Police Perceptions of their External Legitimacy in High and Low Crime Areas of the Community

Justin Nix

University of Louisville

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Abstract

Until recently, police legitimacy research has primarily focused on citizen perceptions of the police. However, it may be that the police believe citizens associate other factors, such as distributive justice or performance, with legitimacy. The present study adds to the literature by surveying a nationally representative sample of U.S. police officers about how they believe citizens residing in high and low crime areas of the community evaluate police in terms of legitimacy. Findings suggest that respondents believe procedural and distributive justice are important to citizens of both areas in terms of generating trust. At the same time, respondents believe that citizens of high and low crime areas feel obligated to obey the police for different reasons.

Tyler (1990) proposed that the most effective way for police (and other government social control entities) to enhance their legitimacy in the eyes of the public is by interacting with citizens in a procedurally fair manner. When the police treat citizens with dignity and respect, base their decisions on objective reasoning, and provide citizens with a voice, citizens are more likely to perceive the police as a legitimate authority (Sunshine & Tyler, 2003; Tyler & Huo, 2002). Cultivating and sustaining legitimacy is important to the police because it increases the likelihood that citizens will comply with the law (Jackson, Bradford, Stanko, & Hohl, 2012; Murphy, Tyler, & Curtis, 2009; Reisig, Wolfe, & Holtfreter, 2011; Sunshine & Tyler, 2003) and cooperate with the police (Jackson et al., 2012; Murphy & Cherney, 2012; Reisig, Tankebe, & Meško, 2014). This "process-based model" of regulation has received a great deal of empirical support showing that procedural justice is the primary antecedent of evaluations of police legitimacy, net of other factors (Gau, 2011, 2013; Gau, Corsaro, Stewart, & Brunson, 2012; Nix, Wolfe, Rojek, & Kaminski, 2015; Reisig, Bratton, & Gertz, 2007; Tyler, 1990, 2005; Tyler & Huo, 2002; Wolfe, 2011; Wolfe, Nix, Kaminski, & Rojek, in press).

The problem is scholars have focused primarily on citizen evaluations of police legitimacy without considering the perspective of the police themselves. This is an especially important inquiry given that the police appear to be in the midst of a legitimacy crisis in the post-Ferguson era. Following a string of highly publicized deadly force incidents in several cities throughout the US, the police have faced an enormous amount of criticism from the public and the media. Protests in various cities – and riots in Baltimore in April 2015 – are an indication that the police have lost legitimacy in the eyes of many citizens. Research suggests that emphasizing fairness during citizen interactions is an effective way to establish and maintain legitimacy (Tyler, 1990; Tyler & Huo, 2002) – yet to date, we simply do not know if US police are aware of the importance citizens place on procedural justice. Bottoms and Tankebe (2012) argue that legitimacy is best understood as an ongoing dialogue between power holders and audiences (i.e.,

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a "dialogic model" of legitimacy). Thus, an important question is: do the police understand what shapes their legitimacy in the eyes of the public? If the police do not understand that citizens associate their legitimacy with the fairness of procedures used by officers, then process-based regulation is less likely to come to fruition. For example, it is conceivable that the police might believe that citizens are more concerned with their performance in fighting crime than with procedural justice. Recent research suggests this is precisely the case among Israeli National Police commanding officers (Jonathan-Zamir & Harpaz, 2014). To date, no research has been published which asks police officers in the United States what they feel makes their authority legitimate in the eyes of the public.

Bottoms and Tankebe (2012) also submit that the police must consider their legitimacy in relation to multiple audiences. That is, within a given community, there may be multiple groups of people who use different criteria to evaluate police legitimacy. For instance, citizens who reside in areas that experience higher rates of crime might be less concerned with procedural fairness than citizens who reside in areas with less crime (or vice versa). Tyler suggests the process-based model is a general theory—and indeed it appears to be fairly robust across neighborhood context (Jackson et al., 2012; Wolfe et al., in press; c.f. Gau et al., 2012)—but what matters in terms of the dialogic model of legitimacy is what the police believe. That is, there is evidence that procedural fairness tends to be equally important to citizens across different contexts, but no studies have considered whether the police believe citizens of different areas of the community associate their legitimacy with other factors. Researchers have long observed that the police behave differently in high crime neighborhoods (Klinger, 1997; Smith, 1986; Terrill & Reisig, 2003; Whyte, 1943). It follows that this might be at least in part because they believe citizens in these areas have varying expectations of police. Presently, a gap in the literature is that there are no published studies that consider whether the police believe their legitimacy is evaluated differently by citizens depending on the level of crime in their area.

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The current study addresses these gaps in the literature using survey data obtained from a stratified random sample of U.S. police officers ($N = 643$) in the fall of 2014 – shortly following the death of Michael Brown in Ferguson, MO. As such, this study provides a unique opportunity to assess police perceptions of their legitimacy in the eyes of the public during a period of strained police-community relations. Using the dialogic model of legitimacy as a starting point, the current study explores the factors that responding officers believe foster their legitimacy in the eyes of the public. More specifically, the current study considers whether responding officers believe the level of crime in an area of the community influences citizen perceptions of police legitimacy. Implications for process-based policing and the dialogic approach to legitimacy are discussed.

Literature Review

Police Legitimacy

Current research in the area of legitimacy has been dominated by Tyler's (1990) theory of procedural justice, commonly referred to as the process-based model of regulation. As it pertains to legal authorities like the police, legitimacy refers to trust in the character and motivations of the police (Tyler & Huo, 2002), as well as "the belief that the police are entitled to call upon the public to follow the law and help combat crime and that members of the public have an obligation to engage in cooperative behaviors" (Tyler, 2004, pp. 86-87). In other words, police are a *legitimate* authority when the public trusts and feels obligated to obey them. Importantly, greater perceived legitimacy is associated with both citizen compliance (Jackson et al., 2012; Murphy et al., 2009; Reisig et al., 2011; Sunshine & Tyler, 2003) and cooperation (Jackson et al., 2012; Murphy & Cherney, 2012; Reisig et al., 2014).

The process-based model suggests that the best way for the police to achieve legitimacy in the eyes of the public is to exercise procedural fairness when interacting with citizens. There are two components of procedural fairness: *quality of decision making* and *quality of*

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interpersonal treatment. Quality of decision-making includes allowing people to express their concerns before making a decision that ultimately affects them and neutrality, competence, and consistency on the part of the decision maker. According to Tyler (2004, p. 94), "because people are seldom in a position to know what the correct or reasonable outcome is, they focus on evidence that the decision-making procedures by which outcomes are arrived at show evidence of fairness." Quality of interpersonal treatment involves treating individuals with dignity and respect, acknowledging their rights, and considering their needs. Tyler argues that quality treatment reaffirms one's social status and sense of self-worth, which is extremely important during an interaction which can be demeaning to the citizen.

