



# Examining Electronic Monitoring Technologies

5 experts explore advantages, disadvantages, and future research priorities

## Overview

Each year, millions of pretrial defendants and convicted offenders are supervised in their communities as they await trial or serve periods of probation or parole. Local and state agencies are increasingly using electronic monitoring (EM) technologies to supplement supervision, tracking where offenders go and whether they are using alcohol or drugs.

Although recent studies have found that electronic monitoring is a promising tool for reducing recidivism and controlling corrections costs, questions remain about its effectiveness as an alternative to incarceration. The Pew Charitable Trusts recently interviewed five experts to get their perspectives on the uses, advantages, and disadvantages of EM technologies, as well as possible directions for future research.

### The Experts

**William Bales, Ph.D.**

professor and director, Center for Criminology and Public Policy Research, Florida State University

**Matthew DeMichele, Ph.D.**

research social scientist, Research Triangle Institute

**Joe Russo**

former director, National Law Enforcement and Corrections Technology Center of Excellence, University of Denver

**David Scheppegrell**

electronic monitoring program manager, OmniLink; retired sergeant, Charlotte Mecklenburg (North Carolina) Police Department

**Carl Wicklund**

former executive director, American Probation and Parole Association

## Q: What should the goals and objectives of using electronic monitoring technologies be?

**Bales:** I think it should be to hold individuals accountable for their actions—their basic movements and activities in a given day. It should also be used as a deterrent to reoffending, absconding, or violating the rules of their supervision.

**DeMichele:** I think that the goals and objectives should be to align with an overall strategy of conducting community supervision with the hopes of changing offenders' behavior so they will not commit new crimes. I also think it has to be an intelligent, targeted strategy of using certain types of technologies with certain types of offenders and then continuously monitoring individuals' progress and making adjustments where needed.

**Russo:** We need to be more connected to the purpose and the capabilities of the technology. In general, we need to use it at the front end to divert folks who don't need to be in jail and use it at the back end for things like compassionate release for elderly offenders, who can very easily be monitored at home for a period of time.

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## Q: How should electronic monitoring be used with pretrial populations and for community supervision for probation and parole caseloads?

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**Scheppegrell:** These monitors have a lot of capabilities. For example, they can track movement in order to see if people are going to certain areas that are associated with criminal activity, including known drug areas.

**Russo:** For pretrial, I think the primary purpose is to make sure that offenders are in the area and show up for court. For supervision, it should be used to provide structure to offenders' lives—tying them to a desired life pattern that has impact, reduces distractions, and helps them focus on the requirements of supervision and pro-social activities.

**DeMichele:** This equipment is getting used in a lot of different ways. The challenge for courts and policymakers is to pair these technologies and the use of this equipment with individual offenders' risks and needs. The key question is what types of equipment and what set of restrictions is right for what types of offenders.

**Bales:** To me, the biggest problem is who gets placed on EM and when they're taken off. All of those decisions are made by judges. What we found in our study was that the courts don't really know a lot about GPS.<sup>1</sup> And the officers were very clear that a reasonable percentage of the people that the judges put on GPS really didn't need it, or their need for it could vary. Officers also reported that these technologies would be more effective if they had the discretion to put someone on EM at any given point in time during their period of supervision.

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## Q: Should electronic monitoring be used as an alternative to prison or as an enhancement to supervision or both?

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**Wicklund:** I can see uses for both cases, but I think you need to understand the objectives of having someone on electronic monitoring and then try and meet those using the least restrictive response.

**Scheppegrell:** I think it's both. Some jurisdictions are using this as a treatment tool, and others are using it simply to deal with overcrowding issues and the need to get people out of prison or jail. So it varies from area to area, jurisdiction to jurisdiction. Obviously with juveniles, judges typically do not want to keep them in custody, so EM is mostly an alternative to incarceration. Most states have laws that say youth have to be in the least restrictive custody level allowable for whatever they're charged with. Electronic monitoring provides that middle ground.

**Russo:** EM should be used at any stage in the process where it can be rationally applied. The traditional concern with EM, which remains valid today, is whether we are using technology just because we have it. So we have to be thoughtful about its application. Rather than using EM because of a broad-brush legislative mandate or because a particular judge would be more comfortable with additional monitoring, the decision should rest with community corrections professionals. Further EM should be integrated with a case management plan. There should be clear, time-limited objectives in place and a step-down strategy built in.



