

# People on Electronic Monitoring

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## SUMMARY

Electronic monitoring (EM) is a form of digital surveillance that tracks people's physical location, movement, or other markers of behavior (such as blood alcohol level). It is commonly used in the criminal legal system as a condition of pretrial release or post-conviction supervision—including during probation, parole, home confinement, or work release. The United States also uses electronic monitoring for people in civil immigration proceedings who are facing deportation.

This report fills a gap in understanding around the size and scope of EM use in the United States. The Vera Institute of Justice's (Vera) estimates reveal that, in 2021, 254,700 adults were under some form of EM. Of these, 150,700 people were subjected to EM by the criminal legal system and 103,900 by U.S. Immigration and Customs Enforcement (ICE). Further investigation revealed that the number of adults placed on EM by ICE more than tripled between 2021 and 2022, increasing to 360,000.<sup>1</sup> This means that the total number of adults on EM across both the civil immigration and criminal legal systems likely increased to nearly half a million during that time.

From 2005 to 2021, the number of people on EM in the United States grew nearly fivefold—and almost tenfold by 2022—while the number of people incarcerated in jails and prisons declined by 16 percent and the number of people held in ICE civil detention increased but not nearly as dramatically as EM.<sup>2</sup> Regional trends in the criminal legal system reveal how EM has been used more widely in some states and cities but increased sharply from 2019 to 2021 across the country: The Midwest has the highest rate of state and local criminal legal system EM, at 65 per 100,000 residents; this rate stayed relatively constant from 2019 to

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midyear 2021. In the Northeast, EM rates are the lowest of all the regions at 19 per 100,000 residents, but they increased by 46 percent from 2019 to 2021. The South and West have similar rates, 41 and 34 per 100,000 residents respectively, but the growth rate in the South has outpaced that of the West in recent years—up 32 percent in the South compared to 18 percent in the West.

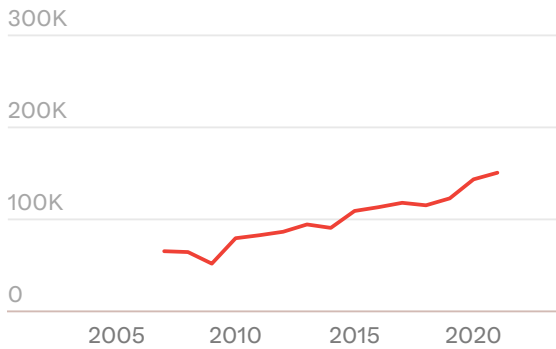
Prior to this report, the most recent estimate of the national EM population was from a 2015 Pew Charitable Trusts study—which studied the use of criminal legal system EM via a survey of the 11 biggest EM companies. For this report, Vera researchers collected data from criminal legal system agencies in all 50 states and more than 500 counties, as well as from federal courts, the Federal Bureau of Prisons, and ICE. Therefore, Vera’s study represents the most comprehensive count of the national EM population to date, as it accounts for the rise of smaller EM companies, immigration system surveillance, and new EM technologies.

For this report, Vera researchers also reviewed existing literature and spoke with local officials to better understand the impacts of EM programs. Vera’s findings contradict private companies’ assertions that EM technology is low-cost, efficient, and reliable. EM in the criminal legal system is highly variable and subject to political decisions at the local level. In many jurisdictions, EM is not used as a means to reduce jail populations. Rather, it is often a crucial component of highly punitive criminal legal systems. This challenges the dominant narrative that EM is an “alternative to incarceration.” Nonetheless, this report also highlights several jurisdictions that demonstrate how decarceration can occur *alongside* reduced surveillance.

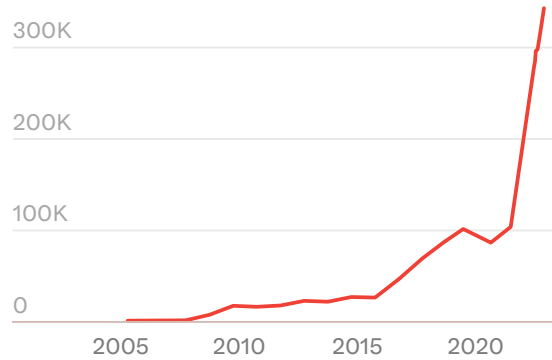
**FIGURES 1A AND 1B.**

**Electronic monitoring trends in the United States, 2005–2022**

**FIGURE 1A**  
**Criminal legal system**



**FIGURE 1B**  
**Civil immigration system**



Notes: **Figure 1A:** Data is from Pew for 2005 to 2014 and from Vera thereafter. See Pew Charitable Trusts, *Use of Electronic Offender-Tracking Devices Expands Sharply* (Philadelphia: Pew Charitable Trusts, 2016), 4, <https://perma.cc/98DW-5G99>.

**Figure 1B:** Data from 2019 to 2022 is ICE data from TRAC Immigration, “Alternatives to Detention,” database, accessed April 18, 2023, [https://trac.syr.edu/immigration/detentionstats/atd\\_pop\\_table.html](https://trac.syr.edu/immigration/detentionstats/atd_pop_table.html). Vera estimated data from 2007 to 2019 using the annual “Department of Homeland Security: Congressional Budget Justification” documents, in which ICE reports the average daily population for its EM program over the course of the fiscal year. See Department of Homeland Security, “DHS Budget,” <https://www.dhs.gov/dhs-budget>. For the 2005 immigration system estimate, see Statement of Acting Director of Detention and Removal Operations Victor X. Cerda, U.S. Immigration and Customs Enforcement, 2005, 6, <https://perma.cc/85GJ-ZMHX>.

**TABLE 1.**

**Electronic monitoring by local, state, and federal authorities in criminal legal and civil immigration systems, 2015–2021**

Year	Total	Local	State	U.S. Courts and BOP	Civil Immigration (ICE)
2015	135,771	47,080	52,404	9,661	26,625
2016	160,018	49,262	54,408	9,571	46,777
2017	187,487	53,257	54,532	10,233	69,466
2018	202,684	48,926	57,577	8,798	87,384
2019	224,419	52,670	60,501	9,680	101,568
2020	230,213	65,643	64,062	13,803	86,705
2021	254,654	68,283	65,130	17,308	103,933

Note: Vera estimates are from data collected from state, local, and federal agencies.

# Introduction

Electronic monitoring (EM) is a form of digital surveillance that tracks people's physical location or other markers of behavior (such as blood alcohol level). It is commonly used to limit people's freedom of movement. In the criminal legal system, EM is often imposed as a condition of pretrial release or post-conviction supervision—including during probation, parole, home confinement, or work release. In the United States, EM is also used for people in the civil immigration system through U.S. Immigration and Customs Enforcement's (ICE) Intensive Supervision Appearance Program (ISAP), which supervises people who are subject to deportation due to civil immigration violations.

The criminal legal and civil immigration systems have different stated purposes. Yet, both have the power to detain people, and both use EM for some people who are not detained—often with the threat of detention if terms of supervision are not met. When facing criminal charges, people are often detained in a jail prior to plea negotiation and a sentence of incarceration. In contrast, in the immigration context, there is no sentence of incarceration, although people are at risk of deportation. In some cases, people in the immigration system may be subject to detention due to prior convictions; however, this is often at the discretion of officials.<sup>3</sup> In practice, differences between the criminal and civil immigration systems tend to dissolve when people are subjected to ICE detention, as they are frequently held in local jails or functionally similar facilities dedicated to immigration detention.

For EM in the criminal legal and civil immigration systems, there's minimal distinction between supervision practices, and if terms are violated, people may be detained and held, often in local jails. For these reasons, and to paint a complete picture of EM usage across the United States, the Vera Institute of Justice (Vera) includes immigration supervision in this report and in some national totals. However, in some sections, Vera also reports the trends in civil immigration EM separately, highlighting the unprecedented growth and unique issues related to ICE's EM program.

The most well-known form of EM involves wearable monitors with Global Positioning System (GPS), radio frequency (RF), or Secure Continuous Remote Alcohol Monitoring (SCRAM) capabilities, often attached to ankles or wrists. Although public agencies can purchase the equipment to administer EM programs themselves, they often enter into contracts with private vendors that supply the technology and notify agencies of potential violations. Additionally, in recent years, there has been a rise in new forms of supervision technology that do not require a physical device, including cell phone apps with location tracking plus facial recognition and voice verification capabilities.<sup>4</sup>

## **THE NATIONAL SCOPE OF ELECTRONIC MONITORING IS HIDDEN**

In contrast to other aspects of incarceration and community supervision—such as prison and jail incarceration, probation, and parole—there is no national survey or reporting requirement for the number of people on EM. The most recent count of the national EM population is from 2015, when the Pew Charitable Trusts surveyed 11 major EM companies—including Attenti, GEO Group (formerly BI Incorporated), Securus (formerly Satellite Tracking of People), Sentinel Offender Services, and Track Group—and found that the number of people on RF and GPS monitoring through the United States criminal legal system increased by nearly 140 percent over 10 years—from around 53,000 people in 2005 to more than 125,000 people at the end of October 2015.<sup>5</sup> (Counting the 1,339 people in 2005 and 26,625 people in 2015 on EM through the civil immigration system reveals a 180 percent increase during this period.)<sup>6</sup>

**In contrast to other aspects of incarceration and community supervision. . . there is no national survey or reporting requirement for the number of people on EM.**

In 2015, these 11 companies made up an estimated 99 percent share of the EM industry—and GPS and RF were the dominant forms of EM technology.<sup>7</sup> In the years since, there has been a rise in local, independent EM vendors, as well as an increased use of different forms of surveillance technology.<sup>8</sup> As a

result, the methods used for the 2015 study would underrepresent the total number of people on EM today. For this report, Vera researchers requested data directly from criminal legal system agencies in all 50 states and from 800 counties, as well as from federal courts and the Federal Bureau of Prisons (BOP), and accessed publicly available data from ICE, in order to understand the current state of EM.<sup>9</sup>

An updated count of the total EM population is especially important in the context of changing trends in the criminal legal and immigration systems today. The number of people under correctional control in the United States—in other words, incarcerated in jail or prison or supervised on probation or parole—decreased in the decade after the 2008 financial crisis and before the coronavirus pandemic.<sup>10</sup> This trend proceeded unevenly: Smaller metropolitan areas and rural counties, as well as some states, continued to see increased incarceration and criminalization, and many localities have built new or expanded jails over the last two decades, increasing jail capacity nationally.<sup>11</sup> But there has been a broad shift as many states have stopped building new prisons, and prison populations are in decline.<sup>12</sup> Changes in the wake of the coronavirus pandemic furthered this pattern, with the total number of incarcerated people decreasing to 1.8 million in 2022 from 2.1 million in 2019.<sup>13</sup> According to analysis conducted by Vera, in 2022, the average state prison system was down from its peak population by nearly a quarter.<sup>14</sup> ICE detention has also declined—from 55,238 to 15,289 from August 2019 to April 2021, in part due to resistance to ICE contracts for jail and detention space in some jurisdictions and changes in immigration policy and enforcement priorities.<sup>15</sup> (ICE detention numbers have since rebounded to approximately 35,000 people as of September 2023—though even this is still 20,000 below 2019.)

