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Ralph B. Taylor¹ and Brian A. Lawton²

Abstract

Current work tests an integrated contextual model of confidence in local police. The model addresses four questions. (a) Do incivilities, procedural justice, and local social climate each affect confidence? (b) Do incivilities more powerfully corrode confidence at some points along the urban versus rural continuum? (c) Where on the continuum is confidence weakest? (d) Does confidence in local police bolster confidence in the broader justice system? Surveys from households across the Commonwealth of Pennsylvania were supplemented with municipality-level census and reported crime data, and county-level urban versus rural continuum codes. Findings showed significant net effects of both procedural justice and incivilities on the outcome; strongest corrosive impacts of incivilities in rural counties; lowest confidence in rural counties; and connections between confidence in local police and confidence in the broader criminal justice system. Results underscore the broad importance of police *simultaneously* maintaining order and treating citizens fairly.

Keywords

confidence in police, incivilities, procedural justice, social climate, urban–rural continuum

Testing an Integrated Contextual Model of Confidence in Local Police

Residents' views about local police have many different facets. Investigated components have included overall liking for, trust of, confidence in, and satisfaction with the local police as well as satisfaction or dissatisfaction resulting from specific interactions

¹Temple University, Philadelphia, PA, USA

²George Mason University, Manassas, VA, USA

Corresponding Author:

Ralph B. Taylor, Department of Criminal Justice, Temple University, 512 Gladfelter Hall, Philadelphia, PA 19122, USA

Email: ralph.taylor@temple.edu

with the police (Cao, Frank, & Cullen, 1996; Chandek, 1999; Engel, 2005; Garcia & Cao, 2005; Huebner, Schafer, & Bynum, 2004; Peek, Alston, & Lowe, 1978; Reisig & Parks, 2000; Ren, Cao, Lovrich, & Gaffney, 2005; Sampson & Bartusch, 1998; Stoutland, 2001; Wells, 2007). It is presumed that citizens' satisfaction links to how well local police are doing their job, how police go about their job, and what critical incidents have received media coverage locally or nationally (Carter, 1985; Howell, Perry, & Vile, 2004; Priest & Carter, 1999; Tuch & Weitzer, 1997). Confidence in local police is separable from assessments of local police fairness and procedural justice (Tyler, 2004).

Among these many facets, confidence in local police is critical. In White and racially mixed urban neighborhoods, and in predominantly African American ones too, lack of confidence in local police links to residents' unwillingness to provide information to police or assist investigations (Brunson, 2007; Brunson & Miller, 2006b; Carr, Clampet-Lundquist, & Cruz, 2009; Carr, Napolitano, & Keating, 2007; Weitzer & Brunson, 2009). More broadly, confidence in local police presumably underpins broader confidence in and perceived legitimacy of the agencies in the criminal justice system (LaFree, 1998). Such sentiments, quite simply, make citizens more willing to obey laws and directives from public authorities (Brown & Benedict, 2002; Tyler, 1990b, 2004).

Recent work has suggested perceived incivilities and perceived procedural justice are both important to residents' confidence in local police. That work will be reviewed later. Those earlier works, however, have not yet presented an integrated, contextually aware model of that confidence. Such a model would ask whether incivilities and procedural justice each have a distinct influence on confidence; would consider county context; and would examine impacts of local social climate. It also would determine whether perceived incivilities have comparable impacts on police confidence across a range of county contexts. Because relations between local police and residents can vary in rural versus suburban versus urban contexts, we might expect that incivilities prove more relevant in some county contexts. Furthermore, such a model would examine where on this urban versus suburban versus rural continuum confidence in police is lowest. Finally, it would investigate whether the theoretically understood portion of police confidence links to broader confidence in the criminal justice system. These issues are explored here.

The remainder of the introduction considers work on perceived incivilities and procedural justice as each relates to confidence in local police. Local social climate, a key ingredient of local informal as opposed to formal control, is considered as well. Consideration then turns to key structural community elements and how they might link to confidence based on prior work. Since the model used will control for demographics of residents, relevant research is reviewed. Relevance of confidence in local police to confidence in the broader justice system is noted. The section closes with a statement of key questions.

