



Ohio Collaborative Community-Police Advisory Board

Meeting Agenda

October 2, 2015

Co-Chair

Director John Born
Ohio Department of Public Safety

Co-Chair

The Hon. Nina Turner
Former Ohio Senator

Officer Brian S. Armstead
Akron Police Department

Lori Barreras
Ohio Civil Rights Commission

Dr. Ronnie Dunn
Associate professor, Cleveland State
University

Austin B. Harris
Student, Central State University

Mayor Michael H. Keenan
Dublin

The Rev. Damon Lynch III
Senior Pastor, New Prospect Baptist
Church

Sheriff Tom Miller
Medina County

The Most Rev. George Murry
Bishop, Roman Catholic Diocese of
Youngstown

Chief Michael J. Navarre
Oregon Police Department

The Hon. Ronald J. O'Brien
Franklin County Prosecutor

EX OFFICIO MEMBERS

Rep. Tim Derickson
Ohio House

Sen. Cliff K. Hite
Ohio Senate

The Hon. Tom Roberts
Former Ohio Senator

The Hon. Louis Stokes
Former Member of Congress

The Hon. George V. Voinovich
Former U.S. Senator, Governor of
Ohio and Mayor of Cleveland

Sen. Sandra Williams
Ohio Senate

1. Introductions/Review
2. Discussion of Body Worn Cameras
 - Overview of the Research Studies on Body Worn Cameras - Presentation by Dr. Lisa Shoaf, OCJS
3. Discussion of Community Engagement
 - Overview of the Los Angeles Police Department Community Engagement Model – Presentation by Karlton Moore, OCJS
4. Next Steps



JOHN R. KASICH
GOVERNOR
STATE OF OHIO

Executive Order 2015-04K

Establishing the Ohio Collaborative Community-Police Advisory Board

WHEREAS, trust between the citizens of Ohio and the law enforcement officers who serve us is essential for building safe communities and creating and sustaining opportunities for all Ohioans; and

WHEREAS, through Executive Order 2014-06K, I created the Ohio Task Force on Community-Police Relations ("Task Force") to explore how to strengthen the fractured relationships that exist between law enforcement and some communities and to examine strategies to strengthen trust between law enforcement and the communities they serve; and

WHEREAS, the Task Force held a series of public forums throughout the State to listen to community and law enforcement perspectives on community-law enforcement interaction; and

WHEREAS, in those public forums, the Task Force heard from hundreds of members of the general public and nationally renowned experts about the challenges that currently exist in rebuilding trust between law enforcement and the public in some communities; and

WHEREAS, the Task Force has produced a report that includes recommendations on how to improve relationships between law enforcement and the communities they serve, as well as research, supporting documentation and, most importantly, the perspectives of the citizens of Ohio, Task Force members, experts, and others who provided testimony and information to the Task Force; and

WHEREAS, the recommendations, testimony, supporting documentation, and best practices outlined in the report serve as a blueprint for further action; and

WHEREAS, continuing to bring together citizens, communities and law enforcement departments to strengthen their relationships in a collaborative way will allow the work and the recommendations of the Task Force to be carried forward;

NOW THEREFORE, I, John R. Kasich, Governor of the State of Ohio, by virtue of the authority vested in me by the Constitution and the laws of the State of Ohio do hereby order and direct that:

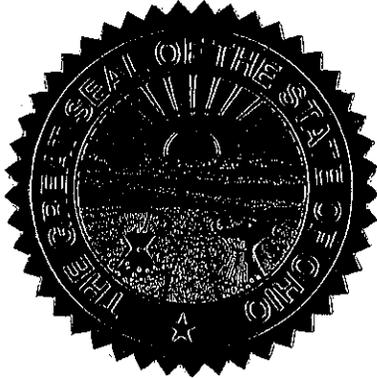
1. The **Ohio Collaborative Community-Police Advisory Board** (“the Collaborative”) is hereby established. The Collaborative will consist of twelve (12) persons appointed by me, plus additional *ex officio* members as I may designate, and will include both law enforcement officers and public members. I will appoint a Chairperson from among the twelve members. Members of the Collaborative will serve three- (3-) year terms, though the initial terms will be staggered so that no more than four (4) members’ terms will end every year.
2. The purpose of the Collaborative is to advise and work with the Office of Criminal Justice Services (“OCJS”) in the Ohio Department of Public Safety on implementing the Task Force’s recommendations and creating, for the first time in Ohio’s history:
 - a. Statewide minimum standards for state and local law enforcement departments to follow in certain vitally important areas including, but not limited to, (i) the proper use of force, including deadly force, and (ii) the recruiting, hiring and screening of potential law enforcement officer candidates; and
 - b. Model departmental policies and best practices recommendations which state and local law enforcement departments and local communities will be encouraged to adopt and then adapt to their particular communities’ needs. The model policies and best practice recommendations will address several areas including, but not limited to: (i) methods for law enforcement to involve the local community in helping officers to address safety issues in the community; (ii) educating the local community on the challenges that law enforcement officers face on a daily basis and how officers are trained to deal with those challenges; (iii) opening effective lines of communication between law enforcement officers and local citizens, particularly as it pertains to encounters between officers and citizens; and (iv) strategies for how both law enforcement and the communities the officers serve can hold each other accountable for the other’s actions.
3. Once all of the members of the Collaborative have been appointed, OCJS and the Collaborative shall immediately begin jointly developing the two statewide minimum standards referred to in paragraph 2a. above. No later than ninety (90) days after the members of the Collaborative have been appointed, the Collaborative and OCJS shall finalize the two standards referred to in paragraph 2a. above and OCJS will disseminate those two standards to all state and local law enforcement departments in Ohio.
4. Additionally, the Collaborative and OCJS shall develop the model departmental policies and best practices referred to in paragraph 2b. above. The Collaborative and OCJS shall set a deadline by which the model departmental policies and best practices will be finalized and disseminated to all state and local law enforcement departments in Ohio. In setting that deadline, the Collaborative and OCJS shall take into consideration the date of the annual report set forth in paragraph 5 below and allow state and local law enforcement departments and the communities they serve sufficient time to review and consider the adoption of those model departmental policies and best practices prior to the issuance of the first annual report.

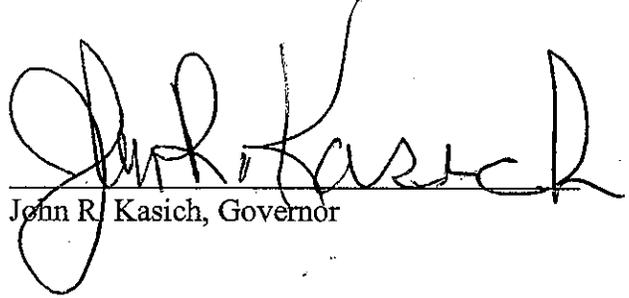
5. The Collaborative, with the assistance of OCJS, shall monitor and evaluate all state and local law enforcement departments' adoption and implementation of the two statewide minimum standards referred to in paragraph 2a. No later than March 31, 2017, and annually thereafter, OCJS shall publish a report listing which state and local law enforcement departments have and have not adopted and fully implemented those two statewide minimum standards. OCJS shall also note in its report which departments have also adopted one or more of the model departmental policies and best practices developed by the Collaborative and OCJS.
6. The Collaborative may also:
 - a. Recommend to OCJS additional statewide minimum standards for law enforcement departments in Ohio beyond the two standards specified in paragraph 2a. above.
 - b. Recommend to OCJS additional model departmental policies and best practices for law enforcement departments in Ohio beyond those specified in paragraph 2b. above.
 - c. Evaluate the effectiveness of any statewide minimum standards and/or model departmental policies and best practices developed by the Collaborative and OCJS and, if necessary, recommend modifications to the same.
 - d. Recommend to OCJS any other measure the Collaborative believes is necessary to implement the Task Force's recommendations.

Any such new or modified statewide minimum standards and/or model departmental policies and best practices which the Collaborative and OCJS develop shall be disseminated by OCJS to all state and local law enforcement departments in Ohio. All annual reports published by OCJS in 2018 and thereafter shall include each law enforcement department's compliance or noncompliance with any such new or modified statewide minimum standards.

7. The Collaborative and OCJS, in their discretion, may develop measures to encourage state and local law enforcement departments to adopt and implement any statewide minimum standards developed by the Collaborative and OCJS.
8. Any and all staff support and resources necessary for the Collaborative to fulfill its obligations as outlined in this Executive Order shall be provided by the State of Ohio through OCJS. The Chairperson and members of the Collaborative shall serve without compensation for their work on the Collaborative, but may be reimbursed for their reasonable and necessary expenses in the conduct of Collaborative business.

I signed this Executive Order on April 29, 2015, in Columbus, Ohio, and it will not expire unless rescinded.




John R. Kasich, Governor

ATTEST


Jon Husted, Secretary of State

Filed on April 30, 2015
Per Kelly Hautman
In the Office of the Secretary
of State at Columbus, OH
JON HUSTED
Secretary of State



Ohio Collaborative Community- Police Advisory Board

August 28, 2015 Meeting Summary

On December 12, 2014, Governor John Kasich signed Executive Order 2014-06K announcing the creation of the **Ohio Task Force on Community-Police Relations**. The charge of the Task Force is threefold: 1) To explore the cause of fractured relationships between communities and law enforcement, 2) To examine strategies to strengthen trust between the community and law enforcement in order to resolve the underlying causes of friction; and 3) To provide the Governor with a report with recommendations about best practices available to communities. As a result of the work of the Task Force, on April 30, 2015, Governor John Kasich signed Executive Order 2015-04K establishing the **Ohio Collaborative Community-Police Advisory Board**.

The Collaborative is chaired by Director John Born, Office of Public Safety, and The Honorable Nina Turner, former Ohio Senator. Members appointed by the Governor, including ex officio members, are identified below:

- Officer Detective Brian S. Armstead—Akron Police Department, member of the Fraternal Order of Police
- Dr. Ronnie Dunn—Cleveland State University, Professor of Urban Studies and member of the NAACP Criminal Justice Committee
- The Reverend Damon Lynch III—senior pastor, New Prospect Baptist Church
- The Most Reverend George Murry—Bishop of the Roman Catholic Diocese of Youngstown
- Chief Michael J. Navarre—Oregon Police Department, member of the Ohio Association of Chiefs of Police
- Honorable Ronald J. O’Brien—Franklin County Prosecutor
- Sheriff Tom Miller—Medina County Sheriff’s Office, member of the Buckeye State Sheriff’s Association
- Lori Barreras—member of the Ohio Civil Rights Commission
- Mayor Michael H. Keenan—City of Dublin, local government representative
- Austin B. Harris—student at Central State University

Ex officio members:

- The Honorable George V. Voinovich—former U.S. senator, governor of Ohio, and mayor of Cleveland
- The late Honorable Louis Stokes, former member of Congress, honorary co-chair
- The Honorable Tom Roberts, former Ohio senator, life member of the NAACP
- Senator Cliff K. Hite, Ohio Senate
- Senator Sandra Williams, Ohio Senate
- Representative Tim Derickson, Ohio House

The purpose of the Collaborative is to advise and work with the Office of Criminal Justice Services (OCJS) in the Ohio Department of Public Safety to implement the Task Force’s recommendations, as identified in the Executive Order.

August 28, 2015, Columbus, OH: Third meeting of the Ohio Collaborative Community-Police Advisory Board.

The fourth meeting of the Collaborative was held on August 28, 2015 at 10:00 AM at the Ohio Department of Public Safety. The following members were present at the meeting:

- Executive Director Karhlton Moore
- Director John Born
- The Honorable Nina Turner
- The Honorable Ron O'Brien
- Dr. Ronnie Dunn
- Chief Michael Navarre
- Sheriff Tom Miller
- Commissioner Lori Barreras
- Officer Brian Armstead
- Reverend Damon Lynch III
- Austin B. Harris

Director Born welcomed members of the Collaborative. He reviewed the charge of the Collaborative and identified the standards to be delivered on September 3.

Senator Turner took some time to speak of the accomplishments of Louis Stokes. She asked that the Collaborative agree to dedicate our ongoing work to the late Congressman. A video tribute was shown.

Policy Statements on Recruiting/Hiring, Use of Deadly Force, and Use of Force

The first policy statement discussed was on recruiting and hiring. Suggestions were given regarding the ordering of the paragraphs. Some wording was clarified. There was discussion about the unintended consequences of the policy language. Consensus was achieved on the following statement:

The goal of every Ohio law enforcement agency is to recruit and hire qualified individuals while providing equal employment opportunity. Ohio law enforcement agencies should consist of a diverse workforce. Communities with diverse populations should strive to have a diverse work force that reflects the citizens served.

Non-discrimination and equal employment opportunity is the policy. Law enforcement agencies shall provide equal terms and conditions of employment regardless of race, color, religion, sex, sexual orientation, gender identity, age, national origin, veteran status, military status, or disability. This applies to all terms or conditions associated with the employment process, including hiring, promotions, terminations, discipline, performance evaluations, and interviews.

Agencies should utilize due diligence in ensuring that their prospective employees have the proper temperament, knowledge and attitude to handle this very difficult job. Agencies should have appropriate mechanisms in place in order to achieve this mission. Further, agencies should ensure their employment requirements are related to the skills that are necessary to be a successful employee.

The next policy statement discussed was on the use of deadly force. Considerable discussion centered on the need to specifically consider fleeing felon language, the use of certain words or phrases within the statement and the consistency of the words used, and whether new language suggestions are more appropriate for specific operational standards. It was decided to add references to the US and Ohio Supreme Court decisions *Tennessee v. Garner* and *Graham v. Connor*. Consensus was achieved on the following statement:

The preservation of human life is of the highest value in the State of Ohio. Therefore, employees must have an objectively reasonable belief deadly force is necessary to protect life before the use of deadly force. Deadly force may be used only under the following circumstances:

- 1. To defend themselves from serious physical injury or death; or**
- 2. To defend another person from serious physical injury or death; or**
- 3. In accordance with U.S. and Ohio Supreme Court decisions, specifically, *Tennessee v. Garner* and *Graham v. Connor*.**

The final policy statement discussed was on the use of force. Some members discussed concern over the use of 'resistance'. Additional language was constructed, including language adapted from the IACP model policy statement. Consensus was achieved on the following statement:

Employees may only use the force which is reasonably necessary to effect lawful objectives including: effecting a lawful arrest or overcoming resistance to a lawful arrest, preventing the escape of an offender, or protecting or defending others or themselves from physical harm.

Public Awareness Campaign

Director Born discussed the need for a public awareness campaign that addresses community-police relations. He introduced OCJS' Elizabeth Ranade-Janis, the Anti-Human Trafficking Coordinator for the state. Elizabeth spearheaded efforts to develop a public awareness campaign on the issue of human trafficking. She presented the members with information on how the campaign was developed, what materials were created, and to whom the materials were being targeted. The goal of her presentation was to get the Collaborative members to begin thinking of how such a campaign could be developed to address the issue of community-police relations.

Impact Group, out of Hudson, Ohio, was chosen through a competitive bidding process to spearhead the campaign. They worked with the Ohio Human Trafficking Task Force. Focus groups were conducted with both stakeholders/general public and with human trafficking victims/survivors in order to better understand individuals' perceptions and attitudes. They learned from survivors important information on what the materials should contain and where they should be placed to effect change. Based on all of these, the Impact Group developed recommendations for the Task Force.

The campaign was rolled out in January 2014. Materials can be found at <http://humantrafficking.ohio.gov/>. All materials are free, and are available in multiple languages.

The Task Force is partnering with the National Hotline to determine impact of the awareness campaign. One measure of this is whether calls to the hotline are increasing post-implementation (compared to pre-implementation). They are in the process of analyzing the data.

Preliminary ideas for a public awareness campaign on community-police relations will be provided for consideration at the October Collaborative meeting.

Reverend Lynch noted that we should not rush to do an awareness campaign without having something tangible to give Ohioans. Senator Turner agreed that members need to proactively let Ohioans know what the Collaborative has done, what the Collaborative has been doing, and where the Collaborative plans to go in the future.

Future Standards

Director Born discussed the possibility of working on developing standards for body camera use and for the integration of the community and police. He acknowledged that this is a complicated issue and may be more difficult than the two standards we just finalized. Executive Director Moore handed out copies of an evaluation conducted of body camera use by the Rialto Police Department.

Dr. Dunn suggested that the group should consider looking at the issue of racial profiling and the collection of demographic data. This will help lay a foundation to begin to build some trust and provide transparency. Director Born acknowledged the importance of this and noted that in the October meeting we should talk about what the next standards should be. It was suggested that members should be surveyed to get their thoughts on the top issues for developing standards.

Dr. Dunn then discussed an article by Sam Walker that was published this month, which deals with the new use of force policy in Seattle. He provided the information to Karhlton, who will distribute it to the members.

The meeting was adjourned at 1:08 PM.



Collaborative Accomplishments to Date

The Ohio Collaborative Community-Police Advisory Board was created by Executive Order 2015-04K on April 29, 2015. The executive order establishing the 12-person board to continue the work of the Ohio Task Force on Community-Police Relations, and specifically to establish, for the first time in Ohio history, statewide standards for law enforcement agencies. Additionally, the Ohio Collaborative was tasked with developing model policies for law enforcement agencies to use.

The Ohio Collaborative's first task was to develop standards on use of force, including deadly force, and on hiring and recruiting by September 3, 2015, which was 90 days after the appointment of the Collaborative members.

The Ohio Collaborative held its first meeting on July 8, 2015, and held subsequent meetings on July 29, August 11 and August 28, 2015. The purpose of the meetings was to provide the Collaborative members with information that would assist them with creating Ohio's first statewide standards. The members were provided with copies of the use of force policies, heard from human resources and use of force experts. Additionally, they were provided with research materials and heard from providers of law enforcement tools and international accreditation experts.

As a result of this work, on August 28, 2015, the Ohio Collaborative adopted Ohio's first-ever statewide standards.



GENERAL POLICE ORDER CLEVELAND DIVISION OF POLICE



EFFECTIVE DATE: February 2, 2015	REVISED DATE:	NO. PAGES: 1 of 11	NUMBER: 3.2.20
SUBJECT: WEARABLE CAMERA SYSTEM (WCS)			
ASSOCIATED MANUAL:		RELATED ORDER: 1.1.23, 1.3.01, 1.3.02, 1.3.27, 1.3.39, 3.4.03	
CHIEF OF POLICE: <i>Calvin D. Williams, Chief</i>			

PURPOSE: To establish guidelines for the use, management, storage, retrieval, and supervision regarding the Taser International Inc.’s Wearable Camera System (WCS).

POLICY: The Cleveland Division of Police has adopted the use of Taser’s WCSs (video and audio), captured media management, and storage system to provide for supplemental documentation of events, actions, conditions, and statements made during officer-involved events, including but not limited to arrests, uses of force, and other critical incidents; presentation in court as evidence; protection of members against false or inaccurate complaints, accusations, or claims; and as a training and evaluation aid. WCSs have been demonstrated to be of significant value in the prosecution of criminal offenders and reducing violent confrontation, officer’s use of force, and complaints against officers.

DEFINITIONS:

Taser AXON camera: A WCS with secured internal memory for storage of recorded video and audio. This camera system operates in two modes (Buffering and Event).

Buffering Mode: After the WCS is powered on, it continuously loops 30 seconds of VIDEO ONLY. Once placed into EVENT Mode, only 30 seconds of pre-event video (no audio) recording will be captured along with the video and audio captured after entering Event Mode.

Event Mode: Activated when the WCS is in Buffering Mode and the event button is pressed two times within one second. The indicator light will begin blinking red giving users a visible indicator that the WCS is now actively recording video and audio. An audible tone will also alert members that the WCS is activated.

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Evidence.com: The online web-based digital storage medium facility accessed at <https://clevelandohpd.evidence.com>. This virtual warehouse stores the digitally encrypted data in a highly secure environment accessible to personnel based on their security clearance.

Evidence Sync: Desktop or Mobile Data Computer (MDC) application that allows WCS users to view captured media from their WCS via a standard USB cable. Users may also tag, categorize, add notes, and/or RMS numbers to captured media and will allow for upload to their Evidence.Com account.

Evidence Transfer Manager (ETM): The docking unit used to recharge the WCS and upload the encrypted captured media (video and audio). The ETM then transfers the encrypted data digitally to Evidence.com.

PROCEDURES:

- I. All captured media is an official record of the Cleveland Division of Police. Accessing, copying, or releasing any captured media for any purpose other than law enforcement related is strictly prohibited and subject to discipline.
- II. Members shall not be able to edit, delete, or alter captured media. The security features of Evidence.com ensure compliance and track all access to captured media.
- III. The existence of captured media shall not replace a thorough, accurate, and complete RMS report or Form-1.
- IV. Members using a WCS shall:
 - A. Successfully complete training on all WCS directives and instructions (e.g. inspection, start up, use, shutdown, and upload).
 - B. Be responsible for all equipment assigned to them. A member whose issued WCS is damaged, lost, or stolen shall immediately notify their supervisor and complete a Form-1 and RMS report.
 - C. Document the existence of captured media when completing any police reports or documents (e.g. daily duty report, Uniform Traffic Tickets (UTT), Multipurpose Misdemeanor Complaints (MMC), and RMS reports) by using the acronym “WCS” and adding the RMS number on UTTs and MMCs.

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- D. Notify a supervisor when a WCS was not placed into event mode in compliance with this Order.

- E. At the start of a tour of duty:
 - 1. Inspect the WCS and related equipment to ensure there are no visible or obvious signs of damage.
 - 2. Place the WCS in a location that will most closely capture the member's field of view.
 - 3. Turn on the WCS, press the activation button twice, and listen for the audible signal to verify the unit is receiving power and functioning properly.
 - 4. Log the WCS unit serial number on their Daily Duty Report.
 - 5. During the 360 degree walk around inspection of their assigned police vehicle make a WCS recording and verbally note any fresh damage discovered and report same to their immediate supervisor as per the General Police Order (GPO) 8.1.01.

- F. Maintain the WCS in the Buffering Mode so that it can easily be placed into Event Mode for the capture of video and audio evidence.

- G. Place the WCS into Event Mode prior to taking any police related action including, but not limited to:
 - 1. Encounters with victims, witnesses, and suspects including those that involve or may involve a stop or investigation based on reasonable suspicion or probable cause.
 - 2. All citations, uses of force, detentions, and arrests.
 - 3. All searches including, but not limited to, people, vehicles, items, buildings, and places.
 - 4. All domestic violence calls including suspect/victim interviews.
 - 5. All interactions with persons known or suspected of having mental illness or in crisis.

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6. Assisting other members engaged in a police related action, whether or not the other member has a WCS in event mode.
 7. Pursuits (vehicle and foot) and emergency response driving.
 8. When asked to by a citizen during the interaction with the citizen.
 9. While en route to crimes in progress or just occurred where fleeing suspects or vehicles may be captured on video leaving the crime scene.
 10. Crime or accident scenes where captured media can help document, enhance and support members: written reports, evidence collection, investigations, and court testimony.
 11. Other events, situations and circumstances including but not limited to armed encounters, acts of physical violence, civil disturbances, and criminal or suspicious activity
 12. Any situation that a member believes captured media may be of use.
- H. After the WCS unit is placed into the Event Mode:
1. Record events in accordance with this Order.
 2. Advise citizens that a camera is on and recording audio and video at the first reasonable opportunity keeping member safety a priority.
 3. Not stop the recording until the contact has concluded or when ordered by a Cleveland Division of Police supervisor.
- I. Be permitted to return the WCS to Buffering Mode from Event Mode after a citizen has been notified that a WCS is recording in the following situations. Members may need to explain the difference between Buffering and Event Modes in these circumstances.
1. Entering a private home or building where consent of the owner or person with authority to consent to the entrance is required and that person expressly declines to permit video and/or audio recording inside the home or building. This will not apply to entrance where consent is not required or no longer required once inside the home/building including entrances related to a search warrant, arrest warrant, domestic violence calls, and emergency or exigent circumstances. If

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possible, members shall request that the citizen step outside or, depending on the circumstances and with supervisory approval, return the WCS to Buffering Mode.

2. When interacting with a victim or witness who refuses to cooperate if the WCS is in Event Mode. Members shall notify and obtain approval from their immediate supervisor or the sector supervisor and document by stating, while the WCS is in event mode, the reason the WCS is being returned to Buffering Mode. If practicable and reasonable, record the victim or witness requesting the WCS be turned off.
- J. Document the reason that a WCS unit has been activated to Event Mode and is then returned to Buffering Mode. Documentation shall take the form of making a recorded announcement on the WCS.
1. Contact complete.
 2. Ordered by supervisor (name) to end recording.
 3. Incident complete.
- K. At the end of a tour of duty:
1. Complete a 360 degree walk around inspection of their assigned police vehicle making a WCS recording and verbally noting any new damage discovered and report same to their immediate supervisor as per the General Police Order (GPO) 8.1.01.
 2. Inspect the WCS and related equipment to ensure there are no visible or obvious signs of damage.
 3. Place the WCS into the ETM slot for uploading of captured media and charging of the unit, unless using the WCS for secondary employment.
- V. The WCS shall not be used in Event Mode to capture the following, unless capturing evidence related to activities described in IV. G. of this Order:
- A. Divisional administrative investigations without the express consent of the commanding member of the involved district/bureau/section/unit.

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- B. Internal non-investigative staff meetings, hearings, and encounters with other members, supervisors, command staff, or City-employed civilians assisting the Division.
 - C. Conversations of fellow members or civilian employees without their knowledge during routine, non-enforcement related activities.
 - D. Protected health information and treatment when requested by the patient, or on-scene Emergency Medical Service or Division of Fire personnel.
 - E. Gratuitous captured media (i.e. effects of extreme violence or injury, exposed genitalia or other erogenous areas, etc.).
 - F. Any place where there is a reasonable expectation of privacy (i.e. dressing rooms, restrooms, etc.).
 - G. Images of confidential informants or undercover members, unless requested by the undercover member, their supervisor, or commanding member.
 - H. Conversations of citizens and/or members (i.e. administrative duties, court, community meetings, etc.).
 - I. Sporting events, entertainment venues, or similar. Venues or organizations may have prohibitions against recording the event or within the facility.
- VI. Members are encouraged to use Evidence Sync to categorize and tag captured media prior to uploading. Evidence Sync shall only be used from city-owned computer equipment. Members shall not install Evidence Sync on non-city-owned computers. Once captured media is uploaded or through Evidence Sync, members shall:
- A. Log into their Evidence.com account or Evidence Sync account and place all captured media into the appropriate category. If multiple categories apply, place the captured media into the category with the longest retention period.
 - B. Add RMS numbers to corresponding captured media.
 - C. Add notes or mark captured media as needed to assist investigative units with use of the captured media.

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- VII. Members shall surrender their WCS to the officer-in-charge (or designee) of the Use of Deadly Force Investigation Team (UDFIT), Accident Investigation Unit (AIU), Bureau of Integrity Control Call-up Group, or any supervisor upon request.
- VIII. The Division reserves the right to limit or restrict a member's ability to view captured media based on the circumstances surrounding the incident.
- IX. Secondary Employment.
- A. Use of WCS while working authorized secondary employment is recommended but not required.
 - B. Members using the WCS at secondary employment shall:
 - 1. Return the WCS to the ETM at the earliest convenience keeping in mind the WCS needs to have the captured media uploaded.
 - 2. Ensure the WCS is charged for their next tour of duty.
 - C. Members shall adhere to all WCS requirements.
- X. Media Storage:
- A. All captured media will be uploaded from the ETM and stored at Evidence.com according to the City of Cleveland records retention policy.
 - B. Members may access WCS captured media via Evidence.com or Evidence Sync and view it to assist with investigations or reports.
 - C. Members shall not use any recording device to record captured media from Evidence.com or Evidence Sync.
 - D. Members shall add notes to captured media stating the reason for each view of captured media (i.e. completing report, court prep, random review, etc.).
- XI. Supervisors shall:
- A. Ensure members assigned a WCS are using them in compliance with this order and determine the level of investigation for violations of this order.

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- B. Document in their Daily Duty Report any incident in which a member notifies them about an incident in which the WCS should have been activated, but was not.
 - C. Review all captured media related to a complaint or incidents resulting in a supervisory investigation.
 - D. Reference the existence of captured media in a distinct and separate heading in supervisory investigation Form-1s, including:
 - 1. All officers on scene and their badge numbers.
 - 2. All captured media reviewed.
 - 3. Any discrepancies between the captured media and reports.
 - E. Be able to view captured media from Evidence.com or by having the member log into Evidence.com and viewing from the member's account.
 - F. Complete a supervisory investigation (including involved members' Form-1s and RMS reports) into the damaged, lost, or stolen WCS and forward it through the chain of command.
 - G. When notified that a member is unable to complete the categorizing or tagging of captured media, determine if immediate attention is required or if the task can be completed at the start of the member's next tour of duty. Supervisors shall note on their Daily Duty Report any permission and justification for overtime or delay in tagging or categorizing recorded events.
 - H. Contact the Mobile Support Unit OIC for the pick-up or drop-off of a WCS.
 - I. During random review, move captured media into correct categories if needed.
- XII. Mobile Support Unit shall:
- A. Assist supervisors with investigations into damaged, lost, or stolen WCS.
 - B. Assist members with any questions about the WCS and related orders.

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- C. Make copies of captured media as required for law enforcement purposes, public information requests, and the Chief of Police.
- D. Be the point of contact with the WCS vendor.
- E. Ensure new accounts are created as needed into Evidence.com, existing accounts are kept up to date, and proper account authority is maintained.
- F. Maintaining spare WCS units as needed.

XIII. Random reviews of captured media shall occur regularly.

- A. Supervisors shall randomly review a minimum of 1 hour per week of recordings created by members under their command and make recommendations through the chain of command about potential changes needed to the WCS program or related orders. Supervisors shall also:
 - 1. Confirm proper use of equipment.
 - 2. Compliance with this Order.
 - 3. Identify areas where additional training or guidance is needed.
- B. Mobile Support Unit OIC shall randomly review a minimum of 4 hours of video per week for compliance with this order and any potential changes needed to the WCS program or related orders.

XIV. Requests to view or receive copies of captured media.

- A. Captured media needed for any law enforcement purpose (i.e. court, case files, supervisory investigations, etc.) shall be requested through the Mobile Support Unit by clicking on the Track-It icon and following the instructions.
- B. All requests for copies of captured media for non-evidentiary reasons shall be made by Form-1 request through the requestor's immediate supervisor.
- C. Members are encouraged to note video that they feel may have training value. A Form-1 shall be completed stating the reason, and faxed to Mobile Support Unit for supervisory approval.

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- D. Unusual or exceptional incidents related to law enforcement activities are often the subject of heightened public curiosity and interest. However, members are strictly prohibited from allowing persons outside of law enforcement to view or listen to any media captured by the WCS or any other Divisional evidence capture system without prior authorization from the Chief of Police.
 - E. Unless otherwise directed by the Chief of Police, all video and/or audio recordings (including personal) recorded on duty shall not be disseminated outside of law enforcement.
 - F. Members shall advise all non-Divisional requests for captured media to file a public records request.
- XV. All requests to exhibit, display, or demonstrate the WCS to outside parties shall be directed to the Chief's Office.
- XVI. Successful court challenges to the use or appropriateness of captured media shall be detailed in a Form-1 and forwarded to the Chief's Office and the Mobile Support Unit. The Form-1 shall include a summary of the ruling as well as a description of any restriction or sanction resulting from the ruling.
- XVII. Members shall use the following categories to assist in maintaining and filing captured WCS media. Captured media that members suspect needs to be retained longer than the retention period shall be documented in a Form-1 describing the reason and forwarding it through the chain of command to the Mobile Support Unit.
- A. Homicide/Sex crimes (permanent retention).
 - 1. Dead Body Investigations & Crime Scene Video.
 - 2. Sexual Assault Investigations & Crime Scene Video.
 - B. Critical Incidents (retention of 5 years).
 - 1. All Motor Vehicle Crashes.
 - 2. Any Use of Force incident.
 - 3. All Arrests.

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4. Complaints.
 5. Search warrant video.
 6. Felony crime scene video.
 7. Investigative detentions.
 8. Accidents involving city property (Injury to person/City Property report).
 9. Pursuits (vehicle & foot).
- C. Misdemeanors (retention of 1 year).
1. Misdemeanor reports.
 2. Misdemeanor crime scene video.
- D. Traffic Stops and Citations (retention of 180 days).
1. Citations issued without an arrest (UTT & MMC).
 2. Citizen encounters where none of the other category criteria apply.
 3. Traffic stops where no citation is issued.
- E. Possible complaints (retention of 180 days).
1. Member believes the incident may result in a complaint.
 2. Captured media that does not fall into any of the above circumstances.
- F. Administrative (retention of 90 days).
1. Start of tour WCS functionality test footage.
 2. Start and end of tour vehicle inspection footage.

Hubbard Township Police Department

Policy # 15-001 Viewu Body Worn Camera System (BWC)

Effective Date: 7-8-15

1. PURPOSE:

To establish guidelines for the use, management, storage, retrieval, and supervision regarding the VIEVU L3 Body Worn Camera (BWC). The goal of the Hubbard Township Police Department BWC program is to foster transparency and accountability while protecting civil liberties and privacy interests.

2. POLICY:

The Hubbard Township Police Department has adopted the use of VIEVU Body Worn Camera (video and audio), captured media management, and storage system to provide for supplemental documentation of events, actions, conditions, and statements made during officer-involved events, including but not limited to arrests, uses of force, and other critical incidents; presentation in court as evidence; protection of members against false or inaccurate complaints, accusations, or claims; and as a training and evaluation aid. BWCs have been demonstrated to be of significant value in the prosecution of criminal offenders and reducing violent confrontation, officer's use of force, and complaints against officers.

3. DEFINITIONS:

BWC: Body Worn Camera

VIEVU LE3 Body Worn Camera: A BWC with secured internal memory for storage of recorded video and audio. This camera system features HD video resolution, 16GB internal memory and up to 12 hours of record time. Video evidence is securely stored and catalogued with a FIPS 140-2 compliant digital signature process to verify the video has not been altered.

Evidence Transfer Manager (ETM): The docking unit used to recharge the BWC and upload the encrypted captured media (video and audio). The ETM then transfers the encrypted data digitally to the internal storage software.

I. OFFICER RESPONSIBILITIES

Prior to going into service, the Officer in Charge will be responsible for making sure that those officers under their command are equipped with a body worn camera issued by the Department and that the BWC is in good working order. Uniformed officers should wear the recorder in a conspicuous manner on their uniformed shirt or outer ballistic vest carrier. Any officer assigned to a non-uniformed position may carry an approved portable recorder upon approval of their Officer in Charge.

II. REQUIRED ACTIVATION OF BWC

Surreptitious Use of The Audio Recorder-Ohio law permits an individual to surreptitiously record any conversation in which one party to the conversation has given his/her permission. (ORC 2933.52).

This policy is not intended to describe every possible situation in which the BWC may be used. At no time is a member expected to jeopardize his/her safety in order to activate the BWC. However, the BWC should be activated in required situations as soon as practicable. Once started, recordings should continue without interruption until the contact ends. When in doubt, the contact should be recorded. If a citizen complaint is filed against an officer

Whenever possible, officers should inform individuals that they are being recorded. **In locations where a person has a reasonable expectation of privacy, such as in their residence, the person may request to not be recorded.** The request can be granted except in situations where the individual is the subject of a criminal investigation, arrest, search or other circumstance that an officer's good sense indicates to him/her that the matter should continue to be recorded.

If the officer fails to activate the BWC, fails to record the entire contact or interrupts the recording, the officer shall document the reason either on camera or in writing. If a complaint is filed against the officer and he/she did not record the incident, an investigation will be conducted by the Chief of Police or his designee to determine if policy was violated.

The following are situations that require the activation of the BWC:

- 1). All calls for service.
- 2). Traffic stops to include, but not limited to, traffic violations or when assisting a stranded motorist.
- 3). When asked to by a citizen during the interaction with the citizen.
- 4). All domestic violence calls including suspect/victim interviews.
- 5). All interactions with persons known or suspected of having mental illness or in crisis.
- 6). Suspicious person/vehicle calls.
- 7). Vehicle searches.
- 8). Crime or accident scenes where captured media can help document, enhance and support members: written reports, evidence collection, investigations, and court testimony.
- 9). OVI investigations including field sobriety checks.
- 10). Physical or verbal confrontations or use of force situations.
- 11.) Any other circumstance where the officer believes that a recording of an incident would be appropriate.

III. OFFICER INVOLVED SHOOTING OR OTHER SERIOUS INCIDENT

In this type of incident a supervisor will physically take possession of the camera and assume downloading responsibilities.

IV. CESSATION OF RECORDING

Once activated, the recording system should remain on until the incident has concluded. For purposes of this section, conclusion of an incident has occurred when all arrests have been made, arrestees have been transported and all witnesses and victims have been interviewed or in situations where an officer has cleared the scene of his/her assignment. Further, recording may cease if an officer is simply waiting for a tow truck or a family member to arrive, or in other similar situations.

V. WHEN ACTIVATION IS NOT REQUIRED

Activation of the recording system is not required when exchanging information with other officers or during breaks, lunch periods, report writing, or when not in service. Additionally, casual conversations with the public need not be recorded. These types of conversations are central to building informal relationships within the community.

VI. PROHIBITED USE OF PORTABLE RECORDERS/BWC

No member of this department may surreptitiously record a conversation of any other member of this department except with a court order or when lawfully authorized by the Chief of Police for the purpose of conducting a criminal or administrative investigation.

The BWC will not be activated in places where a reasonable expectation of privacy exists, such as dressing rooms or restrooms. Recordings shall not be used by any member for the purpose of embarrassment or ridicule.

Officers will not allow citizens to review the recordings.

Members accessing, copying or releasing of BWC recordings for other than law enforcement purposes are prohibited and subject to discipline.

Officers are prohibited from using department-issued BWCs for personal use and are prohibited from making personal copies of recordings created while on-duty or while acting in their official capacity.

Officers are also prohibited from retaining recordings of activities or information obtained while on-duty. Officers shall not duplicate or distribute such recordings except for authorized legitimate department business purposes. All such recordings shall be retained at the Department. Officers are prohibited from using personally owned recording devices while on-duty.

VII. RETENTION OF RECORDINGS/ RECORDINGS AS EVIDENCE

Any time a member records any portion of a contact that the member reasonably believes constitutes evidence in a criminal case, the officer will advise their Officer in Charge who will make the appropriate entry in case management.

Any time a member reasonably believes a recorded contact may be beneficial in a non-criminal matter the member should promptly notify a supervisor of the existence of the recording.

VIII. COPIES OF ORIGINAL RECORDING

Upon proper request, a copy of the original recording will be made for use as authorized in this policy. Recordings may only be released in response to a court order upon approval by the Chief of Police.

IX. REVIEW OF RECORDED BWC FILES

All BWC recordings are the property of the Hubbard Township Police Department. Dissemination outside of the agency is strictly prohibited, except to the extent permitted or required by law.

When preparing written reports, members should review their recordings as a resource. However, members should not use the fact that a recording was made as a reason to write a less detailed report.

Supervisors are authorized to review relevant recordings any time they are investigating alleged misconduct, reports of meritorious conduct or whenever such recordings would be beneficial in reviewing the member's performance.

Recordings may be reviewed in any of the following situations:

- a. For use when preparing statements.
- b. By a supervisor investigating a specific act of officer conduct.
- c. By a supervisor to assess officer performance.
- d. To assess proper functioning of BWC systems.
- e. By department investigators who are participating in an official investigation, such as a personnel complaint, administrative inquiry or a criminal investigation.
- f. By the media through proper process with permission of the Chief of Police.
- g. To assess possible training value, recordings may be shown for training purposes. In no event shall any recording be used or shown for the purpose of ridiculing or embarrassing any employee.

X. RETENTION REQUIREMENTS

All recordings shall be retained for a period consistent with the requirements of the record retention schedule but in no event for a period less than 14 days.

XI. RELEASE OF RECORDINGS

Recordings made using BWCs pursuant to this policy are department records and may only be released as provided in the Release of Records and Information Policy or for other authorized legitimate department business purposes.

XII. SYSTEM OPERATIONAL STANDARDS

Officers shall not edit, erase, alter, reuse, share, modify or otherwise tamper with BWC recordings. Only a supervisor may erase and reissue previous recordings and may only do so pursuant to the provisions of this policy.

XIII. SUPERVISORY RESPONSIBILITIES

Supervisory personnel shall ensure that officers equipped with BWCs utilize them in accordance with this policy. At least on a monthly basis, supervisors will randomly review BWC recordings to ensure that the equipment is operating properly and that officers are using the devices in accordance with the procedures outlined within this policy.

Implementing a Body-Worn Camera Program

Recommendations and Lessons Learned



COPS
Community Oriented Policing Services
U.S. Department of Justice



POLICE EXECUTIVE
RESEARCH FORUM

Implementing a Body-Worn Camera Program

Recommendations and Lessons Learned

This project was supported by cooperative agreement number 2012-CK-WX-K028 awarded by the Office of Community Oriented Policing Services, U.S. Department of Justice. The opinions contained herein are those of the author(s) and do not necessarily represent the official position or policies of the U.S. Department of Justice. References to specific agencies, companies, products, or services should not be considered an endorsement by the author(s) or the U.S. Department of Justice. Rather, the references are illustrations to supplement discussion of the issues.

The Internet references cited in this publication were valid as of the date of publication. Given that URLs and websites are in constant flux, neither the author(s) nor the COPS Office can vouch for their current validity.

The points of view expressed in this publication do not necessarily reflect the opinions of individual Police Executive Research Forum members.

Recommended citation:

Miller, Lindsay, Jessica Toliver, and Police Executive Research Forum. 2014. *Implementing a Body-Worn Camera Program: Recommendations and Lessons Learned*. Washington, DC: Office of Community Oriented Policing Services.

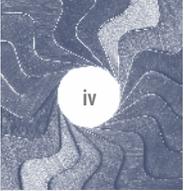
ISBN: 978-1-934485-26-2

Published 2014



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Letter from the PERF Executive Director

The recent emergence of body-worn cameras has already had an impact on policing, and this impact will only increase as more agencies adopt this technology. The decision to implement body-worn cameras should not be entered into lightly. Once an agency goes down the road of deploying body-worn cameras—and once the public comes to expect the availability of video records—it will become increasingly difficult to have second thoughts or to scale back a body-worn camera program.

A police department that deploys body-worn cameras is making a statement that it believes the actions of its officers are a matter of public record. By facing the challenges and expense of purchasing and implementing a body-worn camera system, developing policies, and training its officers in how to use the cameras, a department creates a reasonable expectation that members of the public and the news media will want to review the actions of officers. And with certain limited exceptions that this publication will discuss, body-worn camera video footage should be made available to the public upon request—not only because the videos are public records but also because doing so enables police departments to demonstrate transparency and openness in their interactions with members of the community.

Body-worn cameras can help improve the high-quality public service expected of police officers and promote the perceived legitimacy and sense of procedural justice that communities have about their police departments. Furthermore, departments that are already deploying body-worn cameras tell us that the presence of cameras often improves the performance of officers as well as the conduct of the community members who are recorded. This is an important advance in policing. And when officers or members of the public break the law or behave badly, body-worn cameras can create a public record that allows the entire community to see what really happened.

At the same time, the fact that both the public and the police increasingly feel the need to videotape every interaction can be seen both as a reflection of the times and as an unfortunate commentary on the state of police-community relationships in some jurisdictions. As a profession, policing has come too far in developing and strengthening relationships with its communities to allow encounters with the public to become officious and legalistic. Body-worn cameras can increase accountability, but police agencies also must find a way to preserve the informal and unique relationships between police officers and community members.

This publication, which documents extensive research and analysis by the Police Executive Research Forum (PERF), with support from the U.S. Department of Justice's Office of Community Oriented Policing Services (COPS Office), will demonstrate why police departments should not deploy body-worn cameras carelessly. Moreover, departments must anticipate a number of difficult questions—questions with no easy answers because they involve a careful balancing of competing legitimate interests, such as the public's interest in seeing body-worn camera footage versus the interests of crime victims who would prefer not to have their images disseminated to the world.

One of the most significant questions departments will face is how to identify which types of encounters with members of the community officers should record. This decision will have important consequences in terms of privacy, transparency, and police-community relationships. Although recording policies should provide officers with guidance, it is critical that policies also give officers



a certain amount of discretion concerning when to turn their cameras on or off. This discretion is important because it recognizes that officers are professionals and because it allows flexibility in situations in which drawing a legalistic “bright line” rule is impossible.