Amid this context, Vera sought to better understand how the criminal legal and immigration systems are changing and how localities, states, and federal agencies are using EM. This report seeks to fill a critical gap in understanding by providing recent national estimates of the number of people on EM and describing emerging issues and concerns.

In what follows, Vera researchers provide an overview of the research on EM and its harms and present the data on the use

of EM in the U.S. criminal legal and civil immigration systems in detail. This report also presents the key themes that arose from Vera’s conversations with staff at local criminal legal system agencies relating to the patchwork of jurisdictional authorities, unregulated market for EM expansion, and changes in EM technology. Finally, this report examines the relationship between local incarceration and EM in various types of jurisdictions before concluding with policy recommendations.

## Overview of the Issue

### **ELECTRONIC MONITORING IS BIG BUSINESS BUT INEFFECTUAL**

Private companies and law enforcement often endorse EM as a reliable way to improve public safety, promote rehabilitation, and ensure court attendance.<sup>16</sup> However, research on EM is limited, and many of the studies that exist are methodologically unsound or otherwise fail to prove these claims.<sup>17</sup> In fact, several more rigorous evaluations have concluded that EM does not significantly improve court appearance rates or the percentage of people who avoid a new arrest.<sup>18</sup> News articles have highlighted frequent EM device malfunctions—related to faulty batteries, audio defects, and connectivity issues—that result in false alarms.<sup>19</sup> However, the perception of the EM industry as a profitable growth area has led businesses specializing in privatized incarceration and community supervision to develop new surveillance services and technologies.<sup>20</sup> According to market reports, the value of the North American EM market is projected to grow from \$850 million in 2019 to close to \$1.2 billion in 2023.<sup>21</sup>

Despite the fact that jurisdictions often introduce EM as an “alternative to incarceration,” in many contexts expansion of EM is not accompanied by a reduction in physical detention.<sup>22</sup> In other

words, EM often serves to expand surveillance and control over people who would otherwise be free.<sup>23</sup>

## **ELECTRONIC MONITORING IS PUNITIVE AND HARMFUL**

Private companies and criminal legal system actors have described EM as a “less invasive” form of surveillance.<sup>24</sup> However, many researchers and advocates have argued that EM produces harm in similar ways to jails and prisons and, therefore, is merely another type of incarceration.<sup>25</sup> Indeed, the experiences of people on EM showcase the emotional and physical harms of the technology. A 2021 survey of nearly 150 people supervised on ankle monitors by ICE found that 90 percent experienced pain or discomfort related to the devices.<sup>26</sup> One in five people experienced electric shocks, an injury that has been documented elsewhere.<sup>27</sup> The vast majority of survey participants, 88 percent, also reported negative psychological impacts—including anxiety, depression, sleep disruptions, and social isolation.<sup>28</sup> Accounts from people placed on EM through the criminal legal system corroborate these findings.<sup>29</sup>

EM also places onerous restrictions on people’s lives. Those supervised on EM report difficulty in complying with vague and overlapping rules and an inability to obtain approval for day-to-day tasks, such as attending religious services, grocery shopping, and dropping their children off at school.<sup>30</sup> In many cases, participant-funded EM programs charge people high fees, saddling them with long-term debt.<sup>31</sup> Because of this, people on EM have described how the technology presents barriers to employment, negatively impacts their self-perception and personal relationships, and diminishes their financial security.<sup>32</sup>

Finally, EM compromises people’s privacy and presents a threat of incarceration. Some home detention devices have two-way communication capabilities, allowing supervising officers to communicate directly with the person on EM and potentially listen in on their home lives.<sup>33</sup> EM programs can require the person monitored to consent to frequent and warrantless



searches of their home.<sup>34</sup> Violations of any of the conditions of EM—failing to pay EM fees on time, forgetting to charge the battery, or engaging in behavior the supervising officer deems problematic—can be punishable by incarceration, making EM a tripwire back into jail.<sup>35</sup>

## **ELECTRONIC MONITORING’S IMPACTS VARY ACROSS RACE AND CLASS**

The harms of EM can be obscured in public view by the coverage of high-profile criminal cases involving wealthy and well-connected people who use EM to avoid incarceration.<sup>36</sup> However, these cases are not representative of the broad expansion of EM in the criminal legal and immigration systems.

Although a demographic breakdown of national EM data is not available, evidence from specific programs shows how the harms of EM are more pronounced for communities of color. The nation’s fastest growing EM program, run through ICE, largely targets poor migrant communities, expanding surveillance over people who would otherwise be free.<sup>37</sup> In one of the country’s most segregated cities, Chicago, EM disproportionately impacts Black residents; in 2021, Black people made up 74 percent of the EM population, despite only comprising 23 percent of the total resident population.<sup>38</sup> The situation was similar for Detroit: from 2018 to 2019, Black people were overrepresented in both the jail and EM populations.<sup>39</sup>

In a 2022 report, defense attorneys indicated that BIPOC people were often placed on more restrictive EM conditions than white people.<sup>40</sup> This is consistent with research demonstrating the presence of racial disparities at every stage of the criminal legal system, including in programs intended to divert people from incarceration.<sup>41</sup>

# Findings from Vera's Analysis

## **NEARLY HALF A MILLION ADULTS ARE ON ELECTRONIC MONITORING IN THE UNITED STATES**

Vera's data collection reveals that, in 2021, 254,700 adults in the United States were under some form of EM. Of these, over 150,700 people were subjected to EM by the criminal legal system and 103,900 by ICE.<sup>42</sup> Further investigation revealed that the number of adults placed on EM by ICE more than tripled between 2021 and 2022, increasing to 360,000.<sup>43</sup> This means that the total number of adults on EM across both the civil immigration and criminal legal systems likely increased to nearly half a million during that time.

## **USE OF EM HAS EXPLODED OVER RECENT YEARS**

From 2005 to 2021, the number of people on EM in the United States grew nearly fivefold—and almost tenfold by 2022; meanwhile, between 2005 and 2022, the number of people incarcerated in the country declined by 15 percent.<sup>44</sup> In the criminal legal system in 2005, there was one person on EM for every 43 people incarcerated; in 2021, there was one person on EM for every eight people incarcerated.<sup>45</sup> In the civil immigration system, EM has taken on a much larger role. In 2005, there were around 19,700 people in civil detention compared to approximately 1,300 on EM—one person on civil immigration EM for every 15 people in ICE detention.<sup>46</sup> However, in November 2022, ICE held around 30,000 people in civil detention and supervised over 340,000 people on EM. In other words, in 2022, there were 11 people on EM for every person held in civil detention. (See “ICE and Electronic Monitoring” on page 25.)

## **THE HIGHEST USE OF EM IS FOUND IN THE MIDWEST**

The local impacts of this practice vary widely. Nationally in the criminal legal system, the number of people on EM increased from 109,100 in

June 2015 to 122,900 in June 2019 and increased further to 150,700 people in June 2021. During these time periods, jurisdictions in the Midwest have had the highest rates of EM, often double the EM rates in the Northeast, South, and West. This diverges from incarceration rate patterns by region: in 2019, state prisons and local jails in the Midwest had very similar incarceration rates as the West, and they were 26 percent lower than rates in the South.<sup>47</sup> Reporting from Chicago indicated that, in 2018, while the number of people in Cook County Jail was about 6,000, there were 2,000 people on EM.<sup>48</sup> The number of people on EM in Chicago has grown rapidly since then and is now by far the largest local program in the United States.<sup>49</sup> In 2023, Illinois expanded EM availability to all counties in the state, ensuring further growth.<sup>50</sup> As the data collected by Vera shows, these high rates of EM have spread to other jurisdictions in the Midwest.

In 2021, the South had the second highest rate of EM—41 people on EM per 100,000 residents compared to 65 per 100,000 in the Midwest. (See Figure 2A.) However, between 2015 and 2021, the South saw more rapid growth in EM than the Midwest, growing 74 percent, from 29,900 to 51,900 people on EM. During that same period, the number of people on EM in the Midwest increased 18 percent, from 37,300 to 44,100 people.

**FIGURE 2A.**  
**State and local electronic monitoring rates, 2021**

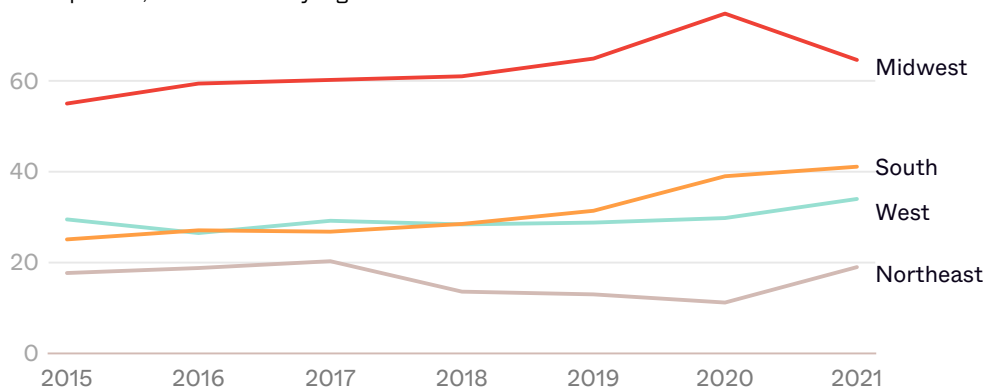
Rates per 100,000 residents by region.



Note: Vera Institute of Justice estimate for June 30, 2021, not including federal agencies.

**FIGURE 2B.**  
**State and local electronic monitoring rates, 2015–2021**

Rates per 100,000 residents by region.



Note: Vera Institute of Justice estimates per year, not including federal agencies.

During the first months of the COVID pandemic, the number of people in jail decreased dramatically, down 24 percent between midyear 2019 and midyear 2020.<sup>51</sup> In contrast, the number of people on EM increased 9 percent from midyear 2019 to midyear 2020. From 2020 to 2021, the number of people on EM increased by only 2 percent.

## **COVID-19 HAS PROPELLED THE USE OF EM IN SOME REGIONS**

Recent industry forecasts describe COVID-19 as having a “positive impact” on the EM market in the United States, estimating that the market “increased significantly” from 2016 to 2020 and would continue to grow “tremendously” from 2021 to 2025.<sup>52</sup> Data from various agencies corroborates this upward trajectory. In Chicago, the number of people on the sheriff’s pretrial EM program increased by 23 percent in the 16 months following the onset of the pandemic.<sup>53</sup> In Los Angeles, pretrial EM expanded by more than 5,000 percent in six years—from 24 people in 2015 to 1,284 people in 2021.<sup>54</sup> (Although both jurisdictions experienced massive expansions in surveillance, Vera’s data shows that in 2021 the EM rate was five times higher in Chicago, at 103 per 100,000 residents, compared to 19 per 100,000 residents in Los Angeles.) However, EM growth did not happen everywhere. In New York City, officials created a citywide pretrial release EM program in 2020, but it only had 50 devices available and most were not even used: the program only supervised five people on EM over the course of 2020 and 2021.<sup>55</sup>

In the course of Vera’s data collection, researchers spoke with officials who explained the factors behind pandemic-era EM increases in certain jurisdictions. In some places, court hearings were delayed during the pandemic, leading judges to place greater numbers of people awaiting trial on pretrial EM.<sup>56</sup> But even in jurisdictions where courts were running normally, judges often sentenced people to EM rather than jail or prison because public health orders required them to keep their incarcerated population low.<sup>57</sup> In other words, instead of embracing decarceration, these jurisdictions turned to another means of carceral control: electronic monitoring.

