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Mass Surveillance as Racialized Control

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ABSTRACT

Incarceration has become the norm for those who assert their innocence. A staggering number of defendants are incarcerated prior to the adjudication of their cases—a reality that has become a central paradox of an American criminal justice system which holds axiomatic the presumption of innocence. Recent attempts to address pretrial mass incarceration through bail reform and the COVID-19 pandemic compassionate release programs have embraced digital surveillance, resulting in unintended and little-understood consequences.

This Article examines how the expanded use of pretrial GPS surveillance is radically changing the presumption of innocence by implicating punitive measures absent constitutional protections and amplifying the racial disparities in our criminal justice system. Largely viewed as a substitution for physical detention and therefore a less onerous intrusion on a defendant's liberty, pretrial GPS surveillance erodes fundamental liberties under the guise of criminal justice regulation. These highly racialized but invisible repercussions include harms to physical and psychological health, freedom of movement, privacy, and future economic self-determination. I argue that, in light of these substantial harms, courts must examine how they evaluate technological surveillance, affording defendants substantive and procedural due process protections where there currently are none.

Part I of this Article charts the ways in which bail reform and the COVID-19 pandemic-related compassionate release programs have resulted in the expansion of pretrial GPS monitoring far beyond the footprint of physical incarceration. Part II, examining an empirical case study as a basis, details the specific and racialized harms imposed by technologically-mediated restraint. Part III offers a substantive and procedural due process framework for how courts should weigh these harms. Finally, I argue for a re-assessment of *United States v. Salerno* to recognize future dangerousness as a fundamentally racialized concept that, guided by increasingly sophisticated means of constant surveillance, oversteps the boundary between regulatory and punitive purposes.

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"In our society liberty is the norm, and detention prior to trial or without trial is the carefully limited exception."[1]

INTRODUCTION

When Jack Smith learned that he was finally going to get his electronic monitor removed, he yelled out so loudly that his manager peeked into his workshop to make sure he was all right.[2] He had tears streaming down his face as he looked at his ankle, the one that for the last three and a half years had been shackled to a Global Positioning System (GPS) monitor. "I'm going to get this thing taken off," he exclaimed, and with that he ran out of the apartment building where he has worked for the last eighteen years as the maintenance superintendent.[3] He was headed to the San Francisco Sheriff's Department to have his ankle monitor finally removed. A few months later, his case was dismissed.

Mr. Smith's case never made it to trial. He never withdrew his plea of not guilty. He consistently denied the allegations against him. The law presumed him innocent, placing a burden on the prosecution to prove his guilt, a burden they shrugged off at the last moment by dismissing his case prior to the commencement of trial. Yet, every day for 1277 consecutive days, he had affixed to his ankle a device that tracked his pinpoint location in real time and reported that information to law enforcement. Through the physical toll of the constant weight on his ankle, the curtailment of his freedom of movement, the hours per day he was forced to dedicate to charging the monitor, and the psychological strain of being continuously watched,[4] the state punished him without ever having convicted him of a crime.

Every year, a growing number of defendants are fastened to GPS surveillance monitors as they await adjudication of their cases. This trend forges a new terrain in criminal justice, as the historic increase in pretrial detention which began in the

1. United States v. Salerno, 481 U.S. 739, 755 (1987).
2. Telephone and In-Person Interviews with "Jack Smith," Electronically Monitored Defendant, in City and County of San Francisco, Cal. (Oct. 15–Nov. 2, 2022) (names and certain details have been altered to protect defendant's privacy) (interview notes on file with the author).
3. *Id.*
4. *See infra* Part II.A.

1980s[5] has become digitally mediated.[6] Critically, electronic monitoring is not simply replacing physical incarceration. It has become an *additional* form of incarceration, coined e-carceration by activists and scholars,[7] extending the reach of law enforcement to those who would have been previously released without conditions awaiting the adjudication of their case. Thousands of people like Jack Smith suffer substantive due process harms to their freedom, privacy, and physical and mental health absent any finding of guilt. The breadth of this seismic shift raises critical legal questions implicating how we understand and evaluate the presumption of innocence.

This new regime of technologically-mediated incarceration cannot be evaluated absent the existing racial distortions of the criminal justice system. In counties across the country, Black defendants are more likely than any other group

5. Joshua Aiken, *Era of Mass Expansion: Why State Officials Should Fight Jail Growth*, PRISON POL'Y INITIATIVE (May 31, 2017), https://www.prisonpolicy.org/reports/jailsovertime.html #national [https://perma.cc/VS3G-G9HJ] (showing that the U.S. jail population is three times larger now than in the 1980s, with the pretrial population being the main driver of that increase); *see infra* Part I.

6. PATRICE JAMES, JAMES KILGORE, GABRIELA KIRK, GRACE MUELLER, EMMETT SANDERS, SARAH STAUDT & LATANYA JACKSON WILSON, SHRIVER CTR. ON POVERTY L., CAGES WITHOUT BARS: PRETRIAL ELECTRONIC MONITORING ACROSS THE UNITED STATES 8 (2022) (footnote omitted), https://www.povertylaw.org/wp-content/uploads/2022/09/cages-without-bars-final-rev1.pdf [https://perma.cc/UHS3-ZUTR] ("Pretrial EM [electronic monitoring] programs represent a fast-growing type of incarceration that imposes significant harm and burdens on people who are subject to it."); ALICIA VIRANI, CRIM. JUST. PROGRAM, UCLA SCH. OF L., PRETRIAL ELECTRONIC MONITORING IN LOS ANGELES COUNTY 2 (2021), https://law.ucla.edu/sites/default/files/PDFs/Criminal_Justice_Program/Electronic_Monitoring_in_Los_Angeles_Report-FINAL.pdf [https://perma.cc/D3PH-WMNF] (showing that in Los Angeles County, for example, only 24 people were on pretrial surveillance in 2015, ballooning to 1284 people in 2021); ALISSA SKOG & JOHANNA LACOE, CAL. POL'Y LAB, PRETRIAL ELECTRONIC MONITORING IN SAN FRANCISCO 3 (2022), https://www.capolicylab.org/wp-content/uploads/2022/11/Pretrial-Electronic-Monitoring-in-San-Francisco.pdf [https://perma.cc/M79L-C72E] (showing that the use of electronic monitoring in San Francisco increased from 75 to 1650 cases from 2017 to 2021).

7. *See* Connie Cheng, *From Walls to Shackles: The Big Business of Electronically Monitoring Immigrants*, THE FLAW (Aug. 15, 2022), https://theflaw.org/articles/from-walls-to-shackles-the-big-business-of-electronically-monitoring-immigrants/#:~:text=Alexander%20warned%20of%20%E2%80%9Ca%20system, encompasses%20a%20whole%20host%20of [https://perma.cc/7BHY-YGX2] (explaining that the term "e-carceration" was coined in 2015 by activist and writer Malikia Devich-Cyril to denote technologies, including electronic monitoring, that are used as surveillance mechanisms in the legal system); JAMES KILGORE, UNDERSTANDING E-CARCERATION (2022); Chaz Arnett, *From Decarceration to E-Carceration*, 41 CARDOZO L. REV. 641, 645 (2019) ("The concept of e-carceration seeks to encapsulate the outsourcing of aspects of prison into communities under the guise of carceral humanism.").

to be placed on electronic monitoring as the price of contesting their guilt.[8] GPS surveillance is the newest frontier of racialized control through the criminal legal system. It impinges upon privacy, freedom, and autonomy in a manner that is racially disparate, ensuring that our nation's history of policing race will continue—aided by enhanced technology—far into the future.

The American criminal justice system has used electronic monitoring for decades.[9] However, these early instances involved post-adjudicated cases and individuals who had been convicted, not pretrial defendants.[10] Pretrial electronic monitoring was initiated in state and federal criminal systems in the late 1980s, with Federal Pretrial Services beginning a national, pretrial home confinement program in 1991.[11] By 1988, thirty-two states had some form of electronic monitoring program, with the number monitored triple that from the previous year.[12] However, the numbers were small—with approximately 2300 individuals

8. *See* Amy Cross, Alex Roth, Melvin Washington II, Nancy Fishman & Andrew Taylor, *Jail Incarceration in Wayne County, Michigan, 2018–2019*, VERA INST. (May 2020), https://www.vera.org/jail-incarceration-in-wayne-county-michigan [https://perma.cc/3SQ7-PG4C] (showing that in Wayne County, Michigan, Black inmates are two times more likely than White inmates to be placed on electronic monitoring than simple release); Raj Jayadev, *Decarceration Doesn't Have to Mean Supervision Expansion --The Santa Clara County Story*, SILICON VALLEY DE-BUG (Sept. 16, 2021), https://www.siliconvalleydebug.org/stories/decarceration-doesn-t-have-to-mean-supervision-expansion-the-santa-clara-county-story [https://perma.cc/L5YX-3QXL] (showing that in Santa Clara County, Black defendants were placed on GPS surveillance at approximately four times the rate of their numbers in the general population); VIRANI, *supra* note 6 (showing that 31 percent of defendants placed on electronic monitoring in Los Angeles County were Black, even as Black people represented 9 percent of the population); *see infra* Part II.C.

9. J. Robert Lilly & Richard A. Ball, *A Brief History of House Arrest and Electronic Monitoring*, 13 N. KY. L. REV. 343, 362 (1987) (explaining that monitoring began with an offender in New Mexico who was placed on home detention and monitored with an electronic bracelet that emitted radio signals); FLA. S. COMM. ON CRIM. JUST., EXAMINE TECHNOLOGICAL ADVANCES AND OTHER ISSUES IN ELECTRONIC MONITORING OF PROBATIONERS, S. 2012-117, Reg. Sess., at 1–2 (Fla. 2011), https://www.flsenate.gov/PublishedContent/Session/2012/InterimReports/CJ1172012-117cj1.pdf [https://perma.cc/JBE2-MRKQ] (noting that Palm Beach County, Florida implemented one of the first electronic monitoring county-wide programs using radio frequency monitoring in 1984).

10. *Id.*

11. *Probation and Pretrial Services History: Beginnings of Probation and Pretrial Services*, U.S. CTS., http://www.uscourts.gov/FederalCourts/ProbationPretrialServices/History.aspx [https://perma.cc/AKT5-48LH].

12. ANNESLEY K. SCHMIDT, NAT'L INST. OF JUST., DISCUSSION PAPER 4-88, THE USE OF ELECTRONIC MONITORING BY CRIMINAL JUSTICE AGENCIES 1988 1 (1988), https://www.ojp.gov/pdffiles1/Digitization/127860NCJRS.pdf [https://perma.cc/Q3CG-9WWN].

monitored throughout the country—and pretrial detainees or defendants awaiting appeal only accounted for 4.6 percent of this number.[13]

These numbers are dwarfed by the current use and continued expansion of pretrial electronic monitoring.[14] While widespread GPS surveillance has existed in the probationer/parolee and immigration context for decades and has been addressed in recent scholarship,[15] the COVID-19 pandemic and the recent elimination of cash bail in certain states have created perverse opportunities to increase the surveillance of pretrial defendants in the name of bail reform and compassionate release. In states where cash bail has been eliminated, such as California,[16] GPS monitors offer a seductive, tech-savvy way to keep watch over yet-to-be-convicted defendants.[17] In an effort to reduce incarcerated populations and thereby neutralize COVID-19 outbreaks, some county jails and prisons placed pretrial inmates on GPS surveillance.[18] There is no indication that these trends will abate.[19]

The result has been a dramatic increase in the number of defendants who have been placed on GPS surveillance, which has increased the number of defendants our criminal justice system monitors and reducied the portion of pretrial defendants who are released on their own recognizance. This increase in the surveillance of defendants has been called "punitive surveillance,"[20] in reference to the pervasive and invasive use of electronic devices such as ankle monitors and smartphone trackers. Some portray it as a welcome substitute for physical custody. It has become, however, much more than a substitute—e-carceration is not simply taking the place of physical detention and it is not clear that it is being utilized as only an alternative to incarceration.[21] Instead, it is expanding the reach of the carceral state by ensnaring a growing percentage of defendants in some form of surveillance pretrial, individuals who otherwise would have simply been released on their own recognizance. And, if the goal is to reduce the disproportionate and unjust effects of our criminal justice system on

13. *Id.* at 9.
14. *See infra* Part I.
15. *See, e.g.*, Kate Weisburd, *Sentenced to Surveillance: Fourth Amendment Limits on Electronic Monitoring*, 98 N.C. L. REV. 717, 726 (2020); Eunice Lee, *The End of Entry Fiction*, 99 N.C. L. REV. 565 (2021).
16. *In re* Humphrey, 482 P.3d 1008, 1012 (Cal. 2021).
17. *See infra* Part I.A.
18. *See infra* Part I.B.
19. *See infra* Part I.
20. Kate Weisburd, *Punitive Surveillance*, 108 VA. L. REV. 147, 149 (2022).
21. *See* Erin Murphy, *Paradigms of Restraint*, 57 DUKE L.J. 1321, 1368 (2008).

communities of color, e-carceration does not serve that end.[22] Frighteningly, this expansion of the surveillance state has occurred in a largely extra-judicial fashion, as sheriff's departments and other administrative agencies are authorized to impose constraints upon defendants without procedural due process protections, with courts ill-equipped—even unwilling—to weigh the substantive harms caused by e-carceration.

While others have written about GPS monitoring in the post-adjudicated criminal context,[23] this Article is among the first to examine how the expanded use of GPS surveillance of pretrial defendants is fundamentally changing the nature of the presumption of innocence by allowing for the imposition of punitive measures absent due process and other procedural protections on those who have yet to be convicted of a crime. Part I charts the current expansion of GPS surveillance in the context of bail reform and the COVID-19 pandemic-related compassionate release programs. Part II builds on personal narrative and empirical data to identify the problems with expanded pretrial defendant surveillance, focusing on the ways in which e-carceration amplifies existing racial disparities in the criminal justice system and affects privacy and freedom in ways that implicate liberty. Part III revisits the seminal 1987 U.S. Supreme Court case *United States v. Salerno*,[24] applying both its substantive and procedural due process frameworks to GPS surveillance. Finally, I will argue for a review of *Salerno* in light of technological advancements in surveillance and the problematic underpinnings of "future dangerousness" as a racialized concept.

I. THE EXPANSION OF PRETRIAL GPS MONITORING

The last thirty years have witnessed a vast expansion in pretrial detention.[25] It has evolved from the brief incarceration of only those defendants deemed an

22. Michelle Alexander, *The Newest Jim Crow*, N.Y. TIMES (Nov. 8, 2018), https://www.nytimes.com/2018/11/08/opinion/sunday/criminal-justice-reforms-race-technology.html [https://perma.cc/CHE8-AQH7]; *see infra* Part II.

23. *See generally* Murphy, *supra* note 21; Arnett, *supra* note 7, at 641; Weisburd, *supra* note 20; Katlyn Kranik, *Granting People Safety: GPS Tracking for Domestic Violence Offenders*, 51 VAL. U. L. REV. 113 (2016); Matthew J. Kucharson, Book Note, *GPS Monitoring: A Viable Alternative to the Incarceration of Nonviolent Criminals in the State of Ohio*, 54 CLEV. ST. L. REV. 637 (2006); Eric M. Dante, *Tracking the Constitution—The Proliferation and Legality of Sex-Offender GPS-Tracking Statutes*, 42 SETON HALL L. REV. 1169 (2012).

24. 481 U.S. 739 (1987).

25. Aiken, *supra* note 5 (noting that the U.S. incarcerated population has increased by 300 percent since the 1980s, with pretrial detention accounting for the bulk of this increase); Scott Roberts, *Op-Ed: Gov. Newsom Tackles the Big Pretrial Detention Problem—but Finds the Wrong Solution*, L.A. TIMES (June 11, 2021), https://www.latimes.com/opinion/story/2021-06-

unmitigated flight risk to the full-scale punishment of individuals accused of crimes.[26] While the prison population has been steadily declining since 2012,[27] jail populations, on the other hand, have mushroomed. The United States jail population has more than tripled since the 1980s, with the pretrial population being the main driver of that increase.[28] The result is a system that "punishes before it convicts."[29]

This growth in inmate numbers gained notice and in the 2010s public opinion shifted toward support for reducing mass incarceration. In a 2013 survey, 63 percent of voters believed the United States relied too heavily on incarceration.[30] Political leaders followed suit and by 2019, support for decarceral policies was a "mainstream and bipartisan view."[31]

11/pretrial-detention-jails-probation-monitoring-gavin-newsom [https://perma.cc/T24G-WEWF] ("Pretrial detention accounts for nearly 3 out of 4 people in California jails, and the state has the second-highest pretrial incarceration rate nationally.").

26. *See* MARY T. PHILLIPS, N.Y.C. CRIM. JUST. AGENCY, PRETRIAL DETENTION AND CASE OUTCOMES, PART 1: NONFELONY CASES 13 (2007), https://www.nycja.org/assets/NonFelonyDetention Outcomes07.pdf [https://perma.cc/7BXS-MANB] (noting that 25 percent of misdemeanor defendants are detained pretrial in New York City); Paul Heaton, Sandra Mayson & Megan Stevenson, *The Downstream Consequences of Misdemeanor Pretrial Detention*, 69 STAN. L. REV. 711, 733, 736 tbl.1 (2017) (reporting that 53 percent of Harris County misdemeanor defendants were detained pretrial from 2008 to 2013).
27. Aiken, *supra* note 5.
28. *Id.*
29. Laura I. Appleman, *Justice in the Shadowlands: Pretrial Detention, Punishment, & the Sixth Amendment*, 69 WASH. & LEE L. REV. 1297, 1304 (2012).
30. Daniel Gotoff & Celinda Lake, *Voters Want Criminal Justice Reform. Are Politicians Listening?*, THE MARSHALL PROJECT (Nov. 13, 2018, 7:00 AM), https://www.themarshallproject.org/2018/11/13/voters-want-criminal-justice-reform-are-politicians-listening [https://perma.cc/7E9E-JSSS]; *see also 91 Percent of Americans Support Criminal Justice Reform, ACLU Polling Finds*, ACLU (Nov. 16, 2017, 10:15 AM), https://www.aclu.org/press-releases/91-percent-americans-support-criminal-justice-reform-aclu-polling-finds [https://perma.cc/Z4BH-UPY2] (noting that a survey conducted by the Benenson Strategy Group in 2017, found that 71 percent of Americans agreed that the prison population should be reduced, with two out of three "more likely to vote for an elected official if the candidate supported reducing the prison population . . . ."); Matt Clarke, *Polls Show People Favor Rehabilitation Over Incarceration*, PRISON LEGAL NEWS (Nov. 6, 2018), https://www.prisonlegalnews.org/news/2018/nov/6/polls-show-people-favor-rehabilitation-over-incarceration [https://perma.cc/7NZU-SYB5] (showing a 2017 MacArthur Foundation survey found that two-thirds of respondents opposed pretrial detention due to financial inability to afford bail, and a 2018 Public Opinion Strategies sponsored poll determined that 87 percent favored incarceration "alternatives like electronic monitoring, community service or probation").
31. Emily Bazelon, *If Prisons Don't Work, What Will?*, N.Y. TIMES (Apr. 5, 2019), https://www.nytimes.com/2019/04/05/opinion/mass-incarceration-sentencing-reform.html?auth=login-google1tap&login=google1tap&login=smartlock&auth=login-smartlock [https://perma.cc/CL87-ETT2].

