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# POLICE BODY CAMERAS: WHAT HAVE WE LEARNED OVER TEN YEARS OF DEPLOYMENT?

*Research and lessons learned  
to inform the future use of  
police body-worn cameras*



Rarely has a police technology been adopted as rapidly as body-worn cameras (BWCs) have in the past ten years. There are a host of reasons why body cameras became popular, including increasing internal accountability, enhancing transparency, facilitating investigations of citizen complaints, as well as its uses for officer safety training.

In January of 2020, the National Police Foundation (NPF), in partnership with Arnold Ventures, co-sponsored a one-day conference, "Police Body-Worn Cameras: What Have We Learned Over Ten Years of Deployment?" This forum explored what we have learned about body cameras—both through scientific research and law enforcement practice—in the years since their deployment, as well as considerations for future implementation. The conference featured presentations by prominent researchers in the field and discussions with police executives based on their experience with body camera programs in their agencies.

As you will learn more in this report, body cameras are potentially transformative, but their use is not without complication and controversy. When departments have body camera recordings of high-profile incidents such as police shootings, members of the public often request release of the recordings to view the incidents themselves and form their own independent conclusions. Release of videos may be subjectively interpreted differently by

different individuals, and the camera cannot capture the complete picture. Further, even if a video demonstrated a shooting is legally justified and in compliance with policy, there may still be serious concerns about the outcome.

Many departments are also finding out that body camera programs incur high costs. The initial small investment in hardware is soon dwarfed by administrative costs and data storage costs. These costs are much of the reason that the initial frenetic rate of body camera adoption by law enforcement agencies has slowed in the last few years. However, public and law enforcement interest in body camera deployment remains high, and these costs have not proven to be an absolute bar to implementation.



# A SYNTHESIS OF CURRENT RESEARCH FINDINGS ON BODY- WORN CAMERAS: WHAT PRACTITIONERS SHOULD KNOW

***Research on body-worn  
cameras: What we know,  
what we need to know***

**Dr. Cynthia Lum, Professor of  
Criminology, Law and Society, George  
Mason University**

## INTRODUCTION:

BWCs are on the path to becoming standard practice in many police departments. Rapid adoption of body cameras has been accompanied by rapid production of research studies. These studies indicate that—though body cameras could have a major impact on police-citizen interactions—effects of body camera use are nuanced, particularly with regards to their effect on both officer and citizen behavior.

In 2019, Dr. Cynthia Lum and her colleagues reviewed results of 70 studies in the U.S. and around the world resulting

in the article, **Research on Body-Worn Cameras: What We Know, What We Need to Know** published in *Criminology and Public Policy*<sup>1</sup>. Dr. Lum asks two questions: 1) Do BWCs deliver on the outcomes we seek?; and 2) What are the unintended consequences or broader effects of BWCs on agencies and their communities? More than 50% of the papers reviewed examined the effects of BWCs on officer behavior. Other areas of research included officer attitudes, community behavior, community attitudes, impact on investigations, and organizational impact.

## THE EFFECTS OF BODY-WORN CAMERAS:

### ***Citizen Complaints***

One consistent finding is that officers with BWCs appear to have fewer complaints filed against them than officers without cameras. It is uncertain why complaints are fewer. Officers believe that the difference is caused by a reduction in frivolous complaints because BWCs are able to show that a complaint may be baseless; however, this has not been corroborated by empirical studies.

### ***Use of Force***

Research on how BWCs affect officers' use of force runs a wide gamut. Some studies show that BWCs reduce use of force, while some show no change. This research

is complicated by inconsistent definitions of use of force and inconsistent reporting of use of force incidents across agencies. The research does not conclusively show whether BWCs in general reduce use of force; however, cameras may have an effect on the most egregious of cases.

### ***Arrests and Citations***

Overall, there is no clear pattern that BWCs have a specific effect on arrests or citations compared to those who do not have BWCs. However, Dr. Lum cautioned, that simply looking at whether BWCs increase arrests is not the answer. Rather, she encouraged attendees to think critically about the fact that arrest increases for serious crimes may be positive, but increases in arrests for lower-level offenses where diversion is more appropriate may be a negative outcome.

### ***Officer Proactivity***

Little is known about the effect of BWCs on police proactivity. There are no consistent results across studies; however, none of them show a decrease in proactivity. This indicates that concerns that BWCs may result in de-policing may be unfounded. As with arrests, the important question is not whether proactivity increases or decreases, but rather which kinds of proactive behaviors increase or decrease.