## MOUNTING OPPOSITION TO ELECTRONIC MONITORING

Advocacy and movement-based policy demands against EM had been circulating long before the coronavirus pandemic. In 2014, a statewide coalition in Wisconsin gathered to protest the Wisconsin Department of Corrections' EM program—an event that was likely the earliest major protest against EM in the United States, according to tracking by MediaJustice, a nonprofit organization advocating for more just and participatory media.<sup>58</sup> Around the same time, prominent activist and researcher James Kilgore published a critical assessment of EM, which provided the foundation for Challenging E-Carceration, a national initiative he co-founded with Emmett Sanders to fight EM and other forms of criminal legal system surveillance.<sup>59</sup>

Beginning in 2015, EM practices also faced a spate of legal challenges across the country. A landmark U.S. Supreme Court decision on a North Carolina case established that attaching a monitor to someone's body in order to track their movements could qualify as an “unreasonable search and seizure” under the Fourth Amendment.<sup>60</sup> In Wisconsin, people ordered to wear a GPS monitor for the rest of their life after being released from prison argued that the lifetime EM sentence violated their constitutional rights.<sup>61</sup> In several other states, including Arizona and California, plaintiffs challenged the fairness of fines and fees imposed on them by both publicly and privately administered EM programs.<sup>62</sup> More recently, as ICE has expanded EM, advocates have filed lawsuits citing privacy concerns with the program.<sup>63</sup>

Efforts to pass legislative reforms in several states accompanied anti-EM litigation. In Indiana in 2018, a coalition of system-impacted people, scholars, and community members launched a statewide campaign against EM.<sup>64</sup> In New York, 2019 bail reform legislation

included a ban on using local government funds to pay for private EM services, effectively blocking the expansion of EM in the state.<sup>65</sup> During this same period, Illinois passed the first law in the country requiring data collection on post-prison EM.<sup>66</sup> Illinois's 2021 Pretrial Fairness Act—a culmination of five years of organizing by statewide coalitions—also contained key stipulations for EM: guaranteeing a certain level of movement for essential tasks, requiring judges to regularly reconsider EM sentences in favor of less restrictive conditions, and ensuring that time spent on EM pretrial would count toward a future sentence of incarceration.<sup>67</sup> These forms of resistance—namely, grassroots activism, legislative advocacy, class-action litigation, and calls for regulation—likely mitigated the growth of GPS monitoring since 2015.

## Key Themes in the Administration of EM Programs

In the course of data collection, Vera researchers spoke with the staff of multiple public agencies and EM vendors in sample jurisdictions to understand how local EM programs are administered. These conversations covered topics such as the decision-making process behind the adoption of an EM program, how agencies track EM information, and relationships between public and private EM entities. Informed by this research, Vera identified several key themes: (1) there is a wide range of agencies at the state and local levels using EM, leading to a patchwork of jurisdictional authority; (2) EM is an unregulated and privatized sector; (3) users end up paying large shares of the fees; and (4) technological changes are leading to rapid growth.

## **A PATCHWORK OF JURISDICTIONAL AUTHORITY LIMITS PUBLIC ACCOUNTABILITY**

The use of EM at the local level is largely decentralized. The public agencies administering EM programs vary dramatically from county to county and can include courts, pretrial services, probation departments, community corrections agencies, sheriff's departments, jails, or detention centers. In certain jurisdictions, public agencies direct people to seek out private vendors themselves, akin to the search for a private criminal defense lawyer.<sup>68</sup>

Vera researchers also observed a wide range of mixed-jurisdictional arrangements—including intergovernmental and regional contracts. Some jurisdictions supervised people on EM for neighboring counties.<sup>69</sup> Others relied on several layers of contracting and subcontracting. For example, state agencies may contract supervision out to community corrections facilities, which then contract out to private vendors for EM supervision.<sup>70</sup> This patchwork of jurisdictional authority makes it difficult to track where public jurisdiction ends and private control begins, and it limits accountability to the public and elected officials.

## **EM IS HEAVILY PRIVATIZED BUT LACKS REGULATION, OPENING THE DOOR TO EXPLOITATION AND CORRUPTION**

The reliance on private companies for EM equipment creates a gray area of accountability. Advocates and researchers have pointed out that the EM industry is highly unregulated and, during Vera's data collection, researchers observed a prevalence of smaller, local EM vendors operating with little oversight.<sup>71</sup> This is consistent with recent research on the rapid expansion of the "community corrections industry"—fueled by rising numbers of independent, for-profit providers of EM, probation, and other forms of community supervision.<sup>72</sup>

Some of these providers are huge: GEO Group is a private prison company that also operates BI Incorporated, the single largest EM provider in the country, with 385,000 people on EM,

almost exclusively under contract for ICE.<sup>73</sup> According to recent filings, although revenue from GEO's private prisons and jails is declining, profit from EM supervision has doubled in the last year and is the most lucrative of GEO's businesses by far—running a segment-specific profit margin of 45 percent, compared to 21 percent for “secure services” like private jails and prisons.<sup>74</sup>

In certain places, this opportunity for profit—and a lack of restrictions on who can provide EM—has facilitated the rise of smaller, homegrown vendors. In Ohio, Vera researchers observed how a former counseling center entered the EM market after transforming into a community corrections facility—and is now the dominant provider across the state.<sup>75</sup> A corrections officer in another state—Florida—described how its major EM provider is a statewide corporation that “has offices in every county and [runs] them as small and cheap as possible.”<sup>76</sup> In numerous counties, the dominant provider was extremely small and, in some cases, it was a one-person operation—a sole proprietorship started by a former law enforcement or corrections officer.<sup>77</sup>

In many local arrangements, the enforcement of EM was outsourced to private entities, with companies notifying judges about violations. As described by one local official, “because [people on EM] are not under the jurisdiction of the city, county, or state, at that point, they are under the jurisdiction of the company.”<sup>78</sup>

The unregulated and privatized nature of the EM industry opens the door to exploitation, as the conditions and costs of being on EM have little visibility for government officials. Unlike government agencies, private companies are not governed by the Freedom of Information Act; because of this, data on their EM programs is rarely publicly available. In several counties, officials familiar with their local for-profit vendors told Vera researchers that the companies charge high fees.<sup>79</sup> In fact, numerous class action lawsuits have accused local EM vendors of extorting money from people with low incomes through “exorbitant monitoring and enrollment fees,” in some cases amounting to over \$900 per month.<sup>80</sup>

This privatization also breeds opportunities for corruption. In 2018, a watchdog group in New Orleans—a jurisdiction that relies heavily



on private EM vendors because it lacks a publicly administered program—uncovered a pay-to-play scandal when a local judge repeatedly ordered people to be monitored by a campaign contributor’s EM company and threatened them when they did not pay their fees.<sup>81</sup> These scenarios reveal areas for further research focused not only on the impacts of industry giants, but also on locally run EM operations.

## **EM COST SAVINGS RELY UPON PARTICIPANT-FUNDED PROGRAMS**

Although public agencies often tout EM as a cost-savings measure, Vera researchers found that, in many jurisdictions, the assertion that EM is less costly than physical incarceration is premised upon a *participant-funded program*.<sup>82</sup> Officials told Vera that they design EM programs that are primarily sustained by user fees in order to conserve public funding.<sup>83</sup> In other words, any savings generated are the result of passing down the costs to people on EM and their loved ones. A 2022 50-state survey from the Fines and Fees Justice Center explored this practice, finding that many jurisdictions shift the burden of funding EM programs “primarily to low-income individuals,” amounting to an “inequitable form of taxation.”<sup>84</sup>

## **EVOLVING TECHNOLOGY IS DRIVING EM USE**

In the last few years, EM programs have increasingly employed new forms of surveillance technology—for example, smartphone EM apps—rather than wearable GPS devices. Vera’s interviews with local officials indicated that some agencies shut down ankle monitoring programs during the pandemic due to risks of virus transmission.<sup>85</sup> Shifting EM practices as new technologies emerge is not new: from 2005 to 2015, use of GPS devices in the criminal legal system increased thirtyfold, from 2,897 to 88,172, while the use of RF devices declined 25 percent, from 50,132 to 37,706.<sup>86</sup>

Although comprehensive national data on GPS device use in recent years is not available, data available through specific agencies

supports this trend. For example, ICE’s use of GPS devices declined 61 percent from 2019 to early 2023 while overall numbers of people on EM have more than tripled.<sup>87</sup> As of March 2023, GPS devices are used on less than 2 percent of ICE’s EM population—down from nearly 63 percent in 2019.<sup>88</sup> This change was driven by the use of SmartLINK, a smartphone EM app, which now monitors nearly 90 percent of people on ICE’s EM.<sup>89</sup>

Another example of a public agency embracing new EM technologies is the Virginia Department of Corrections (VA DOC). In 2015, the agency began contracting with Track Group for the use of ShadowTrack, a program that provides face and voice verification through a mobile surveillance app.<sup>90</sup> Track Group agreed to provide the VA DOC with technology “to monitor over 16,000” people—a service valued at \$1.3 million.<sup>91</sup> The VA DOC has renewed the contract every two years since and it is currently set to expire in 2024.<sup>92</sup>

According to the VA DOC, ShadowTrack’s biometric monitoring program is its lowest level of monitoring—intended for people the agency classifies as posing the lowest risk to public safety.<sup>93</sup> Participants are required to complete check-ins on the app, which involve confirming their identity through verbal statements and completing a questionnaire that asks about recent substance use and compliance with other terms of supervision.<sup>94</sup> These check-ins are completely automated. The app delivers the results directly to VA DOC staff, eliminating the need for face-to-face meetings between participants and their supervising officers.<sup>95</sup> The VA DOC therefore relied on the use of ShadowTrack to minimize virus transmission during the pandemic—which contributed to an expansion of the program in 2020.<sup>96</sup>

Recent data obtained by Vera via public records request illustrate VA DOC’s high use of biometric mobile monitoring relative to GPS ankle monitoring. From 2015 to 2020, the single-day count for GPS monitoring increased steadily from roughly 500 to 700 people.<sup>97</sup> Meanwhile, the single-day data available for ShadowTrack’s mobile-monitoring program shows an increase from just two people in 2018 to nearly 5,000 people in 2020.<sup>98</sup> In 2022, the ShadowTrack program used biometric surveillance—voice and facial verification—and location data to monitor 11,000 cases.<sup>99</sup> The growth of

ShadowTrack demonstrates how biometric technology and smartphone apps enable agencies to expand carceral control over the “lowest-risk” people, without questioning whether they should be surveilled in the first place.

