

**Sensitivity to the Ferguson Effect:  
The Role of Managerial Organizational Justice**

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Forthcoming in *Journal of Criminal Justice*

Accepted 6/28/2016

doi: [10.1016/j.jcrimjus.2016.06.002](https://doi.org/10.1016/j.jcrimjus.2016.06.002)

Acknowledgement: This is the authors' postprint (CC-BY-NC-ND 4.0). An earlier version of this manuscript was presented at the 2016 annual meeting of the Academy of Criminal Justice Sciences in Denver, CO.

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## Abstract

*Purpose:* We argue that the police have been adversely impacted by Ferguson-related negative publicity in ways beyond the supposed increase in crime (e.g., reduced motivation and increased perception of danger). Further, we suggest that organizational justice is a key factor that influences officers' sensitivity to such Ferguson effects.

*Methods:* We used a sample of 510 sheriff's deputies surveyed 6 months after the incident in Ferguson. We explored whether organizational justice is associated with deputies' sensitivity to several manifestations of the Ferguson effect using OLS and ordered logistic regression models.

*Results:* The results demonstrated that deputies who believed their supervisors were more organizationally fair were less likely to feel unmotivated, perceive more danger, believe their colleagues have been negatively impacted, or feel that US citizens and local residents have become more cynical towards the police in the post-Ferguson era.

*Conclusions:* Police supervisors who use organizational justice as a guiding managerial philosophy are more likely to shield their officers from the negative work-related outcomes that can follow recent Ferguson-type publicity. Supervisors should be fair, objective, honest, and respectful when dealing with their subordinates in order to communicate that the agency has their back even when it may appear the community does not.

*Keywords:* policing, police management, organizational justice, Ferguson Effect

### **Organizational Justice and Sensitivity to the Ferguson Effect**

Over the last eighteen months, there has been much debate about the so-called “Ferguson Effect” on US police. This idea holds that in response to heightened scrutiny of the police following the fatal shooting of unarmed Michael Brown in Ferguson, Missouri in August 2014, officers are less motivated to aggressively perform their duties and are pulling back from proactive strategies. Proponents suggest that this “de-policing” will result in increased crime rates throughout the US. The most robust empirical assessment of this argument to date recently revealed that the Ferguson Effect has not caused increased crime across the US (Pyrooz, Decker, Wolfe, & Shjarback, 2016; but see also Rosenfeld, 2016). While this evidence is good news and puts to rest any worries of a nationwide crime wave (see Mac Donald, 2015), there may in fact be other ways in which the Ferguson Effect manifests itself. For instance, research has shown that negative publicity surrounding the police in the aftermath of Ferguson was associated with lower levels of officer self-legitimacy (Nix & Wolfe, 2015) and reduced willingness of officers to engage in community partnerships (Wolfe & Nix, 2016a). These are important findings because extant research has demonstrated that officers with greater self-legitimacy are more committed to using procedural justice with citizens (Bradford & Quinton, 2014) and less reliant on physical force to gain compliance (Tankebe & Meško, 2015), while community partnerships are an essential aspect of community and problem-oriented policing (Braga, Kennedy, Waring, & Piehl, 2001; Gill, Weisburd, Telep, Vitter, & Bennet, 2014). Thus, while systematic crime rate increases do not seem to be a direct consequence of the Ferguson Effect, there is reason to believe that police officers have been adversely impacted by the Ferguson controversy (and related incidents across the US), which in turn has implications for crime. In this way, sensitivity

to the Ferguson Effect can be viewed as a negative work-related outcome for officers, their supervisors and agencies, and the communities they serve.

The problem, however, is that we know very little about what is associated with officers' sensitivity to such Ferguson Effects. In other words, what is it that makes a police officer more or less likely to feel affected by negative publicity and public discontent stemming from Ferguson? This is an important policy question for police agencies and command staff. What can supervisors do to help prevent their officers from being adversely impacted by negative publicity stemming from high-profile incidents like that in Ferguson? Organizational justice theory offers a sound framework for such an understanding (Cohen-Charash & Spector, 2001; Sheppard, Lewicki, & Minton, 1992). Within the business management literature, studies have shown that greater perceived supervisor organizational justice is associated with beneficial work-related outcomes such as increased productivity and greater organizational commitment among employees (Colquitt et al., 2001). And although relatively few studies have applied the organizational justice framework to the study of police behavior, the available evidence suggests that officers who perceive their supervisors as being fair are more likely to identify with their organization, comply with procedures, and hold more favorable attitudes toward community policing, procedural justice, and the public more generally (Bradford, Quinton, Myhill, & Porter, 2013; Myhill & Bradford, 2013; Tankebe, 2014). On the other hand, officers who believe their supervisors are unfair express less trust in their agency (Wolfe & Nix, 2016b) and are more likely to engage in misconduct (Wolfe & Piquero, 2011). It is with these results in mind that we argue organizational justice may also be associated with less sensitivity to negative publicity stemming from Ferguson-related public discontent. Officers who feel fairly and respectfully treated by their supervisors may be partially shielded from the effects of negative press

surrounding their occupation. This is particularly important in agencies across the US that may not have experienced a high-profile police shooting but are nevertheless dealing with the fallout of such events in other jurisdictions. Such organizational justice likely communicates to officers that they can trust their agency and supervisors and that they will be there to support them in the face of public scrutiny.

Accordingly, the present study considered whether perceived organizational justice was associated with several different indicators or manifestations of the Ferguson Effect. We accomplished this using a survey of sheriff's deputies ( $N = 510$ ) employed by an agency in a southeastern US metropolis. Multivariate regression equations were estimated to determine the extent to which organizational justice was associated with sensitivity to the Ferguson Effect and to rule out the possible confounding influence of other individual traits (e.g., self-legitimacy). Our findings provide valuable insight for police executives who wish to protect their officers from the public outrage surrounding their profession in the post-Ferguson era of policing. In this way we are not interested in finding ways for officers and their agencies to skirt accountability for wrong-doing. Rather, the overarching goal of this study was to provide empirical evidence concerning the type of police supervisor actions that can help ensure officers do not become less motivated, withdraw from their duties, or become less effective cops because of the threat of media scrutiny and cell phone video recording. The implications of this study are important from a police policy standpoint but also because internal fairness within a police agency may ultimately impact public safety by creating better street cops.

### **The Ferguson Effect**

Dating back to the summer of 2014, there have been several highly publicized fatal encounters between white police officers and unarmed black citizens. The first occurred in Staten

Island, NY, when Eric Garner died after being placed in a choke hold by NYPD officers. A bystander captured the incident on video – which included Garner saying multiple times “I can’t breathe” – and it ultimately went viral on the internet. Shortly thereafter, in Ferguson, MO, unarmed Michael Brown was shot and killed by Officer Darren Wilson. This encounter was not captured on video, but several witnesses claimed that Brown had his arms raised over his head as if to be surrendering when he was shot. Although the officer’s use of force was later ruled justified by the US Department of Justice (i.e., evidence suggested that Brown attempted to grab the officer’s gun), the incident sparked civil unrest that lasted several weeks in Ferguson and captured extraordinary media attention.

