BARCODING BODIES: RFID TECHNOLOGY AND THE PERILS OF E-CARCERATION

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ABSTRACT

Electronic surveillance now plays a central role in the criminal legal system. Every year, hundreds of thousands of people are tracked by ankle monitors and smartphone technology. And frighteningly, commentators and policymakers have now proposed implanting radio frequency identification ("RFID") chips into people's bodies for surveillance purposes. This Note examines the unique risks of these proposals—particularly with respect to people on probation and parole—and argues that RFID implants would constitute a systematic violation of individual privacy and bodily integrity. As a result, they would also violate the Fourth Amendment.

INTRODUCTION

“It was actually a surprisingly violating experience . . . I felt like the implant was a part of my body . . . there was a real feeling of helplessness when things weren’t right.” — Dr. Mark Gasson1

“My concerns are government control, control from business or people in power, being black.” — Survey participant2

Electronic monitoring, which describes the use of ankle monitors and other devices to track people’s movements and communications,3 has

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2 Shekufeh Shafeie, Beenish M. Chaudhry & Mona Mohamed, Modeling Subcutaneous Microchip Implant Acceptance in the General Population: A Cross-Sectional Survey about Concerns and Expectations, 9 INFORMATICS 1, 10 (2022) (including a quote about the “real and imaginable” impact of microchip implants on society).

3 Electronic Monitoring, ELECTRONIC FRONTIER FOUNDATION, https://www.eff.org/pages/electronic-monitoring (Jul. 12, 2019) (noting that electronic monitoring can be imposed pretrial or post-conviction, as well as in the
seen an explosion in usage in the 21st Century. An oft-repeated statistic is that the number of people on electronic monitoring more than doubled from 53,000 in 2005 to 125,000 in 2015.\(^4\) And that number has only continued to grow. In the wake of COVID-19, states and localities faced pressure to reduce incarcerated populations for public health reasons, moving thousands of people onto electronic monitoring.\(^5\) New estimates are thus closer to 200,000 people.\(^6\)

This incorporation of new surveillance technology into the criminal legal system has been part and parcel of a broader political development known as “e-carceration.” “[U]nder the guise of carceral humanism,” e-carceration entails the use of new technologies to “repackag[e] or rebrand[] . . . corrections and correctional programming as caring and supportive, while still clinging to punitive culture.”\(^7\) E-carceration is rooted in reformist efforts to undo mass incarceration, which has been emphatically criticized for years as an expensive, harmful, and racist enterprise.\(^8\) But reforms under the umbrella of e-carceration have been criticized as doing more harm than good. Programs like electronic


\(^6\) [Maya Schenwar & Victoria Law, Prison By Any Other Name: The Harmful Consequences of Popular Reforms 19 (2021)](https://www.abajournal.com/).

\(^7\) Chaz Arnett, [From Decarceration to E-carceration, 41 Cardozo L. Rev. 641, 645 (2019)](https://www.abajournal.com/).

\(^8\) See id. at 646–51 (discussing the high prison population in the United States and racial disparities in convictions, as well as the idea of “smart decarceration” that involves imposing electronic surveillance instead of prison time); see also 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) (noting that “current reform efforts,” including changes to make drug policy and sentencing less punitive, “contain the seeds of the next generation of racial and social control, a system of ‘e-carceration’ that may prove more dangerous and more difficult to challenge. . . .”).
monitoring have actually widened the net of the criminal legal system, bringing “previously unconfined populations” under surveillance and increasing their chances of prison time and other deprivations of liberty.9

The danger does not end there. Electronic monitoring has come to include novel, uniquely invasive forms of surveillance. For example, smartphone monitoring entails continuous location tracking and the collection of vast amounts of personal data.10 The implantation of radio frequency identification (“RFID”) chips into people’s bodies is another proposed form of intrusive monitoring.11 Although chipping people sounds like a plot point in a dystopian fiction novel, technological advancements over past decades have made this practice feasible.12 And corporations, commentators, and policymakers have taken notice. Thousands of individuals have voluntarily chipped themselves for personal use,13 and proposals to implant RFID chips into people both in prison and on supervised release have proliferated for several years.14 As

9 SCHENWAR & LAW, supra note 7, at 21.
10 AM. PROBATION & PAROLE ASS’N: TECHNOLOGY COMM., LEVERAGING THE POWER OF SMARTPHONE APPLICATIONS TO ENHANCE COMMUNITY SUPERVISION, 5–6 (Apr. 7, 2020), http://www.appa-net.org/eweb/docs/APPA/stances/ip-LPSAECS.pdf; see also Kate Weisburd, Sentenced to Surveillance: Fourth Amendment Limits on Electronic Monitoring, 98 N.C. L. REV. 717, 755 (“Texts to family, emails to friends, political posts on social media, and confidential communication with doctors, . . . are all viewable at all times.”).
13 Maddy Savage, Thousands of Swedes Are Inserting Microchips Under Their Skin, NPR (Oct. 22, 2018), https://www.npr.org/2018/10/22/68808705/ thousands-of-svedes-are-inserting-microchips-under-their-skin (noting how subdermal chips can be used by individuals to “make their lives more convenient” by programming the chips to unlock doors and pay for goods and services).
of 2019, the practice of chipping incarcerated people is expressly legal in New Hampshire.15

This Note will address these proposals, starting in Part I by surveying the possibility of an RFID-based surveillance scheme. Part II will argue that a scheme comprised of subdermal RFID chips would have serious, negative consequences as a matter of public policy and privacy. Part III will then demonstrate that the use of subdermal RFID technology as a component on supervised release is arguably unconstitutional under the Fourth Amendment.

I. RFID TECHNOLOGY’S CURRENT AND PROPOSED USES

RFID is a “form of wireless communication” that, much like the barcodes seen on items at a store, is used to “uniquely identify an object, animal, or person.”16 A system that uses RFID technology has three parts: (1) a transponder (also called a “tag” or “chip,” which carries identifying information); (2) a reader (also called a “receiver,” which is capable of communicating with the chip and reading its information); and (3) a data processing system (a computer connected to the reader that can interpret the information and present it to the computer’s user).17 Chips can transmit information to receivers up to 30 feet away, depending in part on whether the chips are “active” or “passive.”18 Active chips possess their own power sources (e.g., a battery) and can transmit information longer distances than passive ones.19 The “advantage” of passive chips, however, is that they are incredibly cheap to manufacture, smaller in size, and more resilient to external forces.20 Passive tags, as a result, are the ones that companies

15 N.H. REV. STAT. ANN. § 644:22 (2022) (effective Jan. 1, 2019) (“[A] person shall not require, coerce, or compel an individual to undergo the subcutaneous implanting or other internal or external bodily possession of an identification device. This section shall not apply to inmates incarcerated in or under the control of a government-run prison or jail.”) (emphasis added).
17 NAT’L L. ENF’T & CORR. TECH. CTR., TECHNOLOGY PRIMER: RADIO FREQUENCY IDENTIFICATION (2005). I will be using the term “chip” throughout this Note for consistency.
18 Id.
19 Id.
identify as the strongest candidates for implantation into human skin.\(^{21}\)

Nowadays, RFID technology is ubiquitous, possessing a litany of applications in healthcare and commerce.\(^{22}\) Demand is projected to grow rapidly, with the market for RFID chips expected to more than double in value by 2032.\(^{23}\) Part of this growth in demand is bound to include demand from the criminal legal system, where RFID technology already plays a significant role in the tracking and confinement of people.

