

Evaluating the Effects of Police Body-Worn Cameras: A Randomized Controlled Trial

SUPPLEMENTARY MATERIALS

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In this document, we expand on the discussion in the main body of the paper, providing a more detailed description of the methodology and outcomes of interest. We also apply the analyses detailed in our pre-analysis plan to the endline data, and present the full set of results here. The tables below each analyze a discrete set of outcomes. For each set of outcomes, we present both the “raw” differences-in-means (DIM) and the covariate-adjusted (OLS) treatment effect estimates. We indicated in our pre-analysis plan that we would report these exact analyses with data from all districts at the conclusion of the trial. Finally, this section concludes with supplementary analyses conducted to inform the interpretation of our main results.

1 Methodology

Three key considerations informed the design and implementation of the BWC RCT in Washington, DC: legislative obligations, the logistics of BWC deployment, and scientific requirements of a rigorous study. First, a legislative mandate to equip all officers with BWCs by the end of 2016 meant that the RCT would have to end no later than mid-December 2016, leaving a two-week window to deploy remaining cameras. The logistics of BWC deployment, characterized by a rolling camera shipment schedule and a district-by-district installation schedule, also influenced our timeline and measurement strategy for the study, as we recognized that deployment would be staggered across the police districts.

Finally, to determine the appropriate design of the study (e.g., level of randomization, length of study period), we conducted a pilot study in two of the seven MPD police districts. In June 2015, eligible officers in these two districts were randomly assigned to receive a BWC or not: 325 officers were outfitted with BWCs, while 180 were not given cameras (the “control” group). This pilot allowed the team to collect sufficient preliminary data to inform the design of the full-scale evaluation (e.g., conduct statistical power calculations to determine the minimum detectable effect for various study designs). Drawing on this information, and operating in accordance with the legislative and logistic requirements noted above, we determined that, at a minimum, a six-month-long study with individual-level randomization within each district would be sufficiently powered to detect the effect (if it exists) of body-worn cameras on key outcomes of interest.

Officers were assigned cameras using a block randomized assignment procedure. Block random assignment uses pre-treatment information to group officers into blocks, and then to randomly assign a fixed number of cameras to officers in each block. We had two levels of blocking, “major” and “minor.”

The major blocks are the seven districts, and three special units (NSID, SOD, and School Security Division [SSD]).¹ Except in the blocks involved in the pilot (5D and 7D), we created “minor” blocks based on background characteristics of the officers. We grouped officers into matched pairs so that within each pair, officers were maximally similar to each other according to these characteristics. This pairing was conducted using the BlockTools package for R. We then assigned a camera to one officer within each pair at random. Within 5D and 7D, a fixed number of officers were assigned to receive cameras.

In the first Narcotics and Special Investigations Division (NSID) subgroup of officers to be randomly assigned BWCs, we were requested to assign cameras to more than 50% of the officers. We first made matched trios, then randomly assigned some trios to get two cameras and others to get one camera, then within trios, assigned the allotment of cameras at random.

In all major blocks, the probability of assignment to a camera is *constant across officers*. This probability is, however, *different across major blocks*. When the probabilities of assignment differ by district/unit, naive estimation strategies will be biased. Our analysis employs inverse probability weights (IPW) to account for this bias.²

Table 1 shows the number of units assigned to Control and Treatment in each block, as well as the probability of assignment and the precise covariates used to create the minor blocks. These covariates are

¹Officers assigned to the station in district 1D (1D-station) were assigned separately from other officers in 1D. Random assignment of BWCs to NSID were completed in two separate rounds. This makes a total of 12 major blocks in our randomization strategy.

²Gerber, Alan S. and Donald P. Green. (2012). *Field Experiments: Design, Analysis, and Interpretation*. New York, NY: W.W. Norton & Company, Chapter 3.

slightly different in each block due to data constraints as well as numerical difficulties encountered in the blocking algorithm due to very small variation for some covariates.

Table 1: Summary of Random Assignment Results

District/Unit	Control	BWC	Probability of Assignment	Covariates Used in Minor Blocking
1D	142	142	0.5	PSA, gender, use of force, race, length of service
1D Station	7	7	0.5	PSA, gender, use of force, length of service
2D	137	137	0.5	PSA, gender, use of force, race, length of service
3D	137	137	0.5	PSA, gender, use of force, race, length of service
4D	141	141	0.5	PSA, gender, use of force, race, length of service
5D	79	166	0.68	N/A
6D	153	152	0.5	PSA, gender, use of force, race, length of service
7D	99	159	0.62	N/A
NSIDa	12	19	0.61	Gender, use of force, race
NSIDb	36	36	0.5	Gender, use of force, race
SOD	48	49	0.5	Gender, use of force, race
School Security	44	44	0.5	Gender, use of force, race

Tables 2 and 3 provide descriptive statistics on the pre-treatment covariate balance across treatment and control groups.

Table 2: Pre-Treatment Covariate Distribution: Race and Sex

	Control Group %	Treatment Group %
American Indian/Alaskan Native	0.0	0.2
Asian/Pacific Islander	3.4	3.2
Black/African American	51.3	54.4
Hispanic	9.3	7.7
Unknown Race	0.8	1.3
White/Caucasian	35.3	33.3
Female	17.4	17.9
Male	82.6	82.1

Table 3: Pre-Treatment Covariate Distribution: Average Length of Service at MPD (in years)

	Control Group	Treatment Group
Mean Length of Service	13.3	12.9
Median Length of Service	12.0	12.0

To implement the randomized assignment to treatment and control groups, the research team pulled full rosters for each district and specialized unit and applied the eligibility criteria to generate rosters of study-eligible MPD members by district and special unit.³

³Per legislative mandate, all MPD officers were required to wear BWCs by the end of 2016, with the implementation of this deployment to be conducted by MPD. In this setting, participation in the study was mandatory for all officers deemed to be eligible based on the criteria outlined in the main text.

The research team then conducted block randomization to assign all MPD members on these rosters to either treatment or control conditions. Randomized assignments for all districts and units were transferred to MPD and BWCs deployed following the schedule below:

Table 4: District and Date of First BWC Deployment in District/Unit

5D	June 28, 2015
7D	June 28, 2015
NSID	February 11, 2016
3D	March 15, 2016
1D	March 22, 2016
6D	April 19, 2016
4D	May 3, 2016
2D	May 17, 2016
SOD	July 22, 2016
School Security	September 14, 2016

Specifically, treatment entails assignment of an eligible participant to wear and use a BWC in accordance with MPD policy. MPD General Order SPT-302.13 specifies that “[m]embers, including primary, secondary, and assisting members, shall start their BWC recordings as soon as a call is initiated via radio or communication from OUC [Office of Unified Communications] on their mobile data computer (MDC), or at the beginning of any self-initiated police action.” The general order enumerates the range of events for which officers were required to activate their BWCs; this list is included in Appendix A.

Some officers who are assigned cameras might not have installed or used them, and some officers who are not assigned cameras might have nevertheless obtained them. Our intervention therefore encountered two-sided noncompliance.⁴ We conduct all of our analyses according to the original random assignment in order to preserve symmetry. Our experiment recovers estimates of the effect of being *assigned* to a BWC on a variety of outcomes (the so-called intention-to-treat effect, or ITT).

1.1 Alternate Measurement Strategy

In addition to the primary specification described in the main text, we use all available data for all districts to calculate the yearly rate per 1000 officers for each of the measured outcomes. This alternative measurement strategy has the advantage of using all available data, but may lead to somewhat distorted inferences. For example, the average treatment effect estimates obtained using the alternative measurement strategy will include outcome data for 5D and 7D that is much further removed from the initial deployment of cameras than for the other districts due to the staggered deployment process.

The coefficient plots for each of the outcomes using this alternate measurement strategy are provided in Section 4. Regardless of which measurement strategy we apply, our findings remain the same: we are unable to detect any statistically significant effects of BWCs on the measured outcomes.

⁴See Gerber and Green, Chapter 6.

1.2 Detailed Description of Outcome Measures

We assessed the effect of BWCs on the following four families of outcome measures: police use of force; citizen complaints; policing activity; and judicial outcomes. The specific measures associated with each family and their respective definitions are detailed below.

1.2.1 Use of Force Outcome Measures

One of the primary anticipated effects of BWCs is that they will deter police use of force. MPD requires its members to submit reports documenting all uses of force, as defined in General Order RAR-901.07.⁵ We use this data, captured in MPD's Personnel Performance Management System (PPMS), to assess the effect of BWCs on police use of force in DC, and measure the following outcomes:

Use of force incidents. Per MPD policy, a use of force incident is a self-reported use of force.⁶ In addition to comparing all uses of force across the control and treatment groups, we also differentiate between serious uses of force and other uses of force, as defined by MPD policy.⁷ We look at these two measures separately as our data captures self-reported incidents. Under this logic, we might expect a decline in reports of serious uses of force due to the presence of the BWCs, but a possible increase in reports of other uses of force, if officers are more diligent in reporting lower-level uses of force in light of the camera's documentation of the interaction.

Use of force (serious). This includes:

- Firearm discharges
- Officer-involved shootings
- Use of force resulting in a broken bone or an injury requiring hospitalization
- Use of ASP (baton)
- All head strikes with an impact weapon
- Use of force resulting in loss of consciousness
- Use of force creating a substantial risk of death, serious disfigurement, disability or impairment of the functioning of any body part or organ MPD canine bites
- Use of force involving the use of neck restraints or techniques intended to restrict a subject's ability to breathe
- Other use of force resulting in death

Use of force(other). This includes all uses of force not categorized as a serious use of force.

⁵See Metropolitan Police Department. General Order - Use of Force. GO-RAR-901.07. Accessed October 6, 2016. <https://go.mpdconline.com/GO/GO_901_07.pdf>, p. 4 and p. 14 for instances in which MPD members are required to report use of force.