Numerous studies have demonstrated that procedural fairness is the primary antecedent of evaluations of police legitimacy net of individual factors such as race/ethnicity, gender, income, or education (Gau, 2011, 2013; Jackson et al., 2012; Reisig et al., 2007; Tyler, 1990; Tyler & Huo, 2002; Wolfe, 2011; Wolfe et al., in press; c.f. Gau et al., 2012). That is, individuals who believe police actions are procedurally fair are more likely to perceive them as a legitimate authority, making them more likely to voluntarily comply with the law and cooperate with police. Another consistent theme in the literature is that there are two other factors that citizens associate with police legitimacy—distributive justice and performance. Each will be discussed in the section that follows.

Other Antecedents of Legitimacy

Distributive justice. Tyler (1990, 2003) suggests that police legitimacy can be influenced by both normative and instrumental concerns. Distributive justice is an instrumental perspective that focuses on fairness of *outcomes* rather than fairness of *procedures* (Sarat, 1977). Thus, citizens who believe that the police provide the same quality of service to all people tend to view them as a more legitimate authority (Sunshine & Tyler, 2003). Accordingly, people are more willing to empower and subsequently obey legal authorities such as the police when they

feel that outcomes are distributed fairly to them and to society more broadly. That is, citizens place importance on the extent to which the police provide the same quality of service and enforce the law consistently when dealing with all people (e.g., regardless of race or social status). The available evidence nevertheless indicates that procedural justice is a stronger predictor of police legitimacy than distributive justice (Hinds & Murphy, 2007; Reisig et al., 2007; Sunshine & Tyler, 2003; Tyler, 1990, 2005; Tyler & Huo, 2002).

Performance. A third antecedent of police legitimacy is performance—the effectiveness of the police in fighting crime and disorder in the community (Tyler, 2005; Wilson & Kelling, 1982). Empirical evidence is mixed, however, and more research is needed that directly compares the effects of procedural justice and performance on legitimacy. For example, recent studies performed outside of the U.S. indicate that performance might matter more to citizens than procedural fairness. Data from the South African Social Attitudes Survey reveal that, among South Africans, police performance and crime in the community have a stronger effect on perceived legitimacy of the police than procedural fairness (Bradford, Huq, Jackson, & Roberts, 2014). On the other hand, Jonathan-Zamir and Weisburd (2013) used a natural experiment to demonstrate that even in the face of threats to national security, procedural justice outpaced police performance in terms of its effect on Israeli citizens' perceptions of police legitimacy. Sunshine and Tyler (2003) found that the effect of procedural justice on legitimacy was about five times greater than the effect of a police performance scale. Likewise, Wolfe et al. (in press) found that procedural justice had a stronger effect on respondents' obligation to obey and trust in the police than performance. Nevertheless, there is a wealth of empirical research regarding the antecedents of police legitimacy from the citizen perspective. More research is needed which considers the perspective of the police. More specifically, do the police understand what shapes their legitimacy in the eyes of the community?

Police Perceptions of their Legitimacy in the Eyes of the Public

Bottoms and Tankebe (2012) recently proposed that researchers adopt what they call the "dialogic model" of legitimacy. According to the authors, legitimacy involves two parties engaged in an ongoing dialogue: power holders and audiences. In the case of the police and the community, the police are the power-holders and the community is the audience. Power-holders first make a claim to legitimacy. The audience then responds—either positively or negatively—to that claim. Power holders, in turn, observe the audience's response to their claim to legitimacy and may or may not choose to alter it as a result.

Until the development of the dialogic model, scholars have overlooked the perspective of one of the parties involved in the legitimacy dialogue: the police. The vast majority of studies that ensued in response to Tyler's theory have been concerned with citizen perceptions of police legitimacy (i.e., *external legitimacy*). Yet if the police make claims to legitimacy which are ultimately not in line with what the public desires, it is possible that the public will not recognize the police as legitimate. That is, should the police emphasize performance and discount the importance of procedural fairness, the available evidence suggests citizens would be less likely to view police as legitimate, and therefore less likely to exhibit compliant behavior (Murphy, Tyler, & Curtis, 2009; Papachristos, Meares, & Fagan, 2012), cooperate with police (Jackson et al, 2012; Murphy & Cherney, 2012), and accept police decisions the short- (Tyler & Huo, 2002) and long-term (Tyler, Sherman, Strang, Barnes, & Woods, 2007). The New York Police Department's "Stop-and-Frisk" program, for example, is premised on the notion that aggressive order-maintenance policing can lead to meaningful crime reductions (Wilson & Kelling, 1982). Yet such police tactics can undermine legitimacy if they are viewed by citizens as overly harsh or racially biased (Gau & Brunson, 2010; Meares, 2015).[i] The problem is that we simply do not have a good understanding of what police officers believe citizens think of them. Police officers prefer to rely on their own experiences more so than expert opinions when determining "what works in policing" (Lum, Telep, Koper, & Grieco, 2012, p. 78), so it is unreasonable to assume

that the police give credence to police legitimacy research. Thus, police officers' understanding of the foundations of their legitimacy in the eyes of the public needs to be assessed. This is crucial to the success of the process-based model of regulation. Empirically examining officers' views of how the public evaluates them will shed light on the degree to which the process-based model is feasible in practice and can prove useful in the translation of citizen survey results into actionable police behaviors. In short, we need to know if the police are aware of the importance citizens place on procedural justice.

To date, one study has asked such a research question. Jonathan-Zamir and Harpaz (2014) surveyed 290 Israeli police officers (142 commanding officers and 148 "up and coming" officers working on bachelors or masters degrees) and discovered that they believed citizens associated police legitimacy with performance more so than with procedural fairness. In other words, the Israeli officers believed that citizens' evaluations of their legitimacy are based more on how well they fight crime than on how fairly they treat members of the public. If the police and the public cannot agree on the foundations of legitimacy, the process-based model is not likely to be exploited by the police. As Jonathan-Zamir and Harpaz point out:

> If…the police have an inaccurate understanding of citizen priorities, they may choose to emphasize aggressive crime control at the expense of procedural fairness in their work and claims to legitimacy, which may ultimately weaken their legitimacy in the eyes of the public (p. 6).

