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Research Report

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Independent Assessment of the ICE Body-Worn Camera Pilot Program

Congress directed U.S. Immigration and Customs Enforcement (ICE) to complete a pilot program to determine the feasibility of the use of body-worn cameras (BWCs) (U.S. House of Representatives, 2020). In response to this direction, ICE completed a pilot program for personnel assigned to Homeland Security Investigations (HSI) special response teams (SRTs) and Enforcement and Removal Operations (ERO) Fugitive Operations and SRTs.[1] During the pilot, ICE assigned personnel at seven pilot sites—four HSI SRT and three ERO sites—to wear and provide feedback on BWCs for six months.[2] The HSI units were the first to complete the pilot. The ERO implementation was delayed because of labor negotiations, but ERO officers did attend training sessions in 2022 where they provided feedback on their experiences. Homeland Security Operational Analysis Center (HSOAC) researchers agreed to provide an independent assessment of the BWC pilot program to better understand issues related to (1) trust and transparency, (2) user adoption and effectiveness, (3) implementation, and (4) the efficacy of the technology.

This report presents the public, non–law enforcement sensitive results of the ICE BWC assessment. In it, we review the findings resulting

KEY FINDINGS

- In general, the team identified no critical issues that would preclude ICE from proceeding with further development and procurement of BWCs.
- Key outcome metrics for this study include those measuring use of force and complaints against officers. Although there were not significant reductions in uses of force or complaints observed for those wearing BWCs, there were also no significant increases in these outcomes. The pilot units had very low rates of use of force and complaints, so the study would have needed many thousands of operations to detect statistical decreases, many more than the hundreds that occurred during the pilot.
- Also of interest are cases in which BWC footage was instrumental in proving or disproving complaints. In interviews, users frequently described disproving inaccurate complaints as one of the biggest potential benefits of BWCs. During the pilot, there was one case in which BWC footage disproved a safety allegation made against one of the pilot units.
- Some personnel expressed high levels of concern that sensitive tactical or personally identifiable information could be made public, including to criminal organizations, through disclosure of video footage via legal discovery or Freedom of Information Act (FOIA) processes. ICE needs to ensure that there are policies, procedures, and training provisions that protect against the improper release of tactical and personally identifiable information data. These provisions need to include working with external partners that receive footage to ensure that any sensitive information revealed is protected.

from our mixed-methods analysis, which collected and analyzed data from BWCs and observed BWCs in training and operational environments with pilot participants. The analysis was supplemented by data and observations collected by ICE and analyzed by the HSOAC team. The resulting findings and recommendations cover a comprehensive variety of topics, including benefits and risks, human factors, policy and training considerations, and considerations for future ICE BWC procurement.

Background

According to the Bureau of Justice Statistics' *Body-Worn Cameras in Law Enforcement Agencies, 2016,* 47 percent of general-purpose law enforcement agencies in the United States had acquired BWCs by 2016 (Hyland, 2018). Primary reasons for these acquisitions were to (1) improve officer safety, (2) increase evidence quality, (3) reduce civilian complaints, and (4) reduce agency liability. By 2021, only seven states had mandated BWCs for their law enforcement agencies, although others have passed legislation to fund their use and set specifications for their acquisition and deployment (National Conference of State Legislatures, 2021). Notwithstanding the issues to acquire, deploy, or manage BWC processes, the public strongly favors BWC use by law enforcement nationally, with a 2017 survey finding 93 percent of the public support their use (versus 66 percent of officers) (Morin et al., 2017).

Abbreviations

BWC	body-worn camera
ERO	Enforcement and Removal Operations
FOIA	Freedom of Information Act
HSI	Homeland Security Investigations
HSOAC	Homeland Security Operational Analysis Center
ICE	U.S. Immigration and Customs Enforcement
OFTP	Office of Firearms and Tactical Programs
SRT	special response team
SWAT	special weapons and tactics
VMS	video management system

The adoption of BWCs in policing has been driven by public protests, community concerns, and the emergence of mobile video technologies that allow officers to wear them in a low-information environment where researchers are only beginning to develop knowledge about the effects of their use (Lum, Koper, Merola, et al., 2015). There have been experimental and quasiexperimental studies of the outcomes of BWC versus non-BWC police contacts, the ways it has or has not altered an officer's behavior, and how it has or has not lessened the frequency of inappropriate uses of force (Ariel, Farrar, and Sutherland, 2015; Braga et al., 2018). By 2020, there were more than 30 studies examining officer perceptions of BWCs, with a variety of methods employed to capture their data (Gaub et al., 2020).

Equipping law enforcement officers with a means of capturing their conduct, especially in instances in which persons are arrested or force is used, is viewed as a means to lessen the frequency of unnecessary uses of force, especially lethal force (Lum, 2021; Hyland, 2018; White, 2014). The hope is also that court proceedings and administrative investigations of an officer's conduct would be greatly assisted by having an objective visual and audio recording of the police as they performed their duties (Ariel, Farrar, and Sutherland, 2015). An early study of BWCs conducted in Rialto, California, in 2012 resulted in dramatic reductions in police use of force and citizens' complaints of misconduct for the experimental group of officers equipped with BWCs (Ariel, Farrar, and Sutherland, 2015). The outcomes of that study suggested that the use of BWCs caused an approximate 50-percent reduction in police force and more than a 90-percent reduction in complaints lodged against officers (Sutherland et al., 2017). There is further research supporting the belief that BWCs can lead to fewer instances of police use of force and a reduction in complaints against officers, although BWC programs are expensive to deploy and maintain (Police Executive Research Forum, 2018).

In spite of the rapid adoption and expansion of the use of BWCs by the police, there is uncertainty about whether their use reduces police use of force or affects police–citizen interactions in desired ways. A 2020 meta-analysis of the impacts of BWCs found a wide variety of reported effects on complaints

and uses of force, with the overall effects not being statistically significant (Lum, Koper, Wilson, et al., 2020). However, a recent update to this meta-analysis reflecting several additional evaluations, provides estimates of a 16.9-percent reduction in complaints (confidence interval of –28.2 percent to –3.8 percent) and a 9.6-percent reduction in police uses of force (confidence interval of –21.3 percent to +3.8 percent) (Williams et al., 2021).