## ***Officer Behavior: Disparity and Bias***

A seemingly objective record of officer behavior is one of the main reasons why communities called for implementation of BWCs, yet not much is known about the effects of cameras on officers' behavior regarding disparity and bias. Much of the research exploring BWCs and disparities focuses on the extent to which the disparity exists rather than interventions to effectively reduce it. More research is needed to understand the extent to which BWCs reduce aggregate disparities, implicit bias, or explicit bias.

## ***Officer Attitudes toward Body-Worn Cameras***

Officers initially tend to react positively toward BWCs; if not, they tend to become more positive with time and experience using the cameras. They see the cameras as protecting them against the public and frivolous complaints from community members, and as helpful for evidentiary purposes. Officers, when surveyed, don't consistently believe that BWCs change their behavior. According to Dr. Lum, "Police and the public both like BWCs because they think that BWCs can protect them from the other."

## ***Citizen Behavior***

There are few studies on how BWCs affect compliance, resistance, or assaults on

officers. Most studies show little difference in these areas between interactions involving BWCs and those without. One study did show that officers with BWCs were met with more resistance and more assaults, but the authors speculated that that difference was an officer effect, not a citizen effect. Other behavioral impacts regarding citizens have not been much studied.

## ***Community and Citizen Attitudes***

The community generally sees BWCs as a positive thing, and they have high expectations for them. However, there is less positivity among young people, persons of color, or those living in some fear of crime. "In terms of citizen satisfaction, citizens likely judge satisfaction on how they're treated and how people speak, not necessarily on whether a camera is on the officer. Sometimes they don't even know or remember that the camera was on the officer." More research is needed to disentangle the wearing of a BWC with procedural justice practices.

## ***Impact on Investigations***

The use of BWCs in investigations increases the rate of guilty pleas, convictions, and case clearances. One study found that body cameras may be useful for prosecuting intimate and domestic violence cases, especially if the victim does not want to testify in court.

*“In terms of citizen satisfaction, citizens likely judge satisfaction on how they’re treated and how people speak, not necessarily on whether a camera is on the officer. Sometimes they don’t even know or remember that the camera was on the officer.”*

### **Organizational Impact**

Not much is known about the organizational impact of BWCs. Research is needed to know if BWCs have an impact in the following areas: training systems (e.g., academy and field training); agency policy development and reform; accountability or disciplinary systems; complaint processes or policies; managerial systems; and costs of workload.

Overall, BWCs have had positive effects, but they have not had nearly the dramatic effect that was expected of them. Much of the supposed effects remain unclear, and more research is needed to make conclusive statements on the effects and impacts of BWCs.

### **Q&A:**

**Dr. Cynthia Lum:** “If [police chiefs who are thinking about adopting BWCs] don’t have BWCs, I would propose caution. Ask yourself, what are you trying to achieve in adopting BWCs? For a lot of chiefs, it’s a political reason. They have to buy them. If so, that’s fine, but I don’t think they should rely on this technology to improve police-community relations. It might help you develop measurements or a better understanding of what that relationship looks like on an individual basis . . . [but] I don’t think technology is the answer.”

**Dr. Nancy LaVigne, Vice President for Justice Policy, Urban Institute:** “We need to slow down adoption of BWCs so

we can get some baseline data.”

**Mr. Michael Berkow, Director, Coast Guard Investigative Service:** “I realize the love of and need for research, but we are under a lot of pressure—if you have a task force—to use BWCs . . . You need to come out with best practices for practitioners as soon as possible. For example, what is the definition of a complaint, or how quickly should we release a video?”

**Dr. Cynthia Lum:** “Accountability infrastructure is not necessarily strengthened through BWCs. It doesn’t fix the broader structures in the agency.”

## HOW DO CITIZENS REACT TO BEING RECORDED?

**Dr. Sean Goodison, Deputy Director and Senior Research Criminologist, Police Executive Research Forum**

**Dr. Daniel Lawrence, Principal Research Associate, Urban Institute**

**Kalani Johnson, Project Associate, National Police Foundation**

## INTRODUCTION

In 2015, Arnold Ventures funded three randomized controlled trials on BWCs with the Police Executive Research Forum (PERF), Urban Institute, and NPF to examine victims’ reactions to, awareness of, and perceptions of their local BWC programs. All three studies found that camera programs are not enough to improve perceptions of procedural justice. Further, there needs to be more work to raise awareness and to set expectations about camera programs to community members.