For example, an officer at a crime scene may encounter a witness who would prefer not to be recorded. By using discretion, the officer can reach the best solution in balancing the evidentiary value of a recorded statement with the witness’s reluctance to be recorded. The decision may hinge on the importance of what the witness is willing to say. Or perhaps the witness will agree to be recorded by audio but not video, so the officer can simply point the camera away from the witness. Or perhaps the witness will be willing to be recorded later, in a more private setting. By giving officers some discretion, they can balance the conflicting values. Without this discretion, body-worn cameras have the potential to damage important relationships that officers have built with members of the community. This discretion should not be limitless; instead, it should be guided by carefully crafted policies that set specific parameters for when officers may use discretion.

If police departments deploy body-worn cameras without well-designed policies, practices, and training of officers to back up the initiative, departments will inevitably find themselves caught in difficult public battles that will undermine public trust in the police rather than increasing community support for the police.

This publication is intended to serve as a guide to the thoughtful, careful considerations that police departments should undertake if they wish to adopt body-worn cameras.

Sincerely,



Chuck Wexler, Executive Director
Police Executive Research Forum

Letter from the COPS Office Director

Dear colleagues,

One of the most important issues currently facing law enforcement is how to leverage new technology to improve policing services. Whether using social media to engage the community, deploying new surveillance tools to identify suspects, or using data analysis to predict future crime, police agencies around the world are implementing new technology at an unprecedented pace.

Body-worn cameras, which an increasing number of law enforcement agencies are adopting, represent one new form of technology that is significantly affecting the field of policing. Law enforcement agencies are using body-worn cameras in various ways: to improve evidence collection, to strengthen officer performance and accountability, to enhance agency transparency, to document encounters between police and the public, and to investigate and resolve complaints and officer-involved incidents.

Although body-worn cameras can offer many benefits, they also raise serious questions about how technology is changing the relationship between police and the community. Body-worn cameras not only create concerns about the public's privacy rights but also can affect how officers relate to people in the community, the community's perception of the police, and expectations about how police agencies should share information with the public. Before agencies invest considerable time and money to deploy body-worn cameras, they must consider these and other important questions.

The COPS Office was pleased to partner with the Police Executive Research Forum (PERF) to support an extensive research project that explored the numerous policy and implementation questions surrounding body-worn cameras. In September 2013, the COPS Office and PERF hosted a conference in Washington, D.C., where more than 200 law enforcement officials, scholars, representatives from federal agencies, and other experts gathered to share their experiences with body-worn cameras. The discussions from this conference, along with interviews with more than 40 police executives and a review of existing body-worn camera policies, culminated in the recommendations set forth in this publication.

Implementing a Body-Worn Camera Program: Recommendations and Lessons Learned offers practical guidance as well as a comprehensive look at the issues that body-worn cameras raise. I hope you find that the wide range of perspectives, approaches, and strategies presented in this publication are useful, whether you are developing your own body-worn camera program or simply wish to learn more about the topic. The goal of the COPS Office and PERF is to ensure that law enforcement agencies have the best information possible as they explore this new technology; therefore, we encourage you to share this publication, as well as your own experiences, with other law enforcement practitioners.

Sincerely,



Ronald L. Davis, Director
Office of Community Oriented Policing Services

Acknowledgments

PERF would like to thank the U.S. Department of Justice’s Office of Community Oriented Policing Services (COPS Office) for supporting this research into body-worn cameras. We are thankful to COPS Office Director Ronald Davis and Principal Deputy Director Joshua Ederheimer for recognizing the increasingly important role this technology plays for law enforcement agencies across the globe. We are also grateful to our program managers at the COPS Office, Helene Bushwick and Katherine McQuay, for their support and encouragement throughout the project.

We would also like to thank the law enforcement agencies that participated in our survey on body-worn cameras. Their thoughtful responses guided our research and the agenda for the executive session in Washington, D.C., in September 2013. We are also grateful to the more than 200 police chiefs, sheriffs, scholars, and other professionals who participated in our executive session (see appendix B for a list of participants). These leaders provided valuable information about their experiences with body-worn cameras and prompted an insightful discussion regarding the issues these cameras raise.

We are especially thankful for the more than 40 police executives who shared their body-worn camera policies with PERF and who participated in interviews with PERF staff. Their candid assessments of how this technology has impacted their agencies shaped the findings and recommendations found in this publication.

Finally, credit is due to PERF staff members who conducted the survey, prepared for and hosted the executive session, conducted interviews, and helped write and edit this publication, including Jessica Toliver, Lindsay Miller, Steve Yanda, and Craig Fischer.

Introduction

State of the field and policy analysis

Over the past decade, advances in the technologies used by law enforcement agencies have been accelerating at an extremely rapid pace. Many police executives are making decisions about whether to acquire technologies that did not exist when they began their careers—technologies like automated license plate readers, gunshot detection systems, facial recognition software, predictive analytics systems, communications systems that bring data to officers’ laptops or handheld devices, GPS applications, and social media to investigate crimes and communicate with the public.

For many police executives, the biggest challenge is not deciding whether to adopt one particular technology but rather finding the right mix of technologies for a given jurisdiction based on its crime problems, funding levels, and other factors. Finding the best mix of technologies, however, must begin with a thorough understanding of each type of technology.

Police leaders who have deployed body-worn cameras¹ say there are many benefits associated with the devices. They note that body-worn cameras are useful for documenting evidence; officer training; preventing and resolving complaints brought by members of the public; and strengthening police transparency, performance, and accountability. In addition, given that police now operate in a world in which anyone with a cell phone camera can record video footage of a police encounter, body-worn cameras help police departments ensure events are also captured from an officer’s perspective. Scott Greenwood of the American Civil Liberties Union (ACLU) said at the September 2013 conference:

The average interaction between an officer and a citizen in an urban area is already recorded in multiple ways. The citizen may record it on his phone. If there is some conflict happening, one or more witnesses may record it. Often there are fixed security cameras nearby that capture the interaction. So the thing that makes the most sense—if you really want accountability both for your officers and for the people they interact with—is to also have video from the officer’s perspective.

The use of body-worn cameras also raises important questions about privacy and trust. What are the privacy issues associated with recording victims of crime? How can officers maintain positive community relationships if they are ordered to record almost every type of interaction with the public? Will members of the public find it off-putting to be told by an officer, “I am recording this encounter,” particularly if the encounter is a casual one? Do body-worn cameras also undermine the trust between officers and their superiors within the police department?

In addition to these overarching issues, police leaders must also consider many practical policy issues, including the significant financial costs of deploying cameras and storing recorded data, training requirements, and rules and systems that must be adopted to ensure that body-worn camera video cannot be accessed for improper reasons.

“Because technology is advancing faster than policy, it’s important that we keep having discussions about what these new tools mean for us. We have to ask ourselves the hard questions. What do these technologies mean for constitutional policing? We have to keep debating the advantages and disadvantages. If we embrace this new technology, we have to make sure that we are using it to help us do our jobs better.”

– Charles Ramsey, Police Commissioner,
Philadelphia Police Department

1. Body-worn cameras are small video cameras—typically attached to an officer’s clothing, helmet, or sunglasses—that can capture, from an officer’s point of view, video and audio recordings of activities, including traffic stops, arrests, searches, interrogations, and critical incidents such as officer-involved shootings.

Project overview

Even as police departments are increasingly adopting body-worn cameras, many questions about this technology have yet to be answered. In an effort to address these questions and produce policy guidance to law enforcement agencies, the Police Executive Research Forum (PERF), with support from the U.S. Department of Justice's Office of Community Oriented Policing Services (COPS Office), conducted research in 2013 on the use of body-worn cameras. This research project consisted of three major components: an informal survey of 500 law enforcement agencies nationwide; interviews with police executives; and a conference in which police chiefs and other experts from across the country gathered to discuss the use of body-worn cameras.

First, PERF distributed surveys to 500 police departments nationwide in July 2013. The exploratory survey was designed to examine the nationwide usage of body-worn cameras and to identify the primary issues that need to be considered. Questions covered topics such as recording requirements; whether certain officers are required to wear body-worn cameras; camera placement on the body; and data collection, storage, and review.

PERF received responses from 254 departments (a 51 percent response rate). Although the use of body-worn cameras is undoubtedly a growing trend, over 75 percent of the respondents reported that they did not use body-worn cameras as of July 2013.

"I really believe that body-worn cameras are the wave of the future for most police agencies. This technology is driving the expectations of the public. They see this out there, and they see that other agencies that have it, and their question is, 'Why don't you have it?'"

– Roberto Villaseñor, Chief of Police,
Tucson (Arizona) Police Department

Of the 63 agencies that reported using body-worn cameras, nearly one-third did not have a written policy governing body-worn camera usage. Many police executives reported that their hesitance to implement a written policy was due to a lack of guidance on what the policies should include, which highlights the need for a set of standards and best practices regarding body-worn cameras.

Second, PERF staff members interviewed more than 40 police executives whose departments have implemented—or have considered implementing—body-worn cameras. As part of this process, PERF also reviewed written policies on body-worn cameras that were shared by departments across the country.

Last, PERF convened a one-day conference of more than 200 police chiefs, sheriffs, scholars, representatives from federal criminal justice agencies, and other experts to discuss the policy and operational issues surrounding body-worn cameras. The conference, held in Washington, D.C., on September 11, 2013, gave participants the opportunity to share the lessons they have learned, to identify promising practices from the field, and to engage in a dialogue about the many unresolved issues regarding the use of body-worn cameras.

Drawing upon feedback from the conference, the survey results, and information gathered from the interviews and policy reviews, PERF created this publication to provide law enforcement agencies with guidance on the use of body-worn cameras.

The first chapter discusses the perceived benefits of deploying body-worn cameras, particularly how law enforcement agencies have used the cameras to resolve complaints and prevent spurious complaints, to enhance transparency and officer accountability, to identify and address structural problems within the department, and to provide an important new type of evidence for criminal and internal administrative investigations.

The second chapter discusses the larger policy concerns that agencies must consider when implementing body-worn cameras, including privacy implications, the effect cameras have on community relationships and community policing, officers' concerns, the expectations cameras create, and financial costs.

The third chapter presents PERF's policy recommendations, which reflect the promising practices and lessons that emerged from PERF's conference and its extensive discussions with police executives and other experts following the conference.

The police executives referenced throughout this publication are those who attended the September conference; participated in a discussion of body-worn cameras at PERF's October 2013 Town Hall Meeting, a national forum held in Philadelphia; provided policies for PERF's review; and/or were interviewed by PERF in late-2013 and early-2014.² A list of participants from the September conference is located in appendix B.

2. The titles listed throughout this document reflect officials' positions at the time of the September 2013 conference.

Chapter 1. Perceived Benefits of Body-Worn Cameras

Among the police executives whose departments use body-worn cameras, there is an overall perception that the cameras provide a useful tool for law enforcement. For these agencies, the perceived benefits that body-worn cameras offer—capturing a video recording of critical incidents and encounters with the public, strengthening police accountability, and providing a valuable new type of evidence—largely outweigh the potential drawbacks. For example, Chief Superintendent Stephen Cullen of the New South Wales (Australia) Police Force said, “After testing out body-worn cameras, we were convinced that it was the way of the future for policing.”

Accountability and transparency

The police executives whom PERF consulted cited many ways in which body-worn cameras have helped their agencies strengthen accountability and transparency. These officials said that, by providing a video record of police activity, body-worn cameras have made their operations more transparent to the public and have helped resolve questions following an encounter between officers and members of the public. These officials also said that body-worn cameras are helping to prevent problems from arising in the first place by increasing officer professionalism, helping agencies evaluate and improve officer performance, and allowing agencies to identify and correct larger structural problems within the department. As a result, they report that their agencies are experiencing fewer complaints and that encounters between officers and the public have improved.

“Everyone is on their best behavior when the cameras are running. The officers, the public—everyone.”

– Ron Miller, Chief of Police,
Topeka (Kansas) Police Department

Reducing complaints and resolving officer-involved incidents

In 2012, the police department in Rialto, California, in partnership with the University of Cambridge-Institute of Criminology (UK), examined whether body-worn cameras would have any impact on the number of complaints against officers or on officers’ use of force. Over the course of one year, the department randomly assigned body-worn cameras to various front-line officers across 988 shifts. The study found that there was a 60 percent reduction in officer use of force incidents following camera deployment, and during the experiment, the shifts without cameras experienced twice as many use of force incidents as shifts with cameras. The study also found that there was an 88 percent reduction in the number of citizen complaints between the year prior to camera implementation and the year following deployment.³ Chief of Police William Farrar of Rialto, who oversaw the study, said, “Whether the reduced number of complaints was because of the officers behaving better or the citizens behaving better—well, it was probably a little bit of both.”

Body-worn camera results for Rialto (California) Police Department

- 60 percent reduction in officer use of force incidents following camera deployment
- Half the number of use of force incidents for shifts with cameras compared to shifts without cameras
- 88 percent reduction in number of citizen complaints between the year prior to and following camera deployment

A study conducted in Mesa, Arizona, also found that body-worn cameras were associated with a reduction in complaints against officers. In October 2012, the Mesa Police Department implemented a one-year pilot program in which 50 officers were assigned to wear body-worn cameras, and 50 officers were assigned to a control group without the cameras. The two groups were demographically

3. William Farrar, “Operation Candid Camera: Rialto Police Department’s Body-Worn Camera Experiment,” *The Police Chief* 81 (2014): 20–25.

similar in terms of age, race, and other characteristics. The study, which was conducted by Arizona State University, found that during the first eight months of deployment, the officers without the cameras had almost three times as many complaints as the officers who wore the cameras.⁴ The study

also found that the officers assigned body-worn cameras had 40 percent fewer total complaints and 75 percent fewer use of force complaints during the pilot program than they did during the prior year when they were not wearing cameras.⁵

Body-worn camera results for Mesa (Arizona) Police Department

- Nearly 3x more complaints against officers without cameras, eight months after camera deployment
- 40 percent fewer total complaints for officers with cameras during pilot program
- 75 percent fewer use of force complaints for officers with cameras during pilot program

Police executives interviewed by PERF overwhelmingly report that their agencies experienced a noticeable drop in complaints against officers after deploying body-worn cameras. “There’s absolutely no doubt that having body-worn cameras reduces the number of complaints against officers,” said Chief of Police Ron Miller of Topeka, Kansas. One explanation for this is that the mere presence of a camera can lead to more civil interactions between officers and the public. “We actually encourage our officers to let

people know that they are recording,” said Chief of Police Ken Miller of Greensboro, North Carolina. “Why? Because we think that it elevates behavior on both sides of the camera.”

Lieutenant Harold Rankin, who oversaw the body-worn camera program in Mesa, agrees: “Anytime you know you’re being recorded, it’s going to have an impact on your behavior. When our officers encounter a confrontational situation, they’ll tell the person that the camera is running. That’s often enough to deescalate the situation.” Many police executives report that wearing cameras has helped improve professionalism among their officers. Chief Superintendent Cullen of New South Wales said,

“After testing out body-worn cameras, the overwhelming response from officers was that the cameras increased their professionalism because they knew that everything they said and did was being recorded.”

“In the testing we did [of body-worn cameras], we had a number of tenured officers who wanted to wear the cameras and try them out, and their feedback was very positive. They said things like, ‘You’ll be amazed at how people stop acting badly when you say this is a camera, even if they’re intoxicated.’ And we also know that the overwhelming majority of our officers are out there doing a very good job, and the cameras will show just that.”

– Douglas Gillespie, Sheriff,
Las Vegas Metropolitan Police Department

Many agencies have found that having video footage of an encounter also discourages people from filing unfounded complaints against officers. “We’ve actually had citizens come into the department to file a complaint, but after we show them the video, they literally turn and walk back out,” said Chief Miller of Topeka. Chief of Police Michael Frazier of Surprise, Arizona, reports a similar experience. “Recently we received an allegation that an officer engaged in racial profiling during a traffic stop. The officer was wearing his body-worn camera, and the footage showed that the allegation was completely unfounded,” Frazier said. “After reviewing the tape, the complainants admitted that they have never been treated unfavorably by any officers in my department.” As several police officials noted, preventing unfounded complaints can save departments the significant amounts of time and money spent on lengthy investigations and lawsuits.

When questions arise following an encounter, police executives said that having a video record of events helps lead to a quicker resolution. According to the results of PERF’s exploratory survey, the number one reason why police departments choose to implement body-worn cameras is to provide a more accurate documentation of police encounters with the public. Police executives report that when questions arise following an encounter or a major event such as an officer-involved shooting, having video from a body-worn camera can help resolve the questions.

4. Harold Rankin, “End of Program Evaluation and Recommendations: On-Officer Body Camera System” (Mesa, AZ: Mesa Police Department, 2013).

5. Ibid.

Agencies are also reporting that, in most of these cases, the resolution is in support of the officer's account of events. Chief of Police Mike Chitwood of Daytona Beach, Florida, recalled one example in which a member of the public threatened to file a complaint against officers following a contentious encounter. Alleging that the officers had threatened him and used racial epithets, the individual said that he would go to the news media if the department failed to take action. One of the officers involved had been wearing a body-worn camera. "We reviewed the video, and clearly the individual lied," recalled Chitwood. "The officer was glad to have the footage because the individual's allegations were absolutely not what was represented in the video."

Body-worn cameras have also helped to resolve more serious incidents, including officer-involved shootings. Chief Miller of Topeka said that the local district attorney cleared an officer in a deadly shooting incident after viewing the officer's body-worn camera footage. Miller described how the camera footage captured the event in real time and provided a record of events that would otherwise not have existed. "The entire event was captured on video from the perspective of the officer. Now tell me when that happened before the advent of body-worn cameras," said Miller.

Several police departments, including those in Daytona Beach, Florida, and Greenville, North Carolina, are finding that officers with a history of complaints are now actively requesting to wear cameras. For officers who behave properly but generate complaints because they have high levels of activity or frequent contacts with criminal suspects, cameras can be seen as beneficial. "We all have our small percentage of officers with a history of complaints," said Chief of Police Hassan Aden of Greenville. "Internal Affairs has told me that these officers have come in to request body-worn cameras so that they can be protected in the future."

Identifying and correcting internal agency problems

Another way that body-worn cameras have strengthened accountability and transparency, according to many police executives, is by helping agencies identify and correct problems within the department. In fact, PERF's survey found that 94 percent of respondents use body-worn camera footage to train officers and aid in administrative reviews.

Many police agencies are discovering that body-worn cameras can serve as a useful training tool to help improve officer performance. For example, agencies are using footage from body-worn cameras to provide scenario-based training, to evaluate the performance of new officers in the field, and to identify new areas in which training is needed. By using body-worn cameras in this way, agencies have the opportunity to raise standards of performance when it comes to tactics, communication, and customer service. This can help increase the perceived legitimacy and sense of procedural justice that communities have about their police departments.

Law enforcement agencies have also found that body-worn cameras can help them to identify officers who abuse their authority or commit other misconduct and to assist in correcting questionable behavior before it reaches that level. In Phoenix, for example, an officer was fired after his body-worn camera captured repeated incidents of unprofessional conduct. Following a complaint

"The use of body-worn video by frontline officers has real potential to reduce complaints of incivility and use of force by officers. The footage can also exonerate officers from vexatious and malicious complaints. In addition, I feel there are benefits to the criminal justice system in terms of more guilty pleas, reduced costs at court, and a reduction in the number of civil cases brought against the police service for unlawful arrest/excessive force. We already have good examples of body-worn video footage exonerating officers from malicious complaints."

– Paul Rumney, Detective Chief Superintendent,
Greater Manchester (UK) Police

"We have about 450 body-worn cameras actively deployed, and in the overwhelming majority of cases, the footage demonstrates that the officer's actions were appropriate."

– Sean Whent, Chief of Police,
Oakland (California) Police Department

against the officer, the police department reviewed footage from the incident along with video from prior shifts. Upon finding repeated instances of verbal abuse, profanity, and threats against members of the public, the department terminated the officer. “It clearly shocked the conscience when you saw all of the different incidents,” said Assistant Chief of Police Dave Harvey of Phoenix.

In Daytona Beach, Chief Chitwood requested that the officers with a history of complaints be among the first to be outfitted with body-worn cameras. Although he found that usually the videos demonstrated that “the majority of the officers are hardworking, good police,” he has also seen how body-worn cameras can help an agency address discipline problems. Chitwood said:

We had an officer who had several questionable incidents in the past, so we outfitted him with a camera. Right in the middle of an encounter with a subject, the camera goes blank, and then it comes back on when the incident is over. He said that the camera malfunctioned, so we gave him another one. A week later he goes to arrest a woman, and again, the camera goes blank just before the encounter. He claimed again that the camera had malfunctioned. So we conducted a forensic review of the camera, which determined that the officer had intentionally hit the power button right before the camera shut off. Our policy says that if you turn it off, you’re done. He resigned the next day.

Body-worn cameras can also help law enforcement officials to address wide-reaching structural problems within the department. Many police officials that PERF consulted said that body-worn cameras have allowed them to identify potential weaknesses within their agencies and to develop solutions for improvement, such as offering new training programs or revising their departmental policies and protocols.

In Phoenix, an officer was fired after his body-worn camera captured repeated incidents of unprofessional conduct.

For example, Chief of Police William Lansdowne of San Diego said that one reason his department is implementing body-worn cameras is to improve its understanding of incidents involving claims of racial profiling. “When it comes to collecting data, the raw numbers don’t

always fully capture the true scope of a problem,” he said. “But by capturing an audio and video account of an encounter, cameras provide an objective record of whether racial profiling took place, what patterns of officer behavior are present, and how often the problem occurs.”

Police agencies have also found that implementing a body-worn camera program can be useful when facing consent decrees and external investigations. Roy Austin, deputy assistant attorney general for the Civil Rights Division at the U.S. Department of Justice, said, “We want to get police departments out from under consent decrees as soon as possible. What is important is whether you can show that your officers are engaged in constitutional policing on a regular basis. Although it isn’t an official Department of Justice policy, the Civil Rights Division believes that body-worn cameras can be useful for doing that.”

Many police departments that have faced external investigations, including those in New Orleans and Detroit, are in various stages of testing and implementing body-worn cameras. Police executives in these cities said that cameras help them to demonstrate they are improving policies and practices within their agencies. Police Superintendent Ron Serpas of New Orleans, whose department is in the process of deploying more than 400 body-worn cameras, said, “Body-worn cameras will be good for us. The hardworking officers say, ‘Chief, just give us a chance to show everyone that we are not like the people who went astray after Hurricane Katrina.’ The one thing that New Orleans police officers want more than anything else is the independent verification that they are doing what they’re

supposed to do.” The police departments in Las Vegas, Nevada, and Spokane, Washington are also implementing body-worn cameras to assist in complying with the collaborative agreements they entered into with the COPS Office of the U.S. Department of Justice.

Chief of Police Charlie Beck of Los Angeles, whose department is testing body-worn cameras, understands first-hand how video evidence can help in these situations. “We exited our consent decree last year, and one of the reasons that the federal judge signed off on us was that we implemented in-car video,” said Beck. “Recordings can help improve public trust.”

Evidence documentation

Police executives said that body-worn cameras have significantly improved how officers capture evidence for investigations and court proceedings. Along with documenting encounters with members of the public, body-worn cameras can provide a record of interrogations and arrests, as well as what officers witness at crime scenes.

Chief of Police Jason Parker of Dalton, Georgia, described how body-worn cameras have helped officers to improve evidence collection at accident scenes. “It is always hard to gather evidence from accident scenes,” Parker said. He explained that officers are often focused on securing the scene and performing life-saving measures and that witnesses and victims may not always remember what they had told officers in the confusion. This can lead to conflicting reports when victims and witnesses are asked to repeat their accounts in later statements. “Unlike in-car cameras, body-worn cameras capture everything that happens as officers travel around the scene and interview multiple people. The body-worn cameras have been incredibly useful in accurately preserving information.”

Some prosecutors have started encouraging police departments to use body-worn cameras to capture more reliable evidence for court, particularly in matters like domestic violence cases that can be difficult to prosecute. Chief Chitwood of Daytona Beach explained how body-worn cameras have changed how domestic violence cases are handled. “Oftentimes we know that the suspect is repeatedly abusing the victim, but either the victim refuses to press charges, or there is simply not enough evidence to go to trial,” he said. With the victim’s consent, Daytona Beach officers can now use body-worn cameras to videotape victim statements. “The footage shows first-hand the victim’s injuries, demeanor, and immediate reactions,” Chitwood noted. In some cases, officers capture the assault itself on video if they arrive on the scene while the incident is still ongoing. “This means that we can have enough evidence to move forward with the case, even if the victim ultimately declines to prosecute.”

Chief Miller of Topeka echoed this sentiment: “When we show suspects in domestic violence cases footage from the body-worn cameras, often they plead guilty without even having to go to trial.”

“Some police departments are doing themselves a disservice by not using body-worn cameras. Everyone around you is going to have a camera, and so everyone else is going to be able to tell the story better than you if you don’t have these cameras. And when the Civil Rights Division is looking at a police department, every piece of information that shows the department is engaged in constitutional policing is important. So of course body-worn cameras can help.”

– Roy L. Austin, Jr., Deputy Assistant Attorney General,
Civil Rights Division, U.S. Department of Justice

“Although body-worn cameras are just one tool, the quality of information that they can capture is unsurpassed. With sound policy and guidance, their evidentiary value definitely outweighs any drawbacks or concerns.”

– Jason Parker, Chief of Police,
Dalton (Georgia) Police Department



Chapter 2. Considerations for Implementation

New technologies in policing raise numerous policy issues that must be considered. This is especially true with body-worn cameras, which can have significant implications in terms of privacy, community relationships, and internal departmental affairs. As agencies develop body-worn camera programs, it is crucial that they thoughtfully examine how their policies and practices intersect with these larger questions. Policy issues to look at include the effect these cameras have on privacy and community relationships, the concerns raised by frontline officers, the expectations that cameras create in terms of court proceedings and officer credibility, and the financial considerations that cameras present.

Privacy considerations

The proliferation of camera phones, advances in surveillance technology, and the emergence of social media have changed the way people view privacy, contributing to the sense that, as Police Commissioner Charles Ramsey of Philadelphia said, it sometimes feels as though “everyone is filming everybody.” As technology advances and expectations of privacy evolve, it is critical that law enforcement agencies carefully consider how the technology they use affects the public’s privacy rights, especially when courts have not yet provided guidance on these issues.

Body-worn cameras raise many privacy issues that have not been considered before. Unlike many traditional surveillance methods, body-worn cameras can simultaneously record both audio and video and capture close-up images that allow for the potential use of facial recognition technology. In addition, while stationary surveillance cameras generally cover only public spaces, body-worn cameras give officers the ability to record inside private homes and to film sensitive situations that might emerge during calls for service.

There is also concern about how the footage from body-worn cameras might be stored and used. For example, will a person be able to obtain video that was recorded inside a neighbor’s home? Will agencies keep videos indefinitely? Is it possible that the body-worn camera footage might be improperly posted online?

When implementing body-worn cameras, law enforcement agencies must balance these privacy considerations with the need for transparency of police operations, accurate documentation of events, and evidence collection. This means making careful decisions about when officers will be required to activate cameras, how long recorded data should be retained, who has access to the footage, who owns the recorded data, and how to handle internal and external requests for disclosure.

“In London we have CCTVs, which are quite extensive and becoming even more so, but the distinction is that those cameras don’t listen to your conversations. They observe behavior and see what people do and cover public space, so you can see if there is a crime being committed. But CCTVs don’t generally seek out individuals. So I think there is an important distinction there.”

– Sir Bernard Hogan-Howe, Commissioner,
London Metropolitan Police Service

Determining when to record

The issue with perhaps the greatest privacy implications is deciding which types of encounters and activities officers should record. Should officers be required to record every interaction with a member of the public? Or are there some situations in which recording should be discretionary or prohibited?

One approach is to require officers to record all encounters with the public. This would require officers to activate their cameras not only during calls for service or other law enforcement-related

“For the [American Civil Liberties Union], the challenge of on-officer cameras is the tension between their potential to invade privacy and their strong benefit in promoting police accountability. Overall, we think they can be a win-win—but only if they are deployed within a framework of strong policies to ensure they protect the public without becoming yet another system for routine surveillance of the public, and maintain public confidence in the integrity of those privacy protections. Without such a framework, their accountability benefits would not exceed their privacy risks.”

—“Police Body-Mounted Cameras: With Right Policies in Place, a Win for All” (New York: ACLU, 2013).

encounters but also during informal conversations with members of the public (e.g., a person asking an officer for directions or an officer stopping into a store and engaging in casual conversation with the owner). This is the approach advocated by the American Civil Liberties Union (ACLU), which stated in a report released in October 2013, “If a police department is to place its cameras under officer control, then it must put in place tightly effective means of limiting officers’ ability to choose which encounters to record. That can only take the form of a department-wide policy that mandates that police turn on recording during every interaction with the public.”⁶

Scott Greenwood, an attorney with the ACLU, explained why the ACLU advocates recording all encounters. “You don’t want to give officers a list and say, ‘Only record the following 10 types of situations.’ You want officers to record all the situations, so when a situation does go south, there’s an unimpeachable record of it—good, bad, ugly, all of it. This is an optimal policy from a civil liberties perspective.”

Greenwood said this approach benefits not only the public but also officers. “Mandatory recording is also what will protect an officer from allegations of discretionary recording or tampering,” said Greenwood. “You want activating the camera to be a reflexive decision, not

something that officers have to evaluate with each new situation. If officers have to determine what type of incident it is before recording, there are going to be a lot of situations in which a recording might have exonerated an officer, but the recording was never made.”

However, PERF believes that requiring officers to record every encounter with the public would sometimes undermine community members’ privacy rights and damage important police-community relationships. There are certain situations, such as interviews with crime victims and witnesses and informal, non-law enforcement interactions with members of the community, that call for affording officers some measure of discretion in determining whether to activate their cameras. There are situations in which not recording is a reasonable decision. An agency’s body-worn camera policy should expressly describe these situations and provide solid guidance for officers when they exercise discretion not to record.

For example, officer discretion is needed in sensitive situations, such as encounters with crime victims or witnesses who are concerned about retaliation if they are seen as cooperating with the police. In other cases, officer discretion is needed for routine and casual situations—such as officers on foot or bike patrol who wish to chat with neighborhood residents—and turning on a video camera could make the encounter seem officious and off-putting.

6. Jay Stanley, “Police Body-Mounted Cameras: With Right Policies in Place, a Win for All” (New York: ACLU, 2013), https://www.aclu.org/files/assets/police_body-mounted_cameras.pdf.

Of the police departments that PERF consulted, very few have adopted the policy of recording all encounters with the public. The more common approach is to require officers to activate their cameras when responding to calls for service and during law enforcement-related encounters and activities, such as traffic stops, arrests, searches, interrogations, and pursuits. In many cases, the department's written policy defines what constitutes a law enforcement-related encounter or activity, and some policies also provide a specific list of which activities are included. Many policies generally indicate that when in doubt, officers should record. Most policies also give officers the discretion to not record when doing so would be unsafe, impossible, or impractical, but most require officers to articulate in writing their reasons for not activating the camera or to say on camera why they are turning the camera off.

Police executives cite several reasons for favoring a more limited and flexible approach rather than requiring officers to record all encounters. One reason is that it gives officers the discretion to not record if they feel that doing so would infringe on an individual's privacy rights. For example, many police departments, including those in Oakland and Rialto, California; Mesa, Arizona; and Fort Collins, Colorado, give officers discretion regarding whether to record interviews with victims of rape, abuse, or other sensitive crimes. Some departments also extend this discretion to recording victims of other crimes. The Daytona Beach (Florida) Police Department recently changed its policy to require that officers obtain consent, on camera, from all crime victims prior to recording an interview. "This new policy is a response to the privacy concerns that arise when you are dealing with victims of crime," said Chief of Police Mike Chitwood of Daytona Beach.

Some agencies encourage officers to use discretion when determining whether to record encounters with or searches of individuals who are partially or completely unclothed. Chief of Police Don Lanpher of Aberdeen, South Dakota, said, "We had an incident when officers were called to assist a female on a landing in an apartment building who was partially undressed. All of the officers had cameras, but they did not record her until she was covered. Officers are encouraged to use discretion in those cases."

In addition to privacy concerns, police executives cite the potential negative impact on community relationships as a reason for not requiring officers to record all encounters with the public. Their goal, always, is to maintain an open dialogue with community members and preserve the trust in their relationships.⁷ "There are a lot of issues with recording every citizen contact without regard to how cooperative or adversarial it is," said Chief of Police Ken Miller of Greensboro, North Carolina. "If people think that they are going to be recorded every time they talk to an officer, regardless of the context, it is going to damage openness and create barriers to important relationships."

Commissioner Ramsey of Philadelphia agrees. "There has to be some measure of discretion. If you have a police interaction as a result of a 911 call or a reasonable suspicion stop, it is one thing—you should record in those situations. But you have to give officers discretion whether to record if they are just saying 'hello' to someone or if they are approached by an individual who wants to give them information."

Of the police departments that PERF consulted, very few have adopted the policy of recording all encounters with the public. The more common approach is to require officers to activate their cameras when responding to calls for service and during law enforcement-related encounters and activities, such as traffic stops, arrests, searches, interrogations, and pursuits.

7. See "Impact on community relationships" on page 19, "Securing community support" on page 21, "Protecting intelligence-gathering efforts" on page 22, and "Lessons learned about impact on community relationships" on page 24 for strategies departments have taken to address this impact.

Some police executives also believe that requiring officers to record all encounters can signal a lack of trust in officers, which is problematic for any department that wants to encourage its officers to be thoughtful and to show initiative. For example, a survey of officers conducted in Vacaville, California, found that although 70 percent of officers were in favor of using body-worn cameras, a majority were opposed to a policy containing strict requirements of mandatory recording of all police contacts.

“In a sensitive investigation, such as a rape or child abuse case, if you have a victim who doesn’t want to be recorded, I think you have to take that into account. I think that you cannot just arbitrarily film every encounter. There are times when you’ve got to give your officers some discretion to turn the camera off. Of course, the officers should be required to articulate why they’re not recording or why they’re shutting it off, but we have to give them that discretion.”

– Charlie Beck, Chief of Police,
Los Angeles Police Department

“Legitimacy in policing is built on trust. And the notion of video-recording every interaction in a very tense situation would simply not be a practical operational way of delivering policing. In fact, it would exacerbate all sorts of problems. In the United Kingdom, we’re also subject to human rights legislation, laws on right to privacy, right to family life, and I’m sure you have similar statutes. It’s far more complicated than a blanket policy of ‘every interaction is filmed.’ I think that’s far too simplistic. We have to give our officers some discretion. We cannot have a policy that limits discretion of officers to a point where using these devices has a negative effect on community-police relations.”

– Sir Hugh Orde, President,
Association of Chief Police Officers (UK)

For departments whose policies do not require officers to record every interaction with the public, the goal is to sufficiently ensure accountability and adherence to the department’s body-worn camera policies and protocols. For example, when officers have discretion to not record an encounter, many departments require them to document, either on camera or in writing, the fact that they did not record and their reasons for not recording. Some departments also require officers to obtain supervisor approval to deactivate the camera if a subject requests to not be recorded.

Consent to record

In a handful of states, officers are legally required to inform subjects when they are recording and to obtain the person’s consent to record. This is known as a “two-party consent” law, and it can create challenges to implementing a body-worn camera program. In many two-party consent states, however, police executives have successfully worked with their state legislatures to have the consent requirement waived for body-worn police cameras. For example, in February 2014 Pennsylvania enacted a law waiving the two-party consent requirement for police using body-worn cameras.⁸ Efforts are under way to change two-party consent statutes in other jurisdictions as well. Each department must research its state laws to determine whether the two-party consent requirement applies.

Some police executives believe that it is good practice for officers to inform people when they are recording, even if such disclosures are not required by law. In Greensboro, for example, officers are encouraged—but not required—to announce when they are recording. Chief Miller of Greensboro said this policy is based on the belief that the knowledge that cameras are running can help defuse potentially confrontational situations and improve behavior from all parties.

However, many police executives in one-party consent states do not explicitly instruct officers to inform people that they are recording. “Kansas is a one-party consent state, so only the officer needs to know that the camera is running. But if a person asks, the officer tells them the truth,” said Chief of Police Ron Miller of Topeka, Kansas.

8. Police body cameras heading to Pennsylvania (February 10, 2014), ABC 27 News, <http://www.abc27.com/story/24686416/police-body-cameras-heading-to-pennsylvania>.

Recording inside private homes

Another privacy question is whether and under what conditions officers should be allowed to record while inside a person's home. Many law enforcement agencies have taken the position that officers have the right to record inside a private home as long as they have a legal right to be there. According to this approach, if an officer enters a home in response to a call for service, pursuant to a valid search warrant, or with consent of the resident, officers can record what they find inside.

There is a concern that footage taken inside a private home may be subject to public disclosure. Deputy Chief of Police William Roseman of Albuquerque described how this can be particularly problematic in states with broad public disclosure laws. "Here in Albuquerque, everything is open to public record unless it is part of an ongoing investigation. So if police come into your house and it is captured on video, and if the video isn't being used in an investigation, your neighbor can request the footage under the open records act, and we must give it to them." Scott Greenwood of the ACLU has expressed similar concerns:

An officer might be allowed to go into the residence and record, but that does not mean that everything inside ought to be public record. The warrant is an exception to the Fourth Amendment, not a waiver. We do not want this to show up on YouTube. My next-door neighbor should never be able to view something that happened inside my house without my permission.

Data storage, retention, and disclosure

Decisions about where to store video footage and how long to keep it can have a far-reaching effect on privacy. Many police executives believe that privacy concerns can be addressed through data storage, retention, and disclosure policies. However, when developing these policies, agency leaders must balance privacy considerations with other factors, such as state law requirements, transparency, and data storage capacity and cost.

Data storage policies

Among police executives interviewed by PERF, security, reliability, cost, and technical capacity were the primary factors cited for choosing a particular method for storing video files from body-worn cameras. Among the more than 40 departments that PERF consulted, all stored body-worn camera video on an in-house server (managed internally) or an online cloud database (managed by a third-party vendor).⁹

Police executives noted a number of strategies that can help agencies protect the integrity and privacy of their recorded data, regardless of which storage method is used. These lessons learned regarding data storage include the following:

- *Consult with prosecutors and legal advisors:* Legal experts can advise whether data storage policies and practices are in compliance with all relevant laws and adequately preserve evidentiary chain of custody.

"One of the things we are forgetting is that we already send officers into people's homes and have them document all these bits of information that we're worried about recording. If an officer enters someone's home, they document the condition of the home, especially if it's a case about a child or involves domestic violence or physical injury. So videos are just a technologically advanced type of police report that should be treated no differently from an initial contact form that we currently fill out every day. The advantage of a camera is now you have a factual representation as opposed to an interpretation by an officer."

– Chris Burbank, Chief of Police,
Salt Lake City (Utah) Police Department

9. Cloud storage is a method for storing and backing up electronic data. The data is maintained and managed remotely, generally by a third party, and made available to users over a network, or "cloud."

- *Explicitly prohibit data tampering, editing, and copying.*
- *Include protections against tampering with the data prior to downloading:* This helps to mitigate concerns that officers will be able to alter or delete recordings prior to downloading them. Some body-worn camera systems are sold with technological safeguards that make it impossible for an officer to access the data prior to downloading.
- *Create an auditing system:* It is important to have a record of who accesses video data, when, and for what purpose. Some storage systems include a built-in audit trail.
- *Explicitly state who will be authorized to access data:* Many written policies outline who will have access to the data (e.g., supervisors, Internal Affairs, certain other officers and department personnel, and prosecutors) and for what purpose (e.g., administrative review, training, and investigations).

“Whether you store video internally or externally, protecting the data and preserving the chain of custody should always be a concern. Either way, you need something built into the system so that you know that video has not been altered.”

– Ken Miller, Chief of Police,
Greensboro (North Carolina) Police Department

- *Ensure there is a reliable back-up system:* Some systems have a built-in backup system that preserves recorded data, and some departments copy recordings to disc and store them as evidence.
- *Specify when videos will be downloaded from the camera to the storage system and who will download them:* The majority of existing policies require the camera operator to download the footage by the end of each shift. In the case of an officer-involved shooting or other serious incident, some policies require supervisors to step in and physically take possession of the camera and assume downloading responsibilities.
- *Consider third-party vendors carefully:* Overwhelmingly, the police executives whom PERF interviewed reported that their legal advisors and prosecutors were comfortable using a third-party vendor to manage the storage system. When deciding whether to use a third-party vendor, departments consider the vendor’s technical assistance capabilities and whether the system includes protections such as an audit trail, backup system, etc. Police executives stressed the importance of entering into a legal contract with the vendor that protects the agency’s data.

These strategies are important not only for protecting the privacy rights of the people recorded but also for preserving evidence and resolving allegations of data tampering.

Data retention policies

The length of time that departments retain body-worn camera footage plays a key role for privacy. The longer that recorded videos are retained, the longer they are subject to public disclosure, which can be problematic if the video contains footage associated with privacy concerns. And community members’ concerns about police departments collecting data about them in the first place are lessened if the videos are not retained for long periods of time.

The retention times are generally dictated by the type of encounter or incident that the footage captures. Although protocols vary by department, footage is typically categorized as either “evidentiary” or “non-evidentiary.”

Evidentiary video involves footage of an incident or encounter that could prove useful for investigative purposes, such as a crime, an arrest or citation, a search, a use of force incident, or a confrontational encounter with a member of the public. Evidentiary footage is usually further categorized by specific incident type, and the retention period is governed by state evidentiary rules for that incident. For example, many state laws require that footage involving a homicide

be retained indefinitely, but video of a traffic citation must be kept for only a matter of months. Departments often purge evidentiary videos at the conclusion of the investigation, court proceeding, or administrative hearing for which they were used.

Non-evidentiary video involves footage that does not necessarily have value to aid in an investigation or prosecution, such as footage of an incident or encounter that does not lead to an arrest or citation or of general activities that an officer might perform while on duty (e.g., assisting a motorist or clearing a roadway). Agencies often have more leeway in setting retention times for non-evidentiary videos, which are generally not subject to state evidentiary laws.

Of the departments that PERF consulted, the most common retention time for non-evidentiary video was between 60 and 90 days. Some departments retain non-evidentiary video for an even shorter period. Fort Collins, Colorado, for example, discards footage after seven days if there is no citizen contact recorded and after 30 days if contact is made but no enforcement action is taken. On the other end of the spectrum, some departments, such as Albuquerque, retain non-evidentiary video for a full year.

Many police executives express a preference for shorter retention times for non-evidentiary video. Shorter retention periods not only address privacy concerns but also reduce the costs associated with data storage. On the other hand, police executives noted that they must keep videos long enough to demonstrate transparency and to have footage of an encounter in case a complaint arises about an officer's actions. For example, departments in Rialto, Fort Collins, Albuquerque, Daytona Beach, and Toronto base retention times in part on how long it generally takes for complaints to be filed.

Public disclosure policies

State public disclosure laws, often known as freedom of information laws, govern when footage from body-worn cameras is subject to public release. However, most of these laws were written long before law enforcement agencies began deploying body-worn cameras, so the laws do not necessarily account for all of the considerations that must be made when police departments undertake a body-worn camera program.

Although broad disclosure policies can promote police agency transparency and accountability, some videos—especially recordings of victims or from inside people's homes—will raise privacy concerns if they are released to the public or the news media. When determining how to approach public disclosure issues, law enforcement agencies must balance the legitimate interest of openness with protecting privacy rights.¹⁰

In most state public disclosure laws, exceptions are outlined that may exempt body-worn camera footage from public release. For example, even the broadest disclosure laws typically contain an exception for video that contains evidence or is part of an ongoing investigation. Some state disclosure laws, such as those in North Carolina, also exempt personnel records from public release. Body-worn camera videos used to monitor officer performance may fall under this type of exception.

"It is important to have retention policies that are directly linked to the purposes of having the video, whether that purpose is to have evidence of a crime or to hold officers and the public accountable. Agencies should not retain every video indefinitely, or else those videos could be used down the road for all sorts of inappropriate reasons."

– Lorie Fridell, Associate Professor,
University of South Florida

10. Scott Greenwood of the ACLU recommends that police executives work with the ACLU to ensure that state disclosure laws contain adequate privacy protections for body-worn camera videos. "If interpreted too broadly, open records laws can undermine the accountability of law enforcement agencies," said Greenwood. "You want to make sure that the video is not subject to arbitrary disclosure. It deserves the highest level of protection."

These exceptions to public disclosure can help police departments to avoid being required to release videos if doing so could jeopardize a criminal prosecution. The exceptions can also help police to protect the privacy of crime victims and witnesses. However, by policy and practice, law enforcement

“When developing body-worn camera policies, agencies have to consider how open the public disclosure laws are in their state. Are they going to have to give up all of their footage to any person that requests it? Or are there some protections? This is important to think about when it comes to privacy.”

