Contents

Disclaimer
APPR developed this summary—using online searches of academic databases and publicly available information—to provide an overview of current research on this topic. The online search may not have identified every relevant resource, and new research will shed additional light on this topic. APPR will continue to monitor the research and will update this summary as needed. Due to the broad nature of this summary, readers are encouraged to identify areas to explore in depth and to consider the local implications of the research for future advancements related to pretrial goals, values, policies, and practices.

Pretrial Drug Testing

When a person is released while their case is pending, a jurisdiction has two primary interests: to maximize court appearance and maximize community well-being and safety (i.e., minimize the likelihood of the person's rearrest during the pretrial stage). Most people succeed on pretrial release: they return to court and abide by the law. Courts sometimes order additional conditions of release to provide reasonable assurance of these positive outcomes. This summary examines the current base of knowledge regarding the effectiveness of drug testing in improving court appearance and law-abiding behavior.

Pretrial research is always evolving. This research summary, which was updated in April 2025, includes findings from recently published studies that may change the interpretation of the takeaways and conclusions presented in earlier versions of the document. To explain why these changes occurred or why there may not be a singular conclusion, greater detail is provided on research study methodology, and additional guidance is offered on how to interpret different findings. Overall, the inclusion of more recent research and a closer critique of past studies has not significantly altered the key findings previously presented to the field.

A few updates have been made to this summary:

- the inclusion of a new study,
- outlines of different research designs and study limitations, and
- the exclusion of some analyses that were in the previous version that had weaker links with pretrial drug testing.

It is hoped that this update equips readers with a greater understanding of the state of research in the field.

What Is Pretrial Drug Testing?

Pretrial drug testing programs started appearing regularly in the late 1970s and early 1980s, following research that supported drug testing and treatment as ways to reduce recidivism among people convicted of a crime.

Combined with the nation's sense of urgency surrounding the War on Drugs and the availability and evolving technology of drug testing in the 1990s, the number of pretrial drug testing programs grew substantially.[1] By the end of that decade, over two-thirds (68%) of pretrial programs across the country included drug testing.[2] The use of drug testing by pretrial agencies reached a peak of 90% a decade later, in 2009, and currently sits at 77%.[3]

This summary reviews key research findings on the impact of drug testing on pretrial court appearance and arrest-free rates. The findings come from evaluations of demonstration projects funded by the U.S. Department of Justice from the mid-1980s into the early 1990s—specifically, demonstration projects in Arizona, Maryland, Washington, D.C., and Wisconsin.

Research Designs

There are two main challenges with evaluating the impact of drug testing on pretrial outcomes. First, people assigned to more restrictive release options, such as drug testing, may have risk factors associated with higher rates of pretrial failure—that is, failing to appear for court, violations of release conditions, or being arrested while on pretrial release. If judicial officers assign people with higher risk factors to drug testing, it is difficult to disentangle whether differences in pretrial outcomes are a result of drug testing or the person's risk factors. Second, system responses can impact individual behavior in a way that leads to an unintentional decrease in pretrial success. People under drug testing face more scrutiny than people released under less restrictive options. Drug testing increases the level of surveillance and requires people to comply with more rules, which gives the supervising agent more scenarios where they can petition for a technical revocation. Thus, drug testing could increase the likelihood of violations and sanctions, which can overshadow changes in individual behavior or deterrence effects. These challenges can lead to overestimates of pretrial failure for people assigned to drug testing.

Studies vary in their ability to isolate the effects of drug testing and to produce causal or more credible findings. Rigorous studies can rule out alternative explanations and more convincingly link an intervention to differences in outcomes (as opposed to suggesting a correlational relationship).

1. **Randomized controlled trials** (RCTs) are considered "the gold standard" in research. People are randomly assigned to either an experimental group (which is subject to an intervention or to a policy or practice change) or to a control group (which is not subject to the intervention or to the policy or practice change). If the sample size is large enough

Advancing Pretrial Policy and Research is committed to achieving fair, just, effective pretrial practices that positively impact people, systems, and communities.

The **Center for Effective Public Policy** (cepp.com) leads APPR's technical assistance, training, resource development, and website management (advancingpretrial.org).

CEPP Center for Effective Public Policy

This pretrial research summary was developed in partnership with the Center for Justice Innovation (innovatingjustice.org).