**A. Current Uses of RFID in the Criminal Legal System**

Although RFID chips have not been implanted into prisoners, probationers, parolees or anyone else within the criminal legal system, the underlying technology has been deployed within prisons for years. For example, several states use RFID technology in the form of wristbands or ankle monitors containing chips to track prisoners’ whereabouts.\(^{24}\) In these settings, readers are placed in multiple locations throughout the prison and correctional officers are able to pinpoint an incarcerated person’s location both historically and in real-time.\(^{25}\) As a result, prisons have systems in place to identify inmates involved in escape efforts or assaults, and even inform them when members of rival gangs come into contact with one another.\(^{26}\)

RFID is also used to monitor individuals awaiting trial, on probation, and on supervised release from prison. In the federal system, for example, people assigned to “RF monitoring” are outfitted with a non-removable ankle bracelet that contains an RFID chip and are required to

\(^{21}\) *Our RFID Tags,* VERICHIP, http://www.verichipcorp.com/content/company/rfidtags (last visited Jan. 5, 2023), (identifying the “passive RFID microchip” as the type the VeriChip company can implant through an outpatient procedure).


\(^{25}\) *Id.*

\(^{26}\) *Id.*
install a reader in their home or another location. With this technology infrastructure in place, people on bail, parolees, and probationers are required to “check in” with the reader according to a set of conditions imposed by the court. Officers are notified whenever the person fails to enter the range of the receiver according to their imposed conditions (e.g., by a set curfew hour) or when a person tampers with the reader or bracelet.

B. Proposed Uses of Subdermal RFID in the Criminal Legal System

Proposals to involuntarily implant RFID chips into parolees and probationers for monitoring purposes have abounded for several years. Under these schemes, people would have a chip implanted into their skin, likely the back of the arm or in the hand in between the thumb and pointer finger. The chips can also be implanted into the triceps muscle in order to make them more difficult to remove from the body. The implantation procedure would be done in an outpatient setting under local anesthesia. Although the procedure does not entail major surgery, the insertion of a foreign object into the body creates medical risks like “infection, pain, keloid formation at the puncture site, and reaction to the local anesthetic.” For probationers, the process of scheduling the procedure and initiating surveillance would likely begin when the court imposes conditions of supervision at sentencing. For parolees, it would likely begin shortly before or after release from prison.

Beyond the subdermal implantation of RFID chips, at least one reader is needed to make the monitoring scheme functional. And, remarkably, proposals to implant chips into parolees and probationers hope to place many readers in locations beyond one’s home. They could

28 Id.
29 Rosenberg, supra note 12, at 341.
30 Rutgers, supra note 15, at 156.
31 Id.
32 Rosenberg, supra note 11, at 341.
33 Mark Levine et al., What Are the Benefits and Risks of Fitting Patients with Radiofrequency Identification Devices? 4 PLOS MED. 1709, 1711 (2007).
34 Weisburd, supra note 10, at 740–41 (noting that upon conviction, people become subject to electronic surveillance either by “consenting” to surveillance via waiver or implicitly “consenting” by acquiescing to a sentence of supervised release).
35 See UNITED STATES PAROLE COMMISSION, RULE AND PROCEDURES MANUAL 220–22 (2010) (noting that “special conditions” such as monitoring with “electronic signaling devices” can be imposed “prior to the release of the prisoner” at the discretion of the United States Parole Commission).
be placed in “schools, toy stores, and day care centers” to bar the entry of people convicted of sex offenses and track their compliance with conditions of release. On the more extreme end, readers could also be placed in thousands of “prearranged locations in which the . . . chip is in range continuously.” Under an RFID monitoring regime where all such readers were in communication with a single data processing system, the ability to track someone’s location would approach GPS-level capabilities. The ability of an RFID-based tracking regime to monitor one’s general location—and thus the intrusiveness of the privacy invasion—would in part correspond to the extensiveness of readers throughout a locality.

There could be additional, drastic consequences for those implanted with an RFID chip. As of today, such chips contain up to 2 kilobytes of data, meaning they can transmit a little over 1,000 words to a reader. Chips could thus be programmed to tell readers, wherever they might be installed, the criminal history and other identifying information about the RFID-implanted person. Social service agencies, retailers, restaurants, homeowners’ associations, and other entities could institute protocols for scanning people for chips prior to entering events or obtaining assistance, for example. Hackers, furthermore, could target

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36 Rutgers, supra note 14, at 171.
37 Akrap, supra note 14, at 43.
38 The other facet of the privacy invasion is, of course, the bodily intrusion.
39 How much information can an RFID tag store? RFID J., https://www.rfidjournal.com/faq/how-much-information-can-an-rfid-tag-store (last visited Oct. 30, 2022). To some degree, the amount of information stored on an individual RFID chip is inconsequential—because the chips have a unique identifying serial number, then that number is all that might be needed to find out more information about someone (e.g., criminal history, details of an offense, etc.) through accessing a database created as part of a monitoring regime.
41 RFID chips in the health care context can already provide doctors with information about the implanted patient’s healthcare providers and advanced directives, among other things. Kenneth R. Foster & Jan Jaeger, Ethical Implications of Implantable Radiofrequency Identification (RFID) Tags in Humans, 8 AM. J. BIOETHICS 44, 45 (2008).
42 People with criminal convictions face a litany of collateral consequences, including restrictions on government benefits, employment, voting rights, firearm rights, and more. David S. Kirk & Sara Wakefield, Collateral Consequences of Punishment: A Critical Review and Path Forward, 1 ANN. REV. CRIMINOLOGY 171, 172 (2018). It is also widely possible for private businesses to discriminate on the basis of a person’s criminal record. People with criminal records are not a protected class under the Fair Housing Act, see 42 U.S.C. § 3604, or under many state statutes and local ordinances that proscribe discrimination in places of public
probationers and parolees and attempt to steal their information. RFID chips have notoriously few security protections and are considered the “weakest link in an internet of things ecosystem.”\textsuperscript{43} Nefarious actors—ranging from predatory companies to personal stalkers, criminal organizations, and foreign governments—could target chipped probationers and parolees by infecting the chips with computer viruses\textsuperscript{44} or even placing their own “unauthorized readers” throughout society, thus obtaining information about people’s movements and any other data stored on the chips.\textsuperscript{45}

