

In December of last year, the Philadelphia Police Department did a pilot evaluation of body worn cameras. One police district - this evaluation was, reported by a research partner between the Philadelphia Police Department and Temple University's Department of Criminal Justice including Elizabeth Hoff, myself and Lauren Holt, a graduate student. My presentation today, focus on some of the key findings from that pilot evaluation. Before I proceed, I wanted to acknowledge the many folks in the Philadelphia Department who were critical in driving this pilot study. I wanted to acknowledge in particular Office James Sanchez, who really spearheaded this initiative on the ground in the 22nd district. We are grateful to this whole team in the police.

Philadelphia is the 5th largest city in the country. It's the fourth largest police department. It has approximately 1.5 million residents. There's roughly an equal proportion of African Americans and white residents. There's a slightly higher percentage of white residents in the city. PPD has long be active in the nation's conversations of the future of policing in the country and globally. Historically, it has long been committed to evidence based policing. As seen for example in its participation in the Philadelphia foot patrol study, the Philadelphia Policing Testing experiment, and currently the Philadelphia Predictive Policing study.

With respect for body worn cameras, it's really critical for the commissioner of the police department to take a really careful measured approach to the implication of body worn cameras. He chose one police district; he relied on the willing participation of volunteer officers at the district level. It's really critical to be measured in this way, in order to ensure that when it came to rolling out the cameras across the city, that the roll out would be smooth and continuous and free of any major barriers or obstacles.

There were four key aims to this study. One was to see if officers preconceived notions of the camera both in terms of the frenetic effects of the nature of police as well as the functionality of cameras in different frontline situations. Whether those attitudes would shift over time as they were wearing the cameras. There were certainly particular understandings of the functionality of the cameras on the part of officers and what may hinder their work in the field. We wanted to really get a sense of those preconceptions in the beginning. Not only with volunteer officers but also with those who didn't volunteer to wear the cameras. We knew full well with over the course of the pilot, that the officers who weren't volunteering would be having conversations with those who were wearing the cameras. We wanted to see if there was a sort of osmosis. It was also critical for us to examine the range of potential outcomes that mattered to line officers. This was critical for us in light of Cynthia Lamb's comment. For example, that the cameras have been implemented in a low information environment. There's much we don't know about the intended and unintended effects of cameras. It's really critical to get this right in advance of any large scale studies. What are those outcomes that matter? That we may not have thought of. Especially from a line officer perspective. This would help refine measures for a larger study. We also wanted to identify implementation issues prior to any roll out. The outset of the study, there were technological issues, structure issues the police department anticipated at the beginning. The details and nuances of these issues emerged over the course of the pilot. But beyond simply the technological aspect on implementation, we wanted to get a sense or take a temperature of officer acceptance and by in issues and have a really nuance understanding so that these concerns could be laid at the start of the roll out. Finally we wanted to isolate the design features of cameras that mattered most to officers. It's difficult to know in advance - in terms of functionality and in terms of being in a range of situations in Philadelphia such as in foot patrols, foot pursuits - what matters - what are those design elements that matter most to officers. This was really instrumentals in sort of middle down the camera models that the Philadelphia police preferred. Not only front end issues matter but back end usability issues. In terms of, the video retrieval from the cameras into the cloud or other storage solutions.

The study began in December and ended in May - at the end of May. It took place in one district, the 22nd district. The 22nd district is north of Philadelphia's center. It has long struggled with violent crime. It is part of the city that encompasses Temple University's main campus. The pilot study was governed by a body worn camera working group shared by Deputy Commissioners Nola Joyce. It consisted of a range of folks in the police working, in different portfolios in the department including internal affairs, IT, research and evaluation unit, legal services. Anyone who had a hand in the implementation of the cameras and could play a role in roll out were part of this working group and met regularly. And also the research team were a member of this working group. There were 41 officers who volunteered to wear the cameras in the 22nd. This is out 236 officers of who function on patrol in that district. 236 compares to approximately 6400 individuals who are sworn officers in the police department across the city. The number of volunteers were partly constrained by the number of cameras we were able to try out. There were 7 different camera models tried out on a rolling bases across this period of time.

The study design consisted of a mix of qualitative and quantitative data. At the outset of the study we conducted two focus groups with individuals at the 22nd district. This was purely a convenience sample. In fact only one officer among those who

participated in the focus group actually ended up wearing the cameras. Our main purpose here was to map on to aim two of the study - to get a sense of what are your potential concerns not only with respect to functionality but also with how this might influence police work on a day to day basis.