Center for Justice Innovation

and there is an effective randomization procedure, all of the factors that could influence the outcome other than the intervention or policy change will likely be distributed evenly between the two groups. In this way, differences in outcomes can be explained by the intervention or policy change alone rather than by an alternative factor. However, such studies may encounter implementation challenges (e.g., staff ignoring research protocols, lack of resources to provide the intended treatment, and testing people in both the treatment and control groups). **RCTs are included in this summary, with implementation challenges noted where relevant**.

2. **Quasi-experimental studies** aim to estimate the effect of an intervention, policy, or practice without random assignment driven by the researcher (e.g., comparing technical violations for similar groups before and after the implementation of statewide policies mandating drug testing). Quasi-experimental studies encompass a broad range of approaches: more rigorous quasi-experimental studies can produce causal estimates while weaker quasi-experimental studies may leave the door open to alternative explanations. **Some studies cited in this research summary are quasi-experimental studies.**

3. **Descriptive or correlational studies** examine differences in outcomes between nonequivalent groups that were or were not subject to an intervention or to a policy or practice change. Under these designs, it is difficult to attribute any changes in outcomes to an intervention. Differences in outcomes may be driven by pre-existing differences or alternative explanations. In general, strong conclusions should not be drawn from these studies. However, because descriptive or correlational studies are still informative and can pave the way for more rigorous studies, **this research summary cites some descriptive or correlational studies**.

Key Finding #1: Drug Testing Has No Clear Effect on Pretrial Outcomes

Over the past three decades, a number of studies have examined the potential impact of drug testing on pretrial court appearance and arrest rates. These studies, using various levels of rigor in their research design, have been inconsistent in their findings and, taken together, find that drug testing has no clear effect on pretrial outcomes. However, implementation challenges among the RCTs and the lack of contemporary rigorous studies highlight the need for more research in this area.

Some of the earliest examinations of the relationship between drug testing and pretrial misconduct were RCTs in Pima County and Maricopa County, Arizona, in 1992. The studies found inconsistent results regarding the impact, or lack thereof, of drug testing on pretrial court appearance and new arrest rates. In Pima County, the study looked at two different samples. The first examined 231 people who were booked into jail and then released on pretrial monitoring with or without periodic drug testing. The study found that while people with periodic drug testing were significantly less likely to experience a new arrest pretrial than those without testing (4% vs. 12%), those with testing were just as likely to fail to appear in court (17% vs. 18%). In contrast, a second sample of 138 people revealed that while there were no new arrests in either group (drug testing and no drug testing), the drug-testing group was more likely to fail to appear (16% vs. 11%), although this finding was not statistically significant.[4]

The Maricopa County study also examined two different sample groups. First, the study analyzed how 234 people released on pretrial monitoring with drug testing compared to people released on their own recognizance. The study observed no statistically significant differences in failure to appear rates (30% for those who were drug tested vs. 38% for those released on recognizance) or pretrial arrest rates (25% vs. 24%). In the second sample, the study analyzed outcomes for 890 people, all of whom were released on pretrial monitoring, either with or without periodic drug testing. People released with the condition of drug testing were significantly *more* likely to fail to appear for court (35% vs. 27%) and be rearrested (45% vs. 37%) during the pretrial period.[5] However, both experiments did not completely implement the random assignment, meaning the groups (testing vs. no testing) were not entirely equivalent. Notably, people in the groups assigned to drug testing were more likely to report prior treatment for drug addiction or test positive at the initial appearance, suggesting that the treatment groups were composed of people who were higher risk.

In Maryland and Wisconsin, RCTs of approximately 600 people revealed that those released with the condition of drug testing had no statistically significant differences in pretrial success compared to those released without the condition of drug testing.[6] These trials dealt with implementation issues, where only a small share of eligible people entered the experiment, producing an unrepresentative sample. Moreover, the counties experienced logistical issues in conducting drug testing and enforcing sanctions, which undermined the deterrence component of drug testing.

In Washington, D.C., an RCT analyzed 2,000 people who were released pretrial and compared those with the condition of drug testing to those without. Drug testing did not improve pretrial outcomes.[7] Like the previously

mentioned RCTs, random assignment was not properly implemented, as magistrates deviated from the group assignments and people were allowed to opt out of drug testing to enter drug treatment instead. If magistrates moved people who were higher risk from the non-drug testing group to the drug-testing group, this could have led to underestimates of the efficacy of drug testing.