ICE law enforcement units generally do not carry out standard patrol operations like most local and state police do. Instead, they are closer to specialty police units. Several studies focused on BWC use in specialty units. The first is a series of three studies by Gaub, Todak, and White (2017, 2020, 2021) and the second is a study by Wy, Gaub, and Koen (2021).

In Gaub, Todak, and White (2017), the authors conducted focus groups of three to six participants. The focus groups found that officers in specialty units discussed the usefulness of the evidentiary value of BWCs and the usefulness of documenting conversations and citizen behavior to protect against false allegations. However, the most significant finding was a perceived benefit of the ability to use BWC footage to facilitate more-accurate report writing. Supervisors explained that they also use BWC footage to determine the validity of citizen complaints. Specialty unit officers noted that the evidentiary benefits were pronounced because of the unique nature of their work.

Wy, Gaub, and Koen (2021) reports the results of semistructured interviews with 39 specialty unit officers in two agencies in 2015 and 2018. The specialty units included traffic, K9, tactical, SWAT, patrol anticrime teams, and special event units. The authors found that some of the reported experiences were like those described by patrol officers, with some important differences. They found two primary areas of concern discussed by interviewees: the cost and benefits of BWCs and the public and private consequences of their use. Specialty unit officers also thought of the BWC use in a context that differed from those in which patrol officers operated, with more-specific work objectives being discussed (e.g., the evidentiary value of BWC footage to further an investigation).

There is recent recognition that specialty units (e.g., K9, gang, SWAT, investigations, bicycle, mounted, traffic) could be affected differently from how their typical patrol counterparts were affected (Gaub, Todak, and White, 2020; Gaub, Todak, and White, 2021). For instance, specialty units are known to have greater rates of use of force and often operate in locations, in situations, or with individuals who pose greater risk. As a result, some of the findings that apply to patrol officers might not apply to specialty units. Still, qualitative research with officers in specialty units has identified advantages and disadvantages to their deployment (Gaub, Todak, and White, 2020; Wy, Gaub, and Koen, 2021). Gaub, Todak, and White (2020) describes the beliefs and considerations voiced by officers in specialized units about BWCs. Generally, officers in specialty units and patrol units said that they believed that BWCs provide evidentiary evidence in court, provide some protection against false complaints, and assist in report writing. Meanwhile, officers in specialty units said that BWCs were useful tools for closing cases, could be used in innovative ways, and could document deescalation and lifesaving efforts, and could be used as a training tool.

> There is uncertainty about whether their use of BWCs reduces police use of force or affects police–citizen interactions in desired ways.

Common drawbacks that specialty units have that patrol units do not include assimilation issues, resource burden, concerns about saying or doing something wrong, technical issues, public misperceptions, and overestimation of the value of BWCs. Unique drawbacks for specialty units include incompatibility with equipment, a difficult-to-capture environment, the volume of calls, and their fast-

paced nature. Technical limitations, such as those mentioned in Gaub, Todak, and White (2020) seemed to be of concern to those surveyed in Wy, Gaub, and Koen (2021), which noted that more-innovative or -widespread use in one police department was hampered by technical difficulties. Additionally, other research on specialty units has identified that incidents can last much longer than typical patrol activities, with the civilian either at a distance or removed from the scene completely (White and Malm, 2020). Wichita Police Department SWAT, for instance, requires SWAT team members to turn on their cameras only as they move forward to take enforcement action, not when they are waiting for negotiations or sitting behind cover. Their experience also included issues with mount locations, concerns about tactics being revealed, and the burden of returning to the station to upload after an extended operation. However, the videos were noted to have value for training purposes. Because HSI and ERO operations are more similar to those of specialty units than patrol units, these insights informed our evaluation of BWCs in HSI and ERO.

ICE's Pilot Program

The ICE pilot program commenced in December 2021 with three of the four HSI SRT sites. These sites were Newark, New York, and Houston. Data for the Newark and New York sites were collected and pooled together as if they were part of the same site. These data include pooled survey, use-of-force, site-visit, and interview data. Thus, throughout this report, Newark and New York are discussed as if they were a single site.

The program started with a training course followed by implementation in the field for a six-month period. There was a pause in the pilot program to comply with a new legislative mandate for congressional notification from April through June 2022, during which agents did not wear BWCs. The fourth HSI SRT site (El Paso) received BWCs and training in April 2022 shortly before the pilot program pause. All HSI SRT sites had BWCs for a period of six months, during which they were directed to wear and activate them per policy (i.e., for planned, overt enforcement activities).

During the time of the pilot evaluation, ERO officers were not equipped with BWCs because of labor disputes. Instead, the HSOAC team analyzed them in training environments at the Federal Law Enforcement Training Center in Charleston, South Carolina. Later in the pilot evaluation period, officers in the field were issued BWCs at three pilot locations, with evaluation periods running between October and March 2023; the HSOAC team conducted ride-alongs during field operations along with interviews and focus groups with ERO officers at these locations.

ICE's Office of Firearms and Tactical Programs (OFTP) issued users either Axon Body 3 (ERO and HSI) or Flex 2 (HSI and two of the three ERO sites) cameras to use in the pilot. The Body 3 is designed to be mounted to an outer carrier or garment of clothing while being used. The Flex 2, for the purpose of this pilot, was used primarily as a helmet-mounted camera. ERO users received additional mounts for the Flex 2, including hat and shoulder mounts. Images of the cameras are located in Figure 1.