– Ron Miller, Chief of Police,
Topeka (Kansas) Police Department

agencies should apply these exceptions judiciously to avoid any suspicion by community members that police are withholding video footage to hide officer misconduct or mistakes. In launching body-worn camera programs, law enforcement agencies should convey that their goal is to foster transparency and accountability while protecting civil liberties and privacy interests. When an agency decides whether to release or withhold body-worn camera footage of a particular incident, the agency should articulate its reasons for doing so.

In addition, some agencies have adopted recording and retention policies that help to avoid violations of privacy. For example, some agencies allow officers to deactivate their cameras during interviews with crime victims or witnesses. And short retention times for non-evidentiary video footage can reduce the window of opportunity for requests for release of video footage that would serve no legitimate purpose.

Lessons learned on privacy considerations

In their conversations with PERF staff members, police executives and other experts revealed a number of lessons that they have learned regarding body-worn cameras and privacy rights:

- Body-worn cameras have significant implications for the public’s privacy rights, particularly when it comes to recording victim interviews, nudity, and other sensitive subjects and when recording inside people’s homes. Agencies must factor these privacy considerations into decisions about when to record, where and how long to store data, and how to respond to public requests for video footage.
- In terms of when officers should be required to activate their cameras, the most common approach is requiring officers to record all calls for service and law enforcement-related encounters and activities and to deactivate the camera only at the conclusion of the event or with supervisor approval.
- It is essential to clearly define what constitutes a law enforcement-related encounter or activity in the department’s written body-worn camera policy. It is also useful to provide a list of specific activities that are included, noting that the list is not necessarily all inclusive. Many agencies give a general recommendation to officers that when they are in doubt, they should record.
- To protect officer safety and acknowledge that recording may not be possible in every situation, it is helpful to state in policies that recording will not be required if it would be unsafe, impossible, or impractical.
- Significant privacy concerns can arise when interviewing crime victims, particularly in situations involving rape, abuse, or other sensitive matters. Some agencies prefer to give officers discretion regarding whether to record in these circumstances. In such cases, officers should take into account the evidentiary value of recording and the willingness of the victim to speak on camera. Some agencies go a step further and require officers to obtain the victim’s consent prior to recording the interview.
- To promote officer accountability, most policies require officers to document, on camera or in writing, the reasons why the officer deactivated the camera in situations that are otherwise required to be recorded.

- In one-party consent states, officers are not legally required to notify subjects when officers are recording. However, some agencies have found that announcing the camera is running promotes better behavior and defuses potentially confrontational encounters.
- When making decisions about where to store body-worn camera footage, how long to keep it, and how it should be disclosed to the public, it is advisable for agencies to consult with departmental legal counsel and prosecutors.
- Regardless of the chosen method for storing recorded data, agencies should take all possible steps to protect the integrity and security of the data. This includes explicitly stating who has access to the data and under what circumstances, creating an audit system for monitoring access, ensuring there is a reliable back-up system, specifying how data will be downloaded from the camera, and including protections against data tampering prior to downloading.
- It is important that videos be properly categorized according to the type of event contained in the footage. How the videos are categorized will determine how long they are retained, who has access, and whether they can be disclosed to the public.
- To help protect privacy rights, it is generally preferable to set shorter retention times for non-evidentiary data. The most common retention time for this video is between 60 and 90 days.
- When setting retention times, agencies should consider privacy concerns, the scope of the state's public disclosure laws, the amount of time the public needs to file complaints, and data storage capacity and costs.
- Evidentiary footage is generally exempt from public disclosure while it is part of an ongoing investigation or court proceeding. Deleting this video after it serves its evidentiary purpose can reduce the quantity of video stored and protect it from unauthorized access or release. It is important to always check whether deletion is in compliance with laws governing evidence retention.
- Informing the public about how long video will be retained can help promote agency transparency and accountability. Some agencies have found it useful to post retention times on the department's website.
- It is important for the agency to communicate its public disclosure policy to the community when the body-worn camera program is deployed to develop public understanding of the technology and the reasons for adopting it.

In launching body-worn camera programs, law enforcement agencies should convey that their goal is to foster transparency and accountability while protecting civil liberties and privacy interests.

Impact on community relationships

Building positive relationships with the community is a critical aspect of policing, and these relationships can exist only if police have earned the trust of the people they serve. Police rely on these community partnerships to help them address crime and disorder issues.

At the PERF conference, a number of participants expressed concern that excessive recording with body-worn cameras may damage the relationships officers have developed with the community and hinder the openness of their community policing interactions. Some police executives fear, for

example, that people will be less likely to come forward to share information if they know their conversation is going to be recorded, particularly in high-crime neighborhoods where residents might be subject to retaliation if they are seen as cooperating with police.

“Before we make a decision on where to go with body-worn cameras, I really think that all of us need to stop and consider some of these larger unanswered questions. We need to look at not only whether the cameras reduce complaints but also how they relate to witnesses on the street coming forward, what they mean for trust and officer credibility, and what messages they send to the public.”

– Bob Cherry, Detective of Baltimore Police Department and President of Baltimore City Fraternal Order of Police

Detective Bob Cherry of the Baltimore Police Department, who is also the president of the Baltimore City Fraternal Order of Police, said, “Trust builds through relationships, and body-worn cameras start from a position of mistrust. The comments I hear from some officers are, ‘I’m worried that if I wear a camera, it is going to make it hard to continue the relationship I have with a business owner or the lady down the street. These are the people I’m working with now to clean up the neighborhood.’”

Some police executives reported that deploying body-worn cameras has in fact had a negative impact on their intelligence-gathering activities, particularly when officers are not allowed the discretion to turn off the camera. Chief of Police Sean Whent of Oakland, California, explained, “Our policy is to film all detentions and to keep recording until the encounter is over. But let’s say an officer detains someone, and now that person wants to give up information. We are finding that people are not inclined to do so with the camera running. We are considering changing our policy to allow officers to turn off the camera in those situations.”

The Mesa (Arizona) Police Department has also found that body-worn cameras can undermine information-gathering efforts. “We have definitely seen people being more reluctant to give information when they know that they are being videotaped,” said Lieutenant Harold Rankin.

However, other police executives said that these types of situations are rare and that body-worn cameras have not had a significant impact on their ability to gather information from the public. For some agencies, public reaction to the cameras has been practically nonexistent. Major Stephen Willis of the Charlotte-Mecklenburg (North Carolina) Police Department said, “We have had in-car cameras for many years, and in most instances the public has an expectation that they will be recorded. We encountered very little resistance from the public when we piloted body-worn cameras.” Deputy Chief of Police Cory Christensen of Fort Collins, Colorado, said, “We are not seeing much pushback from the community. Often people do not even notice the presence of the cameras.”

“I disagree that cameras hurt community relationships,” said Chief of Police William Farrar of Rialto, California. “We have not seen any evidence of that. People will ask officers if they have a camera on, but it does not seem to bother them.” In fact, in its evaluation of its body-worn camera program, the Rialto Police Department found that officers made 3,178 more contacts with the public (not counting calls for service) during the year that cameras were deployed than in the prior year.¹¹

Some police executives reported that body-worn cameras have actually improved certain aspects of their police-community relationships. These executives said that the presence of cameras leads to better behavior by both the officer and the person being recorded. “The cameras help defuse some of the tensions that might come up during encounters with the public. I think that 98 percent of the time, cameras help improve relationships with the community,” said Chief Chitwood of Daytona Beach. Deputy Chief Christensen of Fort Collins agreed: “Officers wearing cameras have reported a noticeable improvement in the quality of their encounters with the public. With both sides behaving better, community relations will improve.”

11. William Farrar, “Operation Candid Camera: Rialto Police Department’s Body-Worn Camera Experiment,” *The Police Chief* 81 (2014): 20–25.

Sir Robert Peel's Principles of Policing

Sir Robert Peel, who created London's Metropolitan Police Force in 1829, is known as the father of modern policing. He helped to establish a policing philosophy grounded in professionalism, ethics, and strong police-community cooperation, which continues to influence policing to this day. The "Nine Principles of Policing," which were issued to the first officers of the London Metropolitan Police and reflect Sir Robert Peel's philosophy, provide guidance on the role of police and the importance of maintaining strong police-community relationships.

The following principles attributed to Peel seem to have relevance for a discussion of how body-worn cameras can affect police officers' relationships with community members:

Police must recognize always that the power of the police to fulfill their functions and duties is dependent on

public approval of their existence, actions and behavior and on their ability to secure and maintain public respect.

Police must recognize always that to secure and maintain the respect and approval of the public means also the securing of the willing cooperation of the public in the task of securing observance of laws.

Police must maintain at all times a relationship with the public that gives reality to the historic tradition that the police are the public and that the public are the police, the police being only members of the public who are paid to give full time attention to duties which are incumbent on every citizen in the interests of community welfare and existence.*

* "Principles of Good Policing," Institute for the Study of Civil Society, <http://www.civitas.org.uk/pubs/policeNine.php>.

Cameras have also helped assure the public that an agency is serious about transparency and officer accountability, according to several police executives. "We have found that body-worn cameras can actually help strengthen trust and police legitimacy within the community," said Chief of Police Hassan Aden of Greenville, North Carolina. To illustrate this point, Aden shared the following story:

A local community group approached me with a genuine concern that certain officers were racially profiling subjects during traffic stops. We went back and looked at the footage from these officers' body-worn cameras and found that there was indeed a pattern of using flimsy probable cause when making stops. However, we determined that it was a training problem and immediately changed the relevant training protocols. The organization that had raised the complaint was happy with the outcome. They appreciated that we had the body-worn camera footage, that the officers' behavior was investigated, and that we used the video to help us improve.

Securing community support

To mitigate community concerns, many police executives found it useful to engage the community before rolling out their camera programs. The Rialto Police Department, for example, used social media to inform the public about its body-worn camera program. "You have to engage the public before the cameras hit the streets," said Chief Farrar of Rialto. "You have to tell people what the cameras are going to be used for and how everyone can benefit from them."

"We want our officers to go out, get out of their cars, and talk to the public about football or whatever it may be to establish an informal relationship. That's how you build partnerships and persuade people to give you information about crime in their area. I think if we say that every single interaction is going to be recorded, the danger is that it will lead to a more officious relationship. Maybe the public will get used to it, just as in our country they've gotten used to cameras on the streets. But as we start off, I think there's a danger that every interaction will become a formal interaction, and the informal relationships may be eroded."

– Sir Peter Fahy, Chief Constable,
Greater Manchester (UK) Police

The Los Angeles Police Department, which is in the process of testing body-worn cameras, plans to solicit public feedback when developing its camera policies. The Greensboro (North Carolina) Police Department partnered with the Greensboro Police Foundation, which launched a “Put Cameras on Cops” public information campaign that included posting billboards and reaching out to the community.

Chief Lanpher of Aberdeen said that it is also important for agencies to engage local policymakers and other stakeholders. “Police departments cannot do this alone,” he said. “We went to the mayor, the city council, and the state’s attorney’s office and showed them actual footage that officers had recorded to demonstrate why these cameras would be useful. Without their support, implementing the program would have been a challenge. Communication and developing those partnerships is critical.”

“My opinion is that body-worn cameras will help with community relationships. They will show when officers are doing a good job and help us correct when they aren’t. This is good for the community.”

— Lieutenant Dan Mark,
Aurora (Colorado) Police Department

“I think it’s absolutely critical that we talk to the public about [body-worn cameras]. We need to bring them on board and have them understand what this is about and go through the advantages and disadvantages and the issues.”

– Sir Peter Fahy, Chief Constable,
Greater Manchester (UK) Police

There are also indications that the public is more accepting of body-worn cameras if agencies are transparent about their camera policies and practices. Some agencies post their camera policies on their websites. In addition, some agencies, such as the Oakland Police Department, have proactively posted body-worn camera footage on their websites to demonstrate transparency and to help resolve questions surrounding controversial incidents.

In Phoenix, the police department released to the media body-worn camera footage from an officer who was fired for misconduct. Assistant Chief of Police Dave Harvey of Phoenix explained that the police union requested the release to demonstrate transparency.

“It is important that agencies are open and transparent with the community,” said Deputy Chief Christensen of Fort Collins. “If we only show the good and hide the bad, it will foster distrust of the police.”

Protecting intelligence-gathering efforts

In addition to engaging the public to mitigate concerns, some agencies have adopted recording policies that seek to minimize the potential damage that body-worn cameras have on police-community relationships. These agencies limit body-worn camera recordings to calls for service and law enforcement-related contacts, rather than recording every encounter with the public, so that officers do not feel compelled to record the kinds of casual conversations that are central to building informal relationships within the community.

Chief Miller of Topeka said that this approach has worked well. “I recently witnessed a community policing officer having a casual conversation with two citizens,” he said. “The officer was wearing a camera, but it was not running at the time. The camera was clearly visible, but it did not create a problem.” Chief Miller of Greensboro said, “From a community policing aspect, it does not make sense to record every single interaction with the public. If an officer sees someone on the street and just wants to talk about what is going on in the neighborhood, it is easier to have that conversation if the camera is not running.”

A number of agencies also give officers the discretion to turn off their cameras when talking with a person who wants to share information about a crime. This situation can occur when a person approaches an officer with information or if an officer interviews witnesses at a crime scene. In either case, police executives said that officers must weigh the evidentiary value of recording the statement with the reality that some people who share information may not want to talk on camera. “If officers encounter an informant or witness who isn’t comfortable being recorded, they have to decide whether obtaining the information outweighs recording the statement,” said Lieutenant Rankin of Mesa. “If so, our officers can either turn the camera off or position the camera so that they capture audio but not video. People usually feel more comfortable with just the audio.”

Chief Farrar of Rialto said that it is important for officers to maintain credibility with people who might want to share information. “We teach our officers to consider the facts of each incident before they record,” he said. “When officers encounter reluctant witnesses, I would suggest that they develop a rapport by being honest and not pressuring them to talk, especially on camera.”

Many agencies, while allowing officers to turn off the camera at the request of the person being interviewed, nonetheless strongly encourage officers to record if at all possible. “It is important to remain flexible, as there are no absolutes,” said Commander Michael Kurtenbach of Phoenix. “But we would generally recommend an officer to keep the camera on if possible when gathering information from witnesses.”

Inspector Danny Inglis of Greater Manchester, United Kingdom, agreed. “I generally think there is more to gain than lose in terms of recording these kinds of statements,” he said. “Recording is a way to capture critical intelligence and evidence. Our officers can turn the camera off at the person’s request, but they should confirm the reason for this on camera.”

The Topeka Police Department takes a similar approach. “Officers should try to leave the camera on to record exactly what a person says. If the person does not want to talk on camera, the officer can turn it off after stating the reason why,” said Chief Miller. Again, it is important that officers weigh the situation before making a decision. “The detectives and the prosecutors will want witness interviews on camera if possible. But they would also rather have the good information than have the witness refuse to talk because of the camera,” said Miller.

Some police executives said that the decision to record witnesses at a crime scene may depend on whether the scene is live or if it has been controlled. In many places, including Greensboro, Daytona Beach, and Rialto, officers typically leave their cameras running when responding to a live crime scene so they can capture spontaneous statements and impressions. Once the scene has been controlled (crime scene tape is put up, detectives arrive, etc.), it transitions into an investigative scene, and officers can turn the cameras off. Then they can determine whether to record more detailed statements taken from witnesses at the scene.

Agencies often include protections in their policies to ensure officers do not abuse their recording discretion. If an officer chooses not to record an encounter with someone giving information, he or she must typically document, on camera or in writing, the reason for not recording. In addition, many agencies require officers to activate the camera if an interaction becomes adversarial after the initial

“If officers are talking to a member of the community just to say hello or to ask what is going on in the neighborhood, it is usually better for the relationship if the officer does not record the conversation.”

– Stephen Cullen, Chief Superintendent,
New South Wales (AUS) Police Force

“We view evidence collection as one of the primary functions of cameras. So in the case of interviewing witnesses, we would make every attempt to capture the statement on video. However, we do allow discretion if the person we approach requests that the camera be turned off. Officers just need to understand what the tradeoff is.”

– Cory Christensen, Deputy Chief of Police, Fort Collins
(Colorado) Police Department

contact. Chief Chitwood said this approach has worked in Daytona Beach. “Between their experience and training, the officers know when they need to turn on their cameras. Activating the camera in these situations has become second nature to them,” he said.

Lessons learned about impact on community relationships

In their conversations with PERF staff members, police executives and other experts revealed a number of lessons that they have learned when addressing the impact body-worn cameras can have on community relationships:

- Engaging the community prior to implementing a camera program can help secure support for the program and increase the perceived legitimacy of the program in the community.
- Agencies have found it useful to communicate with the public, local policymakers, and other stakeholders about what the cameras will be used for and how the cameras will affect them.
- Social media is an effective way to facilitate public engagement.
- Transparency about the agency’s camera policies and practices, both prior to and after implementation, can help increase public acceptance and hold agencies accountable. Examples of transparency include posting policies on the department website and publicly releasing video recordings of controversial incidents.
- Requiring officers to record calls for service and law enforcement-related activities—rather than every encounter with the public—can ensure officers are not compelled to record the types of casual conversations that are central to building informal relationships within the community.
- In cases in which persons are unwilling to share information about a crime if they are being recorded, it is a valuable policy to give officers discretion to deactivate their cameras or to position the camera to record only audio. Officers should consider whether obtaining the information outweighs the potential evidentiary value of capturing the statement on video.
- Recording the events at a live crime scene can help officers capture spontaneous statements and impressions that may be useful in the later investigation or prosecution.
- Requiring officers to document, on camera or in writing, the reasons why they deactivated a camera in situations that they are otherwise required to record promotes officer accountability.

Addressing officer concerns

For a body-worn camera program to be effective, it needs the support not only of the community but also of the frontline officers who will be wearing the cameras. Securing this support can help ensure the legitimacy of a camera program and make its implementation more successful. Agency leaders should engage in ongoing communication with officers about the program’s goals, the benefits and challenges of using cameras, and the agency’s expectations of the officers.

Officer concerns about body-worn cameras

One of the primary concerns for police executives is the fear that body-worn cameras will erode the trust between officers and the chief and top managers of the department. Some officers may view the cameras as a signal that their supervisors and managers do not trust them, and they worry that supervisors would use the cameras to track and scrutinize their every move. Inspector Inglis of Greater Manchester explained, “I have heard some resentment about the level of scrutiny that

officers will be under if they wear body-worn cameras. This is especially true with the first-level response officers, who already feel they are under an extraordinary amount of pressure to get everything right. I can understand this concern.”

Given these concerns, one of the most important decisions an agency must make is how it will use camera footage to monitor officer performance. Most agencies permit supervisors to review videos so they can investigate a specific incident or complaint, identify videos for training purposes, ensure the system is working, and monitor overall compliance with the camera program.

However, there is some debate over whether supervisors should also periodically and randomly review videos to monitor officer performance. Some agencies allow periodic monitoring to help proactively identify problems and hold officers accountable for their performance. Other agencies permit periodic monitoring only in certain circumstances, such as when an officer is still in a probationary period or after an officer has received a certain number of complaints. Some agencies prohibit random monitoring altogether because they believe doing so is unnecessary if supervisors conduct reviews when an incident occurs.

In Greater Manchester, Inspector Inglis encourages supervisors to randomly review camera footage. “We use random review as a teaching tool, not just a supervision tool,” he said. “Supervisors might not get a lot of face time with officers, so reviewing the video is a good way for supervisors to appraise officers and provide feedback. It also helps hold officers accountable and gives them incentive to record.”

Other agencies expressly prohibit supervisors from randomly monitoring body-worn camera footage. “Per our policy, we do not randomly review videos to monitor officer performance,” said Chief Chitwood of Daytona Beach. “Instead, our review is incident-based, so if there is an issue, we will review the footage. In those cases, we can also review prior videos to see if there is a pattern of behavior.”

The Topeka Police Department generally prohibits random monitoring, though supervisors can periodically review videos if officers have received numerous complaints. Chief Miller of Topeka said that this policy strikes a balance between showing trust in the officers and holding them accountable. “If an officer does something wrong, you do not want to be accused of deliberate indifference because you had the videos but ignored them,” he said. “You have to show that you reviewed the footage once you had a reason to do so.”

Some police officials suggested that an agency’s internal audit unit, rather than direct supervisors, should be responsible for periodic, random monitoring. They said this approach allows agencies to monitor compliance with the program and assess officer performance without undermining the trust between an officer and his or her supervisor. These officials stressed that internal audit reviews should be truly random (rather than targeted to a specific officer or officers) and should be conducted in accordance with a written standard of review that is communicated to the officers. Chief of Police Jeff Halstead of Fort Worth, Texas, said, “Random review of the camera footage, either by an internal auditor or a supervisor, is critical to demonstrating that an agency is doing what it is supposed to do and is serious about accountability.”

In addition to concerns about trust and supervisor scrutiny, police executives said that some officers worried about the difficulty of operating the cameras and learning a new technology. “Officers can feel inundated with technology,” said Chief of Police Roberto Villaseñor of Tucson. “In the past few

“I have heard officers say that while they are not opposed to using body-worn cameras, they do have some concerns. Some of these concerns are more practical, like whether adding new equipment will be overly burdensome. But the larger philosophical concern is whether these cameras send the wrong message about the trust we place in officers. What does it say about officer professionalism and credibility if the department has to arm every officer with a camera?”

– Bob Cherry, Detective of Baltimore Police Department and President of Baltimore City Fraternal Order of Police

years, our department has introduced a new records management system and a new digital radio system. So some officers see body-worn cameras as another new piece of technology that they will have to learn.” Some officers also said that cameras can be cumbersome and challenging to operate, and agencies often have to test several different camera models and camera placement on the body to determine what works best.

Addressing officer concerns

Agencies have taken various steps to address officer concerns about body-worn cameras. One of the most important steps, according to many police executives, is for agency leaders to engage in open communication with officers about what body-worn cameras will mean for them.

For example, a survey of officers conducted by the Vacaville (California) Police Department found that including officers in the implementation process—and allowing them to provide meaningful input—generated support for the cameras. Some police executives, like Chief Chitwood of Daytona Beach and Chief Lanpher of Aberdeen, have found it useful to attend officer briefings, roll calls, and meetings with union representatives to discuss the camera program. “My staff and I invested considerable time talking at briefings and department meetings with all employees who would be affected by body-worn cameras,” said Chief of Police Michael Frazier of Surprise, Arizona. “This has helped us gain support for the program.”

“I think police agencies can help the officer and fulfill their duties to the public by saying, ‘We have an officer [whom] we think is having problems, and we are going to look at those videos to determine behavioral patterns.’ You do not want to have a problem come up later and claim that you did not know about it even though you had videos. So to me, targeted monitoring makes sense.”

– Christy Lopez, Deputy Chief,
Special Litigation Section,
Civil Rights Division,
U.S. Department of Justice

Many police executives said that creating implementation teams comprised of representatives from various units within the department can help improve the legitimacy of a body-worn camera program. For example, as agencies develop body-worn camera policies and protocols, it can be useful to receive input from patrol commanders and officers, investigators, training supervisors, the legal department, communications staff, Internal Affairs personnel, evidence management personnel, and others across the agency who will be involved with body-worn cameras.

Police executives also said it is important to emphasize to officers that body-worn cameras are useful tools that can help them perform their duties. Chief Terry Gainer, U.S. Senate sergeant at arms, believes that framing body-worn cameras as a check on officer behavior is the wrong approach. “It’s going to be hard to encourage our officers to be the self-actualized professionals that we want them to be if we say, ‘Wear this because we’re afraid you’re bad, and cameras will help you prove that you’re good,’” said Gainer. “Body cameras should be seen as a tool for creating evidence that will help ensure public safety.”

Lieutenant John Carli of Vacaville, California, suggests that agencies frame the cameras as a teaching tool, rather than a disciplinary measure, by encouraging supervisors to review footage with officers and provide constructive feedback. One suggestion to accomplish this goal is to highlight officers whose videos demonstrate exemplary performance by showing their footage at training programs or by showing the video during an awards ceremony.

Incremental implementation

Some police executives have also found it helpful to take an incremental approach when implementing body-worn cameras. For example, the San Diego Police Department plans to deploy 100 cameras as part of a pilot program with the eventual goal of outfitting 900 uniformed officers with cameras.

The Greensboro Police Department took a similar approach. “When we first deployed the cameras, there was an undercurrent of apprehension on the part of the officers. So we rolled it out in small increments to help officers get more comfortable with the program,” said Chief Miller of Greensboro. Gradual implementation can also help agencies learn which policies, practices, and camera systems are the best fit for their departments. Some agencies, such as the Mesa Police Department, initially assigned cameras to the most tech-savvy officers as a way to ease implementation.

Many agencies have found that officers embrace body-worn cameras when they see evidence of the cameras’ benefits. “Our officers have been fairly enthusiastic about body-worn cameras because they have seen examples of how the cameras have cleared fellow officers of complaints,” said Lieutenant Dan Mark of Aurora, Colorado. “One officer was threatened by an individual, and it was captured on the officer’s camera. We took the footage to the city attorney’s office, and the individual was successfully prosecuted. Once that story got out among the officers, we saw a lot more acceptance of the cameras.”

Police executives said that in many cases, officers see these benefits once they begin wearing the cameras. “The more officers use the cameras, the more they want to have them,” said Lieutenant Gary Lewis from Appleton, Wisconsin. “If I could put cameras on all of my patrol officers, I would have 100 percent support.” Chief Farrar of Rialto agreed: “Now that the officers wear the cameras, they say that they could not do without them.”

Lessons learned about addressing officer concerns

Police executives revealed a number of lessons about addressing officers’ concerns about body-worn cameras:

- As with any other deployment of a new technology, program, or strategy, the best approach includes efforts by agency leaders to engage officers on the topic, explain the goals and benefits of the initiative, and address any concerns officers may have.
- Briefings, roll calls, and meetings with union representatives are effective means to communicate information about a body-worn camera program.
- Creating an implementation team that includes representatives from across the department can help strengthen program legitimacy and ease implementation.

“You have to ask yourself, what is the main reason you are implementing the program? Is it because you want to give officers a helpful tool, or because you do not trust them? The answer to that question—and how you convey it—will influence how officers receive the program.”

– Lieutenant John Carli,
Vacaville (California) Police Department

“At first, officers had a lot of concerns about the ‘Big Brother’ aspect of body-worn cameras. But once they wear them and see the benefits, they are much more likely to embrace them. Resistance has been almost nonexistent.”

– Chris Burbank, Chief of Police,
Salt Lake City (Utah) Police Department

- Departments have found that officers support the program if they view the cameras as useful tools: e.g., as a technology that helps to reduce complaints and produce evidence that can be used in court or in internal investigations.
- Recruiting an internal “champion” to help inform officers about the benefits of the cameras has proven successful in addressing officers’ hesitation to embrace the new technology.
- Body-worn cameras can serve as a teaching tool when supervisors review footage with officers and provide constructive feedback.
- Taking an incremental approach to implementation can help make deployment run more smoothly. This can include testing cameras during a trial period, rolling out cameras slowly, or initially assigning cameras to tech-savvy officers.

Managing expectations

“In the beginning, some officers were opposed to the cameras. But as they began wearing them, they saw that there were more benefits than drawbacks. Some officers say that they would not go out on the street without a ballistic vest; now they say they will not go out without a camera.”

– Lieutenant Harold Rankin,
Mesa (Arizona) Police Department

Police executives said that it has become increasingly common for courts, arbitrators, and civilian review boards to expect police departments to use body-worn cameras. “If your department has a civilian review board, the expectation now is that police should have cameras,” said Chief of Police Chris Burbank of Salt Lake City. “If you don’t, they will ask, ‘Why don’t your officers have cameras? Why aren’t your cameras fully deployed? Why does the next town over have cameras, but you don’t?’”

In addition, people often expect that officers using body-worn cameras will record video of everything that happens while they are on duty. But most police departments do not require officers to record every encounter. Many agencies have policies against recording when it is unsafe or impossible, and some agencies give officers discretion to deactivate their cameras in certain sensitive situations, such as during interviews with victims or witnesses. Camera malfunctions may also occur. Some agencies have taken steps to inform judges, oversight bodies, and the public about these realities of using body-worn cameras.

Police executives said that these expectations can undermine an officer’s credibility if questions arise about an incident that was not captured on video. This is one reason why many agencies require officers to articulate, either on camera or in writing, their reasons for turning a camera off in the middle of an incident or for not turning it on in the first place. These issues of credibility are also why it is important to provide rigorous, ongoing officer training on body-worn camera policies and

practices. Some agencies find that situational training can be particularly useful. For example, the Oakland Police Department incorporated a program into its police academy that involves officers participating in situational exercises using training model cameras.

Expectations about body-worn cameras can also affect how cases are prosecuted in criminal courts. Some police executives said that judges and juries have come to rely heavily on camera footage as evidence, and some judges have even dismissed a case when video did not exist. “Juries no longer want to hear just officer testimony—they want to see the video,” said Detective Cherry of Baltimore. “But the video only

“There is a learning curve that comes with using body-worn cameras. And the video cannot always be taken at face value—the full story has to be known before conclusions are reached about what the video shows.”

– Major Stephen Willis,
Charlotte-Mecklenburg
(North Carolina) Police Department

gives a small snapshot of events. It does not capture the entire scene, or show the officer's thought process, or show an officer's investigative efforts. This technology shouldn't replace an officer's testimony. I'm concerned that if juries rely only on the video, it reduces the important role that our profession plays in criminal court."

Officer review of video prior to making statements

Given the impact that body-worn cameras can have in criminal and administrative proceedings, there is some question as to whether officers should be allowed to review camera footage prior to making a statement about an incident in which they were involved. According to many police executives, the primary benefit to officer review is that it allows officers to recall events more clearly, which helps get to the truth of what really happened. Some police executives, on the other hand, said that it is better for an officer's statement to reflect what he or she perceived during the event, rather than what the camera footage revealed.

The majority of police executives consulted by PERF are in favor of allowing officers to review body-worn camera footage prior to making a statement about an incident in which they were involved. They believe that this approach provides the best evidence of what actually took place. PERF agrees with this position.

"When you're involved in a tense situation, you don't necessarily see everything that is going on around you, and it can later be difficult to remember exactly what happened," said Police Commissioner Ramsey of Philadelphia. "So I wouldn't have a problem with allowing an officer to review a video prior to making a statement."

Chief Burbank of Salt Lake City agreed. "Officers should be able to review evidence that is gathered about an event, and that includes body-worn camera footage," he said. "Some of the most accurate reports are generated by officers who take a moment to go back and review the circumstances. For example, I was once involved in a pursuit that lasted 30 minutes. I went back and re-drove the route and documented every turn before filing my report. Otherwise, it would have been impossible to remember everything that happened."

Chief Miller of Topeka said that if an officer is not allowed to review video, and if the footage conflicts with the officer's statement, it can create unfair doubts about the officer's credibility. "What we are after is the truth," he said. "If you make a statement that you used force because you thought a suspect had a gun but the video later shows that it was actually a cell phone, it looks like you were lying. But if you truly thought he had a gun, you were not lying—you were just wrong. An officer should be given the chance to make a statement using all of the evidence available; otherwise, it looks like we are just trying to catch an officer in a lie."

Police executives who favor review said that officers will be held accountable for their actions regardless of whether they are allowed to watch the video recordings prior to making a statement. "Officers are going to have to explain their actions, no matter what the video shows," said Chief Burbank of Salt Lake City. Chief Frazier of Surprise, Arizona, said, "If an officer has acted

"Right from the start, officers now learn how to use the cameras as part of their regular training on patrol procedures. We want activating the cameras to become a muscle memory so that officers do not have to think about it when they are in a real-world situation."

– Sean Whent, Chief of Police,
Oakland (California) Police Department

"I tell the officers every day: You usually don't get hurt by the videos you have. What hurts you is when you are supposed to have a video but, for whatever reason, you don't."

– Ron Miller, Chief of Police,
Topeka (Kansas) Police Department

inappropriately, and those actions were recorded, the officer cannot change the record and will have to answer for his or her actions. What will be gained by a review of the video is a more accurate accounting of the incident.”

The majority of police executives consulted by PERF are in favor of allowing officers to review body-worn camera footage prior to making a statement about an incident in which they were involved.

Other police executives, however, said that the truth—and the officer’s credibility—are better served if an officer is not permitted to review footage of an incident prior to making a statement. “In terms of the officer’s statement, what matters is the officer’s perspective at the time of the event, not what is in the video,” said Major Mark Person of the Prince George’s County (Maryland) Police Department. “That perspective is what they are going to have to testify to. If officers watch the video before making a statement, they might tailor the statement to what they see. It can cause them to second-guess themselves, which makes them seem less credible.”

Lessons learned about managing expectations

In interviews with PERF staff members, police executives discussed lessons that they have learned for managing expectations about body-worn cameras:

- With more and more agencies adopting body-worn cameras, courts, arbitrators, and civilian review boards have begun to expect not only that agencies will use cameras but also that officers will have footage of everything that happens while they are on duty. If this footage does not exist, even for entirely legitimate reasons, it may impact court or administrative proceedings and create questions about an officer’s credibility. Agencies must take steps to manage expectations while also working to ensure that officers adhere to agency policies about activating cameras.
- Educating oversight bodies about the realities of using cameras can help them to understand operational challenges and why there may be situations in which officers are unable to record. This can include demonstrations on how the cameras operate.
- Requiring an officer to articulate, on camera or in writing, the reason for not recording an event can help address questions about missing footage.
- Rigorous, ongoing officer training on body-worn camera policies and protocols is critical for improving camera usage. Situational training in which officers participate in exercises using mock cameras can be particularly useful in helping officers to understand how to operate cameras in the field.
- Many police executives believe that allowing officers to review body-worn camera footage prior to making a statement about an incident in which they were involved provides the best evidence of what actually occurred.

Financial considerations

While body-worn cameras can provide many potential benefits to law enforcement agencies, they come at a considerable financial cost. In addition to the initial purchasing cost, agencies must devote funding and staffing resources toward storing recorded data, managing videos, disclosing copies of videos to the public, providing training to officers, and administering the program.

For some agencies, these costs make it challenging to implement a body-worn camera program. PERF's survey revealed that 39 percent of the respondents that do not use body-worn cameras cited cost as a primary reason. Chief Villaseñor of Tucson said that cost was a major obstacle to getting cameras. "In recent years, we've faced serious budget cuts and have had to reduce staffing levels," he said. "It can be hard to justify spending money on cameras when officers are fighting for their jobs." However, Villaseñor has put together a review committee to evaluate costs and explore how to implement body-worn cameras in Tucson.

Police Commissioner Ramsey said that in departments the size of Philadelphia's, which has 6,500 sworn officers, the cost of implementing a body-worn camera program would be extraordinary. "We've considered using cameras in Philadelphia, and we see all of the benefits they can provide," he said. "Cost is the primary thing holding us back."

Some police executives, however, said that body-worn cameras can save departments money. They said that by improving officer professionalism, defusing potentially confrontational encounters, strengthening officer training, and documenting encounters with the public, body-worn cameras can help reduce spurious lawsuits and complaints against officers. They also said that these savings more than make up for the considerable financial cost of implementing a camera program.

"If there is a lawsuit against the department, the settlements come from the department's operational budget," said Chief Chitwood of Daytona Beach. "By preventing these suits, the department has more money to spend on cars, technology, and other things that benefit officers."¹²

The London Metropolitan Police Service, working together with the College of Policing, is planning to conduct a cost-benefit analysis in conjunction with its upcoming pilot program of 500 cameras. The analysis will measure whether the cameras contribute to cost savings in terms of promoting early guilty pleas in criminal cases and quicker resolution of complaints against officers. The study will also measure community and victim satisfaction with the cameras, as well as how the cameras impact the length of sentences that offenders receive.

"I absolutely think that officers should be allowed to review camera footage from an incident in which they were involved, prior to speaking with internal investigators. With what we know of the effect of stressful incidents on the human mind, officers in most instances may not recall every aspect of the incident. Or they may recall events out of sequence or not remember everything until much later. For this reason alone, allowing an officer to review the video prior to making a statement seems prudent."

– Michael Frazier, Chief of Police,
Surprise (Arizona) Police Department

12. See "Perceived Benefits of Body-Worn Cameras" on page 5 for additional discussion of cost-benefit analysis.

Cost of implementation

The price of body-worn cameras currently ranges from approximately \$120 to nearly \$2,000 for each device. Most of the agencies that PERF consulted spent between \$800 and \$1,200 for each camera. Prices vary depending on factors such as functionality, storage capacity, and battery life. Agencies must make this initial purchase up front, and sometimes they purchase cameras as part of a contract with the manufacturer for related services, such as data storage and technical assistance.

“Once you put cameras in the field, you’re going to amass a lot of data that needs to be stored. Chiefs need to go into this with their eyes wide open. They need to understand what storage is going to cost, what their storage capacities are, and the amount of time it takes to review videos for public release. It is a major challenge.”

– Kenton Rainey, Chief of Police,
Bay Area Rapid Transit Police Department

Although the initial costs of purchasing the cameras can be steep, many police executives said that data storage is the most expensive aspect of a body-worn camera program. “Data storage costs can be crippling,” said Chief Aden of Greenville. Captain Thomas Roberts of Las Vegas agreed. “Storing videos over the long term is an ongoing, extreme cost that agencies have to anticipate,” said Roberts.

The cost of data storage will depend on how many videos are produced, how long videos are kept, and where the videos are stored. If the videos are stored on an online cloud database, the costs typically go toward paying a third-party vendor to manage the data and to provide other services, such as technical assistance and forensic auditing. If videos are stored on an in-house server, agencies must often purchase additional computer equipment and spend money on technical staff and systems to ensure the data are secure.

The New Orleans Police Department has launched a plan for deploying 350 body-worn cameras at an anticipated cost of \$1.2 million over five years—the bulk of which will go to data storage.¹³ One department reported that it will pay \$2 million per year, mostly toward data storage, to outfit 900 officers with cameras. Another department spent \$67,500 to purchase 50 cameras and will spend approximately \$111,000 to store the video on a cloud for two years. In terms of storage, Chief Miller of Topeka said, “I’ve seen a formula that says that if you have 250 officers that have body-worn cameras, in three years you will produce 2.3 million videos. If the officer was required to run the camera continuously during his or her entire shift, it would produce even more. Managing and storing that data is usually more expensive than buying the cameras.”

In addition to the cost of purchasing cameras and storing data, administering a body-worn camera program requires considerable ongoing financial and staffing commitments. Many agencies appoint at least one full-time officer to manage the camera program. Agencies must provide ongoing training programs, ensure that cameras are properly maintained, fix technical problems, and address any issues of officer noncompliance. Some agencies also devote resources toward public information campaigns aimed at educating the community about the program.

According to many police executives, one of the most significant administrative costs—at least in terms of staff resources—involves the process of reviewing and categorizing videos. Although the exact process varies depending on the camera system, officers must typically label, or “tag,” videos as evidentiary or non-evidentiary. Evidentiary videos are further categorized according to the type of incident captured in the footage (e.g., homicide, robbery, or traffic citation). This tagging process is critical for determining how a video will be used and how long it will be retained. Most agencies that PERF consulted require officers to download and tag videos by the end of each shift.

13. “NOPD Wearable Cameras Expected to Cost \$1.2 Million,” The Times-Picayune, September 30, 2013, http://www.nola.com/crime/index.ssf/2013/09/post_346.html. Since The Times-Picayune published this article, New Orleans has increased the number of body-worn cameras it expects to deploy from 350 to more than 400.

Some officers have expressed concern about this increase to their administrative workload. “One of the major complaints we heard from officers was that they were spending so much time, after their shifts were over, downloading and tagging their videos,” said Commander Tony Filler from Mesa. The department explored several solutions to this problem, ultimately creating an automated process that linked videos to the department’s records management system (RMS). The department also purchased from the camera manufacturer electronic tablets that allow officers to view and tag videos while they are in the field. “The tablets were an additional cost, but they were worth it because they save officers a lot of time,” said Filler.

Police executives said that there are also significant administrative costs involved with responding to requests from the public or the news media for body-worn camera videos. When an agency receives a disclosure request, often under the Freedom of Information Act, officers or other department personnel must spend time reviewing videos to find the relevant footage, determining whether an exception to the presumption of disclosure applies, identifying portions that by law must be redacted, and performing the redaction process.

Cost-saving strategies

Police executives discussed several strategies that their agencies have employed to mitigate the considerable financial and staffing costs associated with body-worn cameras. These strategies focus primarily on managing the costs of data storage, which many police executives said represent the most expensive aspect of their programs.

Although managing data storage costs is not the primary reason why many agencies have decided against recording non-law enforcement related encounters with the public, it can be a factor. “There is a huge difference in the amount of money it would take to record all encounters versus adopting a more restrictive recording policy,” said Chief Miller of Greensboro. “If you record everything, there are going to be astronomical data storage costs. With 500 officers using cameras, we have already produced over 40,000 videos in just seven months. And we would have a lot more if we didn’t use a more restrictive recording policy.”

Some agencies, such as the police departments in Oakland and Daytona Beach, are working to adopt shorter data retention periods for non-evidentiary footage in an effort to keep data storage costs manageable. Although it is important to keep videos long enough to demonstrate transparency and preserve a record of an encounter, keeping these videos indefinitely would overwhelm an agency’s resources. Some agencies may even decide against adopting body-worn cameras due to the extraordinary costs of data storage.

“The two biggest challenges that we face in terms of cost are data storage and responding to records requests,” said Chief Chitwood of Daytona Beach. “We had to brainstorm about how to address those costs, and one way was through changing our retention times.”

As the public becomes more familiar with the existence of police body-worn camera programs, it is reasonable to expect that members of the public and the news media will increasingly want to obtain video recordings. Such public records requests will add to the workload of managing a camera program. Captain James Jones of the Houston Police Department said, “The cost of responding to

“Responding to public disclosure requests is one of the biggest challenges that my department faces. When a request for a video comes in, an officer has to sit for at least two hours and review the videos to find the footage and identify which portions must by law be redacted. And the actual redactions can take over 10 hours to complete.”

– Lieutenant Harold Rankin,
Mesa (Arizona) Police Department

open records requests played a role when we were deciding how long to keep the video. To protect privacy, you have to go through every video and make sure that you're not disclosing something that you shouldn't. It takes a lot of time, and personnel, to review and redact every tape. If you keep video for five years, it is going to take even more."

Agencies have also explored cheaper storage methods for videos that by law must be retained long-term, such as those containing evidence regarding a homicide or other serious felony. For example, the Greensboro Police Department deletes videos requiring long-term storage from the online cloud after importing them into its RMS or Internal Affairs case management systems. This reduces overall consumption of expensive cloud storage for videos that are required for future court proceedings or long-term retention under state personnel laws. The Charlotte-Mecklenburg Police Department recently completed a body-worn camera trial program, and Major Willis said that the department is exploring alternative storage methods. "Long-term storage costs are definitely going to be a problem. We are looking at cold storage, offline storage, and shorter retention times as a way to keep those costs more manageable," he said.

Many police agencies have also found it useful to conduct a cost-benefit analysis when exploring whether to implement body-worn cameras. For example, agencies can conduct an audit of their claims, judgments, and settlements related to litigation and complaints against officers to determine what costs they may already be incurring. The costs associated with deploying body-worn cameras may be offset by reductions in litigation costs, and agencies should carefully assess their ongoing legal expenses to determine how they could be reduced through the use of body-worn cameras.

Lessons learned about financial considerations

In interviews with PERF staff members, police executives and other experts revealed a number of lessons that they have learned about the financial costs of body-worn cameras:

- The financial and administrative costs associated with body-worn camera programs include costs of the equipment, storing and managing recorded data, and responding to public requests for disclosure.
- It is useful to compare the costs of the camera program with the financial benefits (e.g., fewer lawsuits and unwarranted complaints against officers, as well as more efficient evidence collection).
- Setting shorter retention times for non-evidentiary videos can help make the significant costs of data storage more manageable.
- Videos requiring long-term storage (e.g., those involving serious offenses) can be copied to a disc, attached to the case file, and deleted from the internal server or online cloud. This frees up expensive storage space for videos that are part of an ongoing investigation or that have shorter retention times.
- Linking recorded data to the agency's records management system or using electronic tablets, which officers can use in the field, can ease the administrative burden of tagging and categorizing videos.