Eight months later, in North Charleston, SC, cellphone video emerged of Walter Scott being shot five times in the back as he was fleeing Officer Michael Slager, who has since been indicted for murder and is awaiting trial. Just one week after Scott’s death, Freddie Gray went into a coma while being transported by a Baltimore Police van for possession of an illegal switchblade. The media suggested Gray (who died from his injuries one week later) had been the victim of a “rough ride,” and six officers were ultimately indicted for various charges including false imprisonment (the knife turned out to be a pocket knife) and manslaughter.<sup>1</sup> Days after Gray’s funeral, televised protests in downtown Baltimore turned violent: rocks were thrown, fires were started, patrol cars were destroyed, and many people (including police officers) sustained injuries. The rioting eventually forced the governor of Maryland to declare a state of emergency and call in the National Guard.

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<sup>1</sup> Officers Nero and Goodson were found not guilty of all charges on May 23, 2016 and June 23, 2016, respectively. At the time of this writing, the other four officers are still awaiting trial (including Officer Porter, whose first trial resulted in a mistrial due to a hung jury).

Though allegations of excessive use of force against unarmed black citizens are nothing new (e.g., Rodney King in Los Angeles), these and related events have resulted in unprecedented levels of police scrutiny in recent months (Weitzer, 2015). This is due in large part to the advent of social media and the ease with which citizens can record police behavior on cell phones and upload to the Internet for millions to view. Such continuous negative publicity surrounding the police at a national level has led some to argue that the police are withdrawing from their duties in order to avoid being the next viral video on YouTube (Martinez, 2015; Sutton, 2015) – an argument that has become known as the “Ferguson Effect.”<sup>2</sup> One month after the Baltimore riots, the *Wall Street Journal* published an op-ed by Heather Mac Donald (2015), in which she argued that crime increases being experienced in several major US cities were precursors to a nationwide crime wave that is the direct result of the Ferguson Effect and de-policing. Top law enforcement officials such as St. Louis Chief Sam Dotson (who coined the term “Ferguson Effect”), FBI Director James Comey and DEA Chief Chuck Rosenberg, city mayors such as Rahm Emmanuel, and others have all echoed concerns over de-policing stemming from the Ferguson Effect.

### *The Evidence Concerning the Ferguson Effect*

Until recently, the Ferguson Effect debate has been “long on anecdotes and speculation and short on data” (Pyrooz et al., 2016:3). For example, the FBI Director warned of the Ferguson Effect and President Obama argued it may not exist, but both suggested we need data to answer such questions. To determine whether Ferguson was associated with changes in crime rates at the national level, Pyrooz and his co-authors analyzed monthly UCR Part I offenses in 81 large US

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<sup>2</sup> Others, including NYPD Commissioner William Bratton, have referenced a “YouTube Effect,” which similarly refers to police officers withdrawing from their duties out of a fear of being captured on the next video to go viral on the Internet (Davis, 2015).

cities 12 months before and 12 months after the death of Michael Brown in Ferguson. They found no evidence of a post-Ferguson change in overall, violent, or property crime trends – although disaggregated analyses suggested that robbery rates were on the rise in the post-Ferguson era. Importantly, they did reveal that a handful of cities—those with higher than average crime rates, larger African-American populations, and greater police per capita—experienced increases in violent crime starting at about the same time as the Ferguson incident. Substantively, however, the magnitude of such crime rate changes was quite small. For example, in the “Ferguson Effect cities” it would take nearly two years to witness a one-unit increase in homicides, on average. A Ferguson Effect? Probably – but certainly nothing to sound alarm bells over.<sup>3</sup>

What Pyrooz and colleagues’ analyses could not speak to, however, was whether Ferguson and related events have resulted in de-policing. In a recent report for the 21<sup>st</sup> Century Cities Initiative at Johns Hopkins University, Morgan and Pally (2016) explored this possibility in Baltimore by examining trends in both crime *and* arrest data from 2010 to 2015, which captures the deaths of both Michael Brown and Freddie Gray. With respect to crime, the authors found that shootings, homicides, robberies, carjackings, and automobile thefts all increased in the three months following Gray’s death. Yet despite these crime increases, the arrest count over the same period declined by 30% (in fact, arrests had been declining during the 8 months prior to Gray’s arrest, which is perhaps attributable to the events surrounding Brown’s death in Ferguson). Thus, the authors found that negative publicity surrounding Gray’s death in Baltimore was associated with both increases in crime *and* a slowdown in police activity. Together, these

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<sup>3</sup> Rosenfeld (2016:2) has since concluded that the homicide increase in 56 large US cities “was real and nearly unprecedented,” though most of the overall increase was constrained to 10 cities which had experienced, on average, a 33% increase in homicides. While there are several possible explanations for why these cities experienced such drastic homicide increases, the Ferguson Effect is the most likely, according to Rosenfeld.



studies suggest that there is no Ferguson Effect on national crime rates; however, negative publicity stemming from events like Ferguson and Baltimore *do* appear to have an effect on police behaviors. Importantly, such an effect seems to occur regardless of whether a city has experienced a high-profile incident of its own (e.g., Baltimore's de-policing after Brown's death, but *before* Gray's death).

Equally important is the possibility that, in response to both negative media attention and public discontent, the police have begun to question the confidence they have in their own moral authority, or self-legitimacy (see Bottoms & Tankebe, 2012). Indeed, Nix and Wolfe (2015) demonstrated that reduced motivation due to negative publicity in the months following Ferguson was associated with lower levels of self-legitimacy among officers in their sample. This is especially troubling given that higher levels of self-legitimacy have been linked to greater organizational commitment and less dependence on physical force to gain compliance (Tankebe & Meško, 2015), as well as greater commitment to using procedural fairness (Bradford & Quinton, 2014).

Similarly, Wolfe and Nix (2016a) found that officers who felt less motivated as a result of negative publicity surrounding law enforcement indicated less willingness to engage in community partnerships – a key component of policing in the community-problem solving era. Importantly, however, the study also revealed that officers' lack of willingness to work with community members was more a result of perceived supervisor unfairness and lack of self-legitimacy. Finally, some commentators and law enforcement officials have proclaimed that policing has become more dangerous in the wake of Ferguson due to officers being more hesitant to use force when the situation calls for it (Canterbury, 2016; Reese, 2014; Safir, 2015). Some have even suggested that the number of police officers being assaulted and killed in the line of

duty has increased sharply (Hattem, 2015), though empirical evidence suggests otherwise (Maguire, Nix, & Campbell, forthcoming).

Anecdotes and opinions concerning the Ferguson Effect abound and many cops argue that it is real. The problem with most media attention concerning the Ferguson Effect is that it is treated often as a singular phenomenon. The reality is that there may be many Ferguson *Effects*. While research suggests that a Ferguson Effect on crime rates appears to be confined to select cities in the US, there are many other consequences experienced by officers that have resulted from negative publicity. In this way, empirical evidence confirms much of the conjecture and anecdotes. Some cops are less motivated and confident, view the job as more dangerous, are arresting fewer people for minor offenses, and are more hesitant to engage with community members in the post-Ferguson era. Again, it is important to emphasize that social media contagion has allowed Ferguson-type incidents to be experienced in agencies that have not experienced their own high-profile police shooting (see Pyrooz et al., 2016). Ultimately, social media has created a situation where citizens and officers alike can reap the negative effects of such incidents regardless of geographical proximity. Officers need to be held accountable for wrongdoing but this evidence suggests that a sizeable portion of police officers are feeling the ill effects of intense public scrutiny. These are important observations not only for police agencies but the communities they serve. Ultimately, officers impacted in this manner are less effective than they should be. This has direct implications for the safety of citizens and the wellbeing of communities. Unfortunately, we know very little about what factors are associated with officers' sensitivity to Ferguson-related negative publicity. Organizational justice theory offers one possibility for us to begin to establish an evidence-based understanding of the phenomenon.