Aside from the cameras themselves, docking stations were issued to the field offices for charging and uploading video, and Axon's Evidence.com was used as a video management system (VMS). Evidence.com provides a platform for uploading, categorization, tagging, sharing, and redacting videos, along with

FIGURE 1.
Body-Worn Cameras Used in the ICE Pilot Program

SOURCE: AXON promotional images.
NOTE: The Axon Body 3 camera is shown on the left; the Axon Flex 2 camera is shown on the right.

other features.[3] BWC users were trained to use the VMS, while coordinators were assigned to oversee the camera program for their pilot sites, including supporting agent or officer access, uploading, and using the VMS.

During the pilots for both HSI and ERO, OFTP administered surveys to understand the use of the BWCs. Surveys were also given at the completion of ERO training. HSOAC researchers analyzed the survey data for the HSI sites and the ERO trainings (see the Summary of the Methodology section). OFTP and the Office of Regulatory Affairs and Policy also conducted visits to the pilot sites.

Summary of the Methodology

To assess the BWC pilot, HSOAC's research team chose a mixed-methods ethnographic approach. This allowed the team to analyze data, previous research, and policy considerations and observe trainings and field use of BWCs by pilot participants. In the field with ICE personnel, the team engaged in semistructured interviews at the conclusion of an observed field activity conducted by the ICE unit. Through those interviews, we sought to surface perceptions, issues, advantages, and concerns as experienced by those who would be charged with wearing and using BWCs once the pilot phase is complete. The research team relied on data collected by ICE to support the data and observations noted previously. Specific areas of work consisted of the following:

- Field familiarization and training observations were conducted for both HSI and ERO BWC users to understand and document use cases and gather feedback from debriefings.
- Interviews were conducted during site visits to each of the three HSI SRT pilot sites and at the conclusion of the pilot, and during site visits to ERO pilot sites. Informed by the initial study plan and review of related literature, HSOAC researchers devised a list of questions for HSI SRT and ERO personnel based on Gaub, Todak, and White (2020) to help guide the discussions with officers and agents. This list was supplemented by key questions related to federal law enforcement use of BWCs, BWC wear, officer and agent safety, demeanor of persons they encountered during their work, policy considerations, opinions and input about training, and BWC usefulness for officers.
- Quantitative analysis included collecting and analyzing key quantitative variables of interest and survey data from training and pilot participants and assessing BWCs' associations with outcomes of interest—notably, uses of force and complaints. Note that, because of the scope and timing of the HSOAC team's evaluation, quantitative analysis of ERO data was largely limited to the ERO training data.[4]
- A literature review included collecting and analyzing recent guidance on BWC policies and procedures, studies on the extent of and desires for BWC use, studies on the implementation of BWCs, and studies on the effectiveness of BWCs in reducing uses of force, assaults on officers, complaints, and other criteria.
- An analytic framework was applied to organize the results and put them into context; this framework builds on prior research about how to assess BWC usage and policies.
- Interviews were conducted with subject-matter experts and representatives from nongovernmental organizations.
- Results and recommendations were then provided to guide future planning and potential implementation of BWCs in the field based on the research.

Initially, the research was designed to focus on both HSI and ERO pilot participants for both qualitative and quantitative approaches. However, because of labor issues outside the control of the project team (including delays to the ERO pilot), the research plan was initially modified to focus only on HSI pilot participants (in the field) and ERO users in training environments. As the pilot program progressed and ERO users were equipped with BWCs in the field, e expanded the scope of work to include ride-alongs during field operations and feedback from ERO users as available.

The HSI pilot commenced before our independent evaluation began, but the research plan was

devised to conduct objective analysis for ICE based on this constraint.

Field Familiarization and Training Operations

Field familiarization and training observations were conducted for both HSI SRT and ERO BWC users to understand and document use cases and gather feedback from debriefings, focus groups, and interviews. These efforts were made by the research team throughout the pilot period, with a significant amount of data collected at the end of the pilot period to assess the full program and user experience.

We observed trainings at one HSI SRT pilot site and one ERO pilot site.[5] These were full trainings for the official pilot, consisting of approximately 15 users for HSI SRT and nine for ERO. The training sessions were two full days and included the following elements: introductions and gear issuance; introduction to the pilot BWC program; BWC nomenclature and operation; practical exercises; docking, uploading, and workflow; use of the VMS (in this case, Evidence.com); legal issues; and video review and manipulation. Representatives from Axon, OFTP, the Office of the Principal Legal Advisor, the Office of Regulatory Affairs and Policy, and other U.S. government personnel were present to deliver training and answer questions. The training program also described the purpose of the pilot with a strong focus on officer safety and reviewed the feedback mechanisms in place for ICE (e.g., training and biweekly surveys). It should be noted that Axon led, in collaboration with OFTP, the first iterations of the HSI SRT trainings in 2021. These trainings occurred prior to the pilot evaluation. OFTP then developed its own training course, with Axon in attendance for trainings following this initial period. We observed the staging for one operation by an HSI SRT pilot site, including observing distribution and start-up of BWC use among HSI SRT members.

During the time when the ERO pilot was officially on hold pending a labor dispute, HSOAC researchers observed officers in training at the Federal Law Enforcement Training Center in Charleston. Each training session was made up of 15 to 23 participants; some training sites hosted multiple sections attending training. During these sessions, HSOAC researchers observed ERO users wearing BWCs in scenarios following a very abbreviated BWC familiarization session. The session consisted of a short introduction to the BWCs and how they can be mounted, activated, and deactivated; there was no inclusion of other BWC or VMS features. We solicited input from the users on their wear and feedback from these sessions and collected data from ICE on BWC wear and other observations from training.

Field familiarizations in the form of ride-alongs were conducted by HSOAC researchers at the three ERO pilot sites from January to March 2023. During these times, HSOAC researchers observed ERO personnel conduct operations while wearing BWCs. Operations included a briefing at a staging area where the team met to discuss the person of interest (including the reason for suspicion), location, safety issues, BWC use, and other pertinent details. Following the initial briefing, teams went to a surveillance location; in two of the three sites visited, arrests were made by the ERO team. The research team then observed and noted the camera upload and processing time before collecting feedback from officers involved in the day's operations. Each team had five officers; information was solicited in either one-on-one or focus group format based on availability.