The expansion of these types of monitoring elicits a wide range of concerns, as demonstrated by a recent study investigating 16 EM cell phone apps.<sup>100</sup> Researchers found that the ease of surveillance through these apps led to stricter forms of monitoring, citing an app that required participants to submit to five random breathalyzer tests per day using a handheld alcohol monitoring device—a standard that would be impossible to uphold if the tests required in-person administration by law enforcement officers.<sup>101</sup> The apps also presented privacy concerns, as they can access large swaths of personal information in participants’ phones and often share data with third parties for advertising purposes.<sup>102</sup> Finally, the study found many EM apps to be unreliable, pointing to reports that the software failed to notify people about check-ins, had faulty voice or facial recognition algorithms, or led to glitches and bugs in people’s phones.<sup>103</sup>

In sum, the privatized expansion of EM and lack of transparency has facilitated exploitation of supervised people and their loved ones. With the availability of new forms of EM technology—which build toward surveillance at an even larger scale—local jurisdictions’ discretion in adopting and administering EM programs may become all the more consequential.

## Case Studies: Reduced Use of Electronic Monitoring

The increase in EM during COVID-19 stems from what advocates have described as a false binary between EM or jail—one that neglects a third option: freedom.<sup>104</sup> The case studies in this section dismantle the myth of this trade-off, demonstrating that decarceration can occur *alongside* a reduction in the EM population.

## PORTLAND, OREGON

In Portland, Oregon, the Multnomah County Department of Community Justice (DCJ) administers the local EM program, which monitors people post-sentencing.<sup>105</sup> The program uses both GPS—for “house arrest, curfew, and general movement tracking”—and SCRAM, to monitor alcohol consumption.<sup>106</sup> Over the course of 2019, DCJ supervised 1,211 people on EM, and the county spent \$617,412 to administer the program.<sup>107</sup>

During the pandemic, Portland’s district attorney reduced the jail population by decreasing arrests and increasing early and pretrial releases.<sup>108</sup> From midyear 2019 to midyear 2020, the local jail population decreased 37 percent, from 1,072 to 674.<sup>109</sup> At the same time, the DCJ capped the number of EM devices used for new cases per month at nine—down from its typical use of up to 29 devices.<sup>110</sup> This halved its single-day EM population, reducing it from 106 people in midyear 2019 to 47 people in midyear 2020. In other words, jail population reduction in Portland did not come with the cost of expanded surveillance.

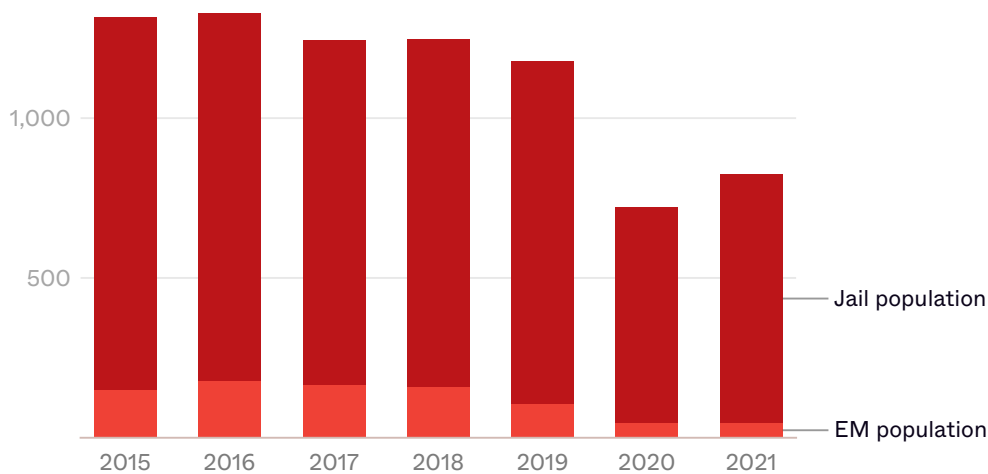
In the wake of the police killings of George Floyd and Breonna Taylor, the DCJ responded to calls for criminal legal reform by conducting a review of EM’s disproportionate impact on communities of color.<sup>111</sup> They found that although Black people made up 6 percent of the county’s total population, they made up 36 percent of people on EM.<sup>112</sup> The racial disparities in EM were higher than for the criminal legal system as a whole, as Black residents made up 21 percent of the county’s system-impacted population.<sup>113</sup> During the review, DCJ staff also acknowledged that “electronic monitoring generally has few rehabilitative benefits.”<sup>114</sup> In fact, numerous studies have failed to establish EM’s ability to reach its purported goals of promoting public safety, reducing failures to appear, and promoting rehabilitation.<sup>115</sup>

As a result, Portland officials expressed a desire to pause on resuming pre-pandemic levels of EM, describing EM as a “virtual shackle in our communities.”<sup>116</sup> As described by one county commissioner: “It’s a system that is less restrictive than physical prisons, but ultimately can perpetuate the obstacles to freedom and the injustice created by

our systems of prosecution and punishment.”<sup>117</sup> Although Portland’s jail population began to rebound in midyear 2020, the decline in its EM population persisted into 2021.<sup>118</sup>

**FIGURE 3.**  
**Multnomah County, Oregon: Use of both jail and electronic monitoring dropped significantly during COVID-19 pandemic**

Jail population dropped by 37 percent and EM population dropped by 56 percent from midyear 2019 to midyear 2020



Source: Total number of people in jail and on EM on June 30, 2015–2021. Data obtained from the Multnomah County Department of Community Justice.

## **PITFALLS OF ELECTRONIC MONITORING: LESSONS FROM SMALL AND MIDSIZED COUNTIES**

Although most of the country’s major urban areas have long become reliant on EM technology, many smaller cities and rural communities are still in the early stages of EM usage—and weighing the advantages and disadvantages of EM programs. Notably, several of the small or midsized counties Vera contacted said that they had ceased the use of EM altogether due to pitfalls with the technology.

Officials explained that EM was costly and burdensome to administer, subjecting them to a “huge amount of liability.”<sup>119</sup>

For example, EM officers often must conduct home check-ins to fit people with monitors and investigate potential violations. For places with smaller law enforcement offices, this supervision would require additional personnel and labor costs. Numerous officials also told Vera it was prohibitively expensive to purchase or rent their own EM devices.<sup>120</sup> As mentioned previously, increasing numbers of public agencies are circumventing these costs by designing programs to be participant-funded and contracting out to private vendors that provide EM devices and supervising officers.<sup>121</sup> However, the experiences of many small and midsized counties illustrate how an accurate public sector cost-benefit analysis—that is, one that assumes the local government will bear the costs of the program—might result in a decision to opt out of EM altogether.

Several of the counties Vera contacted also found EM devices to be unreliable.<sup>122</sup> Law enforcement officers told Vera that the devices often did not stay charged—making false alarms and dead signals common. The fallibility of EM technology is well-documented through people’s lived experiences. A recent American Civil Liberties Union report concluded that “device malfunctions such as audio defects, faulty batteries, and/or inability to connect to Wi-Fi often lead to reincarceration” and cited several cases, including that of a man in Michigan who was sent to prison because his ankle monitor refused to stay charged.<sup>123</sup> In Chicago, one man on the sheriff’s EM program made dozens of videos documenting false alarms generated by his ankle monitor; a 2021 analysis found that more than 80 percent of the alerts in the program were false positives.<sup>124</sup> In rural areas, sparse telecommunications infrastructure, such as internet services and cell towers, exacerbate these defects, making it difficult to accurately pinpoint the location of people on EM.<sup>125</sup>

The experiences of many small and midsized counties challenge private companies’ assertions that EM technology is low-cost, efficient, and reliable. There are valuable lessons to be learned from localities that found EM to be more trouble than it was worth.

## SALT LAKE CITY, UTAH

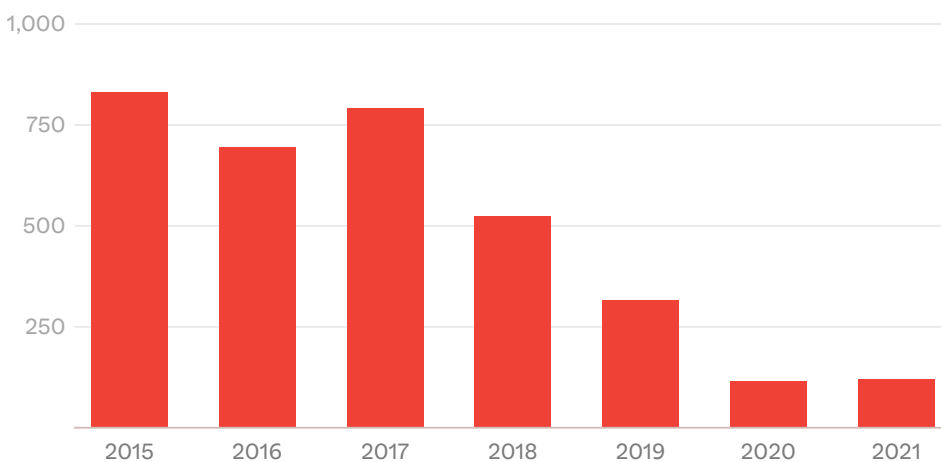
In Salt Lake City, Utah, the Sheriff’s Prisoner Labor Detail (SPLD) program, which allows people in jail on low-level, nonviolent offenses to complete their sentences at home, administers EM.<sup>126</sup> Participants must check in with law enforcement daily and assist with work crew projects, such as cleanup of the jail campus.

