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Ensuring Safety, Sobriety and Savings

The new age of electronic monitoring

By Patrick Hughes



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Executive Summary

Advances in electronic monitoring technology can in some cases provide safe and effective alternatives to incarceration in Wisconsin's expensive and overcrowded prison system. A variety of devices can allow corrections and law enforcement officials to closely monitor the actions, whereabouts and even sobriety of nonviolent offenders, individuals awaiting trial or immigration hearings, those engaged in work release programs or people under supervision after serving a prison sentence.

First developed in the 1960s, electronic monitoring is increasing dramatically in use. Across the country, the number of people under electronic monitoring grew by 140% — from 52,000 to over 125,000 — between 2005 and 2015,¹ according to a study by Pew Charitable Trusts. Wisconsin's Department of Corrections alone monitors approximately 3,200 offenders, and many more are monitored by county sheriff's departments in the state.

Complete numbers are not available — a problem that could be addressed with legislation requiring the reporting of more criminal justice data. But numbers have increased in many jurisdictions as officials attempted to reduce the spread of

COVID-19 in jails.

Electronic monitoring should be further expanded to relieve prison and jail crowding, more effectively encourage sobriety and reentry, save significant money and ultimately improve community safety.

We recommend that the state:

- Expand the use of electronic monitoring for offenders on community supervision for OWI in place of traditional supervision methods.
- Increase the use of discretionary GPS tracking of high-risk violent offenders to improve public safety during the first three years of supervision.
- Study the use of an electronically monitored home detention program for low-risk offenders over the age of 55 and those with major health conditions.
- Study the implementation of an electronically monitored home detention program for Department of Corrections work release inmates. This would be modeled on work release programs already in widespread use by county sheriffs.

Types of Electronic Monitoring

There are three main types of electronic supervision in use in Wisconsin and nationwide: Radio frequency (RF), GPS location (satellite) and remote alcohol monitoring.

Radio Frequency Monitoring

Radio frequency systems are used for offenders on home detention or those with curfews. The system consists of an ankle bracelet worn by the offender and a radio unit installed in his or her residence. The system tracks when the wearer enters or leaves a radius from the radio unit and alerts the monitoring agency when movement occurs outside of approved times. Individuals on RF monitoring may be allowed to leave their residence for medical treatment, to buy groceries, go to work

or attend rehabilitative programs. Unlike GPS monitoring, RF does not provide location information, so the system is best suited for low-risk offenders and is being phased out in many jurisdictions in favor of GPS-based systems.

GPS Monitoring

Under a global positioning system (GPS), the offender wears an ankle bracelet that transmits his or her location to the monitoring agency at all times. The individual's location appears on a map in the monitoring agency. If the offender cuts off the bracelet or fails to charge the battery, audio warnings transmit from the bracelet speaker, and the monitoring center receives an alert and notification of the individual's last known location.

GPS monitoring also allows the government to designate off-limits areas for those being monitored. Sex offenders, for example, are often prohibited from going near schools or parks. Through a speaker on the ankle bracelet, the monitoring center can direct the offender to leave an area and contact his or her agent or, if necessary, direct law enforcement to the offender's location.

In Wisconsin and other states that monitor domestic violence offenders, this technology is used to notify the monitoring center when offenders approach their victim's home or workplace.

GPS monitoring systems also maintain records of an offender's movement. When a crime is committed, police can use this information to determine whether an individual was near the crime scene at the time.

Remote Alcohol Monitoring

Remote alcohol monitoring systems perform tests to determine whether an offender has consumed alcohol and transmit the results to the monitoring agency. The two methods currently in use are breath testing and transdermal testing.

Breath testing is conducted with either a home-based system or handheld breathalyzer device. Home-based systems use either a landline telephone or a wireless router to connect a breathalyzer device to the monitoring center. The offender is required to breathe into the device at regular or random intervals to determine whether he or she has consumed alcohol. This is commonly used for drunken drivers confined to home detention.