Results and recommendations were provided to guide future planning and potential implementation of BWCs in the field.

Interviews

We conducted discussions during site visits to each of the three HSI SRT pilot sites and at the conclusion of the pilot. The interviews were intended to collect

a variety of inputs from the participants, including benefits and drawbacks, BWC wear, safety, and use of the VMS. These interviews, focus groups, and debriefings varied from one-on-one interviews to focus groups with up to 25 personnel. The research team took notes, which were then coded to reflect key areas of interest for BWC implementation and policy. See the Analytic Framework section for specific codes.

Using the initial study plan and review of related literature, we devised a list of questions for HSI SRT and ERO personnel based on Gaub, Todak, and White (2020) to help guide the discussions with officers and agents, modified and covering additional areas beyond those covered in the 2020 paper. The resulting set of interview questions was as follows:

1. What do you think are the most important benefits of BWCs generally?
    a. Probe: Are the benefits for your unit the same or different than the benefits generally?
    b. Probe: What benefits have you directly experienced during the pilot thus far?
2. What do you think are the biggest drawbacks of BWCs generally?
    a. Probe: Are the drawbacks for your unit the same or different than the drawbacks generally?
    b. Probe: What drawbacks have you directly experienced during the pilot thus far?
3. What has been the biggest challenge to integrating BWCs into your daily work?
    a. Probe: How long did it take to become accustomed to/overcome challenges wearing a BWC?
4. In terms of wearing the BWC, what worked the best for you? What problems did you have in operational settings, if any?
    a. Probe: Did you have any issues accessing your gear?
    b. Probe: Did you have any issues in the operating environment (e.g., weather, low-light)?
5. What are some of the challenges or advantages you have had in wearing BWCs in operational settings?
    a. Probe: Can you tell me about your experience with uploading video?
    b. Probe: Can you tell me about your experience with the video/evidence management system?
6. Provide some examples of how you have used BWCs in the field that are unique to your unit (or different from the traditional use in other HSI/ERO roles).
    a. Probe: How well have the BWCs functioned in your operating environments?
7. Do you feel your safety has increased, decreased, or stayed the same while wearing a BWC? Why?
8. Has the demeanor of persons you have encountered changed while wearing a BWC compared to not wearing a BWC? How?
9. What are some examples of issues that ICE should consider when making decisions about BWC policy that are relevant to your unit?
    a. Probe: What parts of the current policy would you keep or discard?
    b. Probe: Did you have any issues with the policy to notify people they were being recorded?
    c. Probe: Did you have any issues with consent to record being withdrawn?
    d. Probe: What officer/agent privacy issues should be included in future policy?
10. What are some examples of issues that ICE should consider when making decisions about BWC training that are relevant to your unit?
    a. Probe: Should BWC recordings be used for training purposes? If so, who should make that decision?
    b. Probe: How much training do you think an officer or agent should receive prior to going into the field with a BWC? What is the most important thing(s) they should know?
11. Is there anything else that we have not covered that you would like to mention about how BWCs affect your unit or general HSI/ERO operations?
12. Do you believe that BWCs are useful for ICE (HSI/ERO) officers generally? What about for your unit? Why?

We also conducted five interviews with representatives from nongovernmental organizations and subject-matter experts. These discussions focused primarily on key policy dimensions for incorporating BWCs into a law enforcement organization, common implementation suggestions or challenges, and considerations for the ICE HSI SRT or ERO operational environment. The discussions consisted of one-on-one virtual interviews that lasted 60 to 90 minutes. Participants were selected based on their experience with BWCs in the operational settings most similar to ICE's operational environment (such as SWAT units). Some were referred by ICE and others by other participants. Participants included academic researchers, BWC technical assistance providers, civil rights organization representatives, and one law enforcement representative. All participants were recruited via email.

Quantitative Analysis

The HSOAC team collected and analyzed key quantitative variables of interest and survey data from training and pilot participants. The information collected included (1) survey data received from HSI SRTs over ten-week periods, (2) complaint data for HSI SRT members, (3) use of force and assaults on officers, and (4) OFTP-collected data from training sessions. The OFTP training data include outputs from a survey, observations about BWC placement (e.g., how many officers placed it in the center of the vest), and other activation-related data from training sessions. There were approximately 15 to 25 personnel at each session.

It should be noted that there is a limitation on outcome analysis. The units conduct a limited number of operations, and use-of-force, assault, and complaint rates are low. Thus, the data lack statistical power to evaluate whether there is a significant effect of BWCs on these outcomes in HSI SRT operations; many thousands of operations would have been needed, rather than the hundreds observed. Nonetheless, the data indicate that there were not significant spikes of incidents for these outcomes during BWC use.

Survey data came from ICE-developed and administered surveys of the pilot participants. For SRT participants, these surveys asked about their use of BWCs, user experiences, whether they felt that subjects' demeanors changed when they were told that BWCs were being used (if applicable), and their perspectives on the potential benefits to and risks of BWCs. For ERO participants, these surveys were similar, but they were asked about their experiences with BWCs during training sessions.

Analytic Framework

We devised an analytic framework to assess the pilot program and current ICE policy using the *Body-Worn Camera Policy Review Scorecard*, sponsored by the U.S. Department of Justice's Bureau of Justice Assistance (Bureau of Justice Assistance, undated). We modified and extended the policy review scorecard to include and consider BWC recommendations from BWC Training and Technical Assistance, the Police Executive Research Forum, the International Association of Chiefs of Police, and state agencies. HSOAC researchers also added additional issues (such as BWC wear, safety, and functionality) based on experiences at trainings and observations in the field. The observation and interview, focus group, and debriefing notes were coded to match the key policy areas identified by the BWC policy scorecard and items of interest for the U.S. Department of Homeland Security and ICE. The findings and recommendations are presented in approximate order of items in the framework.

Overall Assessment of the Potential of Body-Worn Cameras for ICE

In general, the HSOAC team identified no critical issues that would preclude ICE from proceeding with further development and procurement of BWCs. Key findings follow.