## A SUMMARY OF THE RESEARCH STUDIES CONDUCTED AND THEIR FINDINGS:

### *Police Executive Research Forum*

In 2015, PERF worked in partnership with the Arlington (Texas) Police Department to evaluate the influence of body cameras on citizen perceptions of procedural justice. The findings were published in their 2017 Citizen Perceptions of Body-Worn Cameras: A Randomized Controlled Trial report.<sup>ii</sup> They compared two conditions: (1) business as usual and (2) use of body cameras. The 84 participating officers in the study all were trained on the camera implementation but randomly assigned to

one of the experimental groups on each shift that they worked. Citizen perceptions were measured by concepts of legitimacy, professionalism, and satisfaction. Overall, there was little to no difference between the camera and no-camera groups on all three measures. When further explored by involuntary and voluntary contact groups, yet the patterned remained: no difference between camera and no-camera conditions. While there was no measurable difference in victim reactions to the cameras, the officers wearing body cameras did have fewer citizen complaints (-38.0%) than

In 2015 and 2016 the Urban Institute conducted two studies to assess (1) community members' knowledge of BWCs and (2) how body cameras impact views of departmental procedural justice use and legitimacy for victims. Both studies have full reports: "How Body Camera Affect Community Members' Perceptions of Police"<sup>iii</sup> and "Community Views of Milwaukee's Police Body-Worn Camera Program."<sup>iv</sup> In Milwaukee (WI), where body cameras were rolled out in phases, the

Urban Institute conducted city-wide community surveys during the deployment efforts to assess knowledge and support of the program. In Anaheim (CA), researchers designed a study to test different protocols for how police approach community



those not trained (4.1%). Overall, the study suggests that cameras are not enough to improve perceptions of procedural justice.

members while wearing body cameras: (1) business as usual; (2) camera only; and (3) camera with a script. In Milwaukee, where body cameras were rolled out in four phases, the Urban Institute conducted three city-wide community surveys during the deployment efforts to assess knowledge

and support of the program. They found that knowledge of the department's body camera program significantly increased views that officers were procedurally just and the department was legitimate. But when examining what predicts a community member's *support* for Milwaukee's body camera program, simply knowing about the program had no impact but feelings that the department was procedurally just and

cameras conducted fewer subject stops and were less likely to receive a complaint than officers that did not receive cameras.

In Anaheim, the Urban Institute took an in-depth look into the recollection of body cameras, victim satisfaction, outcome, legitimacy, and other procedural justice features. Like the Milwaukee project, the Urban Institute found that departments cannot assume that

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members know about or notice BWCs. Further, the survey data determined that 71% of community members could not remember or incorrectly remembered if the officer was wearing a BWC. Regarding the interactions

legitimate significantly predicted support for the program. The Urban Institute concluded that cameras can increase views of how officers behave, but the cameras—in of and themselves—do not increase support for their use. Instead, community members' support for the cameras increase when officers behave respectfully and legitimately. The Urban Institute also found that in Milwaukee, wearing cameras had no effect on arrests, use of force, or proactive activities. However, those who wore

themselves, groups with BWCs had more favorable opinions than groups without BWCs on victim satisfaction and case outcomes. However, groups without the camera and the groups with a camera and script had similar views on departmental legitimacy. This finding is consistent with the procedural justice measures: non-camera groups and camera groups had similar ratings of perceived empathy, quality of decision making, quality of treatment, and officer helpfulness. In both Urban Institute studies, the conclusions suggest

that officers' (and departmental) behaviors matter more than the cameras themselves.

## **National Police Foundation**

In 2018, NPF designed a study, titled "Do Body Cameras Affect the Quality of Victim-Police Interactions in Field Interviews", to determine whether different protocols for how police officers approach victims while wearing body cameras affect the reactions of victims to encounters with the police.<sup>v</sup> NPF compared a condition in which (1) officers simply recorded interviews with victims and witnesses; (2) against a condition in which officers were instructed to announce to citizens that they were being recorded and would cease recording if requested to do so by the citizen; and (3) a condition in which officers did not wear body cameras. NPF did not find differences between any of these conditions in victim ratings of the interaction.