⁶See Metropolitan Police Department. General Order - Use of Force. GO-RAR-901.07. Accessed October 6, 2016. <https://go.mpdconline.com/GO/GO_901_07.pdf>, p. 9.

⁷In GO-RAR-901.07, see p. 3, item 9 for definition of serious uses of force, and p. 4, item 12 for general use of force definition.

Race of Subject of Force. We also examined use of force incidents by the race of the subject of the force, again looking at both “uses of force (serious)” and “uses of force (other).” The District of Columbia has a population of approximately 680,000, distributed as follows: 44.1% White; 48.3% Black; 10.6% Hispanic or Latino; 4.2% Asian; 2.7% multiracial; less than 1% each American Indian or Native Hawaiian or other Pacific Islander.⁸ Based on this demographic distribution, we examined use of force across the following race categories: White, Black/African American, Hispanic, and Other/Unknown.

1.2.2 Civilian Complaints Outcome Measures

BWCs are believed to have a broad “civilizing effect,” encouraging officers to be professional and courteous and civilians to be respectful and compliant. This effect can be measured in terms of civilian complaints, which in DC are reported to and investigated by both MPD and by the Office of Police Complaints (OPC), an independent civilian agency.⁹ Complaints were documented in the PPMS system and linked to the individual officers against whom the complaint was filed. We used this data to assess the effects of BWCs on civilian complaints, to be measured as follows:

Civilian Complaints. The complaints outcome measure will aggregate complaints from both MPD and OPC sources and compare the rate of civilian complaints for officers with BWCs vs. those without BWCs. We also disaggregate complaints according to whether they were sustained or not by the investigating body:

Complaint Sustained. A complaint is sustained when the allegation is deemed to be “supported by sufficient evidence to determine that the incident occurred, and the actions of the member were improper.”¹⁰

Complaint Not Sustained. Complaints that are not sustained have a disposition other than “sustained” (e.g., insufficient facts, exonerated, unfounded, or pending).

Insufficient Facts. Complaints with a disposition of “Insufficient Facts” were evaluated separately. This measure speaks to the question of whether the addition of BWC footage as a source of evidence produces any effect on the number of cases deemed to be inconclusive (for those complaints involving officers assigned to wear BWCs).

⁸United States Census Bureau. “Quick Facts - District of Columbia.” July 1, 2015 estimates. Accessed 6 Sept 2016. Available <<https://www.census.gov/quickfacts/table/PST045215/11,00>>.

⁹During the study period, the Neighborhood Engagement Achieves Results (NEAR) Act, went into effect, changing the process for reporting complaints. Beginning in June 30, 2016, all complaints against MPD members were filed directly with OPC, with notification to MPD.

¹⁰See Metropolitan Police Department. General Order - Processing Citizen Complaints. GO-PER-120.25. Accessed July 19, 2016. <<https://go.mpdconline.com/GO/GO-PER-120.25.pdf>>, p. 9 for definitions of complaint dispositions.

1.2.3 Policing Activity Outcome Measures

We examined the effect of BWCs on a variety of different policing activity measures, including traffic tickets and warnings issued, reports taken from particular types of calls for service, arrests on specific charges, and injuries sustained by officers. We use these measures to evaluate the effects of BWCs on officer discretion and activity, as well as on civilian behavior. For example, do the cameras have any impact on the number of traffic tickets or arrests officers make? Do officers assigned to wear BWCs experience fewer injuries due to assaults by civilians?

Traffic Tickets and Warnings issued. The tickets and warnings included in this data were issued in personal, face-to-face interactions between MPD officers and members of the public (e.g., no parking tickets or red-light camera tickets are included).

Discretionary Arrests. Per our interviews with MPD officials, officers exercise greater discretion to make arrests on charges in the following subset of offense categories:

- Disorderly Conduct
- Simple Assault
- Traffic Violations

We compared the control and treatment groups on the number of arrests officers in each group made on charges in these categories as a measure of the BWCs' effects on officer discretion.

Domestic Violence vs. Family Disturbance Report Taken Calls for Service. Officers responding to intra-family disputes have the discretion to code those calls explicitly as domestic violence events or note them as a "family disturbance." Given the greater workload associated with domestic violence events, we examined all calls for service coded as domestic violence incidents (e.g., event description is noted as "domestic violence"; "domestic violence incident"; or "domestic violence assault") as well as those coded as "family disturbance" events as an additional measure of the cameras' effects on officer discretion.

Domestic Violence Arrests. The District of Columbia has a mandatory arrest policy for domestic violence incidents. We examined these arrests as another measure of the cameras' effects on officer discretion.¹¹

Assault on a Police Officer (APO) arrests. APO arrests include both misdemeanors and felonies, and we looked at each separately in our analysis. They are defined in accordance with DC Criminal Code (22-405), "Whoever without justifiable and excusable cause, assaults, resists, opposes, impedes, intimidates, or interferes with a law enforcement officer on account of, or while that law enforcement officer is engaged in the performance of his or her official duties shall be guilty of a misdemeanor..." In addition to the above definition, an APO is a felony when this assault "causes significant bodily

¹¹See DC Code 16-031. "Arrests." Available <<https://beta.code.dccouncil.us/dc/council/code/sections/16-1031.html>> Accessed 27 Oct 2016.

injury to the law enforcement officer, or [the individual] commits a violent act that creates a grave risk of causing significant bodily injury to the officer.” MPD records all arrests in a database dedicated to this purpose, and codes APOs (misdemeanors and felonies) explicitly.

Officer injuries. In addition to examining APOs as a gauge of the effect (if any) of body cameras on civilian behavior, we also examined officer injuries sustained from interactions with civilians using data obtained from the MPD clinic.

1.2.4 Judicial Outcome Measures (for MPD arrest charges only)

This set of outcomes begins to explore the evidentiary value of BWCs to criminal justice proceedings, to be measured as follows:

Prosecutions. Once MPD charges an individual with a crime and makes an arrest, the US Attorney’s Office (USAO) or Office of the Attorney General (OAG) must decide whether or not to prosecute the charge based on the evidence available and the means by which that evidence was obtained, among other factors. We examine what happens to those specific charges on which MPD made arrests.¹²

We divided prosecutions into four categories, each of which serves as a separate dependent variable.

- **Trial and found guilty.** The disposition was Guilty-Court Trial or Guilty-Jury Trial.
- **Trial and found not guilty.** The disposition was Not Guilty-Acquittal, Not Guilty-Jury Trial, Not Guilty-Court Trial, or Not Guilty-By Reason of Insanity.
- **Plea.** The disposition was Dismissed-Nolle-Diversion, Dismissed-Nolle-Prosequi, Guilty-904 Guilty Plea, Dismissed-Plea Agreement, Guilty-Plea Judgment Guilty.
- **Dismissed without plea.** The disposition was Dismissed-DWP, Dismissed-No Probable Cause, Dismissed, Dismissed-Prosecution Abated.

Court Appearances. Court appearances are the number of times an officer appears in court, drawn from the MPD time, attendance, and court information database.

Hours in Court. This is an alternative measure of the amount of time officers spend in court.

¹²Due to current data limitations, we are unable to analyze the full universe of charges prosecuted by USAO and OAG at this time, and so our analysis of the effect of BWCs on judicial outcomes is limited to the subset of charges brought by MPD. For example, if MPD makes an arrest on a felony, and USAO or OAG changes those felony charges to a misdemeanor charge, adds another charge Y, this event is reflected in our data as Felony X not prosecuted; neither the misdemeanor charge nor the additional charge Y that are prosecuted by OAG are not captured in the data. As this limitation applies to both control and treatment groups, we can still conduct a preliminary analysis on the evidentiary value of BWCs, but make note that the data do not encompass all charges on which individuals are prosecuted in the District of Columbia.

1.3 Manipulation Check

Finally, as a measure of compliance with MPD BWC policy and treatment assignment, we measure the **number of videos uploaded** to the video databases as well as the **average length of the videos in minutes**.

2 A Novel Approach to Program Evaluation

One unusual aspect of this RCT concerns the relationship between the research team and the studied population. While program evaluation by outside researchers is hardly rare for government entities, working with a team of scientists *based within government* to conduct such work marks a new approach, one that places an emphasis on integrating rigorous scientific practices directly into governance and policy-making. The development and publication of the pre-analysis plan by a government entity, paired with an extended period of stakeholder engagement conducted prior to analysis of the data, is, to our knowledge, unprecedented.

2.1 Stakeholder Engagement

MPD and The Lab @ DC conducted numerous briefings regarding the BWC program and study design, including multiple conference presentations to police and research audiences, as well as engagement sessions with various stakeholders throughout the District. Importantly, all of these presentations were conducted *before* any researchers saw or analyzed the data; neither the research team nor the audiences to whom we were presenting knew what the findings were at the time these sessions were conducted. At each presentation, MPD provided an overview of the BWC program and policy, and The Lab @ DC discussed the details of the study design, concluding with a Q&A session allowing for open dialogue and the collection of feedback from participants. The full list of presentations is provided below.