The findings are important because they suggest there may be a breakdown in the legitimacy "dialogue" in Israel. In addition to the need to explore this issue in the United States context, research is needed which considers whether the police believe their legitimacy is evaluated differently by various segments of the community—an idea that is discussed in the following section.

Legitimacy in the Eyes of Multiple Audiences

Bottoms and Tankebe (2012) suggest that the police must often consider their legitimacy in relation to multiple audiences—specifically when "different groups have conflicting interests" (p. 122). Thus, the factors that shape individuals' perceptions of police legitimacy might vary according to the level of perceived danger or threat of victimization in an area. Jonathan-Zamir and Weisburd (2013), for example, demonstrated that Israeli citizens living in areas that experienced more frequent security threats were more concerned with the performance of the police than their counterparts living in areas that experienced fewer security threats. At the same time, procedural justice was the primary antecedent of legitimacy in both areas.

A distinct but related question that remains under-explored is whether or not police legitimacy is partially contingent upon the level of *crime* in an area. Perhaps, like citizens living in areas facing security threats, those residing in high crime areas are more concerned with police performance than citizens residing in low crime areas. Wolfe et al. (in press) address this question by interacting citizen perceptions of police performance with a dummy variable indicating whether the citizen lived in a "low crime neighborhood." The interaction term failed to achieve statistical significance, meaning that in their sample, level of crime did not condition citizens' perceptions of police performance. In other words, citizens in the low crime neighborhood were not significantly more or less concerned with police performance than citizens residing in high crime neighborhoods. Still, in terms of the dialogic approach to legitimacy, it seems reasonable that the police might *believe* this to be the case. For that reason, Jonathan-Zamir and Harpaz (2014, p. 15) encourage researchers to "distinguish between different sectors of society when asking officers to evaluate their public image." It is therefore important to test whether the police associate their legitimacy with different factors depending on the specific audience (e.g., neighborhood) with which they are dealing. Tyler (1990) suggests that procedural justice is the primary antecedent of legitimacy regardless of contextual differences such as level of crime in a neighborhood. Yet, if the police do not believe this to be

the case, they may fail to take advantage of process-based policing in certain areas of the community. As such, research is needed that directly compares the perceived effects of the various antecedents of legitimacy.

The Current Study

In order to move the procedural justice and legitimacy literatures forward, the present study explores how officers believe they are evaluated by the public in terms of legitimacy. Research conducted in Israel suggests that police leaders associate their legitimacy more so with police performance than with procedural fairness on the part of their officers (Jonathan-Zamir & Harpaz, 2014), however, the current study is unique in that it is the first of its kind using a U.S. sample. Should the same finding emerge with the present sample, it would be an indication that the police cannot exploit the process-based model to their advantage as suggested by Tyler and Huo (2002) until they understand how the public evaluates them. An abundance of research suggesting that citizens view the police as a more legitimate authority when they are procedurally fair is of little practical value if the police themselves do not understand what makes them legitimate in the eyes of the public.

In addition to being the first study of its kind that uses a U.S. sample, the present study builds on the existing literature by comparing the perceived effects of procedural justice, distributive justice, and police performance on legitimacy. Importantly, this study does not ask police officers what *they* feel makes their authority legitimate (i.e., *self-legitimacy*; see Bottoms & Tankebe, 2012), nor does it explore whether officers ultimately agree with the public in terms of what constitutes legitimate authority. Rather, the present study simply asks police officers how they believe the public evaluates them in terms of fairness, performance, and legitimacy. This in turn sheds light on what officers believe is more closely connected to their legitimacy in the eyes of the public. The current study also considers whether the police believe citizens

residing in high crime areas focus on different criteria than citizens residing in low crime areas when assessing police legitimacy.

On a more practical level, this study has implications for improving community relations during a period of great turmoil in American policing. Dating back to the summer of 2014, law enforcement has faced national criticism for racial profiling and the use of excessive force in response to the deaths of Eric Garner in New York, Michael Brown in Missouri, Walter Scott in South Carolina, and Freddie Gray in Maryland (to name just a few). These instances have the potential to erode citizens' perceptions of police legitimacy (Tyler, 1990; Tyler & Wakslak, 2004) as well as officers' confidence in their own legitimacy (see Nix & Wolfe, *in press*). Many, including the director of the FBI, have gone so far as to say that violent crime is on the rise due to a growing fear among the police of being recorded by citizens and scrutinized by the national media – like the officers involved in the deaths of Eric Garner and Walter Scott (see also Mac Donald, 2015; Ross, 2015; Sutton, 2015; Wolfe & Nix, *in press*). Whether or not this is true remains to be seen, but more central to the present discussion is that the police appear to be in the midst of a legitimacy crisis. It is thus important to seek a better understanding of what it is the police believe makes their authority legitimate in the eyes of citizens.

Method

Data

The present study uses survey data from a nationally representative sample of police officers drawn from the 2014 National Directory of Law Enforcement Administrators (NDLEA) database. All municipal and county police departments as well as sheriff's departments in the database were included in the sampling frame. In order to reduce sampling error and allow for identification of potential differences between groups, stratification was used to group similar police officers together in terms of population served, region of the U.S., and agency type (Sudman, 1976). In terms of population served, agencies were placed into one of five groups: (1)

less than 10,000, (2) 10,000 – 49,999, (3) 50,000 – 99,999, (4) 100,000 or more, and (5) missing

population data.[ii] With respect to region, agencies were placed into one of four U.S. census

categories—Northeast, Midwest, South, or West.[iii] Finally, with regard to agency type, agencies

were categorized as either police departments (whether county or municipal) or sheriff's

departments.

The sampling frame contained a total of 12,315 county or city/municipal police agencies

and 3,059 sheriff's departments. In an effort to maximize the chances of receiving completed

surveys from officers at agencies serving large populations, those in the 100,000 or more

population group were sampled with certainty (n=859). These agencies represent only five

percent of municipal police/sheriff's departments in the U.S. but their officers/deputies interact

with a much larger proportion of the public. Thus, it was imperative to maximize the probability

of receiving completed surveys from officers at these agencies.

The remainder of the sample (n = 1,141) was drawn from agencies in the other 32 strata.