The Los Angeles Police Department's Approach to Financing Body-Worn Cameras

In September 2013, Los Angeles Police Commission President Steve Soboroff launched a campaign to raise money to purchase on-body cameras for the Los Angeles Police Department (LAPD). “Before being elected commission president, I heard from numerous leaders in the LAPD that getting on-body cameras was a top priority with a huge upside,” said Soboroff in an interview with PERF. “After hearing all of the benefits that this technology could offer, I wanted to find a way to proactively jump-start the project.”^{*}

Realizing that trying to secure city funds for cameras would be challenging—the LAPD’s in-car camera project has been going on for two decades and is only 25 percent complete—Soboroff devised a plan to identify private donors. Within five months, he had raised \$1.3 million for a body-worn camera program, exceeding its original goal. Contributors included a number of local companies, executives, and philanthropists, including the Los Angeles Dodgers, movie director Steven Spielberg, entertainment executive Jeffrey Katzenberg, and former Los Angeles Mayor Richard Riordan.[†]

This money will go toward purchasing 600 body-worn cameras for LAPD officers and for video storage, repairs, and other costs over two years.[‡] The LAPD said it would test several camera models before implementing its program.[§] According to Soboroff, the LAPD will eventually need hundreds more cameras to outfit every patrol officer, but he hopes the pilot program will convince city officials that the cameras are worth the money. “I think that the pilot will show that body-worn cameras are transformative. I think it will show so many public safety benefits, and so many savings in litigation settlement dollars, man hours, and attorney hours, that the return on the investment will be apparent and significant,” he said.^{**}

Soboroff believes that other places can look at the LAPD’s fundraising approach as a model. “Probably every city in America has financial concerns. But I believe that there are always going to be local businesses and philanthropists who are willing to help. You just have to show them that there is going to be a positive community and financial return on their investment or donation.”^{††} However, Soboroff also said it is important that law enforcement agencies retain independence as they develop their programs: “The LAPD has complete control over which cameras it chooses and its camera policies. That is critical—there should be no outside influence from donors.”^{§§}

As Soboroff indicates, police agencies outside of Los Angeles have also sought private funding for body-worn cameras. For example, the Greensboro (North Carolina) Police Department told PERF that the Greensboro Police Foundation raised \$130,000 from private donors to purchase 125 cameras. The Greensboro Police Foundation also created awareness by launching the “Put Cameras on Cops” public information campaign that included reaching out to potential donors and posting billboards in support of the program.

* Steve Soboroff (president, Los Angeles Police Commission), in discussion with PERF staff members, fall 2013.

† “LAPD to Soon Start Testing Body Cameras,” *CBS Los Angeles*, January 13, 2014, <http://losangeles.cbslocal.com/2014/01/13/lapd-officers-to-soon-start-testing-body-cameras/>.

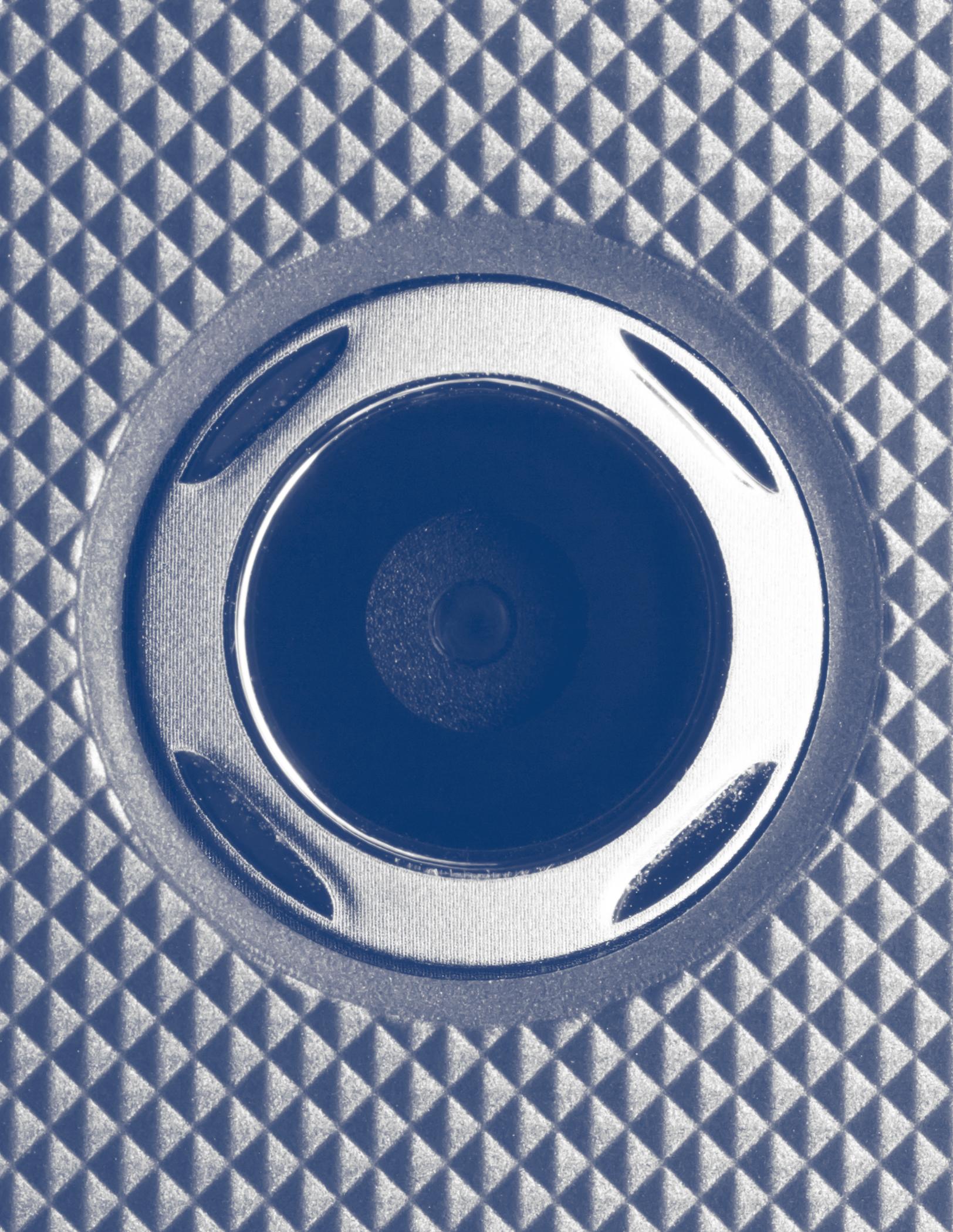
‡ “LAPD Surpasses Fundraising Goal for Officers’ On-Body Cameras,” *Los Angeles Times*, November 6, 2013, <http://articles.latimes.com/2013/nov/06/local/la-me-ln-lapd-cameras-20131106>.

§ “LAPD to Soon Start Testing Body Cameras.”

** Soboroff, discussion with PERF staff members.

†† Ibid.

§§ Ibid.



Chapter 3. Body-Worn Camera Recommendations

The list of recommendations beginning on page 38 is intended to assist law enforcement agencies as they develop body-worn camera policies and practices. These recommendations, which are based on the research conducted by PERF with support from the COPS Office, reflect the promising practices and lessons that emerged from PERF's September 2013 conference in Washington, D.C., where more than 200 police chiefs, sheriffs, scholars, and federal criminal justice officials shared their experiences with body-worn cameras and their perspectives on the issues discussed in this publication. The recommendations also incorporate feedback gathered during PERF's interviews of more than 40 law enforcement officials and other experts, as well as findings from PERF's review of body-worn camera policies submitted by police agencies across the country.

Each law enforcement agency is different, and what works in one department might not be feasible in another. Agencies may find it necessary to adapt these recommendations to fit their own needs, budget and staffing limitations, state law requirements, and philosophical approach to privacy and policing issues.

When developing body-worn camera policies, PERF recommends that police agencies consult with frontline officers, local unions, the department's legal advisors, prosecutors, community groups, other local stakeholders, and the general public. Incorporating input from these groups will increase the perceived legitimacy of a department's body-worn camera policies and will make the implementation process go more smoothly for agencies that deploy these cameras.

PERF recommends that each agency develop its own comprehensive written policy to govern body-worn camera usage. Policies should cover the following topics:

- Basic camera usage, including who will be assigned to wear the cameras and where on the body the cameras are authorized to be placed
- The designated staff member(s) responsible for ensuring cameras are charged and in proper working order, for reporting and documenting problems with cameras, and for reissuing working cameras to avert malfunction claims if critical footage is not captured
- Recording protocols, including when to activate the camera, when to turn it off, and the types of circumstances in which recording is required, allowed, or prohibited
- The process for downloading recorded data from the camera, including who is responsible for downloading, when data must be downloaded, where data will be stored, and how to safeguard against data tampering or deletion
- The method for documenting chain of custody
- The length of time recorded data will be retained by the agency in various circumstances
- The process and policies for accessing and reviewing recorded data, including the persons authorized to access data and the circumstances in which recorded data can be reviewed

- Policies for releasing recorded data to the public, including protocols regarding redactions and responding to public disclosure requests
- Policies requiring that any contracts with a third-party vendor for cloud storage explicitly state that the videos are owned by the police agency and that its use and access are governed by agency policy

In summary, policies must comply with all existing laws and regulations, including those governing evidence collection and retention, public disclosure of information, and consent. Policies should be specific enough to provide clear and consistent guidance to officers yet allow room for flexibility as the program evolves. Agencies should make the policies available to the public, preferably by posting the policies on the agency website.

General recommendations

1. **Policies should clearly state which personnel are assigned or permitted to wear body-worn cameras and under which circumstances.**

It is not feasible for PERF to make a specific recommendation about which officers should be required to wear cameras. This decision will depend on an agency's resources, law enforcement needs, and other factors.

Lessons learned: Some agencies have found it useful to begin deployment with units that have the most frequent contacts with the public (e.g., traffic or patrol officers).

2. **If an agency assigns cameras to officers on a voluntary basis, policies should stipulate any specific conditions under which an officer might be required to wear one.**

For example, a specified number of complaints against an officer or disciplinary sanctions, or involvement in a particular type of activity (e.g., SWAT operations), might result in an officer being required to use a body-worn camera.

3. **Agencies should not permit personnel to use privately-owned body-worn cameras while on duty.**

Rationale: Most of the police executives whom PERF interviewed believe that allowing officers to use their own personal cameras while on duty is problematic. PERF agrees with this position. Because the agency would not own the recorded data, there would be little or no protection against the officer tampering with the videos or releasing them to the public or online. In addition, chain-of-custody issues would likely prevent the video evidence from being admitted as evidence in court.

This recommendation applies regardless of whether the agency has deployed body-worn cameras.

4. Policies should specify the location on the body on which cameras should be worn.

The most appropriate camera placement will depend on several factors, such as the type of camera system used. Agencies should test various camera locations to see what works for their officers in terms of field of vision, comfort, functionality, and ease of use.

Lessons learned: Police executives have provided feedback regarding their experiences with different camera placements:

- **Chest:** According to the results of PERF's survey, the chest was the most popular placement location among agencies.
- **Head/sunglasses:** This is a very popular location because the camera "sees what the officer sees." The downside, however, is that an officer cannot always wear sunglasses. Some officers have also reported that the headband cameras are uncomfortably tight, and some expressed concern about the potential of injury when wearing a camera so close to the eye area.
- **Shoulder/collar:** Although some officers like the perspective that this placement offers, others have found the camera can too easily be blocked when officers raise their arms. One agency, for example, lost valuable footage of an active shooter incident because the officer's firearm knocked the camera from his shoulder.
- **Shooting side:** Some agencies specify that officers should wear cameras on the gun/shooting side of the body, which they believe affords a clearer view of events during shooting incidents.

5. Officers who activate the body-worn camera while on duty should be required to note the existence of the recording in the official incident report.

Rationale: This policy ensures that the presence of video footage is accurately documented in the case file so that investigators, prosecutors, oversight boards, and courts are aware of its existence. Prosecutors may need to give potentially exculpatory materials to defense attorneys.

6. Officers who wear body-worn cameras should be required to articulate on camera or in writing their reasoning if they fail to record an activity that is required by department policy to be recorded. (See recommendations 7–13 for recording protocols.)

This may occur, for example, if an officer exercises recording discretion in accordance with the agency's policy because he or she cannot record due to unsafe conditions or if a person does not give consent to record when consent is required.

Rationale: This holds officers accountable and helps supervisors investigate any recording irregularities that may occur.

Recording protocols

7. As a general recording policy, officers should be required to activate their body-worn cameras when responding to all calls for service and during all law enforcement-related encounters and activities that occur while the officer is on duty. Exceptions include recommendations 10 and 11 below or other situations in which activating cameras would be unsafe, impossible, or impractical.

7a: Policies and training materials should clearly define what is included in the description “law enforcement-related encounters and activities that occur while the officer is on duty.” Some agencies have found it useful to provide a list of examples in their policies, such as traffic stops, arrests, searches, interrogations or interviews, and pursuits.

7b: Officers should also be required to activate the camera during the course of any encounter with the public that becomes adversarial after the initial contact.

Rationale:

- The policy affords officers discretion concerning whether to record informal, non-law enforcement-related interactions with members of the community, such as a person asking an officer for directions or officers having casual conversations with people they see on patrol. If officers were always required to record in these situations, it could inhibit the informal relationships that are critical to community policing efforts.
 - The policy can help to secure officer support for a body-worn camera program because it demonstrates to officers that they are trusted to understand when cameras should and should not be activated. Protocols should be reinforced in officer training.
 - The policy is broad enough to capture the encounters and activities that, because they are the most likely to produce evidence or lead to complaints from community members about the police, are most in need of accurate documentation. However, the policy is narrow enough to help keep the amount of recorded data more manageable. This can help reduce the costs associated with storing data, reviewing and tagging data, and responding to public records requests.
8. Officers should be required to inform subjects when they are being recorded unless doing so would be unsafe, impractical, or impossible.

Some states have two-party consent laws that require a person making a recording to obtain the consent of the person or persons being recorded. In this case, officers must obtain consent unless the law provides an exception for police recordings. Most states have one-party consent policies, which allow officers to make recordings without obtaining consent.

PERF recommends that police in all states inform subjects that they are being recorded, aside from the exceptions stated already. This policy does not mean that officers in one-party consent states must obtain consent prior to recording; rather, they must inform subjects when the camera is running.

Rationale: The mere knowledge that one is being recorded can help promote civility during police-citizen encounters. Police executives report that cameras improve both officer professionalism and the public’s behavior, an observation that is supported by evaluations of body-worn camera programs.

9. **Once activated, the body-worn camera should remain in recording mode until the conclusion of an incident/encounter, the officer has left the scene, or a supervisor has authorized (on camera) that a recording may cease.**

Officers should also announce while the camera is recording that the incident has concluded and the recording will now cease.

See further discussion in recommendation 11b, “Lessons learned.”

10. **Regardless of the general recording policy contained in recommendation 7, officers should be required to obtain consent prior to recording interviews with crime victims.**

Rationale: There are significant privacy concerns associated with videotaping crime victims. PERF believes that requiring officers to obtain consent prior to recording interviews with victims is the best way to balance privacy concerns with the need to accurately document events.

This policy should apply regardless of whether consent is required under state law.

Crime victims should give or deny consent in writing and/or on camera.

11. **Regardless of the general recording policy contained in recommendation 7, officers should have the discretion to keep their cameras turned off during conversations with crime witnesses and members of the community who wish to report or discuss criminal activity in their neighborhood.**

11a: When determining whether to record interviews with witnesses and members of the community who wish to share information, officers should always consider both the evidentiary value of recording and the subject’s comfort with speaking on camera. To better capture evidence, PERF recommends that officers record statements made by witnesses and people sharing information. However, if a person will not talk unless the camera is turned off, officers may decide that obtaining the information is more important than recording. PERF recommends allowing officers that discretion.

11b: Policies should provide clear guidance regarding the circumstances under which officers will be allowed to exercise discretion to record, the factors that officers should consider when deciding whether to record, and the process for documenting whether to record.

Situations in which officers may need to exercise discretion include the following:

- When a community member approaches an officer to report a crime or share information
- When an officer attempts to interview witnesses, either at a crime scene or during follow-up interviews

Rationale: Some witnesses and community members may be hesitant to come forward with information if they know their statements will be recorded. They may fear retaliation, worry about their own privacy, or not feel comfortable sharing sensitive information on camera. This hesitancy can undermine community policing efforts and make it more difficult for officers to collect important information.

Lessons learned: Agencies have adopted various approaches for recording conversations with witnesses or other people who want to share information:

- Record unless the subject requests otherwise; after receiving such a request, the officer can turn the camera off.
- Require officers to proactively obtain consent from the subject prior to recording.
- Allow officers to position the camera so they capture only audio, and not video, of the person making the statement.
- Instruct officers to keep their cameras running during the initial response to an ongoing/live crime scene to capture spontaneous statements and impressions but to turn the camera off once the scene is controlled and moves into the investigative stage. Officers may then make a case-by-case decision about whether to record later interviews with witnesses on the scene.

If an officer does turn the camera off prior to obtaining information from a witness or informant, the officer should document on camera the reason for doing so.

12. Agencies should prohibit recording other agency personnel during routine, non-enforcement-related activities unless recording is required by a court order or is authorized as part of an administrative or criminal investigation.

Under this policy, for example, officers may not record their partner while they are patrolling in their vehicle (unless they are responding to a call for service), are having lunch at their desks, are on breaks, are in the locker room, etc.

Rationale: This policy supports officer privacy and ensures officers feel safe to engage in routine, informal, non-law enforcement-related conversations with their colleagues.

13. Policies should clearly state any other types of recordings that are prohibited by the agency.

Prohibited recordings should include the following:

- Conversations with confidential informants and undercover officers (to protect confidentiality and officer safety)
- Places where a reasonable expectation of privacy exists (e.g., bathrooms or locker rooms)
- Strip searches
- Conversations with other agency personnel that involve case tactics or strategy

Download and storage policies

- 14. Policies should designate the officer as the person responsible for downloading recorded data from his or her body-worn camera. However, in certain clearly identified circumstances (e.g., officer-involved shootings, in-custody deaths, or other incidents involving the officer that result in a person's bodily harm or death), the officer's supervisor should immediately take physical custody of the camera and should be responsible for downloading the data.**

15. Policies should include specific measures to prevent data tampering, deleting, and copying.

Common strategies include the following:

- Using data storage systems with built-in audit trails
- Requiring the supervisor to physically take custody of the officer's body-worn camera at the scene of a shooting or at another serious incident in which the officer was involved and to assume responsibility for downloading the data (see recommendation 14)
- Conducting forensic reviews of the camera equipment when questions arise (e.g., if an officer claims that he or she failed to record an incident because the camera malfunctioned)

16. Data should be downloaded from the body-worn camera by the end of each shift in which the camera was used.

Rationale: First, many camera systems recharge and clear old data during the downloading process, so this policy helps to ensure cameras are properly maintained and ready for the next use. Second, events will be fresh in the officer's memory for the purpose of tagging and categorizing. Third, this policy ensures evidence will be entered into the system in a timely manner.

17. Officers should properly categorize and tag body-worn camera videos at the time they are downloaded. Videos should be classified according to the type of event or incident captured in the footage.

If video contains footage that can be used in an investigation or captures a confrontational encounter between an officer and a member of the public, it should be deemed "evidentiary" and categorized and tagged according to the type of incident. If the video does not contain evidence or it captures a routine, non-confrontational encounter, it should be considered "non-evidentiary" or a "non-event."

Rationale: Proper labeling of recorded data is critical for two reasons. First, the retention time for recorded data typically depends on the category of the event captured in the video. Thus, proper tagging is critical for determining how long the data will be retained in the agency's system. Second, accurate tagging helps supervisors, prosecutors, and other authorized personnel to readily identify and access the data they need for investigations or court proceedings.

Lessons learned: Some agencies report that reviewing and tagging recorded data can be a time-consuming process that is prone to human error. One agency addressed this issue by working with the camera manufacturer to develop an automated process that links the recorded data to the agency's records management system. Some camera systems can also be linked to electronic tablets that officers can use to review and tag recorded data while still in the field.

18. Policies should specifically state the length of time that recorded data must be retained. For example, many agencies provide 60-day or 90-day retention times for non-evidentiary data.

Agencies should clearly state all retention times in the policy and make the retention times public by posting them on their websites to ensure community members are aware of the amount of time they have to request copies of video footage.

Retention times for recorded data are typically subject to state laws and regulations that govern other types of evidence. Agencies should consult with legal counsel to ensure retention policies are in compliance with these laws.

- For evidentiary data, most state laws provide specific retention times depending on the type of incident. Agencies should set retention times for recorded data to meet the minimum time required by law but may decide to keep recorded data longer.
- For non-evidentiary data, policies should follow state law requirements when applicable. However, if the law does not provide specific requirements for non-evidentiary data, the agency should set a retention time that takes into account the following:
 - Departmental policies governing retention of other types of electronic records
 - Openness of the state's public disclosure laws
 - Need to preserve footage to promote transparency and investigate citizen complaints
 - Capacity for data storage

Agencies should obtain written approval for retention schedules from their legal counsel and prosecutors.

19. Policies should clearly state where body-worn camera videos are to be stored.

The decision of where to store recorded data will depend on each agency's needs and resources. PERF does not recommend any particular storage method. Agencies should consult with their department's legal counsel and with prosecutors to ensure the method for data storage meets any legal requirements and chain-of-custody needs.

Common storage locations include in-house servers (managed internally) and online cloud databases (managed by a third-party vendor). Some agencies burn recorded data to discs as part of the evidence file folder.

Lessons learned: Factors that agency leaders should consider when determining storage location include the following:

- Security concerns
- Reliable methods for backing up data
- Chain-of-custody issues
- Capacity for data storage

Lessons learned: Police executives and prosecutors report that they have had no issues to date with using a third-party vendor to manage recorded data on an online cloud, so long as the chain of custody can be properly established. When using a third-party vendor, the keys to protecting the security and integrity of the data include the following:

- Using a reputable, experienced third-party vendor
- Entering into a legal contract that governs the vendor relationship and protects the agency's data
- Using a system that has a built-in audit trail to prevent data tampering and unauthorized access
- Using a system that has a reliable method for automatically backing up data
- Consulting with prosecutors and legal advisors

Recorded data access and review

20. **Officers should be permitted to review video footage of an incident in which they were involved, prior to making a statement about the incident.**

This can occur, for example, if an officer is involved in a shooting and has to give a statement about the shooting that may be used in an administrative review or a criminal or civil court proceeding.

Rationale:

- Reviewing footage will help officers remember the incident more clearly, which leads to more accurate documentation of events. The goal is to find the truth, which is facilitated by letting officers have all possible evidence of the event.
- Real-time recording of the event is considered best evidence. It often provides a more accurate record than an officer's recollection, which can be affected by stress and other factors. Research into eyewitness testimony demonstrates that stressful situations with many distractions are difficult even for trained observers to recall correctly.
- If a jury or administrative review body sees that the report says one thing and the video indicates another, this can create inconsistencies in the evidence that might damage a case or unfairly undermine the officer's credibility.

21. **Written policies should clearly describe the circumstances in which supervisors will be authorized to review an officer's body-worn camera footage.**

Common situations in which supervisors may need to review footage include the following:

- To investigate a complaint against an officer or a specific incident in which the officer was involved
- To identify videos for training purposes and for instructional use

PERF also recommends that supervisors be permitted to review footage to ensure compliance with recording policies and protocols, specifically for the following situations:

- When officers are still in a probationary period or are with a field training officer
- When officers have had a pattern of allegations of verbal or physical abuse
- When officers, as a condition of being put back on the street, agree to a more intensive review
- When officers are identified through an early intervention system

22. An agency's internal audit unit, rather than the officer's direct chain of command, should periodically conduct a random review of body-worn camera footage to monitor compliance with the program and assess overall officer performance.

Rationale: PERF recommends that an agency's internal audit unit (e.g., the Staff Inspection Unit) conduct these random footage reviews to avoid undermining the trust between an officer and his or her supervisor.

The internal audit unit's random monitoring program should be governed by a clearly-defined policy, which should be made available to officers.

23. Policies should explicitly forbid agency personnel from accessing recorded data for personal use and from uploading recorded data onto public and social media websites.

Rationale: Agencies must take every possible precaution to ensure body-worn camera footage is not used, accessed, or released for any unauthorized purpose. This prohibition should be explicitly stated in the written policy.

Written policies should also describe the sanctions for violating this prohibition.

24. Policies should include specific measures for preventing unauthorized access or release of recorded data.

Some systems have built-in audit trails. All video recordings should be considered the agency's property and be subject to any evidentiary laws and regulations.

25. Agencies should have clear and consistent protocols for releasing recorded data externally to the public and the news media (a.k.a. Public Disclosure Policies). Each agency's policy must be in compliance with the state's public disclosure laws (often known as Freedom of Information Acts).

Policies should state who is allowed to authorize the release of data and the process for responding to public requests for data. PERF generally recommends a broad disclosure policy to promote agency transparency and accountability.

However, there are some videos—such as recordings of victims and witnesses and videos taken inside private homes—that raise privacy concerns if they are publicly released. These privacy considerations must be taken into account when deciding when to release video to the public. The policy should also identify any exemptions to public disclosure that are outlined in the state Freedom of Information laws.

In certain cases, an agency may want to proactively release body-worn camera footage. For example, some agencies have released footage to share what the officer's video camera showed regarding controversial incidents. In some cases, the video may support a contention that an officer was in compliance with the law. In other cases, the video may show that the department is taking appropriate action against an officer. Policies should specify the circumstances in which this type of public release is allowed. When determining whether to proactively release data to the public, agencies should consider whether the footage will be used in a criminal court case, and the potential effects that releasing the data might have on the case.

Lessons learned:

- While agencies that have implemented body-worn cameras report that responding to public disclosure requests can be administratively complicated, departments must implement systems that ensure responses to these requests are timely, efficient, and fully transparent. This process should include reviewing footage to locate the requested video, determining which portions are subject to public release under state disclosure laws, and redacting any portions that state law prohibits from disclosure (e.g., images of juveniles' faces).
- The most important element of an agency's policy is to communicate it clearly and consistently within the community.

Training policies

- 26. Body-worn camera training should be required for all agency personnel who may use or otherwise be involved with body-worn cameras.**

This should include supervisors whose officers wear cameras, records/evidence management personnel, training personnel, Internal Affairs, etc.

Agencies may also wish to offer training as a courtesy to prosecutors to help them better understand how to access the data (if authorized), what the limitations of the technology are, and how the data may be used in court.

- 27. Before agency personnel are equipped with body-worn cameras, they must receive all mandated training.**

- 28. Body-worn camera training should include the following:**

- All practices and protocols covered by the agency's body-worn camera policy (which should be distributed to all personnel during training)
- An overview of relevant state laws governing consent, evidence, privacy, and public disclosure
- Procedures for operating the equipment safely and effectively
- Scenario-based exercises that replicate situations that officers might encounter in the field

- Procedures for downloading and tagging recorded data
- Procedures for accessing and reviewing recorded data (only for personnel authorized to access the data)
- Procedures for preparing and presenting digital evidence for court
- Procedures for documenting and reporting any malfunctioning device or supporting system

29. A body-worn camera training manual should be created in both digital and hard-copy form and should be readily available at all times to agency personnel.

The training manual should be posted on the agency's intranet.

30. Agencies should require refresher courses on body-worn camera usage and protocols at least once per year.

Agencies should also require ongoing monitoring of body-worn camera technology for updates on equipment, data storage options, court proceedings, liability issues, etc.

Policy and program evaluation

31. Agencies should collect statistical data concerning body-worn camera usage, including when video footage is used in criminal prosecutions and internal affairs matters.

Statistics should be publicly released at various specified points throughout the year or as part of the agency's year-end report.

Rationale: Collecting and releasing statistical information about body-worn camera footage helps to promote transparency and trust within the community. It also allows agencies to evaluate the effectiveness of their body-worn camera programs and to identify areas for improvement.

32. Agencies should conduct evaluations to analyze the financial impact of implementing a body-worn camera program.

These studies should analyze the following:

- The anticipated or actual cost of purchasing equipment, storing recorded data, and responding to public disclosure requests
- The anticipated or actual cost savings, including legal fees and other costs associated with defending lawsuits and complaints against officers
- Potential funding sources for a body-worn camera program

33. Agencies should conduct periodic reviews of their body-worn camera policies and protocols.

Evaluations should be based on a set standard of criteria, such as the following:

- Recording policies
- Data storage, retention, and disclosure policies
- Training programs
- Community feedback
- Officer feedback
- Internal audit review discoveries
- Any other policies that govern body-worn camera usage

An initial evaluation should be conducted at the conclusion of the body-worn camera pilot program or at a set period of time (e.g., six months) after the cameras were first implemented. Subsequent evaluations should be performed on a regular basis as determined by the agency.

Rationale: Body-worn camera technology is new and evolving. In addition, the policy issues associated with body-worn cameras are just recently being fully considered and understood. Agencies must continue to examine whether their policies and protocols take into account new technologies, are in compliance with new laws, and reflect the most up-to-date research and best practices. Evaluations will also help agencies determine whether their policies and practices are effective and appropriate for their departments.

Conclusion

The recent emergence of body-worn cameras has already impacted policing, and this impact will increase as more agencies adopt this technology. Police agencies that are considering implementing body-worn cameras should not enter into this decision lightly. Once an agency travels down the road of deploying body-worn cameras, it will be difficult to reverse course because the public will come to expect the availability of video records.

When implemented correctly, body-worn cameras can help strengthen the policing profession. These cameras can help promote agency accountability and transparency, and they can be useful tools for increasing officer professionalism, improving officer training, preserving evidence, and documenting encounters with the public. However, they also raise issues as a practical matter and at the policy level, both of which agencies must thoughtfully examine. Police agencies must determine what adopting body-worn cameras will mean in terms of police-community relationships, privacy, trust and legitimacy, and internal procedural justice for officers.

Police agencies should adopt an incremental approach to implementing a body-worn camera program. This means testing the cameras in pilot programs and engaging officers and the community during implementation. It also means carefully crafting body-worn camera policies that balance accountability, transparency, and privacy rights, as well as preserving the important relationships that exist between officers and members of the community.

PERF's recommendations provide guidance that is grounded in current research and in the lessons learned from police agencies that have adopted body-worn cameras. However, because the technology is so new, a large body of research does not yet exist regarding the effects body-worn cameras have on policing. Additional research and field experience are needed before the full impact of body-worn cameras can be understood, and PERF's recommendations may evolve as further evidence is gathered.

Like other new forms of technology, body-worn cameras have the potential to transform the field of policing. To make sure this change is positive, police agencies must think critically about the issues that cameras raise and must give careful consideration when developing body-worn camera policies and practices. First and foremost, agencies must always remember that the ultimate purpose of these cameras should be to help officers protect and serve the people in their communities.

Appendix A. Recommendations Matrix

The tables below include the 33 policy recommendations and other lessons learned that are found throughout this publication. These recommendations, which are based on the research conducted by PERF with support from the COPS Office, reflect the promising practices and lessons that emerged from PERF's September 2013 conference in Washington, D.C., where more than 200 police chiefs, sheriffs, scholars, and federal criminal justice officials shared their experiences with body-worn cameras and their perspectives on the issues discussed in this report. The recommendations also incorporate feedback gathered during PERF's interviews of more than 40 law enforcement officials and other experts, as well as findings from PERF's review of body-worn camera policies submitted by police agencies across the country.

Policy recommendations

General recommendations

No.	Recommendation	Rationale for Recommendation and Tips for Implementation	Page Reference(s)
1	Policies should clearly state which personnel are assigned or permitted to wear body-worn cameras and under which circumstances.	The decision about which officers should wear body-worn cameras will depend on an agency's resources, law enforcement needs, and other factors. Implementation tip: <ul style="list-style-type: none"> Some agencies find it useful to begin deployment with units that have the most frequent contacts with the public (e.g., traffic or patrol officers). 	Assignment of cameras: p. 38 Incremental implementation: p. 27
2	If an agency assigns cameras to officers on a voluntary basis, policies should stipulate any specific conditions under which an officer might be required to wear one.	Officers who are not otherwise assigned body-worn cameras may become required to wear one in certain circumstances, such as the following: <ul style="list-style-type: none"> After receiving a specified number of complaints or disciplinary actions When participating in a certain type of activity, such as SWAT operations 	Use of body-worn cameras to improve officer performance: p. 7-9 Assignment of cameras: p. 38
3	Agencies should not permit personnel to use privately-owned body-worn cameras while on duty.	The agency would not own recordings made from personal devices; thus, there would be little or no protection against data tampering or releasing the videos to the public or online. There would also be chain-of-custody issues with admitting personal recordings as evidence in court.	Personal cameras: p. 38 Data protection: pp. 15-16; 17-19; 42-47
4	Policies should specify the location on the body on which cameras should be worn.	Implementation tips: <ul style="list-style-type: none"> Factors to consider when determining camera placement include field of vision, comfort, functionality, ease of use, and the type of camera system used. Agencies should field test various camera locations. 	Camera placement: p. 39

No.	Recommendation	Rationale for Recommendation and Tips for Implementation	Page Reference(s)
5	Officers who activate the body-worn camera while on duty should be required to note the existence of the recording in the official incident report.	This policy ensures that the presence of video footage is accurately documented in the case file so that investigators, prosecutors, oversight boards, and courts are aware of its existence.	Documentation of camera usage: p. 39
6	Officers who wear body-worn cameras should be required to articulate on camera or in writing their reasoning if they fail to record an activity that is required by department policy to be recorded. (See Recommendations 7-13 for Recording Protocols.)	<p>There may be times when an officer fails to record an event or activity that is otherwise required by agency policy to be recorded. This may arise under the following circumstances:</p> <ul style="list-style-type: none"> • When conditions make it unsafe or impossible to activate the camera • When an officer exercises discretion, per agency policy, to not record because doing so would be detrimental to other agency priorities (e.g., protecting privacy rights, preserving community relations, or facilitating intelligence gathering) • When the camera malfunctions or otherwise fails to capture the event/activity <p>In these situations, officers should document in writing and/or on camera their reasons for not recording. This holds officers accountable, allows supervisors to investigate recording irregularities, and documents the absence of video footage for investigations and court proceedings.</p> <p>Implementation tips:</p> <ul style="list-style-type: none"> • The failure to record should be noted in the officer's written report. • If the officer deactivates the camera in the middle of recording, the officer should state on camera the reasons why. 	<p>Documenting the failure to record: pp. 13; 14; 18-19; 23; 28; 30; 39</p> <p>Recording discretion: pp. 12-14; 18-19; 22-23; 40</p>

Recording protocols

No.	Recommendation	Findings in Support of Recommendation and Tips for Implementation	Page Reference(s)
7	General recording policy: Officers should be required to activate their body-worn cameras when responding to all calls for service and during all law enforcement-related encounters and activities that occur while the officer is on duty. Exceptions include recommendations 10 and 11 below or other situations in which activating cameras would be unsafe, impossible, or impractical.	<p>Rather than requiring officers to record all encounters with the public, most agencies that PERF consulted require officers to record during calls for service and during all law enforcement-related encounters and activities. PERF agrees with this approach. This means that officers have discretion whether to record informal, non-law enforcement-related interactions with the public.</p> <p>The reasons for adopting this approach include the following:</p> <ul style="list-style-type: none"> • Protecting relationships between the police and the community • Promoting community policing efforts • Securing officer support for the body-worn camera program by signaling that they are trusted to know when to record • Keeping data storage manageable 	Recording discretion: pp. 12–14; 18–19; 22–23; 40
7a	Policies and training materials should clearly define what is included in the description “law enforcement-related encounters and activities that occur while the officer is on duty.”	<p>Officers should have clear guidance about which specific types of activities, events, and encounters they are required to record.</p> <p>Implementation tip:</p> <ul style="list-style-type: none"> • Some agencies have found it useful to provide a list of specific examples in their policies, such as traffic stops, arrests, searches, interrogations or interviews, and pursuits. Policies should note that these types of lists are not exhaustive. • These recording policies should be reinforced in training. 	Recording guidance: pp. 13; 18–24; 40
7b	Officers should also be required to activate the camera during the course of any encounter with the public that becomes adversarial after the initial contact.	<p>If officers are given discretion to not record informal, non-law enforcement-related encounters with the public, they should nonetheless be instructed to activate their cameras if the encounter becomes adversarial. This provides documentation of the encounter in the event that a complaint later arises. It also may help to defuse tense situations and prevent further escalation.</p> <p>Implementation tip:</p> <ul style="list-style-type: none"> • Officers may be called upon to activate their cameras quickly and in high-stress situations. Therefore, training programs should strive to ensure that camera activation becomes second-nature to officers. Situational training is particularly useful to achieve this goal. 	Recording adversarial encounters: pp. 23; 40 Preserving documentation for complaints: pp. 5–7 Situational training: pp. 28–29; 47

No.	Recommendation	Findings in Support of Recommendation and Tips for Implementation	Page Reference(s)
8	Officers should be required to inform subjects when they are being recorded unless doing so would be unsafe, impractical, or impossible.	<p>The mere knowledge that one is being recorded can help promote civility during police encounters with the public. Many police executives have found that officers can avoid adversarial situations if they inform people that they are being recorded.</p> <p>Implementation tips:</p> <ul style="list-style-type: none"> • In states with two-party consent laws, officers are required to announce they are recording and to obtain the subject's consent. Agencies should consult their state laws to determine whether this requirement applies. • In one-party consent states, PERF's recommendation that officers inform a person that he or she is being recorded does <i>not</i> mean that officers must also obtain the person's consent to record. • An officer may exercise discretion to not announce that he or she is recording if doing so would be unsafe, impractical, or impossible. 	<p>Consent (in general): pp. 14; 40</p> <p>Improving police-citizen encounters: pp. 6; 14</p> <p>Informing when recording: pp. 6; 14; 18–19; 40</p>
9	Once activated, the body-worn camera should remain in recording mode until the conclusion of an incident/encounter, the officer has left the scene, or a supervisor has authorized (on camera) that a recording may cease.	<p>Implementation tip:</p> <ul style="list-style-type: none"> • Prior to deactivating the camera, officers should announce that the incident has concluded and that the recording will now cease. 	Camera deactivation: pp. 18–19; 41
10	Regardless of the general recording policy contained in recommendation 7, officers should be required to obtain consent prior to recording interviews with crime victims.	<p>There are significant privacy concerns associated with videotaping crime victims. PERF believes that requiring officers to obtain consent prior to recording interviews with victims is the best way to balance privacy concerns with the need to accurately document events.</p> <p>Implementation tips:</p> <ul style="list-style-type: none"> • Victims should give or deny consent in writing and/or on camera. • This policy should apply regardless of whether consent is required under state law. 	Recording crime victims: pp. 13; 18–19; 40–41

No.	Recommendation	Findings in Support of Recommendation and Tips for Implementation	Page Reference(s)
11	Regardless of the general recording policy contained in recommendation 7, officers should have the discretion to keep their cameras turned off during conversations with crime witnesses and members of the community who wish to report or discuss criminal activity in their neighborhood.	<p>One of the most important jobs of police officers is to gather information about crime that occurs in their communities. These intelligence-gathering efforts may be formal (e.g., through interviews with witnesses of a crime) or informal (e.g., through conversations with community members with whom the officer has a relationship). Some police executives report that body-worn cameras can inhibit intelligence-gathering efforts, as some witnesses and community members may be hesitant to report information if they know their statements will be recorded. They may fear retaliation, worry about their own privacy, or not feel comfortable sharing sensitive information on camera. Officers should have the discretion to keep their cameras turned off in these situations.</p> <p>Implementation tips:</p> <ul style="list-style-type: none"> • If a person is not comfortable sharing information on camera, some agencies permit officers to position the camera so that they capture only audio, not video, recordings of the person making the statement. This affords greater privacy protections while still preserving evidentiary documentation. • It is useful for officers to keep their cameras running during the initial response to an ongoing/live crime scene to capture spontaneous statements and impressions made by people at the scene. Once the scene is controlled and has moved into the investigative stage, officers may make a case-by-case decision about whether to record later interviews with witnesses. • When encountering a reluctant witness, officers should attempt to develop a rapport by being honest and not pressuring the person to talk on camera. • If an officer turns the camera off prior to obtaining information, the officer should document on camera the reason for doing so. 	<p>Impact on intelligence-gathering efforts: pp. 19–21</p> <p>Recording statements from witnesses or citizen informants: pp. 22–23; 41–42</p>
11a	When determining whether to record interviews with witnesses and members of the community who wish to share information, officers should always consider both the evidentiary value of recording and the subject's comfort with speaking on camera. To better capture evidence, PERF recommends that officers record statements made by witnesses and people sharing information. However, if a person will not talk unless the camera is turned off, officers may decide that obtaining the information is more important than recording. PERF recommends allowing officers that discretion.	<p>Recorded statements made by crime victims and members of the community can provide valuable evidence for investigations and prosecutions. Therefore, it is always preferable to capture these statements on camera when possible.</p> <p>Implementation tips:</p> <ul style="list-style-type: none"> • Many agencies instruct officers to keep the camera activated when speaking with witnesses or informants unless the person actively requests otherwise. • Agencies should work with prosecutors to determine how best to weigh the importance of having a recorded statement versus the importance of gathering information when a witness refuses to speak on camera. 	<p>Recording statements from witnesses or citizen informants: pp. 22–23; 41–42</p>
11b	Policies should provide clear guidance regarding the circumstances under which officers will be allowed to exercise discretion to record, the factors that officers should consider when deciding whether to record, and the process for documenting whether to record.	<p>Although discretion is important for protecting community policing efforts, this discretion must not be unlimited. Officers should always adhere to agency policies regarding discretion and should document when they exercise this discretion.</p>	<p>Recording statements from witnesses or citizen informants: pp. 22–23; 41–42</p>

No.	Recommendation	Findings in Support of Recommendation and Tips for Implementation	Page Reference(s)
12	<p>Agencies should prohibit recording other agency personnel during routine, non-enforcement-related activities unless recording is required by a court order or is authorized as part of an administrative or criminal investigation.</p>	<p>This policy supports officer privacy and ensures officers feel safe to engage in routine, informal, non-law enforcement-related conversations with their colleagues. Situations that should not be recorded include the following:</p> <ul style="list-style-type: none"> • Non-law enforcement-related conversations held between officers while on patrol (except while responding to a call for service) • Conversations between agency personnel held during breaks, at lunch, in the locker room, or during other non-law enforcement-related activities 	<p>Prohibited recordings: p. 42</p>
13	<p>Policies should clearly state any other types of recordings that are prohibited by the agency. Prohibited recordings should include the following:</p> <ul style="list-style-type: none"> • Conversations with confidential informants and undercover officers to protect confidentiality and officer safety • Places where a reasonable expectation of privacy exists (e.g., bathrooms or locker rooms) • Strip searches • Conversations with other agency personnel that involve case tactics or strategy 	<p>When determining whether a recording should be prohibited, agencies should consider privacy concerns, the need for transparency and accountability, the safety of the officer and the citizen, and the evidentiary value of recording.</p>	<p>Prohibited recordings: pp. 37–38; 42</p> <p>Privacy considerations (in general): pp. 11–20</p>

Download and storage policies

No.	Recommendation	Findings in Support of Recommendation and Tips for Implementation	Page Reference(s)
14	Policies should designate the officer as the person responsible for downloading recorded data from his or her body-worn camera. However, in certain clearly identified circumstances (e.g., officer-involved shootings, in-custody deaths, or other incidents involving the officer that result in a person's bodily harm or death), the officer's supervisor should immediately take physical custody of the camera and should be responsible for downloading the data.	In most cases, it is more efficient for an officer to download recorded data from his or her own body-worn camera. The officer will have the best access to the camera and knowledge of the footage for tagging/documentation purposes. However, if the officer is involved in a shooting or other incident that results in someone's bodily harm or death, it is prudent for the officer's supervisor to take immediate custody of the officer's camera for evidence preservation purposes.	Data protection: pp. 15–16; 18–19; 42–44
15	Policies should include specific measures to prevent data tampering, deleting, and copying.	Implementation tips: <ul style="list-style-type: none"> Agencies should create an audit system that monitors who accesses recorded data, when, and for what purpose. Some camera systems come with a built-in audit trail. Agencies can conduct forensic reviews to determine whether recorded data has been tampered with. 	Data protection: pp. 15–16; 18–19; 42–45
16	Data should be downloaded from the body-worn camera by the end of each shift in which the camera was used.	The majority of agencies that PERF consulted require officers to download recorded data by the conclusion of his or her shift. The reasons for this include the following: <ul style="list-style-type: none"> Many camera systems recharge and clear old data during the downloading process. Events will be fresh in the officer's memory for the purpose of tagging and categorizing. Evidence will be entered into the system in a timely manner. 	Data protection: pp. 15–16; 18–19; 42–45
17	Officers should properly categorize and tag body-worn camera videos at the time they are downloaded. Videos should be classified according to the type of event or incident captured in the footage.	Properly categorizing and labeling/tagging recorded video is important for the following reasons: <ul style="list-style-type: none"> The type of event/incident on the video will typically dictate data retention times. It enables supervisors, investigators, and prosecutors to more easily identify and access the data they need. Implementation tips: <ul style="list-style-type: none"> Some camera systems can be linked to an agency's records management system to allow for automated tagging and documentation. Some camera systems can be linked to electronic tablets that officers can use to review and tag recorded data while in the field. This saves the officer time spent tagging data at the end of his or her shift. 	Data tagging: pp. 16–17; 18–19; 33–34; 43