This system was limited because the offender typically must be at home to be tested. Advances in technology, however, have allowed for individuals to carry battery-powered devices that use cellular phone networks or Wi-Fi to transmit test data. The cellphone-sized device is carried at all times and automatically notifies the person being monitored when a test has been ordered. The user then simply blows into the breathalyzer tube.

If the device is unable to transmit, the test results are recorded and transmitted when a connection is established. Mobile devices are an improvement over the home-based system because offenders can be tested at any time, making it easier for the offenders to maintain employment and allowing the monitoring agency to order more tests.

Systems include anti-fraud technology that measures the strength of the breath and takes a picture to prevent an offender from using an air can to force air into the device or having someone blow for them.

Transdermal testing is conducted via an ankle bracelet that uses sensors to automatically test the subject's skin throughout the day to determine whether he or she has consumed alcohol. The device connects to a modem that transmits test results to the monitoring agency on a daily basis. The offender's only active responsibility is to keep the battery charged.

This system provides continuous monitoring and allows the offender to go to work without interruptions for testing. It is likely to be used increasingly in place of breathalyzer devices in the future at both the state and local levels.

Who Currently Monitors Whom and Where

State level: The use of electronic monitoring often is determined by statute, criminal sentences and court orders. But the Department of Corrections also has the authority and discretion to use electronic monitoring for those under community supervision.

DOC staff conduct electronic monitoring at the DOC Central Office Building in Madison, part of the Division of Community Corrections. Approximately 80 staff members supervise all of the DOC's electronic monitoring offenders 24 hours a day.²

As of June 2019, there were a total of 3,261 offenders under DOC supervision:

- The majority (1,400) were sex offenders required by law to be monitored by GPS.
- Another 500 were sex offenders on discretionary GPS monitoring ordered by the DOC.
- Nearly 1,000 offenders were on the Soberlink system, which uses the breathalyzer alcohol monitoring devices.
- Some 380 offenders under curfew orders were on radio frequency monitoring.
- Another 15 offenders were on both RF and transdermal alcohol monitoring. (The DOC notes that more offenders will transition to this group as older Soberlink technology

is phased out.)

- There was a single offender on GPS monitoring for a domestic violence conviction.³

County level: Judges sometimes sentence defendants to home detention in lieu of jail.⁴

County sheriffs and house of corrections superintendents also have the discretion to use electronic monitoring to allow home detention, more commonly known as "house arrest." Sheriffs' decisions are typically made based on the capacity of county jails and the risks posed by offenders. Any jail inmate can be placed or removed from home detention by the sheriff at any time, but state law requires the use of "active electronic monitoring"⁵ for those on home detention.

Sheriffs do not have the resources to operate full-time monitoring centers, so private companies provide equipment and monitoring services on a contracted basis.

Complete, compiled data is not readily available regarding how many individuals are monitored by sheriff's departments in Wisconsin's 72 counties, but the numbers are significant.

For example:

- In Milwaukee County alone, 857 offenders were on some form of electronic monitoring in 2018, with an average of

155 per day.

- Between 2005 and 2018, nearly 16,000 offenders were on continuous alcohol monitoring in Milwaukee, Waukesha,

Kenosha, Sheboygan, Jefferson, Ozaukee and Manitowoc counties, according to Wisconsin Community Services, the company that provides monitoring services in those counties.

Opportunities for Expansion of Electronic Monitoring by the State

The Department of Corrections, with its statewide authority and resources, is better suited to expand electronic monitoring programs than are most counties. The DOC could do so in multiple ways and areas.