The field test assumed that people would notice and react to police body cameras. That assumption proved to be largely wrong. Only a small minority of victims surveyed believed that the officer they spoke with was wearing a body camera, and the percentage that did notice was consistent across treatments. That is, *victims in both body camera conditions were no more likely than victims in the no camera control condition to report that the officer they spoke with was wearing a body*

*camera.* Per the observers, in 98% of the interactions where officers wore cameras, victims did not visibly react to being recorded, even when being told that they were being filmed. No victim objected to being recorded in the 321 incidents that researchers observed. The finding that a large majority of victims was unaware of being recorded confirms a similar finding from the Urban Institute study.

Further, the survey data analysis determined that, even when victims were aware of officers wearing body cameras, there was no change in how they rated their interactions with the officer. Thus, the major finding in the study is that most victims do not notice body cameras and when they do notice, they do not object to being recorded. Moreover, those victims who did believe that the officer wore a camera did not rate the encounter higher than victims who did not believe or were not sure that the officer had a camera. The findings support a body camera policy which does not require that victims give consent to having body cameras turned on. NPF's results are largely consistent with both the PERF (2017) and the Urban Institute (McClure, et al. 2017) studies.



## FUTURE TECHNOLOGY IMPLEMENTATION

*Dr. David Makin, Assistant Professor,  
Washington State University*

### INTRODUCTION

David Makin's work has focused on the nature and uses of body camera video. He has explored the limitations of the technology and how those limitations argue against considering body camera footage as an objective record of events. Do people viewing the same video see different things? Can different camera angles produce radically divergent accounts of events?

### SUMMARY OF FINDINGS

Human perception is influenced by field of view, rapid eye movements and focus, and pre-conceived personal ideas/biases. Accordingly, research has shown that people view body camera recordings in distinctive ways so that solely relying on video recordings may not provide a definitive version of events. For example, video cannot show full range of eyesight, context of the interaction, or the emotion/sensory experience felt by both parties in the encounter. While most body camera research to date has focused on outcomes like use of force or citizen complaints, more research is needed to understand: (1) how should video be used; (2) the discrepancies between the human experience and the video recordings; (3) how perceptions

are filtered by different stakeholders; and (4) what other factors are present but not captured by body camera videos.

Research shows filtering is occurring. These discrepancies are in part due to camera mounting locations: cameras will capture different views of an event depending on where they are mounted on an officer's body. During the conference, a local chief in the audience asked where BWCs should ideally be mounted. Unfortunately, there is not sufficient research on optimal camera mounting strategies.

Furthermore, research and best practices have yet to define the technical limitations of body camera video; how to deal with differences in how humans perceive video footage (i.e., emotional response, selective attention to threats, etc.); and how and when video footage should be made available to the public. Research indicates the real-time annotation by the officers who are in the video may supplement essential details to what officers recall about an incident. However, officers' accounts should be

taken before they are allowed to review recordings in order to maintain legitimacy. There are no easy answers to the question of whether to release video evidence and the decision is often out of the hands of police chiefs and instead becomes the province of prosecutors or city administrators. There is a critical need for evidence-based practices to determine the conditions under which videos should be released.

In summation, research suggests

*Research has shown that people view body camera recordings in distinctive ways so that solely relying on video recordings may not provide a definitive version of events.*

body cameras cannot be a panacea for a comprehensive departmental accountability structure. They can only supplement a robust accountability system. The rapid adaption of BWC programs in recent years underscores the need to understand the relationships between police technology programs and departmental accountability.



## WHAT DO LAW ENFORCEMENT AGENCIES THINK OF BODY CAMERAS?

INSIGHTS CAPTURED DURING PANEL DISCUSSIONS

**Have body cameras changed the way officers approach their jobs?**

### Moderator:

**Nancy LaVigne**, Vice President for Justice Policy Urban Institute

### Panelists:

**Dr. Wendy Koslicki**, Assistant Professor, Ball State University

**Dr. Carolyn Naoroz**, Body-Worn Camera Management Analyst, Richmond (VA) Police Department

**Dr. Shon Barnes**, Deputy Chief, Salisbury MD Police Department

**Sean Smoot**, Deputy Counsel, IPPFA

## INTRODUCTION

This panel discussed the different ways that body camera implementation has affected their agencies and the profession as a whole: Have body cameras made a difference in how patrol officers perform

their jobs or interact with the public? How are they being used to monitor officer performance? Has the added scrutiny encouraged de-policing? How are trainers using them?