2.1.1 Conference Presentations (All in Washington, DC unless otherwise noted)

Date	Engagement Event
October 2016	International Association of Chiefs of Police Annual Meeting (San Diego, CA)
November 2016	Association of Public Policy Analysis and Management Fall Research Conference
January 30, 2017	Experiments in the Public Interest
April 19, 2017	City and County Performance Summit

2.1.2 Stakeholder Briefings (All in Washington, DC)

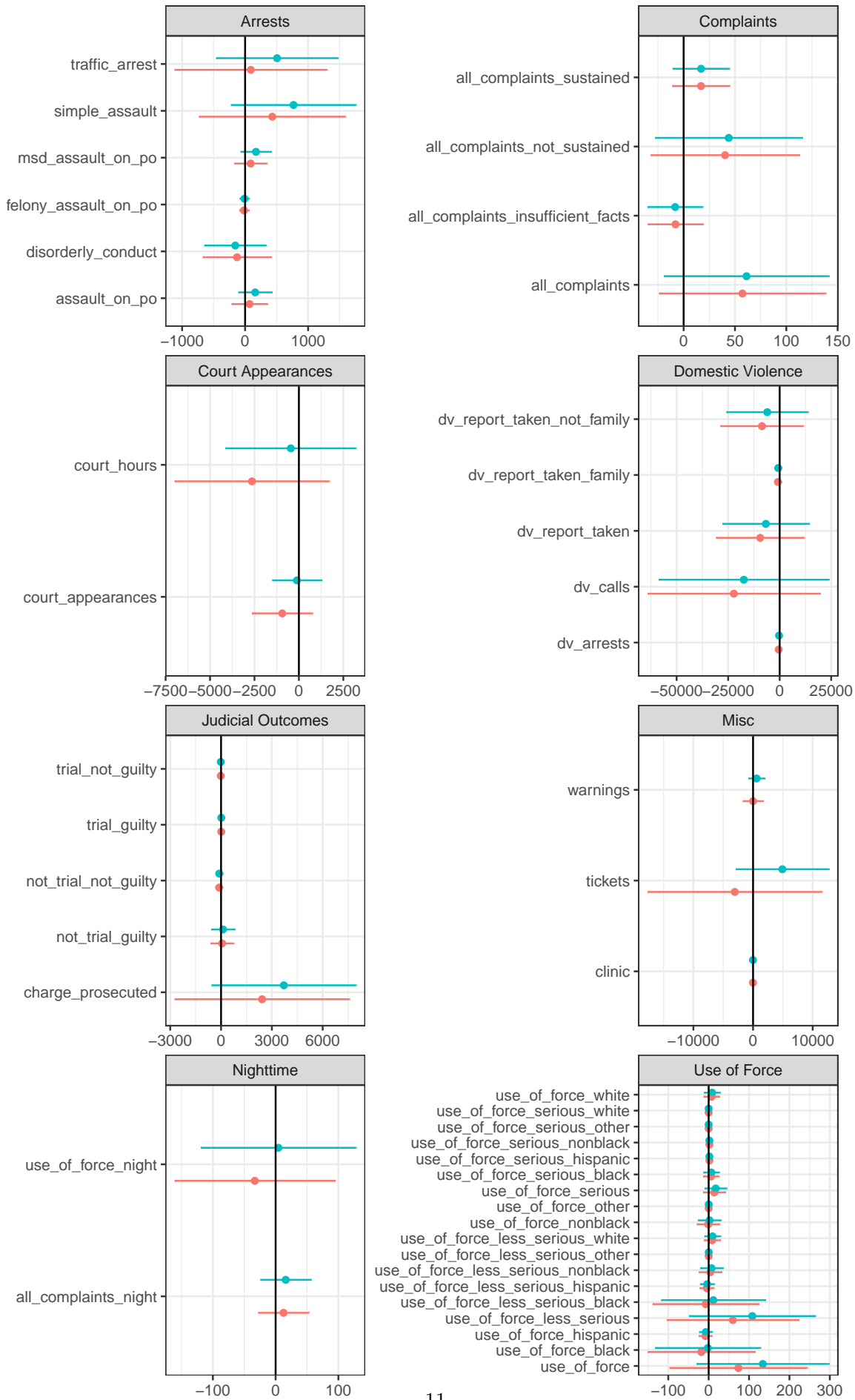
Date	Engagement Event
March 10, 2017	Stakeholder Engagement Briefing (with DC Government partners and advocacy groups)
March 16, 2017	Law Enforcement Executive Task Force
March 16, 2017	MPD Civilian Engagement Session
April 12, 2017	MPD Youth Advisory Council (DC high school students)
April 12, 2017	Public Defenders Service Engagement Session
April 20, 2017	Military Chiefs of Police (Arlington, VA)
April 25, 2017	University of the District of Columbia (students from all universities in DC invited)
May 18, 2017	Leadership Conference Law Enforcement Working Group
May 25, 2017	Leadership Conference Civil Rights Roundtable
June 1, 2017	MPD Sworn Members, Video briefing distributed

3 Full Results

In addition to the main findings presented in the article, we conducted all of the analyses described in the pre-analysis plan, and present those results here.

Figure 1. Coefficient plots of all measured outcomes. Each of the panels below plots our estimates of the effect of body-worn cameras on the various outcomes measured. We display estimates with 95% confidence intervals from both the difference-in-means and OLS estimators. As the plots indicate, we find no discernible effect of BWCs on any of the measured outcomes.

dv_name



Estimator
DIM
OLS

Tables 3-36 below correspond to the plots shown in Figure 1, providing both the difference-in-means and OLS estimates for each outcome measured.

Table 5: Effects of BWCs on Use of Force Outcomes

	Use of Force (1)	Use of Force (Serious) (2)	Use of Force (Other) (3)
Officer Assigned BWC	73.6 (87.0)	13.8 (14.1)	59.8 (83.4)
Constant (Control)	807.2 (59.2)	36.2 (9.0)	771.0 (57.5)
N	1,922	1,922	1,922
R ²	0.000	0.001	0.000

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 6: Effects of BWCs on Use of Force Outcomes

	Use of Force (1)	Use of Force (Serious) (2)	Use of Force (Other) (3)
Officer Assigned BWC	134.1 (83.6)	17.4 (14.0)	108.1 (79.7)
use_of_force_1000_rate_pre	0.2*** (0.1)		
use_of_force_serious_1000_rate_pre		0.05 (0.04)	
use_of_force_less_serious_1000_rate_pre			0.2*** (0.1)
gender_nonaMale	333.1*** (84.5)	29.5** (12.0)	314.4*** (81.2)
race_3_nonaRace: Other	85.3 (120.9)	9.6 (23.5)	76.6 (117.4)
race_3_nonaWhite	212.7** (102.3)	18.2 (16.6)	206.9** (97.1)
length_of_service_nona	-51.9*** (5.5)	-1.7** (0.8)	-50.6*** (5.3)
Constant	909.1 (118.3)	20.4 (16.0)	898.9 (113.8)
N	1,922	1,922	1,922
R ²	0.1	0.01	0.1

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 7: Effects of BWCs on Use of Force Outcomes (Night)

	Use of Force (Night)	Complaints (Night)
	(1)	(2)
Officer Assigned BWC	-33.2 (65.2)	12.6 (20.6)
Constant (Control)	475.2 (47.0)	87.0 (13.6)
N	1,922	1,922
R ²	0.000	0.000

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 8: Effects of BWCs on Use of Force Outcomes (Night)

	Use of Force (Night)	Complaints (Night)
	(1)	(2)
Officer Assigned BWC	4.5 (63.1)	16.1 (20.6)
use_of_force_night_1000_rate_pre	0.2*** (0.1)	
all_complaints_night_1000_rate_pre		-0.003 (0.02)
gender_nonaMale	167.5*** (61.3)	36.7 (22.6)
race_3_nonaRace: Other	198.1* (102.4)	54.6* (32.6)
race_3_nonaWhite	86.3 (74.6)	41.4 (25.3)
length_of_service_nona	-33.1*** (4.2)	-5.6*** (1.4)
Constant	587.0 (95.4)	102.1 (30.0)
N	1,922	1,922
R ²	0.1	0.02

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 9: Effects of BWCs on Use of Force Outcomes (Black Civilians)

	Use of Force (1)	Use of Force (Serious) (2)	Use of Force (Other) (3)
Officer Assigned BWC	-18.2 (67.9)	5.8 (10.0)	-7.5 (67.0)
Constant (Control)	530.9 (46.6)	21.3 (6.9)	515.5 (45.9)
N	1,922	1,922	1,922
R ²	0.000	0.000	0.000

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 10: Effects of BWCs on Use of Force Outcomes (Black Civilians)

	Use of Force (1)	Use of Force (Serious) (2)	Use of Force (Other) (3)
Officer Assigned BWC	-1.9 (66.6)	6.6 (10.0)	11.6 (65.7)
use_of_force_black_1000_rate_pre	0.1** (0.1)		
use_of_force_serious_black_1000_rate_pre		-0.02*** (0.004)	
use_of_force_less_serious_black_1000_rate_pre			0.2*** (0.1)
gender_nonaMale	208.8*** (71.3)	12.9 (9.5)	189.8*** (69.8)
race_3_nonaRace: Other	-18.3 (90.0)	14.3 (17.0)	-45.9 (89.8)
race_3_nonaWhite	135.4 (82.8)	26.4** (12.2)	113.0 (81.0)
length_of_service_nona	-32.4*** (4.3)	-0.4 (0.4)	-32.2*** (4.3)
Constant	658.1 (93.3)	4.6 (11.7)	645.5 (93.9)
N	1,922	1,922	1,922
R ²	0.05	0.005	0.1

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 11: Effects of BWCs on Use of Force Outcomes (Nonblack Civilians)

	Use of Force (1)	Use of Force (Serious) (2)	Use of Force (Other) (3)
Officer Assigned BWC	-1.0 (14.4)	1.8 (1.8)	3.9 (14.4)
Constant (Control)	45.8 (9.8)	-0.0 (0.0)	45.8 (9.8)
N	1,922	1,922	1,922
R ²	0.000	0.001	0.000

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 12: Effects of BWCs on Use of Force Outcomes (Nonblack Civilians)

	Use of Force (1)	Use of Force (Serious) (2)	Use of Force (Other) (3)
Officer Assigned BWC	2.2 (14.6)	1.8 (1.8)	7.2 (14.5)
use_of_force_nonblack_1000_rate_pre	0.1 (0.1)		
use_of_force_serious_nonblack_1000_rate_pre		-0.000 (0.000)	
use_of_force_less_serious_nonblack_1000_rate_pre			0.1* (0.05)
gender_nonaMale	13.0 (15.9)	1.6 (1.6)	9.9 (16.1)
race_3_nonaRace: Other	32.6 (26.4)	-2.4 (2.4)	31.7 (25.8)
race_3_nonaWhite	11.4 (17.8)	-2.4 (2.4)	18.8 (17.7)
length_of_service_nona	-3.2*** (1.0)	-0.1 (0.1)	-3.3*** (1.0)
Constant	61.0 (19.4)	1.6 (1.6)	61.5 (19.9)
N	1,922	1,922	1,922
R ²	0.02	0.002	0.02