### **Organizational Justice**

Organizational justice theory has a long history in the business management literature (see, e.g., Lind & Tyler, 1988). In fact, several meta-analyses have demonstrated strong empirical support for the conclusion that employees are more likely to engage in a wide-range of beneficial work-related behaviors when they perceive their organization as fair (Cohen-Charash & Spector, 2001; Colquitt et al., 2001). There are three primary components to organizational justice, the first of which is distributive fairness. Employees base their evaluations of supervisors partially on the extent to which they perceive organizational outcomes, such as salary and promotion decisions, as being distributed evenhandedly across the organization (i.e., such decisions are not based on individual characteristics or “who you know”). The second component, interactional justice, concerns the degree to which employees feel they are treated with respect and politeness by supervisors. The third, and most important, element of organizational justice is procedural fairness. Over and above outcome-based equity, employees look for supervisory decisions and organizational processes to be handled in procedurally just manners—decisions are clearly explained, unbiased, and allow for employee input.

Given the overlap between the management of cooperate businesses and police organizations, a wave of organizational justice research in policing contexts has occurred in the past few years. Wolfe and Piquero (2011), for example, showed that officers were less likely to engage in misconduct when they viewed their agency and supervisors as organizationally fair. Other research has echoed this finding and revealed further beneficial outcomes that stem from organizational justice. Officers are more likely to identify with their agency and its goals, hold more favorable views of community policing (and the public more broadly), use procedural justice, and have higher levels of self-legitimacy when they perceive their supervisors as organizationally fair (Bradford & Quinton, 2014; Bradford et al., 2014; Myhill & Bradford,

2013; Tankebe, 2014; Tankebe & Meško, 2015; Tyler, Callahan, & Frost, 2007). Relatedly, but using slightly different terminology, recent studies have underscored the importance of “internal procedural justice” within police departments (Trinkner, Tyler, & Goff, 2016; Van Craen, 2016). The President’s Task Force on 21<sup>st</sup> Century Policing (2015) even included internal procedural justice as a cornerstone of building trust within the community—trust must start from the inside before being sustained in communities. Taken together, the literature demonstrates that officers who feel their supervisors are procedurally fair, distribute outcomes based on objective criteria, and treat subordinates with respect, engage in more organizational citizenship behaviors and harbor positive attitudes that are beneficial to both the agencies they work for and the communities they serve.

With such results in mind, there are several reasons why we would expect organizational justice to be associated with less sensitivity to the Ferguson Effect. First, it is important to emphasize that we view sensitivity to the Ferguson Effect as a negative work-related outcome given the many potential negative consequences of such an orientation. If officers feel less motivated or believe citizens have worse opinions of the police in the wake of Ferguson, for example, they may be less likely to engage in successful crime reduction strategies such as using procedural justice, community-oriented policing, or order-maintenance policing. Empirical evidence supports this conclusion (Morgan & Pally, 2016; Wolfe & Nix, 2016a). On the other hand, officers may be protected from such negative outcomes when they are treated in a fair manner by their supervisors. Organizational justice communicates to individual officers that their supervisors and the broader agency have their back—they are there to support them.<sup>4</sup>

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<sup>4</sup> An anonymous reviewer pointed out that a supervisor might also have an officer’s back when s/he commits wrongdoing – which is certainly plausible. This would not be a function of organizational justice, but rather the blue code of silence (see Skolnick, 2002) which is particularly problematic for use of force investigations and the

Furthermore, being treated fairly and respectfully by supervisors lets officers know that they have a voice in their agency and they are a part of the department, not simply a subordinate employee. Most importantly, supervisors who use organizational fairness are indicating to officers that “we are in this together” regarding public scrutiny and Ferguson-related negative media attention. This sends an important psychological message to officers that if something does go wrong it will be dealt with fairly.

It is important to determine whether organizational justice is related to officers’ sensitivity to the Ferguson Effect because of relatively easy-to-implement policy implications that would follow. Organizational fairness can be used as a management philosophy by ensuring that supervisors treat officers in a procedurally fair, unbiased, and respectful manner, and by offering them a voice in decisions. In turn, this strategy can help stave off any negative psychological effects of media and public scrutiny. This is important in itself but using organizationally fair supervision techniques also has a number of other benefits that come with it such as creating officers who are more committed to and trusting of their agency, more willing to work with the community and use procedural justice, and less likely to engage in counterproductive work behaviors (e.g., misconduct). Organizational justice is also likely to help lead to needed reforms in agencies with strained police-community relations. In short, the organizational justice return on investment is great.

### **The Current Study**

Accordingly, the present study explored whether officers’ perceptions of organizational fairness within their agency was associated with their sensitivity to the Ferguson Effect. We examined this question with a survey of sheriff’s deputies that was conducted about six months

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legitimacy of the police in the eyes of the public. Our use of the term “support” deals does not include such instances where a supervisor knowingly covers up officer misconduct.

after Michael Brown was killed in Ferguson. This was a time period when the “Ferguson Effect” was receiving a great deal of attention on social and conventional media sites and when high ranking officials were warning of the ill-effects of the phenomenon (see, e.g., Anderson, 2014; Frizell, 2014; Matt, 2014; Reese, 2014). We use a variety of measures to explore officers’ attitudes concerning various possible manifestations of the Ferguson Effect. The purpose of the present study was to provide a theoretically sophisticated understanding of the correlates of sensitivity to the Ferguson Effect in order to provide evidence-based police policy recommendations. The overarching goal was to further demonstrate the utility of organizational fairness within police agencies.

## **Methods**

### *Data*

Shortly after the beginning of 2015, we surveyed 510 full-time, sworn sheriff’s deputies employed by an agency in a southeastern US metropolis (response rate = 85%).<sup>5</sup> The survey was administered online at a password-protected website and participation was encouraged by ensuring anonymity and securing the endorsement of the agency’s Deputy Advisory Council – a group of deputies who represent the interest of their colleagues and is very respected throughout the agency. As is typical of survey research, some respondents returned incomplete surveys, which resulted in a small amount of missing data. We employed multiple imputation using chained equations (MICE; 10 imputations) to handle missing data, which is available in Stata 14 (Andridge & Little, 2010; Fuller & Kim, 2005).

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<sup>5</sup> This agency – one of the largest in its state – serves Marie County (pseudonym), which covers over 750 square miles and is home to approximately 401,000 citizens. According to the most recent US Census data, the racial makeup of Marie County is roughly 48% white, 47% black, and 5% other. About one-fourth of the population is under the age of 18. The median household income is \$48,674, but note that 16% of the population is living in poverty.