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**Matthew DeMichele, Ph.D.**  
research social scientist,  
Research Triangle Institute

## Q: Is electronic monitoring more effective—or inappropriate—for certain types of offenders?

**Bales:** I think it's probably most effective, and we found this to some degree in our study, for moderate-risk offenders. However, it's important to remember that risk is not a constant. If you're on house arrest for two years, you're not going to have the exact same risk levels every day of those two years. It's going to vary based on your circumstances and what's going on in your life.

**Russo:** We need to be careful not to overuse electronic monitoring on lower-risk offenders. Over-supervising these offenders, with technology or not, is counterproductive and should be avoided. The only caveat here is that if electronic monitoring is the only way to get a lower-risk offender out of a more intrusive setting, such as jail or prison, then it might be desirable for a period of time. The principle should be parsimony: Use the least intrusive method or technology necessary to accomplish the objectives, commensurate with the risk posed by the subject.

**Wicklund:** I think kiosks and automated phone systems are best for those people at low risk. On the other hand, it might also make sense to use electronic monitoring with young gang members who are on curfew to make sure they're home at certain times or with serious gang members to track where they are and whether they are in close proximity to other serious gang members. I think with repeat burglars, you could use electronic monitoring to track their whereabouts, which may help in solving crimes or establishing their innocence.

**Scheppegrell:** I think electronic monitors are effective for youthful offenders, because they provide structure and rules that juveniles must follow to remain in the community. The courts now are using the monitors to enforce rules the parents often could not, such as being in the house at a specific time, not associating with certain people, attending school, and not going to specific areas.

**DeMichele:** The idea of releasing someone out of prison who has been locked up for a number of years and then putting them on the street with no or limited supervision makes very little sense. Putting them on some sort of electronic monitoring with a lot of human interactions makes a lot of sense.

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Carl Wicklund, *former executive director, American Probation and Parole Association*

## Q: How has electronic monitoring changed over the past five or 10 years?

**DeMichele:** I think it's the advertised ability to have active reporting and the idea that you can get near-real-time reporting, which is a game changer from the old days when an offender needed to dock the monitoring device and upload the data. GPS signals are better, and technology just continues to improve with its ability to not break down and provide better data and connectivity.

**Russo:** It has gone in two different directions. The vendors are getting smarter about battery life and power-saving methods, so the devices themselves are getting smaller. There's also a movement to make them harder to remove. There's been a lot of public scrutiny about how easy it is to cut the bracelets off. However, you don't want them to be permanently fixed in case there's an accident or an emergency when we have to get them off. If the offender breaks his leg and the leg is swelling, you can't have a band that can't be removed. The public doesn't always understand that.

**Scheppegrell:** The cost has significantly dropped. The price of data from cellular companies has decreased, and that's why the cost of the services has dropped. Some manufacturers are trying to get into using devices like smartphones to monitor the location of individuals, and there may be a niche for that. But most agencies are looking for a device that is physically attached to the individual, so you are actually tracking the person and not just the device.

## Q: Have sentencing and corrections policies kept up with the changes in electronic monitoring?

**Scheppegrell:** There's a huge disconnect between the agencies that actually track the offender and the court systems that authorize the tracking. Their policies and procedures do not necessarily coincide. Furthermore, for a policy to be effective, there should be consequences for noncompliance. The courts have to understand that monitors don't work if the offenders do not comply with the rules of the program.

**Wicklund:** In many respects, the technology has moved faster than the policy and practice. The data points from electronic monitoring can result in numerous false alerts that are difficult for officers to respond to. In worst-case scenarios, some individuals have cut off their bracelets and committed heinous crimes. But we don't realize how many false positives officers may have received for those individuals, so it becomes like crying wolf. I think that that has created a real danger of over-reliance on the technology before all the kinks are worked out and policies are fully thought out about how to respond to all of this stuff.

**DeMichele:** People need to remember that these are just tools. They are inanimate objects. They can be great, and they can be not great. A computer in my hands is very different than a computer in Bill Gates' hands. I think where policies haven't kept up is just the realistic ability of officers to interact with these machines and to remember that these are machines. Officers aren't sitting in rooms that look like NASA launch pads just watching dots all day. They're out working. And it's a hard job.

**Russo:** I think that a lot of the sentencing policies have been negative. Legislators often respond to heinous crimes with things like mandated GPS for sex offenders or lifetime supervision, which are not necessarily good policies. Lifetime supervision of any kind is generally not a good idea. I think it has taken the focus away from what is important and forced agencies to implement the technology before they're ready to do so properly.

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## Q: What are the advantages of electronic monitoring?