A New Form of Compassionate Release

Compassionate release as currently and sparingly used modifies an inmate's sentence from a prison term to a community supervision term. It is granted in very few instances. In 2017, for instance, only six inmates were released who met the statutory criteria. Eligible individuals must:

- Have been convicted of a felony lower than Class B and must meet one of the following additional criteria:
- Be age 65 and have served five years of their prison term;
- Be age 60 and have served at least 10 years of their prison term;
- Have an “extraordinary health condition” such as “advanced age, infirmity or disability” or a need for medical treatment or services not available within a correctional institution. This is open to inmates of any age.

Under the current compassionate release program, offenders — like others under community supervision — are not confined to a specific location. A new form of compassionate release could be created that would allow the DOC to use monitoring technology to release the inmates to an identified location — either a residence, hospital, hospice or nursing home. An individual's movements beyond that location could be restricted to medical appointments or basic activities such as grocery shopping.

Finding appropriate placements could be a challenge, but nursing homes or families may be willing to provide locations if electronic monitoring is used.

For this to happen, new legislation would be required because state law does not allow house arrest or home detention for those confined in state prisons.

Expanded Electronic Monitoring for OWI offenders

In 2019, there were approximately 21,000 convictions for drunken driving in Wisconsin.

First-offense operating while intoxicated (OWI) results in only a fine. Subsequent drunken driving offenses are charged as misdemeanors or felonies that, upon conviction, result in either some form of supervision or incarceration.

Electronic monitoring can be used more effectively for both those currently under only supervision and those who are incarcerated and make up a growing share of Wisconsin's prison population.

A different approach to supervision: When possible, sentencing courts should order complete sobriety and continuous alcohol monitoring as the standard supervision method for alcohol-related offenses.

An alcohol-monitoring ankle bracelet would allow agents to know whether offenders are staying sober and quickly impose holds and sanctions if positive test results are recorded. Wisconsin should also consider increasing the use of ignition interlock devices as an additional deterrent. These devices are in-car breathalyzers that prevent a vehicle from starting until the test determines the driver is sober.

This combination of technology will allow continuous monitoring of alcohol use and make it more difficult for offenders to drive drunk before an agent can intervene.

This approach would reduce or eliminate meetings with agents, phone calls and random in-person drug and alcohol tests that are time-consuming for parole and probation agents and disruptive to offenders' employment. It also would give agents more time to focus on higher-risk offenders who pose a greater risk to public safety or the OWI offenders who cannot be monitored remotely.

All of this could be accomplished without statutory changes. Judges have discretion to order monitoring. The DOC, in addition, has wide latitude in how it administers community supervision and also can place offenders on electronic monitoring.

New legislation would be required, however, to make ignition interlock devices mandatory. It is likely that the DOC would seek additional funding for equipment and positions in the electronic monitoring center if remote alcohol testing significantly increases. Therefore, an assessment of costs and benefits should be conducted.

Transition for incarcerated inmates: Drunken drivers make up a growing proportion of Wisconsin's prison population. In 2000, 4.7% of prison admissions were due to drunken driving. In 2019, that percentage had grown to 11.6%.⁶

The state will continue to need to incarcerate many such offenders but can consider using GPS and transdermal alcohol monitoring for a pre-release transitional home detention program toward the end of the incarceration period. Inmates with OWI offenses that did not result in death or injury could apply to the DOC secretary to serve the last six months of their sentence in home detention under orders of complete sobriety enforced by these technologies.

Local law enforcement would be notified of the offenders' location and restrictions. Failure to remain within approved

GPS boundaries or a positive alcohol test result would result in a return to prison and possible additional criminal penalties.

This type of home detention is not within the authority of the DOC and would require new legislation.

Work Release Home Detention Transitional Program

Inmates in the Wisconsin Correctional Center System (WCCS) have access to a DOC work release program designed to help them successfully reintegrate into the community. They leave correctional centers, go to jobs in the community and return at the end of each day. They earn market wages and are able to prepare themselves for a successful return to the community upon release. They pay fees for room, board and transportation to reduce the burden on taxpayers.