No.	Recommendation	Findings in Support of Recommendation and Tips for Implementation	Page Reference(s)
18	Policies should specifically state the length of time that recorded data must be retained. For example, many agencies provide 60-day or 90-day retention times for non-evidentiary data.	<p>Most state laws provide specific retention times for videos that contain evidentiary footage that may be used for investigations and court proceedings. These retention times will depend on the type of incident captured in the footage. Agencies typically have more discretion when setting retention times for videos that do not contain evidentiary footage.</p> <p>When setting retention times, agencies should consider the following:</p> <ul style="list-style-type: none"> • State laws governing evidence retention • Departmental policies governing retention of other types of electronic records • The openness of the state's public disclosure laws • The need to preserve footage to promote transparency • The length of time typically needed to receive and investigate citizen complaints • The agency's capacity for data storage <p>Implementation tips:</p> <ul style="list-style-type: none"> • Agencies should make retention times public by posting them on their websites. • When setting retention times, agencies should consult with legal counsel to ensure compliance with relevant evidentiary laws. Agencies should obtain written approval for retention schedules from prosecutors and legal counsel. 	Data retention: pp. 16–19; 33–34; 43–45

No.	Recommendation	Findings in Support of Recommendation and Tips for Implementation	Page Reference(s)
19	Policies should clearly state where body-worn camera videos are to be stored.	<p>Common storage locations include in-house servers (managed internally) and online cloud databases (managed by a third-party vendor). Factors that agencies should consider when determining where to store data include the following:</p> <ul style="list-style-type: none"> • Security concerns • Reliable methods for backing up data • Chain-of-custody issues • Capacity for data storage <p>Implementation tips:</p> <ul style="list-style-type: none"> • Agencies should consult with prosecutors and legal advisors to ensure data storage methods meet all legal requirements and chain-of-custody needs. • For videos requiring long-term storage, some agencies burn the data to a disc, attach it to the case file, and delete it from the internal server or online database. This frees up expensive storage space for videos that are part of an ongoing investigation or that have shorter retention times. • The agencies that PERF consulted report having no issues to date with using a third-party vendor to manage recorded data. To protect the security and integrity of data managed by a third party, agencies should use a reputable, experienced vendor; enter into a legal contract with the vendor that protects the agency's data; ensure the system includes a built-in audit trail and reliable backup methods; and consult with legal advisors. 	Data storage: pp. 15–16; 18–19; 32–34; 43–44

Recorded data access and review

No.	Recommendation	Findings in Support of Recommendation and Tips for Implementation	Page Reference(s)
20	Officers should be permitted to review video footage of an incident in which they were involved, prior to making a statement about the incident.	<p>Most agencies that PERF consulted permit officers to review video footage of an incident in which they were involved, such as a shooting, prior to making a statement that might be used in an administrative review or court proceeding. The reasons for this policy include the following:</p> <ul style="list-style-type: none"> • Reviewing footage will help lead to the truth of the incident by helping officers to remember an incident more clearly. • Real-time recording is considered best evidence and provides a more accurate record than the officer's recollection. • Research into eyewitness testimony has demonstrated that stressful situations with many distractions are difficult for even trained observers to recall correctly. • Officers will have to explain and account for their actions, regardless of what the video shows. 	Officer review of footage: pp. 29–30; 45–47
21	Written policies should clearly describe the circumstances in which supervisors will be authorized to review an officer's body-worn camera footage.	<p>PERF recommends that supervisors be authorized to review footage in the following circumstances:</p> <ul style="list-style-type: none"> • When a supervisor needs to investigate a complaint against an officer or a specific incident in which the officer was involved • When a supervisor needs to identify videos for training purposes and for instructional use • When officers are still in a probationary period or are with a field training officer • When officers have had a pattern of allegations of abuse or misconduct • When officers have agreed to a more intensive review as a condition of being put back on the street • When an officer has been identified through an early intervention system 	Supervisor review of footage: pp. 24–26; 27–28; 45–47

No.	Recommendation	Findings in Support of Recommendation and Tips for Implementation	Page Reference(s)
22	An agency's internal audit unit, rather than the officer's direct chain of command, should periodically conduct a random review of body-worn camera footage to monitor compliance with the program and assess overall officer performance.	<p>Randomly monitoring an officer's camera footage can help proactively identify problems, determine noncompliance, and demonstrate accountability. However, unless prompted by one of the situations described in recommendation 21, PERF does not generally recommend that supervisors randomly monitor footage recorded by officers in their chain of command for the purpose of spot-checking the officers' performance. Instead, an agency's internal audit unit should be responsible for conducting random monitoring. This allows agencies to monitor compliance with the program and assess performance without undermining the trust between an officer and his or her supervisor.</p> <p>Implementation tips:</p> <ul style="list-style-type: none"> • Internal audit reviews should be truly random and not target a specific officer or officers. • Audits should be conducted in accordance with a written standard of review that is communicated to officers. 	Internal audit unit review of footage: pp. 24–26; 28; 45–47
23	Policies should explicitly forbid agency personnel from accessing recorded data for personal use and from uploading recorded data onto public and social media websites.	<p>Agencies must take every possible precaution to ensure that camera footage is not used, accessed, or released for any unauthorized purposes.</p> <p>Implementation tips:</p> <ul style="list-style-type: none"> • Written policies should describe the sanctions for violating this prohibition. 	Data protection: pp. 15–16; 18–19; 45–46
24	Policies should include specific measures for preventing unauthorized access or release of recorded data.	All video recordings should be considered the agency's property and be subject to any evidentiary laws and regulations. (See also recommendations 15 and 23.)	Data protection: pp. 15–16; 18–19; 45–46

No.	Recommendation	Findings in Support of Recommendation and Tips for Implementation	Page Reference(s)
25	Agencies should have clear and consistent protocols for releasing recorded data externally to the public and the news media (a.k.a. Public Disclosure Policies). Each agency's policy must be in compliance with the state's public disclosure laws (often known as Freedom of Information Acts).	<p>PERF generally recommends a broad public disclosure policy for body-worn camera videos. By implementing a body-worn camera program, agencies are demonstrating that they are committed to transparency and accountability, and their disclosure policies should reflect this commitment.</p> <p>However, there are some situations when an agency may determine that publicly releasing body-worn camera footage is not appropriate. These include the following:</p> <ul style="list-style-type: none"> • Videos that contain evidentiary footage being used in an ongoing investigation or court proceeding are typically exempted from disclosure by state public disclosure laws. • When the videos raise privacy concerns, such as recordings of crime victims or witnesses or footage taken inside a private home, agencies must balance privacy concerns against the need for transparency while complying with relevant state public disclosure laws. <p>Implementation tips:</p> <ul style="list-style-type: none"> • Policies should state who is allowed to authorize the release of videos. • When determining whether to proactively release videos to the public (rather than in response to a public disclosure request), agencies should consider whether the footage will be used in a criminal court case and the potential effects that releasing the data may have on the case. • Policies should clearly state the process for responding to public disclosure requests, including the review and redaction process. • Agencies should always communicate their public disclosure policies to the public. 	Public disclosure: pp. 17–19; 33–34; 46–47

Training policies

No.	Recommendation	Findings in Support of Recommendation and Tips for Implementation	Page Reference(s)
26	Body-worn camera training should be required for all agency personnel who may use or otherwise be involved with body-worn cameras.	<p>Personnel who receive training should include the following:</p> <ul style="list-style-type: none"> • Officers who will be assigned or permitted to wear cameras • Supervisors whose officers wear cameras • Records/evidence management personnel • Training personnel • Internal Affairs • Anyone else who will be involved with the body-worn camera program <p>Implementation tip:</p> <ul style="list-style-type: none"> • As a courtesy, agencies may wish to offer training to prosecutors so they can better understand how to access the data, what the limitations of the technology are, and how the data may be used in court. 	Training: pp. 47–49
27	Before agency personnel are equipped with body-worn cameras, they must receive all mandated training.	This ensures officers are prepared to operate the cameras safely and properly prior to wearing them in the field.	Training: pp. 25; 28–29; 47–49
28	<p>Body-worn camera training should include the following:</p> <ul style="list-style-type: none"> • All practices and protocols covered by the agency’s body-worn camera policy (which should be distributed to all personnel during training) • An overview of relevant state laws governing consent, evidence, privacy, and public disclosure • Procedures for operating the equipment safely and effectively • Scenario-based exercises that replicate situations that officers might encounter in the field • Procedures for downloading and tagging recorded data • Procedures for accessing and reviewing recorded data (only for personnel authorized to access the data) • Procedures for preparing and presenting digital evidence for court • Procedures for documenting and reporting any malfunctioning device or supporting system 	<p>Implementation tips:</p> <ul style="list-style-type: none"> • Agencies can use existing body-worn camera footage to train officers on the proper camera practices and protocols. • Scenario-based training can be useful to help officers become accustomed to wearing and activating their cameras. Some agencies require officers to participate in situational exercise using training model cameras. 	Training: pp. 7; 26–30; 47–49
29	A body-worn camera training manual should be created in both digital and hard-copy form and should be readily available at all times to agency personnel.	<p>Implementation tip:</p> <ul style="list-style-type: none"> • The training manual should be posted on the agency’s intranet. 	Training: pp. 47–49
30	Agencies should require refresher courses on body-worn camera usage and protocols at least once per year.	Body-worn camera technology is constantly evolving. In addition to yearly refresher courses, training should occur anytime an agency’s body-worn camera policy changes. Agencies should also keep abreast of new technology, data storage options, court proceedings, and other issues surrounding body-worn cameras.	Training: pp. 47–49

Policy and program evaluation

No.	Recommendation	Findings in Support of Recommendation and Tips for Implementation	Page Reference(s)
31	Agencies should collect statistical data concerning body-worn camera usage, including when video footage is used in criminal prosecutions and internal affairs matters.	<p>Collecting and releasing data about body-worn cameras helps promote transparency and trust within the community. It also helps agencies to evaluate the effectiveness of their programs, to determine whether their goals are being met, and to identify areas for improvement. Agencies can also use the findings when presenting information about their body-worn camera programs to officers, oversight boards, policymakers, and the community.</p> <p>Implementation tip:</p> <ul style="list-style-type: none"> Statistics should be publicly released at various specified points throughout the year or as part of the agency's year-end report. 	Engaging the public: pp. 21–22; 24; 28–29; 47–48
32	Agencies should conduct evaluations to analyze the financial impact of implementing a body-worn camera program.	<p>A cost-benefit analysis can help an agency to determine the feasibility of implementing a body-worn camera program. The analysis should examine the following:</p> <ul style="list-style-type: none"> The anticipated or actual cost of purchasing equipment, storing recorded data, and responding to public disclosure requests The anticipated or actual cost savings, including legal fees and other costs associated with defending lawsuits and complaints against officers Potential funding sources for a body-worn camera program 	<p>Financial considerations: pp. 30–34; 48–49</p> <p>Cost-benefit analysis: p.31</p> <p>Reducing complaints and lawsuits: pp. 6–9</p>
33	Agencies should conduct periodic reviews of their body-worn camera policies and protocols.	<p>Body-worn camera technology is new and evolving, and the policy issues associated with body-worn cameras are just recently being fully considered. Agencies must continue to examine whether their policies and protocols take into account new technologies, are in compliance with new laws, and reflect the most up-to-date research and best practices. Evaluations will also help agencies determine whether their policies and practices are effective and appropriate for their departments.</p> <p>Implementation tips:</p> <ul style="list-style-type: none"> Evaluations should be based on a set of standard criteria and outcome measures. An initial evaluation should be conducted at the conclusion of the body-worn camera pilot program or at a set period of time (e.g., six months) after the cameras were first implemented. Subsequent evaluations should be conducted on a regular basis as determined by the agency. 	Program evaluation: p. 48–49

Additional lessons learned: engaging officers, policymakers, and the community

According to the police officials whom PERF consulted, it is critical for agencies to engage the community, policymakers, courts, oversight boards, unions, frontline officers, and other stakeholders about the department's body-worn camera program. Open communication—both prior to and after camera deployment—can strengthen the perceived legitimacy of the camera program, demonstrate agency transparency, and help educate stakeholders about the realities of using body-worn cameras. The following table presents lessons that agencies shared with PERF with respect to engaging stakeholders.

No.	Lesson Learned	Page Reference(s)
1	Engaging the community prior to implementing a camera program can help secure support for the program and increase the perceived legitimacy of the program within the community.	pp. 21–22; 24
2	Agencies have found it useful to communicate with the public, local policymakers, and other stakeholders about what the cameras will be used for and how the cameras will affect them.	pp. 21–22; 24
3	Social media is an effective way to facilitate public engagement about body-worn cameras.	pp. 21–22; 24
4	Transparency about the agency's camera policies and practices, both prior to and after implementation, can help increase public acceptance and hold agencies accountable. Examples of transparency include posting policies on the agency's website and publicly releasing video recordings of controversial incidents.	pp. 21–22; 24
5	When presenting officers with any new technology, program, or strategy, the best approach includes efforts by agency leaders to engage officers on the topic, explain the goals and benefits of the initiative, and address any concerns officers may have.	pp. 26–27
6	Briefings, roll calls, and meetings with union representatives are effective means to communicate with officers about the agency's body-worn camera program.	pp. 26–27
7	Creating an implementation team that includes representatives from across the agency can help strengthen program legitimacy and ease implementation.	pp. 26–27
8	Agencies have found that officers support a body-worn camera program if they view the cameras as useful tools: e.g., as a technology that helps to reduce complaints and produce evidence that can be used in court or in internal investigations.	pp. 26–27
9	Recruiting an internal "champion" to help inform officers about the benefits of the cameras has proven successful in addressing officers' concerns about embracing the new technology.	pp. 26–27
10	Taking an incremental approach to implementation can help make deployment run more smoothly. This can include testing cameras during a trial period, rolling out cameras slowly, or initially assigning cameras to tech savvy officers.	pp. 26–27
11	Educating oversight bodies about the realities of using cameras can help them to understand operational challenges and why there may be situations in which officers are unable to record. This can include demonstrations to judges, attorneys, and civilian review boards about how the cameras operate.	pp. 28–30

Appendix B. Conference attendees

PERF and the COPS Office convened this one-day conference on September 11, 2013, in Washington, D.C., to discuss the policy and operational issues surrounding body-worn cameras. The titles listed below reflect attendees' positions at the time of the conference.

Albuquerque (NM) Police Department

William Roseman
Deputy Chief of Police

Alexandria (VA) Police Department

David Huchler
Deputy Chief of Police

Eddie Reyes
Deputy Chief of Police

Anne Arundel County (MD) Police Department

Herbert Hasenpusch
Captain

Thomas Kohlmann
Lieutenant

Appleton (WI) Police Department

Gary Lewis
Lieutenant

Arlington County (VA) Police Department

Jason Bryk
Lieutenant

Michael Dunne
Deputy Chief of Police

Lauretta Hill
Assistant Chief of Police

Arnold & Porter LLP

Meredith Esser
Associate

Peter Zimroth
Partner

Atlanta (GA) Police Department

Todd Coyt
Lieutenant

Joseph Spillane
Major

Aurora (CO) Police Department

Dan Mark
Lieutenant

Baltimore County (MD) Police Department

Karen Johnson
Major

James Johnson
Chief of Police

Baltimore (MD) Fraternal Order of Police

Bob Cherry
President

Baltimore (MD) Police Department

Jeronimo Rodriguez
Deputy Police Commissioner

Bay Area Rapid Transit Police Department

Kenton Rainey
Chief of Police

Boyd (VA) Police Department

Michael Brave
Training Officer

Bureau of Justice Assistance

U.S. Department of Justice

David Adams
Senior Policy Advisor

Steve Edwards
Senior Policy Advisor

Kristen Mahoney
Deputy Director of Policy

Denise O'Donnell
Director

Brian Reaves
Senior Statistician

Cornelia Sigworth
Senior Advisor

Christopher Traver
Senior Policy Advisor

Calgary (AB) Police Service

Trevor Daroux
Deputy Chief of Police

Evel Kiez
Sergeant

Asif Rashid
Staff Sergeant

Camden County (NJ) Police Department

Orlando Cuevas
Deputy Chief of Police

Charlotte-Mecklenburg (NC) Police Department

Michael Adams
Major

Stephen Willis
Major

Cincinnati (OH) Police Department

Thomas Streicher
Chief of Police (Retired)

City of Akron (OH) Police Department

James Nice
Chief of Police

Civil Rights Division

U.S. Department of Justice

Roy L. Austin, Jr.
Deputy Assistant Attorney General

Christy Lopez
Deputy Chief

Zazy Lopez
Attorney

Jeffrey Murray
Attorney

Tim Mygatt
Special Counsel

Rashida Ogletree
Attorney

CNA Corporation

James Stewart
Director of Public Safety

Columbus (OH) Division of Police

Gary Cameron
Commander, Narcotics Bureau

Commission on Accreditation for Law Enforcement Agencies, Inc.

Craig Hartley
Deputy Director

CP2, Inc.

Carl Peed
President

Dallas (TX) Police Department

Andrew Acord
Deputy Chief of Police

Dalton (GA) Police Department

Jason Parker
Chief of Police

Daytona Beach (FL) Police Department

Michael Chitwood
Chief of Police

Denver (CO) Police Department

Magen Dodge
Commander

Des Moines (IA) Police Department

Judy Bradshaw
Chief of Police

Todd Dykstra
Captain

Stephen Waymire
Major

Detroit (MI) Police Department

James Craig
Chief of Police

Digital Ally, Inc.

Matthew Andrews
Engineer

Stan Ross
CEO

Eugene (OR) Police Department

James Durr
Captain

Fairfax County (VA) Police Department

Bob Blakley
Lieutenant

Fayetteville (NC) Police Department

Wayne Burgess
Lieutenant

Bradley Chandler
Assistant Chief of Police

Timothy Tew
Lieutenant

Federal Bureau of Investigation

Jacques Battiste
Supervisory Special Agent

Federal Emergency Management Agency

Roberto Hylton
Senior Law Enforcement Advisor

Edward Welch
Director

Fort Collins (CO) Police Department

Cory Christensen
Deputy Chief of Police

Garner (NC) Police Department

Chris Hagwood
Lieutenant

Glenview (IL) Police Department

William Fitzpatrick
Chief of Police

Grand Junction (CO) Police Department

John Camper
Chief of Police

Greater Manchester (UK) Police

Paul Rumney
Detective Chief Superintendent

Greensboro (NC) Police Department

Kenneth Miller
Chief of Police

George Richey
Captain

Wayne Scott
Deputy Chief of Police

Greenville (NC) Police Department

Hassan Aden
Chief of Police

Greenwood & Streicher LLC

Scott Greenwood
CEO

Gulf States Regional Center for Public Safety Innovations

Daphne Levenson
Director

Harrisonburg (VA) Police Department

John Hancock
Officer

Roger Knott
Lieutenant

Hayward (CA) Police Department

Lauren Sugayan
Program Analyst

Henrico County (VA) Division of Police

Douglas Middleton
Chief of Police

Herndon (VA) Police Department

Maggie DeBoard
Chief of Police

Steven Pihonak
Sergeant

Houston (TX) Police Department

Jessica Anderson
Sergeant

James Jones
Captain

Charles McClelland
Chief of Police

Indianapolis (IN) Department of Public Safety

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Innovative Management Consulting, Inc.

Thomas Maloney
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International Association of Chiefs of Police

Mike Fergus
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David Roberts
Senior Program Manager

Jersey City (NJ) Police Department

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Police ID Officer

Stephen Golecki
Sr. Police ID Officer

Samantha Pescatore
Officer

John Scalcione
Officer

Daniel Sollitti
Captain

L-3 Communications

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Chief of Police

Lansing (MI) Police Department

Michael Yankowski
Chief of Police

Las Vegas Metropolitan (NV) Police Department

Liesl Freedman
General Counsel

Thomas Roberts
Captain

Leesburg (VA) Police Department

Carl Maupin
Lieutenant

Lenexa (KS) Police Department

Dawn Layman
Major

Los Angeles County Sheriff's Department

David Betkey
Division Chief

Kevin Goran
Division Chief

James Hellmold
Assistant Sheriff

Chris Marks
Lieutenant

Los Angeles Police Department

Greg Meyer
Captain (Retired)

Louisville (KY) Metro Police Department

Robert Schroeder
Major

Lynchburg (VA) Police Department

Mark Jamison
Captain

Ryan Zuidema
Captain

Madison (WI) Police Department

June Groehler
Lieutenant

Manning & Kass, Ellrod, Ramirez, Trester

Mildred Olinn
Partner

Eugene Ramirez
Senior Partner

Maryland State Police Department

Michael Brady
Sergeant

Clifford Hughes
Assistant Bureau Chief

Thomas Vondersmith
Director

Meriden (CT) Police Department

Jeffry Cossette
Chief of Police

Timothy Topulos
Deputy Chief of Police

Mesa (AZ) Police Department

Tony Filler
Commander

Metropolitan Nashville (TN) Police Department

Michael Anderson
Chief of Police

John Singleton
IT Security Manager

Metropolitan (DC) Police Department

Brian Bobick
Sergeant

Alfred Durham
Assistant Chief of Police

Barry Gersten
CIO

Lamar Greene
Assistant Chief of Police

Cathy Lanier
Chief of Police

Thomas Wilkins
Executive Director

Miami Beach (FL) Police Department

David De La Espriella
Captain

Milwaukee (WI) Police Department

Mary Hoerig
Inspector of Police

Minneapolis (MN) Police Department

Bruce Folkens
Commander

Janeé Harteau
Chief of Police

Montgomery County (MD) Police Department

Brian Acken
Director

Luther Reynolds
Assistant Chief of Police

Motorola Solutions, Inc.

Domingo Herraiz
Vice President

Kelly Kirwan
Corporate Vice President

Steve Sebestyen
Business Development Manager

MPH Industries Inc.

Larry Abel
Senior Training Officer

National Institute of Justice

U.S. Department of Justice

Brett Chapman
Social Science Analyst

William Ford
Division Director

National Law Enforcement Museum

Sarah Haggerty
Associate Curator

National Press Photographers Association

Mickey Osterreicher
General Counsel

New Haven (CT) Police Department

Luiz Casanova
Assistant Chief of Police

New Orleans (LA) Police Department

Ronal Serpas
Superintendent of Police

New South Wales (AUS) Police Force

Stephen Cullen
Chief Superintendent

New York City Police Department

Terrence Riley
Inspector

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Chief of Police

Samuel DeMaio

Director

Michele MacPhee

Lieutenant

Brian O'Hara

Lieutenant

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James Ipock

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Social Science Analyst

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Debra McCullough

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Katherine McQuay

Senior Policy Analyst

Tawana Waugh

Senior Program Specialist

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Office of Justice Programs

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Police Commissioner

Anthony Washington

Inspector

Phoenix (AZ) Police Department**Dave Harvey**

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Police and Public Safety Consultant**Robert Lunney**

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President

Jim SpechtAssistant to the President for
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Chief of Police

**Prince George's County (MD)
Police Department****Joshua Brackett**

Corporal

Mark Person

Major

Henry Stawinski III

Deputy Chief of Police

Hector Velez

Deputy Chief of Police

**Prince William County (VA)
Police Department**

Charlie Deane
Chief of Police (Retired)

Javid Elahi
Lieutenant

Thomas Pulaski
Senior Administrative Manager

Ramsey County (MN) Sheriff's Office

Robert Allen
Director of Planning and Policy Analysis

Rialto (CA) Police Department

William Farrar
Chief of Police

Richmond (CA) Police Department

Allwyn Brown
Deputy Chief of Police

Richmond (VA) Police Department

Scott Booth
Major

Sydney Collier
Major

Roger Russell
Captain

Riverside (CA) Police Department

Bruce Loftus
Lieutenant

Roanoke (VA) County Police Department

Mike Warner
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David Robinson
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PERF strives to advance professionalism in policing and to improve the delivery of police services through the exercise of strong national leadership, public debate of police and criminal justice issues, and research and policy development.

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All of PERF's work benefits from PERF's status as a membership organization of police officials, academics, federal government leaders, and others with an interest in policing and criminal justice.

All PERF members must have a four-year college degree and must subscribe to a set of founding principles, emphasizing the importance of research and public debate in policing, adherence to the Constitution and the highest standards of ethics and integrity, and accountability to the communities that police agencies serve.

PERF is governed by a member-elected president and board of directors and a board-appointed executive director. A staff of approximately 30 full-time professionals is based in Washington, D.C.

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About the COPS Office

The **Office of Community Oriented Policing Services (COPS Office)** is the component of the U.S. Department of Justice responsible for advancing the practice of community policing by the nation's state, local, territory, and tribal law enforcement agencies through information and grant resources.

Community policing is a philosophy that promotes organizational strategies that support the systematic use of partnerships and problem-solving techniques, to proactively address the immediate conditions that give rise to public safety issues such as crime, social disorder, and fear of crime.

Rather than simply responding to crimes once they have been committed, community policing concentrates on preventing crime and eliminating the atmosphere of fear it creates. Earning the trust of the community and making those individuals stakeholders in their own safety enables law enforcement to better understand and address both the needs of the community and the factors that contribute to crime.

The COPS Office awards grants to state, local, territory, and tribal law enforcement agencies to hire and train community policing professionals, acquire and deploy cutting-edge crime fighting technologies, and develop and test innovative policing strategies. COPS Office funding also provides training and technical assistance to community members and local government leaders and all levels of law enforcement. The COPS Office has produced and compiled a broad range of information resources that can help law enforcement better address specific crime and operational issues, and help community leaders better understand how to work cooperatively with their law enforcement agency to reduce crime.

- Since 1994, the COPS Office has invested more than \$14 billion to add community policing officers to the nation's streets, enhance crime fighting technology, support crime prevention initiatives, and provide training and technical assistance to help advance community policing.
- To date, the COPS Office has funded approximately 125,000 additional officers to more than 13,000 of the nation's 18,000 law enforcement agencies across the country in small and large jurisdictions alike.
- Nearly 700,000 law enforcement personnel, community members, and government leaders have been trained through COPS Office-funded training organizations.
- To date, the COPS Office has distributed more than 8.57 million topic-specific publications, training curricula, white papers, and resource CDs.

COPS Office resources, covering a wide breadth of community policing topics—from school and campus safety to gang violence—are available, at no cost, through its online Resource Center at www.cops.usdoj.gov. This easy-to-navigate website is also the grant application portal, providing access to online application forms.

In recent years, many law enforcement agencies have been deploying small video cameras worn by officers to record encounters with the public; investigate officer-involved incidents; produce evidence; and strengthen agency performance, accountability, and transparency. While body-worn cameras have the potential to improve police services, they also raise issues involving privacy, police-community relationships, procedural justice, and technical and cost questions, all of which agencies should examine as they consider this technology.

The Police Executive Research Forum, with support from the Office of Community Oriented Policing Services, conducted research in 2013 on the use of body-worn cameras. This research included interviews with police executives, a review of agencies' policies, and a national conference at which 200 police executives and other experts discussed their experiences with body-worn cameras. This publication describes the findings of this research, explores the issues surrounding body-worn cameras, and offers policy recommendations for law enforcement agencies.



COPS

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Evaluating the Impact of Officer Worn Body Cameras in the Phoenix Police Department

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Suggested citation:

Katz, Charles M., David E. Choate, Justin R. Ready, & Lidia Nuño. (2014). Evaluating the Impact of Officer Worn Body Cameras in the Phoenix Police Department. Phoenix, AZ: Center for Violence Prevention & Community Safety, Arizona State University.

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EXECUTIVE SUMMARY

The Bureau of Justice Assistance (BJA), through the SMART Policing Initiative (SPI), awarded the Phoenix Police Department \$500,000 to purchase, deploy and evaluate police body worn cameras. The design and implementation of the project included the purchase of 56 Body Worn Camera (BWC) systems and deploying them in the Maryvale Precinct. The implementation of the BWC's occurred in one of the two Maryvale Precinct squad areas (aka target area). All officers assigned to the target area were issued the equipment and were provided training in its use, maintenance, and related departmental policy. This evaluation was conducted to examine the effect of implementing police worn body cameras on complaints against the police and domestic violence case processing and outcomes.

Our analysis of the camera meta-data indicated that only 13.2 to 42.2 percent of incidents were recorded by and BWV camera. Domestic violence incidents were the most likely to be recorded (47.5%), followed by violent offenses (38.7), back-up (37%), status offenses (32.9%), and subject/vehicle stops (30.9%). Other offense types were recorded less often. While in general the technology was found to be comfortable and easy to use, officers were dissatisfied with long down load times, increased amount of time that it took to complete reports, and the possibility that video recordings might be used against them by the department. We also found that video submitted to the court was difficult to process because of logistical problems associated with chain of custody and the length of time that it took the prosecutors to review video files. While many of the problems were addressed by the precinct commander by assigning a police officer to serve as a court liaison officer, prosecutors still maintained that they did not have enough time to review video footage.

Regardless, the officer worn body cameras were found to be beneficial to the officers and the court in a number of ways. First, officer productivity as measured through the number of arrests increased significantly. For instance, the number of arrests increased by about 17% among the target group compared to 9% in the comparison group. Second, complaints against the police declined significantly. Complaints against officers who wore the cameras declined by 23%, compared to a 10.6% increase among comparison officers and 45.1% increase among patrol officers in other precincts. Third, our data showed that those officers who wore cameras and received a complaint were significantly less likely to have the complaint sustained when compared to the comparison group and other patrol officers throughout the PPD. This suggests that even if a complaint was made against a camera wearing officer the video file was likely to provide support to the officer. Fourth, and related, the officer self-report data suggested that a significant number of complaints were not pursued because of video recordings. BWC did not appear, however, to have an impact on suspect behavior as measured through resisting arrest charges.

Additionally, we examined the impact of body worn cameras on domestic violence case processing. Analysis of the data indicated that following the implementation of body cameras, cases were significantly more likely to be initiated, result in charges filed, and result in a guilty plea or guilty verdict. The analysis also determined that cases were completed faster following

the implementation of body cameras, however, we believe that this finding was largely a product of the addition of a court liaison officer who facilitated case processing between the PPD and city prosecutors office.

SECTION 1: INTRODUCTION

The Bureau of Justice Assistance (BJA) awarded funding to the Phoenix Police Department (PPD) to purchase, deploy and evaluate on-person video cameras that record the interactions between community members (e.g., the public, suspects and victims) and officers. The camera is worn on the officer's uniform, placed optionally on the shoulder lapel or upper placket, with a forward-facing viewable area. The camera captures events and interactions that take place between suspects, victims, and the officer. The video recordings can be used by the police to document statements, observations, behaviors and other evidence; and can simultaneously be used to prevent and deter unprofessional, illegal, and inappropriate behaviors by both the police and the public. Accordingly, this technology can be used to resolve disputes and build trust with the community by preserving a record of critical events.

The technology for the present project was primarily selected for two purposes: 1) to increase police accountability; and 2) increase the effectiveness of the police in their response to crime in general and domestic violence specifically. First, the technology might deter officers from engaging in unprofessional behavior or misconduct, and similarly, deter members of the public from inappropriate, aggressive or resistant behavior. Furthermore, with respect to police accountability the technology has the potential to record misconduct, use of force, and other problem behavior or unprofessional conduct; and, conversely it has the potential to be used by an officer to disprove an allegation of misbehavior and may defuse potentially violent interactions between the police and the community. As a consequence, we believed that such technology might increase accountability among the public and the police, decrease citizen complaints, and result in increased perceptions of legitimacy, trust, and public satisfaction with the police. We believe that an ancillary benefit of the technology is that it might reduce civil judgments against the city as a result of injuries or damage that might occur as a consequence of police misconduct or false claims about police misconduct.

Second, the technology has the potential to increase the effectiveness of the police response to crime in general and domestic violence specifically. Regular recording of officer-involved incidents might improve the level of recollection of the incidents when the officer is completing their field reports, and later during court proceedings. The video can be entered into evidence as further proof of the incident, which has the potential of leading to higher rates of arrest, charging, prosecution, and conviction. We were also interested in determining whether the technology increased public cooperation with the police. Cooperation was measured by examining the use of the technology and its effect on deterring individuals from committing secondary violations such as resisting arrest, assaulting a police officer, and trying to escape.

Cameras and Policing

The television show *Cops* first aired in 1989, and continues as one of the longest running shows on television. The American public's familiarity with seeing police work on video is engrained, but this is still an external observer with a camera, recording events for the purpose of producing

a television show. As video recording technology advanced sufficiently to allow for compact devices that could fit on a patrol car's dashboard without significantly interfering with ordinary responsibilities, police departments began to adopt dashboard cameras. Through the 1990's and early 2000's the U.S. Department of Justice's Office of Community Oriented Policing Services (COPS) In-Car Camera Program provided millions of dollars in grants to purchase and deploy dashboard cameras to law enforcement agencies across the country (Fiumara, 2012). Dashboard cameras have been demonstrated to improve officer safety and accountability. In part because of this, they have been widely adopted and accepted by law enforcement agencies and officers over the past few decades (International Association of Chiefs of Police [IACP], 2004).

More recent technological developments in the portability of devices with video recording capability have renewed the discussion about cameras in policing. On-officer, body worn video (BWC) camera devices are an emerging technology, lauded for their contribution to police accountability and transparency, as well as their evidentiary value, an increasing number of police departments are deploying them, if not wholesale, in a limited capacity (White, 2014). Critics of BWC cite privacy concerns and unnecessary expenses. Despite the exponential growth in the number of agencies purchasing and deploying BWC, there is still little empirical evidence to support the claims of their supporters, or understand their unintended consequences. To date, only five (5) empirical studies have examined the impact of BWC and the process of their implementation.

In 2006, the constabulary in Plymouth, UK conducted a 17-month study using 50 BWC (Police and Crime Standards Directorate, UK Home Office, 2007). The BWC relied on a headband to mount the camera just above the officer's left ear. More than 300 officers were trained for the use of the BWC, and were allowed to voluntarily checkout and use the system at their convenience. Key findings of the study included: increased evidentiary quality; 22.4% less time spent on paperwork; substantial support in domestic violence cases; advantages in professional development and officer accountability; and cost constraints. Improvement in the quality of evidence was demonstrated by increases in charges/summons (10.2% to 15.0%), increases in sanction detections (29.0% to 36.8%), and increased conversion of a violent incident into a chargeable crime (71.8% to 81.7%). In one domestic violence case, the video evidence received international press attention following its use in the conviction of the suspect. Complaints against officers declined by 14.3% overall, and none were filled against officers who wore the cameras. Despite these advantages, the BWC systems proved to be too costly to continue and expand.

Another BWC evaluation was conducted in Victoria, British Columbia, Canada from July 1, 2009 through October 30, 2009 (Victoria Police Department (VPD), 2010). The department used four head-mounted BWC, available for voluntary use primarily by foot and bicycle patrol officers. Similarly to the Plymouth, UK study, no officers wearing the cameras in Victoria had a complaint filed against them. Unlike Plymouth, Victoria officers reported spending more time completing paperwork where video evidence was included. The majority (80%) of Victoria PD officers reported that the BWC evidence provided a more accurate account of the incident and 87% felt that the video improved the quality of evidence. While the evidence was usable in court, the study recommended the use of a liaison with the court to address processing concerns. The study further found that the approval rate for submitted charges increased from 84% to 93%. Officers' awareness of their environment also improved with the use of the camera. One of the

concerns cited by the study was data security, but also determined that this was a surmountable problem. As a feasibility study for the VPD, it was determined that the benefits of BWC outweigh their limitations, and that the adoption of the technology was appropriate and desirable for the agency.

Two communities in Scotland conducted studies in the use of BWC. In Renfrewshire, 38 cameras were deployed for eight months in 2008-2009 and in Aberdeen 18 cameras (later increased to 30) were studied over a three month period beginning June 1, 2010. The study found substantial declines in crime in the areas where the BWC were deployed. Specifically, the study reported that breach of peace offenses declined 19%, vandalism 29%, minor assaults 27%, and serious assaults declined 60%, for an overall decline in crime of 26% (ODS Consulting, 2011). Additionally, the study found that in Renfrewshire BWC cases were processed to guilty pleas/verdicts faster than those outside the study period. About 39% of BWC cases were settled at the earliest possible stage, compared to 37% and 29% among all other (non-BWC) cases in the two relevant court jurisdictions, and only 4% of BWC cases advanced to trial, compared to 14-20% of non-BWC cases. In Aberdeen the results were more pronounced. BWC cases in Aberdeen were settled by guilty plea at the earliest possible stage 85% of the time, compared to 18% of non-BWC cases. Furthermore, the remaining 15% of BWC cases ended in guilty pleas, with none proceeding to trial. The BWC also demonstrated effectiveness in addressing citizen complaints against officers. Among the two sites, there were only seven complaints made against officers wearing a BWC, among more than 5,000 contacts during the study period. Three of the seven were unfounded after an initial review of the video, requiring no further action, and the other four substantiated the officer accounts and cleared them of any misconduct or unprofessional behavior. Finally, the study reported declines in assaults against officers wearing BWC. In Aberdeen for example, about 30% of officers at any given time would have been wearing a BWC during the study period. During that time, there was only one assault against an officer wearing a BWC, compared to 61 assaults on officers who had not worn the device.

In the Rialto, California Police Department (RPD), BWC were deployed for 12 months beginning in February 2012. At the time of the study, the RPD identified 54 frontline officers who would be eligible to wear the BWC. The officers were randomly assigned by shift to either wear (i.e. treatment) or not wear (i.e. control) the BWC on a weekly basis. Over the course of the study period, this method yielded 489 treatment shifts and 499 control shifts were observed. The results were favorable for the use of BWC. The study found that citizen complaints dropped by 88%, from 28 complaints in the year prior to just 3 complaints during implementation. There were 61 use of force incidents before implementation, which declined by 60% to 25 incidents during the implementation period. Additionally, control shifts saw double the number of use of force incidents than treatment shifts during the same period. Finally, the cameras did not have an adverse impact on the frequency of police-public contacts. The RPD recorded 40,111 police-public contacts in the year prior to implementation, and 43,285 during the year of implementation. (See Ariel, Farrar & Sutherland, 2014).

Most recently, an evaluation of BWC was conducted on their use in Mesa (AZ) Police Department (MPD). The MPD purchased 50 cameras, deployed to 25 officers who volunteered for the study and 25 randomly selected officers. Additionally, another 50 officers were tracked as a control group for the BWC intervention. During the first six months, officers were directed to

activate the cameras during contacts with the public and when practical. During the second six months of the study, officers were encouraged to use the BWC, but were permitted to use them at their discretion. During the required use period, there were 2,327 BWC activations, which declined 42% (n=1,353) during the discretionary use period. The study found 60% fewer citizen complaints among officers wearing the BWC, when compared to the non-BWC control officers. Some BWC problems were also identified in the Mesa study. Specifically, there were 3 to 4 requests for video redaction over the study period, which required an average of 10 hours of labor per request. This was a largely unanticipated resource cost above the approximate \$67,000 spent on buying the BWC units (at ~\$800-\$1,000 each) and affiliated operational costs for the one-year study period. By the end of the study period, still only 23% of MPD BWC users believed that the cameras should be permanently adopted department-wide. (See Mesa Police Department, 2013).

The Present Study

The camera technology for the project, as initially proposed, was primarily intended for two purposes: 1) to increase police accountability; and 2) increase the effectiveness of the police in their response to domestic violence. The present study sought to assess each of these originally intended goals, but also sought to examine the potential impact on officer performance, both in the adoption of, and adaptation to the body worn camera technology, and to assess the impact of cameras on officer job performance and satisfaction. The present study thus examined the effect of the body worn camera technology in six principal areas: 1) officer camera activation compliance; 2) utility and use of body worn cameras; 3) impact on officers' job performance; 4) impact on public compliance and cooperation; 5) impact on officer accountability; and 6) impact on domestic violence case processing and outcomes.

SECTION 2: METHODOLOGY

Setting

The Phoenix Police Department (PPD) is a large municipal police agency, with more than 3,000 authorized sworn personnel, and serves a community of more than 1.5 million people; making it the sixth largest city in the U.S. The PPD is organizationally divided into precincts and beat areas for principal patrol services. At the time of the study, the PPD's patrol division was divided into eight precincts. Most precincts were divided into three beat areas, the Maryvale Precinct was one of three which was divided into two areas. The Maryvale Precinct is approximately 15 square miles, and is operationally and geographically divided into two similarly sized patrol areas. Each of the two areas is assigned six patrol squads to provide first response coverage to calls for service on a twenty-four hour basis, seven days a week. While small changes in staffing occurred throughout the study, generally there were between 100 and 110 patrol officers equally divided between Areas 81 (comparison) and 82 (target).

The community characteristics of the study setting were important to the site selection for the study. The community served by the precinct has a population of about 105,000 residents, and is primarily comprised of Hispanic residents who are poorer and more likely to be unemployed than residents living in other areas in the city. Maryvale has historically been and continues to be a location for a high-volume of police activity, calls for service, and elevated crime rates, particularly for violent crime, relative to other areas in the city. In 2010, the UCR violent crime rate for Maryvale was approximately 85 crimes per 10,000 residents, compared to 55 per 10,000 for the rest of the city. Domestic violence is also a recurring problem in this precinct. In 2010, there were more than 3,300 calls for service that were initially dispatched as domestic violence incidents in Maryvale Precinct. The organizational structure, combined with the historically higher than citywide average crime rates lead to the Maryvale Precinct being selected as the site for the proposed quasi-experimental design for the body worn camera project.

Project Design and Analytical Approach

The design and implementation of the project included the purchase of 56 camera systems and deploying them in the Maryvale Precinct. The implementation of the VIEVU camera system occurred in one of the two Maryvale Precinct squad areas, Area 82. This group was referred to as the target group, or as the camera officers. The equipment provided for simultaneous coverage (using the system) seven days of the week, during all three shifts, by all deployed officers, and allowed for all officers to download data prior to next shift. All officers assigned to the six squads in the target area were issued the equipment and were provided training in its use and maintenance through a coordinated effort led by the precinct commander and VIEVU. Departmental policy involving the use of the cameras was formulated prior to implementation and was also an integral part of the training by the PPD.

Analysis of data for the present study relied on a pre-post comparison between target and comparison groups. The pre-post camera deployment analyses typically relied on data from January 1, 2012 through July 31, 2014. The cameras were deployed in the field on April 15, 2013. The study period covered about 134 total weeks, or 67 weeks pre camera deployment and 67 weeks post camera deployment, generally truncated in text to 15 months. We also compared officers in one area (Area 82) who were assigned to wear BWC, to officers in another area (Area

81) who were not assigned to wear BWC. As discussed previously, the Maryvale Precinct is divided into two patrol areas. Given this organizational structure, the two areas had the same command structure, and the same shift assignment and schedule. During the project planning phase the two areas were examined for differences in the community's they served. As observed below we found some differences between the two with respect to population, socio-economic characteristics, domestic violence, and crime.

Exhibit 1: Characteristics of target and comparison areas

Characteristic	Target Area Area 82	Comparison Area Area 81
Total Population	56,630	71,676
Age		
% Under 18 years	43.13	39.45
Ethnicity		
% Hispanic	82.5	71.1
% Native American	1.3	1.3
% African American	3.9	6.4
Poverty		
Mean household income	\$44,895	\$53,646
% owner occupied	52.8	63.7
Number of Officially Reported Crimes (UCR)-Jan-Nov.2011		
Violence	412	479
Property	2082	2718
Total	2,494	3,197
Domestic violence		
CFS	105	162
Geographic size (Square miles)	7.9	7.4

Data

Data for the present study relied on stakeholder interviews, project planning documents, camera metadata generated by camera activation, officer self-report surveys, official police computer-aided dispatch and record management system (CAD/RMS) data, official complaints and reports of misconduct reported to the PPD, and official case processing data from the City of Phoenix Police Department and Prosecutor's Office. Each of the data sources used for the present study is discussed below.

Project meeting minutes and notes. Project meetings were held during the planning of the project, camera acquisition, project implementation and ongoing activities. A critical review of these meetings' minutes provided data for the evaluation. The meetings involved the discussion of the final assignment of the target and comparison areas, technology procurement and selection process, development of camera use policy, and the handling and use of the audio-video data created as evidence for prosecutors. These observations and documents were used to assess project activity, planning, implementation and policy development. By the end of the study period several dozen meeting minutes and notes had been collected.