In March 2020, after the onset of the coronavirus pandemic, the Salt Lake County jail released hundreds of people incarcerated for technical violations to make space for social distancing, leading the way for other Utah counties to do the same.<sup>127</sup> As a result, from early March to midyear 2020, the number of people in the Salt Lake County jail decreased by 45 percent—from 2,254 to 1,236 people—reaching its lowest point since 1998.<sup>128</sup>

Since the SPLD program drew its participants from the jail, this rapid reduction in local incarceration also shrank the pool of people eligible for EM. The total number of people on EM per year dropped by more than 60 percent from 2019 to 2020—from 317 people to 116 people.<sup>129</sup> The decrease was made possible by the county’s release of people on their own recognizance, rather than

**FIGURE 4.**  
**Salt Lake County, Utah: EM population dropped by over 60 percent during COVID**

Total number of people on electronic monitoring in each calendar year, 2015–2021



Source: Data obtained from Salt Lake County Sheriff’s Department.

on forms of surveillance. This stood in stark contrast to pandemic-era responses by other agencies, such as the Federal Bureau of Prisons (BOP), which released high numbers of people—largely those considered the least likely to be charged with a new offense—on EM during the early months of the pandemic: from March to April 2020, the number of people monitored through the BOP’s home confinement program increased by more than 40 percent.<sup>130</sup> However, as COVID-19 restrictions ease, Salt Lake County officials are expecting EM populations to rebound, presenting a crucial intervention point for advocates looking to prolong these pandemic-era reductions.<sup>131</sup>

## The Relationship between Electronic Monitoring and Jail Incarceration

The preceding case studies demonstrate the complicated relationship between EM and local incarceration. In some jurisdictions, Vera researchers observed growth in EM accompanied by shrinking jail populations. For example, in Austin, Texas, from 2020 to 2021, the single-day EM population increased by 189 people—from 594 to 783 people; during that same time, the single-day jail population decreased by 245 people—from 1,762 to 1,517 people.<sup>132</sup>

However, in other local jurisdictions from which Vera collected recent data, an increase in EM from 2020 to 2021 occurred in tandem with an increase in the jail population. For example, in Detroit, Michigan, a 41 percent increase in the single-day EM population—from 1,236 to 1,746 people—was accompanied by a single-day jail population increase of 60 percent—from 749 to 1,195 people. This trend has been documented in other research. A 2023 Prison Policy Initiative report found that in both Houston, Texas, and San Francisco, California, jail populations were higher than they were prior to massive expansions in the counties’ EM programs.<sup>133</sup>



Similarly, in the data Vera collected for 2021, the majority of local jurisdictions with a high EM rate also had a high jail incarceration rate.<sup>134</sup> For example, Dyer County, Tennessee, had above-average rates for both: 142 per 100,000 residents were placed on EM and 881 per 100,000 residents were held in jail in 2021.<sup>135</sup>

These examples from across the urban–rural spectrum illustrate how, in many jurisdictions, EM is not used as a mechanism for reducing jail populations or overall carceral control. Rather, it is often a crucial component of highly punitive, deeply entrenched criminal legal systems. This challenges the dominant narrative that EM is an “alternative to incarceration.” Instead, it reveals how the role of EM in the criminal legal system is highly variable and subject to political decisions at the local level.

**The role of EM in the criminal legal system is highly variable and subject to political decisions at the local level.**

## **ICE AND ELECTRONIC MONITORING**

ICE’s Intensive Supervision Appearance Program (ISAP)—an “alternative to detention” (ATD) program developed in 2004 from a \$3 million congressional appropriation—is the largest EM program in the country today.<sup>136</sup> In April 2005, approximately 1,300 people were monitored under ISAP.<sup>137</sup> By November 2022, this number had increased to nearly 340,000 people—more than 11 times the number of people detained by ICE in jails, private prisons, and immigrant detention facilities.<sup>138</sup> Since ISAP’s inception, the program has exclusively contracted with BI Incorporated (acquired in 2011 by GEO Group) for monitoring equipment and case management services.<sup>139</sup> In fiscal year 2023, the program requested a budget of nearly \$530 million, a \$75 million increase from its previous year’s budget.<sup>140</sup>

ICE monitors ISAP participants through a “combination of home and office visits, alert response, court tracking, and monitoring technology,” and although the U.S. Department of Homeland Security (DHS) insists that the program shouldn’t

be viewed as a removal program, everyone supervised on ISAP is at risk of deportation.<sup>141</sup> Additionally, despite its classification as an “alternative to detention,” ISAP is used on people who have already been released from detention, or who would have never been detained in the first place.<sup>142</sup> In other words, ISAP is used to surveil people who would otherwise have been free.

Over the past several years, the number of people subject to ISAP has grown precipitously. From 2015 to 2022, the program’s average daily population grew more than 1,000 percent—from roughly 26,600 to 336,000 people. According to the most recent data available, ISAP’s population more than tripled in the last year alone.<sup>143</sup>

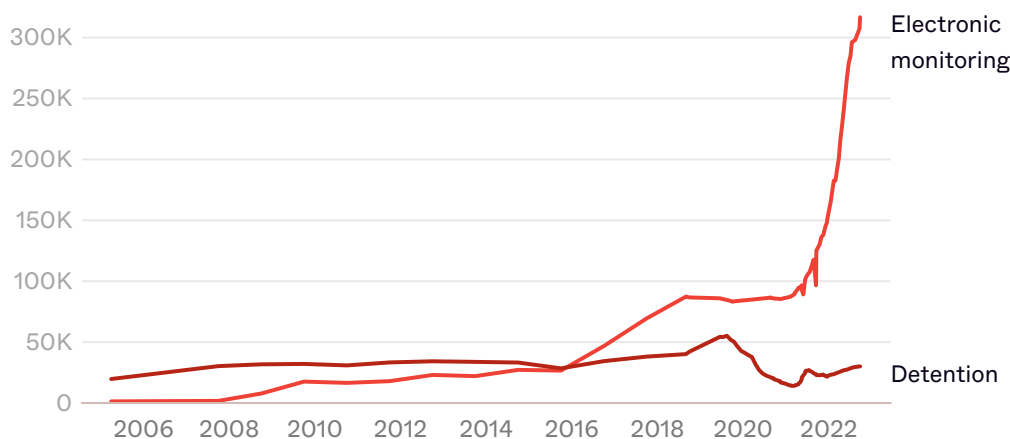
As ICE’s use of EM has expanded, so has its arsenal of monitoring technologies. In the last few years, the program has shifted away from voice reporting and GPS ankle monitors and toward the use of BI’s SmartLINK, a smartphone app that requires users to check in with their case managers by sending a geotagged selfie. In September 2019, just 5,706 people were using the app; ICE monitored 55,918 people via GPS and another 21,562 via voice reporting. By contrast, in November 2022, ICE tracked 265,832 people via SmartLINK, compared to 52,379 via GPS and 17,895 via voice reporting.<sup>144</sup>

Most recently, in May 2023, ICE became the first agency in the country to test BI’s VeriWatch, a smartwatch surveillance device.<sup>145</sup> The pilot had broad implications. Months after ICE introduced the use of VeriWatch for ISAP supervision in Colorado, a county court system in Ohio also began testing the technology—showcasing how surveillance practices between the immigration and criminal legal systems are inextricably linked.<sup>146</sup> As argued by immigrant advocates in a 2021 report, “border communities are the test subjects for surveillance everywhere.”<sup>147</sup> In September 2023, ICE expanded its VeriWatch pilot program to California and announced plans to roll out the technology nationwide.<sup>148</sup>

ISAP jeopardizes immigrants’ safety and right to privacy. In 2023, an immigrant rights coalition examined documents released by ICE, finding that ISAP extracts large amounts of data from participants.<sup>149</sup> ICE then stores this data—which can include sensitive information such as Social Security numbers, biometric characteristics, immigration court records, and license plate numbers—for up to 75 years.<sup>150</sup> In several cases, ICE has used this data to target people for mass apprehension and deportation.<sup>151</sup>

This information shows the ISAP program as a powerful tool of mass surveillance and one of the fastest growing forms of carceral control in the country, well outpacing the growth of ICE detention facilities.<sup>152</sup>

**FIGURE 5.**  
**Number of people being monitored or detained by ICE over time**



**Source:** EM data from 2019 to 2022 is ICE data from TRAC Immigration, “Alternatives to Detention,” database, accessed April 18, 2023, [https://trac.syr.edu/immigration/detentionstats/atd\\_pop\\_table.html](https://trac.syr.edu/immigration/detentionstats/atd_pop_table.html). Vera estimated data from 2007 to 2019 using the annual “Department of Homeland Security: Congressional Budget Justification” documents, in which ICE reports the average daily population for its EM program over the course of the fiscal year. See Department of Homeland Security, “DHS Budget,” <https://www.dhs.gov/dhs-budget>. For the 2005 estimate, see Statement of Acting Director of Detention and Removal Operations Victor X. Cerda, U.S. Immigration and Customs Enforcement, 2005, 6, <https://perma.cc/85GJ-ZMHX>. Detention data for 2005 through 2018 is from The Marshall Project, *DHS Immigration Detention*, 2019, [https://github.com/themarshallproject/dhs\\_immigration\\_detention](https://github.com/themarshallproject/dhs_immigration_detention). Detention data for fiscal year 2019 and after is drawn from the ICE Detention Management, fiscal year reports, available here: <https://www.ice.gov/detain/detention-management>.

# Conclusion and Policy Recommendations

Even though fewer people are incarcerated in jails and prisons today than a decade ago, the U.S. criminal legal system is embracing another way of depriving people of their liberty: electronic monitoring. The use of EM is characterized by a lack of transparency, oversight, and regulation that make it uniquely difficult to understand how many people are being monitored and to hold providers accountable for harmful and exploitative practices. For this report, Vera researchers generated national estimates for people on EM—finding that the criminal legal system’s EM population has trended upward steadily in recent years, from roughly 109,100 people in 2015 to 150,700 people in 2021. Including people on EM through the immigration system reveals a much larger growth of almost 90 percent, from around 135,800 people in 2015 to more than 254,700 people in 2021. In 2022, ICE expanded the use of EM, and the total number of adults on EM across both the civil immigration and criminal legal systems likely increased to nearly half a million during that time.

In the decade prior, from 2005 to 2015, EM use had expanded more rapidly, from around 54,000 people to more than 135,700 people—fueled, in part, by the scaling up of new GPS technology. Since then, however, coalitions across the country have presented growing resistance—through grassroots organizing, litigation, and advocacy efforts—which likely contributed to EM’s slower pace of growth in recent years.

Events in 2020 led to further changes. During the pandemic, releases of people from jails and prisons in several jurisdictions dismantled the false binary between incarceration and EM, showing that decarceration can occur alongside reduced surveillance. This coincided with increased pressure from advocates who organized against all forms of carceral control to obtain freedom for as many people as possible. In the wake of the police killings of George Floyd and Breonna Taylor, calls for reform prompted localities to

critically examine their criminal legal systems. Although these events reversed or slowed EM growth in some places, this was not the case everywhere. In many jurisdictions, the coronavirus pandemic corresponded with a huge spike in the EM population as local officials released people from jails and prisons under forms of surveillance. In the immigration system, the use of EM skyrocketed in recent years—facilitated by the adoption of new smartphone monitoring technology.

The United States may be on the verge of another shift in EM trends, with an increasingly saturated and rapidly growing EM market and the arrival of new technology that makes it easier to subject greater numbers of people to surveillance. EM usage varies widely between jurisdictions and is expanding more quickly in certain regions of the country, such as the Midwest. Amid this context, it is important to critically examine private providers' depictions of EM as a low-cost, efficient, and reliable alternative-to-incarceration tool. The experiences of people placed on monitoring and localities that opted out of EM contradict these assertions—demonstrating how EM acts as another form of incarceration, relies on technology rife with defects, shifts costs onto people with low incomes, and creates harm for directly impacted people and their loved ones.

## **POLICY RECOMMENDATIONS**

Vera recommends the following key policies related to data availability:

- **The federal government should enact a national reporting requirement for EM.** The Bureau of Justice Statistics should implement a national survey—similar to its Annual Survey of Jails, Annual Probation Survey, and Annual Parole Survey—to measure the number of people on EM in both criminal legal and civil immigration systems across the country.
- **Local, state, and federal agencies should keep standardized data on EM programs and make reports publicly available.** These reports should include metrics

such as the number of people on EM, the demographic breakdown of those on EM, the amount of EM fees collected from participants, the number of technical EM violations, and the number of incarcerations resulting from EM violations.