### *Dependent Variables*

We measured sensitivity to the Ferguson Effect with five separate dependent variables meant to capture various consequences attributable to the Ferguson controversy. Specifically, we considered whether the respondent felt s/he has been impacted, his/her colleagues have been affected, and the public has been affected by the Ferguson controversy, respectively, in the wake of Michael Brown's death and subsequent related events in the ensuing months.

*Ferguson effect on self.* We presented respondents with eight statements regarding the extent to which negative publicity had impacted them in the 6 months leading up to the survey (the survey was administered approximately 6 months after Brown's death in Ferguson). For example, respondents were asked to indicate their level agreement (1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, 5 = *strongly agree*) that over the past 6 months, negative publicity surrounding law enforcement had "made it more dangerous to be a law enforcement officer," "made it less enjoyable to have a career in law enforcement," and "made it more difficult for you to be motivated at work." A complete list of the items used to measure the effect of negative publicity on respondents is available in the Appendix. Principal components analysis (PCA) with varimax rotation demonstrated that the eight items loaded onto two distinct components – one pertaining to *less motivation* ( $\lambda = 4.18$ , loadings  $> .66$ ) and the other to *increased danger* on the job ( $\lambda = 1.06$ , loadings  $> .60$ ). Each component demonstrated adequate internal consistency (*motivation*  $\alpha = .87$ , *danger*  $\alpha = .71$ ) and, therefore, were combined into separate additive scales. *Less motivation* ranges from 5 to 25, with higher scores indicating the respondent felt less motivated to do his/her job as a result of negative publicity over the prior 6 months. *Increased danger* ranges from 3 to 15, with higher scores reflecting a belief on the part of the respondent that law enforcement had become more dangerous as a result of negative

publicity following Ferguson and related events. Descriptive statistics for all variables used in the analyses are presented in Table 1.

--Table 1 about here--

*Ferguson effect on colleagues.* It is possible that regardless of whether officers believed negative publicity stemming from the Ferguson controversy had affected them, they might believe that it had influenced other police officers, including their colleagues. This is an important consideration given that police officers routinely rely on their colleagues for backup. For example, officers may hesitate to stop suspicious persons if they feel their colleagues are reluctant to use force when it may be necessary. To capture this sentiment, we asked respondents to indicate their agreement (1 = *strongly disagree* to 5 = *strongly agree*) with statements regarding whether negative publicity surrounding law enforcement in the previous 6 months had: (1) made it more difficult for coworkers to do their job, (2) made it more difficult for coworkers to be motivated at work, (3) caused coworkers to be less proactive on the job than they were in the past, and (4) caused coworkers to be more apprehensive about using force even though it may be necessary. PCA suggested the four items loaded onto a single component ( $\lambda = 2.67$ , loadings  $> .76$ ) and Cronbach's alpha indicated strong internal consistency ( $\alpha = .83$ ). Accordingly, we combined the items into an additive scale ranging from 4 to 20 with higher scores reflecting a belief that negative publicity surrounding law enforcement had negatively *affected colleagues*.

*Ferguson effect on citizens' views.* It is also possible that, in response to the Ferguson-related controversy, officers have come to believe that citizens' attitudes toward the police have worsened (see Culhane et al., 2016). If so, this could have important ramifications for the police. For example, it may lead to further immersion into the "us versus them" nature of the police



subculture (Chan, 1996, Neiderhoffer, 1967; Waddington, 1999), which could result in less willingness to work with the community to solve problems (Braga et al., 2001). To measure the extent to which our sample felt this way about *US citizens*, respondents were asked to indicate their level of agreement (1 = *strongly disagree* to 5 = *strongly agree*) with the following statement: “In general, US citizens’ views of the police have gotten worse in the last 6 months.” Similarly, we asked respondents how much they agreed that “Over the past 6 months, Marie County (pseudonym) residents’ perceptions of law enforcement have gotten worse.” This item was used as a fifth dependent variable, *Local citizens*, in order to consider the possibility that respondents felt local citizens’ views differed from those of US citizens more broadly.

#### *Independent Variable*

*Organizational justice.* The independent variable of the present study was *organizational justice*, which we measured with 18 items intended to capture each component of the construct: procedural, distributive, and interactional justice. All items were measured on the same 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Procedural justice was measured by asking respondents the extent to which they agreed with statements such as “Command staff clearly explains the reasons for their decisions” and “My agency’s policies are designed to allow employees to have a voice in agency decisions (e.g., assignment changes, discipline).” Distributive justice was measured with statements including “Landing a good assignment in my agency is based on whom you know (reverse coded)” and “Command staff treats employees the same regardless of their gender.” Finally, interactional justice was measured via statements like “Command staff treats employees with kindness and consideration” and “Generally, command staff treats employees with respect” (a complete list of the items used to measure organizational justice is available in the Appendix). These items were consistent with those used in prior

research (Cohen-Charash & Spector, 2001; Colquitt et al., 2001) and PCA indicated that they loaded onto a single component ( $\lambda = 10.75$ , factor loadings  $> .65$ ). The items also demonstrated strong internal consistency ( $\alpha = .96$ ) and, accordingly, were combined into an additive scale with higher scores reflecting greater perceived organizational justice.

### *Controls*

In an effort to generate unbiased estimates of the effect of organizational justice on each of the outcome variables, we controlled for several individual officer characteristics. To aid in maintaining respondents' anonymity, we measured age categorically (1=21 to 30, 2=31 to 40, 3=41 to 50, and 4=51 or older). Gender (1=*male*), race (1=*minority*), and education (1=*four-year degree or higher*) were dummy coded, as were rank (1=*deputy*), experience (1=*more than 10 years*), and military background (1=*yes*). Consistent with the agency's demographic characteristics, about 76% of respondents were male and 31% were a minority. Finally, we controlled for respondents' level of *self-legitimacy* because prior studies have demonstrated its association with a number of desirable officer attitudes and behaviors (Bradford & Quinton, 2014; Tankebe & Meško, 2015; Wolfe & Nix, 2016a, b). Respondents were asked to indicate their level of agreement with the following five statements: "I have confidence in the authority vested in me as a law enforcement officer," "As a law enforcement officer, I believe I occupy a position of special importance in society," "I believe people should always do what I tell them as long as my orders are lawful," "I am confident I have enough authority to do my job well," and "I believe law enforcement is capable of providing security for all citizens of this county" (Tankebe, 2014). PCA indicated that the items loaded onto a single component ( $\lambda = 2.32$ ; loadings  $> 0.56$ ) and Cronbach's alpha suggested adequate internal consistency ( $\alpha = .71$ ). As

such, the items were summed into a scale ranging from 5 to 25, with higher scores indicating a greater sense of self-legitimacy.