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 13: Effects of BWCs on Use of Force Outcomes (White Civilians)

	Use of Force (1)	Use of Force (Serious) (2)	Use of Force (Other) (3)
Officer Assigned BWC	7.2 (10.1)	0.0 (0.0)	8.5 (10.2)
Constant (Control)	21.5 (6.2)	0.0 (0.0)	21.5 (6.2)
N	1,922	1,922	1,922
R ²	0.000		0.000

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 14: Effects of BWCs on Use of Force Outcomes (White Civilians)

	Use of Force (1)	Use of Force (Serious) (2)	Use of Force (Other) (3)
Officer Assigned BWC	8.3 (10.2)	0.0 (0.0)	9.6 (10.3)
use_of_force_white_1000_rate_pre	0.03 (0.04)		
use_of_force_serious_white_1000_rate_pre			
use_of_force_less_serious_white_1000_rate_pre			0.03 (0.04)
gender_nonaMale	4.7 (12.6)	0.0 (0.0)	1.2 (13.1)
race_3_nonaRace: Other	13.8 (17.4)	0.0 (0.0)	12.6 (17.5)
race_3_nonaWhite	4.5 (12.4)	0.0 (0.0)	3.3 (12.4)
length_of_service_nona	-2.1*** (0.6)	0.0 (0.0)	-2.2*** (0.6)
Constant	38.5 (13.6)	0.0 (0.0)	43.1 (14.4)
N	1,922	1,922	1,922
R ²	0.01		0.01

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 15: Effects of BWCs on Use of Force Outcomes (Hispanic Civilians)

	Use of Force (1)	Use of Force (Serious) (2)	Use of Force (Other) (3)
Officer Assigned BWC	-8.2 (8.3)	1.8 (1.8)	-4.6 (9.0)
Constant (Control)	22.5 (6.5)	-0.0 (0.0)	22.5 (6.5)
N	1,922	1,922	1,922
R ²	0.001	0.001	0.000

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 16: Effects of BWCs on Use of Force Outcomes (Hispanic Civilians)

	Use of Force (1)	Use of Force (Serious) (2)	Use of Force (Other) (3)
Officer Assigned BWC	-7.2 (8.3)	1.8 (1.8)	-3.6 (9.0)
use_of_force_hispanic_1000_rate_pre	0.03 (0.03)		
use_of_force_serious_hispanic_1000_rate_pre		-0.000 (0.000)	
use_of_force_less_serious_hispanic_1000_rate_pre			0.02 (0.03)
gender_nonaMale	14.4* (7.5)	1.6 (1.6)	15.5** (7.6)
race_3_nonaRace: Other	12.4 (17.1)	-2.4 (2.4)	13.9 (17.0)
race_3_nonaWhite	4.4 (10.0)	-2.4 (2.4)	13.7 (10.9)
length_of_service_nona	-1.1 (0.7)	-0.1 (0.1)	-1.1 (0.7)
Constant	18.8 (11.6)	1.6 (1.6)	15.4 (11.7)
N	1,922	1,922	1,922
R ²	0.01	0.002	0.01

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 17: Effects of BWCs on Use of Force Outcomes (Other Race Civilians)

	Use of Force (1)	Use of Force (Serious) (2)	Use of Force (Other) (3)
Officer Assigned BWC	-0.0 (2.5)	0.0 (0.0)	-0.0 (2.5)
Constant (Control)	1.8 (1.8)	0.0 (0.0)	1.8 (1.8)
N	1,922	1,922	1,922
R ²	0.0		0.0

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 18: Effects of BWCs on Use of Force Outcomes (Other Race Civilians)

	Use of Force (1)	Use of Force (Serious) (2)	Use of Force (Other) (3)
Officer Assigned BWC	0.1 (2.5)	0.0 (0.0)	0.1 (2.5)
use_of_force_other_1000_rate_pre	-0.000 (0.001)		
use_of_force_serious_other_1000_rate_pre			
use_of_force_less_serious_other_1000_rate_pre			-0.000 (0.001)
gender_nonaMale	-4.6 (5.4)	0.0 (0.0)	-4.6 (5.4)
race_3_nonaRace: Other	6.4 (6.9)	0.0 (0.0)	6.4 (6.9)
race_3_nonaWhite	2.5 (2.1)	0.0 (0.0)	2.5 (2.1)
length_of_service_nona	-0.2 (0.1)	0.0 (0.0)	-0.2 (0.1)
Constant	5.8 (4.5)	0.0 (0.0)	5.8 (4.5)
N	1,922	1,922	1,922
R ²	0.003		0.003

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 19: Effects of BWCs on Complaints

	Complaints (1)	Complaints (Sustained) (2)	Complaints (Not Sustained) (3)	Complaints (Insufficient Facts) (4)
Officer Assigned BWC	57.3 (41.4)	16.9 (14.2)	40.4 (37.0)	-7.9 (13.8)
Constant (Control)	280.1 (29.6)	38.7 (10.3)	241.4 (26.1)	47.8 (10.8)
N	1,922	1,922	1,922	1,922
R ²	0.001	0.001	0.001	0.000

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 20: Effects of BWCs on Complaints

	Complaints (1)	Complaints (Sustained) (2)	Complaints (Not Sustained) (3)	Complaints (Insufficient Facts) (4)
Officer Assigned BWC	61.2 (41.0)	17.0 (14.1)	43.9 (36.6)	-8.3 (13.7)
all_complaints_1000_rate_pre	0.04* (0.02)			
all_complaints_sustained_1000_rate_pre		0.01 (0.02)		
all_complaints_not_sustained_1000_rate_pre			0.03 (0.02)	
all_complaints_insufficient_facts_1000_rate_pre				-0.003 (0.02)
gender_nonaMale	51.9 (52.1)	-14.2 (23.8)	67.4 (44.3)	21.8 (16.1)
race_3_nonaRace: Other	52.6 (63.3)	24.9 (27.2)	29.7 (54.5)	-2.6 (21.2)
race_3_nonaWhite	8.3 (49.4)	-19.4 (15.1)	28.3 (44.2)	-17.2 (16.2)
length_of_service_nona	-4.8* (2.7)	-1.7* (0.9)	-3.1 (2.4)	-0.1 (0.9)
Constant	268.4 (64.0)	73.6 (32.1)	197.9 (52.8)	38.2 (20.2)
N	1,922	1,922	1,922	1,922
R ²	0.01	0.01	0.005	0.002

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 21: Effects of BWCs on Assaults on Police Officers

	Assault on PO (1)	Felony APO (2)	Misdemeanor APO (3)
Officer Assigned BWC	71.6 (145.7)	-16.6 (39.1)	88.3 (131.9)
Constant (Control)	1,381.8 (107.8)	155.2 (29.6)	1,226.6 (97.3)
N	1,922	1,922	1,922
R ²	0.000	0.000	0.000

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 22: Effects of BWCs on Assaults on Police Officers

	Assault on PO (1)	Felony APO (2)	Misdemeanor APO (3)
Officer Assigned BWC	159.9 (136.3)	-10.6 (38.5)	171.5 (124.1)
assault_on_po_1000_rate_pre	0.2*** (0.1)		
felony_assault_on_po_1000_rate_pre		0.1 (0.04)	
msd_assault_on_po_1000_rate_pre			0.2*** (0.1)
gender_nonaMale	-87.6 (181.1)	14.6 (50.4)	-102.3 (173.1)
race_3_nonaRace: Other	104.8 (202.6)	-78.4* (41.6)	174.4 (188.5)
race_3_nonaWhite	646.3*** (160.1)	100.8** (48.6)	552.4*** (144.1)
length_of_service_nona	-95.8*** (8.5)	-12.6*** (2.4)	-83.2*** (7.7)
Constant	2,162.6 (215.4)	264.3 (60.9)	1,902.0 (203.2)
N	1,922	1,922	1,922
R ²	0.1	0.02	0.1

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 23: Effects of BWCs on Discretionary Arrests

	Disorderly Conduct (1)	Simple Assault (2)	Traffic Violation (3)
Officer Assigned BWC	-127.7 (277.2)	430.8 (593.1)	91.1 (617.2)
Constant (Control)	1,416.5 (186.3)	9,065.7 (442.5)	5,230.6 (458.2)
N	1,922	1,922	1,922
R ²	0.000	0.000	0.000

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 24: Effects of BWCs on Discretionary Arrests

	Disorderly Conduct (1)	Simple Assault (2)	Traffic Violation (3)
Officer Assigned BWC	-156.6 (250.5)	768.0 (506.6)	507.2 (493.4)
disorderly_conduct_1000_rate_pre	1.0*** (0.2)		
simple_assault_1000_rate_pre		0.7*** (0.1)	
traffic_arrest_1000_rate_pre			0.7*** (0.1)
gender_nonaMale	369.8* (194.2)	966.8* (579.7)	445.1 (563.1)
race_3_nonaRace: Other	948.5 (590.0)	687.3 (797.5)	2,095.7** (920.8)
race_3_nonaWhite	321.4 (239.5)	2,254.5*** (575.3)	1,591.5*** (526.1)
length_of_service_nona	-32.4*** (10.6)	-346.0*** (33.3)	-241.1*** (29.1)
Constant	620.0 (319.9)	8,053.5 (830.4)	4,798.1 (715.9)
N	1,922	1,922	1,922
R ²	0.2	0.3	0.4

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 25: Effects of BWCs on Domestic Violence Outcomes