Enter into this context two historic events—cash bail reform and the COVID-19 pandemic—that created the fertile soil upon which state-monitored technological surveillance of pretrial defendants could supplant physical incarceration and overall expand the number of defendants under some form of pretrial restraint.

A. Bail Reform

The United States has gone through several waves of bail reform.[32] In the 1960s, "researchers and philanthropists launched a bail-reform movement that grew rapidly, achieved nationwide change, and ended almost as quickly."[33] The movement had its roots in the Manhattan Bail Project (now the Vera Foundation), which in the mid-1960s offered state court judges in New York City a rudimentary risk assessment tool, based upon family ties, employment, and criminal history, upon which to base their decisions regarding pretrial release.[34] The results were impressive—judges released 60 percent of defendants when using the risk assessment tool, compared with only 14 percent previously.[35] And important for the reform movement's success, a full 98.4 percent of those released returned for future court dates.[36]

The nascent movement gained rapid nationwide traction and culminated in the 1966 landmark Bail Reform Act.[37] The Bail Reform Act of 1966's stated

32. This paper defines bail reform as: "any policy change that is intended to and could reasonably be expected to reduce the number of people detained pretrial because they cannot afford to post cash bail. Examples of reforms include, but are not limited to, establishing a presumption of pretrial release without conditions, requiring access to counsel during bail hearings, eliminating a formal bond schedule, or abolishing cash bail altogether." Isabella Jorgenson & Sandra Susan Smith, *The Current State of Bail Reform in the United States: Results of a Landscape Analysis of Bail Reforms Across All 50 States* 2 (Harv. Kennedy Sch. Faculty Rsch. Working Paper No. RWP21-033, 2021), https://www.hks.harvard.edu/publications/current-state-bail-reform-united-states-results-landscape-analysis-bail-reforms-across [https://perma.cc/3Y5E-FL2L].

33. Rachel Smith, *Condemned to Repeat History? Why the Last Movement for Bail Reform Failed, and How This One Can Succeed*, 25 GEO. J. ON POVERTY L. & POL'Y 451, 454 (2018).

34. *Id.* at 454–55; *see also* Tina Trenkner, *States Struggle to Regulate the Bond Industry*, GOVERNING (Mar. 29, 2011), http://www.governing.com/topics/public-justice-safety/States-Struggle-to-Regulate-the-Bond-Industry.html [https://perma.cc/5XCH-5RBZ] (noting "The Vera Institute of Justice, a nongovernmental organization founded in 1961, launched the country's first pretrial screening program . . . .").

35. Smith, *supra* note 33, at 455.

36. *Id.*

37. *Id.* (noting that The Manhattan Bail Project inspired "dozens of innovative bail programs in local jurisdictions, the landmark federal Bail Reform Act in 1966, and bail-reform laws in several states") (quoting SAMUEL WALKER, TAMING THE SYSTEM: THE CONTROL OF DISCRETION

purpose was "to revise the practices relating to bail to assure that all persons, regardless of their financial status, shall not needlessly be detained pending their appearance to answer charges, to testify, or pending appeal, when detention serves neither the ends of justice nor the public interest."[38] The Act was significant in two ways. First, it created a presumption of own recognizance release in non-capital cases, whereby the default is that a judicial officer "shall" order the release of the defendant. This default is only diverged from if it is determined that release would not reasonably ensure future appearance in court.[39] Second, in cases in which the default of own recognizance release is overcome, judges were required to impose the least restrictive conditions of release necessary to assure the defendant's future appearance.[40] In the late 1960s, several states and the District of Columbia created their first formal pretrial services programs[41] and the result in the late 1960s and early 1970s was a dramatic decrease in pretrial detention.[42]

Despite these successes, the 1960s wave of bail reform was short-lived. Conservative politicians like President Richard Nixon called for "tough on crime" policies that dramatically increased incarceration.[43] Amid a backlash to the civil rights movement, the image of the indigent defendant, too poor to afford bail and unjustly detained, was replaced by a "racially coded, repeat criminal offender."[44] As concerns about rising crime grew in the 1970s, the "law and order" movement "undid nearly all of the advances of the 1960s."[45]

IN CRIMINAL JUSTICE, 1950–1990 71–72 (1993)); Cassie Miller, *The Two-Tiered Justice System: Money Bail in Historical Perspective*, S. POVERTY L. CTR. (June 6, 2017), https://www.splcenter.org/20170606/two-tiered-justice-system-money-bail-historical-perspective [https://perma.cc/EM2U-8NJX] ("[B]y 1965, Vera-inspired programs operated in 56 jurisdictions and statewide in New Jersey and Connecticut.").

38. Bail Reform Act of 1966, Pub. L. 89-465, 80 Stat. 214, 214.
39. *Id.*
40. *Id.*; *see also* Patricia M. Wald & Daniel J. Freed, *The Bail Reform Act of 1966: A Practitioner's Primer*, A.B.A. J., Oct. 1966, at 630, 632–33, https://dcchs.org/wp-content/uploads/2018/11/Judge-Wald-on-Bail-Reform-Act-33-JBDC-1966.pdf [https://perma.cc/9QAY-WB3H].
41. Trenkner, *supra* note 34.
42. Smith, *supra* note 33, at 456 (noting a one-third decrease in pretrial felony defendants incarcerated from 1962 to 1971).
43. *See* Richard Nixon, *Statement Outlining Actions and Recommendations for the District of Columbia*, THE AM. PRESIDENCY PROJECT (Jan. 31, 1969), https://www.presidency.ucsb.edu/documents/statement-outlining-actions-and-recommendations-for-the-district-columbia [https://perma.cc/7WFT-M2AY]; ELIZABETH HINTON, FROM THE WAR ON POVERTY TO THE WAR ON CRIME: THE MAKING OF MASS INCARCERATION IN AMERICA 163 (2016).
44. Miller, *supra* note 37.
45. Smith, *supra* note 33, at 456.

President Ronald Reagan furthered these racial inequities by declaring a War on Drugs in 1982,[46] with the 97th U.S. Congress passing a flurry of legislation creating barriers to pretrial release and longer mandatory sentences for those accused of drug offenses.[47] The final nail in the coffin came in 1984 with the Bail Reform Act of 1984, which allowed for preventive detention based on future dangerousness.[48] "The consequence of the changes in bail law, represented by the passage of the 1984 Bail Reform Act and similar state enactments, was both a rise in the number of pretrial detainees and an increase in racial disparities among those who were locked up."[49] The result was the astronomical increase in incarceration in the United States, with the prison population growing from approximately 200,000 in 1972 to 329,000 in 1980 and 627,000 in 1988, at the end of President Reagan's second term.[50]

Fast-forward to the mid-2010s, the United States entered another wave of bail reform—one that sought to address concerns of economic and racial inequalities that have been deeply entrenched in the criminal justice system.[51] In response to changing public opinion and outcry over mass incarceration, outlined in Part I.A, state legislatures and class-action lawsuits have sought to reform their bail laws and courts have pursued other alternatives to meet the public safety goals previously expressed by the bail system.[52] The movement gained steam in the mid-2010s, with a string of shocking stories in the press—including Sandra Bland in

46. *See* Leslie Maitland, *President Gives Plan to Combat Drug Networks*; *Text of Reagan Speech*, N.Y. TIMES (Oct. 15, 1982), at A20, https://www.nytimes.com/1982/10/15/us/president-gives-plan-to-combat-drug-networks-text-of-reagan-speech-page-a20.html [https://perma.cc/HU9S-UXSW]; Andrew Glass, *Reagan Declares 'War on Drugs,' October 14, 1982*, POLITICO (Oct. 14, 2010, 4:44 AM), https://www.politico.com/story/2010/10/reagan-declares-war-on-drugs-october-14-1982-043552 [https://perma.cc/8F23-XTAJ].

47. Steven Wisotsky, *Exposing the War on Cocaine: The Futility and Destructiveness of Prohibition*, 1983 WIS. L. REV. 1305, 1386 (1983).

48. *See infra* Part III.B.

49. Alexa Van Brunt & Locke E. Bowman, *Toward a Just Model of Pretrial Release: A History of Bail Reform and a Prescription for What's Next*, 108 J. CRIM. L. & CRIMINOLOGY 701, 738 (2019).

50. James Cullen, *The History of Mass Incarceration*, BRENNAN CTR. FOR JUST. (July 20, 2018), https://www.brennancenter.org/our-work/analysis-opinion/history-mass-incarceration [https://perma.cc/J7S3-8V9Z].

51. Smith, *supra* note 33, at 459 ("The movement for pretrial reform is part of a larger nationwide movement for criminal-justice reform.").

52. Ann E. Marimow, *When It Comes to Pretrial Release, Few Other Jurisdictions Do It D.C.'s Way*, WASH. POST (July 4, 2016, 10:00 PM), http://wapo.st/29sfECB [https://perma.cc/6AWD-PYP8] ("Efforts to eliminate or reduce use of money bonds and fixed bail payments—through legislatures in New Jersey and Colorado, and class-action lawsuits in eight states—have become part of a national movement . . . .").

Texas and Kalief Browder in New York—drawing national attention to those held in jail solely for want of financial resources.[53]

Since 2015, jurisdictions throughout the country have considered changes to their pretrial detention and bail policies, resulting in dramatic changes to these policies nationwide.[54] In their 2020 landscape analysis of bail reform, Isabella Jorgensen and Sandra Susan Smith surveyed various changes in bail across the country, charting ways in which state legislatures, prosecutors, local city and county governments, and courts have participated in dramatic changes in pretrial detention practices. As of early 2021, thirty-nine state legislatures had passed some form of bail reform, including three—Illinois, Maine, and New York—which abolished cash bail for some or all crimes and eight states which created a presumption of release for defendants in most cases.[55] While Jorgensen and Smith correctly note that a growing backlash poses the greatest challenge to sustained bail reform,[56] bail reform has been lauded as "one of the most significant public policy achievements in recent American history."[57]

53. *Id.* ("A push for pretrial justice has gained momentum and attention in part because of recent prominent cases, including the $500,000 bail set for a Baltimore protester after the death of Freddie Gray and the detention of a teenage boy, held at Rikers Island for three years on robbery charges that eventually were dismissed."); *see* Jennifer Gonnerman, *Kalief Browder, 1993–2015*, NEW YORKER (June 7, 2015), https://www.newyorker.com/news/news-desk/kalief-browder-1993–2015 [https://perma.cc/S4EW-EDZV]; Sharon Grigsby, *Another Outrage in Sandra Bland Injustice: She Couldn't Find $500 Bail*, DALL. MORN. NEWS (July 27, 2015, 5:38 PM), https://www.dallasnews.com/opinion/2015/07/27/another-outrage-in-sandra-bland-injustice-she-couldn-t-find-500-bail [https://perma.cc/4XLN-D4YF].

54. PAUL HEATON, QUATTRONE CTR. FOR FAIR ADMIN. OF JUST., THE EFFECTS OF MISDEMEANOR BAIL REFORM 1–2 (2022), https://www.law.upenn.edu/live/files/12290-the-effects-of-misdemeanor-bail-reformpdf [https://perma.cc/9B4G-8BBR].

55. Jorgensen & Smith, *supra* note 32, at 5–7.

56. *Id.* at 8; *see also* Jesse McKinley, *The Bail Reform Backlash That Has Democrats at War*, N.Y. TIMES (Feb. 16, 2020), https://www.nytimes.com/2020/02/14/nyregion/new-york-bail-reform.html [https://perma.cc/ML6C-EY6L]; Kayla Mamelak, *NYPD Top Cop Blames Bail Reform for Surge in Crime*, FOX 5 N.Y. (June 2, 2021, 6:41 PM), https://www.fox5ny.com/news/nypd-top-cop-blames-bail-reform-for-surge-in-crime [https://perma.cc/UDT9-ZEX4]; Fola Akinnibi, *GOP Seizes on Bail Reform as Weapon to Bash Democrats on Crime*, BLOOMBERG NEWS (Nov. 4, 2022, 7:22 PM), https://www.bloomberg.com/news/articles/2022–11–04/gop-seizes-on-bail-reform-as-weapon-to-bash-democrats-on-crime [https://perma.cc/BQU3-3DLZ]; Scott Hechinger & Dyjuan Tatro, *Bail Reform Is Working. Why Are Democrats Running Away From It?*, NBC NEWS: THINK (Dec. 3, 2022, 3:00 AM), https://www.nbcnews.com/think/opinion/democrats-elections-gop-falsehoods-bail-reform-rcna58993 [https://perma.cc/J3YQ-CV28]; Anna Gronewold & Erin Durkin, *How Dems' Bail Reform Message Fell Flat*, POLITICO (Nov. 28, 2022, 7:40 AM), https://www.politico.com/newsletters/new-york-playbook/2022/11/28/how-dems-bail-reform-message-fell-flat-00070915 [https://perma.cc/5TJM-DBRK].

57. Hechinger & Tatro, *supra* note 56.

The story on the ground, however, is more complicated. There is evidence that bail reform might counterintuitively work to increase the number of defendants under some form of pretrial restraint. In states that have reformed bail statutes to require courts to impose the least restrictive set of release conditions necessary (California, Illinois, New Jersey, and West Virginia) and states that have expanded pretrial service programs to offer courts more supervision options for defendants (Montana and New Jersey), these very reforms can "lead to people being released under more restrictive conditions than they would have prior to the policy change."[58] Some state or local jurisdictions have expanded their use of pretrial monitoring, including "check-ins with pretrial services staff, drug testing, restrictions on whom someone can interact with, curfews, home visits, work requirements, electronic monitoring, or even house arrest."[59] As stated by Robin Steinberg, the chief executive of The Bail Project, "You would be hard-pressed to find bail-reform legislation in any state that does not include the possibility of electronic monitoring."[60] In the wake of the push to eliminate cash bail, judges and sheriff's departments have increasingly turned to electronic monitoring as an alternative to custody or as an additional form of control.[61]

The interaction of bail reform and electronic monitoring in California is instructive. After several rounds of bail reform successes and defeats in the state legislature and at the ballot box, the California Supreme Court ruled in March 2021, in *In re Kenneth Humphrey*, that judges must consider a defendant's ability to pay when setting bail. Incarceration could only be ordered when no other less restrictive conditions of release would ensure public safety and the defendant's return to court.[62] Holding that "[t]he common practice of conditioning freedom solely on whether an arrestee can afford bail is unconstitutional," the Court pointed to electronic monitoring as the first in a list of conditions of release, including "regular check-ins with a pretrial case manager, community housing or

58. Jorgensen & Smith, *supra* note 32, at 5 n.iii.
59. Jorgensen & Smith, *supra* note 32, at 26.
60. *Defendants Driven Into Debt by Fees for Ankle Monitors From Private Companies*, EQUAL JUST. INITIATIVE (July 23, 2019), https://eji.org/news/defendants-driven-into-debt-by-fees-for-ankle-monitors/#:~:text=%E2%80%9CYou%20would%20be%20hard%2Dpressed,Bail%20Project%2C%20told%20the%20Times [https://perma.cc/9U33-7ZA4].
61. Ava Kofman, *Digital Jail: How Electronic Monitoring Drives Defendants Into Debt*, N.Y. TIMES MAG. (July 3, 2019), https://www.nytimes.com/2019/07/03/magazine/digital-jail-surveillance.html [https://perma.cc/J9QJ-9VBT].
62. *In re* Humphrey, 482 P.3d 1008, 1019 (Cal. 2021).

shelter, and drug and alcohol treatment," that could protect the state's compelling interest in public safety and ensure the defendant's return to court.[63]

The California Supreme Court's 2021 decision in *Humphrey* was widely seen as a historic ruling that would "substantially reduce pretrial detention in California."[64] It was also seen as "a racial justice victory, given the vast racial disparities in who is booked into custody and held pretrial without being able to afford their release . . . ."[65] Despite this praise, the results have been desultory. A 2022 report compiled by the UCLA School of Law Bail Practicum (Bail Practicum) found no evidence that *Humphrey* had resulted in a net decrease in the California pretrial incarcerated population.[66] Nor did it find that *Humphrey* resulted in a decrease in bail amounts in the state.[67] On the other hand, the Bail Practicum found county probation departments, often tasked with monitoring pretrial defendants, had expanded their pretrial service programs, including electronic monitoring programs, in the wake of the *Humphrey* decision.[68]

In practice, the *Humphrey* decision has not been the watershed victory that those opposing pretrial incarceration had hoped for. Although requiring courts to consider "an arrestee's ability to pay alongside the efficacy of less restrictive alternatives when setting bail," the ruling did not alter the other factors the court should consider in determining bail or conditions of release.[69] These factors

63. *Id.* at 1012–13.

64. Ari Shapiro, *California Does Away With Cash Bail for Those Who Can't Afford It*, NPR: ALL THINGS CONSIDERED (Mar. 29, 2021), https://www.npr.org/2021/03/29/982417595/california-does-away-with-cash-bail-for-those-who-cant-afford-it [https://perma.cc/K7B8-EZZN]; *March 25, 2021: District Attorney George Gascón Applauds California Supreme Court Ruling on Cash Bail*, L.A. CNTY. DIST. ATT'Y'S OFF.: NEWS RELEASE (Mar. 25, 2021), https://da.lacounty.gov/media/news/district-attorney-george-gascon-applauds-california-supreme-court-ruling-cash-bail [https://perma.cc/HFG9-3NCP] (quoting Los Angeles District Attorney George Gascón as saying, "Today's California Supreme Court ruling ends an unjust practice that favors the wealthy and punishes those with limited means . . . ."); ALICIA VIRANI, STEPHANIE CAMPOS-BUI, RACHEL WALLACE, CASSIDY BENNETT & AKRUTI CHANDRAYYA, COMING UP SHORT: THE UNREALIZED PROMISE OF *IN RE* HUMPHREY 7 (2022), https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID4386463_code2112610.pdf?abstractid=4386463&mirid=1 [https://perma.cc/7TYJ-8QGC] ("We hypothesized that the *Humphrey* decision would result in a dramatic decrease in people detained pretrial.").

65. VIRANI ET AL., *supra* note 64, at 3.

66. *Id.* at 13.

67. *Id.* at 3.

68. *Id.* at 34 n.151 (highlighting seven county probation departments that had increased their budgets for electronic monitoring equipment from 2020–22). For example, Tulare County increased GPS monitoring spending from $450,000 in 2020–21 to $950,000 in 2021–22. *Id.* Similarly, Solano County increased its electronic monitoring contract from $65,000 in 2019 to $250,000 in 2021. *Id.*

69. *In re* Humphrey, 482 P.3d 1008, 1019 (Cal. 2021).

remained "the protection of the public as well as the victim, the seriousness of the charged offense, the arrestee's previous criminal record and history of compliance with court orders, and the likelihood that the arrestee will appear at future court proceedings."[70] Where there is evidence of flight risk or harm to public safety, the *Humphrey* decision requires courts to "consider whether nonfinancial conditions of release may reasonably protect the public and the victim or reasonably assure the arrestee's presence at trial."[71] Instead of high bail amounts potentially inaccessible to defendants, courts are opting for electronic monitoring as the nonfinancial condition of choice for defendants who potentially pose a flight risk or public safety threat while pending the adjudication of their case. In a survey of criminal defense attorneys, the Bail Practicum found that "[a]pproximately two-thirds of defense attorneys reported that judges are imposing pretrial release conditions more frequently" with an overall reduction in the percentage of defendants released on their own recognizance.[72]

Still, a causal link between the *Humphrey* decision and an increase in electronic monitoring is difficult to establish. As noted by the authors of the Bail Practicum, a thorough understanding of the *Humphrey* decision is limited by the fact that "most system actors across the state do not consistently track data on pretrial releases and decision-making."[73] Further, the California Supreme Court *Humphrey* decision was released in March 2021 during the COVID-19 pandemic, a global seismic event that also affected pretrial incarceration and expanded the use of electronic monitoring, an issue which we will turn to in the following Subpart. A closer look at data from San Francisco County, however, can help to separate the influence of COVID-19 from the effect of bail reform on electronic monitoring numbers.