### *Analytic Strategy*

The analysis involved the estimation of a series of multivariate regression equations that examined the role of organizational justice on officers' sensitivity to the Ferguson Effect as indicated by five different outcome variables. Specifically, Models 1 through 3 in Table 2 used ordinary least squares regression (OLS) to assess whether organizational justice was associated with less motivation, increased danger, or a greater sense that public scrutiny had negatively impacted respondents' colleagues in the months following the incident in Ferguson, net of statistical controls. OLS was used because these dependent variables approximated normality (Tabachnick & Fidell, 2013).<sup>6</sup> Conversely, ordered logistic regression was used to estimate the relationship between organizational justice and respondents' perceptions of whether US citizens' or local residents' views of the police had gotten worse in the wake of Ferguson in Models 4 and 5, respectively.<sup>7</sup>

## **Results**

Models 1 and 2 in Table 2 were concerned with the extent to which respondents felt they had been directly affected by negative publicity stemming from the Ferguson controversy. Model

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<sup>6</sup> *Less motivation*: skewness = 0.37, kurtosis = 2.51; *Increased danger*: skewness = -0.53, kurtosis = 3.02; *Affected colleagues*: skewness = 0.13, kurtosis = 2.84.

<sup>7</sup> The parallel-lines assumption (i.e., proportional odds) is often violated when using ordered logistic regression because one or more coefficients in an equation may differ across values of the outcome measure (Williams, 2006). We used the Brant (1990) test to assess whether the regression coefficients in the ordered logistic models were similar across the response categories for each of the dependent variables (see also, Long & Freese, 2006). According to this test, the parallel-lines assumption was violated in Models 4 and 5 in Table 2. We reestimated these equations using Stata's *gologit2* command which allows some regression coefficients to be the same across all values of a dependent variable and others to differ. A multinomial logit would allow all parameters to vary across the dependent variable but such an equation would lack interpretability and parsimony (Breen, Luijkx, Müller, & Pollak, 2009; Williams, 2006). The generalized ordered logit robustness checks revealed substantively similar results as those presented below. For ease of interpretation, we report the ordered logit findings.

1 presents the results of an OLS model that regressed *less motivation* onto organizational justice and nine control variables. For starters, about 29% of the variation in *less motivation* was accounted for by the model. Most importantly, deputies who perceived greater organizational justice on the part of their agency and its command staff were significantly less likely to report experiencing reduced motivation due to negative publicity surrounding law enforcement in the six months following Michael Brown's death in Ferguson ( $b = -.18, p < .01$ ). In other words, deputies who felt their supervisors treated them fairly and with respect were less likely to experience reduced motivation from the Ferguson Effect.

In Model 2, the *increased danger* scale was regressed onto organizational justice along with each of our control variables. The model accounted for a moderate amount of variation in this measure of the Ferguson Effect ( $R^2 = .15$ ). Organizational justice ( $b = -.07, p < .01$ ) was significantly and negatively associated with a belief among respondents that law enforcement has become more dangerous in the post-Ferguson era. Here again, organizational justice on the part of supervisors seemed to protect deputies from the negative consequences of the Ferguson Effect. It is also worth noting that compared to white respondents, minorities ( $b = -.67, p < .05$ ) were significantly less likely to report an increased sense of danger in law enforcement. Given that much of the negative publicity surrounding the Ferguson controversy has dealt with the shooting of unarmed black citizens by white police officers, it is perhaps not surprising that minority officers are less likely to believe law enforcement has gotten more dangerous.

--Table 2 about here--

Model 3 focused on the extent to which respondents believed their colleagues had been impacted by negative publicity stemming from Ferguson. Our third dependent variable – *affected colleagues* – was regressed onto organizational justice and each of the control variables. The

model explained 21% of the variation in the outcome variable. Once again, the organizational justice coefficient ( $b = -.10, p < .01$ ) was negative and statistically significant. Deputies who believed their agency and its command staff was fair and respectful were less likely to feel that their colleagues have been affected by negative publicity in the months following Ferguson.

Models 4 and 5 explored the extent to which respondents believed the Ferguson controversy had influenced citizens' attitudes toward the police. Using ordered logistic regression, Model 4 regressed our fourth dependent variable, *affected US citizens*, onto organizational justice and the controls. As expected, organizational justice ( $b = -.03, p < .01$ ) was significantly and negatively associated with the belief that US citizens' views of the police had gotten worse in the six months leading up to the survey. Those deputies who perceived greater organizational fairness within their agency were less likely to feel that citizens' views of the police have gotten worse. In this way, organizationally fair treatment by supervisors seems to protect officers from cynical orientations about citizens. In Model 5, we explored a similar question but focused more specifically on respondents' beliefs about local citizens' views of the police. Our final Ferguson Effect variable – *affected local citizens* – was regressed onto organizational justice along with the controls. Again organizational justice ( $b = -.06, p < .01$ ) was significantly and negatively associated with the outcome. That is, deputies who perceived greater organizational justice within their agency were less likely to believe that local citizens' views of the police had worsened in the 6 months since Ferguson. With the findings in hand, we now turn to a discussion of the implications surrounding the results.

### **Discussion**

There has been much debate over the existence of a Ferguson Effect on US police over the last year and a half. Although the notion that the Ferguson Effect is responsible for a

nationwide crime trend has been debunked (Pyrooz et al., 2016; but see Rosenfeld, 2016), a growing body of evidence suggests that cops have indeed been impacted by continued negative publicity (Morgan & Pally, 2016; Nix & Wolfe, 2015; Wolfe & Nix, 2016a). If in fact police officers across the country are less willing to be proactive on the job in the post-Ferguson era, this is a serious problem that we need to know more about. For example, reductions in proactive stops, order-maintenance policing, and other strategies known to be effective in crime reduction may have a more lagged effect on crime problems in particular communities than recent research has been able to observe. As such, a question we felt was important to ask was: what factors are associated with officer sensitivity to negative publicity stemming from the Ferguson controversy? This study suggested that respondents' perceived organizational fairness on the part of their supervisors was significantly associated with less sensitivity to five manifestations of the Ferguson Effect. Officers who felt their agency was fair were less likely to report (1) being unmotivated, (2) that law enforcement has become more dangerous, (3) that their colleagues have been impacted by negative publicity, and (4) that citizens' attitudes (both nationally and locally) toward the police have worsened. With these results in mind, several issues warrant more detailed discussion.

Organizational justice extends beyond the walls of the police department and ultimately protects cops. Respondents who indicated that their agency and command staff are fair, objective, honest, and respectful were less sensitive to negative publicity surrounding their profession in the wake of Michael Brown's death in Ferguson. This finding adds to a growing body of literature which suggests that internal fairness produces beneficial outcomes for individual officers, agencies, and the public at large (Bradford & Quinton, 2014; Trinkner et al., 2016; Wolfe & Nix, 2016a; Wolfe & Piquero, 2011). We implore researchers to continue

exploring organizational fairness in the police context – perhaps, for example, as it relates to important issues such as embracing evidence-based practices and adopting new technologies such as body-worn cameras. It is probable that agencies which emphasize internal fairness are more likely to generate buy-in from line-level officers on such matters.