	DV Report Taken (1)	DV Report Taken (Family) (2)	DV Report Taken (Not Family) (3)	DV Calls (4)	DV Arrests (5)
Officer Assigned BWC	-9,448.5 (10,905.5)	-858.5 (886.4)	-8,590.1 (10,260.7)	-22,217.9 (21,363.5)	-464.7 (454.8)
Constant (Control)	230,390.1 (8,087.3)	12,962.6 (677.6)	217,427.5 (7,582.4)	446,876.3 (15,822.8)	4,272.0 (348.6)
N	1,922	1,922	1,922	1,922	1,922
R ²	0.000	0.000	0.000	0.001	0.001

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 26: Effects of BWCs on Domestic Violence Outcomes

	DV Report Taken (1)	DV Report Taken (Family) (2)	DV Report Taken (Not Family) (3)	DV Calls (4)	DV Arrests (5)
Officer Assigned BWC	-6,727.1 (10,727.9)	-711.9 (870.8)	-6,015.2 (10,101.6)	-17,382.6 (21,070.9)	-303.1 (420.0)
dv_report_taken_1000_rate_pre					
dv_report_taken_family_1000_rate_pre					
dv_report_taken_not_family_1000_rate_pre					
dv_calls_1000_rate_pre					
dv_arrests_1000_rate_pre					0.4*** (0.1)
gender_nonaMale	18,079.1 (14,244.3)	922.6 (1,156.9)	17,156.4 (13,394.4)	42,323.8 (27,873.1)	739.0 (488.9)
race_3_nonaRace: Other	33,421.5** (17,014.5)	-780.5 (1,274.3)	34,202.1** (16,085.9)	64,597.3* (33,807.3)	-688.1 (484.8)
race_3_nonaWhite	37,779.4*** (12,368.5)	946.3 (1,019.3)	36,833.1*** (11,625.0)	60,251.5** (24,218.9)	1,468.7*** (498.9)
length_of_service_nona	-4,607.4*** (696.2)	-438.4*** (56.2)	-4,169.0*** (657.7)	-8,400.6*** (1,365.9)	-174.8*** (25.5)
Constant	252,559.3 (17,795.9)	17,252.7 (1,514.6)	235,306.6 (16,668.1)	482,183.0 (34,680.5)	3,727.1 (624.7)
N	1,922	1,922	1,922	1,922	1,922
R ²	0.04	0.03	0.04	0.03	0.2

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 27: Effects of BWCs on Judicial Outcomes

	Prosecuted	Found Guilty	Not Found Guilty	Entered Plea	Not Pursued
	(1)	(2)	(3)	(4)	(5)
Officer Assigned BWC	2,421.6 (2,632.7)	13.5 (20.0)	-15.6 (22.2)	62.8 (353.1)	-114.3 (102.2)
Constant (Control)	33,139.1 (1,814.6)	39.6 (14.1)	49.3 (17.7)	1,348.5 (182.0)	390.1 (95.9)
N	1,922	1,922	1,922	1,922	1,922
R ²	0.000	0.000	0.000	0.000	0.001

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 28: Effects of BWCs on Judicial Outcomes

	Prosecuted	Found Guilty	Not Found Guilty	Entered Plea	Not Pursued
	(1)	(2)	(3)	(4)	(5)
Officer Assigned BWC	3,707.7* (2,173.5)	14.8 (20.1)	-15.1 (22.1)	118.0 (353.9)	-109.2 (103.1)
charge_prosecuted_1000_rate_pre	0.9*** (0.1)				
trial_guilty_1000_rate_pre		0.01 (0.01)			
trial_not_guilty_1000_rate_pre			0.02 (0.02)		
not_trial_guilty_1000_rate_pre				0.1*** (0.03)	
not_trial_not_guilty_1000_rate_pre					0.03*** (0.01)
gender_nonaMale	3,202.9 (2,624.7)	18.4 (22.6)	8.8 (21.7)	273.5 (289.1)	179.0* (92.7)
race_3_nonaRace: Other	7,343.5* (3,951.3)	4.3 (31.3)	-40.1 (25.1)	1,332.5 (964.6)	-236.2* (137.7)
race_3_nonaWhite	9,080.0*** (2,428.2)	16.4 (23.5)	11.0 (30.6)	337.0 (270.4)	-112.6 (142.1)
length_of_service_nona	-1,495.2*** (149.1)	-3.1*** (0.9)	-3.1** (1.4)	-58.0*** (13.4)	-20.8*** (7.2)
Constant	29,206.5 (4,003.3)	51.2 (23.6)	76.2 (29.6)	985.7 (398.5)	511.0 (171.8)
N	1,922	1,922	1,922	1,922	1,922
R ²	0.3	0.01	0.01	0.04	0.01

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 29: Effects of BWCs on Court Appearances

	Court Appearances	Hours in Court
	(1)	(2)
Officer Assigned BWC	-936.0 (868.5)	-2,639.0 (2,220.5)
Constant (Control)	11,798.2 (683.8)	28,026.2 (1,724.3)
N	1,922	1,922
R ²	0.001	0.001

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 30: Effects of BWCs on Court Appearances

	Court Appearances	Hours in Court
	(1)	(2)
Officer Assigned BWC	-111.8 (707.2)	-455.6 (1,872.5)
court_appearances_1000_rate_pre	0.5*** (0.05)	
court_hours_1000_rate_pre		0.4*** (0.04)
gender_nonaMale	1,149.1 (827.9)	2,670.5 (2,194.2)
race_3_nonaRace: Other	9.3 (1,297.3)	1,669.0 (3,142.7)
race_3_nonaWhite	1,275.0* (763.9)	4,745.6** (2,111.1)
length_of_service_nona	-362.5*** (49.6)	-890.4*** (119.8)
Constant	8,306.4 (1,215.8)	20,821.1 (2,696.9)
N	1,922	1,922
R ²	0.3	0.3

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.

Robust standard errors are in parentheses.

Table 31: Effects of BWCs on Clinic Visits

	Clinic Visits
Officer Assigned BWC	-23.0 (32.8)
Constant (Control)	237.3 (25.0)
N	1,922
R ²	0.000

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.
Robust standard errors are in parentheses.

Table 32: Effects of BWCs on Clinic Visits

	Clinic Visits
Officer Assigned BWC	-15.6 (32.4)
clinic_1000_rate_pre	0.1*** (0.03)
gender_nonaMale	-15.3 (44.4)
race_3_nonaRace: Other	-102.7** (43.5)
race_3_nonaWhite	-13.9 (37.3)
length_of_service_nona	-6.8*** (2.0)
Constant	324.7 (54.9)
N	1,922
R ²	0.02

*p < .1; **p < .05; ***p < .01

Outcomes are yearly event rates per 1000 officers.
Robust standard errors are in parentheses.

Table 33: Effects of BWCs on Tickets

	Tickets
Officer Assigned BWC	-3,059.6 (7,460.1)
Constant (Control)	24,815.5 (5,472.1)
N	1,922
R ²	0.000

*p < .1; **p < .05; ***p < .01

Robust standard errors are in parentheses.

Table 34: Effects of BWCs on Tickets

	Tickets
Officer Assigned BWC	4,907.9 (3,987.6)
tickets_1000_rate_pre	1.1*** (0.2)
gender_nonaMale	-494.6 (3,268.0)
race_3_nonaRace: Other	-2,801.4 (4,984.2)
race_3_nonaWhite	-2,436.4 (3,977.2)
length_of_service_nona	175.8 (189.5)
Constant	-3,675.2 (4,447.3)
N	1,922
R ²	0.8

*p < .1; **p < .05; ***p < .01

Robust standard errors are in parentheses.

Table 35: Effects of BWCs on Warnings

	Warnings
Officer Assigned BWC	-4.9 (868.9)
Constant (Control)	4,250.7 (595.4)
N	1,922
R ²	0.000

*p < .1; **p < .05; ***p < .01

Robust standard errors are in parentheses.

Table 36: Effects of BWCs on Warnings

	Warnings
Officer Assigned BWC	590.1 (691.3)
warnings_1000_rate_pre	0.6*** (0.1)
gender_nonaMale	-416.9 (970.5)
race_3_nonaRace: Other	-335.0 (867.9)
race_3_nonaWhite	1,271.5* (737.6)
length_of_service_nona	-40.6 (38.8)
Constant	1,828.4 (1,131.6)
N	1,922
R ²	0.4

*p < .1; **p < .05; ***p < .01

Robust standard errors are in parentheses.

Table 37: Effects of BWCs on Compliance Outcomes

	Videos per year (1)	Average length of videos in minutes (2)
Officer Assigned BWC	649.1*** (17.2)	10.3*** (0.2)
Constant (Control)	13.9 (3.8)	0.8 (0.1)
N	1,922	1,922
R ²	0.4	0.6