The *Humphreys* case originated in San Francisco. The First Appellate District decision of January 25, 2018, affirmed by the California Supreme Court three years later, was binding upon San Francisco at that time.[74] As required, San Francisco courts began applying the *Humphrey* ruling in bail determinations in early 2018, before the start of the COVID-19 pandemic.[75] The numbers are striking, showing a clear increase in the use of electronic monitoring post the

70. *Id.* (citations omitted).
71. *Id.* at 1020.
72. VIRANI ET AL., *supra* note 64, at 33.
73. *Id.* at 10. This lack of data is not unique to California. Jorgensen & Smith, *supra* note 32, at 26 ("While many jurisdictions have made reforms to their cash bail systems, few seem to be collecting meaningful data on the impacts of these reforms.").
74. *In re* Humphrey, 228 Cal. Rptr. 3d 513 (Ct. App. 2018).
75. *Id.*

Humphrey decision. As a local news article published in March of 2019 reported, "The number of people released from jail on electronic monitoring has tripled since the landmark *Humphrey* ruling last year" from 100 monthly pretrial defendants at the time of the Court's ruling to 300 monthly a year later.[76] During that same period, the average daily jail population grew 3 percent from 1263 to 1295.[77] These numbers indicate that GPS surveillance in San Francisco during this period did not reduce the number of individuals jailed—instead, it widened the net of those who were under some form of pretrial restraint.

In December 2020, the San Francisco Board of Supervisors requested a Budget and Legislative Analyst review of the electronic monitoring services used by the sheriff's department. The report found that "the use of electronic monitoring by the Court pretrial has substantially increased following the [*Humphrey*] decision . . . ."[78] Further, the report found that 9 to 12 percent of those placed on electronic monitoring had been recommended for an own recognizance release without any active supervision.[79] These individuals, despite being in the lowest potential risk category in terms of reoffending or failing to return to court, were placed on electronic monitoring. Finally, the report detailed a substantial increase in the sheriff's budget for pretrial electronic monitoring from $220,187 in fiscal year 2017–18, to $903,810 in fiscal year 2018–19, and $1.1 million in fiscal year 2019–20.[80] Interestingly, the budget for pretrial alternatives did not continue to increase in fiscal years 2020–21 or 2021–22, staying stable at $1.1 million during this period.[81]

These findings were corroborated in a California Policy Lab report commissioned by the San Francisco Sheriff's Department to analyze the effect of electronic monitoring before and after the *Humphrey* decision.[82] The report

76. Joshua Sabatini, *Number of Inmates Released on Electronic Monitoring Triples Following Bail Ruling*, S.F. EXAM'R (Mar. 20, 2019), https://www.sfexaminer.com/news/the-city/number-of-inmates-released-on-electronic-monitoring-triples-following-bail-ruling/article_ae7c97f7-8ac5-5f69-a8ae-4bd21ef74739.html [https://perma.cc/4JNM-QT96].
77. *Id.*
78. CITY AND CNTY. OF S.F. BD. OF SUPERVISORS, POLICY ANALYSIS REPORT 2 (2020), https://sfbos.org/sites/default/files/BLA_Policy_Report_Sheriff_%20Contracts_121420.pdf [https://perma.cc/ZT2K-F2CV].
79. *Id.* at 24.
80. *Id.* at 10.
81. *Id.*
82. *See generally* JOHANNA LACOE, ALISSA SKOG & MIA BIRD, CAL. POL'Y LAB, BAIL REFORM IN SAN FRANCISCO: PRETIAL RRELEASE AND INTENSIVE SUPERVISION INCREASED AFTER *HUMPHREY* (2021), https://www.capolicylab.org/wp-content/uploads/2021/05/Bail-Reform-in-San-Francisco-Pretrial-Release-and-Intensive-Supervision-Increased-after-Humphrey.pdf [https://perma.cc/9H5A-BU5T].

compared pretrial release in the pre-Court of Appeals *Humphrey* period (May 1, 2016–December 31, 2017) to the post-court of appeals *Humphrey* period (February 1, 2018–February 28, 2019).[83] While the report found that the number of defendants released on cash bail declined from 22 percent to 15 percent, there was a doubling of defendants placed on highly restrictive, intensive supervision as a condition of release, from 14 percent to 28 percent, while the overall jail population—of which 85 to 95 percent were pretrial detainees—remained fairly consistent.[84] In essence, the aggregate number of pretrial defendants subject to some form of restraint had grown. Although touted as a replacement for physical incarceration, absent a decrease in the jail population, GPS monitoring was being applied to individuals who would have been released on their own recognizance prior to *Humphrey*. It was expanding the carceral envelope.

Without thorough data, a causal link between bail reform and an increase in the use of electronic monitoring is difficult to conclusively establish. Even given these limitations, the Bail Practicum report, pointing to increases in electronic monitoring usage in San Francisco, Los Angeles, and Santa Clara counties, noted that "the increase in [electronic monitoring] in various counties across the state does seem to track the *Humphrey* decision."[85] Similarly, Sandra Susan Smith and Cierra Robson, in their September 2022 report on electronic monitoring in San Francisco, noted that pretrial electronic monitoring in San Francisco had increased from one hundred prior to 2018 to over 1000 by 2020, determining that "[t]he primary driver behind this striking and abrupt change in San Francisco County's pretrial detention and release practices was the *Humphrey* decision."[86] And beyond California, the aggregate numeric increases in pretrial GPS surveillance in jurisdictions around the country point to growth occurring at the same time as bail reforms took hold, as discussed in Part I.

B. The COVID-19 Pandemic

On the heels of, and at times concurrent with, the bail reform movement, the COVID-19 pandemic ushered in an unprecedented shift toward the substitution

83. *Id.* at 2.
84. *Id.* at 1.
85. VIRANI, *supra* note 6, at 16.
86. Sandra Susan Smith & Cierra Robson, *Between a Rock and a Hard Place: The Social Costs of Pretrial Electronic Monitoring in San Francisco* 2 (Harv. Kennedy Sch. Faculty Rsch. Working Paper No. RWP21-014, 2022), https://research.hks.harvard.edu/publications/getFile.aspx?Id=5170 [https://perma.cc/Z2SK-2QTA].

of technology for previously existing criminal justice infrastructures and systems. In the context of prisons and jails, the federal prison system, forty-nine states, and the District of Columbia implemented technologically mediated strategies to reduce their inmate populations.[87] Numerous facilities released inmates to slow the spread of the coronavirus, moving them to GPS surveillance. "[During] the pandemic, popular pressure to release individuals from the pressure cookers of carceral spaces prompted a turn to releases on monitors."[88] In March 2020, Attorney General William Barr ordered the federal prison system to release elderly and sick inmates where COVID-19 was rapidly spreading.[89] Barr required those released to be subject to location monitoring devices. Congress expanded the authority of the Federal Bureau of Prisons to place federal prisoners in home confinement earlier than previously allowed by statute.[90] Over the next two years, federal prisons released over 30,000 people to home confinement, the majority with electronic monitors.[91]

The response to the COVID-19 pandemic in local jails, which are largely filled with pretrial detainees, was even more notable.[92] A Vera Institute study of 1309 jurisdictions found approximately 200,000 fewer inmates in June 2020 as compared to March of that same year, a reduction of about 25 percent of its average population.[93] The majority of this reduction occurred in the first month of the

87. *Justice System Responses to COVID-19*, CRIME AND JUST. INST., https://www.cjinstitute.org/covid [https://perma.cc/EJ88-YYM6].
88. James Kilgore & Emmett Sanders, *Electronic Monitoring Has Widened Its Net Amid COVID*, TRUTHOUT (Oct. 24, 2021), https://truthout.org/articles/electronic-monitoring-has-widened-its-net-amid-COVID [https://perma.cc/9PFP-B3N2].
89. *See* Memorandum from Attorney General to Bureau of Prisons RE: Home Confinement (Mar. 27, 2020) (on file online with The Marshall Project), https://www.themarshallproject.org/documents/6820452-Memorandum-from-Attorney-General-to-BOP-re-Home.
90. Coronavirus Aid, Relief, and Economic Security (CARES) Act, 15 U.S.C. § 12003(b)(2) (2020).
91. *Home Confinement Milestone*, FED. BUREAU OF PRISONS (Aug. 23, 2021, 2:50 PM), https://www.bop.gov/foia/docs/Home_Confinement_Milestone_8.23.21.pdf [https://perma.cc/AH3J-SXE6].
92. April Glaser, *Incarcerated at Home: The Rise of Ankle Monitors and House Arrest During the Pandemic*, NBC NEWS (July 5, 2021, 8:30 AM), https://www.nbcnews.com/tech/tech-news/incarcerated-home-rise-ankle-monitors-house-arrest-during-pandemic-n1273008 [https://perma.cc/C7EU-B9AS] ("During the pandemic, as jails raced to release incarcerated people because prisons became coronavirus hot spots, many judges nationwide responded by putting those who were being released in electronic ankle monitors . . . .").
93. JASMINE HEISS, OLIVER HINDS, EITAL SCHATTNER-ELMALEH & JAMES WALLACE-LEE, VERA INST. OF JUST., THE SCALE OF THE COVID-19-RELATED JAIL POPULATION DECLINE 1 (2020), https://www.vera.org/downloads/publications/the-scale-of-covid-19-jail-population-decline.pdf [https://perma.cc/74ZD-EDQP].

pandemic through a combination of dismissals of low-level crimes, a reduction in prosecutions, reductions in bail, and the release of inmates.[94]

How many of these pretrial defendants were released on electronic monitoring? Unfortunately, clear data does not exist, in part because, although the Bureau of Justice Statistics annually collects information on the number of incarcerated individuals, there is no similar national census of electronic monitoring.[95] As prison activist James Kilgore notes, "[O]nly a handful of the nation's more than 2,000 county and state [electric monitoring] programs have produced a single report or evaluation."[96] The information that does exist is often anecdotal and scattershot across the thousands of jurisdictions across the country. Yet, an assessment of news stories, institutional reports, and individual accounts reveals a trend pointing to a pandemic-related increase in electronic monitoring.

For example, in March 2020, Cook County Jail in Chicago was identified as the largest COVID-19 hotspot in the country, creating an immediate need to

94. *Prosecutors Responses to COVID-19*, BRENNAN CTR. FOR JUST. (Mar. 27, 2020), https://www.brennancenter.org/our-work/research-reports/prosecutors-responses-COVID-19 [https://perma.cc/4HFT-HFLJ]; *see also* Tim Prudente & Phillip Jackson, *Baltimore State's Attorney Mosby to Stop Prosecuting Drug Possession, Prostitution, Other Crimes Amid Coronavirus*, BALT. SUN (Mar. 18, 2020, 8:33 PM), https://www.baltimoresun.com/coronavirus/bs-md-ci-cr-mosby-prisoner-release-20200318-u7knneb6o5gqvnqmtpejftavia-story.html [https://perma.cc/CRG9-K5UD] (reporting that Baltimore State's Attorney, Marilyn Mosby, announced her office would dismiss pending charges for crimes such as drug possession, prostitution, trespassing and minor traffic offenses); Andrew Denney & Larry Celona, *Coronavirus in NY: Brooklyn DA to Stop Prosecuting 'Low-Level' Offenses*, N.Y. POST (Mar. 17, 2020, 2:01 PM), https://nypost.com/2020/03/17/coronavirus-in-ny-brooklyn-da-to-stop-prosecuting-low-level-offenses [https://perma.cc/27RG-CRKR] (reporting that Brooklyn's District Attorney's Office will decline to prosecute low-level, non-violent offenses beginning on March 27, 2020); Robert Salonga, *Coronavirus: California Justices Rescind Emergency Zero-Bail Order*, SAN JOSE MERCURY NEWS (June 13, 2020, 8:54 AM), https://www.mercurynews.com/2020/06/10/coronavirus-california-justices-rescind-emergency-zero-bail-order [https://perma.cc/TL3J-LU9F]. Mercury News records that the Judicial Council in California adopted an emergency bail schedule that set bail at $0 for most individuals charged with misdemeanors and low-level felonies. *Id.* The order, which remained in effect statewide from April 13, 2020 until June 20, 2020, helped to reduce the California jail population 30 percent from 72,000 to 51,000. *Id.*

95. James Kilgore, *We Need a New Paradigm to Halt the Unprecedented Growth of Electronic Monitoring*, TRUTHOUT (Oct. 24, 2022), https://truthout.org/articles/we-need-a-new-paradigm-to-halt-the-unprecedented-growth-of-electronic-monitoring [https://perma.cc/W9KA-TFZ9].

96. *Id.* (noting that only Illinois has state legislation requiring the reporting of electronic monitoring usage, though it remains unenforced as the Illinois Prisoner Review Board has failed to ever compile this data).

respond to curb the spread of the virus.[97] In response, numerous inmates were released. The number of individuals on electronic monitoring increased from 2600 in April 2020 to 3500 by December 2020,[98] causing the sheriff's department to run out of electronic monitoring bracelets in May 2020.[99] Cook County Sheriff's Department Chief, Adriana Morales, stated the pandemic had created a "dramatic increase" in electronic monitoring orders.[100] Cook County Sheriff, Tom Dart, noted the department's needs, due to an increase in community monitoring, had "accelerated" due to the COVID-19 pandemic.[101] Sharlyn Grace, Executive Director of the Chicago Community Bond Fund, echoed the sentiment, saying electronic monitoring had "exploded" in the county due to the pandemic health crisis.[102]

The Board of Supervisors of Santa Clara County, California voted on March 25, 2020, to authorize the sheriff's office to release misdemeanor inmates to home detention with electronic monitoring, purchasing an additional one hundred monitors to meet the expanded need.[103] Milwaukee County, facing ninety-four inmates with COVID-19 out of a population of 600, "maxed out their electronic monitoring capabilities," according to the jurisdiction's Chief Judge, Mary Triggiano.[104] In the first days of the pandemic, the sheriff's office of Virginia Beach, Virginia identified sixty misdemeanor inmates for release on electronic monitoring, a program that had only eight current participants at the time.[105] Virginia Beach Sheriff, Ken Stolle, connected the move directly to the pandemic,

97. *Cook County, Illinois: COVID-19 & Jails*, C.R. CORPS, https://civilrightscorps.org/case/cook-county-illinois-COVID-19-jails [https://perma.cc/6MCF-VY9L].
98. Glaser, *supra* note 92.
99. Matthew Hendrickson, *Cook County Sheriff's Office Runs out of Electronic Monitoring Bracelets*, CHI. SUN TIMES (May 7, 2020, 5:03 PM), https://chicago.suntimes.com/2020/5/7/21251007/cook-county-sheriff-electronic-monitoring-bond [https://perma.cc/WW8V-VM4V].
100. Glaser, *supra* note 92.
101. Hendrickson, *supra* note 99.
102. *Id.*
103. *See* Kevin Forestieri, *County Jails to Begin Releasing Inmates to Reduce Spread of Coronavirus*, MOUNTAIN VIEW VOICE (Mar. 26, 2020, 10:59 AM), https://www.mv-voice.com/news/2020/03/26/county-jails-to-begin-releasing-inmates-to-reduce-spread-of-coronavirus [https://perma.cc/99SD-WVCU].
104. Maayan Silver, *Milwaukee County Takes Steps to Reduce Number of Inmates During Coronavirus Pandemic*, WUWM 89.7 FM (May 1, 2020, 5:00 AM), https://www.wuwm.com/news/2020-05-01/milwaukee-county-takes-steps-to-reduce-number-of-inmates-during-coronavirus-pandemic [https://perma.cc/97FU-W9DP].
105. *Virginia Beach Sheriff's Office Releasing Some Nonviolent Offenders Into Home Incarceration in Response to Coronavirus*, VBSO.NET (Mar. 17, 2020), https://www.vbso.net/news-details/virginia-beach-sheriffs-office-releasing-some-nonviolent-offenders-into-home-incarceration-in-response-to-coronavirus [https://perma.cc/BWU6-C9L3].

stating, "The coronavirus is presenting an unprecedented challenge to public safety, especially here in the jail, where we have hundreds of people living in close contact."[106] Wayne County, Michigan also experienced similar increases in electronic monitoring. The county jail witnessed a nearly 38 percent decrease in inmate population, dropping from 1410 people in February 2020 to 876 in late April 2020.[107] At the same time, the number of people on electronic monitoring grew from approximately 500 to 766 by early April 2020.[108]

In Queens, New York, judges could began releasing pretrial defendants on ankle monitors on April 20, 2020.[109] With an initial supply of fifty ankle monitors, the borough intended to add more, as "the city moves to reduce the number of people in its coronavirus-plagued jails."[110] The Queens Daily Eagle reported that "the devices will remain a permanent alternative to bail for defendants in New York City."[111] This marked the first time electronic monitoring programs had been employed in a pretrial setting in New York City, with prior usage having been limited to people whose cases were post-adjudicated.[112] Elizabeth Glazer, the director of the Mayor's Office of Criminal Justice, explicitly connected the use of GPS surveillance to the pandemic, stating, "As we've come into this public health emergency, it's [electronic monitoring] being used in a particular way now to really limit the number of people who are remaining in the city's custody."[113] Similar pandemic-related increases in electronic monitoring were reported in

106. Adrienne Mayfield & Aesia Toliver, *Virginia Beach Sheriff Releasing Nonviolent Inmates From City Jail Amid Coronavirus Outbreak*, WAVY.COM (Mar. 18, 2020, 8:49 AM), https://www.wavy.com/news/local-news/virginia-beach/virginia-beach-sheriff-releasing-nonviolent-inmates-from-city-jail-amid-coronavirus-outbreak [https://perma.cc/H3ZP-3C4C].

107. *See* Cross et al., *supra* note 8.

108. James David Dickson, *Wayne County Jail Population Down Hundreds During Virus; Tether Population Grows*, DETROIT NEWS (Apr. 10, 2020, 12:43 PM), https://www.detroitnews.com/story/news/local/wayne-county/2020/04/10/wayne-county-jail-population-down-hundreds-during-virus-tether-population-grows/5129010002 [https://perma.cc/6S8E-5HX9].

109. David Brand, *Judges Can Now Order Electronic Monitoring Instead of Bail in New York City*, QUEENS DAILY EAGLE (Apr. 24, 2020), https://queenseagle.com/all/electronic-monitoring-nyc-judges-criminal-court [https://perma.cc/W8QT-BUJS].

110. *Id.*

111. *Id.*

112. *See* Ben Chapman, *New York City Uses Ankle Bracelets Instead of Jail Amid Coronavirus Pandemic*, WALL ST. J. (May 28, 2020, 2:19 PM), https://www.wsj.com/articles/new-york-city-uses-ankle-bracelets-instead-of-jail-amid-coronavirus-pandemic-11590689961 [https://perma.cc/JLP4-2REE].