Key stakeholder interviews. Interviews with key stakeholders were conducted to better describe and understand the process of camera acquisition, selection, policy development and actual use and utility of the technology across the criminal justice system. The open-ended interview approach allowed for stakeholders to provide information most important or relevant from their individual perspective, without limiting it through a bounded set of survey questions. Key stakeholders included PPD finance and budget personnel, PPD and City of Phoenix information technology staff, police-court evidence liaisons, PPD command staff, patrol officers, officers who field-tested the technology, and city and county prosecutors. More than 24 interviews with key stakeholders were conducted over the study period

CAD/RMS data. CAD/RMS data from January 1, 2012 through July 31, 2014 were obtained from the PPD for the purpose of evaluating the project. Data included all unique incident reports from the Maryvale precinct to determine crime and disorder events pre and post camera implementation, by target and comparison area. These data included officer activity logs, which are obtained through dispatch records when officers report status changes. These data were used to analyze camera activation compliance by matching police activity with the camera meta-data (described below) and calculating the ratio of the number of incidents to the number of BWC records. These data included 81,257 incident entries for the Maryvale Precinct, about 48% (n=38,094) of which were attributed to a camera-wearing officer as the primary responding unit.

The CAD/RMS data included records of all arrests made by officers assigned to the Maryvale Precinct at some point during the analysis period. Due to data limitations, the date range for the arrest analysis was from January 1, 2012 through January 10, 2014, allowing 470 days pre and 270 days post BWC deployment for analyses. These data were provided in their original form as both incident-based and officer-based, and were converted for analysis within our research design focusing on pre-post deployment and camera/comparison assignment. The data were analyzed to assess the impact of the technology on arrest. These same data were used to analyze changes in the public's willingness to cooperate with an officer through analysis of resisting arrest (i.e., flight, passive and use of force resistance, and aggravated assaults against officers during the incident). The original arrest data contained information on 10,591 arrests, reduced to 4,586 for analysis following removal of ineligible arrests (due to date, officer or area restrictions). The data included the arrest charges, arresting officer(s) serial numbers and date and time of event. These data were converted into an average daily arrest rate for each officer according to their specific assignment at the time of the event, as related to camera or comparison group assignment.

Camera metadata. Camera metadata was automatically generated by the camera technology. These data included the camera serial number, the officer to whom it was assigned, date/time stamps of activation and deactivation, length of recordings, and freeform data entered by users that briefly described the nature or important details of the recording (e.g. departmental report number, accidental activation, relevant information about the recording). The camera metadata generated by the VIEVU system was made available in its entirety, and included 17,023 individual video files created over an 11-month period; beginning with the first day of active deployment, April 15, 2013, through March 12, 2014, which was the most recently available data at the time of request. Measures used for analyses included the description of the type of activation (e.g. incident recording, accidental activation, testing), the length of the recording, and

whether the video file was attributed to a particular incident number. Additionally, those video files tagged with an incident number were linked to official CAD/RMS incident data to measure rates of compliance, and activations by incident type.

Official complaint data. Department wide official complaint data were gathered from PPD's Professional Standards Bureau (PSB) for all sworn officers from January 1, 2012 through July 31, 2014. These data included all complaints, regardless of the source of the complaint's initiation (e.g. citizen, officer's supervisor, complaint hotline). The data identified the officer, the officer's assignment at the time of complaint, the disposition of the investigation (e.g. founded, unfounded, suspension), and a narrative of the incident. Included in the narrative was whether body-camera video was reviewed as part of the investigation. The complaint data were used to examine the mean change in the number of complaints, and disposition of the complaints, pre-post test by target and comparison group.

The complaint data initially included 2,919 cases. We first removed 496 cases from the analysis file because no name or identifying information was known to PSB (e.g. some cases reported to PPD concerned non-PPD police officers). We next removed 160 cases from the dataset because they were only associated with internal inspections (e.g. uniform policy violations). Finally, another 123 cases were removed from the analysis because they were related to personnel other than patrol officers, who were the focus of the present study. In the end, the final dataset contained 2,140 complaints. The measures created from these data were the number of complaints made against each officer, whether or not the complaint was "founded" or not, and any disciplinary action taken against the officer. The PPD uses "founded" and "unfounded" to classify complaints into one of two categories that essentially delineates whether or not any misconduct occurred based on the accusation.

Officer self-report survey. Perception surveys were anonymously completed by target and comparison group officers, and were collected eight times throughout the course of the study: four times prior to camera deployment (October 2012, December 2012, January 2013 & March 2013) and four times following camera deployments (April 2013, July 2013, October 2013 & June 2014). Officers were surveyed during briefings immediately prior to the start of their shift. Officers were only surveyed if available on the selected day, during the briefing. Officers who were absent were not eligible for participation. Response rates were high throughout each data collection period, with a 98.3% overall participation rate, that ranged from 96.5% to 100.0% per round of data collection.

The instrument included 33 questions about the officer's perceptions of body worn cameras. These items were clustered into eight subjects: 1) accuracy and speed completing incident reports; 2) use as evidence; 3) reactions of the public to the body worn cameras; 4) police-community relations; 5) police officer behavior; 6) comfort and ease of use; 7) general perceptions of body worn cameras; and 8) overall opinions of the value and expansion of body worn cameras. As part of the survey officers were also asked to provide self-reported estimates of the number of complaints made and threatened against them in the past 30 days. We used these items to create measures of the mean number of complaints made and/or threatened, whether a video was present, and the nature of the complaint (e.g. unprofessional conduct, use of force). Last, the instrument also included measures related to the officer's socio-demographic

characteristics, such as: age, race/ethnicity, sex, rank, unit assignment, years employed and in sworn service, and educational attainment.

Domestic violence pocket card data. Data on domestic violence related incidents were provided by the PPD through domestic violence pocket card data collected in the Maryvale Precinct from January 1, 2012 through July 31, 2014. The DV pocket cards are a specialized form of Field Interview (FI) card, designed specifically for domestic violence incidents. All phoenix officers are required to complete a DV pocket card for each domestic violence incident, regardless of whether or not an arrest is made. Data from 2,063 incidents were collected through the DV pocket cards over this time. These data were used to track domestic violence cases from incident initiation through prosecutorial disposition and sentencing.

Official Phoenix City court data. Official court processing data from January 1, 2012 through July 31, 2014 were collected from the City of Phoenix Prosecutor's Office. All police contacts involving domestic violence in Maryvale were identified (through Domestic Violence Pocket Cards) and were then tracked through the City of Phoenix Prosecutor's Office case processing system. We then determined whether or not: the incident was forwarded to the city prosecutor's office, the case was declined, whether charges filed, the outcome of the case (e.g. dismissal, conviction, sentencing), and the amount of time that it took to process the case. We then linked this data to our dataset on the assignment of officer worn body cameras. These data were used to examine the impact of the assignment of body cameras on the case processing of domestic violence cases.

Limitations

At least three potential limitations should be noted before we present the findings below. First, the findings from the present study should not necessarily be generalized to other communities. A number of studies have demonstrated that police behavior is unique and may not be similar to another community's. Accordingly, a police agency's and community's response to the implementation of BWC may be a reflection of the scope and nature of issues in that department and community. Second, we employed a nonequivalent control group design that inherently possesses a number of limitations. The most important of which includes the interaction of selection with other sources of invalidity (Campbell, Stanley & Gage, 1963). Specifically, officers transferred in and out of the Maryvale Precinct throughout the study period as a consequence of natural attrition and replacement processes. Additionally, the precinct experienced substantial turnover (about 39%) among patrol officers during our pre-deployment period (January 2013), due to a departmental re-bid process. The planned implementation of body cameras in the Maryvale precinct was well known among officers throughout the department and it is possible that some officers transferred out of the precinct, or avoided transfer into the precinct, to avoid having to wear a body camera. A brief review of the transfer process suggested that there was no major difference in the number of transferred officers to and from Maryvale compared to other precincts, but data on the motivations for transfer during this rebid process was not collected. Therefore, our findings might be influenced by a selection effect. Third, we believe that another limitation to the present study is contamination of our treatment to the comparison group. Our camera and comparison groups shared patrol responsibilities in the Maryvale Precinct. As a consequence, target and comparison group officers communicated often with one another before, during, and after shift; and were

sometimes deployed to the same location as one another. The presence of an officer with a camera might have impacted the behavior of those around them (e.g., officers, citizens), as well as influenced their perceptions of the technology.

SECTION 3: PROCURMENT AND ACQUISITION OF THE TECHNOLOGY

The working group for the Phoenix Smart Policing initiative played a central role in acquiring official data for the evaluation, coordinating survey data collection in the field, posting the solicitation (i.e. RFP) for the hardware and data storage, testing and selecting the body-worn cameras, setting up the training for camera officers, and monitoring the intervention in the field. The working group met on a monthly basis during the early project development stage, from November 2012 through August 2013, to discuss and make decisions about the on-officer video technology and fieldwork on the research project. The group met less frequently once the cameras were implemented in the field.

The participants of the working group meeting typically consisted of two to three members of the research team from ASU; the Commander who oversaw the PPD side of the initiative; a PPD grants manager who coordinated the RFP process; civilian employees from city procurement who were the contract specialists; an officer who managed training and policy development; and two civilians from the city's IT and fiscal departments. During the period when the different camera products were being vetted and tested in the field, the working group also included a number of patrol officers from the Maryvale Precinct who provided insights about the process from the line officers' perspective.

The timeline for the testing, acquisition of hardware, field training, and implementation was slightly delayed compared to the proposed timeline. This occurred because of a leadership change in the PPD (i.e. a new chief of police), a department-wide rebid, in which officers were relocated across the department, and because the police union (as anticipated) played an active role in providing feedback on policy guidelines for when and how the cameras would be used in the field.

The advertisement for the request for proposals (RFP) was posted in September 2012 and required that submissions from camera vendors were due on October, 26, 2012. The PPD also scheduled a pre-proposal conference a few weeks before the proposal was due, where vendors could ask questions about the Department's needs, the solicitation, and the process for evaluating the bids.

The PPD explained that they had little discretion in the procurement process, and that they were required to obtain the camera system through a competitive process because the technology was being paid for with federal grant money. The RFP provided several opportunities for greater department wide inclusiveness in the project and provided increased education to the working group about the strengths and weaknesses of each camera product. For example, it allowed the working group to develop a more detailed understanding of how the video footage was created and how to manage the recording and storage process. This was particularly important for IT, which would have to evaluate many of these functions, and PPD's current capacity to address them. The RFP also provided an opportunity for the officers to review and rate each camera.

For instance, the officers tested the device in a controlled environment, which allowed them to evaluate the camera system based on officer needs.

The Solicitation

In September 2012, the City of Phoenix posted a solicitation inviting camera vendors to submit proposals for an on-officer video camera system that would be implemented in 2013. The solicitation provided additional background, noting that the city plans to adopt and implement 50 on-officer video cameras to be worn by the patrol division. The cameras would be worn on a full-time basis, outside of the officers' uniform. The RFP stated that the need for the body cameras arose out of the Community Engagement and Outreach Task Force, which recommended in 2010 that the Phoenix Police Department begin pilot testing an on-person video camera system. The department subsequently piloted one camera system for three months in 2011. Following the pilot program, which involved testing 18 units, the Department applied for and was awarded the current BJA grant under the Smart Policing Initiative to obtain, evaluate, and report on the results of the program to implement a body worn camera system on a broader scale.

Camera vendors who bid for the contract were expected to demonstrate their expertise in designing and maintaining body worn cameras, as well as back-end server solutions for labeling and storing video footage. The goal of the request for proposals was to identify the system that best suited the PPD's needs in terms of ease of use, functionality, recording, and storage capabilities. More specifically, the solicitation provided a series of specifications that would serve as the minimum requirements for the on-officer camera system that the Department would adopt. The minimum requirements were divided among four main categories: 1) the physical characteristics of the camera, 2) display and access capabilities, 3) vendor qualifications and experience, and 4) storage. In addition, the manufacturer was expected to provide a one-year minimum warranty for all hardware, software and upgrades, as well as technical support for the devices, the docking/charging stations, and the data storage and retrieval software.

In terms of the physical characteristics of the camera, the device could not weigh more than a total of five ounces. Also, it had to be able to record and store at least four hours of video, with a battery life of eight hours. The PPD was also insistent that the recording indicator was visible to officers in the field, and that police would have the ability to view the recently recorded video footage on the scene of an incident. The field of vision of the device needed to be at least 50 degrees. The Department also wanted officers to have the ability to turn off the night vision function, if there was one, and to be able to change the placement of the device to several locations, including the ear, shoulder and lapel. Finally, there could not be more than two wires on the device, and it would need to have the capacity to automatically label video files with the date and time of the recording.

The display and access capabilities listed in the solicitation were equally detailed. The first requirement in this category was that it must be possible to view camera footage remotely using a web-based interface, which could only be accessed through password verification. Another requirement was that personnel access to video files would need to be hierarchical, with a log showing when a video was reviewed and/or copied. The length of video retention would need to be controlled by a system administrator in order to stay in compliance with state law regulating

the storage of evidence. Finally, the size of exported video files must be in 10 minute increments, and the equipment must have the capacity to search for video files by officer badge number, date of recording, report number and type of crime.

The third category of requirements was related to the vendor's qualifications and experience. The camera manufacturer was required to provide a history of their business, including when they were established, the type of ownership (public/private), and the length of time the business has been providing on-officer video services and technology. They also needed to identify their area of expertise and resources available for providing the requested services. And finally, the vendor was also required to list key staff members, any litigation and investigations into the company that could impede their delivery of services, and the ability to handle contracts with large agencies such as the PPD.

The last category was related to storage capacity. The PPD would only entertain proposals where the storage program allowed at least 15 camera units to upload video simultaneously, and also allow for indexing of each video file with a tag for the officer badge number, date of recording, report number (i.e. DR number), and type of crime. The video was required to be exported using an industry-standard file format. The company must also describe the order in which video files are uploaded (e.g. by size of file or order of recording) and the anticipated download time. The backend retrieval system must comply with PPD data storage and protection standards and the storage facility must be located in the United States. Finally, upon request the manufacturer must be able to provide all data in a searchable format on an external hard drive with an audit trail.

During the November 2012 working group meeting, the PPD revealed that three firms submitted bids for the contract and two manufacturers, VIEVU and Taser International, met all of the above criteria and were selected to participate in the testing stage of the procurement process.

Testing the Device

On November 6, 2012 the working group held the first of a series of meetings to identify criteria for testing the two products that made it to the final round of the selection process. During these selection committee meetings, we also developed a scoring system for quantifying the performance and functionality of the camera products. The working group determined that both IT and police personnel would conduct the field testing of the equipment in a controlled environment at the training academy for two reasons. The first was that the captured video does not need to be kept for evidentiary purposes. The second reason is that they can run officers through a variety of training scenarios that they might not otherwise encounter in the field during the brief window of the testing period. The first camera system was scheduled to be tested on two days in mid-November (15 and 16), which was followed by a meeting on November 28th for testers only to poll and finalize the scoring. The second product was tested in early December using an identical testing format.

The testing process involved allocating 30% of the total score to the camera characteristics, 10% to storage, 30% to display and access capabilities, 15% to the proof of concept, and 15% to the system warranty. Individual officers scored each item within these subcategories on an ordinal scale in which E = Exceeds Requirement, M = Meets Requirement, and D = Does not meet requirement. A perfect score on this training academy component of the testing would result in

500 points being assigned to that particular product. The IT personnel scored the items using the same ordinal ranking system, but a perfect score for the IT testers was valued at 300 points. And finally, the cost of the on-officer camera system was scored last. A perfect score on cost was valued at 200 points. The academy-based field testing, the technical component, and the score for cost were added together for an overall score that could not exceed 1000 points.

After the field testing, the working group noted that this process brought to light a number of insights about the products. One common sentiment by the officers was an acknowledgement that the Taser Axon Flex System was considerably more complex than the VIEVU, which was widely appreciated by line officers for its simplicity and ease of use. One of the complexities of the Taser product, which was viewed with skepticism, was the 30 second back-recording option. The Taser camera's back recording options begins retaining the recording 30 second *before* the officer presses the activation button. The technology is essentially always simultaneously taking in and discarding information in a constant loop, but nothing is actually recorded until the officer presses the activation button. The advantage of this option is that an officer can watch an event such as a car accident occur in the field, and then press the activation button 15 seconds after watching the accident occur, and still capture the event. This provides additional context that might help explain how police-citizen contacts were initiated. The Phoenix officers viewed this feature as a liability. Some officers mistakenly thought they were always being recorded, while others were concerned that the back-recording option would accidentally capture officers engaging in behaviors that they didn't want or expect to be caught on film.

Another issue discussed by the testers was the importance of lighting. The officers noted that it was impossible to know what the camera footage would look like until you test the products under different lighting. On a related note, the advantages and disadvantages of night vision quickly emerged as a major issue. The Taser product provided a night vision recording option while the VIEVU did not. There was concern among Phoenix officers that the night vision option could cause police managers and lawyers to judge officers' behavior unfairly. They were worried that the night vision would provide superiors and the courts with a much clearer picture than what they were able to actually see at the scene of the incident. Like the back-recoding option, the night vision function was seen as a personal risk to the officers in terms of how their conduct might be judged. The other issues that came to light were the problems of wind noise, a flashing light on the VIEVU device, and the differences in how video evidence was tagged and uploaded. Ultimately the PPD decided to go with the VIEVU camera over the Axon Flex. Interviews with the officers indicated that in the end they were not really concerned about differences in the technical capabilities of the cameras other than how each feature might reflect on their behavior.

SECTION 4: TRAINING AND IMPLEMENTATION

A working team led by the Commander developed a draft of the policy for using the body-worn cameras in the field, which included guidelines on training, charging the cameras, downloading data, when to activate the device, prohibited recordings, and a serious incident protocol. This on-officer video camera policy was finalized in April 2013. This was followed by a train-the-trainers session and then a series of training sessions for the patrol officers in the 81 and 82 squads. These occurred from April 8-15, 2013. During the training sessions instructions were provided on recording and storing video footage as well as policy guidelines for their use in the field. The training sessions went well. The officers voiced few concerns about the hardware, software, and how to use it; but they did voice a number of concerns about when they or their superiors could access the data, and the back-end processes relating to burning video for the courts, and policy issues surrounding when to activate the device.

The operational guidelines note that prior to each shift, officers must ensure that the VIEVU device is sufficiently charged. The camera must be worn vertically on the shirt placket at the center of the shirt pockets on the outside of the Class C uniform shirt. The device must be worn at all times. Sergeants in the target areas are required to wear and use the on-officer video cameras as well as patrol officers. Activation of the camera is fairly intuitive, involving a sliding panel that uncovers the lens, which is outlined in green when the video camera is recording. The PPD policy states that safety of the patrol officers and citizens is the first priority and always comes before any considerations relating to when to activate the camera. *“Bearing this in mind, all officers and supervisors who arrive on a scene or engage in an enforcement contact must place their VIEVU camera in the on/record mode as soon as it is safe and practical to do so.”* Enforcement contacts include, vehicle stops, pedestrian stops, consensual encounters that are investigative in nature, calls for service, on-view events requiring enforcement activities, suspect and witness statements and interviews, vehicle and foot pursuits, and emergency response to critical incidents.

Once the VIEVU camera is turned on, officers must continue to record the event or encounter until either the completion of the event or until they leave the scene. Officers and supervisors are allowed to view the video footage once the data have been uploaded from the camera in order to refresh their memory prior to completing a departmental report or while preparing for court. After the videos are uploaded, officers must tag the video file with the appropriate incident number, citation number, or department report number. The PPD policy strictly prohibited surreptitiously recording fellow officers, or activating the device in dressing rooms or locker rooms. Finally, the precinct Inspection Lieutenant is to randomly inspect six videos each calendar month, one from each squad participating in the evaluation. The Department also has the ability to review video to ensure officer compliance with policy and to investigate citizen complaints.

Activation Compliance and Use of Body Worn Video Cameras

An analysis of camera meta-data was conducted to assess the activation characteristics of the video files produced, and the data associated with each file. Our analysis relies on 17,023 individual video files created over an approximate 11-month period, beginning with the first day

of active deployment, April 15, 2013, through March 12, 2014 (most recent date of availability at time of request).

More than 91% (n=15,519) of video files were attributed to an incident number in the camera meta-data. There were a total of 15,943 valid video files. We define “valid video files” as those attributed to an officer’s activity and/or possible interaction with the public, thus excluding test and accidental activations and various file creation errors. See Exhibit 2 below.

Exhibit 2: Camera Activation by Type of Activation			
	n	%	
Type of Activation			
Video attributed to an incident	15,519	91.16	
Valid video w/o incident number	424	2.49	
Accidental Activation	419	2.46	
Test Activation	224	1.32	
Duplicate File	23	0.14	
Malfunction	13	0.08	
Download Error	7	0.04	
Unspecified Error	6	0.04	
No Categorization / Description	388	2.28	
TOTAL	17,023	100.00	

Exhibit 3 shows the average length of each video file by activation type. The mean recorded incident was about 9 to 10 minutes.

Exhibit 3: Average Length of Camera Activation by Activation Type			
	n	mean	SD
Type of Activation			
Video attributed to an incident	15,519	0:09:32	0:11:15
Valid video w/o incident number	424	0:05:39	0:07:23
Accidental Activation	419	0:05:36	0:20:14
Test Activation	224	0:00:36	0:02:45
Duplicate File	23	0:10:07	0:11:23
Malfunction	13	0:30:58	0:50:57
Download Error	7	0:12:03	0:10:48
Unspecified Error	6	0:07:27	0:06:34
No Categorization / Description	388	0:07:24	0:13:14
TOTAL	17,023	0:09:11	0:11:37

Mean and standard deviation reported in hh:mm:ss format.

Exhibit 4 below shows the mean number of camera activations per user. Among valid files, there was tremendous variation, with a minimum of 21 activations and a maximum of 1,079 over the study period.

Exhibit 4: Camera Activations by User

All video files

Mean	404.88
Standard Deviation	244.08
Median	353
Minimum	0
Maximum	1,079

Only valid video files

Mean	414.73
Standard Deviation	242.55
Median	400
Minimum	21
Maximum	1,079

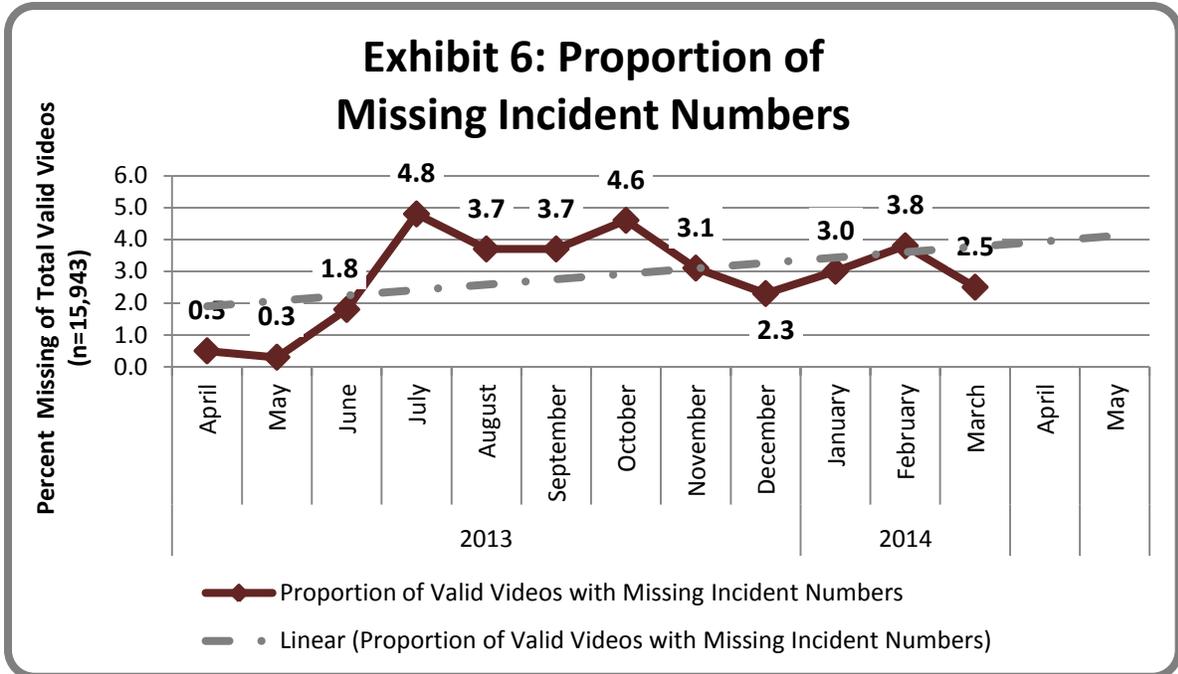
Use of Body Worn Video Cameras by Incident Type

The cameras generated automatic meta-data for all camera activations that captured date and time of activation, duration of activation, and date and time of file upload. It then directly linked these automated data elements to user input during the file upload process. These user input fields required officers to input the call/incident type of the event tied to the file, and the incident number, where applicable. Test, accidental and malfunction files were not considered activations associated with a valid police activity. Exhibit 5 shows the proportion of video files by incident type.

Exhibit 5: Proportion of Video Files Tagged with an Incident Number by Call Type

	n	%
Generic Arrest	50	0.3
Traffic Citation	733	4.6
Contact / Interview	74	0.5
Subject / Vehicle Stop	2,397	15.0
Civil Matter	923	5.8
Check Welfare	924	5.8
Violent Offense	3,314	20.8
Officer Involved Shooting	8	0.1
Domestic Violence	421	2.6
Sex Offense	30	0.2
Drug or Alcohol Offense	889	5.6
Property Offense	3,401	21.3
Public Disorder Offense	1,566	9.8
Other	1,044	6.5
Juvenile Status Offense	147	0.9
Not Identified	15	0.1
Missing	7	0.0
TOTAL	15,943	100.0

We first examined the frequency in which videos were linked to an incident number. Some previous reports have suggested that linking and findings videos by incident number has been difficult. As seen in Exhibit 6, during the first two months of implementation – April and May 2013 – valid video files were appropriately attributed to an Incident Number, with just 0.5% and 0.3% missing, respectively. During June, the proportion of valid files with missing Incident Numbers increased to a maximum of 4.8% in July, and has not dropped below 2.3% since (through March 12, 2014).



Examining the Computer-Aided Dispatch/Record management System (CAD/RMS) data for all incidents (i.e. dispatched and officer-initiated) attributed to Maryvale officers during the implementation period, the proportion of all incidents with a video file attributed to it shows a low percentage of compliance. As seen in Exhibit 7 below, in May 2013, 42.2% of all incidents were recorded with a BWC, and has declined since. Generally, about 20-39% of all incidents were linked to a video file, declining most recently (March 2014) to 13.2%.

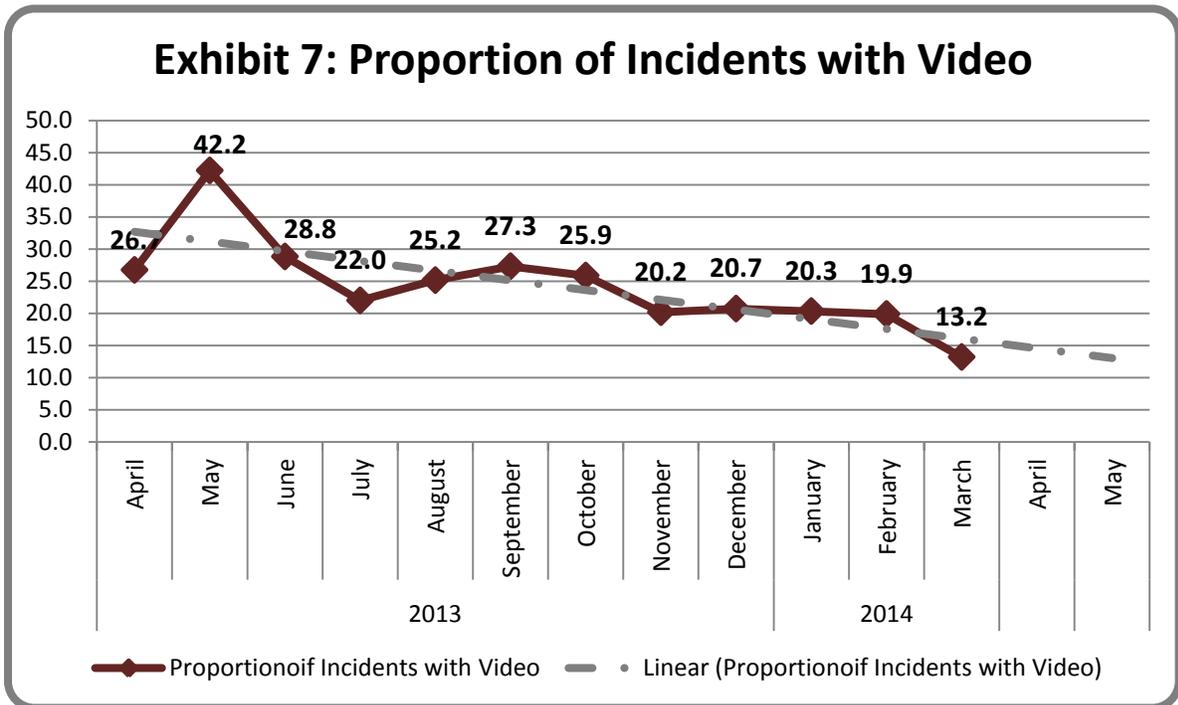
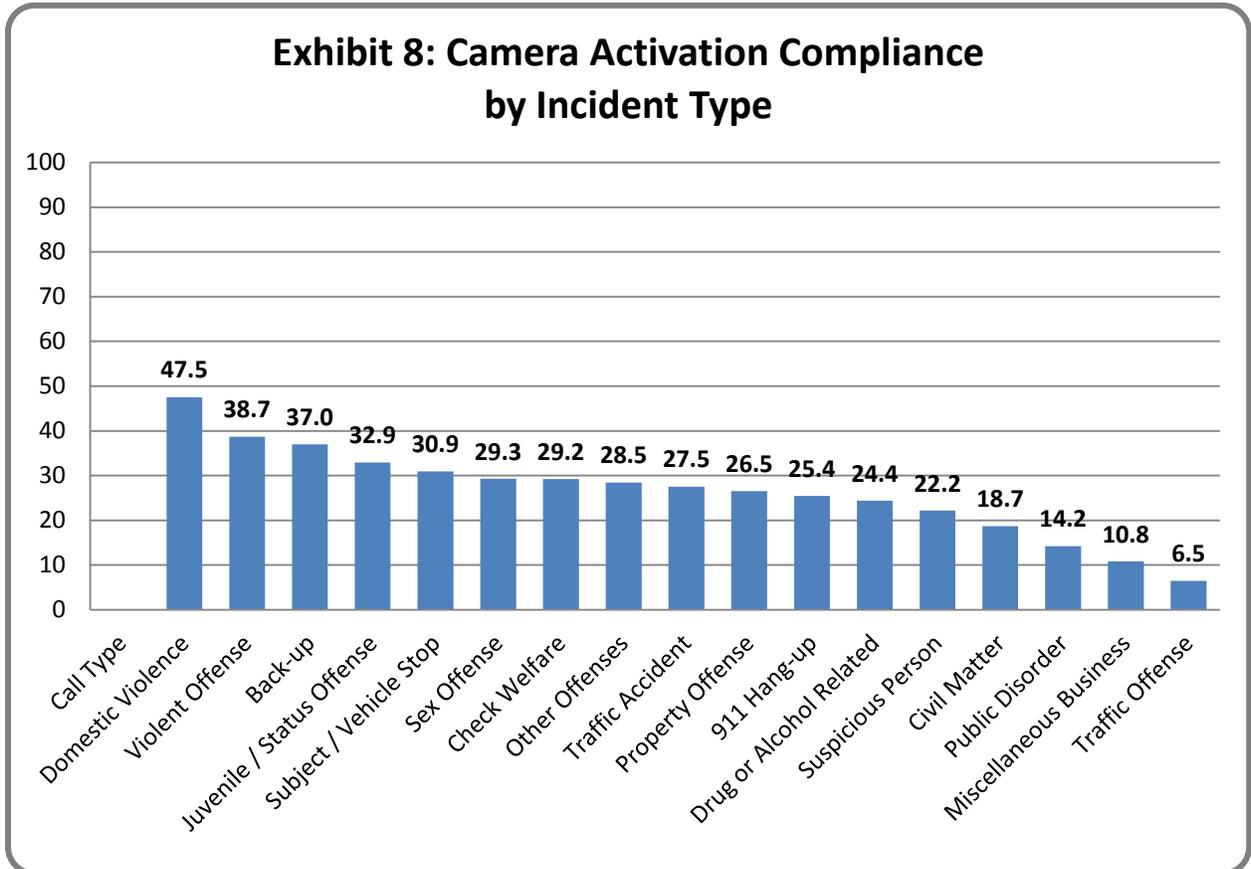


Exhibit 8 displays camera activation compliance by incident type using radio code entries from the incident data for the Maryvale Precinct from April 15, 2013 through March 12, 2014. Compliance was most frequent when the incident was identified as domestic violence (47.5%), violent offenses (38.7%) and serving as a back-up to another officer (37.0%). Only 6.5% of traffic stops were recorded.



SECTION 5: OFFICER PERCEPTIONS OF BODY WORN CAMERAS

In order to determine officers' perceptions of the use of cameras, they were asked a number of questions relating to the impact of BWC on: 1) comfort; 2) completion of incident reports; 3) evidence in court; 4) citizen behavior; 5) police officer behavior; and 6) other benefits and limitations to their use. For the sake of parsimony and space, below we broadly discuss a handful of the findings. Our discussion below is also limited for the most part to the target officers because of contamination (i.e., the results showed that comparison officer's perceptions mirrored those of the target group after a short period). For specific trends and details see Exhibits 9 through 15.

As seen in Exhibit 13, following the implementation of the body cameras target officers were much more likely to agree that the camera is easy to use (61.8%), comfortable to wear (57.6%), and that its battery life is adequate (65.6%). The officers were much less likely to agree that it is easy to locate and retrieve a video for a specific event (26.5%) and that it is easy to download data at the end of the shift (23.5%).

Exhibit 9 presents our findings related to the officers' perceptions of the impact of the BWC on completing incident reports. While camera officers agreed that BWC provides a more accurate account of an incident (58.8%) and improves the quality of evidence (52.9%), in the end only 2.9% of camera officers agreed that they spent less time completing paperwork and 11.8% believed that it makes the officer's job easier.

As noted above, we also examined officer's perceptions of the utility of BWC to enhance evidence for court. Exhibit 10 shows that prior to the cameras being implemented in the field officers were more likely to agree that BWC will make it: easier to work with the prosecutor's office when submitting evidence (41.2%), easier to prosecute domestic violence offenders (52.8%), and easier to help prosecute domestic violence cases when the victim is unwilling to testify (57.1%), than after the camera were implemented (20.6%, 32.4%, and 38.2% respectively).

In Exhibit 11 we present the results of the officers' perceptions of the impact of BWC on citizens. Interestingly our findings suggest that in some ways officers were disappointed with the impact of the BWC on the public's behavior, with their perceptions changing slightly toward being less positive over time. By the end of the study period, for example, only 25.7% of target group officers believed BWC result in citizens being more cooperative, 28.6% agreed that citizens will be more respectful, 11.8% agreed that suspects will be less likely to resist arrest, and 25.7% agreed that people will be generally less aggressive. However, at the same time officers appeared to become more positive about their potential impact on the department and officers. For example, in the beginning of the study 29.4% of officers agreed that cameras would hurt police community relations compared to 17.6% at the end of the study. Similarly, at Time 1, 20.6% of officers agreed that cameras will increase citizen complaints against officers compared to only 8.6% at Time 8.

Exhibit 12 displays the results of our analysis related to the officers' perceptions of the impact of BWC on police officer behavior. On the one hand, trends in our data suggest that the officer's beliefs about their being less likely to give warnings and feeling like they have less discretion did

not change substantially following the implementation of body cameras. On the other hand, officers' concerns about the cameras causing officers to have fewer contacts with citizens, being more cautious in making decisions, and affecting their decision to use force declined substantially. For example, at the beginning of the study nearly 63% of target group officers agreed that they would have fewer contacts with citizens because of the BWC compared to only 37.1% at the end of the study period.

Last, we asked the camera wearing officers about their general perceptions of body cameras. Exhibits 14 and 15 show that over the course of the study officers consistently stated that body cameras were not well received by coworkers and that they did not improve officer job satisfaction. They were also less likely to agree that BWC increase officer safety and improve officer training. At the same time, over the course of the study, officers were substantially more likely to believe that BWC should be expanded to other departments (24.2% vs. 32.4%), should be adopted throughout the city (18.8% vs. 32.9%), and that the advantages of BWC outweigh the disadvantages (12.5% vs. 35.3%). These figures still suggest, however, that the majority of officers who wear BWC are dissatisfied with the fact that they wear them.

Exhibit 9: Process by Collection Cycle and Area

Scale and Item	T-1, pre		T-2, pre		T-3, pre		T-4, pre		T-5, post		T-6, post		T-7, post		T-8, post		
	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	
Completing Incident Reports																	
Officers spend less time completing paperwork	n=	40	35	39	44	41	45	37	43	47	38	39	37	39	37	34	34
	%	0.0	11.4	12.8	9.1	7.3	8.9	10.8	2.3	6.4	5.3	5.1	0.0	5.1	0.0	14.7	2.9
More accurate accounts of incidents	n=	41	34	38	45	42	46	37	43	47	37	40	37	39	36	34	34
	%	68.3	79.4	71.1	73.3	57.1	69.6	78.4	76.7	55.3	59.5	65.0	43.2	61.5	52.8	64.7	58.8
Improve quality of evidence	n=	39	34	38	44	42	46	36	44	47	37	40	38	40	36	34	34
	%	71.8	64.7	73.7	70.5	54.8	69.6	66.7	65.9	46.8	59.5	57.5	42.1	67.5	30.6	55.9	52.9
Makes officers' job easier	n=	41	35	38	44	41	46	36	44	47	38	40	38	40	37	34	34
	%	9.8	17.1	21.1	9.1	9.8	15.2	11.1	11.4	4.3	7.9	12.5	2.6	7.5	0.0	14.7	11.8

Significant at p ≤ .05, using t-test comparisons

Exhibit 10: Use of Evidence by Collection Cycle and Area

Scale and Item	T-1, pre		T-2, pre		T-3, pre		T-4, pre		T-5, post		T-6, post		T-7, post		T-8, post		
	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	
Use of Evidence in Court																	
Easier to work with the prosecutor's office when submitting evidence	n=	40	34	38	44	42	45	37	42	47	37	40	37	39	36	34	34
	%	42.5	41.2	39.5	31.8	19.0	28.9	21.6	21.4	12.8	24.3	25.0	13.5	15.4	8.3	23.5	20.6
Easier to prosecute DV offenders	n=	41	36	39	44	42	45	36	43	47	37	40	36	40	35	34	34
	%	36.6	52.8	43.6	38.6	26.2	35.6	36.1	55.8	27.7	40.5	30.0	8.3	27.5	14.3	23.5	32.4
Help prosecute DV cases when victim is unwilling to testify	n=	40	35	38	44	41	46	36	43	47	36	39	37	40	34	34	34
	%	42.5	57.1	42.1	52.3	36.6	45.7	38.9	58.1	27.7	55.6	25.6	18.9	30.0	23.5	29.4	38.2

Significant at p ≤ .05, using t-test comparisons

Exhibit 11: Citizen Reaction by Collection Cycle and Area

Scale and Item	T-1, pre		T-2, pre		T-3, pre		T-4, pre		T-5, post		T-6, post		T-7, post		T-8, post		
	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	
Citizen Reaction																	
Citizens will be more cooperative	n=	40	36	40	44	42	45	37	43	47	47	40	37	40	37	34	35
	%	35.0	33.3	37.5	34.1	33.3	35.6	48.6	34.9	19.1	35.1	32.5	18.9	20.0	5.4	38.2	25.7
Citizens will be more respectful	n=	40	36	40	44	42	45	37	42	47	37	40	38	40	37	34	35
	%	40.0	33.3	40.0	20.5	28.6	24.4	29.7	40.5	14.9	24.3	22.5	15.8	20.0	13.5	26.5	28.6
Suspects less likely to resist arrest	n=	40	36	39	44	42	45	37	43	47	38	40	37	40	37	34	34
	%	20.0	16.7	17.9	4.5	23.8	11.1	21.6	20.9	8.5	18.4	7.5	10.8	15.0	2.7	17.6	11.8
People will be generally less aggressive	n=	40	36	39	44	42	44	37	43	47	37	40	37	40	35	34	35
	%	32.5	30.6	23.1	25.0	16.7	25.0	37.8	32.6	17.0	29.7	25.0	18.9	22.5	14.3	20.6	25.7
Cameras hurt 'police-community' relations	n=	41	34	38	44	42	45	37	42	47	37	38	36	40	36	34	34
	%	39.0	29.4	31.6	50.0	45.2	31.1	37.8	28.6	48.9	32.4	36.8	27.8	42.5	36.1	47.1	17.6
Cameras will increase citizen complaints against officers	n=	40	34	38	44	41	45	37	41	47	36	40	37	40	36	34	35
	%	22.5	20.6	26.3	34.1	41.5	28.9	18.9	22.0	21.3	8.3	32.5	16.2	25.0	8.3	32.4	8.6

Significant at p ≤ .05, using t-test comparisons

Exhibit 12: Police Officer Behavior by Collection Cycle and Area

Scale and Item	T-1, pre		T-2, pre		T-3, pre		T-4, pre		T-5, post		T-6, post		T-7, post		T-8, post		
	Area	82	Area	81	Area	82	Area	81	Area	82	Area	81	Area	82	Area	81	
Police Officer Behavior																	
Officers will be less likely to give warnings	n=	40	35	38	44	44	42	44	36	42	47	38	40	37	39	36	34
	%	30.0	31.4	39.5	25.0	28.6	27.3	47.2	28.6	34.2	38.3	34.2	52.5	27.0	43.6	30.6	29.4
Officers will have fewer contacts with citizens	n=	40	35	40	44	42	46	37	42	47	38	40	38	39	37	37	35
	%	65.0	62.9	80.0	61.4	69.0	63.0	67.6	61.9	70.2	65.8	82.5	52.6	69.2	45.9	63.6	37.1
Officers will feel like they have less discretion	n=	40	35	40	44	42	46	37	43	47	38	40	38	40	36	32	35
	%	90.0	77.1	85.0	81.8	85.7	82.6	86.5	86.0	76.6	89.5	90.0	81.6	70.0	77.8	81.3	74.3
Officers will be more cautious in making decisions	n=	40	35	38	44	42	46	37	42	46	38	39	37	40	37	33	35
	%	85.0	82.9	86.8	70.5	76.2	69.6	70.3	78.6	76.1	73.7	69.2	43.2	60.0	67.6	63.6	65.7
Officers will act more professional	n=	40	35	37	44	42	46	37	42	47	38	40	38	39	36	33	35
	%	67.5	54.3	64.9	43.2	52.4	65.2	45.9	54.8	38.3	55.3	42.5	28.9	41.0	27.8	45.5	37.1
Affects an officer's decision to use force	n=	40	35	39	44	41	46	37	43	47	38	40	38	40	37	33	35
	%	75.0	60.0	74.4	56.8	75.6	69.6	59.5	65.1	70.2	57.9	62.5	39.5	70.0	51.4	72.7	45.7

Significant at $p \leq .05$, using t-test comparisons

Exhibit 13: Familiarity, Comfort, and Ease of Use by Collection Cycle and Area

Scale and Item	T-1, pre		T-2, pre		T-3, pre		T-4, pre		T-5, post		T-6, post		T-7, post		T-8, post		
	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	
	81	82	81	82	81	82	81	82	81	82	81	82	81	82	81	82	
Familiarity, Comfort and Ease of Use																	
Easy to locate and retrieve video for a specific event	n= 30	24	25	39	31	34	34	34	36	45	37	37	38	37	37	36	34
	% 33.3	29.2	36.0	25.6	29.0	35.3	29.4	30.6	22.2	24.3	29.7	28.9	32.4	33.3	36.7	26.5	
Equipment is easy to use	n= 28	23	24	37	32	34	34	35	43	37	36	37	35	35	36	30	34
	% 32.1	17.4	25.0	10.8	28.1	32.4	23.5	31.4	34.9	75.7	38.9	75.7	51.4	66.7	60.0	61.8	
Equipment is comfortable to wear	n= 26	24	23	37	35	33	34	35	43	37	35	38	35	37	29	33	
	% 3.8	8.3	8.7	10.8	17.1	21.2	17.6	25.7	34.9	67.6	40.0	65.8	48.6	56.8	55.2	57.6	
Battery life of the camera is adequate	n= 23	19	21	35	31	33	33	34	41	37	32	37	35	35	31	32	
	% 34.8	21.1	23.8	25.7	29.0	33.3	24.2	29.4	31.7	73.0	43.8	78.4	51.4	80.0	58.1	65.6	
Easy to download data at the end of shift	n= 26	20	21	33	32	32	31	34	42	37	36	38	35	37	29	34	
	% 26.9	20.0	19.0	18.2	21.9	34.4	12.9	26.5	9.5	21.6	16.7	18.4	20.0	27.0	27.6	23.5	

Significant at p ≤ .05, using t-test comparisons

Exhibit 14: General Perceptions by Collection Cycle and Area

Scale and Item	T-1, pre		T-2, pre		T-3, pre		T-4, pre		T-5, post		T-6, post		T-7, post		T-8, post		
	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	
General Perceptions																	
Body cameras are well received by coworkers	n=	39	32	39	44	41	44	37	44	47	39	40	37	40	37	33	35
	%	2.6	0.0	7.7	2.3	2.4	0.0	8.1	2.3	4.3	7.7	12.5	0.0	15.0	0.0	12.1	14.3
Police benefit more from body cameras than citizens	n=	40	33	38	43	40	43	37	43	46	39	38	36	40	37	33	35
	%	37.5	30.3	36.8	27.9	27.5	32.6	29.7	34.9	19.6	30.8	23.7	36.1	25.0	40.5	33.3	37.1
Wearing a body camera improves officers' job satisfaction	n=	37	33	38	43	41	44	37	43	47	39	39	37	40	37	32	35
	%	0.0	3.0	2.6	4.7	2.4	4.5	8.1	4.7	0.0	5.1	12.8	5.4	10.0	0.0	9.4	0.0
Cameras improve officer training	n=	39	34	37	44	39	45	37	43	47	39	40	38	38	36	33	35
	%	35.9	41.2	37.8	43.2	41.0	42.2	35.1	48.8	21.3	43.6	35.0	31.6	23.7	19.4	30.3	22.9
Cameras improve overall job performance	n=	37	35	38	44	40	44	37	43	47	39	40	37	40	36	33	34
	%	13.5	20.0	5.3	9.1	12.5	11.4	10.8	23.3	10.6	12.8	20.0	8.1	12.5	8.3	12.1	14.7
Cameras tend to increase office safety	n=	40	35	39	44	41	45	37	43	47	39	39	38	40	37	33	35
	%	15.0	20.0	5.1	20.5	9.8	8.9	16.2	11.6	6.4	12.8	10.3	5.3	12.5	2.7	12.1	2.9

Significant at p ≤ .05, using t-test comparisons

Exhibit 15: Overall Perceptions by Collection Cycle and Area

Scale and Item	T-1, pre		T-2, pre		T-3, pre		T-4, pre		T-5, post		T-6, post		T-7, post		T-8, post		
	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	Area	81	
Overall Perceptions																	
Cameras should be expanded to other departments	n= 38	33	36	44	42	44	37	42	47	39	40	35	40	37	33	34	34
	%	18.4	24.2	13.9	22.7	9.5	15.9	16.2	19.0	4.3	17.9	8.6	12.5	8.1	24.2	32.4	32.4
Cameras should be adopted throughout the city	n= 39	32	39	44	42	45	37	42	47	39	40	36	40	36	32	35	35
	%	15.4	18.8	15.4	13.6	4.8	11.1	10.8	16.7	2.1	15.4	8.3	10.0	11.1	15.6	32.9	32.9
Advantages of body cameras outweigh the disadvantages	n= 38	32	38	44	41	43	37	42	47	39	40	37	39	37	33	34	34
	%	23.7	12.5	21.1	20.5	7.3	16.3	18.9	14.3	12.8	15.4	20.0	15.4	18.9	18.2	35.3	35.3

Significant at p ≤ .05, using t-test comparisons

SECTION 6: IMPACT OF BODY WORN CAMERAS ON ARREST

One measure of the impact of body worn cameras examined was arrests made by both camera-wearing and comparison officers. The arrest analysis accounted for changes in officer assignment during the study period by method of a *camera-eligible* day. This procedure tracked all officers who at any time during the course of the study were assigned and required to wear a camera. This procedure allowed us to calculate the number of arrests any given day in the study period when a camera should or should not have been present.