*p < .1; **p < .05; ***p < .01

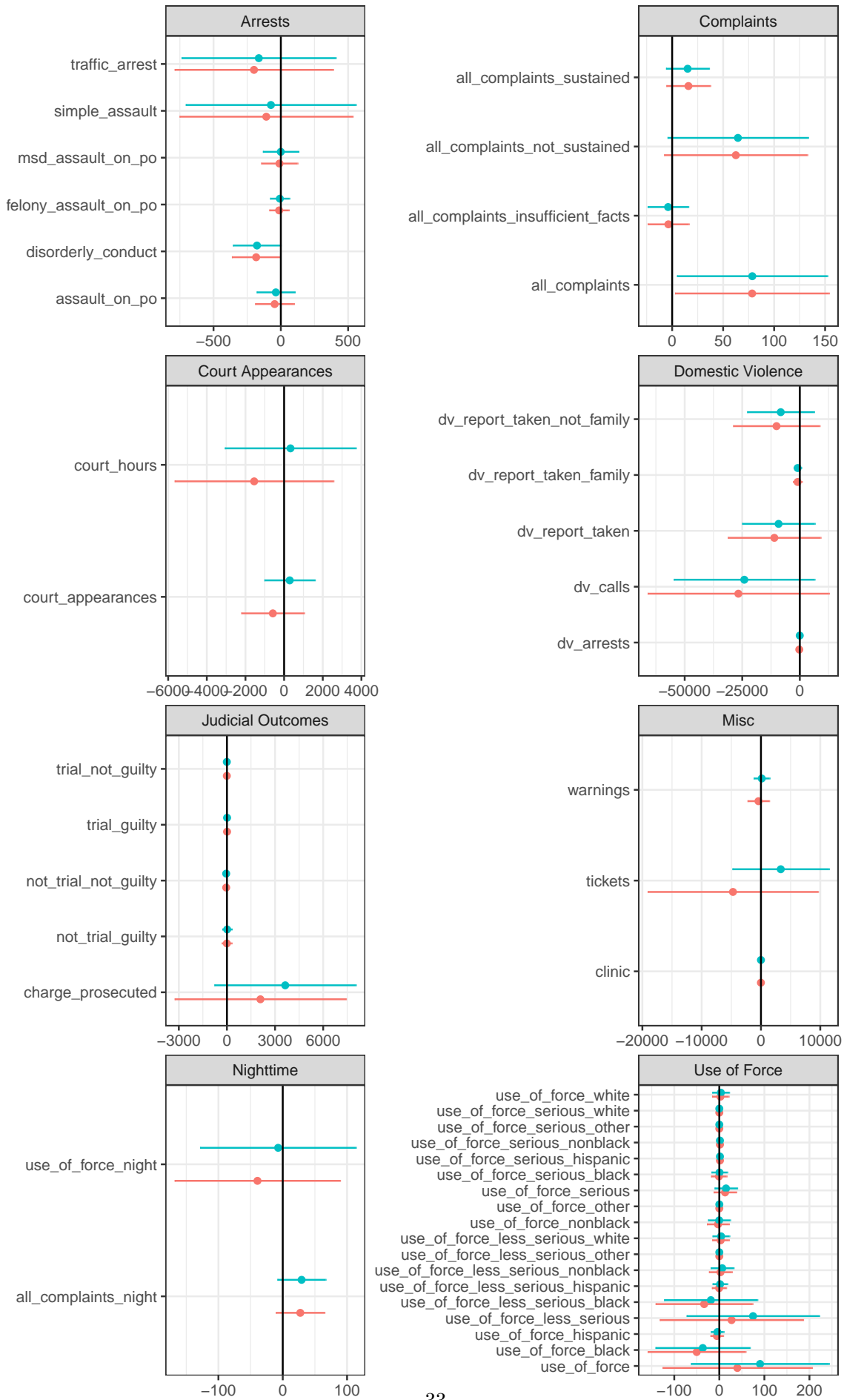
Robust standard errors are in parentheses.

Table 37 presents the results of our manipulation check. If officers complied with the randomization protocol, we would expect that officers assigned BWCs would make vastly more videos per year, as well as have a longer average length of videos - we find this to be true, and conclude that MPD officers adhered to the randomization protocol.

4 Application of Alternate Measurement Strategy

Figure 2. Coefficient plots of all outcomes, using the alternate measurement strategy. Each of the panels below plots our estimates of the effect of body-worn cameras on the various outcomes measured. We display estimates with 95% confidence intervals from both the difference-in-means and OLS estimators. Regardless of which measurement strategy we apply, our findings remain the same: we are unable to detect any statistically significant effect of BWCs on the measured outcomes.

dv_name



Estimator
● DIM
● OLS

5 Supplementary Analyses

In addition to the analyses specified in our pre-analysis plan, we completed supplementary analyses of our data, plotting the data for key outcomes of interest (police use of force and complaints filed against MPD members) and taking a closer look at adherence to the BWC program.

Figure 3. Uses of Force per 1000 Officers, 90 days before and after BWC deployment. This figure plots pre- and post-treatment uses of force for both control and treatment group officers. As the chart indicates, there is no statistically significant difference between the two groups in either the 90-day period before or after the deployment of BWCs (which occurs on day 0).

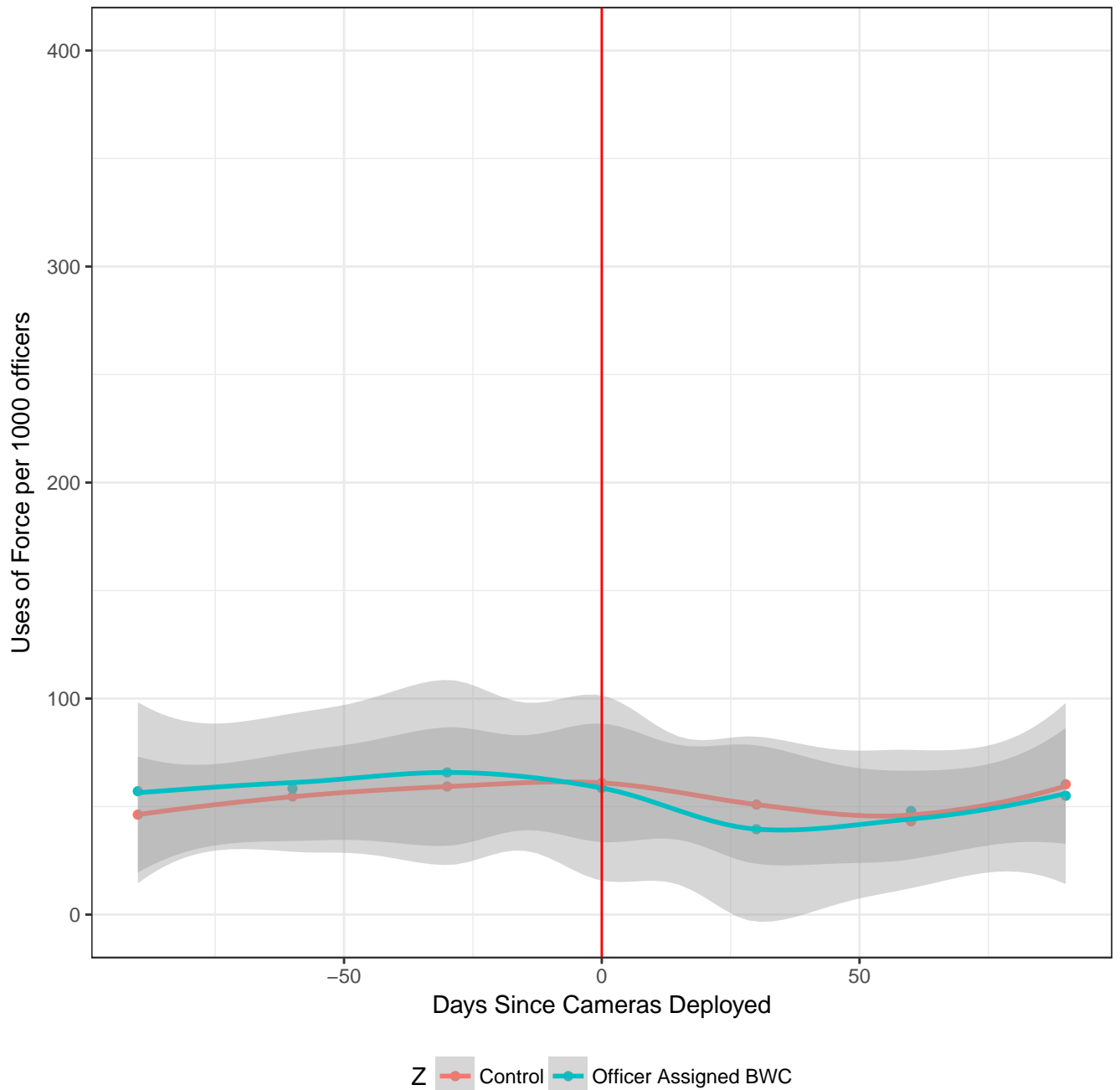


Figure 4. Uses of Force per 1000 Officers, 90 days before and after BWC deployment, broken out by police district. This figure plots pre- and post-treatment uses of force for both control and treatment group officers in each police district. As the chart indicates, there is no statistically significant difference between the two groups in either the 90-day period before or after the deployment of BWCs (which occurs on day 0).