Those two focus groups also allowed us to refine measures on three different survey instruments. The first survey instrument that we implemented and we scoured existing instruments and created our own instruments based on what we found in the literature. One was a pre and post survey that was designed to gauge officer attitudes starting from baseline until the end. Did we see a shift? So this maps onto aim one of the study. The sampling frame was all district officers - both volunteer and non-volunteer. We also have a survey designed to capture both visibility and functionality. That was tied to each camera model and they were implemented approximately every month. We also had a daily survey. So we had officers at the end of their shift complete a survey on - did this change particular encounters with citizens? Did you have any issues? Did you see that citizens changed their behavior? There were also some usability questions there. And those were simply volunteers who filled out those surveys. At the end of the study we conducted three pilot focus groups and these were with folks who wore the cameras. It also included those who were involved every day in simply administering the pilot program. We wanted to gauge their experience. What was it like wearing these cameras? What were your experiences? Did this change the nature of police work for you? We also wanted to get a sense of what were some of the barriers to implementation that you could have experienced. Including challenges of being true to the study design- interfered with us being able to access these camera models on a rolling bases. Finally we are in the midst of conducting an outcome analysis of use of force and citizen complaints; thus have been done in previous studies- that's on going. In general then, the qualitative data had two functions in relations to the quantitative data. First helped us refine the measures on the survey instruments. It also served as an expansion role and allowed us to understand some of the findings from the survey.

The findings I'm going to focus on today emerged from the focus groups. And mapped on to some of the key findings from that first survey that attitude survey. So what I'm going to focus on - in the interest of time- are the interesting data points where we see the qualitative data telling the same story or a similar story of how this pilot program evolved in the police and how officers experienced the use of body worn cameras in their daily lives.

Here are three main findings from the attitude survey. I should stress what you see here are the set of findings from both volunteer officers and those who did not volunteer. So this is just a major temperature check, broad picture of rise and levels in three key areas. One there was a question. We asked whether officers thought the cameras should be expanded. We see a positive increase in officers saying yes they should be expanded. And I'll use the focus group findings to help explain that. Also the question: do the advantages of wearing the cameras out weight the disadvantage of wearing the cameras? We saw an increase in this as well. As one officer put it in a focus group, he said, "Once you start wearing the camera, you begin to see the advantages, you see these cameras are protective for officers. There's nothing better than simply wearing the camera". So even officers who were hesitant at first they begin to experience those benefits as time goes on. One officer put it, "We are ready! This organization is now ready to implement this city wide." We also saw this in the level of comfort with footage being reviewed. As one member of the internal affairs put it to me the other day, "We're not out on a fishing expedition." This is not our intention. Officers began to see footage was being used in ways that would be protective of them especially in citizen's complaints. And so I'm going to elaborate on that now.

The design features - this is an important piece - it's a technical piece - it's really important because it does tie to the nature of police work and officers comfort-ability with the technology and their acceptance of the technology. Durability- can't overstate how important durability is as an important design feature for the camera, even if it's heavier. The resiliency of the docking station is also important. In particular the resiliency of the pin is very important. So every day when you're coming in and you're taking the camera out of the docking station, and putting it back in, this wear and tear - some camera models simply didn't have the resilience. And so the longevity of the docking stations were important. A strong clip was equally important. Some officers were concerned about the cameras falling off, especially heavier cameras. Some of the clips did not have the correct tension to keep the cameras in place. In Philadelphia, there's at least 6 if not 8 different types of uniforms officers wear, ranging from polo shirts to the normal uniforms. They all have different textures, different thickness and also different locations where those body worn cameras can be placed. Having a clip that keeps its tension, is absolutely critical. If cameras fell off, it meant that during a hectic situation an officer would have to retrieve it. And in worst case scenario, it could end up in the wrong hands, in the hands of a citizen. So keeping that camera on their uniform was critical. The simplicity of the on and off switch was critical. Officers needed to know when they developed that muscle memory that they could turn that camera on with ease, that it wouldn't turn on accidentally or unintentionally. So the button couldn't be too sensitive; same goes with the off switch. Video retrieval at the back end, so that the ease of which the

footage could be uploaded into their storage solution was also very critical as well - especially, for those folks on the IT side of things who are charged with transferring that data.