## DISCUSSION

**Sean Smoot:** In policing, when new technology comes out, agencies tend to lean on it, sometimes more than they should. We saw this phenomenon when less than lethal technology was first adopted. Rather than deploy other options, like de-escalation techniques or soft hands-on techniques, officers defaulted to the newest tool on their belt. The result was overuse and over reliance on conducted electrical weapon use. Body cameras are a great tool and, if used properly, likely one of the best advances in policing. But cameras

should not be a replacement for good first-line supervision that occurs in-person in real time. If sergeants substitute retroactive reviews of camera footage for proactive monitoring of officers in the field, there are a host of opportunity costs, including lost opportunities for “on-the-job” “off the job” counseling, training, and mentorship—things that line officers desperately want and need.

**Wendy Koslicki:** Implementing BWCs may not fundamentally change the field of policing absent deeper changes at the hiring and training levels. Body cameras will likely become replicative technology, meaning that their primary effects will be to increase the efficiency of pre-existing patterns of police behavior, rather than transform the fundamental practices and values of policing towards increased transparency and accountability.

*Body cameras are a great tool and, if used properly, likely one of the best advances in policing. But cameras should not be a replacement for good first-line supervision that occurs in-person in real time.*

Research has suggested that body cameras may streamline evidence gathering and case-building, thus making pre-existing police practice more efficient. In fact, BWCs were originally marketed for their usefulness in enhancing police practice, driving internal demand. However, external demand for BWCs largely viewed the technology as an accountability tool to ameliorate high profile lethal force incidents; this may lead to their adoption by departments as a symbolic gesture as well, as the technology has come to represent accountability and transparency in the eyes of the public. In general, internal demand for adopting BWCs explicitly as an accountability tool may not be common across the occupation, leaving core practices of transparency and accountability largely unchanged.

**Dr. Carolyn Naoroz:** The Richmond (VA) Police Department conducted a survey of officers' perceptions of BWCs. While officers believed that body cameras would change behavior of officers in

*Use of body camera recordings can give cadets in the academy a better perspective of the situations they will encounter on the job through scenario-based training.*

general, they did not think cameras would affect their own behavior. For example, 73% of officer respondents agreed or strongly agreed with the statement "when wearing a BWC, an officer will act more professional" but when asked to reflect on their personal behavior, only 45.5% of officer respondents agreed or strongly agreed with the statement "wearing a BWC makes me act more professionally". When asked about their perceptions of the effect of BWCs on use of force, 46.4% of officer respondents either agreed or strongly agreed that "wearing a BWC affects an officer's decision to use force," whereas only 34.2% of officer respondents agreed or strongly agreed that "wearing a BWC affects my decision to use force," and only 20.9% agreed or strongly agreed that "wearing a BWC makes me less likely to use force."

**Deputy Chief Shon Barnes:** One novel way in which body cameras are making a difference is in use of body camera recordings in training. Use of body camera recordings can give cadets in the academy a better perspective of the situations they will encounter on the job through scenario-based training. For example, they can be used to start a conversation about how near-miss situations could have been avoided. They can also be useful in eliciting empathy in officers for persons with mental illness and other vulnerable populations.

is using BWC footage during training, leadership is still dispelling rumors about the cameras. Leadership is stressing that audits using BWC recordings are used as a corrective tool, not a punitive one. The field hasn't even scratched the surface of the true potential of BWC footage for training purposes.

**Chief Shon Barnes:** Internal affairs and disciplinary problems are areas where body cameras can save money for departments. The video is the video, and captures actions that are outside of policy or excessive use force. Most

**Dr. Carolyn**

**N a o r o z :**

Richmond Police Department also uses BWC video for training and recruits are assigned BWCs during their time in the academy to allow review of their performances.

The Department uses specific videos for conducted electrical weapons and other tactical training. The Department also has supervisors conduct a monthly audit of their officers' [evidence.com](https://evidence.com) accounts to ensure officers are adhering to BWC policy. Despite the fact that Richmond is in the fifth year of its camera program and

*The field hasn't even scratched the surface of the true potential of BWC footage for training purposes.*

departments with body cameras have cut internal affairs costs by half. Body cameras can also be used by police training officers to show footage of their behavior and discuss ways to improve. The Fort Worth (TX) Police Department uses cameras in an audit program. Every quarter, a sergeant will play a random 20

minutes of film and assess the officers' behavior. It puts everyone on notice and, if there's a problem, you're going to hear about it. The biggest concern that officers have is that there will be "trolling." The department has a policy to address that: if a sergeant is found to be trolling the footage and recommends discipline, the sergeant will get twice the amount of discipline.