Academic research on the Ferguson Effect has dramatically improved our understanding of the phenomenon. Simply put, scientific evidence is more valuable than conjecture. Research has revealed that there are important Ferguson-related effects on officers' orientations toward their job and de-policing behaviors. It is also possible that the negative publicity surrounding deadly force incidents such as those in Ferguson and Baltimore have thrust the police into a legitimacy crisis. That is, in response to the deaths of several unarmed black citizens in recent years, US citizens may have begun to challenge the legitimacy of the police (see Bottoms & Tankebe, 2012; Tyler, 1990; Tyler & Huo, 2002). Any look at social media outlets will clearly reveal that a sizable portion of the American public is questioning the legitimacy of police use of force, particularly in minority communities. A recent experiment by Culhane and colleagues (2016) supports this argument empirically by showing that citizens are less likely to view police shootings as justified in the post-Ferguson era. This evidence suggests that the Ferguson-related incidents have also negatively impacted citizens' orientations toward law enforcement. At this point, we need more theoretically-grounded and policy-relevant research on the legitimacy crisis that may be facing American police. The implications of reduced legitimacy are potentially far reaching and may impact police-community relations and crime for generations to come if not adequately addressed (Wolfe, McLean, & Pratt, 2016).

This issue brings us to the policy implications of our findings. In the face of public scrutiny of immense proportions, law enforcement agencies are in a position where they must

act. Our findings underscore the importance of organizational fairness from supervisors and agencies more broadly. This is not necessarily surprising given that decades of research has demonstrated the role of organizational justice in the context of various employment and subordinate settings (Cohen-Charash & Spector, 2001; Colquitt et al., 2001; Reisig & Bain, 2016). The policy implication of this observation is straightforward: to minimize the impact of negative publicity and the Ferguson Effect on officers, agencies must strive to use organizational justice as a guiding principle of their managerial philosophy. Ensuring that internal policies and procedures are fair, disciplinary proceedings and hiring/promotion decisions are based on objective indicators, allowing subordinate officers a voice in agency decision-making, and treating subordinates with respect and dignity are some of the ways in which police supervisors can cultivate a climate of organizational fairness in their agencies. Organizationally fair treatment sends the message to officers that the agency and its supervisors has their back and communicates to them that they are part of the agency (rather than simply a subordinate employee). Ultimately, this allows an agency to create a situation where officers believe that if something unfortunate occurs on the street, such as having to shoot a civilian, their agency will support them, provide a fair investigation process, and not make decisions based on political pressure or public scrutiny. It is important to note, however, that political pressure is often an inescapable aspect of law enforcement. As such, we need to keep in mind that organizational justice on the part of police agencies cannot be fully separated from the efforts on the part of local governments (e.g., mayors and city councils) to do the same thing. Arbitrary decisions from local government officials have the power to undermine organizational justice within police agencies. Additionally, advocating for the use of organizational justice does not absolve officers or agencies from misconduct and poor community relations. Indeed, police reform is needed in



the US, particularly in certain communities. Ensuring organizational fairness within an agency is one prong to such reform.

Organizational justice training programs need to be developed with an eye toward helping agencies achieve these goals. Several training platforms organized by both government (e.g., the Office of Community-Oriented Policing) and private entities have already emerged. When such training is implemented within agencies, there is a need for evaluation research dedicated toward understanding what works with such programs and what does not. Owens and colleagues (2016) recently conducted an experiment in which they successfully implemented a low-cost procedural justice-centered training of officers in Seattle. Results revealed that trained officers were less likely to resolve incidents with arrest or force. An important component of this intervention included organizationally fair treatment by supervisors. More training programs and related evaluation research need to focus on organizational justice within police agencies in the future.

The importance of organizational justice within police departments cannot be overstated. Good policing starts inside the walls of police agencies. Simply put, we cannot expect officers to engage in procedural justice on the street if they do not receive such treatment from their own supervisors. Internal procedural justice provides a model for police officers that is likely to translate into interactions they have with citizens (Bradford & Quinton, 2014; Van Craen, 2016). Accordingly, organizational justice has direct public safety consequences. We know that procedural justice policing is safer for cops and community members alike (i.e., as opposed to relying on coercive force) and causes citizens to more regularly voluntarily comply with the law (see Tyler, 1990). Our findings suggest that organizational justice may also create a situation where cops will not hesitate to do things on the street that we know are effective at combating

crime (e.g., work with community members). Ultimately, this means that organizational justice translates into safer communities.

While our study is the first of its kind to demonstrate theoretically-salient and policy-relevant results concerning the correlates of sensitivity to the Ferguson effect, there were several things we could not do that represent opportunities for future work. First, our measure of the extent to which respondents' colleagues have been impacted by negative publicity may suffer from projection. Psychological projection theory offers a reason to believe that while respondents might be hesitant to indicate having been affected by the Ferguson controversy, they may project such feelings onto their peers (Baumeister, Dale, & Sommer, 1998; Boman et al., 2011). Unfortunately, we are unable to determine whether this occurred with some of our respondents. One avenue for future research that may prove fruitful is the collection of social network data to gauge the extent to which peer effects shape sensitivity to the Ferguson Effect. Second, like most prior studies, ours was carried out using cross-sectional survey data from a single agency. As such, the generalizability of our findings may be limited because (1) we were unable to determine whether respondents' attitudes have truly *changed* post-Ferguson and (2) we cannot be certain that our findings from this particular agency are generalizable to officers working in other agencies or other regions of the country. At the same time, however, it is important to note that our Ferguson Effect measures were retrospective in nature by asking respondents to indicate how events in the previous six months had impacted them. Future research using longitudinal designs and/or conducted with multiple agencies would certainly be fruitful on both theoretical and practical levels.

In the end, organizational justice should be a cornerstone of all police departments. The beneficial outcomes – to officers, agencies, and the public – are numerous. Fortunately, agencies

can implement organizational fairness at little cost. The police profession will undoubtedly face continued public scrutiny in the current era of social media, especially given that officers have the unique power to arrest and use physical (even deadly) force. In this way, the importance of our findings are not restricted to reducing sensitivity to the Ferguson Effect. Rather, our findings suggest that organizational fairness can encourage officers to continue performing their duties when such public scrutiny does occur. Ultimately, this translates into better cops and safer communities.

## References

- Anderson, E. (2014, Aug 13). What caused the Ferguson riot exists in so many other cities, too. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/posteverything/wp/2014/08/13/what-caused-the-ferguson-riot-exists-in-so-many-other-cities-too/>.
- Baumeister, R. F., Dale, K., & Sommer, K. L. (1998). Freudian defense mechanisms and empirical findings in modern social psychology: Reaction formation, projection, displacement, undoing, isolation, sublimation, and denial. *Journal of Personality*, 66(6), 1081-1124.
- Boman, J. H., Stogner, J. M., Miller, B. L., Griffin, O. H., & Krohn, M. D. (2011). On the operational validity of perceptual peer delinquency: Exploring projection and elements contained in perceptions. *Journal of Research in Crime and Delinquency*, 49, 601-621.
- Bottoms, A. & Tankebe, J. (2012). Beyond procedural justice: A dialogic approach to legitimacy in criminal justice. *The Journal of Criminal Law and Criminology*, 102(1), 119-170.
- Bradford, B. & Quinton, P. (2014). Self-legitimacy, police culture and support for democratic policing in an English constabulary. *British Journal of Criminology*, 54, 1023–1046.
- Bradford, B., Quinton, P., Myhill, A., & Porter, G. (2014). Why do ‘the law’ comply? Procedural justice, group identification and officer motivation in police organizations. *European Journal of Criminology*, 11(1), 110-131.
- Braga, A. A., Kennedy, D. M., Waring, E. J., & Piehl, A. M. (2001). Problem-oriented policing, deterrence, and youth violence: An evaluation of Boston's Operation Ceasefire. *Journal of Research in Crime and Delinquency*, 38(3), 195-225.
- Brant, R. (1990). Assessing proportionality in the proportional odds model for ordinal logistic regression. *Biometrics*, 46, 1171-1178.

