

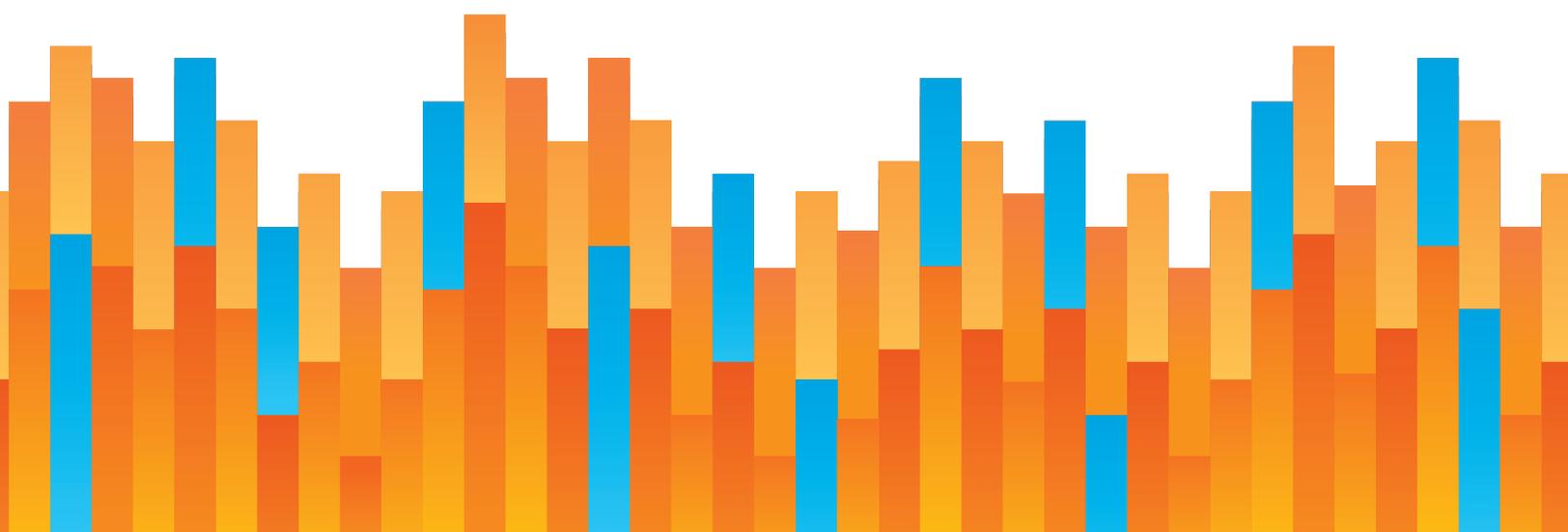


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ADDRESSING MASS SUPERVISION IN THE UNITED STATES: HOW TEXT MESSAGE REMINDERS CAN HELP REDUCE TECHNICAL VIOLATIONS OF COMMUNITY SUPERVISION

by Vittorio Nastasi, Charise Hastings, Jordan M. Hyatt, and Michael Ostermann

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EXECUTIVE SUMMARY

High rates of incarceration in the United States have rightfully garnered significant attention from policymakers, researchers, and the public. However, community supervision programs, including parole and probation, have received comparatively little attention. This disparity is notable given the fact that the number of people under community supervision is more than twice as large as the incarcerated population. In fact, the 3.9 million people on parole and probation in 2020 accounted for 70% of the total correctional population that year. As policymakers pursue reforms to reduce the incarcerated population, the share of correctional populations under parole and probation has increased. Supervision agencies are often under-resourced and are increasingly required to find ways of doing more with less.

Probation and parole are intended to encourage community reintegration by providing an alternative to incarceration and keeping justice-involved individuals in their communities. However, a growing body of research finds that community supervision programs may be contributing to the problem of mass incarceration in unintended ways. Individuals under community supervision are typically subject to conditions including regular check-ins, drug testing, curfews, electronic monitoring, and the payment of fines and fees. In some cases, failure to comply with these conditions can result in a revocation of community supervision and a return to jail or prison.

Of the reported 1,790,000 individuals who exited probation in 2019, only about 53% successfully completed their probation. Approximately 13% of parole exits that year were

attributable to parole revocations that resulted in incarceration. Among those who were revoked and returned to incarceration, about 40% were incarcerated due to technical violations. Only 31% were incarcerated for new crimes, with the remaining 29% incarcerated for other unknown reasons.

One of the most common requirements placed on individuals under community supervision is that they have regular contact with the officers assigned to manage their case. The nature and frequency of this contact varied depending on the specific needs and risk level of each individual under supervision.¹ One form of contact between supervisees and officers is an in-person parole or probation meeting. These meetings often take place at an agency office and may serve a variety of purposes. Supervisees may provide updates on education and employment, receive support and treatment, and be tested for recent drug use.

Despite their importance to effective supervision, office visits are often difficult to coordinate. Supervisees frequently miss appointments due to work, education, or difficulty securing transportation. Missed appointments and time spent coordinating meetings represent opportunities to improve use of scarce time by parole and probation officers. Eliminating these inefficiencies would allow officers to focus their time and attention on higher-risk supervisees in greater need of intensive supervision.

Moreover, failure to meet with supervising officers is among the leading forms of technical violations committed by parolees. For example, an analysis of parole violations in Michigan found that failure to report to probation officers was by far the most common type of violation, accounting for over 33% of all recorded violations.

Surprisingly, one relatively low-cost intervention that focuses on reducing the frequency of missed appointments for probation and parole supervision is supported by a growing body of evidence: sending text message reminders to supervisees regarding upcoming appointments.

