mecklenburg County, North Carolina is not included because, even though it reported changes in supervised release, it did not directly examine its effects on pretrial outcomes. See: *Redcross, Cindy, Brit Henderson, Luke Miratrix, and Erin Valentine. 2019. Evaluation of Pretrial Justice System Reforms That Use the Public Safety Assessment. Mecklenburg County, NC: Mecklenburg County.*

A third study assessing FTA rates for various pretrial programs nationally was not included because it referred to pretrial supervision as release to third-party custody. This term was not further defined in terms of who was responsible for the defendant (pretrial services or some other individual) and what supervision specifically entailed. See: VanNostrand, Marie, and Gena Keebler. 2009. "Pretrial risk assessment in the federal court." *Fed. Probation* 73:3.

²⁰ Minimum of one phone contact plus two face-to-face contacts each week during the first 30 days of release and one phone contact per week for subsequent weeks.

²¹ A minimum of one phone contact and face-to-face contact each week during the first 30 days. Services could include employment, alcohol treatment, drug treatment, counselling, education, housing, and medical services.

previously discussed SPR appearance percentages are inflated by the supervision plus services group, but it is not possible to know the extent to which this is true.

Second, each site had significant differences in implementation. Most notably, the program was implemented by the existing correctional agencies in Dade and Multnomah, while Milwaukee used a private non-profit social service agency. This, among other differences, led to differences in contact and service provision. For example, Multnomah and Milwaukee had significantly higher rates of phone and face-to-face contact. In addition, Milwaukee offered 2.2 services per defendant on average, while Multnomah and Dade offered 1.2 and .5, respectively. Thus, while SPR can potentially influence FTAs, the specifics of implementation and operation may play a significant role in FTA outcomes.

2. Philadelphia

Between August 1, 1996 and November 26, 1996, 845 defendants in Philadelphia were sorted by risk level²² (Type I or Type II) and randomly assigned to four levels of supervised release: Type I Group A (175 defendants), Type I Group B (194 defendants), Type II Group A (252 defendants), and Type II Group B (224 defendants). The goal of the project was to compare FTA rates to a 1992 baseline and to compare the effects of different levels of supervision.

Under pretrial release guidelines, defendants were sorted into Type I (less restrictive) and Type II (more restrictive) “special conditions of release”²³ (Goldkamp and White 2006, 63). Type I defendants were randomly sorted into two groups (A and B). Both groups were required to attend a pretrial services orientation. Group A was required to report in by phone once per week. Group B was required to call in once per week and received a phone call from pretrial services staff the night before a court date. Type II defendants were also required to attend orientation. Those sorted into Group A also began with case management meetings and were required to call in twice per week. Those in Group B had these same conditions and were required to meet in-person with case managers three days before court dates (Goldkamp and White 2006, 71).

Compared to Type I baseline sample defendants, individuals in both Type I groups were less likely to FTA (22% in Group A and 20% in Group B vs. 40%) or be rearrested (9% in Group A and 11% in Group B vs. 26%), though the study did not discuss whether these findings were statistically significant. Group A was more likely to FTA than Group B (22% vs. 20%) and less likely to have a rearrest (9% vs. 11%), though these findings were not statistically significant.

Compared to Type II baseline sample defendants, individuals in both Type II groups were less likely to FTA (23% in Group A and 26% in Group B vs. 55%) or be rearrested (16% in Group A and 14% in Group B vs. 27%), though statistical significance was not discussed. The differences between Type II Group A and B in FTAs (23% vs. 26%) and rearrests (16% vs. 14%) were not statistically significant.

These findings suggest two things. First, supervision programs can potentially reduce the frequency of FTAs and rearrests. However, the baseline sample was taken prior to the study.

²² The risk levels were established by the city of Philadelphia during the course of the study. Charge type, prior FTAs, and prior pretrial rearrest were used to categorize defendants as Type I or Type II.

²³ Broadly referring to supervision by pretrial services case managers.

Although the sample was used to compare similar defendants²⁴ from 1992, this comparison across years means we cannot conclusively say that these findings are entirely the result of the supervision program.²⁵ Second, the study also found that increasing supervision among defendants categorized as the same risk level did not lead to statistically significant changes in FTAs or rearrests.

3. Two States

In this study, 3,925 defendants in two unidentified states were assessed; the study period was 2005 in one state and 2008-2009 in the other. The goal of the analysis was to determine the effect of supervised release²⁶ on FTAs and new criminal activity.