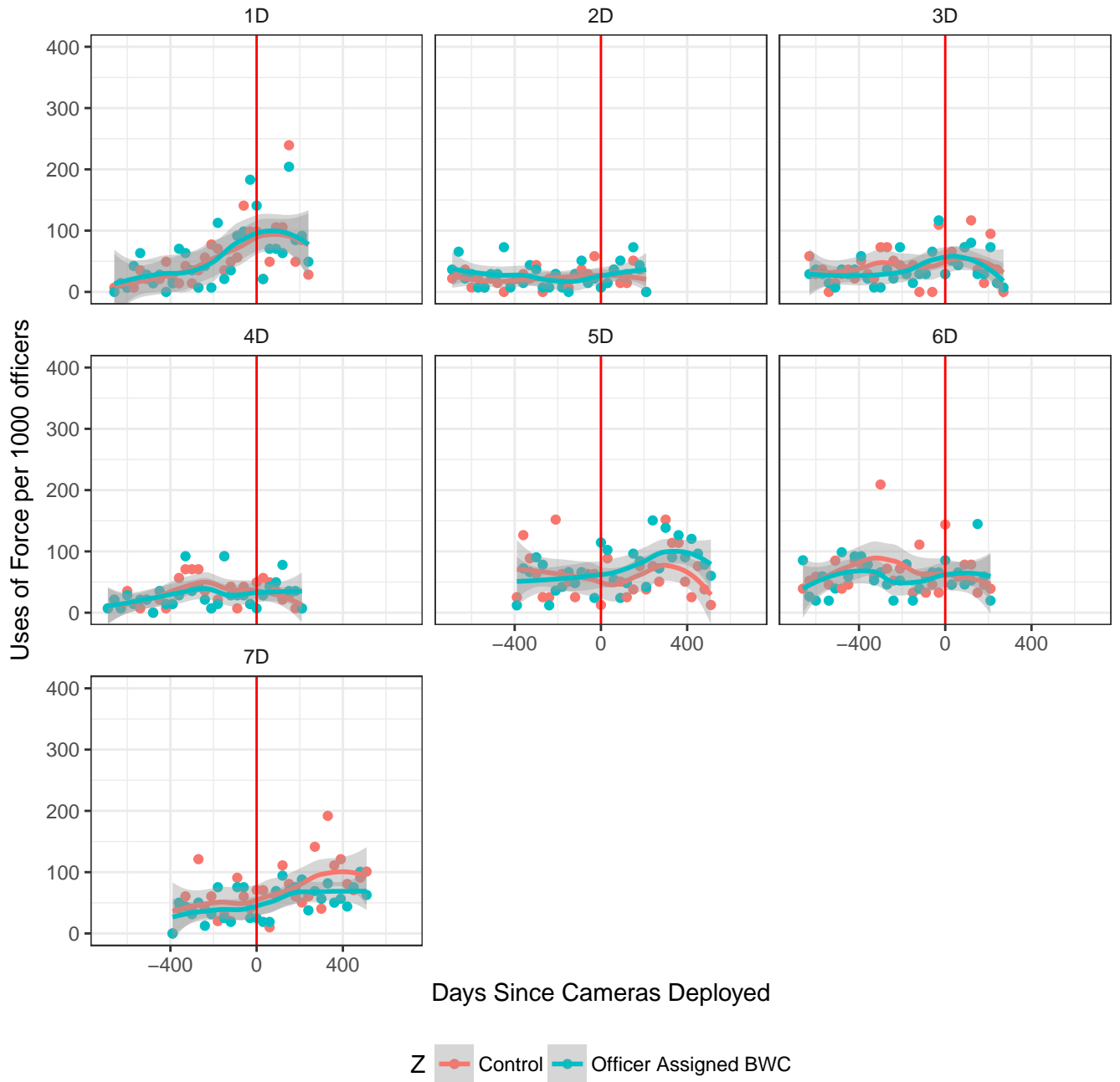


Figure 5. Complaints per 1000 Officers, 90 days before and after BWC deployment. This figure plots pre- and post-treatment complaints for both control and treatment group officers. As the chart indicates, there is no statistically significant difference between the two groups in either the 90-day period before or after the deployment of BWCs (which occurs on day 0).

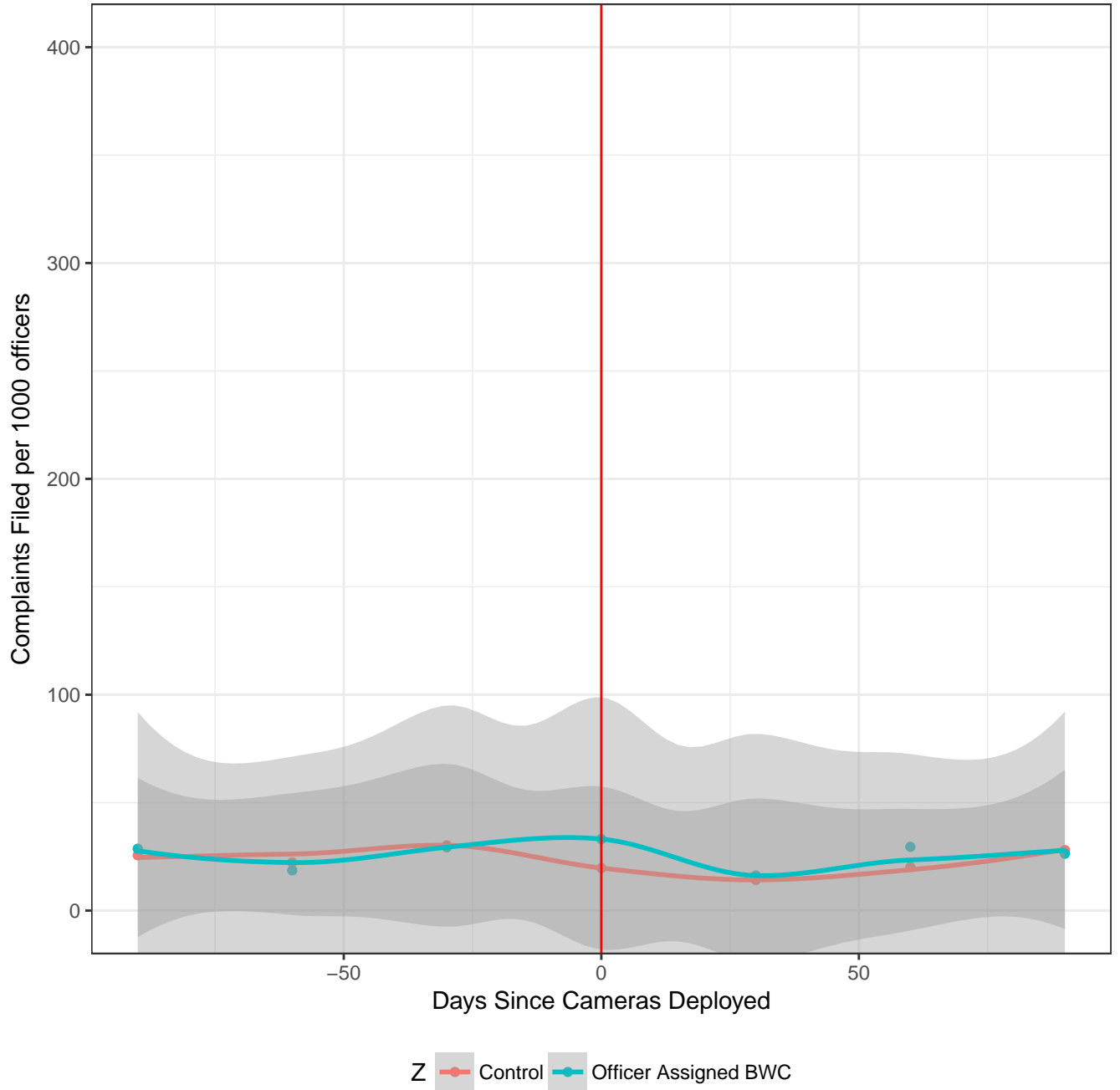


Figure 6. Complaints per 1000 Officers, 90 days before and after BWC deployment, broken out by police district. This figure plots pre- and post-treatment complaints for both control and treatment group officers in each police district. As the chart indicates, there is no statistically significant difference between the two groups in either the 90-day period before or after the deployment of BWCs (which occurs on day 0).