## Q&A

**Hassan Aden:** The Los Angeles Police Department (LAPD) is very proud of its tactical expertise. I was auditing the LAPD's new use of force training and observed that officers were bringing their own video to the attention of their sergeants and their squads to review tactical mistakes, and suggest ways that they could have done things differently. The department is now trying to standardize that practice with no risk of discipline. Instead of debriefing serious use of force, debrief everything.



# DO THE BENEFITS OF BODY CAMERAS OUTWEIGH THE COSTS?

**Moderator:**

**John Markovic, BJA**

**Panelists:**

**Dr. Chip Coldren**, *Director Center for Justice Research and Innovation, CNA*

**Ralph Ennis**, *Commander, DC Metro Police*

**Tom Manger**, *Chief of Police, Montgomery County (MD) Police Department (ret.)*

**Mike Brown**, *Chief of Police, Alexandria (VA) Police Department*

## INTRODUCTION

Body cameras have been deployed in the field for about ten years. Coming online about the same time as heightened public concern about high-profile police shootings of citizens, community pressure has encouraged the rapid adoption of the technology. The frantic pace of adoption has slowed somewhat in recent years as agencies have developed a greater appreciation of the back-end costs of body cameras and research studies have suggested that the impact of body cameras is more complicated and nuanced than originally hoped.

This panel reflects on how many agencies have been surprised by the “back-end” cost of body cameras in terms of storage requirements and staff involvement in

*Our study documented a dramatic and significant reduction in complaint investigations as a result of introducing body cameras in the Las Vegas Police Department—more than enough to pay for program costs.*

reviewing and redacting recordings for prosecutors, the media, and the public. Are these costs offset by enhanced accountability, less use of force, and other significant benefits?

**Commander Ralph Ennis:** The DC Metro Police had to designate 11 full-time equivalents to run the camera program and conduct audits. Each patrol district has a body camera coordinator; Internal Affairs and the Criminal Investigation Division each have one as well. Their whole job is to make the camera program run smoothly. It takes up a lot of time. But responding to Freedom of Information Act (FOIA) requests is not as big a job as was anticipated.

**Chip Coldren:** CNA conducted a randomized controlled trial of body cameras in Las Vegas. A cost-benefit analysis included costs of camera purchases, licenses, software, infrastructure upgrades in every precinct, professional services, training, and monitoring, and responding to FOIA requests. The costs of the program came to \$1 million per year. These were more than offset by savings in complaint investigations. However, there are always more costs than what police departments account for—body cameras offload costs onto prosecution, courts, defense.

**Chief Mike Brown:** These hidden costs are scary because they're ones that

departments cannot easily forecast. Video evidence needs to be handled differently from other evidence and requires criminal justice agencies to hire extra staff to handle it. Protecting the privacy of persons caught on video requires significant amounts of time to view and massage videos.

**Chief (ret.) Tom Manger:** The Montgomery County (MD) Police Department decided to purchase body cameras in 2015, a decision that prosecutors and the court didn't necessarily support, due to the additional workload and cost that would impact them. It took a while to resolve problems and get all the resources needed for the program by all parties affected. While the elected officials supported the use of BWCs, they did not initially provide adequate funding for the program. We learned that, as you grow a body camera program, it expands exponentially as more video is acquired. We had to hire additional staff as the program grew.

**Chip Coldren:** Our study documented a dramatic and significant reduction in complaint investigations as a result of introducing body cameras in the Las Vegas Police Department—more than enough to pay for program costs. But it's important to realize that you're not going to achieve those reductions every year. Even if you start with great results and great savings, they will diminish over time.

**Commander Ralph Ennis:** Start-up costs can be significant if you're a department of any size. It's important to make a large investment of time up front. Our department's body camera working group met three times per week, working through processes that would be affected at every level. If you don't have every single bureau involved in rolling out body cameras, it can be catastrophic for your agency.

**John Markovic:** Body cameras don't exist in a vacuum. You've got all this other video and audio evidence that can be integrated with body camera recordings and put into the system to query. In theory, you could develop an algorithm to identify specific individuals and issue an alert. In Montgomery County, they are integrating digital evidence from the police department with video from school buses and public transit. But this is a controversial political issue.