This required 35.7 agencies per stratum; however, six strata had a very small number of agencies

(46 altogether). As such, all agencies in these six strata were sampled. Then, 42 agencies were

randomly selected from each remaining stratum with fewer than 1,000 agencies, and 43 agencies

were randomly selected from each remaining stratum with more than 1,000 agencies. These steps

resulted in the selection of 2,000 law enforcement agencies to receive the survey. A mixed-

strategy method was used to elicit participation—the Chief Executive at each agency received a

hardcopy survey in the mail but were also given the option to complete the survey online at a

password protected website (Dillman et al., 2009). The cover letter asked the Chief Executive to

complete the survey or hand-pick an officer whom he/she felt was best able to complete the

survey. A total of 663 respondents returned completed surveys (48% of whom were the Chief

Executive) representing a 33.5% response rate (72.4% of respondents completed the mail

version). However, a total of 20 surveys were completed by a civilian employee and were thus

unfit for inclusion in the analyses. As such, all analyses conducted below include responses from sworn personnel only ($N = 643$). As is common in survey research, a small proportion of respondents did not provide answers to all of the questions (roughly two percent of cells were missing in the dataset). Imputation of missing data was completed using the Stata 13 *hotdeck* suite (Andridge & Little, 2010; Fuller & Kim, 2005; Gmel, 2001).

Finally, because agencies within various strata had different probabilities of being selected, and because the strata produced variable response rates, a weighting procedure is used to provide a better understanding of police perceptions of their legitimacy in the eyes of the public nationwide. Each stratum is weighted based on the extent to which its collection of agencies in is represented by the survey respondents belonging to that strata. That is, the strata are weighted so that the findings from this sample are more representative of agencies *nationwide*. Foregoing this weighting procedure could result in biased estimates (see Smith et al., 2010 for a similar discussion).

Multiple Audiences: High and Low Crime Areas

In order to account for potential variation in the understanding of their legitimacy in the eyes of citizens from different areas of the community, the present study asked respondents to consider two areas in their jurisdiction—one characterized by high rates of crime and another with relatively low criminal activity. Then, each survey question was presented twice—once as it pertained to the high crime area and again as it pertained to the low crime area. For instance, officers were asked the extent to which they agreed or disagreed that residents of *high crime areas* "believe officers take the time to listen to people," as well as the extent to which they agreed or disagree that residents of *low crime areas* "believe officers take the time to listen to people." Respondents were instructed to answer each question as they felt the average citizen residing in each of these areas would answer. For the sake of simplicity, each of the variables of interest discussed below is presented only once in general terms. In actuality, there are two of

each variable (or scale)—one for high crime areas and one for low crime areas. This allows for a comparison of how officers feel they are evaluated in terms of their legitimacy in each area.[iv]

Dependent Variables

    Perceived trust. Similar to Jonathan-Zamir and Harpaz (2014), the primary outcome of interest in the present study is *police legitimacy in the eyes of the public* as perceived by the respondents. Consistent with Tyler's (1990, 2003) conceptualization of legitimacy, respondents were asked questions intended to capture perceived levels of citizens' *trust* in and *obligation to obey* the police. However, *trust* and *obligation to obey* are treated as distinct concepts in order to allow for a more direct comparison to Jonathan-Zamir and Harpaz (2014) which used *trust* as the dependent variable. In order to capture *perceived levels of citizen trust*, respondents were asked the extent to which they felt residents "feel the police make the right decisions for people in their area of residence," "agree with the values that guide the work of our agency," and "believe the police can be trusted to make decisions that are right for the people in their neighborhood" (Jonathan-Zamir & Harpaz, 2014; Jonathan-Zamir & Weisburd, 2013). Responses were measured on a four-point Likert scale (1 = *strongly disagree* to 4 = *strongly agree*). Principal-axis factor analysis (PAF) revealed that the six items loaded onto two factors (high crime λ = 2.80, factor loadings > 0.57; low crime λ = 1.39, factor loadings > 0.59) and demonstrated strong internal consistency (high crime α = .79; low crime α = .77). The six items were thus used to construct two scales ranging from 3 to 12, with higher scores on the scales suggesting that the responding officer thinks that citizens believe police actions are made in good faith and with the community in mind. The distribution of the two trust scales indicates that the sample believes citizens have moderate levels of trust in the police, with citizens in low crime areas thought to have slightly higher levels of trust than citizens in high crime areas (low crime M = 9.88, SD = 1.46; high crime M = 8.66, SD = 1.66; t = -21.92, Cohen's d = -1.73, $p < .01$). Table 1 provides descriptive statistics for each of the variables used in the analyses.

Perceived obligation to obey. In order to capture *perceived level of citizens' obligation to obey* the police, respondents were asked the extent to which they felt residents "believe they should accept decisions made by the police, even if they think the police are wrong," "believe they should do what the police say, even if they do not understand the reason for police actions," "believe they should do what the police say even if they disagree," and "believe they should do what the police say even when they do not like the way they are being treated" (Sunshine & Tyler, 2003). Again, responses were measured on a four-point Likert scale. PAF revealed that the eight items loaded onto two factors (high crime λ = 3.75, factor loadings > 0.55; low crime λ = 1.70, factor loadings > 0.64) and demonstrated strong internal consistency (high crime α = 0.86; low crime α = 0.82). The eight items were thus used to construct two scales ranging from 4 to 16, with higher scores on the scales suggesting that the responding officer believes that citizens feel more obligated to obey the police. The distribution of the two *obligation to obey* scales suggests that the sample believes citizens feel somewhat obligated to obey the police, with citizens in low crime areas again thought to feel slightly more obligated to obey than citizens in high crime areas (low crime M = 10.50, SD = 2.15; high crime M = 8.92, SD = 2.43; t = -15.97, Cohen's d = -1.26, p < .01).

Independent Variables

Procedural justice. Procedural justice in the eyes of the public (as perceived by the police) was measured using the two components of the concept: (1) quality of treatment and (2) quality of decision making. To capture *quality of treatment*, respondents were asked the extent to which they agreed or disagreed (1 = *strongly disagree* to 4 = *strongly agree*) that "residents believe officers treat those they encounter with politeness and dignity" and "residents believe officers respect the rights of the citizens they come in contact with" (Jonathan-Zamir & Harpaz, 2014; Reisig et al., 2007; Sunshine & Tyler, 2003). To capture *quality of decision making*,

respondents were asked how much they agreed or disagreed (1 = *strongly disagree* to 4 = *strongly agree*) with the following statements: "residents believe officers make decisions based on facts, not personal interest," "residents believe officers take the time to listen to people" and "residents believe officers allow people involved to express their views before making a decision in a case" (Jonathan-Zamir & Harpaz, 2014; Nix et al., 2015; Reisig et al., 2007; Sunshine & Tyler, 2003). PAF revealed that for both high and low crime areas, the *quality of treatment* and *quality of decision making* items loaded onto a single factor (high crime λ = 3.05, factor loadings > 0.70; low crime λ = 2.62, factor loadings > 0.59). The items also demonstrated strong internal consistency (high crime α = 0.89; low crime α = 0.85) and were therefore summed into two scales (one for high crime areas, one for low crime areas) ranging from 5 to 20, with higher scores indicating that responding officers believe citizens think the police exercise their authority in a procedurally fair manner.