To assess the potential of text-message reminders to reduce the number of missed parole and probation meetings, a randomized control trial was recently conducted among community supervision participants in Arkansas. Our findings suggest that sending text

¹ James Bonta and J. Stephen Wormith, "Applying the Risk-Need-Responsivity Principles to Offender Assessment," *What Works in Offender Rehabilitation: An Evidence-Based Approach to Assessment and Treatment*. Eds. Leam A. Craig, Louise Dixon, and Theresa A. Gannon, (Hoboken, NJ: Wiley, 2013). 72–93.

message reminders one day prior to scheduled appointments could reduce canceled and missed appointments by as much as 21% and 29%, respectively.

To be sure, there are many necessary reforms to community supervision in the U.S. Policymakers should seek to ensure that community supervision is focused on rehabilitation and reintegration rather than doling out punishment. To that end, revocations and incarceration for technical violations should be limited. Supervising officers must also have sufficient time and resources to effectively support the clients under their supervision. While certainly not a panacea, improving meeting attendance through text message alerts is a cost-effective means for reducing technical violations and improving the efficiency of community supervision programs.

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PART 1

INTRODUCTION

In recent decades, the high rate of incarceration in the United States has garnered significant attention from policymakers, researchers, and the public. The U.S. incarceration rate is among the highest in the world, and it is considerably higher than the incarceration rates of peer countries.²

Between 1980 and 2010, the number of prisoners under state and federal jurisdictions nearly quintupled from 330,000 to 1,600,000.³ The most significant growth occurred during the 1980s and 1990s before leveling off throughout the 2000s. The U.S. prison population has slowly declined since 2009, but nearly 1.25 million people remain incarcerated in state and federal prisons each year. When local jails, juvenile facilities, and immigration detention centers are included, that figure rises to nearly 2 million.⁴

These numbers are staggering, but they still exclude the largest group in the American correctional population: individuals living under community supervision. Community supervision refers to a variety of programs that allow justice-involved individuals to remain in their communities rather than being incarcerated in prisons or jails. The most common

² Roy Walmsley, "World Prison Population List: Thirteenth Edition," *icpr.org.uk*, Institute for Crime & Justice Policy Research, 2021. <https://www.icpr.org.uk/theme/prisons-and-use-imprisonment/world-prison-brief>.

³ Bureau of Justice Statistics, National Prisoner Statistics (NPS) Program, <https://bjs.ojp.gov/data-collection/national-prisoner-statistics-nps-program>.

⁴ Wendy Sawyer and Peter Wagner, "Mass Incarceration: The Whole Pie 2022," *Prisonpolicy.org*, Prison Policy Initiative, 14 March 2022. <https://www.prisonpolicy.org/reports/pie2022.html>.

forms of community supervision are parole and probation. The U.S. also has comparatively high rates of individuals under parole and probation relative to peer countries.⁵

What Is Parole? Parole is a form of community supervision for the remainder of a person's sentence that occurs after a person has been conditionally released from incarceration. As part of an individual's sentence, a judge may specify a minimum period of time before they are eligible for parole. Whether parole is granted is typically determined by a parole board or similar authority.

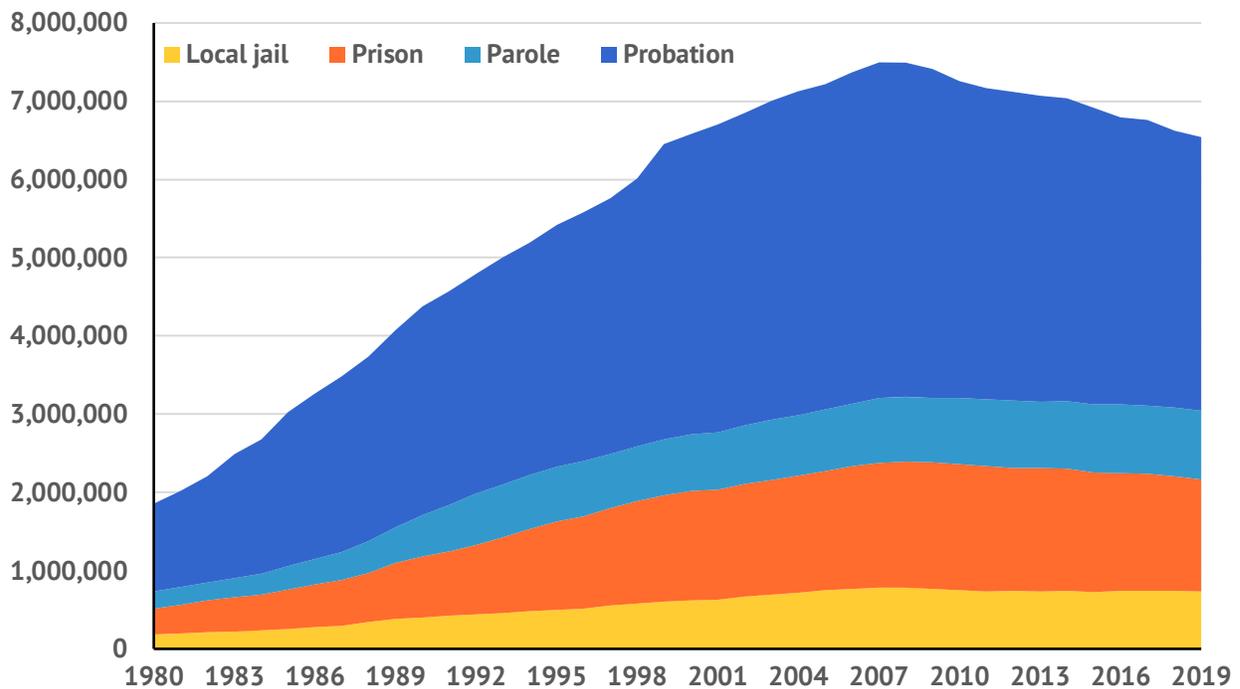
What Is Probation? Probation is a court-ordered period of correctional supervision in the community, generally as an alternative to incarceration. Typically, judges may specify the length and conditions of probation during sentencing.

