Body?worn Cameras and Law Enforcement Management

Body?worn cameras (BWCs) are one of the most rapidly diffusing technologies in policing today, costing agencies and their municipalities millions of dollars. In 2013, the Bureau of Justice Statistics Law Enforcement Management and Administrative Statistics (LEMAS) survey (Bureau of Justice Statistics, 2013) revealed that almost a third of agencies had “utilized video cameras on patrol officers.” The Major Cities Chiefs and Major County Sheriffs associations surveyed their members in 2015 and found that 19% had adopted BWCs, whereas an additional 77% stated that they planned to adopt them in the near future (Lafayette Group, 2015).

The International Association of Chiefs of Police (IACP, 2014) has already developed model policies for this technology, signaling its widespread use and importance in law enforcement. At the time of this publication, the Bureau of Justice Statistics had just released its first body?worn camera supplement to the LEMAS, which reports that as of 2016, 60% of local police departments and 49% of sheriffs' offices had fully deployed their BWCs (Hyland, 2018). It would likely not be an exaggeration to estimate that the number of U.S. law enforcement agencies today (end of 2018) that currently use BWCs has more than likely doubled since 2013.

The rapid adoption of BWCs in the United States has been propelled by highly publicized events in this decade involving (often) White police officers killing (often) unarmed Black individuals. Arguably the first pivotal event of this era did not involve a police officer but an armed individual posing as a neighborhood watchman, who killed an unarmed Black youth—Travon Martin—in 2012. This was followed by the shooting of Michael Brown in 2014 by a Ferguson, Missouri, police officer and then the death of Freddie Gray in Baltimore City Police Department custody in 2015.

Many of these officer?involved shootings have made national headlines, and in some cases, they have led to the conviction and imprisonment of officers. Although most, if not all, of these events were caught on citizen cell phone cameras, the idea that greater accountability for police actions could be obtained had previous events been filmed became a prominent source of citizen demands for BWCs but also it can help law enforcement agencies anticipate unintended consequences, optimize their use of already acquired technologies, or decide whether to invest in a specific technology. Fortunately, researchers have taken a major interest in studying BWCs in the last 5 years and have tried to keep up with its rapid adoption BWCs had grown to more than a dozen, with 30+ additional studies underway.

Most of the studies included in both White (2014) and Lum et al.’s reviews were focused on the impact that BWCs had on officer behavior as measured by complaints and their use of force, as well as on officer perceptions about BWCs. Maskaly et al. (2017), in a review of police and citizen outcomes more specifically, found 21 empirical studies as of January 2017, which led them to conclude that police are generally receptive to BWCs and that the cameras can exert positive effects on police behavior. Our current review, which includes all empirical studies found or accepted for publication through June 2018, consists of 70 published or publicly available studies of BWCs.

Additionally, many of these studies are rigorous outcome evaluations, which are unusual in

police technology research. Here researchreview, analyze, and comment on this current state of empirical research in the context of this significant era of policing in which researchfind ourselves. To be as inclusive as possible, researchsearched all relevant library and research databases available3 for publicly available reports and articles (whether published by a journal, press, organization, or the authors themselves on the Internet, or in thesis or dissertation form). Researchused multiple keywords (and their variants) in these searches (i.e., body?worn cameras, body worn video, body cameras, officer video, body cams, police, and video) and included any study or article that included empirical analysis (whether qualitative or quantitative).

Additionally, since 2015, researchhave been collecting information from ongoing research projects through criminal justice conferences and symposia, grant awards from both government and nongovernment sources, and from colleagues in the field, which helped to identify studies that did not initially emerge in our database search. Our definition of “empirical research” is broad and inclusive, and it consists of any study in which either qualitative or quantitative data were collected to study BWCs. A large proportion of BWC research is not evaluative, but descriptive survey research that can lend important insights into perceptions of BWCs and their use. Researchdid exclude theoretical, hypothetical, opinion/editorial, or legal writings in which no systematic scientific study or data collection was attempted. Because of the breadth of this research, researchemphasize that researchdo not present a systematic meta?analysis or meta?aggregation of BWC research here.

The empirical research on BWCs employs a variety of methods and perspectives, and our intention in this article is to draw out tendencies and hypotheses from this research for policy as well as for scholarly audiences. Thus, researchnot only report on the findings of this evidence?base but also highlight broader debates and discussions that are provoked by the research that law enforcement agencies and researchers should consider. Approximately 70 publicly available empirical research articles5 as of June 2018 in which research findings related to BWCs and the police were reported. Researchdenote these articles in our reference section with an asterisk. This body of research reflects, approximately, a 14?fold increase in research since White's (2014) review, a 5?fold increase since Lum et al.’s (2015) assessment, and more than a 3?fold increase since Maskaly et al.’s (2017) review.