Distributive justice. Perceptions that community members believe the police enforce the law consistently across societal groups were measured using two items. Respondents were asked to indicate the extent they agreed or disagreed (1 = *strongly disagree* to 4 = *strongly agree*) that "residents believe the police enforce the law consistently when dealing with all people" and "residents believe the police provide the same quality of service to all citizens" (Reisig et al., 2007; Sunshine & Tyler, 2003). The items were used to construct two scales (*distributive justice in high crime areas* [r = 0.79] and *distributive justice in low crime areas* [r = 0.72]) ranging from 2 to 8, with higher scores indicating that responding officers believe citizens think the police distribute their services and enforce the law equally throughout the community.

Performance. Citizens' impressions of police performance (as perceived by the respondents) were measured via six survey items on a four-point Likert scale (1 = *strongly disagree* to 4 = *strongly agree*): "Residents believe the police are efficient in handling crime in their area of residence," "Residents believe officers respond quickly when they call for help,"

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"Residents believe the police are effective in handling violent crimes in the community,"

"Residents believe the police are effective in handling drug crimes in the community,"

"Residents believe the police deal well with property crimes in the community," and "Residents

feel this is a safe community during the evening/night" (Jonathan-Zamir & Harpaz, 2014;

Sunshine & Tyler, 2003). PAF revealed that for both high and low crime areas, the performance

items loaded onto a single factor (high crime λ = 3.13, factor loadings > 0.67; low crime λ =

2.87, factor loadings > 0.59). The items also demonstrated strong internal consistency (high

crime α = 0.87; low crime α = 0.85) and as such, were used to construct two summated scales

(one for high crime areas, one for low crime areas) ranging from 6 to 24, with higher scores

reflecting a belief on the part of responding officers that citizens think the police are effective

and efficient in dealing with crime.

Controls

In addition to the abovementioned variables, several demographic control variables are

included in the analyses in order to provide unbiased estimates of key predictor variables on

responding officers' perceptions of citizen levels of *trust* and *obligation to obey*. Rank (1 = *chief*

executive), as well as experience both at the current agency and in the current position are all

dummy coded (1 = *10 or more years*). Gender (1 = *male*), *race* (1 = *racial minority*) and agency

type (1 = *police department*; 0 = sheriff's department) are also dummy coded. Region is

measured with three dummy variables (*Midwest*, *South*, and *West*; Northeast is the reference

category). *Large city* is defined as those agencies in the 75th percentile of the sample in terms of

population served (1 = agencies serving 210,000 or more citizens).

Analytic Strategy

A series of four linear regression models are used to determine what responding officers

see as the foundation of citizen levels of trust in the police. Each of these four regression models

are performed twice—once for high crime areas and again for low crime areas. First, the degree

to which respondents believe procedural justice is associated with citizens' levels of trust in the police will be examined, net of statistical controls. Then, the effects of distributive justice and police performance, respectively, on perceived levels of citizen trust will be examined, net of statistical controls. Finally, the simultaneous effect of procedural justice, distributive justice, and performance on perceived levels of trust will be explored in order to determine which variable exerts the strongest effect, holding all else constant. Analyzing the data in this fashion will make it possible to determine which variable is more important in terms of its effect on perceived trust and if any of the effects are partially confounded by other variables. In addition to perceived levels of citizen trust, perceived obligation to obey the police in high and low crime areas is also examined using a series of four regression models. First, the effect of procedural justice on perceived obligation to obey net of statistical controls will be examined. Then, the effects of distributive justice and police performance on perceived obligation to obey will be examined, net of statistical controls. Finally, the effects of procedural justice, distributive justice, and police performance on perceived obligation to obey, net of statistical controls, will be examined simultaneously in order to determine which theoretical construct has the strongest impact on perceived obligation to obey according to the responding officers.

Results

Diagnostic tests demonstrated that harmful levels of collinearity do not appear to be present in the multivariate models presented below. All bivariate correlations fell below an absolute value of 0.77 for the high crime area variables and .67 for the low crime area variables (bivariate correlations are available in Appendix A). Typically, 0.80 is used as a threshold indicative of harmful collinearity (Mason & Perreault, 1991). Furthermore, all variance inflation factors fell below the 4.0 threshold and all tolerance values were greater than 0.24 (Tabachnick & Fidell, 2007).

Table 2 uses Ordinary Least Squares regression (OLS) equations to explore the perceived effects of procedural justice, distributive justice, and performance on perceived trust in and obligation to obey the police among residents of high and low crime areas. In Model 1, the *perceived trust in high crime areas* scale is regressed onto each of the high crime independent variables along with 10 control variables.[v] The joint association test reveals that the model provides more explanatory power than would be expected by chance alone ($F = 15.89$, $p < .01$) and the coefficient of multiple determination is large ($R^2 = .60$). The unstandardized partial regression coefficient suggests that the procedural justice estimate is associated with trust in the expected direction ($b = .25$, $p < .01$). Distributive justice is also significantly and positively associated with trust ($b = .33$, $p < .01$), but the standardized partial regression coefficients reveal that this effect ($\beta = .30$) is weaker in magnitude than procedural justice ($\beta = .45$). This finding squares well with Tyler's theory and suggests that responding officers who think residents of high crime areas perceive greater procedural justice on the part of police believe they are more trusting of the police.

[Table 2 about here]

In Model 2, *perceived obligation to obey in high crime areas* is regressed onto each of the high crime procedural justice, distributive justice, and performance scales along with the control variables in the same manner discussed above. The model provides more explanatory than could be expected by chance alone ($F = 9.56$, $p < .01$), but the coefficient of multiple determination ($R^2 = .38$) is much lower than that of Model 1 ($R^2 = .60$). Procedural justice ($b = .17$, $p < .05$) and distributive justice ($b = .40$, $p < .05$) are each significantly and positively associated with obligation to obey. Further, the standardized partial regression coefficients suggest that respondents believe procedural and distributive justice are equally important in terms of fostering a feeling of obligation to obey the police among citizens in high crime areas. Process-based model research using citizen surveys has typically discovered that procedural

justice matters more to citizens than distributive justice (Hinds & Murphy, 2007; Reisig et al., 2007; Sunshine & Tyler, 2003; Tyler, 1990, 2005; Tyler & Huo, 2002). Finally, the data reveal that respondents who work for agencies in the West ($b = .83$, $\beta = .11$, $p < .05$) are more apt to believe citizens in high crime areas feel obligated to obey the police (relative to respondents working for agencies in the Northeast). Collectively, the results of Model 2 suggest that respondents believe residents of high crime areas feel more obligated to obey the police when the police exercise procedural and distributive fairness during interactions with citizens.