Exhibit 16 displays our findings of arrest activity. Analyses for both camera-wearing officers and comparison officers showed that average daily arrests increased significantly from the pre to the post camera deployment period. During both the pre and post deployment period, comparison officers made more arrests, about 0.11 pre to 0.12 post, compared to 0.08 pre to 0.12 post among camera-wearing officers. On the other hand, examining the percentage change in average daily arrests, officers with body worn cameras showed a significant increase (0.04 arrests per day on average) in the number of mean daily arrests when compared to officers without cameras (0.01). Put another way, the camera officers increased their average daily arrests by 42.6%, which was nearly triple the change among comparison group officers (14.9%), which was statistically significant.

Additional analyses examined trends in resisting arrest between the two groups (See Exhibit 17). This analysis was conducted by examining the arrest charges for each of the incidents, and identifying those that involved passive and forceful resistance, escape or flight and aggravated assault against the officer. Subsequently, these incidents were recoded into an “any form of resistance” category. The analysis showed that both groups of officers experienced a substantial increase in overall resisting arrest incidents. Camera-wearing officers experienced a 130.4% increase in any form of resistance from pre to post deployment, and comparison officers experienced a 135.7% increase. These increases are in part driven by increases in arrests for passive resistance. It is important to note that while these percentage increases appear substantial, arrests for resistance were rare events. Notably, none of the post-deployment differences between camera and non-camera officers were statistically significant.

Exhibit 16: Mean Number of Arrests per Day, by Target Group and Deployment Period

	Pre-Camera Period				Post-Camera Period				% Change Pre-to-Post	
	Target		Comparison		Target		Comparison		Target	Comparison
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	t	n
Average Daily Arrests *	0.08	0.047	0.11	0.060	0.12	0.068	0.12	0.068	42.6	14.9

* Significant at $p \leq .05$, using t-test comparisons.

Exhibit 17: Mean Number of Resisting Arrest Incidents per Day, by Target Group and Deployment Period

	Pre-Camera Period				Post-Camera Period				Change Pre-to-Post	
	Target		Comparison		Target		Comparison		Target	Comparison
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	t	n
Resist Arrest:										
Any Form	0.002	0.003	0.003	0.004	0.005	0.007	0.007	0.006	130.4	135.7
Flight	0.001	0.002	0.001	0.002	0.001	0.001	0.002	0.003	-28.6	216.7
Passive Resistance	0.000	0.000	0.000	0.001	0.002	0.003	0.001	0.002	1400.0	166.7
Forceful Resistance	0.001	0.003	0.002	0.003	0.003	0.004	0.004	0.005	114.3	180.0
Aggravated Assault	0.001	0.002	0.001	0.002	0.001	0.002	0.002	0.003	40.0	81.8

* Significant at $p \leq .05$, using t-test comparisons.

SECTION 7: IMPACT OF BODY WORN CAMERAS ON OFFICER MISCONDUCT AND COMPLAINT RESOLUTION

Officer accountability was measured using official police complaint data and self-reported complaints and use of force incidents from officers in the Maryvale Precinct. As noted above, our complaint data was provided through official records obtained from PPD’s Professional Standards Bureau (PSB). These data included all reports of misconduct, regardless of source (e.g. citizen calls, supervisor initiated, direct contact to PSB/chief’s office, etc.). Our analysis is limited to those assigned to patrol unit to avoid potential complaint-rate differences for officers assigned to non-patrol tasks (e.g. investigations, administrative services, other specialized units, etc.), as all officers assigned to Areas 81 and 82 are part of regular patrol units. As with prior analyses, the data covered 15 months pre and post camera deployment.

As seen in Exhibit 18, our analysis showed that from pre to post-deployment camera-wearing officers experienced a 22.5% decline in officially recorded complaints. This compared to a 10.6% increase in complaints among the comparison group officers and a 45.1% increase among remaining patrol officers in the PPD. These changes were statistically significant changes from pre to post within each group (i.e. target, comparison and citywide), and between the groups, as a whole.

Exhibit 18: Professional Standard Bureau Complaints/Misconduct Records by Group, From January 1, 2012 through July 15, 2014 †

Group	Period	Pre-Deployment	Post-Deployment	Pre-Post % Change	Total
		N	N	%	N
Target		40	31	-22.5*	71
Comparison		66	73	10.6*	139
Citywide Patrol		627	910	45.1*	1537
	Total	733	1014	38.3	1747

† These dates represent 15 months pre- and 15 months post-deployment of body worn cameras.

* t-test significant at $p \leq .05$

Exhibit 19 shows our analysis related to the outcome of complaints investigated by the PPD Professional Standards Bureau. It shows that from pre to post deployment body worn camera officers experienced 53.1% reduction in their complaints being founded. This compared to a 56.5% reduction in complaints being founded among the comparison group, and a 4.2% reduction among patrol officers outside of Maryvale. The pre-post reductions in complaints being founded for target and comparison officers were both substantively substantial and statistically significant.

Exhibit 19: Resolution Founding/Unfounding of Reported Complaints/Misconduct Pre and Post Camera Deployment, by Target, Comparison and Citywide 1, with Pre/Post Percent Change

Result of Complaint	Pre-Camera Period						Post-Camera Period						Pre-Post % Change in Complaints		
	Target		Comparison		Citywide		Target		Comparison		Citywide		Target	Comparison	Citywide
	n	%	n	%	n	%	n	%	n	%	n	%	%	%	%
Unfounded	18	45.0	39	59.1	345	55.0	23	74.2	60	82.2	518	56.9	64.9*	39.1*	3.5
Founded	22	55.0	27	40.9	282	45.0	8	25.8	13	17.8	392	43.1	-53.1*	-56.5*	-4.2
TOTAL	40	100	66	100.0	627	100	31	100	73	100.0	910	100	-22.5*	10.6*	45.1*

*Statistically significant at $p \leq .05$

1 Citywide group consists of patrol officers assigned outside the study-area precinct.

2 Data for this analysis included complaints from January 1, 2012 through July 31, 2014, allowing for 15-month Pre and Post camera deployment (April 15, 2013).

Officers in the target and comparison groups were asked to report the number of complaints made or threatened against them in the preceding 30 days as well as the number of times they believed that an individual did not make a complaint because of the presence of a body camera. The number of self-reported incidents was low, particularly given that the modal frequency was “0” complaints, so we combined the mean score of each of the four pre-test periods and four post-test periods. As seen in Exhibit 20, we found that both groups reported declines, on average, in the number of complaints filed or threatened in the past 30 days. The observed differences were not statistically significant. We, however, did find that a small but significant proportion of officers self reported that a complaint was not pursued due to the presence of a body camera in the post-test period.

Exhibit 20: Mean Number of Self-Reported Complaints in the Past 30 Days, by Comparison and Target Officer, Pre/Post Camera Deployment

	Pre-Post Change					
	Pre-Test Mean		Post-Test Mean		% Change	
	Compar- ison	Target	Compar- ison	Target	Compar- ison	Target
Number of officers reporting	157	168	157	147	314	315
Complaints Filed or Threatened Past 30 Days (mean) *	0.57	0.55	0.33	0.24	-42.8	-56.9
Complaint not pursued due to recording (mean) *	0.01	0.01	0.00	0.03	-100.0	292.2

* Significant at $p < .05$

Officers were also asked to self-report the type of complaints they had received in the past 30 days using as they related to excessive force, abuse of authority, verbal misconduct, failure to act and other reason. The mean numbers of reported complaint types were combined for each of the four pre-test and four post-test survey periods. Exhibit 21 below shows these results. Camera officers reported a 47.7% decline in the proportion of complaints involving excessive force, compared to a 7.4% decline among comparison officers. Verbal misconduct complaints declined 35% among camera officers, compared to a 69% decline among comparison officers. Likewise, camera wearing officers reported a 20% decline in “other type of complaint” compared to a 63.8% decline among comparison officers. It should be noted that these changes were influenced by changes in the mean number of complaints filed or threatened. The significant declines in complaints, as reported above, thus influenced the proportional distribution of complaint type displayed below.

Exhibit 21: Mean Number of Self Reported Complaints in the Past 30 days by Complaint Type

	Pre-Test Mean		Post-Test Mean		Pre-Post % Change in Mean	
	Compar- ison	Target	Compar- ison	Target	Compar- ison	Target
Number of Officers Reporting	157	168	157	147	314	315
Type of Complaint						
Excessive force *	0.11	0.17	0.10	0.09	-7.39	-48.74
Abuse of authority	0.12	0.09	0.11	0.08	-5.71	-5.95
Verbal misconduct *	0.19	0.13	0.06	0.08	-69.16	-35.01
Failure to act	0.06	0.10	0.03	0.04	-50.00	-56.43
Other reason *	0.23	0.12	0.08	0.10	-63.75	-20.12

* Significant at $p \leq .05$ using ANOVA from Time 4 (last pre-test wave, March 2013) through Time 8 (June 2014).

SECTION 8: THE IMPACT OF BODY WORN CAMERAS ON DOMESTIC VIOLENCE CASE PROCESSING

We examined the impact cameras had on the disposition of domestic violence cases, the length of time required to process the case, and, when appropriate the length of jail sentence. As discussed above, the PPD requires officers to complete a brief, specialized Field interview (FI) card, referred to as domestic violence pocket cards (aka. DV cards) for all incidents involving domestic violence, and are to be collected regardless of whether or not an arrest is made. DV card data was collected from January 1, 2012 through July 31, 2014 and generated 2,063 unique incidents. Analyses were case-based, and conducted by comparing the case processing of three groups: a) pre-test domestic violence cases (n=878); b) post-test comparison cases (no video file, n=933); and c) post-test camera cases (video file available, n=252).

As Exhibit 22 illustrates there was little difference in case processing between those cases that were processed prior to the use of BWC and those cases that involved a BWC. Specifically, when comparing post-test camera cases to pre-test non-camera cases, post-test camera cases were slightly less likely to be initiated by the prosecutor's office (40.9% vs. 42%), slightly less likely to be further by the prosecutor's office (12.7% vs. 14.9%), but more likely to result in a guilty plea (4.4% vs. 3.1%) or to be found guilty at trail (4.4% vs. 2.8%).

We also examined differences in domestic violence case processing among post test cases with and without the presence of a body camera. Our analysis showed that when compared to post test non-camera cases, post test camera cases were more likely to be initiated by the prosecutor's office (40.9% vs. 34.3%), have charges filed (37.7% vs. 26%), have cases furthered (12.7% vs. 6.2%), result in a guilty plea (4.4% vs. 1.2%), and result in a guilty verdict at trial (4.4% vs. 0.9%).

Exhibit 22: Domestic Violence Case Flow

	Pre-Test Case		Post-Test Comparison		Post-Test Camera	
	n	%	n	%	n	%
Number of DV-Related Contacts ^a	878	100.0	933	100.0	252	100.0
Cases Initiated	369	42.0	320	34.3	103	40.9
Charges Filed	333	37.9	243	26.0	90	37.7
Case Furthered (Not Dismissed)	131	14.9	58	6.2	32	12.7
Plead Guilty	27	3.1	11	1.2	11	4.4
Guilty at Trial †	25	2.8	9	0.9	11	4.4

^a The number of contacts is derived from the DV Pocket cards, which included data on 2,063 unique incidents from January 1, 2012 through July 31, 2014 from the Maryvale Precinct.

Additionally, we examined the average numbers of days it took to process domestic violence cases to completion. Beginning with 2,063 DV card incidents, we first excluded cases not forwarded to the prosecutor (n=1,156), or were still active (n=115). This resulted in 792 cases available for analysis. As Exhibit 23 shows we found that there were significant declines in the number of days it took to dispose of a case from the pre-test to the post-test period, with a pre-test case averaging 96 days to process compared to a post-test average of 44 (comparison) and 78 days (camera). We also found that following camera implementation there was a significant change in both time to dismissal and guilty pleas, each declining during the post-test period. It should be noted that case processing time declined the greatest among the non-camera wearing comparison group. This may be attributed to changes in the administrative management of cases after camera deployment.

Shortly after camera deployment, the police department assigned a detective as a dedicated court liaison officer to help process cases, particularly those with video evidence, from the police department to the city prosecutor’s office. This administrative change alone may have accounted for the overall declines in processing times. While it appears from our analyses that cameras adversely impact case processing time (post-test comparison versus post-test camera differences), the assignment of a court liaison officer may overcome this issue.

Exhibit 23: Number of Days to Process Case to Disposition (N=792) †						
	Pre-Test Case		Post-Test Comparison		Post-Test Camera	
	mean	n	mean	n	mean	n
All Completed Cases *	95.8	369	43.5	320	78.1	103
SD	(124.3)		(77.50)		(105.10)	
Dismissed *	65.3	202	38.2	185	56.1	58
SD	(91.00)		(67.80)		(65.90)	
Plead Guilty *	167.7	104	71.3	47	131.9	21
SD	(157.57)		(100.44)		(156.40)	
Trial	74.4	27	114.2	11	105.5	11
SD	(90.61)		(125.06)		(126.07)	

* Significant at $p \leq .05$

† Original values ranged from 0 to 756. Values above the 98th percentile of 438 days (n=16) were truncated to 438 to control for outlier cases.

As presented in Exhibit 24, our last series of analysis examined the average length of jail sentence (in days) for those defendants who either plead guilty or were found guilty at trial.

Our analysis showed that there was no significant in the average sentence length for convicted offenders between pre-post camera implementation and between camera and non-camera wearing officers in the post-test period.

Exhibit 24: Number of Days Sentenced to Jail (n=217)

	Pre-Test Case			Post-Test Comparison			Post-Test Camera		
	mean	SD	n	mean	SD	n	mean	SD	n
All Sentenced Cases	26.5	41.26	129	32.4	45.94	56	34.4	32.00	48
Plead Guilty	22.1	38.20	104	25.2	36.41	47	15.0	15.18	21
Trial - Found Guilty	44.6	48.93	25	70.0	70.67	9	71.6	67.02	11

* Significant at $p \leq .05$

SECTION 9: CONCLUSIONS AND LESSONS LEARNED

The Bureau of Justice Assistance (BJA), through the SMART Policing Initiative (SPI), awarded the Phoenix Police Department \$500,000 to purchase, deploy and evaluate police body worn cameras. The design and implementation of the project included the purchase of 56 BWC systems and deploying them in the Maryvale Precinct. The implementation of the BWC's occurred in one of the two Maryvale Precinct squad areas (aka target area). All officers assigned to the target area were issued the equipment and were provided training in its use, maintenance, and related departmental policy. This evaluation was conducted to examine the effect of implementing police worn body cameras in the Phoenix Police Department. Specifically, it focused on six principal areas: 1) officer camera activation compliance; 2) utility and use of body worn cameras; 3) impact on officers' job performance; 4) impact on public compliance and cooperation; 5) impact on officer accountability; and 6) impact on domestic violence case processing and outcomes. Below we discuss the primary results of our evaluation and lessons learned.

MAJOR FINDINGS

Our analysis of the camera meta-data indicated that over the study period officers on average activated their BWC about 415 times; and the average length of each video file was about nine to ten minutes. The majority of the video files were associated with a vehicle stop, violent offense or property offense. The vast majority (95+%) of video files contained a valid incident number, suggesting that the video files were being appropriately tagged by officers. However, over the study period (varying by month) only 13.2 to 42.2 percent of incidents were recorded. Domestic violence incidents were the most likely to be recorded (47.5%), followed by violent offenses (38.7), back-up (37%), status offenses (32.9%), and subject/vehicle stops (30.9%). Other offense types were recorded less often.

Our surveys of the officers indicated that there was resistance among officers toward wearing the BWC's. While in general the technology was found to be comfortable and easy to use, officers were dissatisfied with a number of technological features related to the cameras. For example, officers reported that it took a long time to download data, that it lengthened the amount of time it took them to complete reports, and reported being concerned that the video might be used against them. These concerns were reflected in the low compliance rates for turning on cameras. We also found that video submitted to the courts was difficult to process because of the length of time that it took the prosecutors to review video files. Prosecutors also voiced concern about not having enough time to review video before court. While much of the problem was addressed by the precinct commander by assigning a police officer to serve as a court liaison officer, prosecutors maintained that attorneys still did not have enough time to review video footage.

Regardless, the officer worn body cameras were found to be beneficial to the officers and the courts in a number of ways. First, officer productivity as measured through the number of arrests increased significantly. For instance, the number of arrests increased by about 17% among the target group compared to 9% in the comparison group. Second, complaints against the police declined significantly. Complaints against officers who wore the cameras declined by 23%,

compared to a 10.6% increase among comparison officers and 45.1% increase among patrol officers in other precincts. It is important to note that we did not identify this same trend in our analysis of the police self-report complaint data. This inconsistency might be related to the low base rate of our self-report data (Hinkle et al., 2014) or due to its lack of reliability (Rojek, Alpert, and Smith, 2010) Third, our data showed that those officers who wore cameras and received a complaint were significantly less likely to have the complaint sustained when compared to the comparison group and others throughout the PPD. This suggests that even if a complaint was made against a camera wearing officer the video file was more likely to support officer actions than harm them. Fourth, and related, the officer self-report data suggested that many complaints were not pursued because of video recordings. For instance, officers self reported a 300 percent increase in the number of times that an individual was going to file a complaint but did not further pursue the complaint because of the presence of a body camera. BWC did not appear, however, to have an impact on suspect behavior as measured through resisting arrest charges.

Last, we examined the impact of body worn cameras on domestic violence case processing. Analysis of the data indicated that following the implementation of body cameras, cases were significantly more likely to be initiated, result in charges filed, and result in a guilty plea or guilty verdict. The analysis also determined that cases were completed faster following the implementation of body cameras, however, we believe that this finding was largely a product of the addition of a court liaison officer who facilitated case processing between the PPD and city prosecutor's office. In fact, when we examined the number of days it took to process a case, and compared our post-test comparison group to our post-test camera group our findings suggested that body cameras resulted in an increase in the amount of time that it takes to process a case to completion by about 80 percent.

LESSONS LEARNED

Our findings suggest that officer worn body cameras may increase officer productivity, reduce the number of complaints against officers, decrease the number of founded complaints against them, and increase the effectiveness in which criminal cases are processed in the courts. While our findings also suggested that there are a number of problems associated with the implementation of body cameras such as increased amount of time spent on paper work, increased IT needs, officer concerns about video files being used against them, and increased amount of time it takes to process criminal cases, our results combined with prior research suggest that the benefits of officer worn body cameras outweigh their weaknesses and limitations. This does not imply that police agencies in general and the Phoenix Police Department in particular should implement the technology throughout the department immediately; but that they should move forward purposely with the anticipation that police worn body cameras will be increasingly used in policing. Based on our findings, and research conducted elsewhere, there are several lessons learned that might be considered in the future.

1. Develop a city-wide strategic plan.

Our findings suggest that the deployment of BWC is a complicated, costly, and administratively complex process that requires a citywide strategic plan. Our research indicates that when

adopting BWC it might be useful to establish a citywide task force comprised of key stakeholders. The strategic plan should be led by the police and include members from the city manager's office, patrol, investigations, city and county attorneys, information technology, fiscal, and others as deemed appropriate. The strategic plan should include the necessary estimated budget and infrastructure to deploy body cameras across the agency and to prepare other agencies for the adoption of body camera technology. At a minimum, the strategic plan should include scope, nature, and timing of camera deployment, IT, training and policy needs, auditing procedures, and budgeting.

2. Increase attention on the needs of the city prosecutor's office.

Our analysis suggested that the city's prosecutor office does not have the necessary resources to receive and review video files from officer worn body cameras. Currently the Maryvale precinct allocates specially assigned personnel to work alongside the prosecutor's office to ensure the proper chain of custody of evidence and attend to logical issues pertaining to the camera data. While this strategy is effective in the short term, it is necessary to revisit the issue in the near future to ensure that resources are allocated appropriately. Aside from the citywide strategic plan, the police, prosecutors and city manager's office should discuss associated issues and identify a short, medium and long term sustainability strategy for addressing logistical issues associated with BWC video files.

3. Develop and deploy officer worn body camera training.

There appears to be resistance among officers about the acquisition and deployment of body worn cameras. This finding should not be surprising given the technology is new and has the potential to effect officers and community members in a variety of important (positive and negative) ways. It might be helpful if officers receive at least 30 minutes of training on the impact of body cameras on officers and the public. This would include a presentation about how body camera work, current policy, and findings from this project on the benefits and limitations to deploying body cameras. This information might blunt some officer resistance and might result in a more well-rounded understanding of the potential impact of the technology.

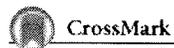
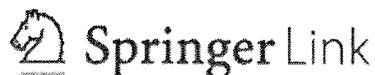
4. Increase officer camera activation compliance.

While there has been little research examining camera activation compliance, our findings suggest that police officers might not be in full compliance with departmental policy. Fewer than 50 percent of incidents were recorded by officers who had been assigned a body camera. This might be a consequence of the difficulties associated with body camera use such as long download times, increased amount of time that it takes to complete paper work, complexities associated with its use in court, and concern that it can be used against the police officer by the department. Camera activation compliance might in part be able to be increased by addressing some of these issues; however, even if the problems associated with the technology and evidence processing are effectively addressed activation compliance may remain relatively low until officers are held accountable for recording incidents as directed by departmental policy. PPD policy is to audit a small number of recordings per month. Instead, it might also be necessary to audit at the "incident" level to determine whether the incident resulted in the production of an accompanying video file. Agencies might consider producing an automated monthly compliance

report that informs the officer and their supervisors of the proportion of incidents that the officer fell out of compliance with respect to the production of a video file.

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Original Paper

Journal of Quantitative Criminology

September 2015, Volume 31, Issue 3, pp 509-535

First online: 19 November 2014

The Effect of Police Body-Worn Cameras on Use of Force and Citizens' Complaints Against the Police: A Randomized Controlled Trial

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10.1007/s10940-014-9236-3

Copyright information

Abstract

Objective

Police use-of-force continues to be a major source of international concern, inviting interest from academics and practitioners alike. Whether justified or unnecessary/excessive, the exercise of power by the police can potentially tarnish their relationship with the community. Police misconduct can translate into complaints against the police, which carry large economic and social costs. The question we try to answer is: do body-worn-cameras reduce the prevalence of use-of-force and/or citizens' complaints against the police?

Methods

We empirically tested the use of body-worn-cameras by measuring the effect of videotaping police–public encounters on incidents of police use-of-force and complaints, in randomized-controlled settings. Over 12 months, we randomly-assigned officers to “experimental-shifts” during which they were equipped with body-worn HD cameras that recorded all contacts with the public and to “control-shifts” without the cameras ($n = 988$). We nominally defined use-of-force, both unnecessary/excessive and reasonable, as a non-desirable response in police–public encounters. We estimate the causal effect of the use of body-worn-videos on the two outcome variables using both between-group differences using a Poisson regression model as well as before-after estimates using interrupted time-series analyses.

Results

We found that the likelihood of force being used in control conditions were roughly twice those in experimental conditions. Similarly, a pre/post analysis of use-of-force and complaints data also support this result: the number of complaints filed against officers dropped from 0.7 complaints per 1,000 contacts to 0.07 per 1,000 contacts. We discuss the findings in terms of theory, research methods, policy and future avenues of research on body-worn-videos.

Keywords

Technology – Deterrence theory – Use-of-force – Police – Randomized controlled field trial – Body-worn-cameras

Electronic supplementary material

The online version of this article (doi:[10.1007/s10940-014-9236-3](https://doi.org/10.1007/s10940-014-9236-3)) contains supplementary material, which is available to authorized users.

Introduction

In recent years the use of police body-worn-cameras by police has received extensive media attention. These devices are commonly believed to achieve several aims, including: reducing police use-of-force and complaints against officers, enhancing police legitimacy and transparency, increasing prosecution rates and improving evidence capture by the police. The publicity has been so great that many go on to assume that cameras can fundamentally change ‘flawed’ police practices. This was epitomized in a 2013 Manhattan Federal District Court ruling that ordered officers in a precinct of New York Police Department with the highest volume of stop-and-frisk to wear body-worn-cameras in order to prevent racial profiling. In a similar vein across

the Atlantic, the College of Policing in England and Wales identified body-worn-cameras as *the* mechanism through which “dented public confidence” could be restored (BBC, 10/24/2013).

Despite great promises, there is no research evidence on the benefits of body-worn-cameras. Other than anecdotal data captured in non-controlled conditions, without comparison groups and without systematic gathering of evidence, no causal estimates of the outcomes of these devices exist. In this paper we report on the first randomized controlled trial using body-worn-cameras, which tested the effect of body-worn-cameras in Rialto across 12 months. The study focused specifically on use-of-force and citizens’ complaints, which were hypothesized to be affected by officers wearing cameras, given the possible deterrent effect of the devices on noncompliant behavior.

The paper begins with a review of the literature on police use-of-force and citizens’ complaints against the police. These aspects of police behavior and police performance represent two burning issues in American policing. Mistrust and a lack of confidence may already characterize some communities’ perception of their local police force. The use of unnecessary or excessive force by the police serves to further damage this relationship. Similarly, complaints filed against police officers are central to policing, not only because scholars consider them a proxy of police–public relations and police misconduct, but also because of their organizational importance given the tremendous costs associated with these cases, particularly in an era of austerity where many agencies are on the verge of bankruptcy (New York Times, 12/28/2013).

We then move on to describe the theoretical grounds for the hypothesized effect of cameras. A rich body of evidence on perceived social-surveillance—self-awareness and socially-desirable-responding—proposes that people adhere to social norms and change their conduct *because* of the cognizance that someone else is watching. Elaborate research across several categories of human behavior has shown that when certainty of apprehension for wrongdoing is “high”, socially and morally unacceptable acts are less likely to occur. Both force and complaints are assumed to be undesirable “negative” events—though admittedly both can be necessary consequences of volatile police–public encounters—which should be kept to minimum. The devices are thus hypothesized to decrease the tension in encounters and consequently reduce these outcomes.

The methodology used to evaluate the body-worn-cameras is described next. We conducted a randomized controlled trial, where nearly 1,000 officer shifts were randomized over a 12-month period to treatment and control conditions. During “treatment shifts” officers were required to wear and use body-worn-cameras when interacting with members of the public, while during “control shifts” officers were instructed not to carry or use the devices in any way. We observed the number of complaints, incidents of use-of-force, and the number of contacts between police officers and the public, in the years and months preceding the trial (in order to establish a baseline) and during the 12 months of the experiment. We used three

statistical methods to analyze the outcomes: first, a Poisson regression model to estimate the causal effect of the cameras between the treatment and control conditions. Second, we also conducted an effect size analysis, in order to measure the magnitude of the difference between the groups in terms of the rate of incidents per 1,000 contacts between the police and the members of the public. Third, we employed interrupted time-series analysis to assess the city-wide impact of the trial, before and after the implementation of body-worn-cameras. Finally, we discuss the findings in terms of theory, police policy and research methods. We pay particular attention to the possible causal mechanism behind the effect of the cameras on the use-of-force and citizen complaints, and our concerns with violations of the stable unit treatment value assumption when using the shift as the unit of analysis. Future avenues of research in this area are also suggested.

Literature Review

Police Use-of-Force

Police use-of-force has received considerable attention in various disciplines. This scholastic interest reflects significant investment by practitioners and decision-makers in better understanding the ways in which law enforcement institutions exercise their power, and how such powers can be managed. In democratic civilizations, the police are expected by the public to use force when the situation justifies the use of “reasonable” power “necessary” to achieve “legitimate purposes” (Alpert and Smith *1994*; Bittner *1970*). In fact, a defining characteristic of the policing profession is that it requires potentially using “reasonable” and “necessary” force, including deadly force, in a variety of chaotic situations that may be both (un)desired and (un)expected by members of the public. (On the conditional support for police use-of-force by race, gender and religion, see Halim and Stiles *2001*).

Historically as well as contemporarily, police scholars have argued that there is a “social contract” between the police and the citizens they “protect and serve”, an idea dating back to Hobbes (*1651*), Locke (*1689*), Rousseau (*1762*), and more recently Pettit (*1997*) and Shapiro (*2003*). Collectively, this line of theorization purports that the police are responsible for safeguarding and protecting the general social order, which includes protecting the safety of the citizens and other police officers. In exchange for granting police officers the right, power, and responsibility to use force, citizens expect police to only exercise force when it is necessary and to only use the amount of force that is “reasonable”, “proportional” and “necessary” for that situation. The police are, therefore, entrusted with the legal and moral responsibility to maintain societal order and these imperatives are implemented through their legitimized use-of-force. So important is “that responsibility, that police use-of-force is believed to involve the

execution of perhaps the essential function of the state and...because it affects the public's attitudes and behaviors toward the police and government more generally" (Friedrich 1980: 82).

Research in the area of use-of-force by the police has emphasized two distinct situations viewed as undesirable: the "use of excessive force" by the police (which is when an officer uses more force than is necessary/justifiable/reasonable in a situation where *some* force was justifiable) and/or the "unnecessary use-of-force" (which is when force is used by an officer but *no* force was necessary/justifiable/reasonable in the context). These two types of situation are argued to damage the relationship of the police with the community that they are expected "to protect and serve" (Reiss 1968; Skolnick and Fyfe 1993; Worden 1996). When the police undermine these expectations and violate their contract with the citizenry over the use-of-force, police-public tensions rise (King and Waddington 2004; Weitzer 2000, 2002). When these violations amount to outright "police violence", the core foundation of police legitimacy is undermined (Westley 1970).

Explaining Police Use-of-Force

In the present study we focus on three strands of research that purport to explain police use-of-force: situational, psychological and organizational. In terms of situational factors, one leading theory is based on the notion that police behavior is influenced by the social dynamics of police-citizen encounters. Black's (1976) sociology of law, for instance, suggests that the "quantity of law" is associated with the attributes of the parties. Sherman (1980) developed this point further, by laying out the situational factors that form essential cues officers use to make an assessment about how an incident should be handled. Most empirical research that followed suggested that the suspect's actions and resistance during a police-public encounter precipitate the force reaction of police officers (Alpert and Dunham 1997; Alpert et al. 2004; Crawford and Burns 2002; Terrill 2001). This is what some observers have termed the "demeanor hypothesis" (see review by Engel et al. 2000). Using self-report data, Garner et al. (2002) have shown that the link between characteristics of the police-public encounter and police use-of-force is significantly dependent on resisting arrest (see also Croft and Austin 1987).

Demeanor is just one aspect of the situational dynamics that elicit police use-of-force. Was the encounter part and parcel of routine police work? Was this a high-crime area or a known and dangerous offender with whom the police interacted? Was the officer alone and therefore more easily threatened? These and countless other situational factors and interactions-between-factors may ultimately lead to use-of-force (see Terrill and Mastrofski 2002; Wikström et al. 2012), but we should resist simply listing situational 'risk factors' for use-of-force as this does not aid explanation.

Psychological theories of use-of-force suggest that police officers with certain psychological traits are more likely to use excessive use-of-force or use force more

broadly. For instance, the ability to “endure” some stressful situations was found to be associated with personality types, while some police officers tend to accept some forms of disrespect but not others (Engel et al. 2000). More broadly, Fabricatore et al. (1978) have shown that certain personality factors, as measured by the Sixteen Personality Factor (16PF) Questionnaire, revealed that “aggressive” and “tough-minded” characteristics were consistent predictors of use-of-force. Burke and Mikkelsen (2005) as well as Phillips and Sobol (2011) subsequently found that cynical officers held more favorable attitudes towards the use-of-force, while officers reporting higher levels of professional efficacy held more favorable attitudes towards the use of social skills to solve problems. We read this body of instructive literature as suggesting that some psychological variables are important in any study of police use-of-force.

Finally, police subculture in relation to use-of-force seems to play a role in accepting or allowing for “more force” to be applied in certain circumstances. Researchers who study police organizations have been claiming for years that use-of-force is a function of police officers’ attitudinal commitment to certain institutional or organizational cultures around their roles in society and, more broadly, their view of power (Terrill et al. 2003; Lester 1996). Certain institutional and subcultural codes make police agencies particularly resistant to cultural changes; indeed, as Skolnick (2008: 37) observed, the “unrecorded code [of silence] has been noted as a feature of policing across continents, wherever commissions of inquiry have investigated police corruption”. Feelings of loyalty sustain this code of silence and make it particularly difficult to investigate purported unnecessary, or excessive, use-of-force. Similarly, Baker (Baker 1985: 210–213) has shown that there is a hierarchy of wrongfulness for police misconduct, which sits well with how officers view excessive or unnecessary use-of-force: “dead wrong; wrong, but not bad; wrong but everybody does it”. So in order to understand police use-of-force, it seems clear that one must include officers’ individual predisposition to use force, the situational dynamics of police work and the broader context within which officers’ operate.

Measuring Use-of-Force

How much force is ‘too much’? One possible way to assess levels of police force was introduced in the “*use-of-force continuum*” (see review in Garner et al. 1995), and is utilized by many police agencies worldwide as a standardized tool for measuring responses to varied types of situations.¹ The continuum has several steps of “proportional dosage”, all the way up to lethal response and down to aggressive verbal response. Any response that is proportional based on this tool (including no physical force at all), can potentially be deemed as ‘necessary’ or ‘excessive’. However, there is room for interpretation. In fact, some would consider the mere presence of a police officer and the concomitant physical representation of authority as “some” force.

The inherent subjectivity of the use-of-force continuum signifies just how complex and inflammatory force can be: Just what exactly does a police officer have to do before

they are deemed to have “used force”? How much of a grab or a hold, or even a “come-along hold,” is needed before it becomes “use-of-force”? Even more difficult to define is at what point the use-of-force is either “unnecessary” or “excessive” (see Atherley and Hickman [2014](#); Alpert and Smith [1994](#)). Adams ([1996](#): 53) cites a famous disagreement between a team of field researchers led by Reiss ([1968](#)) and a panel of experts from the President’s Commission on Law Enforcement and Administration of Justice (1976), which aptly describes the measurement problem. The two teams could not agree on what constitutes “improper use-of-force” or “excessive or unnecessary use-of-force”, even though they were both scrutinizing the same incidents. Though dated, the problem they encountered still persists today. These perceptual differences are important not least because they indicate the illusiveness of defining (excessive) use-of-force, but they also tend to suggest just how real the measurement problem is: error has cut through both academic and professional arenas for more than five decades. In many ways this is because rules and laws relating to police use-of-force are simply “too vague to be regarded as a comprehensive set of operational guidelines” (Fyfe [1988](#): 180; see also Henderson and Wilson [2008](#)).

Yet at the same time, there seems to be widespread agreement that both the rate and frequency of use-of-force are low (Alpert and Dunham [2004](#); Croft [1985](#)). Croft and Austin ([1987](#)), Friedrich ([1980](#)), and Fyfe ([1988](#)), for example, have shown that the rate of use-of-force is about 5–10 % of police contacts with suspects.² Bayley and Garofalo ([1989](#)) have shown that it is when transferring arrestees that the majority of use-of-force incidents occur, but such activities represent a small proportion of police work. Similarly, Reiss ([1968](#)) has found that the likelihood of an excessive use-of-force incident is far greater when the police come into contact with suspects, however the police are dramatically more likely to contact non-criminal-suspects in their daily routines—suggesting that the rate of use-of-force is very low as well. Garner et al. ([1996](#)) have also found that even in cases of arrest the police used ‘some’ physical force in only one of every five incidents. According to their data, no force, or only low levels of force, was used in most cases.

When officers do use force they are nearly always required to file an official report of such incidents, but work by Adams ([1996](#): 62) suggests that use-of-force occurs “twice as often” as suggested by official reports, particularly when the incident is one of “low-level force” that does not amount to anything the police officer feels he or she needs to ‘account’ for. Some ethnographic work in this area (e.g., Hunt [1985](#); Rojek et al. [2012](#)) suggests that what is construed as a “reportable incident of force” and how much force is appropriate is often predicated by a police department’s organizational culture (as noted above). For example, placing one’s hand on another’s shoulder in an authoritative way or using aggressive language may be considered use-of-force in some instances and for some individuals, whereas for others they may not. Measuring “injury” or “assault” is also likely to be challenged in terms of definitional threshold, as it is open to interpretation when there are no clear signs of physical contact.

Whichever definition one would use for police use-of-force, the fact remains that *any* level of force can have detrimental effects on police–public relations. It may take just one or a handful of cases to damage the legitimacy of the police. The challenge is heightened if the three parties to the encounter—the officer, the suspect and the public—hold opposing views about the necessity, reasonableness and “amount” of force that the police apply. It is particularly the case when most police–public encounters, though they often occur in public (i.e. outside), are often away from the public eye. Therefore, any comprehensive and effective approach to reducing use-of-force must simultaneously address as many antecedents of police use-of-force as possible, including the suspect’s demeanor, the officer’s characteristics, and elements of police organizational culture that allow for such incidents to take place. Completely eradicating *illegitimate* use-of-force is unlikely as *some* force will always be required against *some* offenders in *some* circumstances. Likewise, any approach should still allow for legitimate use-of-force to be used in cases when it is required to protect the public, but for all other circumstances, a reductionist approach should aim to dramatically ‘cool down’ encounters.

Citizens Complaints Against the Police

One way to measure police (mis)conduct and how the public view police actions is through the analysis of complaints lodged against police officers—even though the rate of complaints is usually very low, compared to the number of interactions between the police and members of the public. Box and Russell (1975: 315) claim that while “complaints are a very minor aspect of the administration of justice, they nonetheless concern a very fundamental democratic right to have redress against ‘deviants’ in the police force”. These complaints refer to allegations made by citizens regarding the conduct of officers, in both voluntary (e.g., requests for assistance) and involuntary contacts (e.g., traffic violations). Subsequently, complaint procedures were designed by most police agencies to investigate these complaints of officer misconduct and punish guilty officers—although Walker (1997) suggests that punishment is often not the goal of most complainants. Still, the number of complaints can be used as a measure for how people the police encounter evaluate their performance, with a lower rate of complaints being a marker of greater public satisfaction, although there can still be the case of fear or cynicism about future reporting to the police.

Researchers have also used complaint databases to assess various types of legitimacy and justice-related outcomes. Braga (2008), for example, analyzed police complaint data in Boston as a proxy of community complaints against the police.² Likewise, Greene (1999) showed that complaints can be used to measure the extent to which focused aggressive police enforcement strategies can result in police misconduct. Subsequently, as shown in Braga’s (2008) review, grievances allow researchers to assess just how police legitimacy is influenced by whether community members perceive police–public encounters that they were treated fairly, with respect and dignity by police officers (Tyler 2001). Whether complaints are in fact justified and can

be substantiated has always been a matter of contention. It is not uncommon for some offenders—especially experienced ones—to complain as a form of retaliation against the police (see Waters and Brown [2000](#); Prenzler et al. [2010](#)). Yet it is difficult to defend the argument that *most* grievances are ‘bogus’ or erroneous. Furthermore, complaints are a source of public dissatisfaction: literature on the “complainants’ experience” suggests that a substantial proportion of complainants remain dissatisfied with key aspects of the complaints process (Waters and Brown [2000](#); Brown [1998](#); Maguire and Corbett [1991](#)). The implications for police legitimacy are substantial, which makes reducing the rate of complaints a major goal of a police complaints and discipline system (Liederbach et al. [2008](#)).

Cameras as a Deterrence Stimulus to Manage Police Use-of-Force

Several lines of research across many disciplines suggest that most species alter their behavior once aware they are being observed (Chartrand and Bargh [1999](#); Dzieweczynski et al. [2006](#); Jones and Nisbett [1971](#)). A rich body of evidence on perceived social-surveillance—self-awareness (Wicklund [1975](#)) and socially-desirable-responding (Paulhus [1988](#))—proposes that people adhere to social norms and change their conduct *because* of that cognizance that someone else is watching (Munger and Shelby [1989](#)). It seems that knowing with sufficient certainty that our behavior is being observed (or judged) affects various social cognitive processes: We experience public self-awareness (Gervais and Norenzayan [2012](#); Duval and Wicklund [1972](#)), become more prone to socially-acceptable behavior (Sproull et al. [1996](#)) and feel a heightened need to comply with rules (Milinski et al. [2002](#); Wedekind and Braithwaite [2002](#); Barclay [2004](#)).

Getting caught breaking rules is often registered as behavior that can potentially lead to negative consequences such as sanctions, an outcome most individuals wish to avoid (Klepper and Nagin [2006](#); Nagin [2013](#)). Whilst strict rationality in all decision-making is a rather strong assumption (Kahneman [2011](#)), experimental evidence demonstrates that individuals work to avoid negative outcomes, and show that individuals react compliantly to even small cues indicating that somebody may be watching: Priming cues signaling how we ought to behave can range from reputational concerns (Bateson et al. [2006](#); Burnham and Johnson [2005](#); Haley and Fessler [2005](#); Fehr and Schneider [2010](#)) and feelings of shame, to fear of punishment for noncompliance (Boyd et al. [2010](#)). Paradigmatically, these cues are more broadly explored under deterrence theory.