Although there were not significant reductions in uses of force or complaints observed for those wearing BWCs, the team also did not observe significant increases in these outcomes. Uses of force and complaints against officers are key outcome metrics. However, the pilot units had very low rates

of both use of force and complaints before and during the pilot. Statistically, this makes it difficult to detect further reductions; the study would have needed to cover thousands if not tens of thousands of operations to find statistical evidence of such reductions. Nonetheless, the team saw no signs that BWCs were associated with spikes in uses of force or complaints during the pilot. Note that this finding applies to HSI SRT personnel only, because we did not analyze ERO data related to these metrics because of the scope and timing of the study. Recent studies do tend to show positive, if limited, effects on uses of force and complaints.[6]

In one notable case, BWC footage disproved a safety allegation made against one of the pilot units. In interviews, BWCs were broadly described as having the potential to protect officers against frivolous complaints and lawsuits; this potential was described as one of BWCs' greatest benefits.

Concerns about potential leakage of BWC footage need to be addressed as the BWC effort goes forward. Some pilot participants expressed very high levels of concern that sensitive tactical or personally identifiable information could be made public (including to criminal organizations) through the disclosure of video footage via legal discovery or FOIA processes and said that the use of BWCs should be discontinued for that reason.

Recommendation: ICE needs to ensure that there are policies, procedures, and training provisions that protect against tactical and personally identifiable information being improperly released. These provisions need to include working with external partners who are receiving footage, such as U.S. Attorneys' Offices, to ensure that footage revealing sensitive information is protected.

Findings on Perceived Benefits and Risks of Using Body-Worn Cameras

Perceived benefits focused on protection from complaints and lawsuits and on assistance in training and reporting. The first perceived benefit officers tended to mention was that BWC video could protect them from frivolous complaints, lawsuits, and other accusations. As mentioned previously, BWC footage disproved a safety allegation made against members of one of the HSI SRTs in the pilot.

> Although there were not significant reductions in uses of force or complaints observed for those wearing BWCs, the team also did not observe significant increases in these outcomes.

Secondary benefits mentioned commonly included the use of footage to improve training and operations, with officers able to review what happened during an event or operation, see what they did, and get feedback on how to improve their actions for the future. Benefits also included assisting with reporting, with officers noting that video could make preparing their reports quicker and result in more-detailed and more-accurate reports.

Perceived risks centered on unauthorized disclosure and use and on cognitive risks. As noted previously, the biggest concern was that footage could be made public through FOIA or discovery processes and create safety threats, especially if it were made available to criminal organizations. A similar mentioned risk was that video would be abused by managers or others inside or outside ICE to unfairly target officers.

A second pair of perceived risks was centered on cognitive impacts. The first was that simply having to remember to activate BWCs during operations could impose more distractions and cognitive burdens on officers. The second was that being on video would cause officers to worry about being micromanaged

and cause them to overthink their actions or hesitate, causing operational risks. That said, officers did report getting used to BWCs over time; we generally did not hear about cognitive risks in later interview sessions.

For ERO specifically, there were concerns that, during requested home searches, notifying subjects of the need to record would lead to many denying access to their homes. Given limited deployments of BWCs to ERO units during the pilot, it was not possible to assess these concerns.

Recommendation: Continue to monitor whether and to what extent BWC usage results in increases in subjects refusing searches.

The most-discussed perceived benefits to the public—reduced officer uses of force and reduced assaults on officers—were secondary in observations and discussions. As discussed, although there were no signs of significant BWC-associated spikes in use of force or assaults on officers, the rarity of those events meant that it was not possible to determine whether BWCs made a statistically significant difference. Also, although these topics were sometimes mentioned as potential benefits by the practitioners, they were expressed as secondary to the other perceived benefits.

Similarly, potential benefits of BWCs commonly discussed included increased subject compliance, subject demeanor, and officer demeanor. Study participants noted that these did not tend to change. As discussed previously, given the nature of SRT operations, SRT personnel did not typically have time to notify subjects that they were being recorded until after they were secured, so it was not possible to assess potential consequences of notifying subjects early in encounters that they were being recorded. As an exception, limited officer demeanor changes were observed by HSOAC researchers during trainings.

Recommendation: As deployments of BWCs increase, continue to monitor whether BWC usage and notifications of such usage are associated with changes in behavior.

Perceived benefits focused on protection from complaints and lawsuits and on assistance in training and reporting. Perceived risks centered on unauthorized disclosure and use and on cognitive risks.

Findings and Recommendations on Human Factor Issues: Cameras

Placement Issues for Tactical Vests

We received significant feedback about how BWCs, whether integrated body cameras or flexible cameras, could interfere with placement of critical duty gear on vests. Over time, HSI SRT members reported being able to adapt, finding reasonable places to put cameras that did not interfere, but there were adaptation curves. We also observed camera bodies being placed all over tactical vests, with some camera blockages noted.

On the positive side, officers reported that it was easier to access camera functions and tell whether cameras were on or off, because they could see the camera bodies and indicators. Once a placement position was found, it was also reported to be fairly easy to install the cameras using standard mounts.

Recommendation: We recommend that, if fixed body cameras are procured, ICE provide additional guidance about where and how to install the cameras to preclude most gear conflict problems while still permitting unobstructed views.

Placement and Operational Issues for Flexible Cameras

Flexible cameras were praised for (1) offering a view that more closely matched where the officer was looking and (2) avoiding the problems of conflicting with tactical vest gear because they were installed on helmets. However, the following problems were reported:

- The cameras were difficult to install on helmets initially, requiring some degree of jerry-rigging, because standard mounts were not usable.
- The cord between the camera head (typically on the front of the helmet) and body (typically on the back of the helmet) frequently disconnected and was difficult to connect initially, leading to some instances of cameras disconnecting during training events or operations and then being unable to reconnect.
- Because operators could no longer see the camera bodies (these were usually mounted on backs of helmets), it became difficult to operate functions or see whether the cameras were on or off; the HSOAC team observed SRT members with flexible cameras asking others to determine whether their cameras were on.