That capacity to document police work was a virtue of the cameras, even us on the research side underestimated. Officers were saying, "Cameras are protective. They protect us in cases of false exaggerated complaints." This of course is consistent with previous studies. If a citizen knows an encounter is being recorded, they will likely not file a bogus complaint. So when there are complaints files, the footage is there to swiftly deal with instances and officers can move on with their lives. Which translates into less time lost if you were suspended or if you're under the scrutiny of IEB. There were also initial concerns about IEB sort of watching over officers, again using the term fishing expedition. Those concerns really eased over time. So what officers are doing now, those who have worn the cameras are saying to their peers, "look these cameras are protective of you. There's trust here on the part of the organization's motives." The videos also help create documentaries of arrest - right from that initial point where you enter that situation, right until the end. That help until the officer seals the deal in a court case. There's no ambiguity. It's captured the whole encounter, beginning to end. It also help mediate concerns with somebody recording with their own phone - a citizen recording just a snippet of an encounter and distorting what happened there. Officers were also saying, "I can enter a crime scene, take my camera, and take some video footage, get a good range of view. I can use my camera to take still photos of evidence at a scene. I can even count on my colleagues who are coming on the scene to take videos of different vantage points of those scenes." So the contribution to evidence gathering was also noted by officers. Some other interesting benefits we hadn't anticipated emerged in the focus groups. For example, officers were managing a public protest. Of course it's critical as you know when you're trying to manage a demonstration. When there is unlawful conduct, that you do not break the line - that you stay in place. Cameras can help take an image of people who may be behaving unlawfully- capture their IDs, so you cannot break the line and perhaps intervene with those protestors. Another interesting example was given of documenting police work, where if citizens are organizing public events like block parties, which in Philly are referred to as 'coming down parties'. An officer was saying we have several of these being planned in our neighborhoods. We went up to the organizers with our cameras on and we said, "look how this is going to play out, there are our expectations, these are our rules of behavior, this is when we are going to enforce them, and in what situation" and so on. And the officer claimed simply documenting that standard setting that expectation setting, really helped set a tone that you're accountable here when you run these block parties.

Finally, enhancing the quality of written reports was noted as a benefit. Officers now know that if an encounter was captured on video that their written reports would have to be rigorous enough and factual enough to map on what was captured in the video. So they see the benefits of enhancing the quality of those written reports.

In terms of police community relations, and I should stress that the conversation I'm going to recount is specific to the 22nd district - is known for tensions, a long and deep history of police community relationship may not apply to other districts in Philadelphia. Officers were saying, "Look cameras can influence what happens during an encounter. It may cause a citizen to be calmer during that encounter. It may cause them to be more compliant - including in public protest situations." But when we asked them if the cameras can have a long term effect on police-community relationships. They were more hesitant and expressed great caution around that. In fact, they were suggesting that it would be naive to think cameras are a panacea for police-community relationships. There's such a long and deep history in this district and cameras aren't going to fix this. So this is something we think merits greater consideration in future studies. And I know that there are some great new studies coming out now that are measuring police-citizen relationships.

Finally in terms of information flow, we asked the officers if they thought the cameras would have an effect- positively or negatively on the flow of information from citizens to police. And the response we got was pretty neutral. In this particular district, information is sub-optional, it's not where police want to see it. And they stressed to us where information flow does happen, it's often by phone, where people phone into to the district. There isn't much face to face information sharing. Where there is that information sharing in this particular district - there is a larger concern with retaliation or what they describe as snitching. So from time to time they can request the cameras be turned off when that information is being shared. But again this is a pilot study and something we should keep our eye on during the roll out.

Finally, will cameras have an effect on police discretion? I'm posing this as a question because due to the size of the study we do not have the answer. But we can only express the concerns that were expressed to us by some officers. Will discretion narrow over time? We know there are a great many situations in which officers choose to use informal means to handle situations and that is the staple of good discretionary police work. Will officers feel they'll need to be more legalistic in certain matters - more by the book? Will officers choose to enforce certain behaviors at all? Because if they know they are going to be under the gaze of the camera they don't want to be scrutinized for not being by the book. When it comes to

minor criminal behavior could we see that effect? We don't know; I think it's a provocative finding from the focus group that needs to be tested in a very careful way in future studies.

Finally officers were concerned - obviously that cameras don't capture everything. When officers are going into a scene and see somebody who they happen to know; for example, a dealer who works that corner and has been working that corner for a long time. They are approaching that situation with what is better described as area knowledge. They know this area, they know the players, and they know the networks. So that provides context to that encounter and perhaps they chose to stop and talk to them, have a conversation with them. And so that contextual knowledge is not there. So there's just a hesitation and we raise this as more thought provoking ideas than anything else.