Although COVID-19 forced the DOC to halt work release to limit the spread of the virus to participants' institutions or workplaces, work release likely will resume when the threat has subsided. Prior to the suspension of the program, there were 779 inmates in new work release placements in fiscal year 2020.⁷

Even with the program halted for part of the year, work release inmates paid \$4.2 million in room, board and transportation fees; \$1.2 million in court-ordered obligations; \$241,347 in child support payments; and \$217,438 in victim, witness and DNA fees.⁸

The DOC should consider offering electronically monitored home detention for work release participants as part of a transitional program. Participants with a record of following the rules and who receive positive reports from their employers could apply to transition to home detention prior to release. Aside from work and authorized activities such as grocery shopping, participants would be restricted to their residence and have a set curfew. Failure to maintain employment or abide by the curfew would result in reincarceration. Participants would be charged fees to cover the cost of electronic monitoring.

This approach would reduce the costs of incarceration and free up needed beds in an overcrowded prison system. It also would provide an added incentive for inmates to work hard and follow the rules.

Risks to the public would be minimal because eligible inmates already live in the lowest security level institutions and work in businesses unsupervised by DOC staff. Close monitoring and swift responses to curfew or other violations would keep participants in check. If this model had been in place during the COVID-19 crisis, those in home detention could have continued to work.

New legislation would be needed for the DOC to allow inmates to transition to home detention prior to release. Wisconsin's Huber Law, which gives sheriffs the authority to allow home detention, could be a model for granting similar authority to the DOC secretary for defined categories of inmates. A starting point would be to allow any inmate who has successfully participated in work release for six months to apply to serve the

final six months of his or her sentence on home detention.

High-risk Offenders

Sex offenders make up the majority of the electronic monitoring population supervised by the DOC. More can be done to emulate other states that more effectively use GPS technology to supervise these high-risk and violent offenders.

While Wisconsin's electronic monitoring policies are geared toward compliance, California uses these tools to deter criminal behavior and assist law enforcement. The California Department of Corrections and Rehabilitation (CDCR) has a statewide program that uses GPS tracking to detect criminal activity by gang members after their release from prison. Selected high-risk gang members are monitored by special units of parole agents. The intent is to prevent crime by providing close supervision that allows violations to be quickly detected and addressed.

The program also provides law enforcement with intelligence about gang activity and affiliations, and uses the GPS tracking to identify offenders who were near crime scenes. The results of the program showed that while offenders were more frequently caught violating conditions of their parole, they were less likely to be arrested for new crimes.⁹

It was not determined if offenders were arrested for fewer new crimes because the GPS monitoring acted as a deterrent or because the proactive supervision resulted in the detection of violations that allowed revocations before new crimes could be committed. Either way, criminal activity by gang members was reduced.

The program costs California \$7,738 per offender per year vs. \$2,628 per year for standard supervision.

Wisconsin does not have the ability to run a similar program under current law nor does it have specially trained DOC staff. DOC probation and parole agents are not armed (California agents are), and Wisconsin has no unit dedicated to anti-gang activities or violent offenders.

In Boston, law enforcement officials created a "real time crime center" that links ShotSpotter, a system of sensors used to locate the source of gunfire, with police cameras and GPS bracelets worn by offenders.¹⁰ When ShotSpotter detects gunfire, it automatically points city-controlled cameras toward the location and identifies anyone wearing a GPS ankle bracelet in the area. This allows police to quickly track and record who is in the vicinity and dispatch officers to look for suspects.

The Milwaukee Police Department uses ShotSpotter but does not track those wearing GPS devices.

The opportunities provided by expanded use of GPS monitoring in investigating violent crime support a significant expansion in its use.

The DOC primarily uses discretionary GPS for homeless sex offenders, but it could also be used for high-risk offenders with a history of violent crimes or habitual felony arrests for the first two years of their term of community supervision. [Research](#)

published by the Badger Institute has shown that the majority of revocations occur within the first two years of supervision, so this timeframe would be most efficient. Fees could be charged to the offender to cover monitoring costs.