In many ways, the problem of mass incarceration in the U.S. is a problem of mass supervision. Individuals under community supervision made up about 70% of the total correctional population in 2020.⁶ Probation alone accounted for 55% of the correctional population (Figure 1).⁷

⁵ Edward E. Rhine and Faye S. Taxman, "American Exceptionalism in Community Supervision: A Comparative Analysis of Probation in the United States, Scotland, and Sweden," *American Exceptionalism in Crime and Punishment*. Eds. Kevin R. Reitz, (New York: Oxford University Press, 2018). 367–409; and Alessandra Corda and Michelle S. Phelps, "American Exceptionalism in Community Supervision," *American Probation and Parole Association (APPA) - Perspectives* (Spring 2017). 20–27.

⁶ Rich Kluckow and Zhen Zeng, "Correctional Populations in the United States, 2020 – Statistical Tables," *Bjs.ojp.gov*, Bureau of Justice Statistics, March 2022. <https://bjs.ojp.gov/library/publications/correctional-populations-united-states-2020-statistical-tables>.

⁷ Ibid.

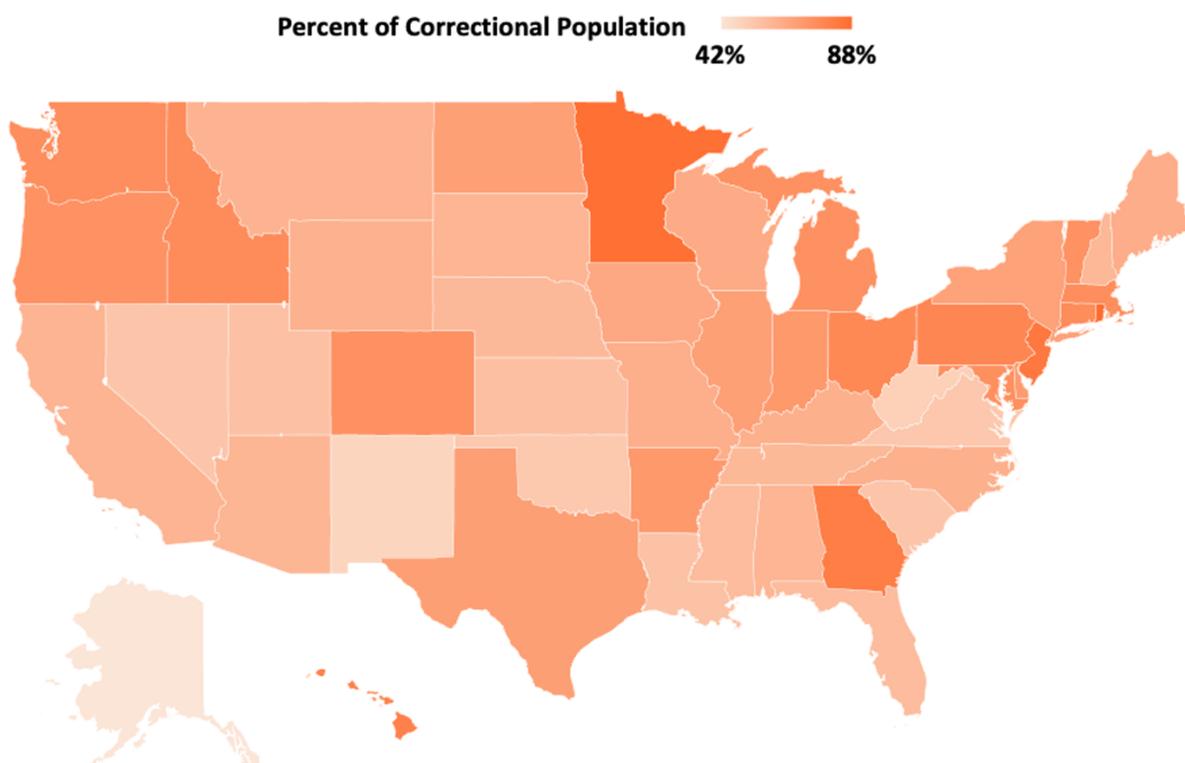
FIGURE 1: CORRECTIONAL POPULATION BY SUPERVISION TYPE 1990–2020

Source: Bureau of Justice Statistics, Annual Probation Survey, Annual Parole Survey, Annual Survey of Jails, Census of Jail Inmates, and National Prisoner Statistics Program, 1980–2020.

The number of individuals under community supervision has followed similar trends as the incarcerated population over the last several decades, rising between 1980 and 2007 before leveling off throughout the 2000s. Since peaking in 2007, the number of adults under probation has declined while the population under parole has slowly increased. In 2019, nearly 4.4 million people were under community supervision.⁸

States vary considerably in their use of community supervision. About 88% of the correctional population in Minnesota was under community supervision in 2019, compared to just 44% in Alaska (Figure 2). In some states, a significant share of the total adult population is under community supervision. For example, about 1 in 19 adults in Georgia were under community supervision, compared to 1 in 59 adults nationwide. That translates to roughly 5.3% of the adult population in Georgia and 1.7% of adults nationwide.

⁸ Barbara Oudekerk and Danielle Kaeble, "Probation and Parole in the United States, 2019," *Bjs.ojp.gov*, Bureau of Justice Statistics, July 2021. <https://bjs.ojp.gov/library/publications/probation-and-parole-united-states-2019>.