Perceptions of Locale

Of crucial interest are three perceived features of residential context: perceived incivilities indicating deteriorated physical conditions or rowdy social behaviors; perceptions of how procedurally just the local police act; and local social climate.

Incivilities. A typical incivilities survey series asks respondents to rate how problematic things are in the neighborhood like graffiti, abandoned cars, vacant and trash filled lots, vacant houses, neighbors who do not keep up their property, groups of unsupervised teens, people who hassle you on the street, and neighbors who fight. The incivilities thesis assumes these perceptions affect residents' fear, behavioral restrictions, and other reactions to crime; evidence corroborates some of these expectations (Robinson, Lawton, Taylor, & Perkins, 2003; Taylor, 2001).

Institutional culpability has been a theme in symbolic interactionist versions of the incivilities thesis for some time (Taylor, 1999). Hunter (1978) suggested that in response to local deteriorating conditions, residents infer local authorities and public agencies are either unwilling or unable to maintain local conditions. Such inferences undermine confidence in local agencies, including the police. Innes's (2004) ideas about signal disorders are closely related (see also Harcourt, 2001). The institutional culpability view would suggest that police should concentrate on these conditions not only because such activities might lead to lower crime later, but also because residents hold police partially responsible for these disturbing situations (Taylor, Kelly, & Salvatore, 2010). Of course, there could be a simpler explanation as well. Perhaps residents fail to distinguish between crime and incivilities (Gau & Pratt, 2008), thus holding police responsible for both. There is a danger in incivility reduction strategies, of course, that order maintenance policing can be too aggressive, thereby lowering confidence in police among those targeted (Gau & Brunson, 2010).

Some studies find residents who see their community as more incivilities-ridden view police less positively (Bradford, Jackson, & Stanko, 2009; Jackson & Bradford, 2009; MacDonald, Stokes, Ridgeway, & Riley, 2007). Although specific crime concerns and worries are different from incivilities, this approach is in line with an accountability approach to confidence in local police (Skogan, 2009). But other studies suggest either no net impact of perceived incivilities on confidence in police (Jackson & Sunshine, 2007), or an effect which depend on the racial group in question (Tyler & Wakslak, 2004). Consequently, the net influence of incivilities on confidence in local police remains an open question.¹

Furthermore, previous work has not yet considered whether the influence of perceived incivilities might vary across the rural–urban continuum. Differential impacts seem likely for several reasons; these are explained later when county structural context is considered.

Procedural justice. A procedural justice perspective on confidence in police starts with a basic idea from political philosophy (Rawls, 1971, 2001) and social psychology

(Thibaut & Walker, 1975): when evaluating some entity disbursing punishments or rewards (e.g., police making a traffic stop; Engel, 2005), it may be more important to know how the relevant parties were treated in the decision-making process than it is to know either the fairness of the outcomes received by the various parties or the specific outcomes received. People may attend to procedural justice (fairness of process), distributive justice (fairness of outcomes), or who got what (instrumental perspective).

Tyler et al. have linked perceptions of procedural justice to an extraordinary range of institutional assessments and interpersonal outcomes. These include satisfaction with police–citizen encounters; evaluations of courtroom experiences; endorsements of, satisfaction with, and allegiance to political leaders; responses to tort claim settlements; support for severe punishments; and cooperation in social dilemmas (Lind et al., 1990; Tyler, 1984, 1988, 1990a; Tyler & Boeckmann, 1997; Tyler, Casper, & Fisher, 1989; Tyler & Degoey, 1995; Tyler & Folger, 1980; Tyler, Rasinski, & McGraw, 1985; Tyler, Rasinski, & Spodick, 1985).

Broadly, the major procedural justice idea is that the more citizens think processes promote procedural justice, the more likely they are to support laws and societal institutions (Tyler, 1990b, 1997, 2000, 2003), especially in a racially and culturally diverse society (Tyler, 1994; Tyler, Boeckmann, Smith, & Huo, 1997). Procedural justice is promoted when the agent of authority listens or otherwise receives input, maintains a neutral stance, and treats parties with respect (Tyler, 2004). If the public perceives that the actions of agents of justice have these three qualities, they are more likely to accept as legitimate those agents and the institutions they represent.