All considered, RFID chips and a corresponding infrastructure of readers could be used to further the civil death experienced by those with criminal convictions, pushing them further to the “margins of society” and “divorcing them from the very things that are necessary for reentry.”\textsuperscript{46} Such invasive monitoring adds fuel to the fire—on top of people’s loss of rights through other collateral consequences, it severs them from their families and communities and deters people from accessing important institutions like schools and hospitals.\textsuperscript{47} This prospect is particularly daunting considering that almost 4 million people are on probation or parole in the United States as of 2020.\textsuperscript{48}

\textbf{C. Comparison with GPS-Based Ankle Monitoring and Smartphone Monitoring}

Whether electronic monitoring will come to include subdermal RFID chipping will in part depend on how the practice compares with other forms of monitoring like GPS-based ankle and smartphone monitoring. As mentioned, smartphone monitoring stands out as an expansive endeavor, including the tracking of email, texts, and social media activity alongside one’s continuous location.\textsuperscript{49} GPS-based ankle-
monitoring, meanwhile, is noteworthy for both its continuous tracking capabilities\(^50\) and its visual stigma. The “physical form” of the ankle monitor—a standardized, bulky appendage that is difficult to conceal with clothing—harms wearers’ ability to achieve employment and navigate social situations without embarrassment and humiliation.\(^51\) Members of the public have no idea which crime a person with an ankle monitor committed or was charged with and tend to identify anyone with an ankle monitor as a “dangerous criminal.”\(^52\)

In comparison, a subdermal RFID tracking system would likely be unable to track persons’ exact, continuous movements. Given the limited range of RFID communication, any such capabilities would require a pervasive infrastructure of readers throughout a jurisdiction, which appears cost-prohibitive and politically difficult to implement. Even presuming a more limited infrastructure of readers, however, the dangerous appeal of subdermal RFID will be its low cost to governments. After all, a driving force of e-carceration is popular outrage at the amount of money spent on prisons and the criminal legal system, with reforms frequently “promoted as . . . saving public funds.”\(^53\) And subdermal RFID would meet these demands—the RFID chip itself costs pennies,\(^54\) and companies have started to sell chips and implant them for customers for around $200.\(^55\) Not to mention, with respect to bracelet-based RFID,\(^56\) it has been estimated that “for the cost of one inmate in prison for a year, six could be on GPS and 28 could be on RFID.”\(^57\)

Another distinguishing characteristic of subdermal RFID chips is their physically intrusive nature. Implanting a chip requires breaking skin, assumes the risks of a minor surgical procedure, and involves a more

\(^{50}\) Id. at 155.
\(^{52}\) Id. at 139.
\(^{53}\) SCHENWAR & LAW, supra note 7, at 10.
\(^{56}\) Bracelet-based RFID is presumably less expensive than subdermal RFID given the costs and risks of the implantation procedure. See Levine, supra note 34, at 1710 (describing a “simple medical bracelet” as a “less expensive approach”).
\(^{57}\) Jyoti Belur et al., A Systematic Review Of The Effectiveness Of The Electronic Monitoring Of Offenders, 68 J. CRIM. JUST. 1, 7 (2020).
significant change to one’s body.\textsuperscript{58} Scarily, there are also potential health risks associated with implanted chips causing “foreign-body-induced tumors”\textsuperscript{59} and unknown psychological effects associated with involuntary implantation. There are also unknown social consequences for individuals implanted with RFID chips who could be branded as “hybrid human/machine.”\textsuperscript{60} In sum, the intrusion is severe and possibly worse than we can currently imagine. Figure 1 below summarizes how RFID stacks up against ankle monitoring and smartphone monitoring in this regard and several other factors.

**Figure 1: Comparison of Electronic Monitoring Regimes**

<table>
<thead>
<tr>
<th>Cost</th>
<th>Subdermal RFID Chip</th>
<th>GPS-Based Ankle Monitor</th>
<th>Smartphone Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower</td>
<td>Higher\textsuperscript{61}</td>
<td>Lower\textsuperscript{62}</td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{58} Levine, supra note 34, at 1711; see also Alain Schiffman et al., Biohackers and Self-Made Problems: Infection of an Implanted RFID/NFC Chip, 10 J. BONE & JOINT SURGERY 399 (2020) (noting that an RFID chip was removable when the implantation of the chip caused a staph infection).

\textsuperscript{59} Mona A. Mohamed & Beenish Chaudhry, Preliminary Investigations on Subcutaneous Implantable Microchip Health and Security Risks, in INTELLIGENT HUMAN SYSTEMS INTEGRATION 2021: PROCEEDINGS OF THE 4TH INTERNATIONAL CONFERENCE ON INTELLIGENT HUMAN SYSTEMS INTEGRATION 612, 612 (Dario Russo et al. eds., 2021).

\textsuperscript{60} Levine, supra note 34, at 1711 (explaining that someone with an RFID implant received emails from strangers telling him he was a “Borg” and now “carried the number of the Beast” from the Book of Revelation); see also Shafeie et al., supra note 3, at 7 (finding that only 2% of their survey respondents did “not have any concerns” regarding the use of RFID implants).

\textsuperscript{61} GPS-based ankle monitors cost around $6 per day to operate, but users can be saddled with overheard charges of up to $20 per day. SCHENWAR & LAW, supra note 7, at 42; see also Anne Jungen, GPS Ankle Bracelet Monitoring of Low-Risk Offenders Costs More than Anticipated, GOV’T TECH. (May 3, 2016), https://www.govtech.com/public-safety/gps-ankle-bracelet-monitoring-of-low-risk-offenders-costs-more-than-anticipated.html (finding the cost of ankle-monitoring for someone serving a sentence in Wisconsin is $12 per day).