- Breen, R., Luijkx, R., Muller, W., & Pollak, R. (2009). Nonpersistent inequality in educational attainment: Evidence from eight European countries. *American Journal of Sociology*, 114, 1475-1521.
- Canterbury, C. (2016, Feb 12). *Letter from National FOP President Canterbury to President Obama*.
- Chan, J. (1996). Changing police culture. *British Journal of Criminology*, 36, 109–34.
- Cohen-Charash, Y. & Spector, P. E. (2001). The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes*, 86, 278–321.
- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C., & Ng, K. Y. (2001). Justice at the millennium: a meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology*, 86(3), 425-45.
- Culhane, S. E., Boman, J. H., & Schweitzer, K. (2016). Public perceptions of the justifiability of police shootings: The role of body cameras in a pre/post Ferguson experiment. *Police Quarterly*. Advance online publication. doi: 10.1177/1098611116651403.
- Davis, A. C. (2015, Oct 8). ‘YouTube effect’ has left police officers under siege, law enforcement leaders say. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/news/post-nation/wp/2015/10/08/youtube-effect-has-left-police-officers-under-siege-law-enforcement-leaders-say/>.
- Frizell, S. (2014, Sep 28). Obama: Ferguson exposed ‘gulf of mistrust’ between cops and communities. *Time*. Retrieved from <http://time.com/3441544/obama-ferguson-gulf-of-mistrust/>.
- Gill, C., Weisburd, D., Telep, C. W., Vitter, Z., & Bennett, T. (2014). Community-oriented policing to reduce crime, disorder and fear and increase satisfaction and legitimacy among citizens: A systematic review. *Journal of Experimental Criminology*, 10, 399-428.

- Hattem, J. (2015, May 11). Killings of police officers on the rise. *The Hill*.
- Long, J. S., & Freese, J. (2006). *Regression models for categorical dependent variables using Stata*. College Station, TX: Stata Press.
- Mac Donald, H. (2015, May 29). The new nationwide crime wave. *The Wall Street Journal*. Retrieved from <http://www.wsj.com/articles/the-new-nationwide-crime-wave-1432938425>.
- Mac Donald, H. (2016). *The war on cops: How the new attack on law and order makes everyone less safe*. Encounter Books.
- Maguire, E. R., Nix, J., & Campbell, B. A. (forthcoming). A war on cops? The effects of Ferguson on the number of U. S. police officers murdered in the line of duty. *Justice Quarterly*.
- Martinez, M. (2015, May 26). Baltimore's deadliest month in 15 years: May counts 35 homicides, so far. *CNN*. Retrieved from <http://www.cnn.com/2015/05/26/us/baltimore-deadliest-month-violence-since-1999/index.html>.
- Matt, D. (2014, Oct 14). The Ferguson effect: A cop's-eye view. *New York Post*. Retrieved from <http://nypost.com/2014/10/14/the-ferguson-effect-a-cops-eye-view/>.
- Morgan, S. L. & Pally, J. A. (2016). *Ferguson, Gray, and Davis: An Analysis of Recorded Crime Incidents and Arrests in Baltimore City, March 2010 through December 2015*. A report written for the 21<sup>st</sup> Century Cities Initiative at Johns Hopkins University. Retrieved from <http://socweb.soc.jhu.edu/faculty/morgan/papers/MorganPally2016.pdf>.
- Myhill, A. & Bradford, B. (2013). Overcoming cop culture? Organizational justice and police officers' attitudes toward the public. *Policing: An International Journal of Police Strategies and Management*, 36, 338-56. doi: 10.1108/13639511311329732.

- Neiderhoffer, A. (1967). *Behind the shield: The police in urban society*. Garden City, NY: Doubleday.
- Nix, J. & Wolfe, S. E. (2015). The impact of negative publicity on police self-legitimacy. *Justice Quarterly*. Advance online publication. doi: 10.1080/07418825.2015.1102954.
- Owens, E., Weisburd, D., Alpert, G. P., & Amendola, K. L. (2016). *Can you build a better cop? Experimental evidence on supervision, training, and policing in the community*. Unpublished manuscript.
- Pyrooz, D. P., Decker, S. H., Wolfe, S. E., & Shjarback, J. A. (2016). Was there a Ferguson effect on crime rates in large U.S. cities? *Journal of Criminal Justice*, 46, 1-8.
- Reese, S. (2014, Nov 27). Police say officers hesitating to use deadly force. *The Washington Times*.
- Reisig, M. D. & Bain, S. N. (2016). University legitimacy and student compliance with academic dishonesty codes: A partial test of the process-based model of self-regulation. *Criminal Justice and Behavior*, 43, 83-101.
- Rosenfeld, R. (2016). *Documenting and Explaining the 2015 Homicide Rise: Research Directions*. A report to the National Institute of Justice. Washington, DC: Department of Justice..
- Safir, H. (2015, Jun 5). Police commissioner: Bad old days of crime may be back. *Time*.
- Sheppard, B. H., Lewicki, R. J., & Minton, J. W. (1992). *Organizational justice: The search for fairness in the workplace*. Lexington Books/Macmillan.
- Skolnick, J. (2002). Corruption and the blue code of silence. *Police Practice and Research*, 3(1), 7-19.

- Tabachnick, B. G. & Fidell, L. S. (2013). *Using multivariate statistics* (6<sup>th</sup> ed.). California State University Northridge: Harper Collins College Publishers.
- Tankebe, J. (2014). Rightful authority: Exploring the structure of police self-legitimacy. In A. Liebling, J. Shapland, & J. Tankebe (Eds.), *Crime, justice and social order: Essays in honour of A. E. Bottoms*. Oxford: Oxford University Press.
- Tankebe, J. & Meško, G. (2015). Police self-legitimacy, use of force, and pro-organizational behavior in Slovenia. In G. Meško & J. Tankebe (Eds.), *Trust and legitimacy in criminal justice* (pp. 261–270). New York, NY: Springer. doi:10.1007/978-3-319-09813-5\_12.
- The President's Task Force on 21st Century Policing. (2015). *Final Report*. Washington, DC: U.S. Department of Justice.
- Tyler, T. R. (1990). *Why people obey the law*. Princeton, NJ: Princeton University Press.
- Tyler, T. R. & Huo, Y. J. (2002). *Trust in the law: Encouraging public cooperation with the police and courts*. New York, NY: Russell-Sage.
- Van Craen, M. (2016). Understanding police officers' trust and trustworthy behavior: A work relations framework. *European Journal of Criminology*, 13, 274-294.
- Waddington, P. A. J. (1999). Police (canteen) sub-culture. An appreciation. *British Journal of Criminology*, 39(2), 287-309.
- Weitzer, R. (2015). American policing under fire: Misconduct and reform. *Society*, 52(5), 475-480.
- Williams, R. (2006). Generalized ordered logit/partial proportional odds models for ordinal dependent variables. *Stata Journal*, 6, 58-82.