113. *Id.*

several Wisconsin counties,[114] New Orleans,[115] and Washington State.[116] This experience was not unique to the United States.[117]

Evidence of the increase in pandemic-related electronic monitoring can also be measured through the responses of electronic monitor manufacturers. BI Inc., one of the major private monitoring vendors, found that "demand has spiked everywhere" during the pandemic, with an increase in inquiries from new jurisdictions.[118] Bloomberg Businessweek estimated an increase of 25 to 30 percent more inmates wearing electronic monitors in the first few months of the pandemic, with companies "betting that this can be a test run for a longer-term shift in sentencing."[119] Another company, Advantage Sentencing Alternative Programs (ASAP), one of three private companies contracted by Maryland to provide electronic monitoring, hired more staff to accommodate the increase in numbers during the pandemic.[120] "They certainly have had and seen an increase, a large increase, in the number of individuals that they have on home monitoring," said Gregg Bernstein, ASAP's attorney.[121] Baltimore County State's Attorney,

114. *See* Rich Kremer, *County Jails Reducing Inmate Populations to Prevent COVID-19 Outbreaks*, WIS. PUB. RADIO (Apr. 10, 2020, 3:00 PM), https://www.wpr.org/county-jails-reducing-inmate-populations-prevent-covid-19-outbreaks [https://perma.cc/N6TB-B6LF].

115. *See* Natasha Robin, *Released Inmates Supervised on Ankle Monitors but Their Type of Release Could Make a Big Difference*, FOX 8 (Apr. 28, 2020, 7:50 PM), https://www.fox8live.com/2020/04/28/released-inmates-supervised-ankle-monitors-their-type-release-could-make-big-difference [https://perma.cc/E3WK-FF4G].

116. *See* Lilly Fowler, *Domestic Abuse Survivors Worry as WA Detains More Inmates at Home*, CROSSCUT (Aug. 31, 2020), https://crosscut.com/news/2020/08/domestic-abuse-survivors-worry-wa-detains-more-inmates-home [https://perma.cc/R9JC-N36D].

117. In the Netherlands, 200 nonviolent inmates were released with electronic monitoring equipment mid-March 2020, with a policy adviser of Dutch probation services recounting, "[w]e heard the news on a Saturday, and by Tuesday all the prisoners had bracelets." Cara Tabachnick, *Covid-19 Created a Bigger Market for Electronic Ankle Monitors*, BLOOMBERG L. (July 14, 2020, 3:00 AM), https://news.bloomberglaw.com/white-collar-and-criminal-law/covid-19-created-a-bigger-market-for-electronic-ankle-monitors [https://perma.cc/Z3FW-WRHT] (noting the Dutch Ministry of Justice and Security purchased an additional 1500 bracelets from Attenti Group, Ltd., a major surveillance monitor vendor). Since the start of the pandemic, European countries have placed thousands of additional inmates on electronic monitoring—3400 in Spain and 1000 in Italy, for example. *Id.*

118. *Id.*

119. *Id.*

120. *See* Tim Prudente, *Delayed Trials, Home Detention and Hundreds of Dollars in Ankle-Monitoring Costs*, WASH. POST (Sept. 9, 2020, 6:59 PM), https://www.washingtonpost.com/local/public-safety/delayed-trials-home-detention-and-hundreds-of-dollars-in-ankle-monitoring-costs/2020/09/09/0dc354e6-f215-11ea-b796-2dd09962649c_story.html [https://perma.cc/H96U-A99E].

121. *Id.*

Scott Shellenberger, agreed that Baltimore County judges are increasingly placing defendants on home detention with electronic monitoring since the start of the COVID-19 pandemic.[122]

News accounts, sheriff's department press releases, and institutional reports paint a picture that, although not comprehensive, is extensive. Many local jurisdictions responded to the COVID-19 pandemic by reducing their inmate population, often increasing their use of electronic monitoring. Thus, the pandemic had a net effect of increasing the number of individuals and jurisdictions using electronic monitoring. Moreover, jurisdictions invested in GPS technology during the pandemic, trained staff, formed relationships with private electronic monitor vendors, and gained experience with its use. The result is an increased facility and dependency on GPS monitoring that will long outlast the pandemic. As Albert Fox Cahn, Executive Director of the Surveillance Technology Oversight Project, points out, the increased use of electronic monitors during the pandemic, while initiated as an emergency measure, will likely continue long-term.[123] "We should go into this assuming anything we enact as a short-term solution will actually be with us for years, possibly decades."[124] Concerns as to whether the increases in electronic monitoring that occurred during the COVID-19 pandemic in 2020 will continue as the "new normal" requires a closer look at jail inmate data, which will be charted in Part II.

II. THE HARMS OF EXPANDED PRETRIAL GPS MONITORING

Bail reform and the COVID-19 pandemic helped create the environment in which GPS surveillance has spread to a growing proportion of pretrial defendants, unnecessarily harming individuals who are presumed innocent. Whereas previously a defendant might be released on their own recognizance and without any conditions, that same defendant is now more likely to be released with GPS surveillance as a condition of their freedom. Professor Kate Wiesburd, who led a 2021 national analysis of electronic monitoring, showed that although framed as an alternative to incarceration, electronic monitoring is "doing the opposite. More rules and more surveillance generally leads to higher incarceration."[125]

122. *See id.*

123. *See* Kira Lerner, *Government Enforcement of Quarantine Raises Concerns About Increased Surveillance*, THE APPEAL (Apr. 9, 2020), https://theappeal.org/coronavirus-quarantine-surveillance-electronic-monitoring [https://perma.cc/A32T-YHTM].

124. *Id.*

125. Cyrus Farivar, *Other Than Prison, Electronic Monitoring Is 'the Most Restrictive Form' of Control, Research Finds*, NBC NEWS (Sept. 23, 2021, 3:03 AM),

As the financial costs of GPS monitoring decrease over time, "the economics of technological control enable the regulation of greater numbers of persons under less stringent conditions for a longer period of time."[126] While GPS surveillance might be a substitution for physical incarceration in some cases, it is also being placed on individuals who would not have previously been incarcerated pretrial and who might have previously been released absent any conditions pending trial.

Take Harris County, Texas, for example. According to Harris County Pretrial Services, the number of defendants on electronic monitoring has mushroomed from twenty-seven individuals in January 2019 to over 4000 in October 2021.[127] During the same period, the total jail inmate population, which fell briefly during the early months of the pandemic in 2020 but quickly rebounded, remained unchanged at approximately 9000, and has continued to grow to 9500 as of April 2022.[128] Pretrial defendants make up the bulk of these inmates and their numbers rose from 6709 in the first quarter of 2019 to 7708 in the fourth quarter of 2021.[129] In essence, 14 percent more defendants were being physically detained at the same time as almost 4000 additional defendants were being put on an ankle monitors. More physical incarceration and increased GPS monitoring were combining to create the worst of both worlds in terms of pretrial restraint.

Similarly, in Chicago, "the number of people on electronic monitoring jumped from 2,417 before the pandemic to 3,365 by mid-June" 2020, an increase of over 40 percent.[130] However, the physical jail population fell by only 245 inmates

https://www.nbcnews.com/tech/tech-news/other-prison-electronic-monitoring-most-restrictive-form-control-research-finds-n1279894 [https://perma.cc/F5QX-KYDG].

126. Murphy, *supra* note 21, at 1367.

127. *See* Mario Díaz, *Harris County Electronic Monitor Population Skyrockets to Nearly 4,000*, CLICK 2 HOUS. (Oct. 15, 2021, 9:27 AM), https://www.click2houston.com/news/investigates/2021/10/15/harris-county-electronic-monitor-population-skyrockets-to-nearly-4000 [https://perma.cc/DCT2-2EKZ].

128. *See Jail Population History*, HARRIS CNTY. TEX. JAIL, https://charts.hctx.net/jailpop/App/JailPopHistory [https://perma.cc/5F45-WT5Y].

129. *See id.*; The experience of Harris County is not an anomaly. In fact, this pattern of an immediate decrease in jail inmate population at the start of the COVID-19 pandemic followed by a period of rebound to previous levels or even growth is mirrored in other jurisdictions as well. Nationwide, while the jail population fell 31 percent from March to May 2020, in subsequent months the rate of jail release had been reduced to a "trickle," and "[j]ail populations began to creep back up, and have continued a steady upward climb." Sharon Dolovich, *Mass Incarceration, Meet COVID-19*, U. CHI. L. REV. ONLINE *15 (2020).

130. Eli Hager, *Where Coronavirus Is Surging—and Electronic Surveillance, Too*, THE MARSHALL PROJECT (Nov. 22, 2020, 5:00 AM), https://www.themarshallproject.org/2020/11/22/where-coronavirus-is-surging-and-electronic-surveillance-too [https://perma.cc/3A86-7AMY].

from 2020 to 2021.[131] Since 2020, the number of individuals awaiting trial in San Francisco County who are required to wear an electronic monitoring device has increased by 308 percent.[132] The jail inmate population, however, has remained relatively stable—fluctuating between 746 in April 2020 and 809 in September 2022.[133] What is critical here is that GPS monitoring is expanding the state's surveillance dragnet. Punitive surveillance has become not so much an alternative to incarceration, but rather an additional form of incarceration.

Moreover, even those individuals who are placed on electronic monitoring as a true substitute for physical incarceration suffer many of the harms of physical incarceration because they are often incarcerated for a period prior to being released on electronic monitoring. In Cook County, 67 percent of pretrial defendants spent at least two days in custody before being released on electronic monitoring.[134] In San Francisco, defendants on average spend a full week in jail prior to being released on electronic monitoring.[135] What these numbers suggest is that pretrial GPS monitoring occurs in *addition* to pretrial detention, either by being placed on individuals who would not have been in custody otherwise, or by subjecting individuals to some of the gravest harms of incarceration and then shackling them with electronic monitors. Even a few days of incarceration can be destabilizing, as many of the harms that result from incarceration—job loss, homelessness, debt, loss of personal belongings, mental health strains, medical issues—can arise during that time.[136]

As argued by Professor Erin Murphy, "[T]he right story to tell about technological forms of surveillance and control is not one of streamlining or one-for-one substitution, but rather one of proliferation, expansion, and enhancement."[137] Part II attempts to tell this "right story" about the impacts of increased GPS surveillance in the pretrial context, starting with a case study and

131. *See* Erick Johnson, *Crusader Analysis Shows Cook County Jail Population Highest in Four Years*, CRUSADER NEWSPAPER GRP. (July 27, 2022, 9:22 AM), https://chicagocrusader.com/crusader-analysis-shows-cook-county-jail-population-highest-in-four-years [https://perma.cc/LJZ2-J3JV].

132. Susan A. Hughes, *San Francisco Has Fewer Pretrial Detainees in Jail. But at What Cost?*, HARV. KENNEDY SCH. (Sept. 16, 2022), https://www.hks.harvard.edu/faculty-research/policy-topics/fairness-justice/san-francisco-has-fewer-pretrial-detainees-jail [https://perma.cc/WQP6-AW3F].

133. *See County Jail Population*, CITY AND CNTY. OF S.F., https://sfgov.org/scorecards/public-safety/county-jail-population (last visited Apr. 24, 2024).

134. *See* Smith & Robson, *supra* note 86, at 5.

135. *See id.*

136. SANDRA SUSAN SMITH, ARNOLD VENTURES, PRETRIAL DETENTION, PRETRIAL RELEASE, & PUBLIC SAFETY 7–8 (2022) https://craftmediabucket.s3.amazonaws.com/uploads/AVCJIReport_PretrialDetentionPretrialReleasePublicSafety_Smith_v3-1.pdf [https://perma.cc/JW7S-FA9G].

137. Murphy, *supra* note 21, at 1375.

then focusing on its disproportionate impact on non-white defendants and its pervasive enhancement of state control to the detriment of fundamental liberty interests.

A. Case Study: Jack Smith

The day Jack Smith's GPS monitor was removed was one of the best days of his life. With an ankle monitor affixed to his body, he had been punished by physical hardship, mental strain, and continuous surveillance all while the law presumed him innocent. The harms imposed by the GPS monitor went unrecognized by the criminal justice system.

For example, the device needed to be charged daily. This required Mr. Smith to sit tethered within five feet of an electrical outlet for up to two hours a day, as the ankle monitor—still on his ankle—was plugged into a charging device that was plugged into the wall. In essence, given Mr. Smith's 7:30 am to 4:00 pm work shift, and his one-and-a-half-hour commute in both directions, this two-hour daily commitment that required him to remain largely stationary resulted in a life that was limited to work, commuting, and charging his GPS monitor for three and a half years. He referred to the experience as house arrest.[138]

The device itself was cumbersome, a weight on his ankle every step he took. Frequently, during the three-plus years he was forced to wear it, the GPS monitor was painful, causing rashes, skin irritations, and discoloration which remained months after it was finally removed. He was unable to take a bath and exercise was impossible as any sweat would exacerbate the skin irritations. His sleep was interrupted every time he turned in bed and snagged the monitor on bedsheets or painfully rolled his ankle or other leg over it. He often woke up in the morning with his ankle throbbing and tired from a night of restless sleep.

Every week, he was ordered to report to the Sheriff's Department for a check of the system which required Mr. Smith to leave his work and for Sheriff's employees to remove the monitor to scan the barcode. If the monitor was replaced too tightly, he would spend the next week suffering numbness in his foot. If the monitor was too loose, the monitor would rotate around his ankle, causing the hard plastic and metal to rub against his skin, bruising his ankle, causing tendon soreness, and hurting him to the bone.

As a maintenance worker in an apartment building with over 150 units, Mr. Smith spends much of his day doing physical work. He walks up and down the apartment stairs countless times a day, and for three and a half years, each step was

138. Interview with "Jack Smith", *supra* note 2.

another opportunity for sharp pain to ride up his leg. Every time he changed pipes, fixed sinks, moved furniture, or any number of activities intrinsic to his work, he risked discomfort and potential pain.

While the physical toll was relentless, it is the psychological impact that still leaves Mr. Smith emotional. "I felt like I was one slip up, one step away from jail every single day," he says. Making sure the device was charged at all times was a source of constant stress and fear.[139] If the device died, even briefly, the sheriff's department would be notified instantly and he would be in non-compliance with his terms of release. He could immediately be arrested at his home, at work, picking his wife up, or wherever he might be at that moment. He could be thrown in jail and have to wait several days for a hearing before a judge where he would then have the chance to explain the reasons for the technical violation. His explanations would be met with suspicion—how hard is it to keep a device charged? Had he been tampering with it? Was he trying to abscond?—and the prosecutor would most likely demand that GPS surveillance be terminated and he be incarcerated pending trial.

The GPS tracker would vibrate when the charge was low and if the device was not promptly plugged into the charger, a loud disembodied voice would state, "CHARGE YOUR DEVICE AS INSTRUCTED." When and how quickly the device would lose charge was not predictable, leading Mr. Smith to develop a nervous tick as his mind was conditioned over the course of three and a half years to be hypervigilant of the device's vibration. At times, the device would vibrate during the middle of his work shift, requiring him to interrupt his work duties immediately, regardless of how inconvenient, and charge the device at least long enough to get him through the day. During his evening commute he would be especially nervous, worried the device would demand to be recharged before he had gotten close to his home. In that situation, he would have no choice but to pull over at a gas station or fast-food restaurant and hope he would be allowed to charge his device, delaying his return home to his family. Added to the daily fears of incarceration was the psychological toll of knowing he was being watched at all times and the deep embarrassment and dehumanization that accompanied this fear.

As part of the device's requirements, Mr. Smith was prohibited from being more than fifty miles from the San Francisco Sheriff's Office. He missed countless family events and celebrations. He had to turn around on his way to his grandson's birthday party when he realized the location was in a park fifty-four miles away. "Luckily, I checked Google. Otherwise, I would have been in jail," he says.[140] For

139. *Id.*
140. *Id.*

three and a half years he only left this radius once, for his daughter's wedding in Reno, Nevada. He petitioned the court for an exemption and was given two days' leave. He walked his daughter down the aisle wearing the ankle monitor.

Purportedly to allow sheriff's access to the monitor at any time, Mr. Smith was also subject to a warrantless search and seizure clause, a requirement that he "agreed" to and was not imposed by the judge, but part of a form he had to sign to be released on the electronic monitor. This meant law enforcement could enter his home or vehicle, at any time of day or night, with or without a warrant, and with or without probable cause of any crime. Law enforcement could put their hands on Mr. Smith to search his person, even though a judge had not specifically ordered that he waive his Fourth Amendment rights to be free from warrantless searches absent probable cause.

Repeatedly, Mr. Smith petitioned the court to remove the monitor. Surely, one or two years performing flawlessly on an ankle monitor should merit some reconsideration of the terms of his release by showing his willingness to obey court orders and the requirements of the criminal process. Each motion to remove the GPS monitor was denied, however, until just weeks before his case was dropped. Each time, prosecutors raised the specter of public safety, in general, or the fears of the alleged victim, in particular, and each time the judge denied his motion. Absent any specific evidence that Mr. Smith was a danger to the community, the prosecutor rested successfully on the argument that no one could know what violence Mr. Smith might wreak upon the alleged victim or complete strangers if he did not have the ankle monitor on. His exemplary performance in returning for court dates and abiding by stay away orders was used as evidence that GPS surveillance was working to protect the public and keep him coming to court.

In certain ways, Mr. Smith was lucky. Unlike many defendants in other jurisdictions, he did not have to pay for his own GPS surveillance.[141] People on electronic monitoring are often forced to foot the bill for their own tracking.[142] These prices range from $150 to $1200 per month, excluding the initial installation fee, which can run upwards of $200.[143] Unlike many defendants, Mr. Smith had a

141. Some local jurisdictions have banned electronic monitoring fees, but California and Rhode Island are the only two states to have prohibited them for pretrial defendants. *See* FINES & FEES JUST. CTR., ELECTRONIC MONITORING FEES 4 (2022), https://finesandfeesjusticecenter.org/content/uploads/2022/09/FFJC-Electronic-Monitoring-Fees-Survey-2022.pdf [https://perma.cc/CXU7-MZU4].

142. *See id.*

143. *See* Hernandez D. Stroud & Taylor King, *How Electronic Monitoring Incentivizes Prolonged Punishment*, BRENNAN CTR. FOR JUST. (July 26, 2022), https://www.brennancenter.org/our-

stable home from which to charge his device without interruption, thereby avoiding regular stints in and out of jail for technical violations such as failures to adequately charge the device.[144] His manager, who was the only work colleague he told about the monitor, taking pains for over three years to otherwise hide it from the others, was understanding and allowed him breaks to charge the device at work if necessary. And unlike many other defendants, he was healthy enough to persevere through the very difficult physical and mental strains of being shackled with an electronic device for twenty-four hours a day for years.

In other ways, Mr. Smith was typical of many defendants who are increasingly placed on electronic monitoring. For one, he is Black and electronic monitoring is disproportionately placed on Black defendants. In San Francisco, more than 40 percent of those placed on ankle monitors are Black, despite Black people making up only about 5 percent of San Francisco's population.[145] Mr. Smith suffered the harms of electronic monitoring for over three years, and none of the time he spent on surveillance would ever be accounted for by the criminal justice system—neither as credit toward any possible sentence, if one had ever been imposed, or through financial or other renumeration. Further, his placement on electronic monitoring required the waiver of several constitutional rights, significantly including the right to be free from warrantless searches and seizures as guaranteed by the Fourth Amendment.[146] This waiver happened absent judicial review or legal counsel. It was the price he had to pay for asserting his innocence.

work/analysis-opinion/how-electronic-monitoring-incentivizes-prolonged-punishment [https://perma.cc/L2YS-XD9P].