Recommendation: We recommend that, if flexible cameras are procured, ICE work with vendors to (1) improve mounting options for helmets, (2) fix cord connection problems, and (3) improve the ease of using camera functions and determining whether the camera is on or off without having to ask another person. One suggestion was to have wireless connections; permitting the camera to be mounted on a helmet, on the shoulder, or over the ear; and the camera control body mounted to the front or in another location that is accessible. This would require having secure wireless connections that can receive chief information officer approval. Although this is a suggestion from the field, it might not be technologically feasible or currently available on the commercial market.

Placement Issues for Polo and T-Shirts

Officers wearing T-shirts or polos complained about, and we witnessed during trainings, BWCs bouncing around in uncomfortable ways that also disrupted video footage.

Recommendation: ICE should work with BWC providers to make available some form of harness, clip, or alternative form factor (such as over-ear or eyewear-mounted cameras) that can properly secure a BWC if an officer is wearing a T-shirt or polo; the standard clip mounts were not suitable.

Findings and Recommendations on Human Factor Issues: Video Management

Video Upload Issues

Officers identified two major problems with video uploads. First, both HSI SRT and ERO team members noted that distances between members' homes, operational sites, and home offices could be hours of driving time away, depending on the size of the area covered by the team. Thus, having to return to an office from an operational site before going home could add hours to an officer's workday.

Recommendation: ICE should, while observing needed cybersecurity protections, make it possible for officers to upload and charge BWCs at home.

Second, officers in some offices noted extremely slow upload speeds (less than 1 MB per second at one site), meaning that uploads could take hours and risk being interrupted.

Recommendation: ICE should prepare to upgrade internet upload speeds at offices that lack high-speed internet connections.

Video Categorization Issues

During the pilot, videos commonly were not tagged in accordance with definitions. Officers and managers both noted that the review and tagging processes in the VMS were unintuitive and somewhat difficult. They expressed specific concerns regarding the alphanumeric tags, having difficulties remembering what they meant. (This was also a training issue

because some teams did not initially receive training on how to tag and the list of tags.)

Recommendations: We have two recommendations: (1) to the extent possible, review the tags to make them clearer and easier to remember, and (2) work with video software vendors to improve the ease of reviewing and tagging video.

Substantial Effort Required to Manage Video

As described previously, managers noted spending hours per operation to review and tag videos. There was also substantial effort needed to maintain the cameras and charging equipment, with different offices taking different approaches to managing the logistics of caring for cameras. We also identified instances of coordinators, especially early in the pilots, being confused about what to do and how to manage the cameras and video uploads.

Recommendations: We have two recommendations: (1) the roles and responsibilities of agents/officers and coordinators need to be clearly delineated in policy and procedure in terms of BWC care, upload, charging, tagging, and any other uses, and (2) ICE should prepare to fund BWC coordinators to satisfy this role.

Findings Related to Body-Worn Camera Video Disclosure

As noted in the overall assessment, improper disclosure of video was a critical concern; those personnel who were opposed to BWCs (or at least wanted to be exempted from them) gave this concern as their primary reason. These included concerns about the release of sensitive tactics, identities, conversations, and undercover operations.

There need to be procedures and trained personnel in place to avoid improper disclosures in video released to the public. ICE personnel frequently expressed concerns about video released to the public through FOIA requests.

Recommendation: FOIA personnel involved in redaction and reviewing video prior to release should have sufficient operational expertise to know what to redact; procedures should be in place for reviewing returned video clips to ensure that they do not disclose sensitive information.

There need to be procedures and trained personnel in place to avoid improper disclosures during discovery processes. There were substantial concerns that video forwarded to U.S. Attorneys' Offices, or partners, as part of legal proceedings would result in footage revealing undercover identities or other sensitive information about investigations or tactics being released to criminals and criminal organizations.

Recommendation: Have measures, detailed in procedures and in collaboration with prosecutors' offices and other partners, to protect critical tactical and identifying information in video released as evidence.

Findings Related to Body-Worn Camera Policy

In general, ICE's draft BWC policy is consistent with what we found to be best and standard practices in BWC policy. The HSOAC team did not identify any substantial deficiencies. There were provisions for which clarifications need to be provided (see Findings Related to Body-Worn Camera Training). Similarly, the unauthorized disclosure, protection, and redaction provisions and the provisions declaring when events should not be recorded (such as undercover personnel present) need to be made especially clear and detailed in procedures and in collaboration with partners (especially FOIA and court officers) to protect critical tactical and identifying information, as recommended previously.

The policy needs provisions for tailoring and customization. Personnel mentioned four major ways in which flexibility was needed. First, it was repeatedly noted that there were major differences between HSI SRT operations and ERO operations, as well as major differences within HSI and in ERO.

Recommendation: There should be separate policy provisions for ERO and HSI SRT and for major types of operations in ERO and HSI SRT for which core policy provisions are different. This goal can be accomplished through separate policies or through

a blanket ICE policy with additional standard operating procedures for ERO, SRT, or specific units therein.

Second, policies need to allow for errors and issues that arise during beta test periods or adaptation periods because there will likely be equipment issues and learning-curve issues to be worked out. One example is that not all officers will be able to wear and properly record all events that the BWC policy says should be recorded, because not all officers will have working cameras or because there could be errors operating them. As noted, during ERO trainings, approximately 10 percent of the time user error caused failures to record; later, failures to record in deployed units fell to under 1 percent.

Recommendation: There should be separate policy provisions describing allowances during test and adaptation periods.

Third, it was noted by HSI SRTs that, as a condition of participating in joint operations with other state, local, and federal agencies, the SRT could have to use BWCs in ways that precisely conform with the lead or responsible agency's BWC policies.

Recommendation: There should be specific policy provisions permitting allowances to match lead or responsible agencies' BWC policies during joint operations.