FIGURE 2: PERCENT OF CORRECTIONAL POPULATION ON PAROLE OR PROBATION

Source: Bureau of Justice Statistics, *Correctional Populations in the United States, 2019*.

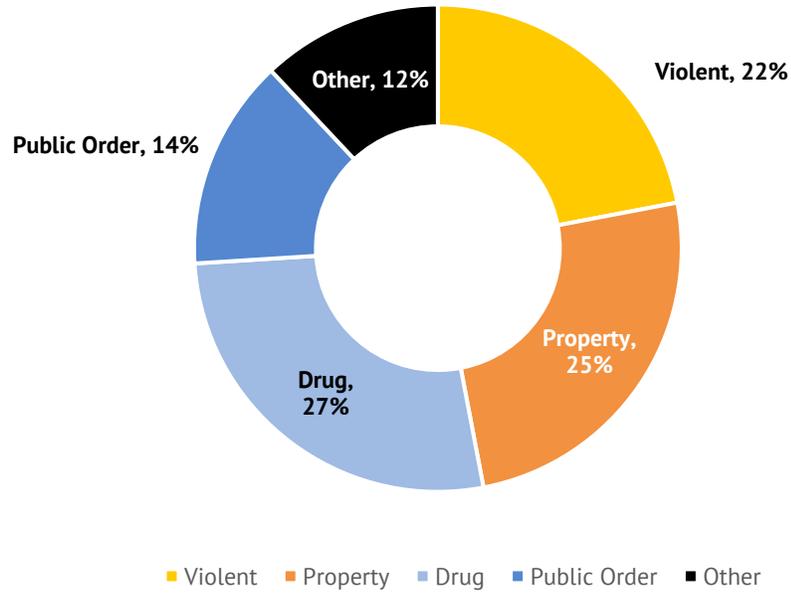
The vast majority of individuals under community supervision are convicted of non-violent offenses. However, the frequency of offenses varies somewhat between probationers and parolees. Just 22% of probationers and 33% of parolees were convicted of a violent crime (Figures 3 and 4).⁹ By comparison, about 55% of prisoners were convicted of a violent crime.¹⁰ About half of individuals under community supervision were convicted of property and drug crimes, compared to about 14% of prisoners.¹¹

⁹ Ibid.

¹⁰ E. Ann Carson, "Prisoners in 2019," *Bjs.ojp.gov*, Bureau of Justice Statistics, Oct. 2020. <https://bjs.ojp.gov/content/pub/pdf/p19.pdf>.

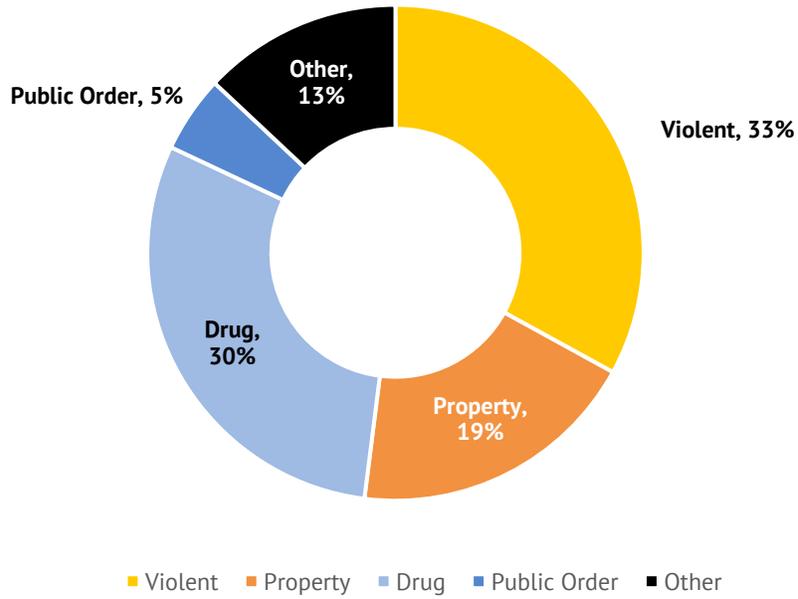
¹¹ Ibid.

FIGURE 3: MOST SERIOUS OFFENSE COMMITTED BY PROBATIONERS



Source: Bureau of Justice Statistics, Probation and Parole in the United States, 2019

FIGURE 4: MOST SERIOUS OFFENSE COMMITTED BY PAROLEES



Source: Bureau of Justice Statistics, Probation and Parole in the United States, 2019

PART 2

REVOCAATION AND RECIDIVISM

Probation and parole are intended to provide a more constructive alternative to incarceration by keeping justice-involved individuals in their communities. However, a growing body of research finds that community supervision programs may be contributing to the problems of mass incarceration and racial disparities within the justice system in unintended ways.¹²

Individuals under community supervision are typically subject to conditions including regular check-ins, drug testing, curfews, electronic monitoring, and the payment of fines and fees. Failure to comply with these conditions can result in a revocation of community supervision and a return to incarceration. This has led some scholars to conclude that community supervision may not necessarily be a remedy for mass incarceration.¹³

¹² Michelle S. Phelps, “Mass Probation and Inequality: Race, Class, and Gender Disparities in Supervision and Revocation,” *Handbook on Punishment Decisions*. Eds. Jeffery T. Ulmer, Mindy S. Bradley, (New York: Routledge. 2017).

¹³ James Van Bramer and Stephen Handelman, “Study Calls for Abolishing Probation and Parole,” *Thecrimereport.org*, The Crime Report, Center on Media, Crime and Justice at John Jay College, 12 Aug. 2022. <https://thecrimereport.org/2022/08/12/study-calls-for-abolishing-probation-and-parole/>.