144. *See* S.F. SHERIFF'S DEP'T, ELECTRONIC MONITORING PROGRAM RULES PRE-SENTENCED PARTICIPANTS (2020), https://www.sfsheriff.com/sites/default/files/2020-02/Pre-Sentenced%20Individuals%20SFSD%20EM%20Rules%20-%20Revised%202.3.20.pdf [https://perma.cc/R4SQ-3V8Y]; COOK CNTY. SHERIFF'S OFF., FORMS FC-92 & FC-87, COMMUNITY CORRECTIONS – ELECTRONIC MONITORING (EM) PROGRAM (GPS) INFORMATION SHEET (2020), https://www.cookcountysheriff.org/wp-content/uploads/2020/09/EM-Participant-Packet.pdf [https://perma.cc/NYG8-57HG]; *see also* Karla Dhungana Sainju, Stephanie Fahy, Katherine Baggaley, Ashley Baker, Tamar Minassian & Vanessa Filippelli, *Electronic Monitoring for Pretrial Release: Assessing the Impact*, 82 FED. PROB., no. 3, Dec. 2018, at 3.

145. Smith & Robson, *supra* note 86, at 12.

146. An example of the waiver Mr. Smith was required to sign can be found in other cases. *See* Complaint at ex. A, Simon v. City & County of San Francisco, No. 22-cv-05541 (Super. Ct. of S.F. Sept. 8, 2022), https://www.aclunc.org/sites/default/files/ANKLE_MONITORING_COMPLAINT.pdf [https://perma.cc/8MKG-CV6N].

B. GPS Monitoring and Racial Disparities

As evinced by the experience of Jack Smith, the impacts of increased e-carceration are grave. GPS surveillance can cause physical and mental strain and impose severe limitations on movement. Electronic monitoring equipment can often malfunction due to low batteries, poor weather conditions, car travel, or even tall buildings, resulting in the destabilizing effects of re-incarceration. One study by a legislative committee in Arizona found that during a one-year period there were 35,601 false alerts and only 463 confirmed violations, a ratio of almost seventy-seven to one.[147] Service fees are borne by the defendant and paid to a small number of private, for-profit corporations with government contracts. These charges can be onerous with GPS monitor installation fees (anywhere between $25 to $250) and daily monitoring fees (from one dollar to forty dollars) quickly creating insurmountable debt.[148] These individuals are not only forced to agree to abridgments of their constitutional rights, but they also have to pay for their own e-carceration. In addition to the direct financial toll in the form of payment, the GPS monitor makes finding and maintaining employment difficult through device charging requirements, numerous check-in dates, the inability to be flexible with work shifts, and strict travel restrictions. In 2011, the National Institute of Justice surveyed 5000 people on electronic monitors and found that 22 percent said they had been "fired or asked to leave a job" because of the device.[149]

Additionally, there are effects that are more difficult to quantify, such as the anxiety that comes with constant surveillance and the toll the threat of re-incarceration has on one's physical and psychological health.[150] As the experience of Jack Smith illustrates, ankle monitoring conditions create huge human costs of their own. A 2022 Shriver Center on Poverty Law study of pretrial electronic monitoring determined that "although [electronic monitoring] is a tool that can

147. *Agenda: Joint Legislative Study Committee on Global Positioning System Monitoring, Revised #3*, ARIZ. STATE LEGISLATURE (Nov. 6, 2007, 9:00 AM), https://web.archive.org/web/20140331225336/http://azleg.granicus.com/MediaPlayer.php?view_id=3&clip_id=1984; Smith & Robson, *supra* note 86, at 7 ("[S]ome devices are known to malfunction frequently, raising false alarms about participants' whereabouts, putting them in jeopardy of noncompliance reports, technical violations, and a return to pretrial detention.").

148. FEES & FINES JUST. CTR., *supra* note 141, at 8.

149. NAT'L INST. OF JUST., NCJ 234460, IN SHORT: TOWARD CRIMINAL JUSTICE SOLUTIONS: ELECTRONIC MONITORING REDUCES RECIDIVISM 2 (2011), https://www.ojp.gov/pdffiles1/nij/234460.pdf [https://perma.cc/K8AZ-GRG2].

150. Kofman, *supra* note 61.

be used to get people out of prisons and jails, as currently administered it creates harm in much the same fashion as prisons and jails."[151]

Unsurprisingly, these negative consequences of electronic surveillance are disproportionately shouldered by communities of color, specifically Black communities.[152] GPS surveillance amplifies existing racial disparities in the criminal justice system. Just as Jim Crow was a "less restrictive form of racial and social control, not a real alternative to [the] racial caste system[]," e-carceration is an extension of racial hierarchies in a technologically moderated format.[153] "[D]igital prisons are to mass incarceration what Jim Crow was to slavery."[154] The expansion of e-carceration is part of a longer narrative[155]

For example, in Wayne County, Michigan, electronic monitoring—known as a "tether"—is primarily used on pretrial defendants, with 71 percent of all county GPS surveillance placed on those who are awaiting adjudication of their cases.[156] Within this population, Black inmates are twice as likely as white inmates to be placed on electronic monitoring.[157] This does not simply mean Black defendants were more likely to be on a "tether." It also means Black defendants were more likely to spend additional days incarcerated. The practical reality of GPS monitoring is that most defendants on a "tether" in Wayne County typically spend a week in physical custody before being released,[158] meaning Black defendants—presumed innocent just like white defendants—not only are more likely to be placed on GPS monitoring but also spend extra days or weeks in physical jail as they await their "tether." On average, most defendants spend fifty-

151. JAMES ET AL., *supra* note 6, at 9.
152. This paper focuses primarily on the disparate racialized impacts of GPS surveillance on Black defendants, largely due to the acute lack of data with regards to Latinx and other communities of color. *See* RONALD WEITZER & STEVEN A. TUCH, RACE AND POLICING IN AMERICA 6 (2006). Further studies are needed to establish the prevalence of similar disparities with other communities of color.
153. Alexander, *supra* note 22.
154. *Id.*
155. *See* SIMONE BROWNE, DARK MATTERS: ON THE SURVEILLANCE OF BLACKNESS 7 (2015) ("analyzing surveillance and the conditions of racial blackness" across multiple spaces—slave ships, Jeremy Bentham's Panopticon, the Internet, airports and "different segments of time"—"the period of transatlantic . . . slavery, the British occupation of New York City during the American Revolution, post-9/11").
156. Cross et al., *supra* note 8, at 27.
157. *Id.*
158. Joe Guillen & Christine MacDonald, *Wayne County Sherriff's Office Defends Tether Program Amid Reports of Lengthy Delays* DETROIT FREE PRESS (Feb. 17, 2022), https://www.freep.com/story/news/local/michigan/detroit/2022/02/17/wayne-county-sheriffs-office-defends-tether-program-amid-delays/6834192001 [https://perma.cc/BJ8N-R4M2].

eight days on a tether, with a large number wearing monitors for between two and six months.[159] Wayne County charges defendants on average one hundred dollars for initial enrollment and one hundred dollars a month in surveillance fees, again a cost disproportionately imposed on Black defendants.[160]

Wayne County is not alone in employing GPS surveillance in a method that emphasizes racial disparities in the criminal justice system. In San Francisco County, where pretrial use of electronic monitoring has increased by 308 percent since 2020,[161] more than 40 percent of those placed on electronic monitoring are Black in a city with a Black population of 5 percent.[162] This disproportionality is not unique to electronic monitoring—the rate at which Black people are booked in jail in San Francisco is nine times higher than white people.[163] What is significant here is that GPS surveillance is being employed in ways that replicate these same racial biases—transporting a system of disparate treatment into a new, greatly expanded arena.

In Cook County, even prior to the COVID-19 pandemic and bail reform, Black people were disproportionately placed on electronic monitoring. In 2016, 70 percent of people on electronic monitoring through the sheriff's office were Black, though Black people make up just 25 percent of the general population.[164] The sheer numbers have only increased in the years that followed. In Chicago, the number of people on electronic monitoring increased from 2417 before the pandemic to 3365 by mid-June 2020, an increase of over 40 percent.[165] With these increases, Black people were disproportionately affected. This was in part due to the emerging use of algorithmic, data-driven risk assessment tools to determine who would be released and under what conditions.

With the introduction of bail reform in 2017, the Circuit Court of Cook County implemented General Order No. 18.8A, which required, prior to the initial bail hearing, that Pretrial Services use a risk assessment tool to determine what conditions, if any, would ensure the defendant's return to court and their risk to

159. Cross et al *supra* note 8, at 29.
160. *Id.*
161. Hughes, *supra* note 132.
162. *Id.*
163. *"Not in It for Justice" How California's Pretrial Detention and Bail System Unfairly Punishes Poor People*, HUM. RTS. WATCH (Apr. 11, 2017), https://www.hrw.org/report/2017/04/11/not-it-justice/how-californias-pretrial-detention-and-bail-system-unfairly [https://perma.cc/35X2-XMM5].
164. CHI. CMTY. BOND FUND, PUNISHMENT IS NOT A "SERVICE": THE INJUSTICE OF PRETRIAL CONDITIONS IN COOK COUNTY, 13 (2017), https://chicagobond.org/wp-content/uploads/2018/10/pretrialreport.pdf [https://perma.cc/6TBV-THE5].
165. Hager, *supra* note 130.

public safety.[166] The County uses the Public Safety Assessment (PSA) risk assessment tool, developed by the Laura and John Arnold Foundation, which balances a person's age, current charge, criminal history (prior convictions and any pending charges), and past failures to appear in court to calculate a New Criminal Arrest (NCA) and a Failure to Appear (FTA) score.[167] Individuals' scores on each of these indexes would determine which level of supervision—such as release without conditions, minimal supervision, electronic monitoring, or incarceration—was recommended.

However, the numeric results created by using the Arnold Foundation risk assessment tool often served to distort release outcomes, resulting in the disproportionate imposition of release conditions like GPS surveillance on Black defendants. This is because the inputs into the algorithm—prior convictions, prior failures to appear, and currently open cases—are metrics that often correlate with race in insidious ways.[168] The reasons for these correlations are numerous and have been treated in depth in the academic literature.[169] However, a few salient points merit emphases in this context. First, police perceive criminality as racialized, treating people of color differently from white people for the same behavior.[170] As a result, Black people are more likely to be arrested for the same or similar low-level crimes than white people.[171] They are more likely to live in

166. *General Order No. 18.8A - Procedures for Bail Hearings and Pretrial Release*, STATE OF ILL. CIR. CT. OF COOK CNTY. (July 17, 2017), https://www.cookcountycourt.org/Manage/Division-Orders/View-Division-Order/ArticleId/2562/GENERAL-ORDER-NO-18–8A-Procedures-for-Bail-Hearings-and-Pretrial-Release [https://perma.cc/8CFT-LVLG].

167. *About the Public Safety Assessment*, ADVANCING PRETRIAL POL'Y AND RSCH., https://advancingpretrial.org/psa/factors [https://perma.cc/7RNW-F22Y].

168. *See* Sonja B. Starr, *Evidence-Based Sentencing and the Scientific Rationalization of Discrimination*, 66 STAN. L. REV. 803, 806 (2014) (finding that race-neutral inputs "can be expected to contribute to the concentration of the criminal justice system's punitive impact among those who already disproportionately bear its brunt, including people of color"); Bernard E. Harcourt, *Risk as a Proxy for Race: The Dangers of Risk Assessment*, 27 FED. SENT'G REP. 237, 237 (2015); *see generally* Sandra G. Mayson, *Bias in Bias Out*, 128 YALE L.J. 2218 (2019); Jenny E. Carroll, *Beyond Bail*, 73 FLA. L. REV. 143 (2021).

169. For a thorough analysis, *see generally* Devon W. Carbado, *Blue-on-Black Violence: A Provisional Model of Some of the Causes*, 104 GEO. L.J. 1479 (2016); *see generally* Paul Butler, *The System Is Working the Way It Is Supposed to: The Limits of Criminal Justice Reform*, 2019 FREEDOM CTR. J. 75 (2020).

170. L. Song Richardson, *Cognitive Bias, Police Character, and the Fourth Amendment*, 44 ARIZ. ST. L.J. 267, 272 (2012) ("Implicit bias can cause individuals to interpret identical behaviors differently dependent solely upon the race of the individual observed.").

171. Carbado, *supra* note 169, at 1486.

neighborhoods heavily policed by law enforcement.[172] The net result is that Black people face a higher number of police interactions than white people. Compounded upon this is the fact that in any given law enforcement interaction, individual police officers in the field have an enormous level of discretion on arrests, and that discretion on average accrues against Black arrestees when compared with white arrestees.[173] Further, the racially biased implementation of this discretion is constitutionally protected as the Supreme Court has ruled that as long as an officer reasonably believes they have probable cause to arrest, whether that decision was actually based on racial bias is not relevant to a Fourth Amendment analysis.[174] Similarly, the *Terry v. Ohio* decision, which authorized police to frisk individuals it reasonably believed were armed, has spawned stop and frisk practices that are egregiously racially biased.[175] For example, in Chicago while Black people make up a 32 percent of the population, they account for 72 percent

172. Robin Smyton, *How Racial Segregation and Policing Intersect in America*, TUFTSNOW (June 17, 2020), https://now.tufts.edu/2020/06/17/how-racial-segregation-and-policing-intersect-america [https://perma.cc/CAS6-SBFR].

173. Amanda Charbonneau & Jack Glaser, *Suspicion and Discretion in Policing: How Laws and Policies Contribute to Inequity*, 11 U.C. IRVINE L. REV. 1327, 1338 (2021) ("[T]here is evidence suggesting that, relative to [w]hite civilians, officers detain and search Black civilians at a lower threshold of suspiciousness.").

174. *See* Whren v. United States, 517 U.S. 806, 813 (1996); Gabriel J. Chin & Charles J. Vernon, *Reasonable but Unconstitutional: Racial Profiling and the Radical Objectivity of* Whren v. United States, 83 GEO. WASH. L. REV. 882, 884 (2015) (footnotes omitted) ("*Whren v. United States* is notorious for its effective legitimation of racial profiling in the United States.").

175. *See Terry v. Ohio*, 392 U.S. 1, 30 (1968); Russell L. Jones, Terry v. Ohio: *Its Failure, Immoral Progeny, and Racial Profiling*, 54 IDAHO L. REV. 511, 541 (2018) ("By failing to properly define a constitutionally valid stop, the Court left the door open to what has become an open season for frivolous stops of young African-American men and other ethnic minorities.").

of stop and frisk actions.[176] Similar numbers exist in Boston,[177] New York,[178] and Philadelphia.[179]

Given this context, the NCA and FTA indexes churned out by the Arnold Foundation algorithm "do not really predict new crime—they predict new arrest."[180] The distinction between arrest and crime is significant in this context because predicting arrests, for the reasons shown above, includes a statistical assessment of police behavior and racial profiling that has nothing to do with the individual defendant nor the sufficiency of the evidence. Take drug convictions, for example. Drug offenses are committed at approximately equal rates by white and Black people, but Black people are arrested at significantly higher rates for these same activities.[181] This results in a higher conviction rate, which translates into a higher risk assessment on the Arnold Foundation algorithm, not because a given Black defendant presents a higher risk of reoffending than a given white defendant, but because law enforcement has systematically treated them differently. Similarly, calculating the risk of future FTAs based upon prior failures to appear is largely based on factors such as poverty, lack of transportation, and housing instability that can act as proxies for race.[182]

176. ACLU OF ILL., STOP AND FRISK IN CHICAGO 3 (2015), https://www.aclu-il.org/sites/default/files/wp-content/uploads/2015/03/ACLU_StopandFrisk_6.pdf [https://perma.cc/9XCJ-YSGD].

177. JEFFREY FAGAN, ANTHONY A. BRAGA, ROD K. BRUNSON & APRIL PATTAVINA, ACLU OF MASS ET AL., FINAL REPORT: AN ANALYSIS OF RACE AND ETHNICITY PATTERNS IN BOSTON POLICE DEPARTMENT FIELD INTERROGATION, OBSERVATION, FRISK, AND/OR SEARCH REPORTS 1–2 (2015), https://www.ca1.uscourts.gov/sites/ca1/files/citations/full-boston-police-analysis-on-race-and-ethnicity.pdf [https://perma.cc/R5XB-9ZMC].

178. *Stop-and-Frisk Data*, *Racial Justice*, N.Y. C.L. UNION (2015), http://www.nyclu.org/content/stop-and-frisk-data [https://perma.cc/KZ2M-S97Q]; N.Y.C. DEP'T OF CITY PLAN., TABLE-P2A NYC: TOTAL POPULATION BY MUTUALLY EXCLUSIVE RACE AND HISPANIC ORIGIN - NEW YORK CITY AND BOROUGHS: NEW YORK CITY AND BOROUGHS, 1990–2010 (2011), http://www1.nyc.gov/assets/planning/download/pdf/data-maps/nyc-population/census2010/t_pl_p2a_nyc.pdf [https://perma.cc/L9XB-3YYH].

179. Plaintiffs' Fifth Report to Court and Monitor on Stop and Frisk Practices at 6–7, Bailey v. City of Philadelphia, No. 10-5962 (E.D. Pa. Feb. 24, 2015).

180. *Q & A: Profile Based Risk Assessment for US Pretrial Incarceration, Release Decisions*, HUM. RTS. WATCH (June 1, 2018, 7:00 AM), https://www.hrw.org/news/2018/06/01/q-profile-based-risk-assessment-us-pretrial-incarceration-release-decisions#_ftnref4 [https://perma.cc/E7D6-NC8Y].

181. Tess Borden, *Every 25 Seconds: The Human Toll of Criminalizing Drug Use in the United States*, HUM. RTS. WATCH (Oct. 12, 2016), https://www.hrw.org/report/2016/10/12/every-25-seconds/human-toll-criminalizing-drug-use-united-states [https://perma.cc/9BR4-AV35].

182. *Q & A: Profile Based Risk Assessment for US Pretrial Incarceration, Release Decisions*, *supra* note 180.

It is not simply that the algorithms use carceral data, generating racially biased predictions. It is that the algorithms use *only* carceral data.[183] As argued by Professor Ngozi Okidegbe, the bias in the algorithms is further amplified because they are tethered to data solely "from the very same institutions responsible for the current bail crisis" to the exclusion of knowledge produced by those most affected by the criminal justice system, such as community members of highly policed neighborhoods, thereby limiting "the capacity for algorithms to redress historical and current inequities in the pretrial system."[184]

Los Angeles County, which also uses the PSA developed by the Arnold Foundation, has shown GPS monitoring numbers that mirror the overall bias against Black and Latinx people in the criminal justice system. In 2021, Los Angeles County placed 1284 pretrial defendants on electronic monitoring, an increase of 5250 percent from six years prior.[185] Of these individuals, 31 percent were Black and 53 percent were Latinx, compared with 29 percent and 54 percent in the jail inmate population respectively.[186] The GPS surveillance and jail inmate percentages by race match closely with each other, but with regards to the Black population, are disproportionate to the general population where Black people make up 9 percent.[187] Moreover, in 2020, the termination rates from electronic monitoring were at 35 percent, meaning that over a third of those placed on electronic monitoring were eventually placed in physical custody.[188] The vast majority of these individuals—94 percent—were terminated for "non-compliance" rather than the commission of new crimes or absconding.[189] Non-compliance can include anything from a dead monitor battery, failing to report a work schedule change within twenty-four hours, or any host of other technical violations.[190] Not only the harms caused by electronic monitoring but also the harms caused by physical detention were placed more heavily on the shoulders of Black defendants.