This group would not need to be supervised as closely as sex offenders. Simply knowing that they are being tracked would be a deterrent to the commission of new crimes. Monitoring would also serve as a valuable law enforcement tool when investigating crimes or rule violations.

For example, after a shooting or carjacking, police could be given the names of offenders who were near the crime scene at the time to aid their investigation. If the DOC does not use the authority it has under current law, the Legislature could pass a law requiring expansion of the program.

The DOC's recent [policy decision](#) to stop issuing hold orders

for curfew violations indicates that the department is adopting less restrictive electronic monitoring measures instead of a more proactive approach. DOC officials say they are developing a process for offenders who pose a risk to public safety, but they have not provided details on how they define high risk or what conduct would justify issuing an immediate hold order.

The new curfew policy should identify high-risk offenders, place them on discretionary GPS monitoring with strict rules of supervision and require the DOC to immediately notify law enforcement when a hold order has been issued for a violation.

The department should also transition from radio frequency to GPS monitoring systems so the monitoring center can direct law enforcement to the offender's location at the time of a violation.

Opportunities for Expansion of Electronic Monitoring by Counties

The lack of information regarding offenders under the authority of sheriffs makes it difficult to determine how widespread and effective monitoring programs are at the county level.

Milwaukee County, however, expanded its use of home detention in 2019 with a focus on inmates who were participating in the work release program.

Its initial phase focused on inmates on Huber release that permits sheriffs to allow inmates to leave jails during the day to work, attend education or job training, perform community

service and engage in a number of other activities related to rehabilitation. The inmates return to jail each night. It is a privilege granted at the discretion of the sheriff.¹¹

The next phase of Milwaukee County's plan was to allow inmates eligible for work release but without a job to go on electronic monitoring. It was projected to save \$1.7 million per year.¹²

While the COVID-19 crisis interrupted the plan, health concerns did prompt sheriff's departments across the state to increase the use of [home detention](#) to help reduce the spread of the virus.

New Technologies and Opportunities

GPS tracking devices will become smaller and cheaper to operate over time, allowing for more widespread use. Software is being developed that uses data analytics to determine when an offender is committing a violation, allowing quicker responses and requiring fewer staff. There are also drug-detecting sensors in development that would operate similar to the transdermal

alcohol units.

Advances in monitoring technology will provide alternatives to incarceration for nonviolent offenders and more options for those transitioning to the community. In other cases, it will allow law enforcement officials to better monitor the activities of high-risk offenders in the community.

Cost and Potential Savings

The average inmate costs Wisconsin taxpayers approximately \$37,000 a year, including all administrative costs. When only institution spending is counted, the cost is closer to \$27,000 per year.¹³

The average cost for all offenders on supervision, in comparison, is \$3,241 per year. This number includes all administrative costs within the Division of Community Corrections. The costs of GPS monitoring are included in the average, but there are only about 3,200 offenders being monitored out of a community supervision population of more than 64,000.

Monitoring costs per inmate vary, partly because the state

recoups some of the expense by charging those under supervision based on income. The fees are authorized by statute, and the schedule is set by administrative code.¹⁴

Weekly income	Monthly tracking fee
Under \$800.00	\$0.00
\$800.00 - \$1,500.99	\$50.00
\$1,501.00 - \$2,400.00	\$120.00
Over \$2,400.00	\$240.00

If we assume the highest tracking fee rate (\$240 per month) for monitored individuals, the annual cost of GPS monitoring

would be \$2,880 per offender.

There will always be variations in the cost of supervising different offenders. Sex offenders, high-risk individuals and those who are revoked cost the department more, while low-risk offenders, those who do not require drug or alcohol treatment and those who follow the rules cost less.