A descriptive study of 160,000 people released pretrial in 93 of the 94 federal judicial districts compared individuals with the same risk classification but different pretrial conditions of substance-use testing. Among the higher-risk classifications, people with conditions of substance-use testing showed no statistical differences in outcomes (missed court appearance and new arrest) from those without the condition.[8] Conversely, among the lower-risk classifications, people with substance-use testing were less likely to succeed compared to those without the condition. One limitation with this study is that people assigned to drug testing may still pose higher risks within their classification level (e.g., the person assigned to substance use testing may have a lengthier history of substance use). As a result, it is difficult to disentangle whether differences in pretrial success are driven by pre-existing characteristics or drug testing conditions.

In another quasi-experimental study that compared cases on sobriety testing to cases with similar attributes and no sobriety testing across four jurisdictions, the difference in court appearance rates (76.9% versus 76.8%) and arrest-free rates (76.0% versus 75.5%) were statistically nonsignificant.[9]

While the research to date finds no clear evidence of drug testing impacting pretrial outcomes, as noted above, limitations in the research design point to the need for more research in this area. Notably, different pretrial drug testing programs have different processes. More rigorous research is needed to parse out the extent to which drug testing itself, as opposed to programs' policies and practices, impacts pretrial outcomes.

> ***More rigorous research is needed to understand the extent to which drug testing itself, as opposed to the policies and practices of drug testing programs, impacts pretrial outcomes.***

Research Studies for Key Finding #1

Year	Research Design	Sample Population	Results		Limitations
			FTA	Rearrest	
1988–1989	RCT	Pima County, Arizona— Sample 1	No Difference	Less	Random assignment was not fully implemented, with differences between treatment and nontreatment groups in self-reporting for drug dependency, prior treatment, and testing positive at initial appearance.
		Pima County, Arizona— Sample 2	More	No Difference	
		Maricopa County, Arizona—Sample 1	No Difference	No Difference	
		Maricopa County, Arizona— Sample 2	More	More	
1988–1989	RCT	Prince George County, Maryland	No Difference	No Difference	Logistical issues made it difficult to conduct drug testing and enforce sanctions.
1988–1989	RCT	Milwaukee, Wisconsin	No Difference	No Difference	Only a small share of eligible people entered the experiment, raising concerns about representativeness.
1984	RCT	Washington, D.C.	No Difference	No Difference	Random assignment was not fully implemented, with people in the untested group able to opt into drug treatment.
2017–2019	Quasi-experimental	4 Unnamed Jurisdictions	No Difference	No Difference	
2001–2007	Descriptive/ Correlational	Federal — Low-Risk Sample	More	More	
		Federal — High-Risk Sample	Less	Less	

Key Finding #2: Cost–Benefit Considerations Must Be Made

The lack of a clear effect of drug testing on improved pretrial outcomes has important implications for the benefits of pretrial drug testing programs when compared to the costs of implementing them (e.g., supplies, staff resources, enforcing sanctions, third-party drug screening analyses). Although there is a paucity of publicly available cost–benefit research on pretrial drug testing programs, the Arizona demonstration projects described in Key Finding #1 offer a basic illustration of financial costs. For example, Pima County reported a 233% increase in staff workload that accompanied the new pretrial services drug testing program, translating to over $311,000 ($817,489 inflation-adjusted) in 21 months. Maricopa County reported $1 million ($2,628,582 inflation-adjusted) in total expenditures, including almost $40,000 ($105,143 inflation-adjusted) in staff time, associated with implementing and running the county's drug testing project over two years. According to the researchers, given that the pretrial drug testing programs were "not likely to achieve significant or major reductions in pretrial misconduct" (p. 60), the financial costs of these programs were "difficult to justify" (p. 61).[10] In addition, many jurisdictions require people who are subject to drug testing to pay for their drug tests. This practice can contribute to large criminal justice debts that many people struggle to pay off, even long after their case ends.

> ***Research suggests that, when weighing the costs and benefits, pretrial drug testing programs may not be worth the costs.***

Best Practice Recommendations

The aforementioned research literature and the professional practice standards that follow offer mixed guidance regarding pretrial drug testing.