So implications- in terms of practice and larger scale studies - including in Philadelphia during a subsequent roll out. It's really important there's clear messaging, from police leadership not only at headquarters but at the district levels - all districts on the continued value of good police discretion. That there is not an agenda here to lower discretion, to encourage more legalistic policing, to encourage under policing or over policing for that matters of certain behaviors. Officers themselves - line officers themselves are important messengers here - those who have already worn cameras. They are being champions with their fellow officers who might be hesitant now. They are saying, "Look if you're doing good discretionary police work, continue to do it. It's what's valued." It's that initial hesitation that needs to be addressed in the messaging from leadership. In terms of research, we would argue we need refined measures that capture potential chilling effects of discretion. So over time are we seeing certain areas of police activity going up? Are we seeing certain areas of police activity going down? Ranging from quality of life enforcement to pedestrian stops. Could there be something going on here. I think it could be remiss for anyone not to capture this for over a long period of time because this will help us tap into any potential effects on police discretion. Hopefully, there aren't any; but it's important to know this.

Finally, there could be district variation in the ways cameras might be influencing police citizen relationship over time. This is an opportunity to bring in a place of base perspective here. Are there certain characteristic of particular neighborhoods or communities that might be mediating or moderating the effects of cameras on police-citizens relationships over time? Is there something about the history of particular relationship, in particular places? That's really important for us to know, telling the story whether cameras are influences those relationships over time. City wide measures are great. But drilling down to the level of place and to the level of district, we argue is important here.

The task I was given for this presentation is a little different. I was asked to provide more of a 30,000 foot level view of the issue surrounding this technology. So over the next 20 minutes or so there are four different parts of my presentation.

I want to start talking about the issues that have been raised with body worn cameras. There have been a lot of claims about the technology by advocates and critics. So I think it's important to look at that. I want to talk a little about the research evidence that we have to date. And then I'll transition and talk about the resources that are available. In particular, I want to talk about the BJA National Body Worn Camera Tool Kit and I'll wind down talking about next steps.

Next slide. Before getting into the issues, I wanted to take a minute and think a little about how far we've come with this technology. There's a lot on this slide but there's really two take away messages I want you to get.

The first take away message is that, law enforcement interest in body worn camera predates the Ferguson, Missouri case by several years. As you can see from this slide, as early as 2005, police departments in the UK that were experimenting with body worn cameras. The Oakland Police Department, as far back as 2009- 2010, part of their consent decree was rolling out body worn cameras. So clearly, August 9, 2014 in Ferguson marks a line in the sand but really as I said, law enforcement interests predates that. It's really after the Ferguson case that media interest, political interest and citizen interest really took off and certainly as a result then the expansion has occurred in law enforcement. The second take away message from this slide is that there is tremendous federal support for body worn cameras. You can see it was part of the president's policing plan. Certainly, I'm going to talk about the tool kits. In the next couple of weeks, the Department of Justice will be making announcements about the 50 or so awards that will go to police departments as part of the body worn cameras pilot implementation program. 17 million dollars have been set aside this year alone, with more funding next year.

Next slide. Just a brief plug for the report Cynthia mentioned. A lot of what I'm talking about this morning is articulated in greater detail in this report that I wrote that came out last year. So if you're interested in more detail of some of the things I'm talking about, this morning you can look at the report. It's on the OJP website or just Google it and you can take a look.

Next slide. This slide shows, at the time I wrote the report last year, really the entire body of knowledge on body worn cameras - these five studies. Few studies from the UK, unfortunately, were pretty weak methodologically. So there wasn't a lot we could take from those studies. So really what we've been talking about are three studies and if I were to write that report today or an updated version there would be some additions- as you can see- down at the bottom as well. The takeaway from this slide is that the research still is pretty thin.

Next slide. You see here, and this is getting into the issues, this slide here, at least in my view, an overview of the primary benefits or perceived benefits of police officer body worn cameras. And what I've created is a legend at the bottom that indicates, in my view, the amount of empirical support for each of benefits. You can see there are a lot of question marks and squiggly lines meaning that either we have no research evidence or we have some and need more. In terms of the benefits, I think, Professor Wood mentioned several of these - increase transparency and legitimacy. A big one is behavior change. Does the fact that a policeman is wearing a body worn camera - does it result in changes in the officer's behavior and the citizen's behavior. And certainly the evidential value is another perceived benefit. So again, the take away is that there's lots of perceived advantages of police officers wearing these cameras. The research evidence is still fairly thin.