\textsuperscript{62} Many smartphone monitoring regimes are Bring Your Own Device or “BYOD,” which require installing software onto one’s already purchased personal phone. Joe Russo & George Drake, Monitoring With Smartphones: A Survey of Applications, 30 J. OFFENDER MONITORING 5, 6, 8 (2018). The cost of software for BYOD schemes is around $0.40 cents per day. Stephanie Warsmith, County tests app using GPS, smartphone to monitor probationers, AKRON BEACON J. (Jun. 8, 2020), https://www.beaconjournal.com/story/news/coronavirus/2020/06/08/county-tests-app-using-gps-smartphone-to-monitor-probationers/113488024/. Under vendor-provided schemes, however, a
If implemented, the use of subdermal RFID to track probationers and parolees would put us in uncharted territory. No current form of surveillance entails a near-permanent, physical change to one’s body. Given this distinctiveness, as well as existing features of electronic

<table>
<thead>
<tr>
<th>General Location Monitoring</th>
<th>Not Likely</th>
<th>Yes</th>
<th>Yes</th>
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<tr>
<td>Communications Monitoring</td>
<td>No</td>
<td>Limited/Possible&lt;sup&gt;63&lt;/sup&gt;</td>
<td>Yes</td>
</tr>
<tr>
<td>Physical Invasion</td>
<td>Most Invasive</td>
<td>Invasive&lt;sup&gt;64&lt;/sup&gt;</td>
<td>Least Invasive</td>
</tr>
<tr>
<td>Visual Stigma</td>
<td>Some&lt;sup&gt;65&lt;/sup&gt;</td>
<td>High</td>
<td>None/Very Little&lt;sup&gt;66&lt;/sup&gt;</td>
</tr>
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</table>

<sup>63</sup> Some ankle monitors can receive a call from a probation officer that the wearer cannot decline. The device can also record the contents of that forced conversation. See Weiss, supra note 4.

<sup>64</sup> Although the ankle monitor does not penetrate the body, it can cause great discomfort, pain, and “intense restrictions on movement.” SCHENWAR & LAW, supra note 7, at 39; see also Albert Fox Cahn, Ankle monitors can hold captives in invisible jails of debt, pain and bugged conversations, NBC NEWS (Nov. 6, 2019) https://www.nbcnews.com/think/opinion/ankle-monitors-can-hold-captives-invisible-jails-debt-pain-bugged-ncna1076806 (finding that electronic monitors “have caused an array of medical complications, including everything from cuts and bruises and impaired circulation to electric shocks, hair loss, headaches and difficulty breathing.”).

<sup>65</sup> The procedure of implanting an RFID chip may leave a scar on your hand or arm. See Dylan Matthews, I Got A Computer Chip Implanted Into My Hand. Here’s How It Went. VOX (Sep. 11, 2015), https://www.vox.com/2015/9/11/9307991/biohacking-grinders-rfid-implant. Any such scarring may be visible to others.

<sup>66</sup> Private monitoring companies can provide specialized phones for monitoring programs. Ashley Garst, GPS Smartphone Software Aims To Revolutionize Probation, CORRECTIONS 1 (Feb. 19, 2015), https://www.corrections1.com/products/breathalyzers/articles/gps-smartphone-software-aims-to-revolutionize-probation-7u8PnbY5iqKmXWLO/. If specialized smartphones are distinct in appearance from iPhones or Androids, they could prompt prying questions from friends or family.
monitoring schemes, the forced integration of RFID surveillance technology into human anatomy has two major policy concerns: (1) the fundamental bodily integrity of parolees and probationers; and (2) the privacy and well-being of parolees, probationers, and their families.

A. Bodily Integrity

Bodily integrity is defined as “the right not to have your body touched or your body interfered with without your consent.” Components of this right include the “right to be free from . . . physical assaults, torture, medical or other experimentation . . . compelled eugenic or social sterilization, and cruel or degrading treatment or punishment.” Bodily integrity exists alongside the concept of bodily autonomy, which relates to the right to make decisions about one’s body. Bodily integrity goes further, however, in focusing on the body itself and “impos[ing] strict duties of non-interference.”

Given this definition, the nonconsensual implantation of an RFID chip beneath one’s skin violates their bodily integrity. This is especially because “interference with the skin is regarded as a more serious interference . . . than a touching.”

Considering this, consent is the key part of the question as to whether the implantation of RFID chips into probationers and parolees would violate their bodily integrity. In the context of medical procedures such as the implantation of a chip, consent is generally defined as “the principle that a person must give permission” prior to the procedure. Such consent, in the narrowest of terms, must be (1) informed, in that the patient is aware of the “material risks” of the procedure, and (2) cannot be given under “coercion or undue influence.”

It follows that proponents of expansive government surveillance will either sidestep the issue of consent or argue that the implantation of an RFID chip into a probationer or parolee is consensual and does not

68 Id. (quoting DAVID FELDMAN, CIVIL LIBERTIES AND HUMAN RIGHTS IN ENGLAND AND WALES 241 (2d ed. 2002)).
69 Id. at 575.
70 Id. at 580.
71 Id. at 572.
72 D. Ricketts et al., Informed Consent: The View From The Trenches, 101 ANNALS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND 44, 44 (2019). The definition of consent offered here is a medical one.
73 Id. at 44–45.
74 See Rutgers, supra note 15, at 171–78 (not discussing lack of consent as a “drawback”).
违其身之完整。75 例如，已经指出，犯罪被告可以拒绝保释并选择入狱，如果他们认为电子监控的条件过于侵犯隐私。76 此外，被告往往以电子监控为条件作为讨价还价的一部分，这在大多数情况下被法院视为对隐私权、自由行动权等的合法放弃。77

然而，政策制定者必须考虑到从被告的角度来看，法律制度的复杂性和内在的胁迫性权力动态。其中，甚至表面上，许多被告都不存在“选择”是否接受或拒绝电子监控——监控常常被强加为判决的一部分，没有“退出”机会。78 第二，被告面临巨大的压力，必须接受包含监控条件的认罪协议，因为预审期的长期监禁和强压式的检察官谈判。79 检察官拥有巨大的裁量权，可以在被告试图行使其宪法权利时将其推入认罪，通过隐瞒开脱证据，提供最长刑期，或在被告寻求接受陪审团审判的案件中增加额外指控。80 给定95%的州和97%的联邦刑事案件都以认罪解决。