1. **American Bar Association (ABA)**
   Standard 10-5.2(a) in *ABA Standards for Criminal Justice: Pretrial Release* explains conditions of release as follows: "If a defendant is not released on personal recognizance or detained pretrial, the court should impose conditional release, including, in all cases, a condition that the defendant attend all court proceedings as ordered and not commit any criminal offense. In addition, the court should impose the least restrictive of release conditions necessary reasonably to ensure the defendant's appearance in court, protect the safety of the community or any person, and to safeguard the integrity of the judicial process. The court may…(vi) require

the defendant to…be evaluated for substance abuse treatment, undergo regular drug testing, be screened for eligibility for drug court or other drug treatment program…."[11]

2. **The National Association of Pretrial Services Agencies (NAPSA)** Standard 3.2(b) in *Pretrial Standards: Revised 2024* explains: "At the initial bail hearing, the court should determine if there is probable cause to believe the individual committed the crime charged before setting bail, ordering conditions of pretrial release or ordering the individual's temporary detention" (p. 43). According to the commentary: "This Standard assumes that any condition other than for the individual to make all scheduled court appearances and refrain from criminal behavior pretrial qualifies as a 'significant restraint of liberty' within the meaning of the Gerstein decision. In particular, these Standards regard commonly imposed conditions of pretrial supervision such as drug testing…as significant restraints" (p. 43).[12]
3. **National Institute of Corrections (NIC)** *A Framework for Pretrial Justice: Essential Elements of an Effective Pretrial System and Agency* specifically does not cite drug testing as an essential element of an effective pretrial system, as the literature is unclear about which supervision conditions best assure pretrial outcomes.[13]

Notes

1. Henry, D. A., & Clark, J. (1999). *Pretrial drug testing: An overview of issues and practices*. https://www.ncjrs.gov/pdffiles1/176341.pdf

2. Clark, J., & Henry, D. A. (2003). *Pretrial services programming at the start of the 21st century: A survey of pretrial services programs* (NCJ 199773). https://www.ncjrs.gov/pdffiles1/bja/199773.pdf

3. Pretrial Justice Institute. (2019). *Scan of pretrial practices 2019*. https://www.pretrial.org/files/resources/scanofpretrialpractices.pdf

4. Britt, C. L., III, 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. https://doi.org/10.1177/0022427892029001004

5. Britt et al., 1992

6. Goldkamp, J. S., & Jones, P. R. (1992). Pretrial drug-testing experiments in Milwaukee and Prince George's County: The context of implementation. *Journal of Research in Crime and Delinquency, 29*(4), 430–465. https://doi.org/10.1177/0022427892029004003

7. Toborg, M. A., Bellasai, J. P., Yezer, A. M., & Trost, R. P. (1989). *Assessment of pretrial urine testing in the District of Columbia* (NCJRS 119968). https://www.ncjrs.gov/pdffiles1/Digitization/119968NCJRS.pdf

8. VanNostrand, M., & Keebler, G. (2009). Pretrial risk assessment in the federal court. *Federal Probation, 73*(2). https://www.uscourts.gov/sites/default/files/73_2_1_0.pdf

9. Anderson, C., Valentine, E., & Holman, D. (2023). *Assessing the effectiveness of pretrial special conditions: Full findings from the Pretrial Justice Collaborative*. MDRC. https://www.mdrc.org/sites/default/files/PJC_Special_Conditions.pdf

10. Gottfredson, M. R., Britt, C. L., III, & Goldkamp, J. (1990). *Evaluation of Arizona pretrial services drug testing programs* (NCJRS 139966). https://www.ncjrs.gov/pdffiles1/Digitization/139966NCJRS.pdf

11. American Bar Association. (2007). *ABA standards for criminal justice: Pretrial release* (3rd ed.). https://www.americanbar.org/groups/criminal_justice/publications/criminal_justice_section_archive/crimjust_standards_pretrialrelease_blk/

12. National Association of Pretrial Services Agencies. (2024). *Pretrial standards: Revised 2024*. https://napsa.memberclicks.net/assets/NAPSA%20Pretrial%20Standards%20Revised%202024.pdf; for information on the Gerstein decision, see Gerstein v. Pugh, 420 U.S. 103.

13. Pilnik, L., Hankey, B., Simoni, E., Kennedy, S., Moore, L. J., & Sawyer, J. (2017). *A framework for pretrial justice: Essential elements of an effective pretrial system and agency* (NIC Accession No. 032831). National Institute of Corrections. https://t.ly/jxQd6