Fourth, it was noted that special agents in charge need some level of flexibility in BWC policy regarding BWC operations, especially regarding unusual circumstances in which cameras should continue recording beyond normal turn-off times (because of the presence of persons or evidence that warrant being captured on video or similar circumstances) or to stop recording when similar unusual circumstances emerge. This does not mean that a special agent in charge should not have accountability for their decisions; they should include a statement regarding the use or lack of use of BWCs and their rationale for their actions.

Recommendation: There should be policy provisions that specifically address special conditions for recording (or halting recording) to address mission and safety needs—notably, regarding the issues and circumstances discussed previously.

There need to be procedures and trained personnel in place to avoid improper disclosures in video released to the public.

Findings Related to Body-Worn Camera Training

Short BWC trainings appeared to be insufficient to teach all needed skills. As noted, HSOAC and ICE staff observed issues in both camera operations and video management (especially tagging) for those staff who received only the brief one- to two-hour trainings.

Recommendation: Training needs to be long enough to cover policy (and major points of concern and confusion), hands-on camera operation with enough repetitions to learn the key operations, real-world exercise training, video upload, and hands-on video tagging with enough repetitions to learn the key tags. We estimate that this material could be covered in one and a half to two days. The team observed a comprehensive training session scheduled for three days and is confident that the material could be compressed—but not into just one or two hours.

There were multiple points of confusion about BWC policy and procedures with regard to recording and viewing. Notably, we observed and heard the following:

- In general, there were disagreements and uncertainties about when to activate cameras and when to deactivate them. Concerns raised included whether to keep cameras on after the scene had been secured (notably for HSI SRTs) and what constituted conditions for not recording because critical tactical or identity details might be revealed.

- Some teams said that they needed to read a preamble identifying themselves when they turned on their cameras in advance of an operation. In contrast, ICE OFTP has noted that ICE personnel generally do not need to read a preamble because cameras are assigned individually; the preambles were developed for use with shared cameras out of a group pool.
- As noted, officers saw being able to view videos for training and reporting purposes to be significant. However, several of them felt that they were not supposed to view video for these purposes because doing so would raise questions about why they were viewing the videos. In contrast, ICE OFTP noted that officers are encouraged to use videos for training and reporting, provided that they mark their viewing sessions with what they were doing.

Recommendation: In its training sessions and reference materials, ICE should specifically address these common points of confusion about activation, deactivation, and video viewing.

Findings Related to Body-Worn Camera Reliability and Maintenance

Several of the sites reported minor maintenance issues with cameras. As described, BWC failures requiring camera repair and replacement were documented both in the field and during training events.

Recommendation: ICE should plan to procure, and have units prepared to maintain, banks of spare BWCs and charging units to use in the event that units malfunction or are damaged.

Limitations

The pilot program and the subsequent analysis are limited by several factors that should be considered when reviewing the program and associated recommendations. Because the pilot program was new and limited in duration, its effects on the number of judiciary outcomes (e.g., successful prosecutions), evidentiary value of BWC footage, and officer compliance with recoding and footage (among other outcomes that might be of interest to ICE and the public) is unclear. Furthermore, there were no data available on the number of FOIA requests that might be expected during a full program. ICE personnel also do not have the same responsibilities as police officers who have been previously equipped with BWCs and who tend to have more touch points and interactions with the public.

When examining potential BWC impacts on uses of force, complaints, and assaults on officers (for HSI SRT), the analysis is limited because of the low rates of such incidents and resulting lack of statistical power. The HSOAC team did not collect and analyze these data from ERO.

The qualitative data are based on user feedback and might not be generalizable across all ICE law enforcement personnel. For example, the HSI pilot was implemented in only select HSI SRT units; findings might be applicable to all agents. ERO might also experience the same. Participants in this study were able to opine about safety and interactions with the public, but this was only measured from the officer/agent standpoint and not the people with whom they interacted. Accordingly, other key outcomes of interest, such as trust in agents/officers and the transparency of ICE operations, were also not analyzed because they pertain to the public and people who interact with agents/officers and are outside the scope of this report.

Where clearly noted, some of the ERO results are based on equipping officers with BWCs in a training environment **outside** the formal pilot program. This occurred when the ERO pilot was on hold but offered the ability for HSOAC researchers to observe and document the use of and user experiences with BWCs. Officers received an extremely limited familiarization with the BWCs only (excluding video management) but still provided insight into how they might affect their work.

Many of these limitations can be resolved or monitored during a larger or phased implementation of BWC use.

Notes

[1] HSI SRTs function as the agency's special weapons and tactics (SWAT) teams.

[2] For the purposes of this report, two HSI SRT sites, New York and Newark, are combined as a single site, New York/Newark.

[3] More information about Evidence.com can be found at Axon, undated.

[4] Thus, for example, weekly surveys and data on use-of-force incidents were not collected or analyzed by the team for ERO, but they were for HSI.

[5] This is separate from the use of BWCs in a training environment that was used for ERO personnel only while their official pilot was on hold.

[6] For example, a recent meta-analysis found overall point estimates of a 16.9-percent reduction in complaints (confidence interval of –28.2 percent to –3.8 percent) and a 9.6-percent reduction in police uses of force (confidence interval of –21.3 percent to +3.8 percent) across the studies examined (Williams et al., 2021).

References

Ariel, Barak, William A. Farrar, and Alex Sutherland, "The Effect of Police Body-Worn Cameras on Use of Force and Citizens' Complaints Against the Police: A Randomized Controlled Trial," *Journal of Quantitative Criminology*, Vol. 31, No. 3, 2015.

Axon, "Axon Evidence," webpage, undated. As of June 27, 2023: https://www.axon.com/products/axon-evidence

Bureau of Justice Assistance, *Body-Worn Camera Policy Review Scorecard*, undated.

Braga, Anthony A., Lisa Barao, Jack McDevitt, and Greg Zimmerman, "The Impact of Body-Worn Cameras on Complaints Against Officers and Officer Use of Force Incident Reports: Preliminary Evaluation Findings," Northeastern University, January 8, 2018.