75 Rosenberg, supra note 11, at 337, n. 20 (“It is debatable whether conditioning supervised release on accepting a subdermal implant would amount to coercion.”).
76 Weisburd, supra note 10, at 739–40; see also SCHENWAR & LAW, supra note 6, at 47 (“In fact, that sense of constant captivity [among house arrestees shackled with an ankle monitor] sometimes drives people to forgo the monitor in favor of seemingly more restrict conditions” such as additional prison time).
77 See Weisburd, supra note 10, at 740–71.
78 Id.
79 See NATIONAL ASSOCIATION OF CRIMINAL DEFENSE LAWYERS, THE TRIAL PENALTY: THE SIXTH AMENDMENT RIGHT TO TRIAL ON THE VERGE OF EXTINCTION AND HOW TO SAVE IT, TRIAL PENALTY REPORT 6 (2018) (“[T]here is ample evidence that federal criminal defendants are being coerced to plead guilty because the penalty for exercising their constitutional rights is simply too high to risk. This ‘trial penalty’ results from the discrepancy between the sentence the prosecutor is willing to offer in exchange for a guilty plea and the sentence that would be imposed after a trial. . . . When a prosecutor offers to reduce a multi-decade prison sentence to a number of years — from 30 years to 5 years, for example — any choice the defendant had in the matter is all but eliminated.”).
80 Samantha Luna, Defining Coercion: An Application in Interrogation and Plea Negotiation Contexts, 28 PSYCH. PUB. POL. AND L. 240, 249–50 (2022) (noting that while “prosecutors are required to turn over material pointing to a defendant’s innocence” in light of the Supreme Court’s decision in Brady v. Maryland, 373 U.S. 83 (1963), it is unclear under current law whether such evidence needs to be turned over before a plea is entered).
through plea negotiations,\textsuperscript{81} it is apparent that the vast majority of people subject to electronic monitoring today—with monitors attached to their bodies—are not truly consenting to this surveillance.

Not to mention, many defendants are unaware of the infinite consequences of electronic monitoring. Many defendants “accept guilty pleas without ever speaking to an attorney” and even then, defendants often receive incomplete information from their attorneys as to the consequences of different options.\textsuperscript{82} After all, people with ankle monitors frequently find themselves in endless cycles of debt to private probation companies and experience unforeseen familial and social consequences.\textsuperscript{83} Hypothetical defendants undergoing a procedure to implant an RFID chip are similarly likely to be unaware of these consequences, let alone the potential health risks that the procedure poses.

All of this considered, if subdermal RFID is created as a surveillance “option” for people facing criminal charges, it stands that proper consent for the procedure of implanting the chip under the skin would be impossible to obtain. The criminal legal system in its current state—replete with coercion and undue pressure to accept conditions of surveillance without hearing about its “material risks”—ensures that consent would be lacking. Therefore, under a subdermal RFID surveillance regime, probationers and parolees’ bodily integrity would be systematically violated by the implantation procedure.

\textbf{B. Privacy}

Beyond the procedure of implanting an RFID chip, the subsequent ability to track one’s location—albeit in a more limited fashion than ankle or smartphone monitoring—would infringe on probationer and parolee’s basic privacy interests. Our criminal legal system recognizes that people convicted of crimes have a “diminished expectation of privacy,” which will be discussed further in Part III, \textit{infra}. But this doctrinal reality does not mean policymakers should ignore all privacy concerns. The “right to


\textsuperscript{82} Weisburd, \textit{supra} note 11, at 742.

\textsuperscript{83} SCHENWAR & LAW, \textit{supra} note 7, at 39–49 (describing people with ankle monitors being unable to discipline their children because they can run down the street to avoid their parent on house arrest, as well as people who have their sentences extended “indefinitely” for failure to pay the fees associated with their monitor).
“enjoy life” and “right to be let alone,” after all, are well-established. Originating from the age-old fields of tort and property law, the right to privacy—in one’s home, one’s location, and personal information about oneself—is vital in that it allows people to “dictate the course” of their lives. Severely limiting the privacy of probationers and parolees by chipping them, tracking their location, and restricting their movement, it follows, will have negative consequences that policymakers should consider.

First, under a subdermal RFID-based surveillance regime that places readers throughout society, the government and/or private companies could obtain sensitive data on daily movements, purchasing habits, and other information. As noted by Justice Sotomayor in her famous concurrence in United States v. Jones, such “short-term monitoring” can reveal a person’s private ventures—including trips to abortion clinics, gay bars, houses of worship, and more—to third parties who seek to cause harm. Surely, basic notions of fairness would say that the ability of a person to keep their reproductive health choices, sexual orientation, and/or religious practices private should not be abridged as a result of committing a crime.

Second, the invasion of privacy imposed by subdermal RFID defeats the program’s purported purpose by harming rehabilitation and increasing recidivism. Electronic monitoring limits people’s ability to build relationships and find employment, which are two of the strongest predictors of successful re-entry into one’s community. Reviews of the empirical literature have thus “failed to find any convincing evidence that [it] is superior to other prison diversion programs” or have found “mixed

85 See id. at 193–96.
88 SCHENWAR & LAW, supra note 7, at 36–37 (finding that “having strong relationships is among the most significant ways to prevent recidivism” and “a job is one of the keys to avoiding future arrest, but a monitor can make that nearly impossible.”); see also Jennifer L. Doleac, Study after study shows ex-prisoners would be better off without intense supervision, BROOKINGS (Jul. 2, 2018) (summarizing and interpreting the results of 5 studies, finding that lowering the “intensity” of supervision led to more deterrence).
results. Not to mention, if recidivism includes technical violations in addition to the commission of new crimes, electronic monitoring and subdermal RFID become even less attractive policy options. This is because technical violations of conditions of surveillance—which in the RFID context might include tampering with one’s reader or chip, or failing to check-in with your reader according to court-imposed conditions—can much more easily send a probationer or parolee to prison. In the ankle monitoring context, “people on ankle monitors often spend months cycling in and out of custody for technical violations.”

All of this considered, policymakers should rethink their push towards increased electronic monitoring in the form of subdermal RFID. The privacy losses experienced by probationers and parolees would make them unfairly susceptible to harm and would work against rehabilitation and public safety goals.

III. SUBDERMAL RFID AND THE FOURTH AMENDMENT

If passed into law, the implantation of RFID chips into probationers and parolees would also have difficulty passing constitutional muster. Just looking at the Fourth Amendment, subdermal RFID would lie at the intersection of three throughlines of cases: (1) cases limiting intrusions into the body; (2) cases limiting location monitoring; and (3) cases governing administrative or regulatory searches. Although proponents of subdermal RFID have argued that such a surveillance

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90 Molly Carney, Note, Correction through Omnisience: Electronic Monitoring and the Escalation of Crime Control, 40 WASH. U. J. L. & POL’Y 279, 298–300 (2012) (noting that the majority of studies looking at the effects of electronic monitoring have found mixed or inconclusive results).


92 James Kilgore et al., The Case Against E-carceration, INQUEST (July 30, 2021), https://inquest.org/the-case-against-e-carceration/.
scheme “would probably not violate the Constitution,” these analyses have failed to appreciate the gravity of the bodily intrusion and have taken a narrow approach to Fourth Amendment “reasonableness” balancing.

A. Limits on Bodily Intrusions

The Fourth Amendment dictates that “[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated.” The primary placement of “persons” in the Amendment’s list of protected categories is telling, suggesting that the Framers’ prioritized personal security above all else when drafting the Amendment. Indeed, the Supreme Court’s Fourth Amendment jurisprudence on this issue suggests that bodily intrusions constitute a special class of Fourth Amendment searches.