In regard to the administration of EM programs, Vera recommends the following:

- **Private companies should not run EM programs.** Private vendors are not subject to the same accountability measures as government entities, which can result in exploitation and corruption in privately administered programs.
- **The government should undertake greater oversight of EM technologies, especially smartphone apps and wristwatch devices with biometric capabilities.** Many of the technologies marketed by private EM vendors are not properly validated, suffer from malfunctions, and violate participants' privacy by storing their personal data. Therefore, federal agencies should regulate the use of these technologies.
- **EM conditions should be the least restrictive possible.** People on EM should be allowed greater freedom of movement as confining people to their homes can create many of the same harms as jails and prisons. Additionally, onerous EM conditions—such as frequent reporting to supervising officers, repeated drug testing, and unwarranted searches of people's homes—should be eliminated.
- **Agencies administering EM programs should eliminate user fees.** These fees can be extremely burdensome—especially for low-income communities, which are disproportionately impacted by the criminal legal system. In some jurisdictions, failure to pay fees can lead to consequences such as expanded surveillance, increased fees, and incarceration.

- **Time served on EM pretrial should count toward any future sentence.** Because EM is a punitive measure that restricts people’s freedom, time spent on EM should be taken off any future sentence to jail, prison, or community supervision.
- **The criminal legal and immigration systems should restrict the use of detention as a punishment for violations of EM conditions.** EM programs are often used for people who have been deemed a low risk to public safety. However, EM violations—which can occur for minor incidents or technical issues, such as a dead battery or malfunctioning device—can result in incarceration or detention. This is unnecessarily punitive and makes EM a tripwire back into immigration detention, jail, or prison.

# Appendix A

## DATA AND METHODOLOGY

Many researchers and advocates have documented the lack of data and transparency surrounding EM.<sup>153</sup> In contrast to other aspects of correctional control—such as prison and jail incarceration, probation, and parole—there is no national survey or reporting requirement for the population of people on EM.<sup>154</sup> Most localities do not make EM statistics publicly available, and the data that is available through public agencies is often flawed because it is commonly kept for case management—rather than evaluation or analysis—purposes.<sup>155</sup> For example, records for a person on EM might be destroyed after they exit the program, making it impossible to track trends in the EM population over time. Another limitation is that some counties send people directly to companies providing EM and so do not have their data.

In order to surmount these obstacles, Vera collected data directly from sample jurisdictions and created national and regional estimates.

Vera researchers collected data from a wide range of places and sources. Using phone calls and web research, Vera researchers identified state and federal agencies, as well as local agencies in sampled counties, that operated EM programs. After identifying agencies, Vera requested information on the number of people on EM in those jurisdictions. Through the process of collecting count statistics, Vera researchers spoke with many people who work in agencies with EM programs and used the content of these conversations to inform their findings.

The following sections describe Vera’s sample and weighting approach, which follows generally accepted research methods for stratified sampling. For more information, please see the public data file released with this report, available online at <https://github.com/vera-institute/incarceration-trends>.



## **SAMPLING DESIGN**

Vera's sample included all federal and state agencies conducting EM of people in the criminal legal or immigration system (such as departments of corrections, administrative offices of the courts, or parole boards).

For local agencies that had EM programs, Vera conducted a stratified random sample. The researchers grouped counties by census region (South, Northeast, Midwest, and West) and urbanicity (nonmetropolitan rural counties, counties in small or midsized metropolitan areas, and both suburban and urban counties in large metropolitan areas).<sup>156</sup> Vera used a certainty strata for urban counties in large metro areas, meaning all counties in this strata were included in the sample (N = 64). For all the other strata, Vera drew a 20 percent sample from county or county-equivalents in each urbanicity–census region combination. An additional group of counties in Indiana and Pennsylvania were covered by a statewide report on local EM usage, which ensured complete coverage in those states. For years in which those statewide reports were available (Indiana 2015 to 2021, Pennsylvania 2015 to 2017 and 2019) all counties in those states are in a certainty strata and are self-representing.

Because there is no list of local agencies or jurisdictions that have EM programs, Vera attempted to identify any local jurisdictions (either the county or any cities within the county) that supervised people using EM in each county that was chosen in the sample. The kind of agency delivering EM programs ranged widely from place to place and included courts, pretrial services agencies, probation offices, and sheriff's departments. Although some counties had zero or one agency with EM, many had multiple.

## **RESPONSE RATE AND NON-RESPONSE ADJUSTMENT**

Vera collected data via direct requests made through phone calls, emails, or public records requests. The local sample across all strata consisted of 802 counties: 587 were in strata with random

sampling, with 64 urban counties and the 89 counties in Indiana and 65 in Pennsylvania accounting for the other 215 counties. Vera received at least some data from 531 of these counties for this report, including 336 from the randomly sampled counties. The response rate for the randomly sampled counties was 57 percent.

### **Non-response weighting adjustment**

Vera researchers used non-response weighting to account for counties in the sample that did not respond to their inquiries. The researchers grouped the counties into strata for weighting based on their urbanicity and census region.

For counties within each strata, the sample weight is identical. Vera calculated the weight as the number of counties in the strata divided by the number of counties sampled. Generally, the value was about five, since samples included 20 percent of the counties in the strata. The non-response weight was the number of counties sampled divided by the number of counties that were responsive.

For state agencies that did not respond, Vera also used non-response weighting. Vera grouped the six states that did not respond by the four census regions (Northeast, Midwest, South, West) to create the non-response weights. Vera calculated the non-response weight as the number of states in the region divided by the number of states with data.

Using a simple weighting class method similar to that used by the Bureau of Justice Statistics, Vera calculated a non-response weighting adjustment factor within each strata.<sup>157</sup>

### **Final weight**

The final weight for counties was equal to the sample weight multiplied by the non-response weight. For states, the final weight was the non-response weight. Federal agencies were in a certainty strata and self-representing, as Vera had complete data for those agencies that use EM. Vera calculated standard errors for estimates using the Taylor-linearized variance method.

## Measurement

Vera researchers sought to measure a few different statistics that illustrate the use of EM across the United States. The researchers focused the data collection on people subject to the jurisdiction of adult criminal courts and adults in the civil legal system rather than juveniles. The use of EM with juveniles under the jurisdiction of juvenile or family courts is governed by much stricter privacy and confidentiality rules and principles, making research more difficult when agencies lack transparent statistical reporting practices.<sup>158</sup> Further research is needed on the extent of EM among youth.

In this report, Vera included information on the single-day number of people on EM at the end of each June from 2015 through 2021. Researchers also collected information on the number of people put on EM during the course of the year; however, this data was far less frequently available, and so this report does not produce national estimates based on this information. When person-level information was not available but case-level information was, Vera collected that.

Due to the dearth of information in many jurisdictions on EM by race and gender, as well as by legal information like charges or conviction status, this report does not have race- or gender-specific estimates.

## ICE Data on Electronic Monitoring

One other issue relates to the number of people on EM under the supervision of ICE. ICE produces congressionally mandated data reports with high-level statistics on the number of people in ATD programs and levels of supervision.<sup>159</sup> While a number of researchers compile and use this information to produce data on ICE, a leading group is the Transactional Records Access Clearinghouse (TRAC) at Syracuse University.<sup>160</sup> According to TRAC, ICE has posted inaccurate data multiple times throughout 2022 and 2023, sometimes directly communicating to TRAC that previously posted data was inaccurate.<sup>161</sup> Nonetheless, after consultation with researchers at TRAC, Vera used this data in this report to monitor the rapid growth in EM through ICE.<sup>162</sup> Vera

researchers compared TRAC data with two different sources: (1) documents prepared by DHS on ICE budgets for Congress, including statements about ISAP population data and contract amounts and (2) GEO Group's comments on ISAP population and EM revenue in quarterly and annual SEC filings. These three sources agreed, sometimes in exacting detail, about the timing and amount of the increase in the number of people on EM. Further, as the budget overviews prepared by DHS are statements to Congress and include discussion of increases in EM, they provide further support for the utility of the data for overall trend analysis. For example, in a budget document from March 2023, ICE reported, "[T]he number of participants in the ISAP program has increased significantly. . . . Through February 24, 2023, ATD has incurred an [Average Daily Population (ADP)] of 344,167 and an active participant level of 293,010."<sup>163</sup> These data points agree nearly identically with data from TRAC. For instance, TRAC indicated 293,167 on February 24, 2023. Thus, Vera concludes that whatever issues there are with the data sources and lack of transparency, ICE's warning to TRAC appears focused on types of technology used rather than overall caseload numbers, as used in this report.

# Appendix B

## TABLES WITH STANDARD ERRORS

APPENDIX TABLE 1

**Standard errors for Figure 2: Electronic monitoring by local, state, and federal authorities in criminal legal and civil immigration systems, 2015–2021**

Standard Errors	Total	Local	State Agency
2015	13,920	5,511	12,783
2016	13,969	5,598	12,798
2017	14,241	6,025	12,903
2018	14,484	6,015	13,176
2019	14,494	6,282	13,061
2020	15,991	8,964	13,242
2021	17,665	9,890	14,636

APPENDIX TABLE 2

**Estimates and standard errors for local and state criminal legal electronic monitoring by region, 2015–2021**

Years	Region	Estimate	SE	Low	High
2015	Midwest	37,314	6,926	23,739	50,889
2016	Midwest	40,386	7,417	25,849	54,923
2017	Midwest	41,034	7,050	27,217	54,852
2018	Midwest	41,622	6,958	27,984	55,260
2019	Midwest	44,377	7,537	29,604	59,151
2020	Midwest	51,135	8,568	34,341	67,929
2021	Midwest	44,141	7,483	29,474	58,807
2015	Northeast	9,914	1,982	6,030	13,798
2016	Northeast	10,533	2,318	5,990	15,077
2017	Northeast	11,397	2,820	5,869	16,926
2018	Northeast	7,630	3,180	1,189	14,061
2019	Northeast	7,274	2,681	2,020	12,529
2020	Northeast	6,240	1,552	3,107	9,373
2021	Northeast	10,587	3,836	2,800	18,374

Years	Region	Estimate	SE	Low	High
2015	South	29,896	7,750	14,601	45,191
2016	South	32,484	8,049	16,600	48,367
2017	South	32,791	8,298	16,418	49,164
2018	South	35,109	8,275	18,781	51,438
2019	South	38,936	7,941	23,269	54,603
2020	South	48,899	9,649	29,865	67,933
2021	South	51,931	11,094	30,043	73,818
2015	West	22,360	9,045	4,175	40,545
2016	West	20,268	8,365	3,474	37,061
2017	West	22,565	8,734	5,031	40,100
2018	West	22,142	9,098	3,876	40,408
2019	West	22,584	9,112	4,308	40,859
2020	West	23,431	9,315	4,778	42,084
2021	West	26,754	10,875	4,978	48,530

**APPENDIX TABLE 3**

**Estimates and Standard Errors for Local and State Criminal Legal Electronic Monitoring Rates per 100,000 Residents, by Region, 2015–2021**