The Arnold Foundation risk assessment tool has been implemented in thirty-eight jurisdictions including the entire states of Arizona, Utah, New Jersey,

183. *See generally* Ngozi Okidegbe, *Discredited Data*, 107 CORNELL L. REV. 2007 (2022).
184. *Id.* at 2014.
185. VIRANI, *supra* note 6, at 2.
186. *Id.* at 10.
187. *Id.*
188. *Id.* at 11.
189. *Id.*
190. *Id.*

and Kentucky and large urban areas such as Houston and Chicago.[191] However, the potential for racial bias discussed above is not specific to the Arnold Foundation PSA alone. Although one of the most widely used algorithmic tools, other jurisdictions in California, Colorado, Virginia, and Washington, D.C. have created their own risk assessment tools using the same racially biased input data.[192] As of 2017, there were at least sixty risk assessment tools in use in the United States.[193]

For example, Santa Clara County, California developed its own risk assessment tool, weighing many of the same factors as the Arnold Foundation.[194] The county witnessed a drop in its jail population from a peak of 4386 in 2014 to 2000 in 2021.[195] The vast majority of these inmates—89 percent—were being held pretrial.[196] During the last four years of this period, electronic monitoring quadrupled from 2016 to 2020, almost entirely compensating for the reduction in the jail population.[197] In the fourth quarter of 2020, there were 2950 people on electronic monitoring as compared with 2062 people held in jail.[198] Similar to the experiences of Cook County and Los Angeles, the pretrial surveillance numbers mirrored the same racial disparities reflected in other aspects of the criminal justice system. Black defendants were supervised at four times the rate of their percentage in the overall population and Latinx defendants twice their general population.[199] These numbers map well onto already existing discrepancies in booking numbers. In 2019, the Black community represented roughly 3 percent of the overall adult

191. Doaa Abu Elyounes, *Bail or Jail? Judicial Versus Algorithmic Decision-Making in the Pretrial System*, 21 COLUM. SCI. & TECH. L. REV. 376, 409 (2020).
192. Jorgensen & Smith, *supra* note 32, at 23–24.
193. SARAH PICARD-FRITSCHE, MICHAEL REMPEL, JENNIFER A. TALLON, JULIAN ADLER & NATALIE REYES, CTR. FOR CT. INNOVATION, DEMYSTIFYING RISK ASSESSMENT 1 (2017), https://www.innovatingjustice.org/sites/default/files/documents/Monograph_March2017_Demystifying%20Risk%20Assessment_1.pdf [https://perma.cc/3S2C-PG99]; *see also How Many Jurisdictions Use Each Tool?*, MAPPING PRETRIAL INJUSTICE, https://pretrialrisk.com/national-landscape/how-many-jurisdictions-use-each-tool [https://perma.cc/FL7F-LXK8].
194. *See generally* DAVID J. LEVIN, PRETRIAL JUST. INST., SANTA CLARA COUNTY, CALIFORNIA PRETRIAL RISK ASSESSMENT INSTRUMENT (2012), https://www.courts.ca.gov/partners/documents/pdr-ca-sc-santa_clara_pretrial_rai_report_pji.pdf [https://perma.cc/UQM4-LJ6L].
195. Jayadev, *supra* note 8.
196. *Id.*
197. *Id.*
198. *Id.*
199. *Id.*

population and 14 percent of all jail bookings.[200] The Latinx population made up 22 percent of the overall population and 51 percent of jail bookings.[201]

By using data inputs based on policing tactics that disproportionately single out people of color for more frequent law enforcement contact and disparate treatment, the PSA serves to re-amplify racial bias in its determination of pretrial release conditions. Add to this the high rates of electronic monitoring technical violations leading to re-incarceration, privacy infringements as individuals are monitored in real time, and the myriad physical and psychological strains created by ankle monitoring, GPS surveillance clearly creates increased punitive impacts on Black and Latinx defendants. This increase in "punitive surveillance" has the potential to amplify and reconsecrate racial disparities in a new era and greatly enlarge the footprint of state surveillance across the population.

C. Racializing Surveillance

GPS surveillance has been touted by some as an equitable and fiscally responsible way to reduce mass incarceration and reform our broken criminal justice system, calling it an "unalloyed good."[202] However, this analysis ignores the ways in which technologically mediated incarceration expands the number of individuals under government constraint and the ways these constraints are placed disproportionately upon the shoulders of communities of color.

The expansion of GPS surveillance carries with it the same unjust racialized imprint as the American criminal justice system as a whole. As discussed in Part II, Black people disproportionately bear the brunt of e-carceration. This trend is part of a longer history of surveillance and policing of Black communities and cannot be separated from these roots. As stated by Simone Browne in *Dark Matters: On the Surveillance of Blackness*, "[s]urveillance is nothing new to black folks. It is the fact of antiblackness."[203] Browne defines the term "racializing

200. *Id.*
201. *Id.*
202. Samuel R. Wiseman, *Pretrial Detention and the Right to Be Monitored*, 123 YALE L.J. 1344, 1348–49 (2014); *see also* Barry Latzer, *The Progressive Case for Ankle Bracelets*, NEWSWEEK (Nov. 28, 2022, 6:00 AM), https://www.newsweek.com/progressive-case-ankle-bracelets-opinion-1762150 [https://perma.cc/Z5LG-532J] (arguing that progressives overlook the benefits of electronic monitoring); Shima Baradaran, *The Right Way to Shrink Prisons*, N.Y. TIMES (May 30, 2011), https://www.nytimes.com/2011/05/31/opinion/31baradaran.html [https://perma.cc/X7E7-BP6F]; Crystal S. Yang, *Toward an Optimal Bail System*, 92 N.Y.U. L. REV. 1399 (2017) (expressing the sentiment that "electronic monitoring holds promise as a welfare-enhancing alternative to pretrial detention").
203. BROWNE, *supra* note 155, at 10.

surveillance" as "a technology of social control where surveillance practices, policies, and performances concern the production of norms pertaining to race and exercise a 'power to define what is in or out of place.'"[204] It serves to "reify boundaries, borders, and bodies along racial lines . . . where the outcome is often disciplinary treatment of those who are negatively racialized by such surveillance."[205] This surveillance and control has long found a champion in the criminal justice system, where "for reasons largely unrelated to actual crime trends, the American penal system has emerged as a system of social control unparalleled in world history."[206]

Michelle Alexander charts this racialized social control through American history beginning with slavery, antebellum laws, Jim Crow, and the war on drugs and its attendant mass incarceration of Black people.[207] Other scholars have pointed to broken windows policing[208] and the ten million misdemeanor cases filed annually as evidence of a criminal process that starts "to look increasingly ad hoc, a practice of social control in search of a justification,"[209] or the racial profiling authorized by stop and frisk tactics and legalized pretextual automobile stops.[210]

These racial distortions in the criminal justice system lead to the most "superlative form of a dominion whose prerogatives include friskings, detainings, beatings, and humiliations"—including legally sanctioned police violence and murder.[211] The Washington Post has maintained a database of police shootings in

204. *Id.* at 16–17.
205. *Id.*
206. MICHELLE ALEXANDER, THE NEW JIM CROW 9 (2010).
207. *Id.*
208. ISSA KOHLER-HAUSMANN, MISDEMEANORLAND: CRIMINAL COURTS AND SOCIAL CONTROL IN AN AGE OF BROKEN WINDOWS POLICING 26–27 (2018) (describing broken windows, or quality-of-life, policing strategies that were implemented in New York City in the 1990s to target low-level offenses such as noise complaints, blocking traffic, aggressive panhandling, graffiti, public drunkenness among others under the theory that a "focus on low-level crime was instrumental in reducing serious violent and property street crime").
209. Alexandra Natapoff, *Misdemeanors*, 85 S. CAL. L. REV. 1313, 1367–68 (2012); *see also* Carbado, *supra* note 169, at 1485–87; Tracey Meares, *The Legitimacy of Police Among Young African-American Men*, 92 MARQ. L. REV. 651, 654 (2009).
210. *See* Paul Butler, *Stop and Frisk: Sex, Torture, Control*, *in* LAW AS PUNISHMENT / LAW AS REGULATION 155, 155 (Austin Sarat et al. eds., 2011) ("Because the 'reasonable suspicion' standard that authorizes stops and frisks is lenient, the police have wide discretion in whom they detain and frisk."); *see also* I. Bennett Capers, *Race, Policing, and Technology*, 95 N.C. L. REV. 1241, 1255 (2017) (noting that "[b]etween January 2004 and June 2012, the New York City Police Department made over 4.4 million forcible stops of individuals, 83% of whom were black or Hispanic").
211. TA-NEHISI COATES, BETWEEN THE WORLD AND ME 9 (2015).

the United States since 2015.[212] The data shows that during this period police had consistently shot and killed approximately 1000 individuals per year, with Black people killed at more than twice the rate of white people.[213] GPS surveillance operates within this unjust criminal system and, as currently implemented, risks re-consecrating these very same biases.

D. Privacy and Freedom

The new regime of technologically mediated incarceration cannot be evaluated absent the historical experience of Black communities in the United States. It is the next step in racialized control. Several aspects of this regime deserve attention here. First, although electronic monitoring has been used in the criminal justice system since the mid-1980s, the recent introduction of GPS technology has greatly expanded the information the tracker can monitor. Technological advancements have produced increasingly sophisticated GPS surveillance devices that have the ability to surveil an individual at all times, documenting every move in real time and archiving this data indefinitely. Prior mechanisms of electronic monitoring, often radio frequency units, could, at most, detect a person's distance from a receiver placed at home and was primarily useful for home detention, notifying authorities when the individual was not at their home detention site.[214] On the other hand, GPS technology allows for the state to continuously monitor the real time location of individuals, wherever they might be, through a combination of cell towers and global positioning satellites.[215]

As of 2018, about 70 percent of all electronic monitoring devices had GPS capabilities, an increase from only 2.5 percent in 2005.[216] A 2016 Pew Charitable Trusts survey of the seven largest electronic monitoring companies—accounting for 96 percent of market share—found that "a sharp increase in the use of GPS

212. *Fatal Force*, WASH. POST (Apr. 19, 2024), https://www.washingtonpost.com/graphics/investigations/police-shootings-database(last visited Apr. 25, 2024).
213. *Id.*
214. Catherine Crump, *Tracking the Trackers: An Examination of Electronic Monitoring of Youth in Practice*, 53 U.C. DAVIS L. REV. 795, 800 (2019).
215. James Kilgore & Emmett Sanders, *Ankle Monitors Aren't Humane. They're Another Kind of Jail*, WIRED (Aug. 4, 2018, 8:00 AM), https://www.wired.com/story/opinion-ankle-monitors-are-another-kind-of-jail [https://perma.cc/UB56-EFU4].
216. *Id.*; *see also* STEPHANIE FAHY, ADAM GELB, JOHN GRAMLICH & PHIL STEVENSON, PEW CHARITABLE TRUSTS, USE OF ELECTRONIC OFFENDER-TRACKING DEVICES EXPANDS SHARPLY 3 (2016), https://www.pewtrusts.org/-/media/assets/2016/10/use_of_electronic_offender_tracking_devices_expands_sharply.pdf [https://perma.cc/6SKE-NWYG] (charting a 25 percent fall in the number of active radio frequency units from 2005–15 and an increase in GPS monitors from 2897 to 88,172 units in that same period).

technology accounted for all of the 10-year growth in electronic tracking, more than offsetting a decline in the use of [radio frequency] devices" in the previous ten years.[217] In 2020, Cook County, Illinois decided to transition all electronic monitoring equipment from radio frequency units to GPS bracelets.[218] These new systems create a detailed record of where an individual travels and often chart these movements on a graphical map, similar to Google Maps, for ease of use by the monitoring entity.[219] Some newer features of GPS monitors include two-way communication that allows the tracker to speak directly to the defendant and hear their voice and conversations.[220]

Quick-paced technological advances demonstrate the expanding personal information electronic monitors will likely soon be able to collect from users. Shadowtrack Technologies, which provides electronic monitoring devices to law enforcement in Virginia, advertises a watch-like device with the purported ability to determine whether an individual has been using drugs or alcohol through changes in their speech patterns.[221] Future technology promises to measure blood pressure levels and heart rates.[222] The types of information that can be monitored are growing rapidly.

Moreover, it is unclear who owns this data and what rules, if any, apply to its preservation, dissemination, and use. Jurisdictions around the country contract with private companies to "track, analyze and store location, activity and movement data."[223] However, only a minority of these contracts—nineteen out of fifty-seven in a study by Professor Weisburd of George Washington Law School—address what happens to the collected data.[224] Eleven contracts explicitly specify

217. FAHY ET AL., *supra* note 216, at 3.
218. Press Release, Cook Cnty. Sherriff's Off., Sheriff's Office Announces Electronic Monitoring Program Transition from Radio Frequency to GPS Bracelets (Aug. 18, 2020), https://www.cookcountysheriff.org/sheriffs-office-announces-electronic-monitoring-program-transition-from-radio-frequency-to-gps-bracelets [https://perma.cc/HBD2-J826].
219. Crump, *supra* note 214, at 807–08.
220. Nila Bala & Lars Trautman, *A Wearable Wiretap*, SLATE (Nov. 8, 2019, 8:30 AM), https://slate.com/technology/2019/11/enhanced-ankle-monitors-community-supervision-privacy.html [https://perma.cc/ZNK8-7MTH].
221. Todd Feathers, *'They Track Every Move': How US Parole Apps Created Digital Prisoners*, THE GUARDIAN (Mar. 4, 2021, 6:00 AM), https://www.theguardian.com/global-development/2021/mar/04/they-track-every-move-how-us-parole-apps-created-digital-prisoners [https://perma.cc/2CAM-GPPK].
222. Bala & Trautman, *supra* note 220.
223. *See* KATE WEISBURD ET AL., ELECTRONIC PRISONS: THE OPERATION OF ANKLE MONITORING IN THE CRIMINAL LEGAL SYSTEM 2 (2021), https://issuu.com/gwlawpubs/docs/electronic-prisons-report [https://perma.cc/QJG9-A4SZ].
224. *See id.* at 39 n.80.

the information can be shared with law enforcement for purposes unrelated to the case for which the individual is being monitored, including other police investigations.[225] For example, BI Incorporated, a private company that administers electronic monitoring for the New Mexico Department of Corrections, has "the capability to query GPS location information both automatically and individually, including latitude and longitude, and mapping on all defendants/offenders based on specified distance from a specified location within specified date/time range as means of performing analysis of GPS Offenders at a potential crime scene."[226] San Francisco County contracts with private company Sentinel Offender Services, which provides advanced reporting features, such as "crime scene correlation" that allows users to identify which electronic monitor wearers were near a specific location at a specific time and "zone activity" reports that list which individuals are in certain high crime areas, absent any judicial review or oversight.[227]

In addition to the confusion surrounding who owns this GPS location information and any potential rules regarding its use, there is a lack of transparency and consistency with how long the data is stored. No electronic monitoring contracts inform the individuals monitored exactly how long their data will be preserved.[228] At least "two companies, Attenti (formerly 3M) and Satellite Tracking of People, have contracts that specify the data will be kept a minimum of seven years, often long after the person is off the monitor."[229] San Francisco's pretrial electronic monitoring agreement, which all participants are required to sign, allows the sheriff's department to share GPS location data with any law enforcement agency and makes no provision for the destruction of this data after the conclusion of their case.[230] Per San Francisco's contract with Sentinel, Sentinel has the authorization to retain complete GPS location data of any defendant who has ever participated in the county's electronic monitoring program unless, or until, the county terminates its contract with Sentinel.[231]

Based on these issues with privacy and the unregulated use of data obtained from GPS monitoring of pretrial defendants, the American Civil Liberties Union (ACLU) of Northern California submitted a California Public Records request for

225. *See id.*
226. *See id.* at 11.
227. Complaint, *supra* note 146.
228. WEISBURD ET AL., *supra* note 223, at 11.
229. Kilgore & Sanders, *supra* note 215.
230. Complaint, *supra* note 146.
231. *Id.*

records of instances in which the sheriff's department had shared GPS locations of pretrial defendants with law enforcement agencies. The data showed a staggering increase from four disclosures in 2019 to forty-one in 2020 and 179 in 2021.[232] In a complaint filed in September 2022, the ACLU of Northern California asserted that "[t]hese trends suggest that law enforcement agencies are increasingly relying on" information obtained from electronic monitoring "for general law enforcement purposes and without any judicial oversight."[233] In announcing the suit, Shilpi Agarwal, legal director of the ACLU of Northern California stated, "Ankle cuffs are supposed to ensure that an individual remains in the Bay Area and shows up for court proceedings. They are not a license for law enforcement's unlimited search and surveillance of vulnerable people who haven't been convicted of a crime."[234]

While critical questions surrounding GPS surveillance—such as who has access to the data, how long it is preserved, what it can be used for, for how long, etc.—remain unanswered, one thing is clear: The new wave of electronic monitoring is a lucrative business. Community supervision, including electronic monitoring, is one of the fastest-growing private sectors in the carceral economy.[235] In most counties, defendants are required to pay daily fees in addition to initiation fees and monthly user fees, with states and counties passing on the cost of electronic monitoring to the defendant.[236] Daily fees range from one dollar and fifty cents in Lancaster County, Nebraska to forty-seven dollars a day in Sacramento County for self-employed individuals.[237] Extrapolating over a year of electronic supervision, average fees are over $3000, with Los Angeles County averaging $8600 for a year on GPS surveillance, for example.[238]

Often the billing and fees are handled directly by the private company, with failures to pay resulting in removal from the electronic monitoring program and a potential return to jail.[239] This earning potential is concentrated in the hands of a few private companies, with Bloomberg Businessweek noting "electronic

232. *Id.* ¶ 55.
233. *Id.*
234. *ACLU Lawsuit Challenges San Francisco Sheriff's Unconstitutional Search and Surveillance Conditions for Pretrial Electronic Monitoring*, ACLU NORCAL. (Sept. 8, 2022), https://www.aclunc.org/news/aclu-lawsuit-challenges-san-francisco-sheriff-s-unconstitutional-search-and-surveillance [https://perma.cc/66XF-MSQK].
235. Kofman, *supra* note 61.
236. *Id.*
237. *See* WEISBURD ET AL., *supra* note 223, at 15.
238. *See id.* at 16.
239. *See id.* at 17.

monitoring . . . makers are thriving."[240] Most government contracts are with four main companies—Attenti, BI Incorporated, Satellite Tracking of People, and Sentinel Offender Services.[241] These multiyear contracts can reach millions of dollars, with Cook County paying over four million dollars for a three-year contract.[242] Moreover, many of these contracts are structured so the more devices used and individuals monitored, the more the private company is paid, creating a financial incentive for increased use of GPS surveillance.[243]

The very sophistication of surveillance possible with newer GPS technology and the ability to preserve this data and marshal its use in unregulated ways creates additional forms of harm that are not easily measured and yet are deeply concerning. As in Jack Smith's case, it was not only the physical difficulties of wearing a several-pound weight on his body for three years or having to spend hours a day charging the device. Some of these very real physical harms will likely be ameliorated as technology continues to advance. Already, smartphone surveillance applications use facial recognition technology to ensure the cellphone is physically connected to the defendant while offering precise, real-time GPS locations.[244] The additional harms that cannot be solved through better, smaller technology—and might actually be exacerbated through further technological evolution—involve a diminution of privacy and freedom that result from pervasive surveillance.