Tyler and colleagues argue institutions' legitimacy will be elevated if their processes demonstrate procedural justice, and, specifically for police, have shown that perceptions of and experiences with racial profiling reduce police legitimacy (Sunshine & Tyler, 2003b; Tyler, 2003, 2004; Tyler & Rasinski, 1991; Tyler & Wakslak, 2004). Several works link perceived procedural justice with perceived police legitimacy (Reisig, Bratton, & Gertz, 2007; Reisig & Lloyd, 2009; Tyler & Fagan, 2008) or a related outcome like cooperating with the police (Kochel, Parks & Mastrofski, 2011).² Other scholars, however, suggest the evidence is not so clear-cut (Gibson, 1989, 1991; Gibson & Caldeira, 1995; Gibson, Caldeira, & Spence, 2003, 2005; Mondak, 1993, 1994; Mondak & Smithey, 1997). That controversy calls into question the contribution of two factors to confidence in police: satisfaction with recent police encounters, and witnessing local police treating others fairly. Whether both of these contribute *independently* to confidence in the police remains an open question.

Some studies do link police procedural justice with views about police legitimacy or confidence in the police (Jackson & Sunshine, 2007; MacDonald et al., 2007; Tyler & Wakslak, 2004). But none of these studies has asked about broad confidence in police and police effectiveness, while simultaneously controlling for perceived incivilities, local social climate, and perceived procedural justice, and while using data from across a broad range of urban, suburban, and rural settings.

*Social climate.*³ Local social ties, cohesion or sense of community, and perceived neighborliness in the form of other neighbors' willingness to intervene have a long

history of being linked individually and at the community level to reactions to crime such as fear (Gibson, Zhao, Lovrich, & Gaffney, 2002; Taylor, Gottfredson, & Brower, 1984; Taylor & Hale, 1986). Furthermore, fear links to perceptions of police (Garcia & Cao, 2005). So a tie between local social climate and views about police seems plausible.

Recent research ties elements of local social climate, such as trust, to perceptions of police fairness (MacDonald et al., 2007) and satisfaction with police (Jackson & Sunshine, 2007). The effects sometimes operate via risk perceptions (Jackson & Bradford, 2009). Broad, structural, neo-Durkheimian arguments around moral solidarity have been proposed to explain these links (Sunshine & Tyler, 2003a). Although such arguments seem plausible, a simpler less abstract one also has been proposed. In more cohesive communities, which are also often higher SES communities (Garcia, Taylor & Lawton, 2007), locally engaged residents view community matters similarly; this allows local police to develop quicker and clearer understandings of citizens' priorities; thus, police can be quickly responsive in such communities (Taylor, 2001, pp. 303-362). So confidence in local police should be higher.

Also overlooked in the work on social climate and views about police, and suggesting a second alternative to the neo-Durkheimian view, is a consideration not just of social climate in the form of local ties, cohesion or sense of community, but also of the participatory and organizational landscape (Taylor, 2002). Work on the political science of urban neighborhood organizations (Crenson, 1983, pp. 195-236) and on neighborhood mobilizing more generally (Henig, 1982a, 1982b) finds that residents who are *more* concerned about local issues are more likely to get involved. If those concerns relate to the police, one might expect that stronger involvement in local problem-oriented organizations links to *less* confidence in the police.

County Structural Context

The crucial structural feature considered here at the county level is position on the rural—urban continuum (Economic Research Service, U.S. Department of Agriculture, 2004). At one end of the continuum are large urban core counties in large metropolitan areas. At the other end are rural counties with low-density populations, located far from moderate sized cities. Urban versus suburban versus rural continuum position could affect both the *level* of confidence in local police, and the *impact* of the confidence predictors reviewed earlier.

Consider first impacts of continuum position on levels of confidence. Past research found greater satisfaction with local police among suburban residents as compared to residents in a large urban core (Boggs, 1971). Since city size and degree of urbanism both link to crime rates (Wikstrom, 1991), differences in crime rates could shape both satisfaction with and confidence in local police.