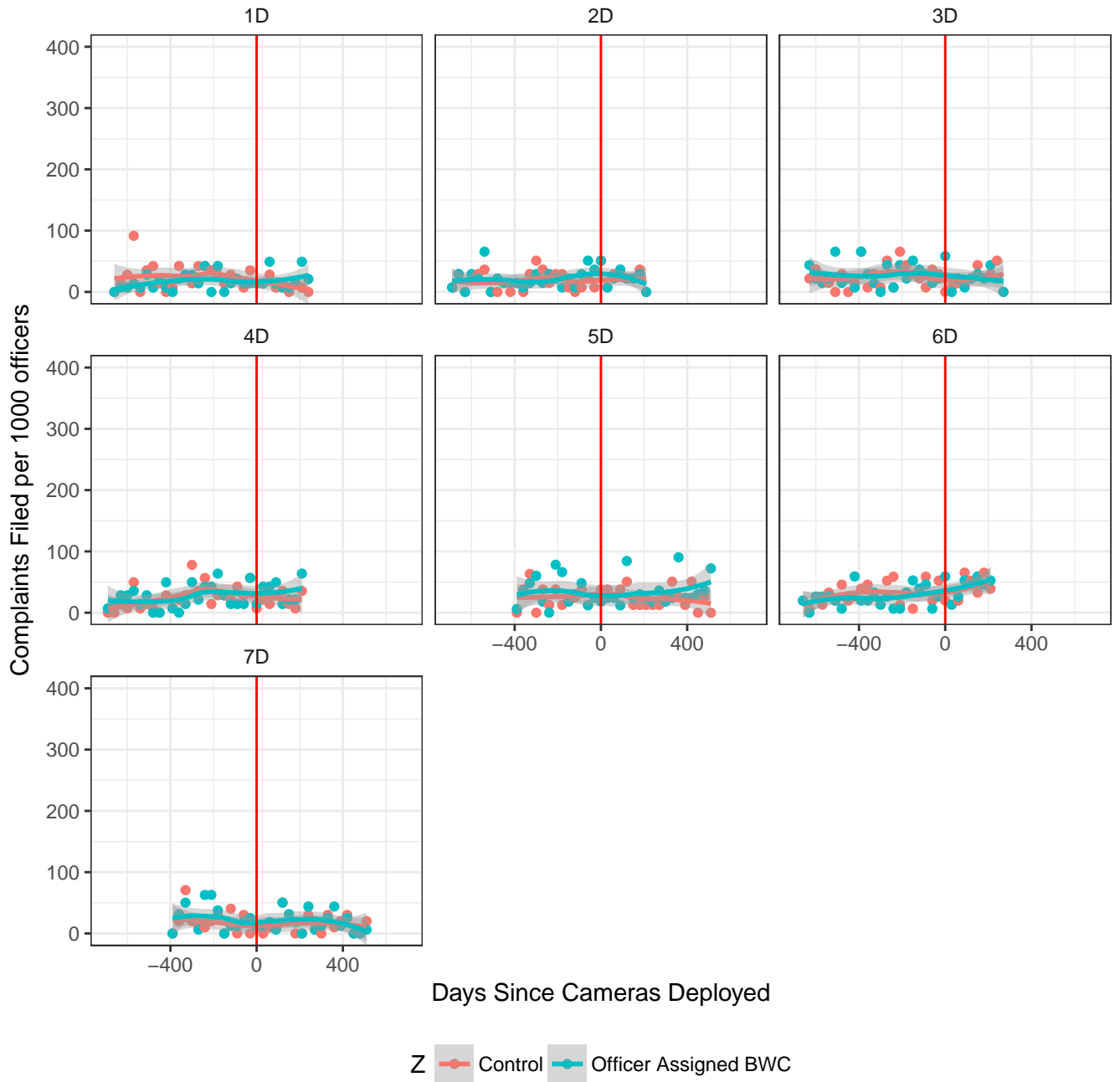
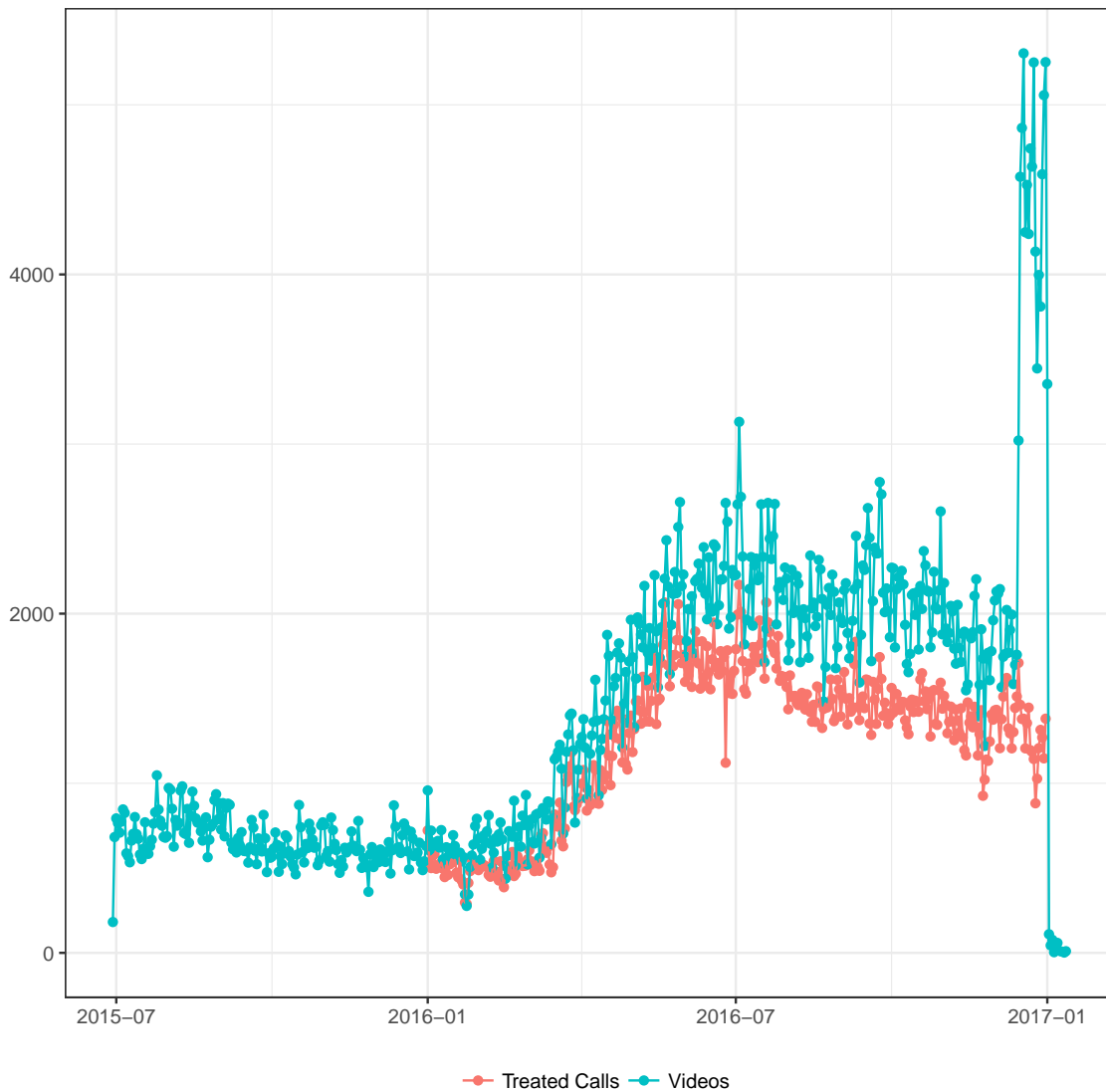


Figure 7. Case-Generating Calls for Service and Videos Uploaded per Day.



Note: Calls for service data including information about responding officers were not available for 2015, and the treatment period concluded in mid-December 2016, when MPD deployed BWCs to all eligible members.

To gauge adherence with the BWC program, we examined whether officers produced videos for incidents where they should be using their BWCs (see Appendix A for a list of the instances in which MPD members are required to activate their BWCs per department policy). We compare the number of calls for service that generated a central case number (CCN) and had a treated officer on scene to the number of videos produced on the same day. We conclude that MPD officers are producing videos when they should. For 98% of the days in 2016, MPD is averaging at least one video (often many more) per call for service with CCN that had a treated officer on scene. Further, even for the 2% of days in 2016 in which the number of videos is less than the number of incidents for which we would expect them, the difference is minimal, with 96% average compliance based on our measure.

6 Appendix A: MPD General Order SPT-302.13

This general order specifies that “[m]embers, including primary, secondary, and assisting members, shall start their BWC recordings as soon as a call is initiated via radio or communication from OUC [Office of Unified Communications] on their mobile data computer (MDC), or at the beginning of any self-initiated police action. In addition, members shall activate their BWCs for the following events:

1. All dispatched and self-initiated calls-for-service;
2. All contacts initiated pursuant to a law enforcement investigation, whether criminal or civil; *NOTE: Members are not required to record non-investigatory contacts (e.g., business checks).*
3. All stops (i.e., traffic, pedestrian, and bicycle), and frisks as defined in GO-OPS-304.10 (Police-Citizen Contacts, Stops, and Frisks);
4. Vehicle and foot pursuits;
5. All traffic crash scenes;
6. Any incident or traffic crash in which the member is involved;
7. DUI and consumption of marijuana investigations;
8. High-risk encounters (e.g., barricade situations, active shooter situations);
9. Tactical activities, to include canine, Emergency Response Team and Civil Defense Unit deployments;
10. Mental health consumer encounters;
11. Suspicious activities;
12. Use of force situations;
13. Arrests;
14. Encounters requiring the advising of Miranda rights;
15. All transports of prisoners and citizens;
16. Any of the following searches of a person or property: (1) Consent searches; (2) Warrantless searches; (3) Vehicle searches; (4) Searches conducted incident to arrest; (5) Inventory searches; (6) Cursory searches; (7) Probable cause searches; (8) Execution of search or arrest warrants; (9) Frisks; (10) Field searches; (11) Full-custody searches; (12) Strip or squat searches;
17. Hospital guard details;
18. During the initial inventorying of seized money or any high value property;
19. During school-based events...as well as other encounters with juveniles during events defined in this section;
20. During First Amendment Assemblies;

21. While assisting other law enforcement agencies (e.g., United States Park Police, District of Columbia Housing Authority Police) in handling incidents outlined in this section;
22. While interacting with citizens inside a police facility (e.g., station personnel providing police services or information); and
23. Any incident that the member deems it appropriate to activate the BWC in accordance with this order or upon direction from an official.”(pp. 6-8).

The MPD General Order on the BWC Program also enumerates several limitations/areas for discretion with respect to BWC use:

1. **Traffic Posts.** While assigned to traffic posts, members shall only activate their BWCs for the events listed above.
2. **First Amendment Assemblies.**
 - Members shall activate their BWC when responding to a First Amendment assembly in accordance with the list enumerated above.
 - In accordance with D.C. Official Code 5-333.09, members shall not record First Amendment assemblies for the purpose of identifying and recording the presence of individual participants who are not engaged in unlawful conduct.
 - Members shall ensure BWC recordings of First Amendment assemblies, whether planned or spontaneous, are recorded in compliance with the law and MPD policy including SOP-11-01 (Handling First Amendment Assemblies and Mass Demonstrations).
3. **Intrafamily, Sexual Assault, and Stalking Incidents and Offenses**
 - Intrafamily Incidents and Offenses:members who respond to intrafamily incidents and offenses as outlined in GO-OPS- 304.11 (Intrafamily Offenses) shall continue their BWC recording but make every effort to provide the victim privacy such that they do not record any discussions between the OnCall Advocacy Program (OCAP) advocate and the victim, regardless of whether the conversation is in-person or over the phone. Members shall position themselves in such a way as to afford the victim as much privacy as possible.
 - Sexual Assault Incidents and Offenses: members who initially respond to allegations of sexual assault shall continue their BWC recording but are reminded that, in accordance with GO-OPS-304.06 (Adult Sexual Assault Investigations), they shall ask only the necessary questions to enable them to determine the type of crime, and to obtain the required information for a lookout broadcast. Members shall not question the victim in detail about the offense.
 - Members are reminded, and may inform the victim or others present at the scene, that BWC recordings taken inside a personal residence or related to an incident involving domestic violence, stalking, or sexual assault will be withheld from release to the public.

4. Medical Facilities, Ambulances, and Patient Privacy

- Members shall record ambulance transports when they are present for law enforcement purposes.
- Members are reminded that they shall only activate their cameras in hospitals and other medical facilities for the events listed in at the beginning of this appendix, including hospital guard details.
- Members shall not record in the common areas of medical facilities except when recording an event as required by the above list.
- When recording in hospitals or other medical or psychiatric facilities, members shall be careful to avoid, when possible, recording persons other than the suspect, complainant, and witnesses.
- When members are in hospitals or medical facilities pursuant to the above list, they shall continue to record and make every effort to provide patients with privacy such that they do not record patients during medical or psychological treatment or evaluations by a clinician or similar medical professional. Members shall position themselves in such a way as to afford the patients as much privacy as possible.