Before beginning the analysis, eight factors from the Virginia Pretrial Risk Assessment Instrument were used to develop a risk assessment score.²⁷ Three models were used in the study's analysis. The first model did not match supervised and unsupervised defendants to ensure they were similar in terms of state, gender, race, and risk level. The second model matched across these factors. The third model matched defendants within the same jails across these factors. The study found that, across all risk levels, a lack of supervised release was associated with a greater probability of FTA. Overall, supervised release was associated with being 29%, 38%, or 40% less likely to FTA, depending on the model. For new criminal activity, supervised release, or lack thereof, was not a statistically significant predictor (Lowenkamp and VanNostrand 2013, 15-16). These findings suggest that supervised release may reduce FTA rates, but it had no apparent effect on new criminal activity in the study²⁸. In addition, it is not clear what supervision involved in these states; thus, no conclusions can be made about the effects of how supervised release is implemented.

4. Orange County, CA

The Orange County Pretrial Assessment and Release Supervision (PARS) program, established in 2016, uses the Virginia Pretrial Risk Assessment Instrument to recommend felony arrestees not previously convicted of a violent crime for pretrial supervision in lieu of detention. Supervision requirements can include monthly mail-in reports, weekly in-person visits, and electronic monitoring, depending on an individual's risk score. This study compared FTA rates for 206 defendants who received pretrial supervision to FTA rates for 107 defendants released on cash bond from 2016 and 2017 (Barno, Martínez, and Williams 2020, 369-370).

²⁴ Defendants from 1992 were retroactively sorted into the same risk groups, but the authors note that the guidelines were not always followed precisely in 1996, suggesting that the baseline and experimental groups are similar but not identical.

²⁵ In other words, it is possible that some other change or development between 1992 and 1996 is a contributing factor to the changes in FTA and rearrest rates.

²⁶ The specifics of the supervision were not shared in the study.

²⁷ Primary charge type, pending charges, criminal history, history of violent convictions, history of failure to appear, length of time at current residents, employed or serves as a primary caregiver, and history of drug abuse (Lowenkamp and VanNostrand 2013, 7).

²⁸ The study did find a statistically significant reduction in new criminal activity for defendants supervised 180+ days; however, it was only significant in 2/3 models. This finding is in contrast to the study's overall finding of no significant relationship between supervision and new criminal activity. In addition, no causal mechanism is suggested for why only 180+ days of supervision would reduce new criminal activity, and the authors note this finding is both "tentative" and of "limited practical application."

After controlling for gender, race, employment, military status, and risk score, researchers found that defendants who received pretrial supervision had 43% lower odds of FTA compared to those released on cash bond (Barno, Martínez, and Williams 2020, 373). This statistically significant finding suggests that pretrial supervision, particularly when its requirements are tied to risk level, can be effective in reducing FTA rates.

5. Washington, D.C.

In 1975, the D.C. Pretrial Services Agency assessed whether increased levels of supervised release reduced the rate of FTA, rearrest, and non-compliance with conditions of release. 300 felony cases were randomly assigned to one of three groups. The study noted that the three groups were statistically similar except for the number of charged violent crimes, but the authors added that this difference did not affect the study's findings. Group One was the control group and had passive supervision, which was not defined by the study beyond being described as normal supervision. Group Two had moderate supervision, which involved contact by phone or letter every two weeks to remind defendants of court dates and identify problems that may lead to pretrial failure. Group Three had intensive supervision. This group had the same requirements as the previous groups. In addition, defendants were visited once per month either at home or their workplace by the Bail Agency's Street Investigation Unit.

The control group had a 4.59% FTA rate compared to 4.20% for moderate supervision and 1.55% for intensive supervision. The difference between the control group and moderate group was not statistically significant; however, the difference between the intensive group and each of the other groups was statistically significant. Rearrest rate was even among all groups, with 19.6% for the control, 19.8% for moderate supervision, and 19.5% for intensive supervision. These differences were not statistically significant. In terms of compliance with conditions of release, members of the intensive group were more likely (71%) to comply relative to the moderate (62%) and control (52%) groups. No statistical significance was discussed for this finding (District of Columbia Pretrial Services Agency 1978, 13-16).

This study demonstrates that merely increasing levels of supervision does not guarantee a reduction in FTA rates or rearrests. A significant decrease in FTA rate only occurred at the highest tested level of supervision, but there was no significant decrease for moderate supervision. Rearrests decreased at no level of supervision. In addition, both moderate and intensive levels of supervision were associated with an increase in compliance with conditions of release. Together, these findings indicate that higher levels of supervision may increase compliance, but the extent of the supervision matters in shaping FTA rates.

6. Summit County, OH

The goal of the Summit County, Ohio study was to examine the predictive validity of the Virginia Risk Assessment Instrument, which had been modified through the development of a release guidelines grid,²⁹ between January 1, 2006 and November 15, 2006. Included in the study

²⁹ Nine factors, including a defendant's criminal record alongside residence, employment, and drug abuse, were used to develop the guidelines grid.

is an assessment of the effect of supervised release on pretrial failure rates.³⁰ 2,463 defendants were included for analysis.