Next slide. Now that being said, I think there is compelling evidence from some of the studies we have to date and I'd like to review some of that evidence. If you've been following the dialogue of this technology at all you've heard of the Rialto Police Department. The Rialto study has gotten a lot of attention with good reason. It is a rigorous design and randomized controlled trial. And you can see from this slide looking at some of the really extraordinary findings that we have in result in drops in citizen complaints and use of force after police officers in that department began wearing cameras. There are some caveats to the Rialto study and I don't need to get into those. But there are compelling stuff coming out of Rialto. About the same time, the Mesa, Arizona Police Department completed their study. Importantly, the results from Mesa were very similar to Rialto, in terms of complaints and use of force. Another interesting finding from Mesa, involved administrative policy. The study in Mesa lasted about a year. The first six months of the year, they had a very restrictive policy. The officers were instructed to activate their cameras whenever they had an encounter with a citizen. The second six months they relaxed the policy; it was more discretionary. What they were able to show was, when officers were operating the more discretionary policy, the number of activations dropped substantially, by 42 percent. They subsequently implemented - or reinstated- the more restrictive policy. A few month ago, I was at a presentation and I heard the lieutenant in the Las Vegas Police Department talk about, what I thought was a unique way to operationalize impact. He talked the number of officers who were exonerated from allegations in citizen complaints. And I thought that was kind of interesting.

Next slide. This slide, if you advance it one more time, you should see a red arrow. Two weeks ago, I was presenting in Atlanta with the Assistant Chief from Oakland PD and he used this slide and I asked if I could borrow it. This shows the findings on the order of Rialto in terms of reductions in both the use of force and complaints. Obviously, there's a lot going on in Oakland with concern with regard to their consent decree and the reforms they were implementing. So, there may be more at play here than the implementation of body worn cameras. Clearly, we are starting to see some consistency in the findings with regard to complaints and to a lesser effect use of force.

Next slide, the Phoenix evaluation that was completed a few months ago is part of their Smart Policing initiative. Again we see some reductions in complaints against officers not quite as large as the complaint drops we've seen in some of the other studies. If you notice, the complaints amongst officers who were not wearing cameras in Phoenix was actually going the opposite direction. The second bullet, gets to a point Professor Wood was discussing with regards to officer discretion. Perhaps this finding is consistent with the concern about restriction on officer discretion because the officers in Phoenix who were wearing cameras experience a fairly significant increase in their daily arrest activity. This is compared to officers who were not wearing cameras. Phoenix Police Department was also interested in the downstream effects of body worn cameras with regard to domestic violence cases. So they were looking specifically at how this presence of new form of evidence was affecting how domestic violence cases were being handled. And as you can see, there were number of indicators suggesting that the body worn camera videos enhanced the processing of domestic violence cases more likely to have cases filed and charged and more likely to get guilty pleas and convictions at trial.

Next slide please. So transitioning a little bit to the other side of the coin, regard to issues. What you see here are some of the primary concerns that have been raised about the technology. In my view at least I think the evidence is a little bit more strong here in support for these concerns. I can talk several hours about these and I won't. The privacy concerns are significant. There are two elements to that. You can concerns about citizen privacy and also concerns about officer privacy. The other thing I would mention, jumping down to the bottom; obviously, when a police chief decides to adopt body worn camera it represents a tremendous commitment, a tremendous amount of resources are required and logistic manpower

and cost. It's simply easy to buy the cameras and put them on officers after that happens is when things really start to get complex.

Next slide. A couple of other concerns that I've observed over the last year or so. One of the big ones I think right now being discussed is whether or not officers should be permitted to review their video prior to making statements and writing reports. This is particularly contentious with regard to officer involved shootings. Should officers be able to look at the video before they make a statement? Some of the other concerns I mentioned were public records I believe. This really deals with state law with regards to public record request. And I think a lot of state laws are a bit antiquated and are not really equipped to handle this technology. There's a lot going on with if there's a release of a video what needs to be redacted and how that's going to be done. Over the summer there were over a hundred legislative bills in 34 states being considered in regard to body worn cameras. A lot is happening at the state level as well.

Next slide. The Force Science Institute, Bill Lewinsky has been doing some really interesting work in terms of the limitations of body worn cameras in terms of what they show. If you're not familiar with his work, I encourage you to take a look; it's very interesting.

The Phoenix Study I think also demonstrated the implications of body worn cameras for downstream criminal justice actors, importantly the prosecutor. This technology has significant resource implication for prosecutors. One of the side effects of the Phoenix study when they were looking at the domestic violence processing, I showed you before some of the positive outcomes. What you see on this slide is that this is new evidence and it had an impact in terms of how long it would take to process a domestic violence case; this may change over time. Clearly, there was a learning curve in Phoenix with regard to prosecutors familiar with this evidence and working out the systems to ensure the prosecutors have access and can use the evidence in a case.