Wolfe, S. E. & Nix, J. (2016a). The alleged “Ferguson Effect” and police willingness to engage in community partnership. *Law and Human Behavior*, 40(1): 1-10.

doi:10.1037/lhb0000164.

Wolfe, S. E. & Nix, J. (2016b). *Police officers’ trust in their agency: Does self-legitimacy protect against supervisor procedural injustice?* Manuscript submitted for publication.

Wolfe, S. E. & Piquero, A. R. (2011). Organizational justice and police misconduct. *Criminal Justice and Behavior*, 38, 322-53.

Wolfe, S. E., McLean, K., & Pratt, T. C. (2016). I learned it by watching you: Legal socialization and the intergenerational transmission of legitimacy attitudes. *British Journal of Criminology*. Advance online publication. doi: 10.1093/bjc/azw038.

Table 1. Descriptive Statistics.

	N	M	S.D.	Min	Max
<b>Dependent variables</b>					
Less motivation	489	12.85	4.79	5	25
Increased danger	488	10.82	2.52	3	15
Affected colleagues	490	11.74	3.39	4	20
Affected US citizens	504	4.05	.91	1	5
Affected local citizens	503	2.84	.99	1	5
<b>Independent variable</b>					
Organizational justice	426	63.87	13.54	18	90
<b>Controls</b>					
Self-legitimacy	475	20.47	2.89	5	25
Age	438	2.53	1.03	1	4
Male	435	.76	--	0	1
Minority	430	.31	--	0	1
Four year degree	438	.57	--	0	1
Deputy <sup>a</sup>	425	.69	--	0	1
Patrol	424	.39	--	0	1
Experience $\geq$ 10 years	429	.60	--	0	1
Military	434	.39	--	0	1

<sup>a</sup> "Mid-level supervisor" is the reference category.

Table 2. Sensitivity to Ferguson Effects.

	Model 1 (OLS)		Model 2 (OLS)		Model 3 (OLS)		Model 4 (Ordered Logistic)		Model 5 (Ordered Logistic)	
	Less Motivation		Increased Danger		Affected Colleagues		Affected US Citizens		Affected Local Citizens	
	<i>b</i> (SE)	$\beta$	<i>b</i> (SE)	$\beta$	<i>b</i> (SE)	$\beta$	<i>b</i> (SE)	OR	<i>b</i> (SE)	OR
Organizational Justice	-.18** (.02)	-.50	-.07** (.01)	-.37	-.10** (.01)	-.42	-.03** (.01)	.97	-.06** (.01)	.94
Self-legitimacy	-.10 (.08)	-.06	.06 (.05)	.06	-.07 (.06)	-.06	.08* (.04)	1.08	.03 (.04)	1.03
Age	-.50 (.27)	-.11	-.36* (.15)	-.15	-.33 (.19)	-.10	.01 (.12)	1.01	-.04 (.13)	.96
Male	-.63 (.51)	-.05	-.05 (.30)	-.01	-.46 (.39)	-.06	-.78** (.28)	.46	-.31 (.25)	.74
Minority	-.83 (.49)	-.08	-.67* (.28)	-.12	-.27 (.36)	-.04	.11 (.23)	1.11	.29 (.23)	1.34
Four year degree	.78 (.46)	.08	.21 (.27)	.04	.43 (.32)	.06	.11 (.21)	1.11	.30 (.21)	1.35
Deputy	-.88 (.53)	-.08	-.81** (.28)	-.15	-.91* (.35)	-.12	-.44 (.23)	.65	-.14 (.22)	.87
Patrol	-.15 (.49)	-.02	-.27 (.27)	-.05	-.02 (.35)	.00	.30 (.23)	1.35	.26 (.22)	1.30
Experience $\geq$ 10 years	.25 (.61)	.03	-.29 (.31)	-.06	-.26 (.42)	-.04	-.39 (.27)	.68	-.36 (.27)	.70
Military	.29 (.48)	.03	.16 (.27)	.03	.63 (.35)	.09	-.23 (.23)	.80	-.26 (.22)	.77
Intercept	28.08** (1.97)	--	15.92** (1.19)	--	21.28** (1.42)	--	--	--	--	--
F-test	18.07**		8.85**		10.17**		3.76**		7.07**	
R <sup>2</sup>	.29 <sup>a</sup>		.15 <sup>a</sup>		.21 <sup>a</sup>		.05 <sup>b</sup>		.07 <sup>b</sup>	
N	369		364		370		374		373	

Note: All models estimated using MICE ( $M = 10$ ). Entries are unstandardized regression coefficients ( $b$ ), robust standard errors (SE), standardized regression coefficients ( $\beta$ ), and odds ratios (OR). \* $p < .05$ , \*\* $p < .01$

<sup>a</sup> Mean Adjusted R<sup>2</sup>; <sup>b</sup> Mean McFadden's R<sup>2</sup>

## Appendix: Organizational Justice and Ferguson Effect Items

### Organizational Justice

My agency's policies are designed to generate standards so that decisions can be made with consistency.

My agency's policies are designed to allow employees to have a voice in agency decisions (e.g. assignment changes, discipline).

My agency's performance evaluation system is fair.

My agency's investigation of civilian complaints is fair.

I understand clearly what type of behavior will result in discipline within my agency.

Landing a good assignment in my agency is based on whom you know (reverse coded).

If you work hard, you can get ahead at this agency.

As an organization, my agency can be trusted to do what is right for the community.

I trust the direction that my department's command staff is taking our agency.

I feel confident about top management's skills.

Command staff considers employees' viewpoints.

Command staff treats employees with kindness and consideration.

Command staff treats employees the same regardless of their gender.

Command staff treats employees the same regardless of their race or ethnicity.

Command staff clearly explains the reasons for their decisions.

Command staff clearly explains the reasons the agency makes policy changes.

Generally, command staff treats employees with respect.

I trust that command staff makes decisions that have the agency's best interest in mind.

### Ferguson Effects:

#### Less Motivation

*[Over the past 6 months, negative publicity surrounding law enforcement has]*

Made it more difficult for you to be motivated at work.

Caused you to be less proactive on the job than you were in the past.

Caused you to be more apprehensive about using force even though it may be necessary.

Negatively impacted the way you do your job.

Made it less enjoyable to have a career in law enforcement.

#### Increased Danger

*[Over the past 6 months, negative publicity surrounding law enforcement has]*

Made it more difficult to do your job.

Made it more dangerous to be a law enforcement officer.

Forced some US law enforcement agencies to make policy changes that ultimately threaten officer safety.

#### Affected Colleagues

*[Over the past 6 months, negative publicity surrounding law enforcement has]*

Made it more difficult for your coworkers to do their job.

Made it difficult for your coworkers to be motivated at work.

Caused your coworkers to be less proactive on the job than they were in the past.

Caused your coworkers to be more apprehensive about using force even though it may be necessary.

#### Affected US Citizens

In general, US citizens' views toward the police have gotten worse over the past 6 months.

#### Affected Local Citizens

Over the past 6 months, local citizens' perceptions of law enforcement have gotten worse.