As charted, *supra*, the new regime of GPS surveillance is notable for the real time breadth of location information it can provide, the capability to preserve this voluminous data in perpetuity, and the lack of transparency or control as to what this information can be used for. These factors mirror several aspects of modern surveillance as set forth by theorist Gary T. Marx. Marx enumerated ten characteristics of what he termed the "new surveillance" which lead to a "maximum-security society,"[245] including surveillance that is no longer constrained by physical barriers, a focus on the prevention of risk through prediction, data that can be indefinitely stored and easily aggregated, and an increase in "self-surveillance" through wearable trackers.[246] For Marx, maximum surveillance that was once limited to the military sphere or physical prison is now

240. Tabachnick, *supra* note 117.
241. WEISBURD ET AL., *supra* note 223, at 23.
242. *Id.* at 22.
243. *Id.*
244. *Id.* at 4.
245. GARY T. MARX, UNDERCOVER: POLICE SURVEILLANCE IN AMERICA 206, 217–19 (1988).
246. *See id.* at 216–19.

potentially expanding out to society as a whole and to certain groups who are subject to "categorical suspicion," based upon their assumed characteristics.[247] The often continuous and routinized monitoring that happens in a "maximum-security society" is often conducted, like electronic monitoring, with subjects participating in their own surveillance "by partnering, in a way, with the overseeing body or agency in the check for violations and infractions."[248]

The harm here is separate and distinct from the physical impositions of electronic monitoring. These are harms that will not be solved by technology; in fact, it is quite the opposite as the move to GPS surveillance is likely only the newest step in "progress" to increasingly sophisticated forms of surveillance. What does it mean for notions of privacy and freedom to be locatable by law enforcement every minute and hour of the day through a device physically attached to the body? What is the effect when that data never disappears and can be used in ways that subjects have no control over and potentially no knowledge of?

The idea that surveillance can change behavior and a sense of self is not a new one.[249] Similarly, the effects of systematic and racially biased law enforcement monitoring on privacy and dignity have also been charted.[250] What is critical here, however, is the ability of the new technology of surveillance to create a "maximum-security society,"[251] and one that solidifies the racialized policing of prior decades in a new, virtual, and technologically mediated terrain.

While there is a growing recognition that information has a value—financial or otherwise—and merits protection, this conversion has yet to include the criminal legal context. In 2018, California passed the California Consumer Privacy Act (CCPA), which provides consumers with the right to know what information a business collects, how that information is used or shared, the right to delete information collected from them, and the right to opt-out of the sale of

247. *See id.*
248. BROWNE, *supra* note 155, at 16.
249. *See generally* JEREMY BENTHAM, THE PANOPTICON WRITINGS 29 (Verso Books 1995) (1791) ("Morals reformed—health preserved—industry invigorated-instruction diffused—public burthens lightened—Economy seated, as it were, upon a rock—the gordian knot of the Poor—Laws not cut, but untied—all by a simple idea in Architecture!"); MICHEL FOUCAULT, DISCIPLINE AND PUNISH: THE BIRTH OF THE PRISON 238 (Alan Sheridan trans., Vintage Books 1995) (1977) (systems of surveillance can prevent "moral contagion").
250. Kimberly D. Bailey, *Watching Me: The War on Crime, Privacy, and the State*, 47 U.C. DAVIS L. REV. 1539, 1554 (2014) ("The war on crime creates such an oppressive feeling of being watched by the state, that it at minimum has a chilling effect on poor people of color's self-determination, self-expression, and freedom of association.").
251. MARX, *supra* note 245, at 219.

their personal information.[252] No mention was made of the growing amount of data being obtained from individuals on electronic monitoring. Since 2018, legislatures in thirty-nine states and the District of Columbia debated data privacy bills.[253] As of 2022, a total of five states (including California, Colorado, Connecticut, Utah, and Virginia) enacted comprehensive consumer data protection laws.[254] None of these state statutes recognize the data privacy rights of pretrial defendants who are being monitored.

The expanded data gathering, preserving, and disseminating abilities of our age create new fears, not simply that "surveillance will lead to docile conformity" but that vast amounts of knowledge are being amassed about ourselves and others by government actors, creating "inferences more powerful and effective" about us.[255] One of the most insidious inferences—predicting whether an individual poses a *future* risk to public safety—has been imbedded in how our courts determine whether a defendant should remain in custody pending trial since the landmark 1987 case, *United States v. Salerno*.[256] As surveillance technology expands its capabilities and is increasingly the norm pretrial, the inclusion of future dangerousness as a factor becomes increasingly fraught, as will be discussed in the following Part.

III. *SALERNO* REVISITED

With roots in the common law and British penal practices,[257] the historical purpose of bail was to guarantee the defendant's appearance in court.[258] Flight risk and the risk of intimidation or physical harm to trial witnesses were dangers to the

252. *See* California Consumer Privacy Act, CAL. CIV. CODE § 1798.192 (West 2022).
253. *State Laws Related to Digital Privacy*, NAT'L CONF. OF STATE LEGISLATURES (June 7, 2022), https://www.ncsl.org/research/telecommunications-and-information-technology/state-laws-related-to-internet-privacy.aspx (last visited Apr. 24, 2024).
254. *Id.*
255. Jack M. Balkin, *The Constitution in the National Surveillance State*, 93 MINN. L. REV. 1, 13 (2008).
256. 481 U.S. 739 (1987).
257. Shima Baradaran, *Restoring the Presumption of Innocence*, 72 OHIO ST. L.J. 723, 727, 732–34 (2011) (footnotes omitted) ("English judges set bail with only one purpose: to ensure the defendant's appearance in court. Early state courts very rarely weighed the evidence against the defendant openly pretrial, mentioned concerns for safety of the community, or considered dangerousness of the defendant—even to dismiss them as improper justifications for denying bail.").
258. Stack v. Boyle, 342 U.S. 1, 5 (1951) ("[T]he fixing of bail . . . must be based upon standards relevant to the purpose of assuring the presence of that defendant."); Wiseman, *supra* note 202, at 1351 ("Historically, the U.S. system of bail and associated pretrial detention was employed solely to prevent pretrial flight . . . .").

adjudicative process itself and pretrial detention could be necessary in order to preserve the court process.

Federal bail statutes remained largely unchanged from the Judiciary Act of 1789 until Congress passed the 1966 Bail Reform Act,[259] which although allowing for the preventive detention of individuals charged with capital crimes, made no mention of public safety or future dangerousness.[260] Almost two decades later, enter the Bail Reform Act of 1984, which specifically allowed detention based on a finding that the person arrested presented an identifiable and articulable threat to the safety of an individual or the community at large. The Act provides that defendants should be released "unless . . . such release will not reasonably assure the appearance of the person . . . or will endanger the safety of any other person or the community."[261] It created a rebuttable presumption that "no condition or combination of conditions will reasonably assure the safety of any other person and the community" that applied to certain defendants, specifically those who have been previously convicted of certain crimes.[262] This was a doctrinal sea change in pretrial detention which implied a heretofore unstated belief—that certain people are categorically dangerous—and chipped away at the presumption of innocence.

The federal Bail Reform Act of 1984 was quickly the subject of litigation, and in 1987, the Supreme Court upheld the Bail Reform Act of 1984 over a facial challenge. In *United States v. Salerno*, the Supreme Court held that pretrial detention without bail on the basis of future dangerousness does not violate the Due Process Clause of the Fifth Amendment or the Excessive Bail Clause of the Eighth Amendment.[263] In analyzing the Due Process Clause challenge, the Court held that the Act's narrow focus on preventing future crime by arrestees—an area where the government has a "legitimate and compelling" interest—and the Act's "extensive" procedural safeguards, were sufficient to pass constitutional muster.[264]

What was new in *Salerno* was the designation of the prevention of future crime as a legitimate regulatory purpose. *Salerno* took the existing bail framework that focused on regulating the criminal process to ensure the defendant is brought

259. Matthew J. Hegreness, *America's Fundamental and Vanishing Right to Bail*, 55 ARIZ. L.R. 909, 957–58 (2013) ("Although [the Bail Reform Act of 1966] did not significantly change the right to bail, it was, nonetheless, the first law to change the structure of bail as established in the Judiciary Act of 1789.").
260. 18 U.S.C. §§ 3146–3153 (1966) (repealed 1983).
261. 18 U.S.C. § 3142(b) (emphasis added).
262. 18 U.S.C. § 3142(e)(2).
263. United States v. Salerno, 481 U.S. 739, 739–40 (1987).
264. *Id.* at 749–52.

to trial and extended it to combating crime under the rubric of future dangerousness. The impact of this change on bail decisions in criminal courts cannot be overstated. In the years after *Salerno*, future dangerousness has dwarfed concerns over flight risk in decisions concerning pretrial release, ushering in an increase in pretrial detention.[265] In upholding the Bail Reform Act of 1984, the Court uncritically accepted the government's contention that preventive detention was not punishment and sanctioned its characterization as regulatory, fundamentally altering the purpose of pretrial detention and eroding the presumption of innocence.

Salerno became the accepted reality against which progressives and reformists pushed against. Interestingly, while future dangerousness as a justification for pretrial detention had been seen as a controversial expansion at the time of *Salerno*, by the 2010s it had become an accepted part of bail analyses even among reformers. "Today's bail reform movement, by contrast, has assumed the legitimacy of pretrial preventive restraint and advocates preventive detention as a basic component of a model pretrial system."[266] The debate had moved in courtrooms and academia from critiques regarding the constitutionality of preventive criminal detention to accepting that predicting the likelihood of future crimes has a place in bail determination; and in the late 2010s, pretrial physical detention was at an all-time high.

While *Salerno's* main departure from prior jurisprudence was the expansion of state regulation to include the incapacitation of individuals determined to pose a future danger to the public—a dubious analysis that deserves reconsideration, as will be discussed—it also emphasized two due process interests that should apply to pretrial detention. First, *Salerno* held that while the government's interest in preventing crime by arrestees is "both legitimate and compelling," on the other side of the due process scale is "the individual's strong interest in liberty,"[267] which prevents the government from engaging in conduct that "shocks the conscience," and from interfering with rights "implicit in the concept of ordered liberty."[268] Second, *Salerno's* outcome is predicated on the procedural due process protections provided for by the Bail Reform Act of 1984, which the Court characterizes as "extensive."[269]

265. Shima Baradaran & Frank L. McIntyre, *Predicting Violence*, 90 TEX. L. REV. 497, 547 (2012) (analyzed data on 117,000 defendants between 1990 and 2006, concluding "that judges are basing their [pretrial] decisions far more on predicted violence than on predicted flight").
266. Sandra G. Mayson, *Dangerous Defendants*, 127 YALE L.J. 490, 495 (2018).
267. *Salerno*, 481 U.S. at 749–50.
268. *Id.* at 746 (quoting Rochin v. California, 342 U.S. 165, 172 (1952); Palko v. Connecticut, 302 U.S. 319, 325–26 (1937)).
269. *Salerno*, 481 U.S. at 752.

Each of these elements of the *Salerno* holding has implications for how GPS monitoring can and should be weighed and evaluated in judicial decisions to impose pretrial restrictions on defendants. As argued below, *Salerno's* analysis is not limited to physical detention alone. The due process parameters it sets forth are equally applicable to the imposition of GPS monitoring pretrial. Absent an acknowledgment that GPS monitoring affects substantive rights and adequate judicial review that meets the requirements of procedural due process, the imposition of GPS monitoring on pretrial defendants cannot pass constitutional muster. Substantive and procedural due process concerns will be treated in turn below.

A. Substantive Due Process Rights

Without question, physical incarceration impinges on a "historic liberty"—"a right to be free from, and to obtain judicial relief for, unjustified intrusions on personal security."[270] Beyond physical restraint, our courts have included in the "liberty preserved from deprivation without due process" the right "generally to enjoy those privileges long recognized at common law as essential to the orderly pursuit of happiness by free men."[271] The contours of liberty are not precisely drawn and yet they are expansive, including "the right of the individual to contract, to engage in any of the common occupations of life, to acquire useful knowledge, to marry, [to] establish a home and bring up children, [and] to worship God according to the dictates of his own conscience."[272]

While *Salerno* requires the balancing of the substantive right of freedom from physical incarceration against the state's compelling interest in preventing future crime, nothing in the opinion limits its holding to physical detention alone. It defines fundamental rights broadly, including freedom from interference with rights "implicit in the concept of ordered liberty."[273] *Salerno* itself requires the balancing of substantive due process rights in the pretrial detention context and GPS surveillance imposes clear restrictions on liberty that rise to the level of a fundamental right.

Thus far, courts have not sufficiently acknowledged the harms of GPS surveillance as impinging upon substantive due process rights. As argued by Erin

270. Ingraham v. Wright, 430 U.S. 651, 674 (1977) ("It is fundamental that the state cannot hold and physically punish an individual except in accordance with due process of law.").
271. *Id.* at 673 (quoting Meyer v. Nebraska, 262 U.S. 390, 399 (1923)).
272. *Meyer*, 262 U.S. at 399.
273. *Salerno*, 481 U.S. at 746 (quoting *Palko*, 302 U.S. at 325–26).

Murphy, "technological restraints—which impose harm in predominantly nonphysical forms—are rarely found to constitute punitive restraints,"[274] even though "their use raises many of the concerns manifest in the use of physical restraints."[275] Despite the technological advances that have defined much of the last half century, courts have continued to analyze punishment in a staunchly physical and not virtual framework. When analyzing electronic surveillance, courts have focused on the tangible physical intrusion of these devices and overlooked the more inchoate harms to privacy, autonomy, and freedom that result from the collection and preservation of continuous location data.

The myriad of physical and inchoate harms to the physical body, psychological health, and concepts of privacy and freedom outlined accrue on individuals placed on GPS surveillance as a condition of their pretrial release. These harms are rarely granted weight or judicial process as jurisdictions around the country move to greater reliance on the expanded use of electronic monitoring, not simply as an alternative to carceral incapacitation but as an extension of the carceral state. As noted by Kate Weisburd, GPS monitoring lacks a "robust and coherent jurisprudence" in that it exists in the "fissures" of several constitutional protections, allowing it thus far to escape meaningful judicial scrutiny.[276] Since GPS monitoring is often presented as an alternative to incarceration, judges and prosecutors have been able to demand concessions from defendants who acquiesce rather than risk physical incarceration.[277]

One area where this limitation has been clear is in litigation concerning the retroactive application of GPS monitoring on sex offenders. For example, the Seventh Circuit upheld a Wisconsin law imposing a retroactive lifetime electronic monitoring requirement on certain sex offenders against both Ex Post Facto and Fourth Amendment challenges.[278] The monitor would continuously report the wearer's location, which the Wisconsin Department of Corrections could compare to the locations of any sex crimes committed and school playgrounds.[279] In order for the Ex Post Facto Clause to be implicated, the law must impose punishment.[280] The Seventh Circuit found unpersuasive the argument that GPS devices burden liberty, stating "it just identifies locations; it doesn't reveal what the

274. Murphy, *supra* note 21, at 1351.
275. *Id.* at 1326.
276. Weisburd, *supra* note 20 at 151–52.
277. *Id.* at 158.
278. *See* Belleau v. Wall, 811 F.3d 929, 930 (7th Cir. 2016).
279. *Id.* at 935.
280. *Id.* at 937.

wearer of the device is doing at any of the locations."[281] Limiting the additional loss of privacy from a GPS tracker to "the fact that occasionally his trouser leg hitches up and reveals an anklet monitor that may cause someone who spots it to guess that this is a person who has committed a sex crime," the court characterized the loss of privacy as "slight" and "incremental."[282] The court found the GPS monitor to not be a form of punishment, ignoring the amount of data being collected and preserved nor the ramifications of this data collection on the individual.

The Sixth Circuit reached a similar result in preserving GPS monitoring of individuals for certain sex crimes from an Ex Post Facto challenge.[283] In 2004, the Tennessee Legislature enacted the Tennessee Sexual Offender and Violent Sexual Offender Registration, Verification, and Tracking Act[284] and the Tennessee Serious and Violent Sex Offender Monitoring Pilot Project Act.[285] These acts reclassified the plaintiff-appellant, John Doe, as a "violent sexual offender," requiring him to abide by new registration and GPS tracking requirements, which could include lifetime, real-time, constant location surveillance, with the offender charged for the cost of the monitoring.[286] The court noted the "Ex Post Facto Clause is implicated where a law punishes retrospectively"[287] and the statutes' "registration, reporting, and surveillance components are not of a type that we have traditionally considered as a punishment."[288] The court focused on the physical qualities of the GPS monitor, which it characterized as "relatively unobtrusive, measuring only 6 inches by 3.25 inches by 1.75 inches and weighing less than a pound,"[289] no more cumbersome than a walkie-talkie or other electronic device. The ramifications of lifetime continuous surveillance on privacy, dignity, and autonomy were not considered in the court's determination that the GPS monitor did not rise to the level of punishment.

In reaching this result, the Sixth Circuit adopted the analysis of *Smith v. Doe*, where the Supreme Court upheld an Alaska sex offender registration requirement from an Ex Post Facto challenge.[290] The Supreme Court applied a historical analysis, noting the registration requirements "did not involve a traditional

281. *Id.* at 936.
282. *Id.* at 934–36.
283. *See* Doe v. Bredesen, 507 F.3d 998, 1000 (6th Cir. 2007).
284. TENN. CODE ANN. § 40-39-201 (2022)
285. TENN. CODE ANN. § 40-39-301 (2012)
286. *Bredesen*, 507 F.3d at 1001.
287. *Id.* at 1003.
288. *Id.* at 1005.
289. *Id.*
290. *See* 538 U.S. 84, 105–06 (2003).

means of punishing."[291] The Court rejected the Respondent's comparison of the registration and notification requirements to public shaming practices of the colonial era, stating, "[p]unishments such as whipping, pillory, and branding inflicted physical pain and staged a direct confrontation between the offender and the public."[292] The physicality and the "face-to-face" proximity were critical to the Court's analysis.[293]

The Court squarely situated its analysis in the physical world, ignoring the vast ramifications that the internet, where the registration information would be available to a global audience, had vis-a-vis privacy on a virtual terrain. The ease with which anyone could access or disseminate this information did not render the registration or notification requirements punitive and did not weigh in the balance of harms. The Alaska statutes imposed "no physical restraint, and so does not resemble the punishment of imprisonment, which is the paradigmatic affirmative disability or restraint."[294] Using the limited framework of physical detention, the Court was unable to envision how registration requirements and the unlimited and easy dissemination of information could create a cognizable harm.