The last concern I'll mention is activation compliance. This goes to the issue I talked about with the Mesa study- the administrative policy issue. So departments will have a policy that says when officers should activate a camera and shouldn't. What are departments going to do if officers are not following that policy?

Next slide. What you see here is from Phoenix. This is monthly compliance rates with activation. What you see is that in May 2013, compliance reached its peak at 42 percent. Which tells you that about 60 percent of the time, officers were not activating the camera in situations where they were supposed to. You can see how the trend goes down over time. It was about 30 percent. So about 70 percent of the time officers were not activating the cameras in cases where policy dictated that they should.

Next slide. This just shows the compliance rates by call type. You can see that with domestic violence compliance rates were highest but they were still under 50 percent.

Next slide. Shifting gears a little bit to talk about resources. I did want to talk about the body worn camera tool kit. The toolkit was rolled out in May and you can see the website there. You can certainly go and take a look. The creation of the tool kit began back in February. The Bureau of Justice Assistance, BJA, hosted a two day panel at the White House with about 100 experts they brought together to brainstorm the issues with this technology. The picture you see is from the tool kit, myself and a colleague from ASU Dr. Charles Katz. Chuck and I facilitated that panel. I like this picture of a couple of reasons. One, it looks very official with the flag. Chuck is looking at me like I'm saying something really intelligent which I probably wasn't. This two day panel, as I said, really started a discussion about the tool kit. So over the next few months about the meeting, Chuck and I worked with the folks at BJA to create the content for the tool kit. The tool kit really is an information warehouse. It's a place for anyone to go if they have questions about this technology, whether you're a chief of police, a civil rights attorney, a reporter, a concerned citizen. You can see the categories of concerned information are listed and I have a couple of shoot of the tool kit that we can look at. The other thing we did is we created a law enforcement implementation checklist. And it's a guide for police departments to use when they are planning and implementing their body worn cameras programs. It just provides a list of the issues that should be considered.

Next slide. The next two slides are just images from the tool kit. This is the main page and you can see across the top the drop down of different areas where you can explore issues. It is in a FAQ format so...next slide. Eventually, you click on a question and there's a drop down with information and resources for that question. The toolkit also has a podcast with series

from experts. Here we see the director of BJA, Denis O'Donnell. The podcast provides different areas of concern with this technology.

Next slide. This is just a shot of the law enforcement implementation check list and it's designed to be used- just as it's called- a checklist of issues to be considered by departments as they are rolling out their body worn camera program.

Next slide. This is one more image. This is the training slide. Again, there's the drop down with information that is available.

Next slide. A couple of other resources I wanted to mention. These are also available through the tool kit as well as in other places. Cops put out a report last year looking at some of the policies, very interesting report. NIJ has done a market survey of vendors. I think there has to be now probably two dozen vendors that are available selling this technology. There have been some policies that have been put out IECF and the ACLU for example.

Today, I'll be discussing the Urban Institute's current evaluation on police body worn cameras. The study has a number of components to it and I'll briefly detail each. But the focus of the presentation will be on the measurement of community attitudes and how the cameras might influence police community interactions.

Before I get into urban study, I was to first talk about the very recent research from University Nevada, Las Vegas. I wasn't involved in this research brief but it's important to mention this briefly. I'm not sure if any of the authors are in this study but if I do any injustice please just let me know. This report that was released last month, provides national attitude towards body worn cameras and this is great doing this. We as researchers know very little about how the public actually feels about police use of cameras. We have some ideas and thoughts about how they might feel. But there's not much empirical support one way or the other. National surveys like this one are an important first step to better understanding the community's perceptions. Continuing with the study, from a sample of 635 responders, the University of Nevada provides key insights on a number of issues facing body worn cameras. The report covers many topic areas scholars and practitioners are currently dissecting. Such as, should the officer tell they community members they are recording at that moment? Whether or not there should be members of the public who should have access to footage obtained by the cameras. As a side, if you're interested in learning more of the nuances of body worn cameras policy, I recommend reading the Urban Institute's recent online policy debate. Many of the policy issues were discussed around a panel of experts - myself, law enforcement executives, a civilian oversight expert, civil libertarian, and Urban Institute research staff.

Getting back to the University of Nevada's report, I found it interesting that 86 percent of the respondents felt that police equipped with a camera would behave more respectfully towards citizens in general. However, only 61 percent felt citizens would have greater trust in the police because of the cameras. This is an interesting divide. As research and procedural justice have found a strong relationship between respectful officer behaviors an increase views on their legitimacy and trust. Obviously, more study is needed on this relationship. However, general community perception obtained through national surveys will not be able to provide much insight. Instead we need to focus on perception specific of community members who have had a police interaction. As we know this is a specific group of a generalized population, approximately only one quarter of the public. These are the people we need to be surveying. We need to understand how presence and use of body worn cameras may affect their behaviors and attitudes during police interaction. Of course we need to identify how the cameras will also affect behavior and attitudes of the officers which could be discerned though this community population. We can also include department administrative records as well as footage review to get at the officer behavior and attitudes.