The theoretical roots of deterrence theory are found in eighteenth century enlightenment philosophy (Beccaria [1995](#)). An extensive body of recent rigorous research across several categories of human behavior has since shown that when certainty of apprehension for wrongdoing is “high” and when the severity of sanction is substantial, socially and morally-unacceptable acts are dramatically less likely to occur

(Von Hirsch et al. [1999](#); Nagin [2013](#)). Particularly around crime and disorder, when consequences of apprehension are perceived as harsh (imprisonment, fines, etc.), people simply do not want to get caught.

Theoretically, cameras are likely to deter people from noncompliance with rules of conduct. Tilley ([1993](#): 3–5) rightly pointed out that the camera may “fire a number of mechanisms”, but that one prominent preventative mechanism of a cameras is that it “reduces... [noncompliance] by deterring potential offenders who will not wish to risk apprehension and conviction by the evidence captured on videotape or observed by an operator on a screen on which their behavior is shown” (see also Wikström et al. [2012](#) on the conditional relevance of controls). Much like sentient observers, mirrors, or even pictures of eyes, cameras not only make us continuously conscious of the fact that we are being watched, but also drive us to compliance. If we become aware that a video-camera is recording our actions, we may also become more conscious that unacceptable behaviors will be captured on film, and that detection is perceived as certain. “Getting-away” with rule breaking is thus far less conceivable if one is being-videotaped. Cameras can therefore be viewed as “credible threats” (Jervis et al. [1989](#): 3) within the wider context of deterrence messages, which in both self-awareness studies and deterrence studies has largely been missing.

This conceptual appeal of the impact of cameras on human behavior and the possible ramifications of their use on social-control-policies, have led to two primary lines of rigorous research on their effect. These studies collectively seek to understand how cameras can potentially deter rule-breaking behaviors, but each has focused on a different subtype of recording devices: CCTVs and speed-cameras. Both types are meant to trigger the perceptual mechanism of self-awareness. First, CCTV (passive) cameras are placed in public-spaces in order to increase the perceived likelihood of being apprehended by offenders. The available meta-analysis of the evidence from 44 studies on the use of public-area CCTV has shown that the mechanism “works” in principle, insofar as cameras caused a modest (16 %) decrease in crime in experimental areas compared with control areas. However, this overall result was largely driven by the effectiveness of CCTV schemes in car parks, which caused a 51 % decrease in crime (Welsh and Farrington [2009](#)) and not in more serious or violence crimes as these tend not to be deliberative. Second, speed cameras were found to reduce the incidence of speeding, road traffic crashes, injuries and deaths. A meta-analysis of 35 rigorous studies has found that, compared with controls, the relative reduction in the proportion of vehicles speeding was up to 65 % and up to 44 % for fatal and serious injury crashes (Wilson et al. [2010](#)). However, how *body-worn-cameras* may be used to affect behavior and—specifically—that of police officers, is as yet unknown.

Hypotheses

As the literature review suggests, the most ubiquitous type of camera—mobile cameras—have been virtually ignored. What is their effect on self-awareness? Could they promote socially desirable behavior? Can they be used as a social-control mechanism? Although theoretically compelling, research on the link between self-awareness and socially desirable behavior in the context of cameras and police use-of-force is virtually non-existent. The only parallels we can draw are research on how highly-publicized and videotaped police encounters are perceived by the public and the effect that videotaped negative encounters have on police reforms. Such studies indicate that videotaped arrests, for instance, have a negative impact on citizens' perceptions of force used by police during such arrest situations (Jefferis et al. 1997). Similarly, the Rodney King incident has led to significant reforms in the Los Angeles Police Department (Levenson 1993).

Notwithstanding the lack of direct research, we hypothesize that portable cameras would go beyond the limited impact that CCTV has had on expressive acts of public violence. We believe that the reason CCTV cameras were found to be weak modifiers of offenders' behavior is because the level of certainty of being apprehended necessary for the self-awareness mechanism to trigger, leading to socially-desirable behavior, is not high enough in CCTV. If cameras are expected to influence behavior and to serve as cues that social norms or legal rules must be followed, then the cue “dosage” of awareness must be high. Mobile cameras, and specifically body-worn-cameras, are likely to have this effect. They are directly observable by the parties to an encounter whilst conveying a straightforward, pragmatic message (“*you are being watched, videotaped and expected to follow the rules*”), and they can almost guarantee apprehension for socially undesirable behavior, if that behavior is recorded.

Perhaps equally important is that mobile cameras can work on both sides of the police—public interaction—the police officer and the suspect. Put differently, because the camera is actually worn by one of the actors in the exchange, it acts as a neutral third eye, impacting both players' psyches. Cameras are thus likely to have a “self-awareness effect” that would both deter the police officer from reacting with excessive or unnecessary force, and cool down the “aggressive demeanor” of the suspect (or deter the police from interpreting demeanor in this way). In part, this is due to the “announcement effects” of surveillance (see Surette 2005). Signage advertising the presence of camera surveillance is a factor that constrains behavior, which is pertinent in CCTV, gunshot detection technologies and the red light traffic camera literature (see Ratcliffe 2007). Assuming such situations are conducted deliberately (thoughtfully) at least some of the time, neither the police officer nor the suspect want to get caught engaging in a socially undesirable behavior that may have costly consequences.⁴ Because the encounter is captured on tape, it makes both parties more accountable, which is likely to reduce the likelihood of unwarranted levels of force—including “use of excessive force”, “unnecessary use-of-force”, and certainly “abusive use-of-force”—indeed, arguably, *any* kind of force.

Therefore, cameras sit well (though not without some reservations, explored later on) with all three major approaches to explaining use-of-force. First, cameras confront situational dynamics that precipitate suspects' "negative actions" that could potentially lead to "force reaction" by police officers. Cameras also "force" the officer to endure stressful situations and arguably accept some forms of disrespect that without the cameras he or she would normally not. Lastly, even police subcultures of acceptable but illegitimate force responses are likely to be affected by the cameras, because misconduct cannot go undetected. In essence an external set of behavioral norms is being applied and enforced. Police–public encounters become more transparent and the curtain of silence that protects misconduct can more easily be unveiled, which makes misconduct less likely.

In summary, deterrence theory *presupposes* that effective deterrence requires self-consciousness of being observed. When the perceived probability-of-apprehension is high, unacceptable behavior is less likely to occur. But the actualization of this awareness has rarely been investigated (*cf.* Nagin [2013](#)). Across various disciplines, research has yet to unravel the threshold of cognitive attentiveness under which socially-undesirable behavior will not take place. Body-worn-cameras offer a neat solution to this problem because the certainty of apprehension for such behavior is apparent when the cameras are on. It follows that we can directly measure deterrence when the certainty-of-getting-caught for noncompliance is greatly intensified, if not guaranteed. Cameras can sensitize individuals to being watched and can therefore elicit desirable behavior. Thus, cameras are hypothesized to reduce the number of incidents of use-of-force, as well as the number of citizens' complaints lodged against officers.

Methods

Research Settings

We tested the effect of body-worn-cameras on incidents of use-of-force and citizens' complaints against the police in a randomized-controlled field-trial in Rialto, California. Rialto Police is a mid-sized department that has jurisdiction over 28.5 square-miles and services a population of 100,000 residents. The department employs 115 sworn police officers and 42 non-sworn personnel who deal with approximately 3,000 property and 500 violent crimes per year. In 2009–2011, the department dealt with six to seven homicides per year, which is nearly 50 % higher than the US national rate per 100,000.

The entire population of Rialto Police Department frontline officers participated in the experiment ($n = 54$), though we consider the shift to be the unit-of-analysis (see below). Frontline officers work 7 days per week, in six shifts of 12 h per-day, or a total 2,038 officer shift-hours per week. Each shift consists of approximately ten armed

officers who patrol the streets of Rialto and interact with offenders, victims, witnesses and members of the public. When officers were assigned to treatment conditions (see below), they were instructed to “wear” HD cameras, which would then record all of these interactions, both visually and aurally, throughout the entire shift.

“Police Shift” as the Unit of Analysis

The unit of analysis we have utilized in this study is the officer’s shift. Our choice poses a great deal of reservation on a number of fronts, which deserve scrutiny. However, given the rule of *maximin*, our unit of interest poses the best possible option, given the circumstances.

Ideally, we would have randomly allocated half the officers to treatment (wearing the cameras) and half to control (not wearing the cameras). This approach would have made individual officers the unit of analysis. However, assigning individuals proved impossible for several practical as well as methodological reasons. First, Rialto officers patrol in revolving teams and whilst patrols are routinely ‘solo’, patrols also occur in pairs or teams. This means that throughout the lifecycle of the study we would have introduced uncontrollable noise that we believed we would not have been able to account for when analyzing the results. A related problem is that while the “combinations of officers” constantly changes, some officers have shifts they prefer to work. Some opt for late shifts while others prefer to work night shifts. We could have potentially randomly allocated individual officers within two statistical blocks of shift type, but there was no theory behind this procedure that would have made the blocking efficient (see Ariel and Farrington [2014](#)). Moreover, these shift patterns change over the course of a year—particularly when new recruits join the force and more experienced officers are assigned to mentor them.

Methodologically, planning a treatment group of 27 experimental and 27 control officers would have resulted in an underpowered study. Statistical power was defined by Cohen ([1988](#)) as the probability of detecting an effect where one exists. Only if we were to estimate that the anticipated effect of cameras is large, around 0.8 in Cohen’s terms (Cohen [1988](#)), with an alpha of .05 and power at 80 %, would $n = 54$ suffice. Therefore, we were reluctant to “design a study doomed to failure” (Clarke and Weisburd [1994](#): 179), solely due to an insufficient sample size.

Instead, the unit of interest in this experiment is the patrol shift. Using the shift sits well with police routine operations because tasking, deployment and resourcing revolve around the shift. Shifts are also easy to administer in an experimental context because there are a set number of shifts in any given week, and the number of patrolling officers within every shift is stable and predictable. In most circumstances, the shift entails a new “set” of encounters that are normally unrelated to other encounters in other shifts, so we assumed that each shift is independent of all other shifts. Of course, this assumption is plausible only in terms of the “interactees”, that is the members of the

public that the police come in contact with, not in terms of the police officers,⁵ who may ‘carry the effect’ into the control shifts as well. We return to these issues in the discussion, though we believe that the shifts add an element of randomness to the encounters as well. For example, if officers had been randomly allocated into pairs and then the pairs randomly allocated into experimental and control conditions, one might have asked whether or not there was something in the pair dynamic that might have influenced the outcome. With the switching pairs into shifts—as police officers often do—this dynamic between pairs is randomized as well, thus somewhat mitigating the potential spillover effect.

Procedure, Random Allocation and Statistical Power

Starting on February 13th 2012 and running for 12 months, the experiment consisted of randomly assigning all police shifts to either experimental or control conditions. “Experimental-shifts” consisted of shifts in which officers were assigned to wear high definition (HD) audio-visual recording apparatus (see below). “Control-shifts” consisted of shifts in which officers were instructed not to wear the HD cameras. Integrity of assignment was measured by both measuring the number of “footage-hours” against the assigned shifts as well as dip-sampling dates of footage and monitoring that the officers wore the cameras as assigned.

The experimental procedure is illustrated in Table 1 below. As shown, there are 19 shifts during any given week and the 54 frontline-officers patrol in six teams: Two teams work day shifts, three shifts work nights, and two shifts are cover shifts. Shifts were randomly allocated to treatment and control conditions, using the Cambridge Randomizer (Ariel et al. 2012), on a weekly basis.⁶ In total, we assigned 988 shifts over 12 months into 489 treatment and 499 control conditions. Using *G*Power* (Faul et al. 2007), we estimated a priori that this sample size, with alpha at .05 and power at .80,

would enable detection of a standardized-mean-difference of 0.2 (Cohen 1988).

Table 1

Example of Rialto Police Department patrol patterns random assignments

	Mon	Tue	Wed	Thu	Fri	Sat
Day shift	Exp't	Exp't	Control	Exp't	Exp't	Control
Night shift	Exp't	Control	Control	Exp't	Control	Exp't
Cover shift		Exp't	Control	Control	Control	Control

One concern with experimental assignment is equivalence of treatment and control units. We were not able present an assessment of *baseline* balance, prior to random assignment, as the units of analysis—the shifts—were randomly assigned on a weekly basis over a course of 12 months. Still, in Table 2 we assessed the extent of balance between the number of shifts allocated and days of the week post-randomization,

which were both statistically non-significant.

Table 2

Trial measures by treatment allocation

Day of week	Treatment	Control	Total	Shifts	Treatm
Sunday	63	72	135	Day	189
Monday	78	64	142	Night	169
Tuesday	58	81	139	Cover	141
Wednesday	75	75	150		
Thursday	72	60	132		
Friday	72	76	148		
Saturday	71	71	142		
Total	489	499	988		489
	χ^2 (6) = 6.8845; $p = .332$				χ^2 (2) = 2.57 $p = .276$

Apparatus

We collaborated with *Taser Inc.*© to provide all frontline officers with their HD body-worn-cameras. These body-mounted cameras captured video evidence from the officer’s perspective. Weighing 108 g and small enough to place on the officer’s shirt pocket, the camera systems were affixed to the collar and could always be seen by people who came into contact with the police—although in order to make sure people were aware of cameras, officers informed ‘interactees’ with that they were being videotaped. The units were water resistant, videoed in color, with a battery lasting for at least 12 h, making the apparatus ideal for the shift patterns of Rialto Police. The officers were instructed to have the cameras on during every encounter with members of the public, with the exception of incidents involving sexual assaults of minors and dealing with police informants. All data from the cameras were collated using a web-based computerized video management system developed by *evidence.com*©. The

software tracked and inventoried all *Taser Inc.*© video cameras evidence. The system automatically uploaded the officers' videos at the end of their shifts and the research team was granted full access to these rich data.

Measures

Use-of-Force

Rialto Police Department used a system called *Blue Team* to track “recorded” use-of-force incidents. This standardized tracking system enabled us to count how many reported incidents had occurred during the experimental period in both experimental and control shifts, and to verify the details of the incidents, such as time, date, location, and whether the officer or the suspect initiated the incident. Rialto Police Department records instances of use-of-force, which encompasses physical force that is greater than basic control or “compliance holds”—including the use of (a) OC spray, (b) baton (c) Taser, (d) canine bite or (e) firearm”. These are the *types* of force responses that we considered as eligible use-of-force incidents. We operationalized the “use-of-force” dependent variable as whether or not force was used in a given shift.

We acknowledge that police software cannot “measure” the use-of-force, and that it is nearly always up to the individual officer to account for those incidents where force was used. Given the subjectivity of this variable and the measurement problems we reviewed above, we therefore relied on these official written reports, but not without hesitation.² Specifically in our study, our dependent variable only indicates whether or not force was used, but it does not say “how much” force was used. The “amount” of force used is also up to the officer to write down, as he or she recollects it. For instance, if three police officers use force on one suspect in one event, it would be registered as “one use-of-force.” Because the prevalence data are binary, even if there were one officer but two persons that the one officer used force on, it would still be counted as “one use-of-force” incident. Likewise, the variable does not say for how long the person was stunned with a Taser gun, or how many shots were fired against an aggressive suspect, or how many times he or she was beaten with a baton before lying down on the ground and being handcuffed.

Another limitation is that we did not know from the data which party instigated the use-of-force, which seems to be an important aspect of use-of-force (Engel et al. 2000). For this information, we relied on what the officers had written down (again, in *Blue Team*), but this is not necessarily an objective measure. We were also able to capture information on this question from the videotaped footage, but of course this only covers the experimental arm, not the control shifts. An alternative would have been to systematically observe *all* police–public encounters with research assistants (“ride-alongs”), but this option went well beyond our research budget.

Citizen Complaints

In some ways, complaints compliment data on use-of-force (Pate et al. *1993*). It is common practice for virtually all police agencies to have clear guidelines for citizens to file complaints against officers, though the rates of complaints vary dramatically between different forces. Nevertheless, analysis of departmental and citizens' complaints against police officers was shown to provide somewhat reliable estimates of use-of-force (McCluskey and Terrill *2005*: 513). If this is the case, then we ought to use citizens' complaints as a proxy for incidents of use-of-force—though they can also be used as a measure of police behavior more generally. True, citizens can be very poor judges of what constitutes “force” and particularly so when it comes to excessive force, but these complaints do provide a glimpse into what the public perceives as “force”.

Rialto Police Department tracked complaints against officers with software called *IA-Pro*. Formally, the system records citizens' complaints where the reporting party has filed a grievance for alleged misconduct or what they perceive as poor performance. We used the data captured on this system to count the number of complaints (of any kind) filed against Rialto police officers.

Contacts with the Public

We measured the total number of contacts between the police and the public in each arm. Any non-casual interaction with the public was recorded on the Department's computer-aided dispatch system (CAD). These included attending calls-for-service, formal advices given to individuals, collecting evidence and statements during any type of investigation and the like. With this variable we were able to compute the rate of incidents per 1,000 police–public contacts.

Baseline Data

Table 3 below lists the outcome variables at baseline, up to 3 years prior to the experiment. As shown, use-of-force is a relatively rare event, with approximately 65 incidents per year, or 1.46 incidents for every 1,000 police–public contacts. Similarly, complaints lodged by citizens against police-officers are very infrequent, with 24 grievances filed against officers in the year prior to the experiment (about 0.7 for every 1,000 contacts). Police–public contacts data show that, on average, police officers interacted with members of the public about 3,600 times-per-month, or approximately

42 recorded contacts per shift.

Table 3

Use-of-force, citizens complaints and police–public raw figures—baseline and experimental raw data

	2009 –2010	2010 –2011	2011 –2012	2012 –2013^a
Use-of-force	70	65	67	25 ^b
Complaints	36	51	24	3 ^c
Police–public contacts	— ^d	— ^d	45,104	43,289

^aExperimental period

^b8 during experimental shifts, 17 during control shifts (n = 499)

^c2 during experimental shifts, 1 during control shifts (n = 489)

^dData automatically collected starting in 2011

Statistical Procedure

We employed three analytical approaches to analyze the outcomes. First, we used a Poisson model to assess differences between experimental and control groups. Group assignment (“experimental shifts” [0]/“control shifts” [1]) was set as an explanatory variable, and the dependent variable was whether or not use-of-force occurred.⁸ Second, for each outcome variable, we assessed the standardized mean difference for the rates of use-of-force incidents per shift. Third, we observed the number of use-of-force incidents and citizens’ complaints that were recorded prior to the experiment and compared them to the figures during the year of the experiment, in order to enrich the analysis. This quasi-experimental approach was used in order to indicate how the *entire* police organization responded to wearing the cameras; assessing the city-wide impact of the trial by comparing the data before and after the implementation of body-worn-cameras.

Results

Use-of-Force

During the experimental period a total of 25 incidents of police use-of-force were recorded by Rialto Police Department, of which 17 occurred during control shifts and 8 during experimental shifts. These represent a mean rate of 0.78 and 0.33 incidents per 1,000 police–public contacts, respectively. Results from the Poisson model suggest a treatment effect on use-of-force {IRR = 2.08; [95 % CI .91–4.78]}² meaning that the incident rate in the control condition is roughly twice that of the control condition (Table 4). Similarly, when we measure the magnitude of the difference in terms of rates per 1,000 encounters (dividing the number of incidents by the total number of contacts in each arm of the experiment), the effect size was statistically significant {SMD = 0.140; [95 % CI .015–.265]}.

Table 4

Generalized linear model with Poisson distribution and log link for use-of-force (n = 988)

	Parameter estimates			
	IRR	Robust SE	95 % CI	
			Lower	Upper
Phase	2.082 [†]	.883	0.907	2.082
(Intercept)	0.016	.006	0.008	0.016

[†] $p \leq .10$; * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

We have also detected large before-after reductions in prevalence of incidents of use-of-force force (see Table 3; Fig. 1): 64.3 % reduction from 2009, 61.5 % from 2010, and 58.3 % from 2011, with a significant before-after effect based on the interrupted time series model (Table 5) (the ARIMA model parameter for the phase of intervention is -3.50 (SE = 0.689); $p \leq .001$).

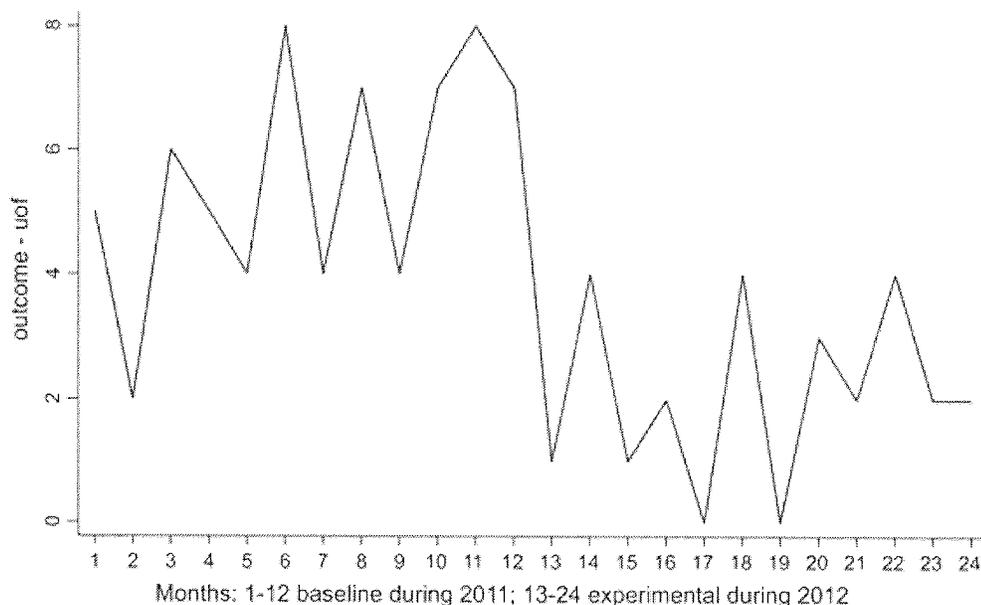


Fig. 1

Time series *line plot* for number of use-of-force incidents over 24 months (12 months pre-intervention; 12 months during intervention)

Table 5

Time series ARIMA model for use-of-force before/during experimental period ($t = 24$)

	Parameter estimates			
	<i>B</i>	OPG SE	95 % CI	
			Lower	Upper
Phase	-3.5***	.689	-4.850	-2.150
(Intercept)	5.583	.427	4.747	6.420

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Citizens' Complaints

In terms of complaints against officers, the between-groups treatment effect was not statistically significant,¹⁰ largely because of the overall low occurrence in *both* treatment and control conditions. We observed only three complaints in total—one complaint lodged for an incident that occurred during control conditions and two for

incidents that occurred during treatment conditions (all three occurred in August and September). We did, however, observe a significant, overall reduction of citizens' complaints, from 24 complaints filed in the 12 months before the trial to three during the trial period. The raw year-to-year reductions (Fig. 2) suggest 92 % fewer cases compared to 2009, 94 % compared to 2010, and 88 % compared to 2011—or 0.7 complaints per 1,000 contacts to 0.07 per 1,000 contacts. These reductions are mirrored by the interrupted time series model (Table 6), which resulted in a significant estimated parameter for the experimental phase of $(-1.750; SE = .665; p < 0.01)$.

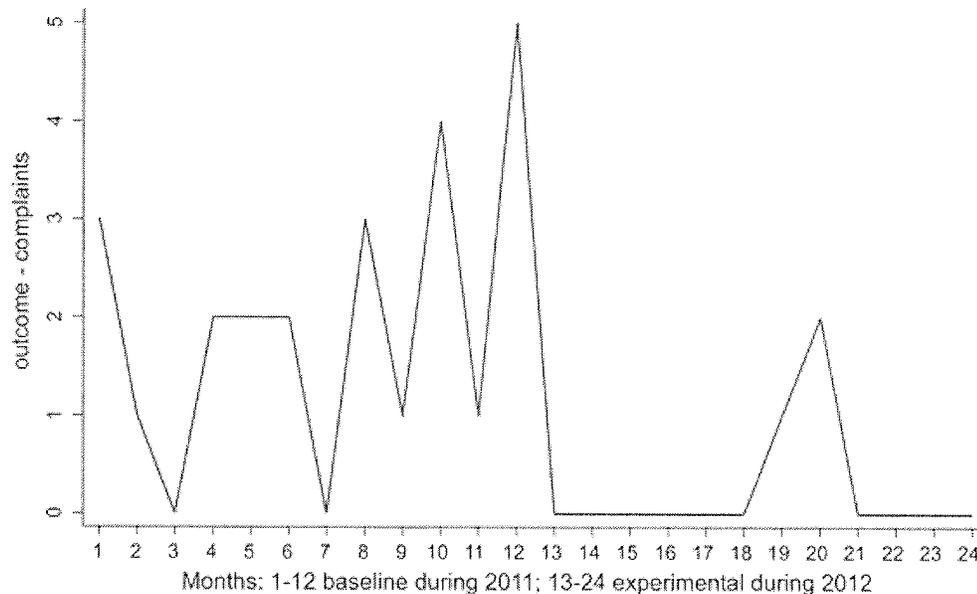


Fig. 2

Time series *line plot* for number of complaints over 24 months (12 months pre-intervention; 12 months during intervention)

Table 6Time series ARIMA Model for complaints before/during experimental period ($t = 24$)

	Parameter estimates			
	<i>B</i>	OPG SE	95 % CI	
			Lower	Upper
Phase	-1.75**	.665	-3.053	-.447
(Intercept)	2	.265	1.481	2.519

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Discussion

In this experiment we tested, for the first time, the effect of mobile cameras on police use-of-force and citizens' complaints. The outcomes suggest a reduction in the total number of incidents of use-of-force in experimental conditions compared to control conditions. We have also observed nearly ten times more citizens' complaints in the 12-months prior to the experiment, compared to any of the 3 years prior to the experiment. In practical terms, the study provides law enforcement agencies with a methodology that may substantially reduce force responses, as well as reducing the incidence of complaints. This behavioral modification may be of real practical significance to the police, especially given the cost-to-benefit ratios (which we will present below). We therefore envisage that body-worn-cameras may noticeably affect police–public encounters. We acknowledge that this may pose ethical concerns, which we discuss below, but we believe that, on average, the benefits of using body-worn-cameras may outweigh the costs. (Issues that warrant further attention are whether using cameras reduces the likelihood of victims actually reporting crimes, and broader questions about victims' rights and procedural practice.)

The findings have implications, more broadly, for deterrence theory. Generally speaking, the proposition that videotaped police–public interactions “experience” fewer incidents of use-of-force seems to be supported by the evidence. We interpret this to reflect a fundamental tendency of humans to exhibit more desirable behaviors when they know they are under surveillance and subject to rules, but we acknowledge that even this will vary depending on the situation (see Wikström et al. [2012](#)).

Our study, as far as we can tell, is the first to use the shift as the unit of experimental analysis. Using police shifts has its disadvantages, but on the other hand the benefits should not be overlooked. There are clearly more shifts than police officers, which increases the statistical power of any test. Here, instead of 54 officers split into treatment and control conditions, we have had 988 shifts, which we estimated using power analyses to be sufficient in order to detect even relatively small effects (Cohen 1988; Faul et al. 2007). To be sure, many studies in criminology are believed to be underpowered, thus potentially concluding that treatments do not work when in fact they do work (Weisburd et al. 2001; Ariel 2009). Therefore, using shifts allows researchers to increase power without prolonging the study period or increasing the number of cases.

What deserves consideration, however, is the potential spillover effect that cameras have had on officers' behavior during *control shifts*. The reduction in use-of-force, coupled with a reduction in citizens' complaints, was registered across both study arms, which suggests that the effect of being observed during experimental shifts diffused to control shifts. These findings present conceptual as well as methodological challenges: How should the spillover be handled, and what is the right way to interpret these patterns? Answering these questions may also provide a better understanding of what future research avenues in this area might look like.

Just Another Hawthorne Effect?

Somewhat crudely, we could argue that it is difficult to attribute the reduction in both use-of-force and complaints to anything *but* the effect of the cameras. We would argue that cameras have modified the perception of individuals about what socially acceptable behavior *should* be in police–public interactions and, in turn, they have changed their responses even when officers did not wear the cameras. Critically, however, we must accept the possibility that the effect may have followed from either Hawthorne/John Henry (Saretsky 1972) effects or reporting artifacts. At least for reporting bias, it seems that we do not have a way to address this problem under the current research settings. One method would be to contact *every* individual that has interacted with the police during the study period, and survey his or her views on the encounter. But this approach only minimally addresses the (non-) reporting bias, as we have no objective way to ascertain that the recorded police–public encounters represent the entire population of encounters.

In terms of the Hawthorne and John Henry effects, we acknowledge that interference risks potentially characterize our study. As laid out by Sampson (2010: 492), Rubin (1990: 282), Cox (1958) Holland (1986) and others, the “stable-unit-treatment-value assumption” (SUTVA) may be a real threat to experiments and specifically for the reach of our conclusions. SUTVA refers to situations where dependency exists between the units in an experiment. In other words, units (and their outcomes) are not independent of one another. Violations of SUTVA create difficulties in making causal claims about

the relationship between the manipulation and the dependent variable. If ignored, SUTVA violations have the possibility of adding bias to estimated treatment effects, and the bias can go in either a positive or negative direction (Alvarez and Sinclair 2009: 3). Here, the same participants, all of whom were participating in the same program, experienced both treatment and control conditions. This means that we cannot rule out interference and there may be a spillover of treatment effect to control and within treatment units. In fact, a large body of knowledge in criminology is clearly suggestive of social processes that could explain the reduction in use-of-force beyond the manipulation—peer pressure, social desirability, deterrence, leadership, perceptions of danger and crowd influence are only some of the micro-social elements that could lead officers to control or not control themselves.

On the one hand, treatment contamination such as in the case of SUTVA ‘simply’ makes it more difficult to detect a significant effect. If control cases are also treated (or, vice versa, when treatment cases are not treated), then in practice the crossover merely would require the treatment to exert a stronger effect in order to be observed, above and beyond the noise created by the violation. Therefore, if a significant outcome is detected even with SUTVA violations, then essentially it can be argued that the treatment is nevertheless still effective. The trouble is that there is currently no statistical fix for SUTVA violations (Berk 2005: 7; Sampson 2010) and we cannot “solve” the SUTVA problem with statistical modeling (Berk 2005). However, we can try to specify how it actually occurs and supplement the main analyses with additional observations that can, to some extent, address the SUTVA violations in the context of the cameras treatment effect. Let us first go back to our research question: what is the effect of cameras on use-of-force? Does being observed (with a camera) elicit socially acceptable responses? Now let us return to the Hawthorne bias: changing participants’ behavior because they are being observed, despite any treatment effect (work environment, etc.). When considered this way, it looks like the hypothesis and the observer bias are very similar. If the causal mechanism behind the body-worn-cameras is the observer effect, then more than anything else, we manipulated a “Hawthorne treatment” under controlled settings, thus concurring with previous research on the effect of focused attention on outcomes. Similarly, the John Henry effect may actually be construed as a positive outcome under these settings, as well. “Members” of the control group were fully cognizant of their status as members and were able to compare their performance with that of the treatment group, and it seems that they attempted to overcome the “disadvantage” of being in the control group by “behaving” themselves while *not* on film. Therefore, if our interpretation is reasonable, the study provides direct evidence on how repeated and systematic exposure to a stimulus that elicits deterrence can change behavior, even when the stimulus has vanished. Put differently, this is learning: it seems that people learn, by their exposure to observation, of what normative or appropriate reactions are, *even when they are not under surveillance anymore*. That both John Henry and Hawthorne effects may be in play simultaneously and we still find differences suggests that the effect of body-worn cameras may be much stronger under ‘cleaner’ randomisation designs.

Still, SUTVA is not just about observer's bias and there may be other mechanisms in place that cause interference, some of which we have listed above. Because the unit of analysis was the shift, we can think of a number of officer-based variables, for example, that might explain the change in behavior. Some officers have "thick skins" and would not respond with "too much force" to a resisting suspect. Others are more sensitive and would subdue such a suspect with "more force". The "amount of response" to such demeanor seems largely dependent on the cognitive and emotional capacities, as well as the training and experience of the officer (see Paoline and Terrill [2011](#)). Therefore, if the same officer is in the habit of responding with a particular "response dosage" to certain police–public interactions, then it is likely that he or she would spill-over such reaction between the study units—that is, from one encounter to the next.¹² We invite future research to look more closely into this possibility.

Estimating the Costs and Benefits of Body-Worn-Cameras

Combining costs data from the experiment with figures from Finn ([2001](#)), the Minneapolis Civilian Review Authority ([1997](#)), Walker et al. ([2002](#)) and Metropolitan Police court settlements (BBC, 11th May [2012](#)) we have crudely estimated the dollar benefit-cost ratio to be approximately 4:1 (details available as a supplement to this article).¹² That said, there are wider social and ethical costs to using these cameras. If body-worn-cameras become common practice, it means more electronic surveillance, more digitized tagging of individuals, and more challenges to privacy rights. This was certainly the argument against CCTV, as there are clear ethical considerations to having a data storage policy that routinely collects data on citizens in the public domain (Brey [2004](#); Spinello and Tavani [2004](#); Duff and Marshall [2000](#)). CCTV surveillance captures the routine behavior of citizens whose consent is not obtained prior to their being observed and is now so much a fabric of life as to be 'banal' (Goold et al. [2013](#)). Whilst the moral argument against CCTV is not of the same scope and magnitude when it comes to police body-worn-cameras, it is an open question as to whether police–public encounters should be routinely filmed and what threats to rights this practice might represent.¹² Victims and witnesses might expect that their communication with officers of the law is well-documented (beyond contemporaneous note-taking by police). Either way, one area that body-worn-cameras might be a tool to potentially improve the quality of interaction is when police encounter members of minority groups, particularly if officers are more mindful of the need procedural fairness and to be respectful (Tyler [2001](#)). If the "legitimacy benefits" associated with wearing cameras—economically, socially, and culturally—exceed the "costs" of the cameras, we sense that body-worn-videos will become increasingly popular amongst officers.

On the other hand, future research should be mindful of at least two "prices" that are presently unclear. First, what are the direct and indirect costs of storing, sharing and managing digital evidence? The velocity and volume of data accumulating in police

departments—even if only a fraction of the number of recorded events turn into “downloadable” recordings for evidentiary purposes—will exponentially grow over time. User licenses, storage space, “security costs”, maintenance and system upgrades can potentially translate into billions of dollars worldwide (see Grossman 2009; Nambiar et al. 2014).

Second, the cost of *not* having video footage may have direct implications on decisions to prosecute or criminal proceedings more generally. Historically, evidence given by police officers in court against defendants—particularly testimonies of response officers—carried tremendous weight. The officer was able to characterize the suspect’s demeanor, explain what was in the scene of crime and provide overall crucial details pertaining to the case. To a large degree, the assumption of credibility is generally made by the courts, unless challenged by the defendant. Yet it is very likely that defense attorneys, judges, the jury and the public as a whole would steadfastly assign more weight to digital evidence, arguably even more than officers’ testimonies. This may be viewed as a “good” thing, yet it has indirect but important costs on policing: would district attorneys in domestic violence cases be reluctant to prosecute when there is no evidence from body-worn-videos to corroborate the testimony of the officer (or even the victim)? Would cases be dismissed if arrests or stop-and-frisk were conducted without a body-worn-video, given the possible violation of human rights (i.e., a similar approach as the Miranda warning)? Will officers’ credibility in court be assumed to be violated *ex ante* when police–public encounters are not recorded? These are substantial effects that future research should be mindful to explore, that can potentially offset the benefits of body-worn-videos.

Research Limitations

Thus far we have ignored how cameras affected the citizens the police came into contact with, meaning that our analyses do not directly address the demeanor hypothesis. However, we have found that, at least as officially recorded by the police (bearing in mind caveats associated with this data source), it is nearly always the case that officers *responded* with force and did not initiate the force response. We have also found that alcohol is a factor in more than half of all cases of use-of-force, which merits further attention in future research (see supplementary material). More broadly, we do not know on which party in an encounter the cameras have had an effect on, or how the two effects—on officers and on suspects—interact. This means that the estimated causal effect on officers’ use-of-force conflates these mechanisms: Do cameras affect the conduct of suspects, which then moderates the need of officers to react with force to such behavior? Or do cameras affect the conduct of officers, who might have otherwise acted with unnecessary or excessive force *regardless* of the suspects’ demeanor? Does it have a double effect?

Nevertheless, while it is difficult to isolate the mechanism in play, we can at least suggest that cameras have affected the overall result of police–citizen encounters.

Whether police use-of-force—justified or unwarranted, excessive or proportional, reasonable or unreasonable—is a function of suspects’ demeanor, or whether it is caused by unprofessional or inexperienced officers, the *circumstances* in which use-of-force occurred have changed, and resulted in what can be interpreted as a socially desirable response: force-free police–public encounters. “Human beings are norm users,” MacCormick (2007: 20) reminds us, “whose interactions with each other depend on mutually recognizable patterns that can be articulated in terms of right versus wrong conduct, or of what one ought to do in certain settings.” Simply put, the cameras communicated the deterrence message, through self-awareness of being observed, that the acceptable behavioral response in a given situation was not one of force. In short, whether they affected officers, citizens, or both, body-worn-cameras resulted in less force.

On the other hand, our unique research settings cannot be overlooked. Rialto, after all, is a small force with a dedicated Chief who has directly managed the experiment. This model may work well in a relatively limited force and when the “pracademic” (practitioner-academic) involved in the study is the director/chief of police, but the effect of body-worn videos may not work in the same way when the pracademic is less influential in the organization. More research is therefore needed to replicate our design in larger forces and different organizational frameworks, when a middle-level manager is directly involved in the daily affairs of the experiment (see Strang 2012)—which is a more likely context in larger police departments involved in randomized controlled trials or field research more broadly.

Finally, there is something to be said about treatment fidelity. For the purposes of this experiment *every* crime type and virtually all encounters between the police and the public were assigned to recording as well as to a verbal notification by officers that the encounter is videotaped. Yet we do not know how well the requirements were implemented, and it is difficult to estimate the fidelity of the intervention. There are three areas however that future research should focus on in order to assess the implementation of treatments with finer integrity: first, by measuring the number of video uploads/downloads during *control* condition, researchers would be able to ascertain whether violations of control conditions were made, and in which cases. As far as we can tell, contemporary back-office digital storage systems (cloud-based or stand-alone) can enumerate all recorded events by timestamps, and so violations of control conditions can be accurately and systematically measured—hopefully *during* the experimental period in order to confront these violations and deal with them as they occur, not *ex post facto* in the analysis stage. However, estimating the violations of treatment assignment—that is, when cameras are assigned but are *not used*—is trickier and proxies should be used instead. Ride-a-longs, surprise visits and dip sample interviews with victims or suspects, asking them whether they recall the officers wearing body-worn-videos or not, are equally useful, but they would provide estimates rather than a comprehensive approach to tracking random assignment fidelity (see Sherman 2013). Nevertheless, measuring the implementation is undoubtedly crucial in

order to understand the effect of wearing body-cameras—especially in studies that would provide officers the power of discretion about when to use the devices.¹⁴

Conclusion

Regardless of the reason for the contact—initiated by the member of the public, or involuntary and initiated by the police—when members of the public sense they have had a “bad experience” during the encounter, they are nearly 15 times more likely to evaluate the police negatively—and this negative attitude translates into complaints (Skogan 2006; see also Rosenbaum et al. 2005; Hinds 2009). Similarly, the use-of-force by police, particularly if excessive, has a lasting effect on public perceptions of police and police-community relations. Finding ways to ameliorate these two negative outcomes was the driver for the present study. We have reported results from the first trial in the world to assess the effects of police body-worn-cameras on use-of-force and complaints against the police. To handle the small number of officers in Rialto Police, we took the innovative approach of randomizing police shifts to treatment and control conditions. Based on evidence collected in this randomized controlled field trial, our findings suggest that police body-worn-cameras reduce the prevalence of use-of-force by the police as well as the incidence of citizens’ complaints against the police. However, this is but one experiment and before this policy is considered more widely, police forces, governments and researchers should invest further time and effort in replicating these findings.

Footnotes

¹ Notably, many agencies are moving away from a use of force continuum, making the force determination even more ambiguous.

² For a more systematic account of rates and prevalence, see Adams (1996:85–91), see also Hickman et al. (2009) who estimate, based on three dozen recent publications, that police use or threaten to use force in 1.7 % of all contacts and in 20.0 % of all arrests; but cf. Garner et al (2002) who found that prevalence can increase to more than 58 % of police–public encounters.

³ Though not without reservations about the utilization of complaint data as a single outcome measure, as complaints produce low substantiation rates—frequently 10 % or less (Liederbach et al. 2008).

4 It is worth noting recent research that suggests that both internal and external controls are conditionally relevant and depend, in part, on the extent to which individuals deliberate (see Wikström et al. 2012).

5 Similarly, officers regularly encounter ‘the usual suspects’ on patrol, meaning that there is some dependence between shifts in terms of “interactees”. Other research (e.g. Wikström et al. 2012) would suggest that even with variations in ‘actors’, there may be stable environmental cues that are conducive to specific actions, but the use of force by police still depends on the interaction between individuals and their settings (the situation).

6 We acknowledge that prior knowledge of shift assignment might give rise to expectation effects—so that we would not know whether changes in behavior arise directly because of the presence of a camera, or anticipation of wearing a camera.

7 As noted by Adams (1996:65), “although there are many attractive reasons for using official records in research on [use of] force, the strategy is not without limitations... some concerns are based on practical issues of how the data are collected...the quality of data (e.g., accuracy, dependability, and coverage)...can influence counts dramatically...more significant problem is that of missing data or information that should be available in record-keeping systems but is not.”

8 Poisson is appropriate here because each event has a small probability in each shift, and there are many shifts.

9 Note that we have reverse coded the treatment conditions so that 1 = control and 0 = treatment, meaning that ratios reflect the incident rate of the outcome occurring for the control condition versus the incident rate of the outcome occurring in the treatment condition.

10 Results not shown in tabular form, but given here: {B = -0.713; [95 % CI -3.112 to 1.685]; p .560}.

11 As Aristotle observed: “*We are what we repeatedly do*”.

12 One benefit which we have overlooked but should be closely observed in the future is the “training potential” of body-worn-videos. Rialto officers downloaded their own footage in order to view their interactions on a routine basis. Much like surgery, football or acting, the footage recorded by police body-worn-videos can be used to “coach” police officers, about how they conduct themselves. We envisage future police training to incorporate one-on-one sessions in which junior officers train with their own footage, about police conduct and potentially improve their demeanor when

dealing with suspects, victims and witnesses. The benefits associated with such an impactful evidence-based approach to training through digital coaching, for procedural justice, distributive justice and police conduct more generally, should be an area of future investigations.

¹³ If we assume that all members of public encountered by the police are ‘criminals’ then it might well be justifiable, but this is obviously untrue.

¹⁴ We argue that experiments that allow treatment-providers full discretion about when to give or not to deliver the treatment(s)—and with what dosage levels—are generally poor designs. If the study results in non-significant outcomes, then it would be very difficult to interpret the findings—are they due to fidelity failure or that the treatment ‘actually’ do not work in the hypothesized direction? Moreover, even if the study results in significant results, the magnitude of the treatment compared to control conditions would be either inflated or deflated and therefore misleading, depending on how the treatment-providers decided to contaminate the treatment delivery. These scenarios may have adverse impacts for any attempt of conducting reliable cost-benefit analyses, or at the very least force researchers to dabble in conversions, transformations and statistical corrections which may or may not work—but anyway take away from the ‘cleanliness’ of controlled experimental design. We are cognizant that in real-life, non-experimental settings police officers may end up owning the power of discretion when to use or not use body-worn-videos, yet at this stage of our knowledge on the potential effect of these novel devices, experimentalists should encourage the use of strict protocols with as little discretionary powers as possible, before making policy recommendations.

Acknowledgments

We wish to alphabetically thank Badi Hasisi, Daniel Nagin, David Weisburd, Joel Garner, Justice Tankebe, Lawrence Sherman, Neil Wain, Phillip Dawid and the anonymous reviewers of earlier drafts of this manuscript for their tremendously helpful comments. Funding for this research was granted by Rialto Police and the Jerry Lee Centre of Experimental Criminology.

Electronic supplementary material

Below is the link to the electronic supplementary material.

 *Supplementary material 1 (DOCX 19 kb)*

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