For misdemeanor and felony defendants assessed as low risk, increasing levels of supervision³¹ were associated with an increase in failure rate (10% for no supervision, 15% for minimum, 13% for medium, and 33% for maximum). For medium risk defendants, the failure rate remained relatively flat at 28% for no supervision, 25% for minimum supervision, 25% for medium supervision, and 26% for maximum supervision. For high risk defendants, the failure rate was 44% with no supervision, 80% for minimum and medium supervision, and 41% for maximum supervision (Lowenkamp and Bechtel 2009, 26-27).

These findings were not assessed for statistical significance. In addition, although the overall sample was 2,463, the number of defendants falling into each category of risk and supervision level was small. For example, there were only five high risk defendants under minimum or medium supervision. These results do not show that supervised release lowers FTA rates. For low risk defendants in particular, greater supervision may increase FTA rates, though future analysis is still needed with larger sample sizes to explore this finding.

7. Ten Counties in Arizona, Illinois, Maryland, Michigan, Pennsylvania, Tennessee, and Texas

State Court Processing Statistics (SCPS) from 2000, 2002, and 2004 were assessed from 10 counties in Arizona, Illinois, Maryland, Michigan, Pennsylvania, Tennessee, and Texas to examine the effect of pretrial deposit bonds, release on recognizance (ROR), and conditional release (CR)³² on FTAs, relative to surety bonds. 12,794 felony defendants were included. The study found that, even when controlling for potentially confounding factors including demographic characteristics, charge severity, prior arrests, and prior FTAs, CR was between 1.75 and 2.15 times as likely to result in FTAs than surety bonds. Deposit bonds were between 1.84 and 2.04 times as likely as surety bonds to result in FTA, while ROR was between 1.55 and 1.79 times as likely. Each of these findings was statistically significant (Cohen 2008, 376).

The authors did not directly test why these discrepancies exist between CR and surety bonds. However, they suggest that surety bond agents may be more selective in the defendants they choose and may have more aggressive monitoring tactics, which may be responsible for reducing FTA rates for those released on surety bonds (Cohen 2008, 378-382). In addition, the Bureau of Justice Statistics has noted that SCPS data cannot fully explain causal relationships (such as those between CR or surety bonds and FTA rates) as it lacks information relevant to pretrial release decisions and individual misconduct such as community ties, employment, income, education, drug abuse, and mental health (Cohen and Kyckelhahn 2010). Because of this, it is possible some of the FTA rate discrepancy identified in this study is due to relevant defendant characteristics that could not be controlled for.

³⁰ Defined as failing to appear, arrest for felony or misdemeanor, or both (Lowenkamp and Bechtel 2009, 5).

³¹ The requirements of these supervision levels were not explained in the study.

³² The study noted conditional release could include supervised release, electronic monitoring, or promises to contact law enforcement on specified dates.

8. Four Counties in Indiana

Eleven counties in Indiana implemented a Pretrial Pilot Program between 2016 and 2017. Of these, four were selected for an assessment of the program's implementation and effects. Under the program's structured guidelines, low, moderate, and high-risk defendants could be required to attend monthly meetings of varying frequencies (every other month, once per month, or twice per month). Other conditions, including group counseling, electronic monitoring, and bonds, also could be imposed for higher-risk defendants. A total of 1,505 pretrial defendants were included for analysis. The authors explored whether, among these defendants, pretrial supervision was associated with altered risk of pretrial failure, which was defined as new criminal activity, a FTA, or technical violations. FTAs and technical violations that did not result in a warrant were not considered pretrial failures, as these did not lead to revocation of pretrial release (Lowder and Foudray 2021, 6-11).

After controlling for risk level, charge severity, length of supervision, and county, the authors found that defendants meeting once per month were more likely (46.5%) to fail pretrial supervision than defendants meeting less than once per month (34.8%). Defendants meeting twice or more per month were also more likely to fail pretrial supervision (55.1%). These findings were driven by higher rates of new criminal activity and technical violations. Each of these findings was also statistically significant. The authors then explored whether these findings varied by risk level. They found that low-risk defendants had similar rates of pretrial failure, regardless of whether they met less than once per month (32.3%) or once per month (27.0%). For moderate- and high-risk defendants, there was a clear gap in pretrial failure rates between defendants meeting less than once per month (33.2% and 38.6%) and defendants meeting once per month (48.0% and 66.2%). These findings were also statistically significant, though there were no statistically significant findings for defendants required to meet twice or more per month (Lowder and Foudray 2021, 13-16).