The Urban Institute is conducting a community survey. We're conducting an evaluation that will accomplish a community survey through a two year study, funded by the Laura and John Ora Foundation. There are three participating police departments in this study. Anaheim and Long Beach Police Departments in California and the Pittsburgh Bureau Police in Pennsylvania. The study utilizes a factual random control trial which assigns officers in one of three groupings - a no camera control group, a camera only group, camera group assigned at script. There are three main sources of data to measure the differences between these groups. The first is through quoting of the video footage through the cameras. The second is through the traditional administrative records as well as metadata the cameras collect. Finally we surveyed community members on their interactions with the officers from the study.

Regarding the camera group that was required to stay the script, the script is based on the tenets of procedural of justice policing. The aim is to increase community members views of transparency towards the officer and agency overall. The

script reads: Hello my name is Officer Lawrence. TO better serve the community and to be transparent the police department is now using body worn cameras. Before we start I'd like to inform you our interaction is being recorded.

Analysis of how this group compared to the standard camera wearing officer who do not have to say anything about the cameras to the community members will add new information to the field. The current literature allows methods to best inform the public the officer is recording the interaction. With the introduction to the cameras, community members might become hesitant to willingly provide information to officers during investigations, or might become disrespectful if they feel like their rights are being violated by being recorded. With the inclusion of this group, we aim to identify the best practices of how to best convey that their recording is occurring and to measure the impact of police-community interactions. We are currently in the third month of data collection for one site right now. Each site will have six months of data collection and during that period, we'll collect information from the community surveys, we'll code the video footage and we'll also collect the metadata from [taserevidence.com](http://taserevidence.com).

Secondary data collection, which includes the administrative records cover the study period as well as three years prior to the start of data collection for each site. As you can see we are very early on in the data collection period. The preliminary results cannot be provided at this time but the methodology is still interesting enough to talk about.

As I mentioned earlier, the officers within each site are randomly assigned into one of the three groupings. A stratified random method was used to restrict the possibility of imbalances across the groups. Due to differences in the officer's positions, tenures and race, officers were allocated as evenly as possible across the three groupings. Only one site has had their officers assigned to date. 60 officers agreed to participate and you can see here the stratified random sample was successful in creating equal groupings across the strata. I'll also be comparing these percentages to the overall department characteristics in the future as well.

I'll now detail the main methods of the study. The first data source is the coding of the video footage. Each week the police department sends Urban excel files of all community interactions of participating officers in the prior week. Some cases such as sensitive sexual offense or domestic violence offenses are removed. Of the main cases, 15 percent are randomly selected for footage review. Because of the sensitive nature of the video footage, project staff are required to review the footage in house, within the police department. Staff members code the footage on paper surveys, and then they enter the coding sheet into an online database. We hope to learn many things by reviewing and systematically coding the video footage. First and foremost, it will provide a unique view of community interaction. While we are surveying the community member, we are not surveying the police officer. So the footage provides another perspective of the interaction, this could be called the researcher's perspective. It will allow us to determine how reliable the community member's responses are and their view point of the interaction. Also a unique aspect of body camera technology includes a buffering feature. The camera begins recording video not audio for a period of 30 seconds of the officer pressing the button. This buffering period will be a critical component of the study analysis enabling us to identify code and analyze the factors leading up to an officer's decision to start recording.

Finally, footage review will provide information the officers in the second treatment group, which is the camera and script group. The degree that they are actually stating the script and analyzing the reliability of that. We'll also be able to measure the differences in officer conduct to camera groups.

Part of the second data source includes officer's administrative records. As I mentioned earlier, we will collect three and a half years' worth of key department performance metrics that will be used to assess whether and how officer alter their typical interactions with citizens as a result of being equipped with a body worn camera.

Historically community interactions records will be collected to determine the typical interactions officer handle prior to camera implementation and traditional officer performance metric such as use of force and citizen complaints will also be reviewed.

Time series analyzes will be conducted using this data. Presented here is just an example but with this information comparisons between the control and the treatment group will be assessed to identify changes in officer behavior from the result of camera use. It will include use of force, number of citizen complaints, number of arrests, citations and warnings, as well as changes in the amount of officer initiated stops and changes in the typical kind of interactions they have every day.