Years	Region	Estimate	SE	Low	High
2015	Midwest	55	10.2	35	75
2016	Midwest	59.4	10.9	38	80.8
2017	Midwest	60.2	10.3	40	80.5
2018	Midwest	61	10.2	41	81
2019	Midwest	64.9	11	43.3	86.6
2020	Midwest	74.8	12.5	50.3	99.4
2021	Midwest	64.6	11	43.1	86.1
2015	Northeast	17.7	3.5	10.8	24.6
2016	Northeast	18.8	4.1	10.7	26.9
2017	Northeast	20.3	5	10.5	30.2
2018	Northeast	13.6	5.7	2.1	25.1
2019	Northeast	13	4.8	3.6	22.4
2020	Northeast	11.2	2.8	5.6	16.8
2021	Northeast	19	6.9	5	32.9

<b>Years</b>	<b>Region</b>	<b>Estimate</b>	<b>SE</b>	<b>Low</b>	<b>High</b>
2015	South	24.7	6.4	12.1	37.3
2016	South	26.5	6.6	13.6	39.5
2017	South	26.5	6.7	13.3	39.8
2018	South	28.2	6.6	15.1	41.3
2019	South	31	6.3	18.5	43.5
2020	South	38.6	7.6	23.6	53.6
2021	South	41	8.8	23.7	58.3
2015	West	29.5	11.9	5.5	53.5
2016	West	26.5	10.9	4.5	48.4
2017	West	29.2	11.3	6.5	51.9
2018	West	28.4	11.7	5	51.9
2019	West	28.8	11.6	5.5	52.2
2020	West	29.8	11.8	6.1	53.5
2021	West	34	13.8	6.3	61.7

## ENDNOTES

- 1 Vera analysis of Immigration and Customs Enforcement (ICE) Alternative to Detention (ATD) data by ATD Technology, collected by TRAC Immigration. See TRAC, “Alternatives to Detention (ATD) 2019–2023” (Syracuse, NY: TRAC Immigration, 2023), [https://trac.syr.edu/immigration/detentionstats/atd\\_pop\\_table.html](https://trac.syr.edu/immigration/detentionstats/atd_pop_table.html). To reach 360,000, researchers rounded the average number of people on electronic monitoring (EM) reported for November and December 2022. See discussion of U.S. Immigration and Customs Enforcement (ICE) EM data sources in Appendix A: Data and Methodology in this report.
- 2 The 2021 EM estimates are from Vera, published in this report. The 2005 criminal legal system estimates are from the following report: Pew Charitable Trusts, *Use of Electronic Offender-Tracking Devices Expands Sharply* (Philadelphia: Pew Charitable Trusts, 2016), 4, <https://perma.cc/98DW-5G99>. For the 2005 immigration system estimate, see Statement of Acting Director of Detention and Removal Operations Victor X. Cerda, U.S. Immigration and Customs Enforcement to the Senate Committee of the Judiciary, Subcommittee on Immigration, Border Security, and Citizenship and the Subcommittee on Terrorism, Technology and Homeland Security, re: “Strengthening Interior Enforcement: Deportation and Related Issues,” April 14, 2005, <https://perma.cc/85GJ-ZMHX>. ICE detention data and analysis, on file with authors, was calculated using data from The Marshall Project, *DHS Immigration Detention*, 2019, [https://github.com/themarshallproject/dhs\\_immigration\\_detention](https://github.com/themarshallproject/dhs_immigration_detention); and from the Vera Institute of Justice, *ICE Detention COVID-19*, 2023, [https://github.com/vera-institute/ice-detention-covid/tree/master/data\\_daily](https://github.com/vera-institute/ice-detention-covid/tree/master/data_daily). Jail and prison percentage change from Vera analysis of data collected for the Incarceration Trends Project; data and analysis on file with the authors. See also <http://trends.vera.org>.
- 3 See ICE, “Detention Management,” accessed October 6, 2023, <https://perma.cc/SX6W-DTYX>. “When a noncitizen is not subject to mandatory detention or is not deemed to be a public safety or flight risk, ICE exercises its discretion in making custody determinations to release noncitizens with conditions. These custody decisions are made on a case-by-case basis and after considering the totality of circumstances—primarily considering risk of flight, national security threat and risk to public safety.”
- 4 Camilo Montoya-Galvez, “ICE to Test Smartwatch-Like Tracking Devices for Migrants Facing Deportation,” CBS News, April 24, 2023, <https://perma.cc/89Q2-6L4N>; and Kentrell Owens, Anita Alem, Franziska Roesner, and Tadayoshi Kohno, “Electronic Monitoring Smartphone Apps: An Analysis of Risks from Technical, Human-Centered, and Legal Perspectives,” USENIX Association, August 2022, <https://perma.cc/EWQ8-NDU4>.
- 5 See Pew, *Use of Electronic Offender-Tracking Devices*, 2016, 1.
- 6 For ICE EM numbers in 2015, see the Customs Enforcement Alternatives to Detention (ATD) program (EM) over the course of the 2015 fiscal year. Department of Homeland Security (DHS), ICE, *Fiscal Year 2019 Budget Overview, Congressional Justification*, 149, <https://perma.cc/W9Q3-EYMJ>.
- 7 See Pew, *Use of Electronic Offender-Tracking Devices*, 2016, 2.
- 8 Ava Kofman, “Digital Jail: How Electronic Monitoring Drives Defendants Into Debt,” *New York Times*, July 3, 2019, <https://www.nytimes.com/2019/07/03/magazine/digital-jail-surveillance.html>.



- 9 Vera researchers contacted state agencies (such as departments of corrections, administrative offices of the courts, parole boards, etc.) in all 50 states. Researchers also contacted county agencies in 65 of the country's major urban counties and a random sample of 20 percent of the remaining counties in the United States. Data was collected via phone call, email, or public records request. For more information, see Appendix A: Data and Methodology in this report on page 32.
- 10 For research on geographic shifts in incarceration trends, see Jacob Kang-Brown, Oliver Hinds, Jasmine Heiss, and Olive Lu, *The New Dynamics of Mass Incarceration* (New York: Vera Institute of Justice, 2018), 20–31, <https://www.vera.org/publications/the-new-dynamics-of-mass-incarceration>.
- 11 For research on geographic shifts in incarceration trends, see Kang-Brown, Hinds, Heiss, and Lu, *New Dynamics*, 2018, 20–31. From 2000 to 2020, jail capacity increased by 35 percent nationally, according to Vera analysis of Bureau of Justice Statistics (BJS) reports on jails and jail capacity found at <https://bjs.ojp.gov/>.
- 12 See Jacob Kang-Brown, Stephen Jones, Joyce Tagal, and Jessica Zhang, *People in Jail and Prison in 2022* (New York: Vera Institute of Justice, 2023) Table 2, <https://www.vera.org/publications/people-in-jail-and-prison-in-2022>.
- 13 *Ibid.*, 1.
- 14 Prison populations in California, Illinois, Maryland, Massachusetts, Michigan, and West Virginia are all down more than 33 percent, with New York and New Jersey down 57 percent and 59 percent respectively, according to Vera's analysis. See Kang-Brown, Jones, Tagal, and Zhang, *People in Jail and Prison in 2022*, 2023, Appendix Table 1.
- 15 ICE detention data and analysis on file with authors, calculated with data compiled by Vera for the Incarceration Trends Project. See ICE, "ICE Detention Statistics FY 2019," database (Washington, DC: ICE, 2020), <https://www.ice.gov/doclib/detention/FY19-detentionstats.xlsx> (Note: This link results in an automatic file download). For more recent data see Vera Institute of Justice, *ICE Detention COVID-19*, 2023, [https://github.com/vera-institute/ice-detention-covid/tree/master/data\\_daily](https://github.com/vera-institute/ice-detention-covid/tree/master/data_daily). See DHS, "Migrant Protection Protocols," January 24, 2019, <https://perma.cc/2MFT-K6DP>; and Lena Graber and Krsna Avila, *Growing the Resistance: How Sanctuary Laws and Policies Have Flourished During the Trump Administration* (San Francisco: Immigrant Legal Resource Center, 2019), 10, <https://perma.cc/Y5SD-3VRU>.
- 16 James Kilgore, *Understanding E-Carceration: Electronic Monitoring, the Surveillance State, and the Future of Mass Incarceration* (New York: The New Press, 2022).
- 17 See Marc Renzema and Evan Mayo-Wilson, "Can Electronic Monitoring Reduce Crime for Moderate to High-Risk Offenders?" *Journal of Experimental Criminology* 1 (2005), 215–237, 227–233, <https://doi.org/10.1007/s11292-005-1615-1>. The study presents a systematic review of effectiveness of EM for "moderate- to high-risk offender populations." The findings were aligned with previous research; the authors "failed to identify any methodologically sound evaluation comparing EM to incarceration" and "failed to find any convincing evidence that EM is superior to other prison diversion programs" (p. 231). Renzema and Mayo-Wilson's review identified only two studies showing promising impacts of EM: James Bonta, Suzanne Wallace-Capretta, and Jennifer Rooney, "Can Electronic Monitoring Make a Difference? An Evaluation of Three Canadian Programs," *Crime & Delinquency* 46, no. 1 (2007), 61–75, 71–72, <https://doi.org/10.1177/001128700046001004> (finding lower than expected recidivism rates for "higher-risk offenders" on EM, but acknowledging that these effects may be due to their participation in an intensive treatment program); and

Mary A. Finn and Suzanne Muirhead-Steves, “The Effectiveness of Electronic Monitoring With Violent Male Parolees,” *Justice Quarterly* 19, no. 2 (2002) 293–312, 293, <https://doi.org/10.1080/07418820200095251> (finding that “sex offenders on EM were less likely to return to prison than those not on EM”). For an updated meta-analysis of the literature on EM efficacy, see Jyoti Belur, Amy Thornton, Lisa Thompson, et al., “A Systematic Review of the Effectiveness of the Electronic Monitoring of Offenders,” *Journal of Criminal Justice* 68 (2020), 101686, <https://doi.org/10.1016/j.jcrimjus.2020.101686> (finding that “EM has been shown to produce positive effects for certain offenders (such as sex offenders), at certain points in the criminal justice process (post-trial instead of prison), and perhaps in combination with other conditions attached (such as geographic restrictions) and therapeutic components,” but ultimately concluding “contrasting results,” due to the fact that “the evidence suggests [EM] is less effective at reducing recidivism for other offender subgroups and under different conditions”).