Of the reported 1,790,000 individuals who exited probation in 2019, only about 53% successfully completed their probation. Approximately 13% of parole exits that year were attributable to parole revocations that resulted in incarceration. Among those who were revoked to incarceration, 40% were incarcerated due to technical violations. Only 31% were incarcerated for new crimes, with the remaining 29% incarcerated for other unknown reasons.¹⁴ About 23% of all state prison admissions in 2019 were for technical supervision violations.¹⁵ In raw numbers, roughly 98,000 people were incarcerated for technical violations.¹⁶

One of the most important requirements placed on individuals under community supervision is regular contact with officers assigned to manage their case. These meetings typically take place at an agency office and serve a variety of purposes. Supervisees may provide updates, receive support and treatment, and be tested for recent drug use.

Despite their importance to effective supervision, office visits are often difficult to coordinate. Supervisees frequently miss appointments due to work, education, or difficulty securing transportation. This is especially true for higher-risk individuals, for whom missed appointments can result in the revocation of community supervision and a return to prison or jail.¹⁷ Not surprisingly, failure to meet with supervising officers is among the leading forms of technical violations committed by parolees.¹⁸ For example, an analysis of parole violations in Michigan found that failure to report to probation officers was by far the most common type of violation, accounting for over 33% of all recorded violations.¹⁹

¹⁴ Oudekerk and Kaebler, "Probation and Parole in the United States, 2019." Appendix, Table 8.

¹⁵ "More Community, Less Confinement: A State-by-State Analysis on How Supervision Violations Impacted Prison Populations During the Pandemic," *Csgjusticecenter.org*, The Council of State Governments Justice Center, Sept. 2021. <https://csgjusticecenter.org/publications/more-community-less-confinement/national-report/>.

¹⁶ Ibid.

¹⁷ Jordan M. Hyatt and Geoffrey C. Barnes, "An Experimental Evaluation of the Impact of Intensive Supervision on the Recidivism of High-Risk Probationers," *Crime and Delinquency* 63, 2017. 3–38; Justin C. Medina, "Making the Decision to Extend Probation Supervision at a Local Agency," *Crime and Delinquency* 63, 2017. 1,712–1,730.

¹⁸ Thomas P. Bonczar, "Characteristics of Adults on Probation, 1995," *Bjs.ojp.gov*, Bureau of Justice Statistics, Dec. 1997. <https://bjs.ojp.gov/library/publications/characteristics-adults-probation-1995>; Alex Roth, Sandhya Kajeepeta, and Alex Boldin, "The Perils of Probation: How Supervision Contributes to Jail Populations," *Vera.org*, Vera Institute of Justice, Oct. 2021. <https://www.vera.org/downloads/publications/the-perils-of-probation.pdf>.

¹⁹ M. Kevin Gray, Monique Fields, and Shaila Royo Maxwell, "Examining Probation Violations: Who, What, and When," *Crime & Delinquency* 47, 2001. 537–557.

Ensuring that community supervision programs serve their intended purposes of diverting people away from incarceration and offering an intermediate level of punishment is a complex and multifaceted challenge. A multitude of reform options has been proposed by researchers, policy analysts, and advocates. One relatively minor intervention that focuses on reducing the frequency of missed appointments for probation and parole supervision has considerable promise: sending text message reminders to supervisees regarding upcoming appointments.

Text message reminders have become commonplace in everyday life for most Americans— for obligations ranging from doctor’s office visits to hair appointments. Previous research has found that text message reminders are effective in justice system contexts.²⁰ For example, a recent study concluded that text message reminders increased court appearance rates by 16% to 26%.²¹ The remainder of this policy study examines a recent randomized control trial conducted in Arkansas using text message reminders.

²⁰ Alissa Fishbane, Aurelie Ouss, and Anuj K. Shah, “Behavioral nudges reduce failure to appear for court,” *Science* 370, 8 Oct. 2020; Natalia Emanuel and Helen Ho, “Behavioral Biases and Legal Compliance: A Field Experiment,” *SocArXiv*, Jan. 2020.

²¹ Fishbane, Ouss, and Shah, “Behavioral nudges reduce failure to appear for court.”

PART 3

THE EFFICACY OF TEXT MESSAGE REMINDERS: EVIDENCE FROM A RANDOMIZED EXPERIMENT IN ARKANSAS

The Arkansas Department of Corrections Division of Community Correction is responsible for administering parole and probation in Arkansas. Every individual under parole or probation supervision in the state is required to have regular contact with an officer assigned to manage their case. In 2021, there were 24,943 individuals on parole and 32,302 on probation.²²

In Arkansas, individuals under direct community supervision are assigned to supervision level categories (minimum, medium, and maximum) using a standardized assessment tool. Minimum level clients under community supervision in Arkansas are required to have one

²² “Annual Report: Fiscal Year 2021,” *Doc.arkansas.gov*, Arkansas Department of Corrections Division of Community Correction, Apr. 2022. https://doc.arkansas.gov/wp-content/uploads/2022/04/ACC-Annual-Report-2021-4-29-2022_FINAL_BOC.pdf.

office visit every three months with their supervising officer. Medium and maximum supervision level clients are required to report in-person at least once a month.

Since 2018, appointments for minimum-level clients are missed about 30% of the time. Missed appointments reduce opportunities for beneficial contact between clients and their supervising officers and may constitute supervision violations that could result in incarceration. Of Arkansas parolees who return to incarceration within three years of release, approximately 38% are returned for technical violations of their parole rather than for committing new criminal offenses.²³ Moreover, missed appointments result in wasted time, effort, and resources by officers who are typically overburdened with large caseloads.