Cameras are not recording on a continual bases. As the storage space required to house that volume of footage is currently prohibited. In the future this may be possible but as of right now it's not. Even in an agency prescribing when officers should start recording officers have discretion when to record. This begs the discussion what interactions are purposely not being reordered by officers and why? Regardless of department policy, it is likely, there is a high degree of variation in officer use of cameras. We'll examine these differences in related to different outcomes. For example, perhaps, low use officers have lower use of force and citizen arrest because they are able to use their verbal conflict resolution skills more effectively. Or high use officers are more conscientious and have better outcomes. To answer this questions, additional in house data would come from [tasers evidence dot com](https://tasers.evidence.dot.com), meta data and links to the administrative data.

Tasers data include the date, time footage length, officer and case IDs and any tags the officer may have assigned to each and every video footage.

The above data sources will be primarily used to assess changes in the officer's behavior as a result of body worn camera use. Or perhaps more interesting, how the camera use and procedural justice script affect the attitude of community members who have interacted with those officers. To measure these perceptions, Urban is conducting a survey with community members who have recently had an interaction with an officer who is part of the study.

As I mentioned before, each week the department sends Urban data regarding the officers completed street checks, calls for service and crime reports. Some of these data are excluded. For example, if there are no telephone number provided. Or if the record pertained to a company not an individual. Staff on the project then call a community member to obtain their participation in the study. The telephone interviewers are blind to the officers grouping in the study and they are not allowed to make more than 5 calls per week per case. On average the survey takes about 15 minutes for the community member to complete. This methodology actually comes from the National Police Research Platforms Police Interactions Survey which Steve Mastrofki and Denis Rosenbaum and Laura Paddell were involved in and led. The platform response rate for that survey was 34.4 percent. And at least check this morning, Urban's community survey currently has a response rate of about 20 percent but we are still in the data collection period so we are still catching up to earlier cases that were trying to reach the community members.

A range of topics are discussed with the community members during the survey. The main bulk of the questions regard the degree of the officers' procedural justice behaviors during their interaction. These include items focusing on the quality of the officers' treatment towards the community member, quality of their decision making, as well as if the officer provided any important information during the interaction. Use of force items cover a range viral behavior the officer may have exhibited or range of viral behavior the community member might have exhibited during the interactions. There are also more general questions, similar to those the University of Nevada's national survey that regard to the community members attitudes towards body worn cameras in general. It will be interesting to see how the presence of the camera will affect these general attitudes towards cameras once the analysis are done.

And finally, items covering the community member's perceptions on police department's overall legitimacy. Was their willingness to cooperate with the law and officers are discussed.

The resulting data set will naturally be multi-leveled because each participating officer will have multiple community member interactions, as such hyper optical lineal models will be used to analyze the data. Where level one will consist of community members responses to the survey and level two be the data of the officers. As the other two sites, data is added to this and there will be a third departmental level to the data. Presented here is an example. HLM on satisfaction with an encounter. You can see that level one models variables such as encounter type, procedural justice and the community's demographic are included. In level two, the officer's demographics and the group they were assigned to are included. By using an HLM we'll be able to identify difference across officers and their groupings. As well as, difference with the officers from the perspective of the community members. These models will be used to determine differences in a number of outcomes - including procedural justice behaviors, members view's towards department legitimacy, body worn cameras, and their willingness to cooperate and help the police.

American policing has a long history or strained relationships with the communities that they serve. Problems that have intensified by recent events across the country. Police have been a society's primary instrument for controlling crime and social disorder. The authoritative power given to police has intensified with deep divide between communities and their police departments.

As departments begin using new technologies that have the potential to further divide a clear approach is needed for officers to most effectively inform the public and increase their trust with the police. Prior studies, which have been mentioned today have demonstrated that body worn cameras are yielding their intended impact. The research has neglected an important sub-context that is increasingly relevant given the tensions between law enforcement and high crime communities. Namely that there is a long history of distrust between these two entities. While cameras might have the ability to enhance transparency, and accountability in response to that distrust they might have the unintended impacts on community perception towards the police. The field lacks the knowledge surrounding on how community members towards the cameras and police are affected as a result of the camera being present during an encounter.

It is unknown how the presence of this technology affects community members views of the camera equipped officers with whom they interact or the police department as a whole. An individual might like the idea of the police using cameras to catch criminals but that attitude may change when the camera is facing them. The Urban Institute's three site evaluation is supported by multiple imperial data sources, dives deep into better understand the outcomes of body worn camera use.