**Chief (ret.) Tom Manger:** We had footage of a shooting of an unarmed African American man. Despite the notion that releasing video would provide clarity to the public as to what occurred during the shooting, it was not helpful in terms of public opinion. People who viewed the video formed vastly differing opinions about what they saw. Those that didn't like or trust the police still felt there was no justification for using deadly force on an unarmed person. Others, including prosecutors,

saw it as a lawful shooting. Even though people watching the same video came to differing conclusions, it was priceless in telling us what occurred. There have been numerous less serious cases where if you did not have video you would not get to the truth—even when people are being as honest as they can be—until we were able to look at the video.

**Chief (ret.) Tom Manger:** Data storage—that's the big cost. As you get more cameras and more data, costs can run into the millions. Is there a way that these costs can get cheaper in the future?

**Commander Ralph Ennis:** There is existing technology to deconstruct video files so they take up one-third of the storage space. But there's a lot of money to be made, so companies are unlikely to promote it.

**John Markovic:** BJA's body camera program doesn't currently provide money for data storage. But we are trying to change that because the high cost of data storage is a big disincentive for agencies that want to purchase cameras.

**Chip Coldren:** In Las Vegas, our study found a 37% reduction in civilian complaints and a 25% reduction in use of force, attributable to the introduction of body cameras. And cameras were introduced *after* the department had participated in three years of

collaborative reform. Our research showed that complaint investigations cost the department over \$6,000 without body camera records, but just \$500 with body camera records. Even with conservative estimates, the cost savings paid for the camera program three times over.

## Q&A

**Hassan Aden:** There are hundreds of hidden costs of body cameras. One major hidden cost of body cameras comes from officers who engage in part-time work outside of their department, but while wearing their uniform. As chief, you want those officers to be wearing their cameras, but the extra footage drives up the cost of data storage.

## CONCLUSION

Several consensus thoughts emerged about body cameras from the day's discussions. One was that expectations that body cameras would be a "game-changer" in the area of police accountability have not been met: cameras can be a useful tool to help promote officer accountability, but only in the context of good accountability policies and structures. Nonetheless, communities believe that cameras are an important piece of technology and departments feel pressured to purchase them. The other significant thought that emerged from the conference was that body camera programs are far costlier than many departments expected when they decided to adopt the technology. The initial cost of purchasing the cameras is eventually overshadowed by data storage costs, administrative costs, and evidence-handling costs. Agencies that have not yet adopted body camera programs were advised to develop a detailed implementation plan including both direct and indirect costs.

In spite of these reservations, conference participants found many reasons to value body cameras. They likely have an effect on moderating the behavior of officers interacting with citizens as evidenced by less use of force and fewer citizen complaints among officers who wear cameras.

Body camera recordings can be used in audits to monitor officer compliance with departmental policies, thereby enhancing officer accountability. Departments are also finding that the recordings can be useful in scenario-based training by academy staff, by full-time officers, and by in-service trainers. Officers like (or at least come to appreciate) body cameras because the recordings often exonerate them in internal affairs investigations. Moreover, research suggests that the use of body camera recordings tends to greatly reduce the costs of internal affairs investigations. And, perhaps most importantly, body cameras give the community greater confidence that their police department is acting in the community's best interest and may supply an objective record that the public can use to inform their perspective on the appropriateness of controversial police actions.

## ENDNOTES

- i Lum, C., Stoltz, M., Koper, C. S., & Scherer, J. A. (2019). Research on body-worn cameras: what we know, what we need to know. *Criminology & public policy*, 18(1), 93-118.
- ii Police Executive Research Forum. (2017). Citizen perceptions of body-worn Cameras: a randomized controlled trial. <https://perf.memberclicks.net/assets/bodyworncameraperceptions.pdf>
- iii Lawrence, D.S., Peterson, B.T., & Thompson, P.S. (2018). Community views of Milwaukee's Police Body-Worn Camera Program. Urban Institute. <https://www.urban.org/research/publication/community-views-milwaukees-police-body-worn-camera-program>
- iv McClure, D., La Vigne, N., Lynch, M., Golian, G., Lawrence, D., & Malm, A. (2017). How body cameras affect community members' perceptions of police. Urban Institute. <https://www.urban.org/research/publication/how-body-cameras-affect-community-members-perceptions-police>
- v Davis, R.C., & Johnson, K. (2019). Do body cameras affect the quality of victim-police interactions in field Interviews. National Police Foundation. <https://www.policefoundation.org/publication/do-body-cameras-affect-the-quality-of-victim-police-interactions-in-field-interviews/>