- 18 Chloe Anderson Golub, Erin Jacobs Valentine, and Daron Holman, “Effectiveness of Pretrial Special Conditions: Findings from the Pretrial Justice Collaborative,” MDRC, January 2023, <https://perma.cc/S2Z8-QS7B>; and Evan M. Lowder and Chelsea M.A. Foudray, “Use of Risk Assessments in Pretrial Supervision Decision-Making and Associated Outcomes,” *Crime & Delinquency* 67, no. 11 (2021), 1765–1791, 1786, <https://doi.org/10.1177/0011287211022642> (finding no effect of electronic monitoring on any type of pretrial misconduct or supervision failure). See also Emmett Sanders, “Not an alternative: The myths, harms, and expansion of pretrial electronic monitoring,” Prison Policy Initiative, October 30, 2023, <https://perma.cc/HL4B-X9LH>.
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- 20 Martin Bäckman, *Electronic Offender Monitoring Solutions* (Gothenberg, Sweden: Berg Insight, 2021), <https://perma.cc/BC9D-FFM8>.
- 21 IoT Business News, “The Electronic Offender Monitoring Market in Europe and North America to Reach €1.3 Billion in 2023,” February 11, 2020, <https://perma.cc/7CMZ-D4HK>.
- 22 Jennifer L. Doleac, *Strategies to Productively Reincorporate the Formerly Incarcerated into Communities: A Review of the Literature* (Bonn, Germany: IZA Institute of Labor Economics, 2018), 36, <https://perma.cc/5G5J-AXRQ>.
- 23 ACLU, *Rethinking Electronic Monitoring*, 2022, 4. See also Kate Weisburd and Alicia Virani, “Op-Ed: The Monster of Incarceration Quietly Expands through Ankle Monitors,” *Los Angeles Times*, March 15, 2022, <https://www.latimes.com/opinion/story/2022-03-15/electronic-monitoring-pretrial-bail-mass-incarceration>. Weisburd and Virani argue that Los Angeles judges, through their reliance on EM as a condition for release, could be imposing restrictions on people who would otherwise be released on their own recognizance. See also Rutgers School of Law-Newark Immigrant Rights Clinic and American Friends Service Committee (AFSC), *Freed*

*but Not Free: A Report Examining the Current Use of Alternatives to Immigration Detention* (Newark, NJ: Rutgers School of Law-Newark and AFSC, 2012), 5, <https://perma.cc/KG77-KKJM>. The report finds that ICE’s EM program is used on people who have already been released from detention and on people who would have never been detained in the first place.

- 24 “Having to wear a GPS anklet monitor is less restrictive, and less invasive of privacy, than being in jail or prison, or for that matter civilly committed, which realistically is a form of imprisonment.” *Belleau v. Wall*, 811 F.3d 929 (7th Cir. 2016). See also SCRAM Systems, “So, You’ve Been Assigned a SCRAM CAM Bracelet. Now What?” <https://perma.cc/HWH2-Q5U7>.
- 25 See for example Patrice James, James Kilgore, Gabriela Kirk, et al., *Cages without Bars: Pretrial Electronic Monitoring across the United States* (Chicago: Shriver Center on Poverty Law, Media Justice, and Chicago Appleseed, 2022), 33–39, <https://perma.cc/Z65N-XDK8>.
- 26 Tosca Giustini, Sarah Greisman, Peter L. Markowitz, et al., *Immigration Cyber Prisons: Ending the Use of Electronic Ankle Shackles* (New York: Yeshiva University, Cardozo School of Law, 2021), 12, <https://perma.cc/WS4Z-7JFR>.
- 27 *Ibid.*; and Julie Pittman, “Released into Shackles: The Rise of Immigrant E-Carceration,” *California Law Review* 108, no. 2 (2020), 587–618, 602, <https://perma.cc/L9T2-HG5C>.
- 28 Giustini, Greisman, Markowitz, et al., *Immigration Cyber Prisons*, 2021, 14.
- 29 See, for example, Ayomikun Idowu, Allison Frankel, and Yazmine Nichols, “Three People Share How Ankle Monitoring Devices Fail, Harm, and Stigmatize,” ACLU, September 29, 2022, <https://perma.cc/D9WP-4KV4>; and Reina Sultan, “5 People Describe the Emotional and Financial Tolls of House Arrest,” VICE, May 11, 2021, <https://www.vice.com/en/article/7kvvn4/the-emotional-and-financial-tolls-of-house-arrest>.
- 30 Kate Weisburd, Varun Bhadha, Matthew Clauson, et al., *Electronic Prisons: The Operation of Ankle Monitoring in the Criminal Legal System* (Washington, DC: George Washington University Law School, 2021), 12–14, <https://issuu.com/gwlawpubs/docs/electronic-prisons-report?fr=sOGI5NDcxODg3>; and James, Kilgore, Kirk, et al., *Cages without Bars*, 2022, 31–32.
- 31 Fines and Fees Justice Center (FFJC), *Electronic Monitoring Fees: A 50-State Survey of the Costs Assessed to People on E-Supervision* (New York: FFJC, 2022), 7, <https://perma.cc/8LA8-NJVY>.
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- 33 Nila Bala and Lars Trautman, “A Wearable Wiretap,” Slate, November 8, 2019, <https://perma.cc/JP8E-DN9Y>.
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- 35 *Ibid.* See also Sanders, “Not an Alternative,” 2023.
- 36 High-profile cases include those of former President Trump’s attorney Michael Cohen and campaign manager Paul Manafort, and Wall Street financier Bernie Madoff. See Maggie Haberman, William K. Rashbaum and Nicole Hong, “Michael Cohen Returned to Jail in Dispute Over Trump Book,” *New York Times*, August 13, 2020,

<https://www.nytimes.com/2020/07/09/nyregion/michael-cohen-arrested.html>;  
Sarah N. Lynch and Warren Strobel, “U.S. Judge Orders Former Trump Aides to Stay Under Home Arrest,” Reuters, November 7, 2017, <https://perma.cc/23A6-9ELQ>; and Grant McCool, “UPDATE 1-Madoff Stays Out on Bail, to Get Electronic Monitoring,” Reuters, December 17, 2008, <https://perma.cc/2X2L-43C9>.

- 37 See, for example, Rutgers School of Law and AFSC, *Freed but Not Free*, 2012, 5. The report found that ICE’s EM program is used on people who have already been released from detention and on those who would have never been detained in the first place.
- 38 John R. Logan and Brian J. Stults, *Metropolitan Segregation: No Breakthrough in Sight* (Providence, RI: Diversity and Disparities Project, Brown University, 2021), 17, <https://perma.cc/SGP8-3ZLZ>; James, Kilgore, Kirk, et al., *Cages without Bars*, 2022, 13–14; and Sarah Staudt, *10 Facts About Pretrial Electronic Monitoring in Cook County* (Chicago: Chicago Appleseed Center for Fair Courts & Chicago Council of Lawyers, 2021), 5, <https://perma.cc/3R2W-X8HN>.
- 39 Nancy Fishman, Stephen Roberts, Alex Roth, et al., *Wayne County Jail—Report and Recommendations* (New York: Vera Institute of Justice, 2020), 37, <https://www.vera.org/publications/wayne-county-jail-report-and-recommendations>.
- 40 James, Kilgore, Kirk, et al., *Cages without Bars*, 2022, 14.
- 41 See Elizabeth Kai Hinton, LaShae Henderson, and Cindy Reed, *An Unjust Burden: The Disparate Treatment of Black Americans in the Criminal Justice System* (New York: Vera Institute of Justice, 2018), <https://www.vera.org/publications/for-the-record-unjust-burden>. See also Leah Wang, “Racial Disparities in Diversion: A Research Roundup,” Prison Policy Initiative, March 7, 2023, [https://www.prisonpolicy.org/blog/2023/03/07/diversion\\_racial\\_disparities/](https://www.prisonpolicy.org/blog/2023/03/07/diversion_racial_disparities/).
- 42 ICE data is from TRAC Immigration, “Alternatives to Detention,” database, accessed April 18, 2023, [https://trac.syr.edu/immigration/detentionstats/atd\\_pop\\_table.html](https://trac.syr.edu/immigration/detentionstats/atd_pop_table.html). According to TRAC, ICE has posted inaccurate data multiple times throughout 2022 and 2023, sometimes directly communicating to TRAC that previously posted data was inaccurate. Nonetheless, for this report, Vera uses this data to monitor the rapid growth in EM through ICE. Vera researchers made comparisons between TRAC data, documents prepared by DHS on ICE budgets for Congress, including statements about Intensive Supervision Appearance Program (ISAP) population data and contract amounts, and GEO Group’s quarterly and annual Securities and Exchange Commission (SEC) filings about EM revenue and comments on the ISAP population. These three sources agreed, sometimes in exacting detail, about the timing and amount of the increase in the number of people on EM. Further, as the budget overviews are statements to Congress, are more detailed and have narrative discussion of increases in EM, this provides further support for the utility of the data for overall trend analysis. For example, in a budget document from March 2023, ICE indicated, “The number of participants in the ISAP program has increased significantly. . . . Through February 24, 2023, ATD has incurred an [Average Daily Population (ADP)] of 344,167 and an active participant level of 293,010.” Department of Homeland Security (DHS), U.S. Immigration and Customs Enforcement (ICE), *Budget Overview, Fiscal Year 2024* (Washington, DC: DHS, 2023) 19, <https://perma.cc/9HMD-CNCB>. These data points agree nearly identically with data from TRAC. For instance, TRAC indicated 293,167 on February 24, 2023. Thus, Vera concluded that whatever issues there are with the data sources and lack of transparency, ICE’s warning to TRAC appears focused on types of technology used rather than overall caseloads numbers, as used in this report.

- 43 Vera analysis of ICE ATD data by ATD Technology, collected by TRAC Immigration. See TRAC, “Alternatives to Detention (ATD) 2019–2023” (Syracuse, NY: TRAC Immigration, 2023), [https://trac.syr.edu/immigration/detentionstats/atd\\_pop\\_table.html](https://trac.syr.edu/immigration/detentionstats/atd_pop_table.html).
- 44 EM comparison derived from Pew report estimates and those presented in this report. See Pew, *Use of Electronic Offender-Tracking Devices*, 2016. Comparison on total incarceration from Vera analysis of data collected for the Incarceration Trends Project; data and analysis on file with the authors. See also <http://trends.vera.org>.
- 45 The 2021 criminal legal system estimates are from Vera, published in this report. Vera calculated the 2005 figure using the estimates from Pew, *Use of Electronic Offender-Tracking Devices*, 2016.
- 46 The 2005 criminal legal system estimates are from Pew, *Use of Electronic Offender-Tracking Devices*, 2016, 4. For the 2005 immigration system estimate, see Statement of Acting Director of Detention and Removal Operations Victor X. Cerda, U.S. Immigration and Customs Enforcement, 2005.
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- 48 See Nicole Gonzalez Van Cleeve, “The Waiting Room,” *The Marshall Project*, October 31, 2018, <https://perma.cc/WM46-JQ38>.
- 49 See Chicago Appleseed Fund for Justice, *Electronic Monitoring Review Cook County, Illinois Final Report* (Chicago, IL: Chicago Appleseed Fund for Justice, 2022), 1, <https://perma.cc/4V8K-TL65>.
- 50 Illinois Courts Office of Statewide Pretrial Services, “Chief’s Column: OSPS launches electronic monitoring in 70 counties,” September 18, 2023, <https://perma.cc/3U23-TH5B>.
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*Bail Reforms in Action in New York State* (New York: Data Collaborative for Justice at John Jay College, 2022), 10, <https://perma.cc/8QDT-YDPV>.

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- 61 *Braam v. Jess*, No. 2:19-cv-00396 (E.D. Wisc., filed March 18, 2019), <https://perma.cc/87PQ-UZJJ>.
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