Most inmates who would be eligible if electronic monitoring

was expanded would be from minimum-security facilities. Even if we assume that increased electronic monitoring doubles the average cost of community supervision to approximately \$6,400 per year (which is probably a large overestimate), it would still save the DOC (and ultimately taxpayers) \$24,000 per minimum-security inmate who is able to leave the institution per year.

Conclusion

Electronic monitoring is safer and more effective than in the past. Increased use could both significantly increase public safety and save taxpayers millions of dollars per year through reduced incarceration and health care expenditures.

As important, it could enable offenders to work, pay taxes, build a larger workforce for employers, engage with family and otherwise contribute to their community and the state's economy.

The state should immediately look to expand its use where possible, cost-effective and safe, i.e., expand the use of electronic monitoring for OWI offenders on community supervision in place of traditional supervision methods and also increase the use of discretionary GPS tracking of high-risk violent offenders to improve public safety during the first three years of supervision.

Additionally, the state should study the use of an electronically monitored home detention program for low-risk offenders

over the age of 55 and those with major health conditions and study the implementation of an electronically monitored home detention program for Department of Corrections work release inmates. This would be modeled on work release programs already in widespread use by county sheriffs.

Ultimately, increased use of electronic monitoring, in addition to near-term cost savings, could reduce the need for a new \$500 million state prison.



About the author

Patrick Hughes is a Badger Institute corrections consultant. He previously served as assistant deputy secretary and division administrator in the Wisconsin Department of Corrections.

Endnotes

¹ [Use of Electronic Offender Tracking Devices Expands Sharply | The Pew Charitable Trusts \(pewtrusts.org\)](https://www.pewtrusts.org/en/research-and-analysis/articles-entries/2018/07/11/use-of-electronic-offender-tracking-devices-expands-sharply)

² The state does not contract for monitoring services like county governments, but it does have contracts for equipment and technical support.

³ [DCC At A Glance Brochure \(wi.gov\)](https://www.wisconsin.gov/dcc-at-a-glance)

⁴ [https://docs.legis.wisconsin.gov/document/statutes/973.03\(3\)\(d\)](https://docs.legis.wisconsin.gov/document/statutes/973.03(3)(d))

⁵ <https://docs.legis.wisconsin.gov/document/statutes/302.425>

⁶ <https://doc.wi.gov/DataResearch/InteractiveDashboards/DAIAdmissionsExecSum2000to2019.pdf>

⁷ <https://doc.wi.gov/Documents/OffenderInformation/AdultInstitutions/WCCSAnnualReport.pdf>

⁸ [Wisconsin Correctional Center System Annual Report https://doc.wi.gov/Documents/OffenderInformation/AdultInstitutions/WCCSAnnualReport.pdf](https://doc.wi.gov/Documents/OffenderInformation/AdultInstitutions/WCCSAnnualReport.pdf)

⁹ <https://www.ojp.gov/pdffiles1/nij/grants/249888.pdf>

¹⁰ <https://www.shotspotter.com/boston-gunfire-reduction-program/>

¹¹ [https://docs.legis.wisconsin.gov/document/statutes/303.08\(1\)](https://docs.legis.wisconsin.gov/document/statutes/303.08(1))

¹² <https://urbanmilwaukee.com/pressrelease/milwaukee-county-announces-transition-to-electronic-monitoring/>

¹³ Inmates housed at different security level institutions vary in cost, with an average of \$85.64 per day at maximum-security institutions (\$31,258.60 per year), \$68.90 per day at medium-security institutions (\$25,148.50 per year) and \$84.95 per day at minimum-security institutions (\$31,006.75 per year). Medium-security prisons have a lower per-inmate cost because they have large populations with fewer security needs, allowing for economies of scale. Minimum-security institutions tend to have fewer inmates and therefore a higher per-inmate cost.

¹⁴ Offenders also pay fees to cover the costs of electronic monitoring to participate in Huber release including initial installation or setup costs and daily charges. For example, in Brown County offenders pay a \$50 initial charge and a fee of \$23.70 per day.