In an effort to reduce the number of missed appointments among community supervision participants, the Arkansas Community Corrections (ACC) agency contracted with Marquis Software to enhance the capacity of its Case Management System (CMS). Among other changes, the revised system allowed ACC to send text message reminders directly to supervisees using phone numbers collected by the agency and the courts. The system was used to conduct a randomized control trial aimed at identifying the optimal strategy for reducing missed appointments. The trial was used to assess two primary research questions:

1. Do text message appointment reminders reduce the rates of canceled and no-show appointments for community supervision participants?
2. If text messages work, what is the optimal frequency and timing of the reminders for reducing missed appointments?

3.1

METHODOLOGY²⁴

In July 2018, Marquis identified all individuals in the ACC system who were on parole or probation, had an active cell phone, a supervision end date of February 1, 2019, or later, and had no outstanding warrants or other issues that would interfere with their completion of the experiment. Those individuals were then randomly assigned to one of four groups.

²³ “Recidivism of Arkansas Offenders: Findings from the 2016 Release Cohort,” *Doc.arkansas.gov*, Arkansas Department of Corrections, Apr. 2021. <https://doc.arkansas.gov/wp-content/uploads/2021/04/2016-Recidivism-Report-approved-by-BOC-4-29-2021-Final.pdf>.

²⁴ For a more detailed description of the methods used, see Charise Hastings, et al., “Reducing Missed Appointments for Probation and Parole Supervision: a Randomized Experiment with Text Message Reminders,” *Cambridge Journal of Evidence-Based Policing* 5, Dec. 2021. 170–183.

The random assignment procedure used ensured that there were no statistically significant differences between the groups (Appendix, Table 1). Each of the four experimental groups was treated as follows:

- Group 1: received a text message two days before the appointment (*early text*)
- Group 2: received a text message one day before the appointment (*late text*)
- Group 3: received text messages four days and one day before the appointment (*two texts*)
- Group 4: did not receive any text messages (*control*)

3.2

RESULTS

In total, the 3,470 participants were assigned about 14,000 appointments during the experiment. On average, each participant was assigned approximately four meetings and there was no statistically significant difference between the number of meetings assigned in each experimental group. Overall, participants successfully held an average of 3.4 meetings. The number of successfully held meetings was consistent across each of the groups. However, there were significant differences in the number of canceled and no-show appointments (Appendix, Table 2).

There were also significant differences in the percentage of meetings that were successfully held. The percentage of held meetings was significantly higher in groups 2 and 3 than in the control group. In other words, supervisees who received a *late text* or received *two texts* were more likely to successfully attend meetings than supervisees who did not receive any text message reminders.

Supervisees who received *late texts* were also significantly less likely to cancel their appointments (Figure 5). The percentage of canceled meetings among groups 1 and 3 was not significantly different from the control group. The percentage of no-show appointments was significantly lower among participants receiving *two texts* than among those who did not receive any text message reminders (Figure 6). A more detailed statistical analysis is available in the Appendix.

Altogether, these results indicated that text message alerts reduced the rates of canceled and no-show appointments for community supervision participants. Each text message cost

the Arkansas Department of Corrections approximately two cents, likely making the reminders a highly cost-effective intervention.

Moreover, the findings suggest that the optimal time to send text message reminders is one day prior to the scheduled appointment. The *late text* group had 29% fewer no-shows and 21% fewer canceled appointments compared to the control group that did not receive any text message reminders.

The appointment attendance behaviors of each group were followed for six months after the initial experiment concluded (Appendix, Table 3). During this post-experimental period, all participants received text messages one day before their appointments. When all four groups were treated the same, there was no significant difference in their attendance behaviors. However, there were overall 30% fewer missed appointments during this period compared to the control group during the experiment. The observations from this post-experimental period provide further evidence that text message reminders can significantly reduce the number of missed appointments. Moreover, the results from the follow-up period suggest that text message reminders are effective over longer durations.