On point is Winston v. Lee, which addressed the constitutionality of compelling a person suspected of robbery to undergo surgery to obtain a bullet lodged in his chest. The bullet was located around an inch deep into the body, past the skin and into muscular tissue. Early in its analysis, the Court drew attention to the degree of bodily intrusion that the surgery would entail. Stating that “[a] compelled surgical intrusion into an individual’s body for evidence . . . implicates expectations of privacy and security of such magnitude that the intrusion may be ‘unreasonable’ even if likely to produce evidence of a crime.” Notably, the Court distinguished the case from its previous decision in Schmerber v. California, where it held that a compelled blood withdrawal was not unduly intrusive and thus constitutional. By contrast, the record in Winston showed that the individual “would suffer some risks associated with the surgical procedure” including “probing and retracting of the

93 Rosenberg, supra note 12, at 352.
94 U.S. CONST. amend. IV.
95 As a threshold matter, the implantation of an RFID chip into a person’s body is undoubtedly a “search” under Fourth Amendment doctrine. See Maryland v. King, 569 U.S. 435, 446 (2013) (“Virtually any intrusion into the human body will work an invasion of cherished personal security that is subject to constitutional scrutiny. The Court has applied the Fourth Amendment to police efforts to draw blood, scraping an arrestee’s fingernails to obtain trace evidence, and even to a breathalyzer test . . . .”) (citations omitted). Any remaining Fourth Amendment analysis relates to the reasonableness of the search.
97 Id. at 757.
98 Id. at 759.
99 Id. at 762 (“[F]or most people [a blood test] involves virtually no risk, trauma, or pain.”) (quoting Schmerber v. California, 384 U.S. 757, 771 (1966)).
muscle tissue,” “risks of infection,” and general “uncertainty.” The *Winston* invasion was simply much more intrusive.

Considering this, the Court will likely take a close look at the health risks of subdermal RFID in analyzing its constitutionality. But very few studies have been conducted on the health risks associated with RFID chip implantation into humans. This has resulted in a “lack of knowledge regarding the safety profiles of these implants.” The few studies on RFID implants have shown that there is reason for concern. Instances of “microchip-associated fibrosarcoma” (i.e., malignant tumors) and other injuries have been found in a variety of animals that have received RFID implants. There are also the aforementioned risks such as “infection, pain, keloid formation at the puncture site, and reaction to the local anesthetic.” At the same time, however, proponents of RFID can point to the fact that microchips are FDA-approved and have been implanted in thousands of people across the world.

Overall, more scientific research is needed to study the long-term effects of subdermal RFID on human health. Nevertheless, it is still currently apparent that the degree and risks of bodily intrusion with subdermal RFID go beyond the facts of *King* (cheek swab was a reasonable search) and *Schmerber* (blood withdrawal with a syringe was a reasonable search). Rather, subdermal RFID is closer to the type of intrusion found in *Winston* (breaking of skin and other tissue to obtain bullet was an unreasonable search). Proponents of subdermal RFID and future courts cannot escape this line of precedent that takes seriously the risks and degree of bodily intrusion.

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100 Id. at 763–64.
102 Id. at 646.
103 Id. (citing multiple studies involving scientific analysis of RFID chips implanted in rats, mice, shrews, bats, dogs, and cats).
104 Levine, *supra* note 33, at 1711.
107 King, 569 U.S. at 465–66.
108 Schmerber, 384 U.S. at 771–72.
109 Winston, 470 U.S. at 766.
110 Another potentially relevant case is *Florence v. Bd. of Chosen Freeholders of Cnty. of Burlington*, 566 U.S. 318, 339 (2012) (recognizing concerns about “instances of officers engaging in intentional humiliation and other abusive practices” and “the invasiveness of searches that involve the touching of detainees”).
B. Location Monitoring

While *Winston, Schmerber,* and *King* dealt with varying degrees of bodily intrusion, none of them dealt with an intrusion that also led to the location monitoring of an individual. As such, those cases only provide part of the overall picture. If presented with the issue of subdermal RFID, the Supreme Court will have to look to additional cases involving government efforts to track individuals’ movements to determine its constitutionality.111

As mentioned in Part I, *supra,* the overall invasiveness of a subdermal RFID regime would depend in part on its infrastructure of readers. More readers would result in the increased collection of data points of a person’s location and could approach the capabilities of continuous, GPS-based tracking technology.112 The Supreme Court’s recent decision in *Carpenter v. United States* indicates that the scope of the tracking is key to Fourth Amendment analysis—while recognizing that the Court has “been careful not to uncritically extend existing precedents when confronting new technologies.” It has also been “careful to distinguish between the rudimentary tracking facilitated by [radio-based beepers] and more sweeping modes of surveillance.”113 Indeed, the *Carpenter* Court held that the warrantless collection of seven days or more of historical cell-site location information (CSLI), which tracks a phone’s continuous movements over a period of time, violated the Fourth Amendment.114

Although RFID-based technology in isolation is closer in terms of capability to a traditional beeper versus the satellite-based monitoring at issue in *Grady v. North Carolina*115 or CSLI-tracking in *Carpenter,* the

111 In the following cases on location monitoring, the analysis of the invasiveness of a location-tracking surveillance regime was a component of the analysis of whether a Fourth Amendment search took place to begin with. The same type of invasiveness-focused analysis would be a component of determining the reasonableness of subdermal RFID as a regulatory search, which will be explained further, see infra part III.C.


113 138 S.Ct. 2206, 2215 (2018) (referring to United States v. Knotts, 460 U.S. 276, 282 (1983), which held that warrantless, radio-based monitoring of a container did not violate the Fourth Amendment when it did not reveal anything that visual surveillance from hypothetical, on-the-ground police officers could not see).

114 *Id.* at 2212, 2221 (noting that “[a]ltogether the Government obtained 12,898 location points cataloging Carpenter’s movements—an average of 101 data points per day”).

115 575 U.S. 306, 310 (citing N.C. GEN. STAT. § 14-208.40(c), which established a satellite-based monitoring regime for people convicted of sex offenses that
analysis still depends on the readers’ infrastructure. If readers are solely placed at an individual’s home for curfew monitoring, for example, courts might see this as favoring constitutionality. A court that subscribes to the “mosaic theory” of the Fourth Amendment, meanwhile, might be more inclined to consider the entire picture of a subdermal RFID surveillance scheme and hold otherwise.