This study's findings suggest that more frequent pretrial supervision may lead to greater rates of pretrial failure, compared to less frequent supervision. Contrary to other studies, this greater meeting frequency was not associated with higher rates of pretrial failure for low-risk defendants. Rather, moderate- and high-risk defendants had higher rates of failure when required to attend more frequent meetings. It should be noted that the four counties had slightly different implementations of the program, and only one county had the option of requiring meetings less than once per month (every other month). Because much of the study's findings are in relation to defendants at this lowest supervision level that was only available in a single county, these findings may not be generalizable to other jurisdictions.

Conclusion

Of the studies reviewed here, five found that supervised release may improve pretrial outcomes. Among these, four (studies labeled 1, 3, 4, and 5) had statistically significant results suggesting that the use of supervised release is associated with reduced FTA rates. Of the remaining studies, the study in Summit County, Ohio (labeled 6) found that increased supervision did not improve pretrial outcomes and that supervision that was excessive compared to defendant risk could negatively impact pretrial outcomes, though these findings were not statistically significant. The

study of ten counties (labeled 7) had a statistically significant finding that supervised release was more likely to result in pretrial failure than surety bonds, which the authors suggest may be attributable to the selection and monitoring techniques used by surety bond agents. The final study (labeled 8) found that higher levels of pretrial supervision, measured by number of monthly meetings, was associated with higher rates of pretrial failure, particularly for moderate and high-risk defendants.

In sum, there is limited data and research to definitively show which defendants supervised release is best suited for and how supervised release can best be implemented and managed to reduce FTA and NCA rates. It is also unclear whether the potential benefits of pretrial supervision outweigh the costs of running these programs. Further research is needed to better understand the effect of supervised release on pretrial outcomes, to identify how implementation and management of these programs contribute to these outcomes, and to weigh the costs of managing supervised release relative to its potential benefits.

Table 5: Summary of Supervised Release Studies

Number	Study Site	Date	Sample Size	Findings
1	Dade, Multnomah, and Milwaukee County	Mar. 1980 - Mar. 1981	1,258	Florida: 7.1 percentage point decrease in appearances compared to financial conditions and .2 point increase compared to other non-financial conditions Oregon: 9.2 percentage point increase in appearances compared to financial conditions and 10.4 point increase compared to other non-financial conditions* Wisconsin: 16.3 point increase in appearances compared to financial release and 14.8 point increase relative to other non-financial conditions*
2	Philadelphia	Aug. 1996 - Nov. 1996	845	Low risk less supervision: FTA rate 18 percentage points lower and rearrest rate 17 points lower compared to control Low risk more supervision: FTA rate 20 points lower and rearrest rate 15 points lower High risk less supervision: FTA rate 32 points lower and rearrest rate 11 points lower High risk more supervision: FTA rate 29 points lower and rearrest rate 13 points lower
3	Two States	2005; 2008-2009	3,925	Pretrial supervision associated with being between 29% and 40% less likely to FTA**
4	Orange County	2016, 2017	313	Defendants receiving pretrial supervision had 43% lower odds of FTA compared to those released on cash bonds*
5	Washington, D.C.	1975	300	FTA rate .39 percentage points lower for moderate supervision FTAs 3.04 points lower for intensive supervision* Rearrests .2% higher for moderate supervision Rearrests .1% lower for intensive supervision Conditions of release compliance 10 points higher for moderate supervision Conditions of release compliance 19 points higher for intensive supervision
6	Summit County	Jan. 2006 - Nov. 2006	2,463	Low risk failure rates: 10% for no supervision, 15% for minimum, 13% for medium, 33% for maximum Medium risk failure rates: 28% for no supervision, 25% for minimum, 25% for medium, and 26% for maximum High risk failure rates: 44% for no supervision, 80% for minimum, 80% for medium, and 41% for maximum
7	Ten Counties	2000, 2002, 2004	12,794	Supervised release is 1.75 to 2.15 times as likely as surety bonds to result in FTAs***
8	Four Counties in Indiana	2017	1,505	Pretrial failure rates were 11.7** percentage points higher when meeting once per month and 20.3*** percentage points higher when meeting twice per month, compared to meeting less than once per month Pretrial failure rates were 5.3 percentage points lower for low risk defendants, 14.8* percentage points higher for moderate risk defendants, and 17.6** percentage points higher for high risk defendants meeting once per month compared to those meeting less than once per month.

*findings statistically significant at the .05 level (95% chance findings not due to random chance)

**findings statistically significant at the .01 level (99% chance findings not due to random chance)

***findings statistically significant at the .001 level (99.9% chance findings not due to random chance)

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