Furthermore, researchfound at least 111 substudies of various outcomes within these 70 publications. More than one third of the studies were conducted by researchers at Arizona State University (15 of the 70 studies) or by Barak Ariel and his colleagues (12 of the 70 studies), but the remainder were carried out by numerous researchers from many different institutions. The BWC research also took place in diverse locations although 52 (74%) of these studies were conducted in U.S. jurisdictions, 14 (20%) were implemented outside of the United States, and 4 (7%) were multisite trials conducted across multiple countries. At least a quarter of the studies were carried out in cities and towns with populations smaller than 250,000 people. Finally, the BWC research researchfound did not just appear in peer?reviewed journals; a third of the studies are grant reports, unpublished manuscripts, or technical reports by law enforcement agencies.

The impact of BWCs on officer behavior, officer attitudes about BWCs, the impact of BWCs on citizen behavior, citizen and community attitudes about BWCs, the impact of BWCs on criminal investigations, and the impact of BWCs on law enforcement organizations, the most common types of research on BWCs focus on how BWCs impact officer behaviors as well as on officer

attitudes and perceptions about BWCs. One of the greatest expectations of BWCs by citizens and perhaps by police supervisors and leaders is that BWCs can change police officer behavior, and a sizeable portion of BWC research—at least 32 studies—has been focused on officer behavior. BWCs are theorized to have a deterrent effect on excessive use of force and unconstitutional actions by officers (see Ariel, Farrar, & Sutherland, 2015, and Ariel et al., 2017, for extensive discussions of the application of deterrence and self?awareness theories to BWCs).

BWCs are also believed to moderate possible negative interactions that officers may have with citizens Researchers in this area primarily have measured this impact by examining complaints made against officers as well as reports of officers' use of force. In some studies, however, scholars have also examined the impact that BWCs have on other types of officer behaviors such as the use of arrest and citations, or their proactive activities. Methodologically, the research in this area has been rigorous. In 14 studies, scholars have used randomized controlled experiments to evaluate these effects, and in at least 10 more, they have used strong quasi?experiments or, in one case, systematic social observations. Although many of these studies comprise some amount of contamination, attrition, and design challenges, it is important to emphasize that the level of believability of these findings is fairly strong.

The research discovered two early empirical studies of BWCs the two earliest outcome evaluations of the impact of cameras on officer behavior were the 2012 Rialto (California) Police Department experiment, carried out by then?Chief William (Tony) Farrar in collaboration and the Mesa Police Department (2013) quasi?experiment, analyzed by researchers at Arizona State University. Since the Rialto and Mesa studies, evaluation research on the impact that BWCs have on officer behavior has grown. In total, in 22 of the 32 studies in this area, scholars have used complaints against officers to measure BWC impact on officer behavior and in at least 18, they have employed experimental or quasi?experimental designs to test such effects between groups of officers, beats, or shifts with and without BWCs.

In these studies, researchers have mostly found that officers wearing BWCs receive fewer reported complaints than do those that are not wearing the cameras The more important concern for police agencies and researchers is why reports of complaints decline when officers wear BWCs. Perhaps the effect may be a result of a real change in officer behavior given that they know they are being recorded leading to citizens complaining less about them. The research findings on officer perceptions of BWCs in the next section, however, reveal a more complex story. Officers themselves believe that BWCs reduce specific types of complaints—frivolous, malicious, or unfounded—because citizens now realize they are being recorded.

Thus, the decline in complaints seen in experimental and quasi?experimental studies may indicate a reporting effect or a change in citizen reporting behavior rather than an effect on officer behavior or even on the quality of police–citizen interactions (which may remain unaffected if the reporting hypothesis holds true). Another possibility is that officers may be informally negotiating complaints by showing potential complainants or supervisors video footage of the encounter, which may discourage citizens from pursuing complaints for reasons unrelated to whether the complaint is legitimate. The use of complaints as a measure of officer behavior or officer–citizen interaction could itself be problematic.

Complaints are rare events relative to the large number of police–citizen interactions that occur

daily. Complaints (like use of force reports) reflect the tail end of the distribution of police–citizen interactions. Other measurement approaches—such as systematic social observations, ethnographies, and even analysis of BWC footage itself—may provide further clues into the wider impacts of BWCs on everyday citizen–officer interactions. through systematic social observations of officers in the Los Angeles Police Department, asserted that BWCs seem to have a direct impact on increasing the procedural justice experienced by citizens from officers.

Whether changes in behavior improve police–citizen interactions may be a matter of perception, however In addition to complaints and use of force, researchers have examined whether BWCs change the arrest and citation behavior of the police the wearing of BWCs might increase the use of arrests or citations if officers feel their discretion is limited or monitored Fourteen studies have been aimed at examining the impact of BWCs on officer arrest and citation behavior In total, the findings from these studies show no clear pattern of outcomes related to arrests and citations. however, discovered that arrests increase for BWC?wearing officers compared with non?BWC officers, as does the Toronto Police Service (2016).