C. Regulatory or Administrative Searches

The tracking of probationers and parolees using subdermal RFID would be interpreted as an “administrative” or “regulatory” search under Fourth Amendment doctrine. As such, cases dealing with these searches provide the overarching legal framework that would apply to subdermal RFID. To pass constitutional muster, the search must be “reasonable,” which is determined by balancing “the government’s interest in conducting the search against the degree of intrusion on the affected individual’s privacy.”

conducts “[t]ime-correlated and continuous tracking of the geographic location of the subject” and “[r]eporting of the subject’s violations of prescriptive and proscriptive schedule or location requirements. Frequency of reporting may range from once a day (passive) to near real-time (active).”).

116 See Carpenter, 138 S. Ct. at 2216 (noting that the limited tracking of whether someone is home at a certain hour is less invasive than the tracking of cell phone location information, which is “detailed, encyclopedic, and effortlessly compiled”).

117 The mosaic theory of the Fourth Amendment, which was tacitly endorsed by five justices in United States v. Jones, 132 S. Ct. 945 (2012), provides for a more holistic analysis of government searches; it calls for “analyzing police actions over time as a collective ‘mosaic’ of surveillance” whereby “the mosaic can count as a collective Fourth Amendment search even though the individual steps in isolation do not.” Orin S. Kerr, The Mosaic Theory of the Fourth Amendment, 111 Mich. L. Rev. 311, 313 (2012). Applying the theory to this context would likely entail an aggregate analysis of the implantation of the RFID chip and each individual instance of one’s chip interacting with a reader.

118 See Samson v. California, 547 U.S. 843, 848–50 (2006) (holding that the Court applies a “general Fourth Amendment approach . . . to determine whether a search is reasonable” in the context of government searches of parolees and probationers) (quotations omitted).

119 Eve Brensike Primus, Disentangling Administrative Searches, 111 Colum. L. Rev. 254, 256 (2011). Notably, the Supreme Court and lower courts have moved away from applying the “special needs” doctrine to forms of electronic surveillance, which requires a threshold finding of whether the search is conducted for a non-law enforcement purpose before turning to the reasonableness analysis. See Weisburd, supra note 10, at 735, 749. For instance, Griffin v. Wisconsin, 483 U.S. 868 (1987) was decided on “special needs”
First, the Supreme Court has clearly held that states have a legitimate—if not “substantial” or “overwhelming”—interest in supervising probationers and parolees. The core “assumption” behind this interest is that probationers and parolees, “by virtue of [their] status,” are “more likely than the ordinary citizen to violate the law.” Supervision thus serves the more specific governmental interests of “reducing recidivism” and “reintegrate[ing]” probationers and parolees into society. In a narrowly legal sense, the existence of these interests is tough if not impossible to challenge—the Court acknowledges that the police power of states is very broad.

But the Court has also emphasized that part of the Fourth Amendment analysis turns on the issue of the ability of states to address these interests “effectively.” In Chandler v. Miller, for example, the Court struck down a Georgia law that required candidates for political office to submit to drug tests because it was essentially futile—candidates could schedule their own drug tests and thus plan their drug use to circumvent the requirement. An even closer analog to subdermal RFID was the implementation of lifetime, satellite-based monitoring for sex offenders at issue in State v. Grady, where the North Carolina Supreme Court held the surveillance unconstitutional due to the “State’s inability to produce evidence of . . . efficacy . . . in advancing any of its asserted legitimate State interests.”

And significantly, electronic monitoring has either mixed or poor results when it comes to recidivism and public safety. Studies have failed to find “any convincing evidence that electronic monitoring is superior to other prison diversion programs.” If anything, increased deterrence is

grounds in 1987, but Samson, 547 U.S. 843, was decided on general reasonableness grounds in 2006.

120 Samson, 547 U.S at 853.
121 Id. at 849.
122 Id. at 854; see also United States v. Knights, 534 U.S. 112, 120–21 (describing states’ “dual concern” with probationers regarding reintegration and recidivism).
123 Bond v. United States, 572 U.S. 844, 854 (2014) (“In our federal system, the National Government possesses only limited powers; the States and the people retain the remainder. The States have broad authority to enact legislation for the public good — what we have often called a ‘police power’”).
124 Samson, 547 U.S at 854.
125 520 U.S. 305, 319–20 (“Georgia’s certification requirement is not well designed to identify candidates who violate antidrug laws.”).
126 372 N.C. 509 (2019) (emphasis added); see also Commonwealth v. Feliz, 481 Mass. 689, 690–91 (2019) (holding GPS monitoring as applied to an individual probationer to be unreasonable). Note that State v. Grady was the decision reached on remand from the aforementioned Grady v. North Carolina case, supra note 112.
127 Renzema & Mayo-Wilson, supra note 91, at 231; see also supra Part II.B.
associated with supervision that is less intrusive regarding privacy. In terms of rehabilitation, too, the onerous requirements and stigma from electronic monitoring make it challenging for probationers and parolees to obtain employment, build relationships, and fully reintegrate into their community. Because states only have a strong interest in effectively supervising probationers and parolees, this first part of the balancing test does not work solely in subdermal RFID proponents’ favor.

As for the second part of the analysis, subdermal RFID entails a highly intrusive search of one’s body and a moderately intrusive search of one’s geographic location. Consequently, this factor weighs strongly against a finding of reasonableness. Particularly because subdermal RFID would entail breaking the skin and almost permanently changing the bodies of probationers and parolees—in addition to carrying physical, psychological, and/or social risks—the search involved is easily distinguishable from those less invasive searches upheld in Griffin (warrantless search of probationer’s home) and Samson (suspicionless search of parolee’s outer clothing).

Despite the fact that courts find probationers and parolees to have “diminished privacy interests,” no court has upheld a bodily invasion akin to subdermal RFID as a condition of parole or probation, and it is

128 Doleac, supra note 88.
130 The effectiveness factor might only carry much weight with lower courts. Bafflingly, the Supreme Court used the ineffectiveness of California’s parole system as a reason to sustain the state’s existing deprivations of parolees’ liberty—in Samson, the Court cited California’s “high recidivism rate” as a reason to uphold its existing program of allowing suspicionless searches of parolees. See Samson, 547 U.S at 854.
131 See the discussion supra Parts III.A, III.B for summaries and also see the discussion supra Part II.A for a policy perspective.
132 See supra Part I.C..
133 Griffin, 483 U.S. at 870.
134 Samson, 547 U.S at 846–47.
135 Id. at 849–50.
136 A Tennessee judge had implemented a scheme that allowed women facing prison time to receive a 30-day reduction in their sentence if they agreed to receive a birth control implant in their arm. After rightful public backlash, the judge rescinded his order. White County Judge Rescinds Order Coercing Sterilization and Birth Control Implants, ACLU (Jul. 27, 2017), https://www.aclu.org/press-
a common refrain that probationers and parolees retain significant, if qualified, constitutional rights.\textsuperscript{137} Parolees and probationers also have more privacy rights under the Fourth Amendment than individuals in prison.\textsuperscript{138} This is unsurprising—the primary rationale that the Court has given for uniquely limiting privacy in prisons is correctional facility safety, which is not applicable to probationers and parolees.\textsuperscript{139} Any “diminished” expectations of privacy should thus only be seen as slightly diminished under the doctrine.