A few courts have begun to acknowledge the imposition on substantive rights created by GPS surveillance and have reached a different result. The Massachusetts Supreme Court held that the retroactive imposition of GPS surveillance on sex offenders had a "pronounced punitive effect" and therefore, was a violation of the Ex Post Facto Clause.[295] The court found that "[t]he GPS device burdens liberty in two ways: by its permanent, physical attachment to the offender, and by its continuous surveillance of the offender's activities."[296] Not only is a permanent, physical device attached to the body a form of punishment, separately, the "continuous reporting of the offender's location to the probation department, also represents an affirmative burden on liberty."[297]

The New Jersey Supreme Court reached a similar result, holding the imposition of retroactive GPS monitoring on sex offenders constituted punishment and was therefore a violation of the Ex Post Facto Clauses of the federal and state constitutions.[298] In determining whether the electronic monitor imposed an affirmative disability or restraint upon the wearer, the court

291. *Id.* at 97.
292. *Id.* at 97–98.
293. *Id.* at 98.
294. *Id.* at 100.
295. Commonwealth v. Cory, 911 N.E.2d. 187, 195 (Mass. 2009).
296. *Id.* at 196.
297. *Id.*
298. *See* Riley v. N.J. State Parole Bd., 98 A.3d 544, 559–60 (N.J. 2014).

conducted a detailed analysis of the liberty harms including impingement upon the freedom to travel, Fourth Amendment privacy rights, the shaming effects of the monitor, and the physical pain it can cause.[299]

The United States Supreme Court has yet to directly consider the question of whether GPS monitoring is a punitive measure that may not be imposed retroactively. The Court's analysis in *Smith v. Doe,*[300] limiting the definition of punitive to physical harms, does not bode well for whether the Court would characterize the harms caused by surveillance as injuring a cognizable substantive right. Nevertheless, one area where the Court has found that GPS monitoring does impinge upon constitutional rights is in the Fourth Amendment context.[301] In *Grady v. North Carolina*, the Supreme Court held the nonconsensual imposition of a body-worn surveillance device constitutes a search, implicating Fourth Amendment protections.[302] However, consistent with its punishment analysis in the Ex Post Facto context, the crux of the Court's holding depended upon the very physical nature of the harm, in this case the physical intrusion on a subject's body necessitated by the placement of the electronic monitor.[303]

This logic is consistent with the Court's Fourth Amendment decision in *United States v. Jones* in that it offers primacy and protection to physical spaces and bodies.[304] In *Jones*, the Court held a GPS tracker placed upon a vehicle constitutes a search because the "[g]overnment physically occupied private property for the purpose of obtaining information."[305] The concern here is the very physical trespass of the government onto private property.[306] This analysis misses the mark in that it makes no reference to the greater implications of GPS monitoring on Fourth Amendment rights—as stated by Justice Alito in his concurrence, "the Court's reasoning largely disregards what is really important (the use of a GPS for the purpose of long-term tracking) and instead attaches great significance to something that most would view as relatively minor (attaching to the bottom of a car a small, light object that does not interfere in any way with the car's operation)."[307] With technological improvements allowing for surveillance absent any physical intrusion, Justice Alito argues that the majority opinion applies 18th-

299. *Id.* at 558–60.
300. 538 U.S. 84 (2003).
301. *See* Weisburd, *supra* note 20, at 176.
302. *See* Grady v. North Carolina, 575 U.S. 306, 311 (2015).
303. *Id.*
304. *See* United States v. Jones, 565 U.S. 400 (2012); *see also* Florida v. Jardines, 569 U.S. 1 (2013).
305. *Jones*, 565 U.S. at 404.
306. *Id.* at 406.
307. *Id.* at 424–25 (Alito, J., concurring in judgment).

century tort law to a "21st-century surveillance technique."[308] He rightly points out the Court's Fourth Amendment theory in *Jones* would provide no protection to long-term monitoring that "can be accomplished without committing a technical trespass."[309]

Justice Sotomayor echoes these concerns, stating in her concurrence that "physical intrusion is now unnecessary to many forms of surveillance" and "longer term GPS monitoring in investigations of most offenses impinges on expectations of privacy" whether or not a physical intrusion has occurred.[310] The non-physical harms of surveillance that result from "a precise, comprehensive record of a person's public movements that reflects a wealth of detail about her familial, political, professional, religious, and sexual associations" that can be stored and mined for information years into the future are concerns that Justice Sotomayor urges the Court to weigh into a thorough Fourth Amendment analysis.[311] In acknowledging the intangible effects of surveillance on privacy and Fourth Amendment rights, Justice Sotomayor offers a potential path forward for the harms imposed by GPS surveillance to be weighed in the pretrial detention context. These Fourth Amendment concerns should be weighed by courts in imposing electronic monitoring. In addition, the physical toll of electronic monitoring, the financial burden on defendants, the attack on autonomy and dignity, and the limitations on movement should all be considered as judges determine whether to place an individual on GPS surveillance pending trial.

B. Procedural Due Process Protections

Second, *Salerno*'s outcome is based, in no small part, on the procedural due process protections provided for by the Bail Reform Act of 1984. "Procedural due process imposes constraints on governmental decisions which deprive individuals of 'liberty' or 'property' interests within the meaning of the Due Process Clause of the Fifth or Fourteenth Amendment."[312] The fundamental requirement of due process is the opportunity to be heard "at a meaningful time and in a meaningful manner."[313] While procedural due process protections vary "as the particular situation demands,"[314] three factors dictate consideration: (1) the private interest

308. *Id.* at 418 (Alito, J., concurring in judgment).
309. *Id.* at 424.
310. *Id.* at 414–15.
311. *Id.* at 415.
312. Matthews v. Eldridge, 424 U.S. 319, 332 (1976).
313. Armstrong v. Manzo, 380 U.S. 545, 552 (1965); *see* Grannis v. Ordean, 234 U.S. 385, 394 (1914).
314. Morrissey v. Brewer, 408 U.S. 471, 481 (1972).

affected by official action; (2) the risk of an erroneous deprivation of such interest through the procedures used and the value of procedural safeguards; and (3) the Government's interest, including any fiscal and administrative burdens procedural requirement would entail.[315]

Salerno's upholding of the Bail Reform Act of 1984 was predicated on an assessment that the procedural safeguards it promised were "extensive,"[316] and "specifically designed to further the accuracy" of the determination of future dangerousness.[317] The opinion notes the defendant has a right to counsel at the bail hearing, may present evidence, and cross-examine witnesses.[318] The judicial determination is guided by "statutorily enumerated factors" and the review provisions allow for immediate appellate review.[319]

These procedural safeguards are largely absent in the determination to place a defendant on GPS surveillance pretrial. "There are a lot of judges who reflexively put people on monitors, without making much of a pretense of seriously weighing it at all," said Chris Albin-Lackey, a senior legal adviser with Human Rights Watch.[320] Often, the determination that an individual defendant should be placed on electronic monitoring is guided by a risk assessment algorithm,[321] absent meaningful input from the defendant and in a way that reinforces racial disparities.

Once the judge decides to place a defendant on GPS surveillance, the specific requirements of electronic monitoring such as a waiver of Fourth Amendment protections, travel limitations, and reporting requirements are often imposed by sheriff's departments in extra-judicial "administrative" contexts.[322] In San Francisco, for example, the court makes no individualized assessment of the need for travel limitations or search conditions—these restrictions are imposed on all defendants who are placed on GPS surveillance, regardless of their charged crime, criminal history, work or family obligations.[323]

Further, there is no waiver of these fundamental rights taken in court. Instead, defendants placed on electronic monitoring are transported to the Sheriff's Community Programs building, where they are presented with a

315. Goldberg v. Kelly, 397 U.S. 254, 263 (1970).
316. United States v. Salerno, 481 U.S. 739, 752 (1987).
317. *Id.* at 751.
318. *Id.*
319. *Id.*
320. Kofman, *supra* note 61.
321. *See supra* Subpart II.B.
322. Complaint, *supra* note 146, at 5.
323. *Id.*

document for their signature, without the aid of counsel.[324] The document, titled "Electronic Monitoring Program Rules," requires the defendant to review and initial each of fourteen requirements, including an acknowledgment that their data may be shared with "other criminal justice partners," that they must not travel farther than fifty miles from San Francisco, and that they shall submit to a search of their person, residence, automobile, or property by any peace officer at any time.[325] Often, the first time that the defendant is made aware of the requirements of GPS monitoring is outside of a courtroom at the San Francisco Sheriff's Office. Many defendants do not understand the waivers they are initialing and do so under threat of continued incarceration.[326]

The procedural safeguards characterized as "extensive" by *Salerno* are glaringly absent as defendants sign administrative forms jettisoning substantive due process rights absent a judicial determination or counsel. *Salerno* by its very terms demands the imposition of GPS monitoring proceed with procedural protections in order to survive constitutional concerns.

C. Future Dangerousness

Salerno held the Bail Reform Act of 1984's inclusion of future dangerousness as a consideration for pretrial detention does not violate the Due Process Clause. This result is predicated on the Act's focus on guarding public safety from crimes committed by defendants awaiting trial, a legitimate government interest,[327] and because it includes extensive procedural steps to safeguard defendants' liberty interests.[328] The previous two Subparts focus on how the holding in *Salerno* can and should be applied to pretrial constraints short of physical detention, showing that the current substantive and procedural safeguards are inadequate to meet *Salerno*'s requirements. There are substantial due process concerns raised by the elimination of privacy and liberty caused by GPS surveillance currently unacknowledged by courts and the deprivation of these fundamental rights must be accorded procedural due process to pass constitutional muster. Even if courts began accurately weighing the harms of electronic monitoring as harms to fundamental liberty,[329] there remains a larger conceptual issue with *Salerno*. Thus

324. *Id.* at 6, ex. B.
325. *Id.* ¶ 29, ex. F
326. *Id.* at 7–8.
327. United States v. Salerno, 481 U.S. 739, 749 (1987).
328. *Id.* at 751–52.
329. *See supra* Part III.B.

far, we have skirted around the most fundamental issue raised by *Salerno*—its inclusion of future dangerousness as a regulatory metric by which to determine whether an individual should be released pretrial.

Salerno broke new ground by expanding the regulatory purpose of pretrial detention to include the government's interest in preventing future crimes by the defendant.[330] The *Salerno* court quickly dismissed the argument that pretrial detention based upon an assessment of future dangerousness went beyond a legitimate regulatory goal, stating "Congress instead perceived pretrial detention as a potential solution to a pressing societal problem," not as a form of punishment.[331] While the Second Circuit had found the authorization of pretrial detention as a means of preventing future crimes "repugnant to the concept of substantive due process," the Supreme Court had no such qualms.[332]

A closer look at the overturned Second Circuit opinion shows how dramatic a shift *Salerno* represents. The lower court rejected the government's position that "pretrial detention on the ground of dangerousness may be constitutionally imposed as a regulatory measure to protect public safety."[333] Even cloaked as a regulatory measure, incarceration for these purposes would be barred by the substantive component of the Due Process Clause. Their analysis echoes over a century of jurisprudence concerning the fundamental unconstitutionality of imposing punishment prior to the adjudication of guilt.

The court of appeals analogized the detention of charged defendants based on future dangerousness with the detention of people not accused of any crime. "It cannot seriously be maintained that under our Constitution the Government could jail people not accused of any crime simply because they were thought likely to commit crimes in the future."[334] Even if preventive detention would be a rational means of advancing the compelling state interest in public safety, the Second Circuit finds no room in the Due Process Clause for such a "police state approach."[335] The court extends this logic to those convicted of past crimes who have served their sentence, who were specifically targeted in the Bail Reform Act of 1984 with a rebuttable presumption of future dangerousness, stating, "Just as the Due Process Clause would prohibit incarcerating a person not even accused of a crime in order to prevent his future crimes, it would equally bar preventive

330. *See supra* Part III.B.
331. *Salerno*, 481 U.S. at 747.
332. United States v. Salerno, 794 F.2d 64, 71–72 (2d Cir. 1986), *rev'd* 481 U.S. 739 (1987).
333. *Id.* (emphasis added).
334. *Id.* at 72 (quoting United States v. Melendez-Carrion, 790 F.2d 984, 1000 (1986)).
335. *Id.* (quoting *Melendez-Carrion*, 790 F.2d at 1000).

detention of a person who has been convicted of past crimes and has served his sentence."[336]

To the Second Circuit, detaining individuals to combat future crime would be beyond the constitutional pale, raising the specter of an authoritarian state.[337] Very directly, the Second Circuit states, "[I]f a person is not charged with a crime, he may not, consistent with principles of due process, be incarcerated simply on the ground that he is likely to commit a crime."[338] In essence, that was what the Bail Reform Act of 1984 authorized and the constitutional dubiousness of this change was obvious to the Second Circuit. The punishment of *past* crimes was axiomatic of criminal law. "The system of criminal justice contemplated by the Due Process Clause—indeed, by all of the criminal justice guarantees of the Bill of Rights . . . is premised on the accountability of free men and women for what they have done, not for what they may do."[339]

In authorizing the consideration of future dangerousness in pretrial detention determinations, the Supreme Court had stepped into new territory. "Understood simply, the criminal law is a backward-looking institution . . . in its implementation the core of the criminal law punishes persons for their past behavior."[340] The Supreme Court in *Salerno* was unperturbed, however, stating "there is nothing inherently unattainable about a prediction of future criminal conduct."[341] This analysis belies one of the fundamental leaps in the *Salerno* analysis—in the pretrial context, does the Due Process Clause permit the deprivation of fundamental liberty rights based on crimes that have yet to be committed? Against centuries of criminal law jurisprudence and common law tradition, *Salerno* says yes.

Irrespective of whether couched as serving a regulatory or punitive purpose, the determination of "future dangerousness" is a problematic endeavor. First, a risk assessment tool is often used as a metric for future dangerousness.[342] However, the evidence is scant that risk assessment tools are reliable.[343] In an

336. *Id.* (quoting *Melendez-Carrion*, 790 F.2d at 1001).
337. *Id.* (quoting *Melendez-Carrion*, 790 F.2d at 1001).
338. *Id.*
339. *Id.* (quoting *Melendez-Carrion*, 790 F.2d at 1001).
340. Andrew Ashworth, Lucia Zedner & Patrick Tomlin, *Introduction* to PREVENTION AND THE LIMITS OF THE CRIMINAL LAW 1 (Andrew Ashworth et al. eds., 2013).
341. United States v. Salerno, 481 U.S. 739, 751 (1987) (quoting Schall v. Martin, 467 U.S. 253, 278 (1984)).
342. *See supra* Part II.A.
343. *See* T. Douglas, J. Pugh, I. Singh, J. Savulescu & S. Fazel, *Risk Assessment Tools in Criminal Justice and Forensic Psychiatry: The Need for Better Data*, 42 EUR. PSYCHIATRY 134, 135 (2017) ("Existing data suggest that most risk assessment tools have poor to moderate accuracy in most

independent study of nineteen different risk methodologies used in the United States in 2013, researchers Sarah Desmarais and Jay Singh found the tools were "moderate at best in terms of predictive validity."[344] In a 2016 study of more than 7000 defendants arrested in Broward County, Florida it was determined only 20 percent of those categorized as having a high risk of committing a future violent crime actually did so.[345]

Further, given that risk assessment tools often use as inputs racially distorted criminal record statistics, they risk a racially biased outcome.[346] The same Broward County, Florida study found that Black defendants were nearly twice as likely to be misclassified as higher risk than white defendants.[347] Misclassification in the other direction was also found—white defendants were often predicted to pose less of a risk of future dangerousness than their recidivism rates later showed.[348] These biases against Black people were found even when isolating the effect of criminal history and the current crime charged.[349]

While more studies on the effectiveness and bias of risk assessment are needed,[350] using future dangerousness in pretrial determinations threatens to further imbed racial bias into the criminal legal process. By its very nature "future dangerousness" is a racialized concept in that its input factors correlate strongly with biases against communities of color by law enforcement and our criminal legal system.[351] By condoning the imposition of detention—and surveillance—in a racially biased fashion, mass surveillance that works along racialized lines serves to reify race, upholding "negating strategies that first accompanied European

applications. Typically, more than half of individuals judged by tools as high risk are incorrectly classified—they will not go on to offend.").

344. Julia Angwin, Jeff Larson, Surya Mattu & Lauren Kirchner, *Machine Bias,* PROPUBLICA (May 23, 2016), https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing [https://perma.cc/928M-8ZQU].

345. *Id.*

346. *See supra* Part II.A*; see also* Josiah Bates, *Eric Adams Wants 'Dangerousness' Factored Into New York's Bail Laws. Advocates Say It Will Only Bring More Bias*, TIME (Feb. 10, 2022, 4:03 PM), https://time.com/6146431/eric-adams-bail-reform-dangerousness [https://perma.cc/7W2L-3A3K].

347. Angwin et al., *supra* note 344.

348. *Id.*

349. *Id.*

350. *Id.* (citing studies by Sarah Desmarais and Jay Singh which show that "in most cases, validity had only been examined in one or two studies [conducted in the United States, and] frequently, those investigations were completed by the same people who developed the instrument"); *see generally* Jay P. Singh, Sarah L. Desmarais & Richard A. Van Dorn, *Measurement of Predictive Validity in Violence Risk Assessment Studies: A Second-Order Systemic Review*, 31 BEHAV. SCI. L. 55 (2013).

351. *See supra* Part II.A.

colonial expansion and transatlantic slavery that sought to structure social relations and institutions in ways that privilege whiteness."[352] While *Salerno's* holding can and should be extended to GPS surveillance as a cognizable harm to fundamental liberty deserving of procedural due process, the larger issue with *Salerno's* inclusion of "future dangerousness" as a regulatory concern remains. It is time for a reconsideration of *Salerno* that acknowledges the racial bias and fraught nature of future risk determination, especially in light of the improvements and expansion of pretrial surveillance.

CONCLUSION

The story of GPS monitoring in the pretrial context is one of unregulated expansion. Surveillance technology is being marshaled not simply as an alternative to physical incarceration but as a system of control that ensnares a growing percentage of the presumed innocent. Initially spurred by a historic increase in jail populations in the 1980s and then accelerated by bail reform and the COVID-19 pandemic, it has been characterized as a more humane means of regulating criminal process. The realities, however, are far more complicated.

This Article draws attention to the complexities of GPS surveillance—the ways in which it has been implemented in a largely extra-judicial fashion, with little judicial oversight or procedural due process; the ways in which current jurisprudence, focused on physical harms, is ill-equipped to address the injuries to fundamental liberty caused by GPS surveillance. Further, this Article points to ways in which GPS surveillance reinforces the racial disparities in our criminal justice system, creating a system of racialized surveillance that is but the next frontier in racial control perpetuated by the criminal legal system.

There exist numerous areas for further data collection, research and inquiry. There is a dearth of data concerning even the numbers of pre-trial defendants placed on GPS monitoring and a meager understanding of the ramifications. Further, the implications for data privacy and Fourth Amendment rights are as of yet undetermined, as little is known about what happens to the surveillance information that is gathered by private monitoring companies or the ways in which this information can be utilized by law enforcement. There is a need here for more study and data to help better determine the extent and contours of this sea change. What is clear at this juncture, however, is that GPS surveillance has the potential to become more adept in its ability to gather, preserve, and disseminate information about each of us. Absent constitutional restraints, mass surveillance

352. BROWNE, *supra* note 155, at 17.

will persist for those who contest their guilt, reducing their liberty and dignity in our society, a society which presumes them innocent.