Model 3 regresses the *perceived trust in low crime areas* scale onto each of the low crime independent variables as well as ten control variables. The model as a whole is statistically significant ($F = 11.96$, $p < .05$) and explains 49 percent of the variation in perceived trust in low crime areas. As in the previous models, procedural ($b = .18$, $p < .01$) and distributive justice ($b = .42$, $p < .01$) are significantly and positively correlated with trust. However, in this model, performance is also statistically significant ($b = .08$, $p < .05$). This suggests that in low crime areas, respondents believe that performance is important in terms of generating trust from residents. At the same time, the standardized partial regression coefficients reveal that performance ($\beta = .14$) is not as closely connected to trust in low crime areas as procedural and distributive justice ($\beta = .27$ and $.31$, respectively). Overall, Model 3 indicates that respondents feel citizens of low crime areas trust the police when they perform well and – more importantly – when they believe police use fair procedures and distribute outcomes in an unbiased manner.

Finally, Model 4 regresses *obligation to obey in low crime areas* onto each of the aforementioned independent and control variables. Two findings merit discussion. First, the joint association test reveals that this model explains more of the variation in obligation to obey than could be expected by chance alone ($F = 2.23$, $p < .01$), yet the coefficient of multiple determination ($R^2 = .17$) is smaller than that of Model 2 ($R^2 = 38$). This is perhaps an indication that the sample believes this set of variables is less associated with obligation to obey among

citizens in low crime areas than in high crime areas. Second, performance ($b = .18$, $\beta = .22$, $p <$ .01) is statistically significant in Model 4 while procedural justice and distributive justice are not. That is, respondents believe that in low crime areas, citizens are more likely to feel obligated to obey the police when they feel the police are performing well than when they feel the police exercise procedural or distributive fairness.

Discussion

The process-based model of regulation hypothesizes that when citizens perceive authority figures such as the police as legitimate, they are more likely to comply and cooperate (Tyler & Huo, 2002). The best way for the police to enhance their legitimacy, according to Tyler (1990, 2004), is to exercise their authority in a procedurally fair manner when interacting with the public. Scholars have devoted a great deal of attention to the sources and consequences of legitimacy using citizen surveys. Until very recently, they have neglected the perspectives of the other party involved in police-citizen interactions: the police. Accordingly, Bottoms and Tankebe (2012, p. 119) argue that scholars must consider the "dual and interactive character of legitimacy." Doing so is crucial because the police may not be aware that procedural justice is an effective way to enhance their legitimacy. Indeed, early findings from Israel suggest that police believe their legitimacy in the eyes of the public lies more so with their performance in fighting crime than with concerns about procedural fairness (Jonathan-Zamir & Harpaz, 2014). The present study moved this line of literature forward by asking police officers across the U.S. how they feel they are viewed by citizens from different areas within the community—namely, residents of high and low crime areas. A number of key findings warrant further discussion.

First, responding officers believe that procedural and distributive fairness are closely connected to trust among residents of both high and low crime areas. In low crime areas, responding officers appear to believe performance is also important in terms of generating trust among citizens, though not as important as procedural and distributive fairness. This is in stark

contrast to what Jonathan-Zamir and Harpaz (2014) found among Israeli National Police

officers. There are striking differences between policing in the U.S. and Israel which might

account for this discrepancy. For example, Jonathan-Zamir and Harpaz surveyed officers from

one centralized, national police force. The present study utilized surveys from officers at 643

local police/sheriff's departments all across the United States. These local police departments are

undoubtedly less concerned with homeland security than the Israeli National Police (INP)—

although terrorism preparedness is much more salient in the U.S. post 9/11 (Hasisi, Alpert, &

Flynn, 2009; McGarrell, Freilich, & Shermack, 2007). Given the uncertainty surrounding

national security in Israel, and the constantly looming threat of terrorist attacks, it is perhaps not

surprising that the INP would believe Israeli citizens are more concerned with performance than

procedural fairness. On the other hand, the officers in this sample work for 643 different

agencies, each serving a unique community that has its own unique expectations of a police

force. Policing is much more localized in the U.S.—and this is reflected in the data. Finally,

concerns about fair treatment may be more germane to the U.S. context, given that it is a nation

founded on ideas such as fairness, equal treatment, and protection against a tyrannical

government.

  With regard to generating feelings of obligation to obey the police, the current study

indicates that responding officers believe procedural and distributive justice are key in high

crime areas, whereas in low crime areas it is performance that matters most. This indicates that

officers in the sample believe citizens obey the police for different reasons in part depending on

the level of crime in their area. Whereas in high crime areas, officers feel procedural justice can

be an effective means of generating feelings of obligation to obey the police, the same is not true

of low crime areas. Collectively, the present findings are partially supportive of Tyler and Huo's

(2002) process-based model of regulation. They also support Bottoms and Tankebe's contention

that officers consider their legitimacy as it relates to multiple audiences—in this case, as it relates

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to residents of high and low crime areas. Officers in this sample believe that citizens focus on procedural fairness when assessing the trustworthiness of the police. However, strict adherence to the process-based model would suggest that procedural justice should outweigh citizens' concerns regarding distributive fairness or the performance of the police. Yet in both high and low crime areas, distributive fairness remains significantly associated with perceived levels of citizen trust after accounting for variations in procedural justice. Furthermore, in low crime areas, the procedural justice estimate is equal in magnitude to the distributive justice estimate— meaning officers believe the two concepts to be equally important in the minds of these citizens. With regard to obligation to obey, officers in the present sample indicate that distributive justice is just as important as procedural justice in high crime areas, whereas in low crime areas, only performance seems to matter. Thus, the present data suggest that the police may not be fully aware of the power of procedural justice. At the same time, there is limited empirical information regarding citizens' variation in perceived police legitimacy across high and low crime areas (Jackson et al., 2012; Wolfe et al., in press; c.f. Gau et al., 2012). Thus, more research is needed which examines variation in citizens' views of police across high and low crime areas before concluding that the officers' perceptions in this study are accurate or inaccurate.