In conclusion, the Fourth Amendment analysis is not as favorable to the government as proponents of subdermal RFID would make it seem.\textsuperscript{140} A proper focus on the bodily intrusion and ineffectiveness of electronic monitoring, all in line with Supreme Court precedent, tips the balancing analysis towards a finding of unreasonableness and unconstitutionality.

**IV. CONCLUSION**

Surveilling probationers and parolees with implanted RFID chips would herald serious policy and constitutional concerns. The implantation process, taking place within the coercive environment of plea bargaining and sentencing, would offend fundamental notions of bodily integrity and privacy. The combination of implantation and subsequent monitoring,

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\textsuperscript{137} Morrissey v. Brewer, 408 U.S. 471, 482 (1972) (“the liberty of a parolee, although indeterminate, includes many of the core values of unqualified liberty”); Murry v. Commonwealth, 288 Va. 117, 120, 126 (2014) (rejecting a probation condition allowing for the suspicionless search of Murry’s home at any time because “it is apparent . . . that probationers retain some expectation of privacy, albeit diminished”—a “near-total surrender of privacy” like the practice here “could [not] be reasonably related to rehabilitation”); People v. Hale, 93 N.Y.2d 454, 459 (1999) (“a probationer loses some privacy expectations and some part of the protections of the Fourth Amendment, but not all of both”) (emphasis added).

\textsuperscript{138} See Griffin, 483 U.S. at 874 (distinguishing probation and its restrictions from those present during “confinement in a maximum-security facility”).

\textsuperscript{139} See Florence, 566 U.S. at 326–28 (upholding strip and cavity searches of incarcerated people because of the unique “difficulties of operating a detention center” and the need to “detect and deter the possession of contraband in their facilities”).

\textsuperscript{140} See Rosenberg, supra note 12, 352–53; see also Rutgers, supra note 15, at 173–76.
moreover, would very likely violate the Fourth Amendment as a highly invasive search with dubious effectiveness in promoting state interests.\textsuperscript{141} These are pressing concerns given the ultra-low cost of RFID chips and resultant scalability of surveillance infrastructure. With smartphone monitoring and ankle monitoring on the rise as well, proponents of government overreach do not need another tool in their toolbox.

Fortunately, some states have taken proactive steps to ban the coercive use of RFID chips for electronic monitoring purposes.\textsuperscript{142} But

\textsuperscript{141} Other constitutional protections such as the Eighth, Thirteenth, and Fourteenth Amendments could be implicated by subdermal RFID. On the Eighth Amendment front, subdermal RFID would arguably not conform to “civilized standards.”\textsuperscript{Trop v. Dulles, 356 U.S. 86, 101 (1958) (“The [Eighth] Amendment must draw its meaning from the evolving standards of decency that mark the progress of a maturing society.”).} On the Thirteenth Amendment front, subdermal RFID could be seen as a legacy of branding, thus qualifying as a “badge and incident” of slavery subject to a Congressional ban.\textsuperscript{See Jones v. Alfred H. Mayer Co., 392 U.S. 409, 440 (1968) (“Surely Congress has the power under the Thirteenth Amendment rationally to determine what are the badges and the incidents of slavery, and the authority to translate that determination into effective legislation.”); Katrina H. B. Keefer,\textit{Marked by fire: brands, slavery, and identity}, 40 Slavery & Abolition 659, 660 (2019) (“Branding is one of the most charged symbols of the evils of slavery”); Schenwar & Law,\textsuperscript{supra note 7, at 48 (noting the account of a parolee who said that “as a Black man, the [ankle monitors] invoke the legacy of slavery”).} On the Fourteenth Amendment front, subdermal RFID would arguably violate the Due Process Clause.\textsuperscript{See Washington v. Harper, 494 U.S. 210, 229 (1990) (“The forcible injection of medication into a nonconsenting person’s body represents a substantial interference with that person’s liberty.”).} }\textsuperscript{142 See, e.g., Okla. Stat. 63 § 1-1430 (2022) (“No person, state, county, or local governmental entity or corporate entity may require an individual to undergo the implanting of a microchip or permanent mark of any kind or nature upon the individual”); Wis. Stat. § 146.25(1) (2022) (“No person may require an individual to undergo the implanting of a microchip”); Cal. Civ. Code § 52.7(a) (West 2022) (“[A] person shall not require, coerce, or compel any other individual to undergo the subcutaneous implanting of an identification device”); N.D. Cent. Code § 12.1-15-06 (2021) (“A person may not require an individual have inserted into that individual’s body a microchip containing a radio frequency identification device”); Md. Code, Health-Gen. § 20-1902 (West 2022) (“A person or an agent, a representative, or a designee of the State or a local government may not require, coerce, or compel an individual to undergo the subcutaneous implanting of an identification device”); Mo. Rev. Stat § 285.035 (West 2022) (“No employer shall require an employee to have personal identification microchip technology implanted into an employee for any reason”); Ark. Code Ann. § 11-5-501(e)(1) (2019) (“An employer shall not . . . [c]oerce an employee into consenting to have a microchip implanted in his or her body”); Ind. Code § 22-5-8-2(a) (2022) (“[A]n employer may not require an employee or
even then, there are some troubling signs. One state has barred the compelled implanting of RFID chips while carving out a singular exception for incarcerated people. And the vast majority of states and Congress have simply not addressed the issue. Policymakers—as well as practitioners and judges, if the occasion arises—should follow the path of these trailblazing states and fight this invasive practice before it can gain steam. The bodily integrity and fundamental privacy of some of society’s most vulnerable people depends on it.

prospective employee to . . . [i]mplant, or undergo a procedure to implant, a device in the candidate’s or employee’s body”); NEVADA REV. STAT. § 200.870 (2021) (“It is unlawful for any entity of person . . . to require another person to undergo the implantation of a microchip”); MONT. CODE. ANN. § 39-2-1502(1) (West 2021) (“An employer is prohibited from requiring an employee to have a microchip implanted in the employee’s body as a condition of employment”).

143 N.H. REV. STAT. ANN. § 644:22 (2022) (“[A] person shall not require, coerce, or compel an individual to undergo the subcutaneous implanting or other internal or external bodily possession of an identification device. This section shall not apply to inmates incarcerated in or under the control of a government-run prison or jail”) (emphasis added).