Gaub, Janne E., Jessica Huff, Carlena Orosco, Michael D. White, and Aili Malm, Officer Perceptions of Body-Worn Cameras: Directory of Outcomes, Body-Worn Camera Training and Technical Assistance, database, 2020.

Gaub, Janne E., Natalie Todak, and Michael D. White, "Beyond Patrol: Exploring the Perceptions of Police Body-Worn Cameras Among Officers in Specialized Units," Arizona State University Center for Violence Prevention and Community Safety, February 2017.

Gaub, Janne E., Natalie Todak, and Michael D. White, "One Size Doesn't Fit All: The Deployment of Police Body-Worn Cameras to Specialty Units," *International Criminal Justice Review*, Vol. 30, No. 2, 2020.

Gaub, Janne E., Natalie Todak, and Michael D. White, "The Distribution of Police Use of Force Across Patrol and Specialty Units: A Case Study in BWC Impact," *Journal of Experimental Criminology*, Vol. 17, No. 4, December 2021.

Hyland, Shelley S., *Body-Worn Cameras in Law Enforcement Agencies, 2016*, U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, NCJ 251775, November 2018.

Lum, Cynthia, "Perspectives on Policing," *Annual Review of Criminology*, Vol. 4, 2021.

Lum, Cynthia, Christopher Koper, Linda Merola, Amber Scherer, and Amanda Reioux, *Existing and Ongoing Body Worn Camera Research: Knowledge Gaps and Opportunities*, George Mason University, 2015.

Lum, Cynthia, Christopher S. Koper, David B. Wilson, Megan Stoltz, Michael Goodier, Elizabeth Eggins, Angela Higginson, and Lorraine Mazerolle, "Body-Worn Cameras' Effects on Police Officers and Citizen Behavior: A Systematic Review," *Campbell Systematic Reviews*, Vol. 16, No. 3, September 2020.

Morin, Rich, Kim Parker, Renee Stepler, and Andrew Mercer, "Behind the Badge," Pew Research Center, January 11, 2017.

National Conference of State Legislatures, "Body-Worn Camera Laws Database," updated April 30, 2021. As of June 26, 2023: https://www.ncsl.org/civil-and-criminal-justice/body-worn-camera-laws-database

Police Executive Research Forum, *Cost and Benefits of Body-Worn Camera Deployment*, April 2018.

Sutherland, Alex, Barak Ariel, William Farrar, and Randy De Anda, "Post-Experimental Follow-Ups: Fade-Out Versus Persistence Effects: The Rialto Police Body-Worn Camera Experiment Four Years On," *Journal of Criminal Justice*, Vol. 53, November 2017.

U.S. House of Representatives, Department of Homeland Security Appropriations Bill, 2021, 116th Congress, 2nd session, H. Rep. 116-458, 2020. As of June 26, 2023: https://www.govinfo.gov/app/details/CRPT-116hrpt458/CRPT-116hrpt458

White, Michael D., *Police Officer Body-Worn Cameras: Assessing the Evidence*, U.S. Department of Justice, Office of Justice Programs, August 2014.

White, Michael D., and Aili Malm, *Body-Worn Camera Site Spotlight: Wichita, KS, Deploying Body-Worn Cameras to SWAT*, Body-Worn Camera Training and Technical Assistance, November 2020.

Williams, Morgan C., Jr., Nathan Weil, Elizabeth A. Rasich, Jens Ludwig, Hye Chang, and Sophia Egrari, *Body-Worn Cameras in Policing: Benefits and Costs*, University of Chicago Becker Friedman Institute for Economics, Working Paper 2021-38, March 2021.

Wy, Gabrielle C., Janne E. Gaub, and Marthinus C. Koen, "The Impacts of Body-Worn Cameras: An Examination of Police Specialty Unit Perceptions Through Diffusion of Innovations," *American Journal of Criminal Justice*, Vol. 47, No. 2, July 2021.

About This Report

Congress directed U.S. Immigration and Customs Enforcement (ICE) to complete a pilot program to determine the feasibility of the use of body-worn cameras (BWCs). In response to this direction, ICE completed a pilot program for personnel assigned to Homeland Security Investigations (HSI) and Enforcement and Removal Operations (ERO). During the pilot, ICE assigned personnel at seven pilot sites—four HSI sites and three ERO sites—to wear and provide feedback on BWCs for six months. The HSI units were the first to complete the pilot. The ERO implementations were delayed because of labor negotiations, but ERO officers did attend training sessions in 2022 and provided feedback on their experiences.

To better understand issues related to trust and transparency, user adoption and effectiveness, implementation of BWCs, and efficacy of the technology, Homeland Security Operational Analysis Center (HSOAC) researchers conducted an independent assessment of the BWC pilot program. The research team prepared a For Official Use Only/Law Enforcement Sensitive assessment of the pilot program for ICE. This report is derivative of the sensitive document and presents public, non–law enforcement–sensitive results of the ICE BWC assessment. It summarizes the findings from the authors' mixed-methods analysis, in which researchers collected and analyzed data from BWCs and observed BWCs in training and operational environments with pilot participants. The analysis was supplemented by data and observations collected by ICE and analyzed by the authors. The resulting findings and recommendations cover a comprehensive variety of topics, including benefits and risks, human factors, policy and training considerations, and considerations for future ICE BWC procurement.

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The HSOAC FFRDC provides the government with independent and objective analyses and advice in core areas important to the department in support of policy development, decisionmaking, alternative approaches, and new ideas on issues of significance. HSOAC also works with and supports other federal, state, local, tribal, and public- and private-sector organizations that make up the homeland security enterprise. HSOAC's research is undertaken by mutual consent with DHS and organized as a set of discrete tasks. This report presents the results of research and analysis conducted under task orders 70CMSW22FR0000035 and 70CMSW22FR0000099, Independent Assessment of the ICE Body Worn Camera Pilot Program (Phase I and II). The results presented in this report do not necessarily reflect official DHS opinion or policy.

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