FIGURE 5: CANCELED APPOINTMENTS BY GROUP

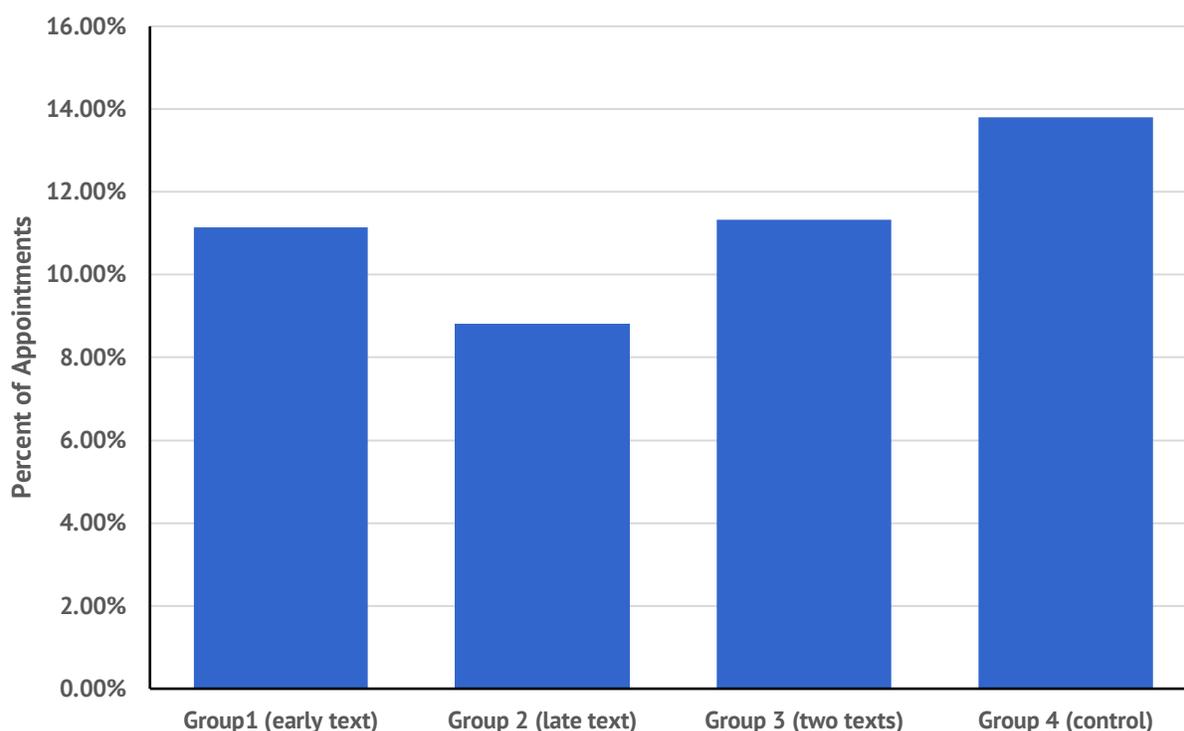
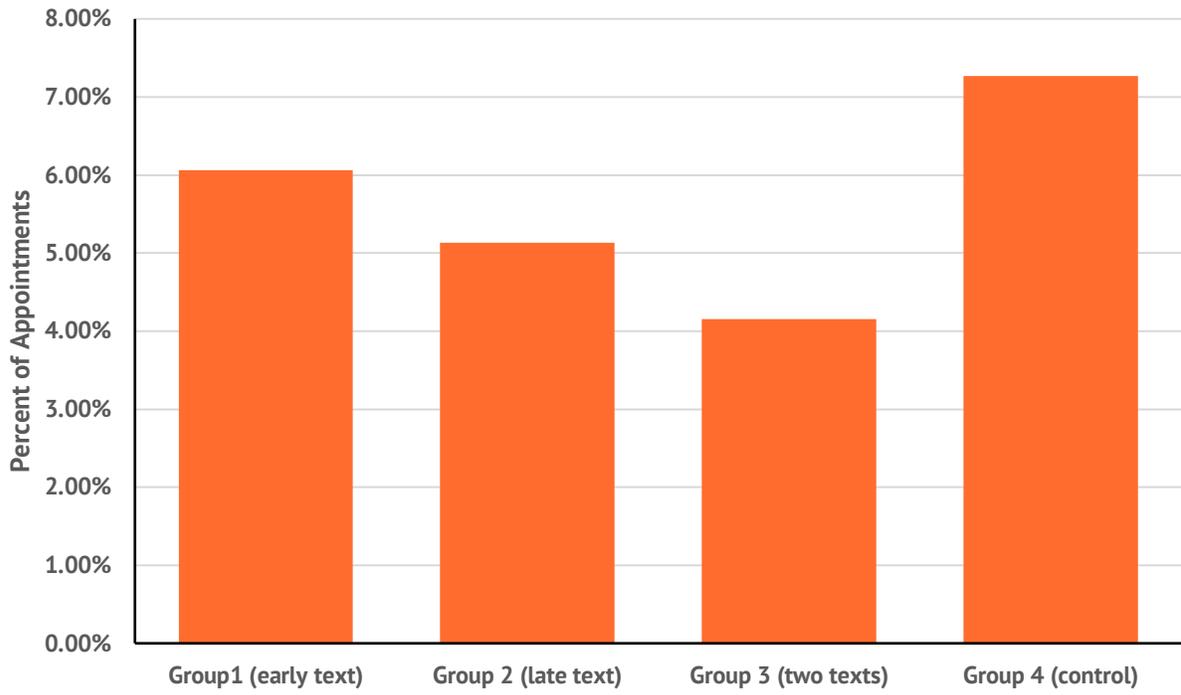


FIGURE 6: NO-SHOW APPOINTMENTS BY GROUP



PART 4

CONCLUSION

Each year, more than 4 million Americans are under community supervision. Too often, community supervision programs like parole and probation exacerbate the problem of mass incarceration rather than diverting people away from jail and prison. Individuals on community supervision are subject to a litany of supervision conditions and, more often than not, fail to meet all of those conditions. As many as three-fourths of people under community supervision commit some form of a technical violation of their supervision conditions.²⁵ These technical violations can result in incarceration, creating a supervision-to-incarceration pipeline. In fact, technical supervision violations account for approximately 23% of state prison admissions each year.²⁶

Several reforms are necessary to ensure that community supervision programs fulfill their purposes. Reforms should refocus supervision on reintegrating justice-involved individuals into society and maintaining public safety rather than punishing individuals for minor technical violations. As demonstrated in the Arkansas experiment, sending text message reminders is an inexpensive and effective way to improve supervision appointment attendance at a cost of just two cents per text message. Improved attendance can reduce the number of technical violations and helps make efficient use of supervising officers' time and resources. As the share of correctional populations under parole and probation continues to grow, making efficient use of supervision agency resources will be increasingly

²⁵ Gray, Fields, and Maxwell, "Examining Probation Violations: Who, What, and When."

²⁶ "More Community, Less Confinement."

important. While text message reminders may only be a minor part of necessary policy reforms within community supervision, their potential impact should not be overlooked.

ABOUT THE AUTHORS

Vittorio Nastasi is the director of criminal justice policy at Reason Foundation. His work has been published in the Wall Street Journal, Orange County Register, Palm Beach Post, and Tallahassee Democrat, among others. Prior to joining Reason, Nastasi worked with the James Madison Institute and the DeVoe L. Moore Center focusing on land-use regulation, occupational licensing, and criminal justice reform. Nastasi graduated from Florida State University with bachelor's degrees in economics and Political Science. He is based in Tallahassee, Florida.