Finally, neither Grossmith et al. (2015) nor Wallace, White, Gaub, and Todak (2018) found any significant impact from BWCs on arrests stemming from violent crimes or calls for service, respectively. These mixed findings occur within both randomized controlled experiments as well as quasi?experimental research. In their ethnographic research, Roresearchet al. (2018) reported officers with BWCs feeling constrained in their discretion to not arrest, especially when there is evidence of an assault.

Much less is known about the impact of BWCs on various types of police proactivity, which can encompass a wide range of activities when police are not responding to citizen?initiated calls for service. Proactivity can include activities such as problem?solving, stop?question?and?frisk, traffic enforcement, community policing and engagement efforts, directed patrol, or the use of misdemeanor arrests to reduce disorder Some of these activities are controversial framed this discussion of the impact of BWCs on proactivity in terms of whether BWCs caused “de?policing” or “camera?induced passivity” of officers. Perhaps BWCs make officers more fearful of scrutiny, which leads them to “pull back” on engaging more proactively with the public.

Because of the wide range of proactive activities, there are likely different opinions about whether the intent (or expectation) of BWCs should be to constrain police proactivity or whether the declines in proactivity would be considered positive or negative. One of the most important questions about BWCs that has yet to be tackled by any empirical research is whether BWCs have any impact on disparate outcomes in policing and, relatedly, whether BWCs impact 4th Amendment compliance by officers. The hypothesized impacts of BWCs in increasing the fairness and constitutionality of officer actions were significant reasons behind the push for, and acquisition of, BWCs in law enforcement. Yet, researchknow nothing about these effects beyond speculation.

More generally, researchdo not know much about the impact that any policing intervention One of the largest bodies of research on BWCs (at least 32 studies of all published or publicly available studies) has been focused on examining officer attitudes about cameras Agencies have been open to this type of research as leaders have been concerned about how BWCs might be perceived (and implemented) by their officers. Research in this area has been descriptive and focused on officer perceptions about BWCs or on their specific uses within

agencies. Some of the studies have taken place within broader experimental studies described previously, whereas others have been stand?alone surveys conducted of sworn personnel within or across jurisdictions. The methodological rigor of these surveys has varied, and researchleave a methodological analysis of this research area to a forthcoming systematic review (see Endnote 6).

To summarize, these studies—which most often have occurred within a single agency—have varied in terms of how representative their samples are to the population of officers in that agency, the validity of the questions used, the issues raised, and whether changes or variations in perceptions are measured either before or after cameras are acquired or between officer groups. Some studies have missing information that might help to assess the strength of the survey methodology, such as statistical testing comparing characteristics of respondents with nonrespondents or with the agency population more generally. Sometimes response rates have been less than 50%, whereas other scholars have used samples of convenience. Improving accountability for police misconduct has been a primary motivation for advocates of BWCs.

Prosecutors, however, rarely bring cases against the police and it remains to be seen whether this will change much as a result of BWCs. In their study of the use of BWCs in the courts, Merola et al. (2016) found that nearly all (93.0%) responding prosecutors' offices in jurisdictions that use BWCs use them primarily to prosecute citizens. Not surprisingly, 80.0% of responding prosecutors in Merola et al.'s survey support BWC use by the police, and 63.0% feel cameras will assist prosecutors more than defense attorneys. Only 8.3% of the respondents who were located in jurisdictions in which BWCs were available had ever used BWC footage in a case brought against an officer. Therefore, it is not surprising that researchcurrently do not know the impact of BWCs on the investigation of officer actions. A final area of research that has been the least examined is the impact that BWCs have on police organizations.

In studies on police technologies, scholars have found that technologies often have unintended consequences on police organizations and may not deliver on their expectations of BWCs have high expectations of them for police organizations, believing that they can improve training, tighten accountability structures and disciplinary systems and practices, or sharpen supervisory practices. But skeptics argue that BWCs place undue financial burdens on agencies with regard to maintaining the technology and hiring personnel to process videos. Some survey research findings indicate that officers fear that BWCs may further damage their relationships with supervisors and command staff or create a "robotic" culture among officers.

Body?worn cameras are one of the most rapidly diffusing technologies in law enforcement. Unlike many other adopted technologies, researchers have taken a high level of interest in BWCs, and they have tried to keep up with the adoption through extensive research and analysis of both the impacts of BWCs and how BWCs are perceived by officers and communities alike. In total, researchexamined 70 empirical studies in this review in which scholars spoke to the impact of BWCs on officer and citizen behavior, officer and citizen attitudes, investigations, and police organizations. (problem?solving, community engagement, targeted patrol in high crime places). From an evidence?based perspective, it would seem most appropriate to hope that BWCs do not cause police to stop carrying out proactive activities that can prevent and reduce crime and that do not create negative reactions from citizens. But some proactive activities might do both; therefore, expecting BWCs to resolve this challenge is overly optimistic.