On a more practical level, the findings of this study reveal that officers believe crime levels influence citizens' trust in and obligation to obey the police. In particular, the present sample indicated that performance is linked to legitimacy in low crime areas, but not in high crime areas. One possible explanation for this finding is that officers were aware that citizens residing in high crime areas interact with the police more regularly than citizens residing in low crime areas. Consequently, they understand that these citizens are especially likely to be concerned with how the police treat people during those interactions. On the other hand, officers may believe citizens in low crime areas place importance on performance because they interact with the police less frequently and, as such, are less concerned about treatment. As a result,

officers reason that these citizens feel more obligated to obey the police simply because the police are effectively suppressing crime (Tyler, 2005; Wilson & Kelling, 1982). Alternatively, national media coverage of Michael Brown's death in Ferguson may have made respondents more likely to indicate that issues of procedural and distributive fairness were important to residents of high crime areas. In a similar vein, responding officers may have felt citizens of these areas are more likely to equate performance with overly-aggressive policing (Walker, 1992). As such, they were less inclined to feel that performance was associated with their legitimacy in high crime areas. If so, this is encouraging for two reasons. First, prior research suggests that in disadvantaged communities, over policing compromises legitimacy and may result in higher levels of violent crime as residents become more likely to resort to informal means to resolve conflicts (Kane, 2005). Second, crime rates appear to be positively associated with legal cynicism, or "a cultural orientation in which the law and the agents of its enforcement…are viewed as illegitimate, unresponsive, and ill equipped to ensure public safety" (Kirk & Papachristos, 2011, p. 1191; see also Sampson & Bartusch, 1998). The present findings suggest that officers are aware that procedural justice is an effective path to legitimacy in areas which are more likely to house cynical residents. Emphasizing procedural justice in high crime areas could ultimately result in crime reductions in the long term.

Moving forward, it will be imperative to determine whether perceptions such as these translate into actual behavior on the streets. It is encouraging that officers in this sample are aware that procedural justice is associated with their legitimacy in the eyes of citizens. Does that imply that the police "buy-in" to procedural justice and embrace it when interacting with the public? Do the present results mean that officers are less likely to use procedural justice in areas with low rates of crime? Research from Australia suggests that officers who are supportive of procedural justice are more likely to report intentions to use procedurally just tactics in the field (Bond, Murphy, & Porter, 2015). In Greater Manchester, officers who received procedural

justice training reported more favorable attitudes toward the use of procedural justice and subsequently had improved interactions with citizens (Wheller, Quinton, Fildes, & Mills, 2013). Future research should go one step further and explore officers' willingness to utilize procedurally fair tactics in various contexts. This has significant implications for police-community relations because increased use of procedural justice in the field over time should result in less reliance on physical force to gain compliance from citizens.

This study is not without limitations. For starters, the data is cross-sectional and it is therefore not possible to speak about the causality of the observed relationships. In addition, the present study only surveyed one officer at each agency in the sample. Roughly 50 percent of the respondents were the Chief Executive of their respective agency (the remainder of respondents were hand selected by their Chief or Sheriff to take the survey). While it is true that Chief Executives do not patrol neighborhoods and interact with citizens as frequently as patrol officers, it is important to gauge the perceptions of Chief Executives because the ideas they embrace are more likely to trickle down throughout the agency and influence line-level officers. In Tyler's (2011, p. 261) words: "The organizational culture of police departments is shaped by the values articulated by their leaders." Note also that the *Chief Executive* control variable was not statistically significant in any of the models – an indication that their views did not significantly differ from officers of other ranks in the sample. Nevertheless, it would be ideal to survey line level officers themselves moving forward, as they interact with citizens on a daily basis. It is also important to note that the dependent variables in the present study were narrowly defined, as is often the case with survey research. Alternative conceptualizations of police legitimacy have been proposed in recent studies (e.g., Jackson et al., 2012; Tankebe, 2013; Tankebe, Reisig, & Wang, 2015). Future work in this area should carefully consider these measurement issues. Despite limitations such as these, the present study moves the procedural justice and legitimacy

literatures forward by considering the dialogic nature of legitimacy, as well as multiple audiences, as Bottoms and Tankebe (2012) recommend.

In conclusion, the present study suggests that officers are in fact aware of the connection between procedural justice and their legitimacy in the eyes of the public. At the same time, they do not appear to fully understand the power of procedural justice in that they appear to believe distributive justice is an equally important consideration among citizens. Further, they believe citizens of low crime areas feel obligated to obey the police when they perform well rather than interact with citizens in a procedurally fair manner. Again, strict adherence to the process-based model would suggest that procedural justice concerns should override citizens' concerns about distributive justice or performance. Based on the body of research testing the process-based model of policing with citizen samples, this is an indication that there may be a breakdown in the legitimacy dialogue in the U.S. Future research should attempt to address the relationship between citizens' perceptions of legitimacy (i.e., external legitimacy) and police officers' confidence in their authority (i.e., self-legitimacy) in order to test Bottoms and Tankebe's dialogic model. The present study indicates that responding officers are aware that their external legitimacy hinges in part on procedural justice, but they perhaps are not aware of the extent to which procedural justice can cultivate and enhance legitimacy in the eyes of the public.

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Appendix A: Bivariate Correlations

High Crime Areas	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Trust	--														
2 Obligation to obey	.47	--													
3 Procedural justice	.71	.53	--												
4 Distributive justice	.67	.48	.77	--											
5 Performance	.65	.48	.70	.66	--										
6 Chief executive	.13	.09	.11	.12	.21	--									
7 Male	-.03	-.02	-.05	.00	-.03	.12	--								
8 Racial minority	-.04	-.02	-.01	-.02	-.04	.07	-.03	--							
9 Agency 10+ years	.01	.00	.01	.01	-.04	-.29	-.03	-.04	--						
10 Position 10+ years	.06	-.01	.07	.08	.10	.21	.02	-.01	.22	--					
11 Police department	.05	.05	.02	.02	.10	.10	-.05	.09	-.07	-.09	--				
12 Midwest	.03	.01	.02	.04	.03	.12	.05	-.08	.04	.08	-.10	--			
13 South	-.07	.03	.04	.04	-.01	-.14	-.01	.09	-.05	-.03	-.05	-.42	--		
14 West	.05	.01	-.02	-.03	-.01	-.05	-.05	.02	.01	-.05	.06	-.34	-.43	--	
15 Large city	-.03	-.02	-.05	-.03	-.11	-.29	-.12	.04	.12	-.05	-.07	-.08	.10	.03	--