Charise Hastings is the Principal Researcher for Marquis Software Development, Inc. She coordinates projects with correctional agencies and university researchers regarding the implementation and evaluation of innovative technology, including federally-funded grants awarded to the Kentucky and Arkansas Departments of Corrections. Recent studies have involved the effect of text message reminders for parole office visits, reentry simulations for inmates, and a smartphone app providing customized resources for clients on supervision.

Michael Ostermann is an Associate Professor at the School of Criminal Justice at Rutgers University-Newark. His research interests primarily lie within the fields of prisoner reentry and corrections, and how they intersect with public policy. His recent work investigates the impact of post-release reentry services upon recidivism, whether effects vary across different levels of programmatic quality, and how measurement strategies translate into different policy prescriptions within evaluation research. Ostermann has served as Principal Investigator on several federally funded grants that investigate research questions about evidence-based crime policy and include partnerships with practitioners and other criminal justice stakeholders. His work has been published in *Justice Quarterly*, *Journal of Research in Crime and Delinquency*, *Law and Human Behavior*, *Crime and Delinquency*, *Criminology and Public Policy*, and other scholarly outlets.

Jordan M. Hyatt is an associate professor in the Department of Criminology and Justice Studies and serves as director of the Center for Public Policy, at Drexel University. Hyatt's research in corrections and reentry focuses on the evaluation of innovative criminal justice interventions with an emphasis on randomized experiments. Through the program assessments with strong partnerships with practitioners, Hyatt works to develop effective and actionable criminal justice policies. Hyatt's work is relevant for agencies with policy agendas focused on improving reintegration, public safety, and implementing evidence-based policies.

APPENDIX

TABLE 1: BASELINE COMPARISON OF RANDOMLY ASSIGNED TREATMENT GROUPS: DESCRIPTIVE STATISTICS

	Total Sample	Control Group	Group 1 (<i>early text</i>)	Group 2 (<i>late text</i>)	Group 3 (<i>two texts</i>)
Age (at start)	37.33	37.46	37.35	37.34	37.19
Male	73.35	73.10	73.50	73.40	73.40
Race					
Black	31.15	31.00	31.10	31.30	31.20
White	66.03	66.20	66.10	65.90	65.90
Asian	2.35	1.90	2.50	2.40	2.60
Native American	0.13	0.20	0.20	0.00	0.10
Hawaiian/Pacific Islander	0.13	0.20	0.10	0.20	0.00
Other	0.23	0.50	0.00	0.20	0.20
Supervision Classification					
Parole	41.77	41.80	41.50	41.90	41.90
Probation	58.23	58.20	58.50	58.10	58.10
Risk Classification					
Annual	1.05	1.00	1.10	1.20	0.90
Maximum	6.25	6.90	6.40	6.00	5.70
Medium	36.83	36.60	35.70	37.20	37.80
Minimum	55.88	55.50	56.80	55.60	55.60
Supervision Term Length (days)	2,242.27	2,211.82	2,280.82	2,217.18	2,259.27
Time on Supervision at Experiment's Start (days)	720.46	744.10	715.52	696.75	725.45
N Participants	4,000	1,000	1,000	1,000	1,000

Source: "Reducing Missed Appointments for Probation and Parole Supervision" (2021).

TABLE 2: DIFFERENCES BETWEEN GROUPS IN APPOINTMENT BEHAVIORS DURING EXPERIMENT

	Total Sample	Control Group	Group 1 (early text)	Group 2 (late text)	Group 3 (two texts)	F or χ^2
Total appointments assigned	4.07	4.15	4.06	4.16	3.93	1.33
Appointments						
Held	3.44	3.38	3.37	3.64	3.37	2.25
Canceled	0.43	0.50	0.45	0.37	0.42	4.41**
No-show	0.20	0.27	0.23	0.16	0.13	11.60***
Rates of appointments						
Held	83.27	79.64	82.79	86.06	84.52	9.28***
Canceled	11.09	13.08	11.15	8.81	11.32	5.63***
No-show	5.64	7.27	6.06	5.13	4.15	5.37***
N Participants	3,470	865	857	868	880	-
N Appointments	14,135	3,590	3,477	3,614	3,454	-

Note: *= $p \leq .05$; **= $p \leq .01$; ***= $p \leq .001$

Source: "Reducing Missed Appointments for Probation and Parole Supervision" (2021).

TABLE 3. DIFFERENCES BETWEEN GROUPS APPOINTMENT BEHAVIORS FOR 6 MONTHS WITH ALL GROUPS RECEIVING TEXT MESSAGE 1 DAY PRIOR TO APPOINTMENTS

	Total Sample	Control Group	Group 1 (early text)	Group 2 (late text)	Group 3 (two texts)	F or χ^2
Total appointments assigned	4.97	5.05	5.03	5.09	4.73	0.64
Appointments						
Held	4.33	4.38	4.39	4.39	4.15	0.39
Canceled	0.49	0.54	0.46	0.54	0.44	1.46
No-show	0.15	0.14	0.18	0.16	0.14	0.96
Rates of appointments						
Held	85.84	84.56	85.84	86.04	86.94	1.06
Canceled	9.92	11.28	9.34	10.35	8.72	2.06
No-show	4.24	4.17	4.82	3.62	4.35	0.67
N Participants	3,203	803	802	801	796	-
N Appointments	15,933	4,057	4,033	4,075	3,763	-

Note: *= $p \leq .05$; **= $p \leq .01$; ***= $p \leq .001$

Source: "Reducing Missed Appointments for Probation and Parole Supervision" (2021).