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**Russo:** The big advantage is the ability to maintain the necessary control of individuals in the community where they can maintain family ties, employment, and everything that's going well in their lives. That's the biggest; if you can do that without putting the public at risk, then that's obviously a no-brainer.

**Bales:** There's enough evidence to indicate that it is an effective correctional punishment or oversight strategy. We need to keep refining it and using it more effectively, but I have no qualms saying that it is a good tool for reducing the likelihood that offenders will abscond or commit a new crime.

**DeMichele:** I think it's a useful form of administrative sanction. You can modify the technologies depending on whether the individual is performing well or not. It can inform officers and the courts about a particular offender that they are supervising.

**Scheppegrell:** Electronic monitoring technologies are a great detection tool and can help deter crime. The monitors provide a great amount of intelligent information and data that can help for pretrial as well as probation and parole. This is information that probation officers otherwise would not have that gives them a better picture of what the offender does versus spot-checking and knocking on the door. Additionally, we often hear from offenders and their families about the monitors being a big change agent in their lives. We have gang members who say, "Please don't take the monitor off me, because they leave me alone while I'm wearing a monitor."



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## Q: What are the disadvantages of electronic monitoring?

**DeMichele:** Right now the problem is that electronic monitoring technologies are so time-consuming because they generate so much data, and officers are having trouble using them to their fullest capabilities. I think agencies should have some way to aggregate and analyze the data. So just as we're trying to get better at managing data in all these other areas of the criminal justice system, I think that we need to try to do that for pretrial and community supervision in general.

**Bales:** There is a certain percentage of individuals who don't respond to these technologies. However, based on what we found in our study, many individuals reported that electronic monitoring gave them an excuse not to run around with the wrong crowd or get involved in situations they shouldn't have been in. They would say, "I can tell my friends, 'I have to be home. I can't do this anymore.'" So every situation or every individual is different.

**Scheppegrell:** They are not 100 percent foolproof. But they are often oversold, and judges then think that when there is a failure, it is a failure of the entire industry.

**Wicklund:** I think some of the disadvantages are that there is a certain amount of stigma that comes with some of the units or different types of supervision. There is also the cost that goes with it and questions about whether that cost could be better spent on restitution or something like that.

## Q: What directions for future research on electronic monitoring would you recommend?

**Bales:** It's a good tool if it's used prudently and effectively for the right people at the right time. More research is needed, not just on "Is it good or bad?" but also on how it should be implemented. How can we use those resources in a more effective and efficient manner is a better question than "Is it good or bad?"

**DeMichele:** Research is needed to explore the potential for electronic supervision technologies to provide positive reinforcement. To date, electronic tools are mostly used as negative feedback, but there is a need to determine if tools can dispense positive reinforcements as well. Some technologies have the ability to text and email clients, but these aspects are typically only used to provide warning information, such as "battery low" or "out of zone." They could be used to provide positive messages as well.

**Wicklund:** We need process evaluations on electronic monitoring, and future research should include looking at the impact on offenders and their families. We should also examine the effectiveness of these technologies on deterring future crimes. Research is also needed to understand the impact of various laws around electronic monitoring and the costs associated with implementing these technologies and not just to the system but to the individuals who are on EM.

**Scheppegrell:** We need more research to show how effective it is for different populations. We need to make better use of the data so that law enforcement is able to make sure these offenders aren't committing crimes. Because amazingly, only a small portion of our tracking data is actually run through any automated crime-scene correlation, and so we don't know if offenders are out there committing crimes or not. It is unbelievable that this data is there and we are not using it.

**Russo:** It's getting better. There are folks who are developing automated analysis tools to help officers make sense of the data, more exception-based kinds of reporting. I think one clear connection between the structure that EM can offer and outcomes can be: Are offenders going to programs? Are they staying in programs? It's a quick way to verify that people were where they should have been. Also, what is the appropriate amount of time an offender should be on GPS or any of these technologies? Is there a point of diminishing returns? Research is needed to answer these questions. I think more cost-benefit analyses and more case studies would be helpful.

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William Bales, Ph.D., professor and director, Center for Criminology and Public Policy Research, Florida State University

## Endnote

- 1 William Bales et al., *A Quantitative and Qualitative Assessment of Electronic Monitoring* (2010), report submitted to the Department of Justice, National Institute of Justice, <https://www.ncjrs.gov/pdffiles1/nij/grants/230530.pdf>.

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**Contact:** Darienne Gutierrez, communications

**Email:** [dgutierrez@pewtrusts.org](mailto:dgutierrez@pewtrusts.org)

**Project website:** [pewtrusts.org/publicsafety](https://pewtrusts.org/publicsafety)

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