Low Crime Areas	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Trust	--														
2 Obligation to obey	.31	--													
3 Procedural justice	.59	.37	--												
4 Distributive justice	.52	.32	.67	--											
5 Performance	.54	.29	.63	.55	--										
6 Chief executive	.09	-.01	.09	.11	.12	--									
7 Male	-.01	-.03	.01	.05	.00	.12	--								
8 Racial minority	-.02	-.02	.01	-.03	-.04	.07	-.03	--							
9 Agency 10+ years	-.02	.05	.00	.01	.00	-.29	-.03	-.04	--						
10 Position 10+ years	.00	-.08	.02	.01	.07	.21	.02	-.01	.22	--					
11 Police department	-.02	.00	-.04	-.08	-.01	.10	-.05	.09	-.07	-.09	--				
12 Midwest	.00	.03	-.02	.05	.03	.12	.05	-.08	.04	.08	-.10	--			
13 South	.03	-.01	.01	-.01	.00	-.14	-.01	.09	-.05	-.03	-.05	-.42	--		
14 West	.02	.04	.05	.01	-.03	-.05	-.05	.02	.01	-.05	.06	-.34	-.43	--	
15 Large city	-.01	.01	-.06	-.07	-.07	-.29	-.12	.04	.12	-.05	-.07	-.08	.10	.03	--

Table 1. Descriptive statistics.

	M	S.D.	Min	Max
Trust $_H$	8.66	1.66	3	12
Trust $_L$	9.88	1.46	3	12
Obey $_H$	8.92	2.44	4	16
Obey $_L$	10.46	2.15	4	16
Procedural justice $_H$	14.22	3.00	5	20
Procedural justice $_L$	16.27	2.18	9	20
Distributive justice $_H$	5.27	1.51	2	8
Distributive justice $_L$	6.30	1.06	2	8
Performance $_H$	17.43	3.23	6	24
Performance $_L$	19.26	2.56	9	24
Chief executive	.48	--	0	1
Male	.94	--	0	1
Racial minority	.12	--	0	1
Agency 10+ years	.77	--	0	1
Position 10+ years	.14	--	0	1
Police department	.55	--	0	1
Northeast	.15	--	0	1
Midwest	.24	--	0	1
South	.35	--	0	1
West	.26	--	0	1
Large City	.25	--	0	1

Table 2. The perceived effect of key predictor variables on trust and obligation to obey in high and low crime areas.

Variable	High crime areas[a]				Low crime areas[a]			
	Trust		Obligation to obey		Trust		Obligation to obey	
	b (SE)	β	b (SE)	β	b (SE)	β	b (SE)	β
Procedural justice	.25** (.06)	.45	.17* (.08)	.21	.18** (.05)	.27	-.07 (.17)	-.07
Distributive justice	.33** (.11)	.30	.40* (.19)	.25	.42** (.13)	.31	.40 (.31)	.20
Performance	.06 (.04)	.12	.14 (.08)	.18	.08* (.04)	.14	.18* (.08)	.22
Chief executive	-.24 (.18)	-.06	-.13 (.43)	-.02	.24 (.32)	.07	.57 (.36)	.11
Male	.07 (.25)	.01	.36 (.71)	.03	-.46 (.33)	-.07	-.73 (.67)	-.07
Racial minority	.16 (.20)	.04	-.74 (.44)	-.11	-.39 (.34)	-.10	-.69 (.37)	-.12
Agency 10+ years	.02 (.20)	.01	.64 (.40)	.13	-.15 (.21)	-.05	.63 (.42)	.14
Position 10+ years	-.06 (.23)	-.01	-.60 (.47)	-.10	-.40 (.38)	-.11	-.54 (.40)	-.10
Police department[b]	.07 (.20)	.02	-.36 (.34)	-.06	-.20 (.18)	-.06	.02 (.31)	.01
Midwest	-.13 (.26)	-.04	.40 (.46)	.08	.24 (.29)	.08	.28 (.54)	.06
South	-.33 (.26)	-.10	.52 (.55)	.10	.41 (.33)	.13	.79 (.43)	.18
West	.17 (.24)	.03	.83* (.40)	.11	.50 (.30)	.11	.90 (.47)	.13
Large city	.07 (.17)	.01	-.32 (.31)	-.02	.14 (.20)	.02	-.28 (.43)	-.02
Intercept	2.47** (.70)	--	1.45 (1.35)	--	3.10** (.91)	--	5.07** (1.70)	--
F test	15.89**		9.56**		11.96**		2.23**	
R^2	.60		.38		.49		.17	

[a] Ordinary Least Squares regression; [b] "Sheriff's Department" is the reference category; *$p < .05$, **$p < .01$

[i] This does not imply that aggressive policing and procedural justice are mutually exclusive. For example, Tyler and Fagan (2008) found that New Yorkers who received negative outcomes – but thought the police used fair procedures – were more likely to evaluate the police as legitimate and express willingness to cooperate.

[ii] The NDLEA database did not provide a population count for 698 agencies. As such, these agencies were placed into a fifth "missing population" stratum for sampling purposes. This approach is similar to that of Smith et al. (2008) which used an older version of the NDLEA database. More important, to simply exclude those agencies with missing population data would be problematic if they are in some way significantly different than those agencies that do have population data. Excluding these agencies would thus require making an assumption that their population data is missing at random.

[iii] These are the same regions used by the Uniform Crime Report (UCR).

[iv] An anonymous reviewer correctly pointed out that officers working in rural jurisdictions might have a different idea of what constitutes a "high crime area" relative to those officers working in large cities. To further explore the notion, I conducted a sensitivity analysis whereby I created interaction terms between the *Large City* variable and each of the independent variables of interest (procedural justice, distributive justice, and performance for both high and low crime areas; all of these variables were mean-centered prior to creating the interaction terms). I then entered these interaction terms into OLS regression models predicting *trust* in high and low crime areas and *obligation to obey* in high and low crime areas. None of the interaction terms achieved statistical significance, which is an indication that the size of the respondent's jurisdiction did not moderate any of the perceived relationships between the independent and dependent variables. Note that for the purpose of this study, it was important to simply allow for the possibility that officers might believe citizens from two segments of their own jurisdiction - with different levels of crime - would view them differently. While it is true that this measurement does not allow for a clear definition of what constitutes "high crime" and "low crime," the findings do reveal that officers believe not everyone in their jurisdictions evaluate police legitimacy in the same manner. It is my hope that future research will build on this idea by measuring crime levels more objectively.

[v] Prior to estimating this fully specified model, the independent effects of procedural justice, distributive justice, and performance on trust in high crime areas were each estimated in order to establish a baseline relationship. The same procedure was followed for subsequent models predicting trust in low crime areas as well as obligation to obey in high and low crime areas (see "Analytic Strategy" above). These models are not reported in Table 2 but are available upon request.