Personal and property crime rates decline as one goes from urban to suburban to rural locations (Mcguire, 1995, Tables 3.11 and 3.26). But with crime and delinquency differences, there also are wrinkles: “this [crime] difference is not as large as is

assumed, and there is considerable variation in crime rates among small towns and rural areas” (Osgood & Chambers, 2000, p. 82). Furthermore, the relationship between offending rates and settlement size intertwines in complex ways with race (Laub, 1983), and delinquency incidence rates bear no relationship to rural versus suburban versus urban (Ingram, 1993).

Even after controlling for crime rate differences, however, county position on the continuum could link to urbanism dynamics. Alienation from institutions and from local residents does vary with community size (Fischer, 1982, 1995; Wirth, 1938), although the differences across the entire continuum do not always match theoretical expectations (Tittle & Stafford, 1992). Given earlier work on urbanism (Tittle & Stafford, 1992) and policing (Boggs, 1971), we would expect higher confidence in suburban counties as compared to large urban core counties.

But a key additional factor—local policing arrangements—also varies across the rural versus urban continuum. The friction of distance creates problems in rural or suburban locales for which thinly spread police forces get blamed (Weisheit & Donnermeyer, 2000). The greater spatial dispersion of officers often links to other structural differences in department size and per capita coverage.⁴ To the extent these arrangement differences create delayed law enforcement responses, confidence in local police may be lower in rural and some suburban locations.

A second way position on the continuum could matter is by altering the *impact* of some of the predictors described earlier. In particular, it seems plausible that the impact of incivilities on police confidence could depend on county context. Here’s why.

Even in rural departments, police spend a lot of time responding to social and physical incivilities (Payne, Berg, & Sun, 2005). Rural residents seriously expect police to solve noncrime problems (Jiao, 2001). Perhaps because crime is generally lower in these locations, solving such problems looms larger in residents’ expectations of what police routinely can address. In smaller suburbs or small cities, residents may have similar expectations. If so, then perceived incivilities—the problems police have not been able to fix—might drive down confidence more strongly in these locations.

A perceptual adaptation argument would expect a similar patterning of differential incivility impacts (Taylor & Shumaker, 1990). If there is less perceptual adaptation to incivilities in rural locations given the less frequent appearance of troublesome conditions, perceptions of incivilities may have a *more* corrosive impact on faith in local police in these rural locations.

Other Predictors

Residential structural and crime context. How do community demographic structure, and crime, link to views about local police? Research generally but not universally supports the idea that in lower socioeconomic status (SES) and higher crime communities residents report lower satisfaction with local police or see them as less effective (Bradford et al., 2009; Sampson & Bartusch, 1998). The SES link is often interpreted using a conflict perspective (Skogan & Frydl, 2004, pp. 193-195). For

example, perhaps police norms about how to interact with citizens and how seriously to take the problems brought to them by citizens are different in low vs. high SES communities (Klinger, 1997; Smith, 1986). Or perhaps residents in lower SES communities, even in nonmetropolitan locations, perceive more incivilities (Reisig & Cancino, 2004) for which they hold police partially responsible.

Higher crime rates undermine confidence in police. Several dynamics may underpin the connection: perhaps in higher crime rate communities residents blame the police for not preventing crimes (Taylor, 2001, p. 284), see more police corruption (Carr et al., 2007), are more upset with how they see police treat residents (Brunson, 2007), or are more likely to have their low-seriousness concerns dismissed by police (Klinger, 1997; Taniguchi, 2010; Taylor et al., 2010).

Contact. Whether a resident has been approached by police (Bradford et al., 2009; Skogan, 2006) shapes broader views of the police (cf. Rosenbaum, Schuck, Costello, Hawkins, & Ring, 2005). Some suggest that it is not contact per se shaping wider police judgments, but rather how police handle the encounter (Engel, 2005; Wells, 2007) or whether the respondent is satisfied with the encounter (Huang & Vaughn, 1996). Recent contact and contact satisfaction are considered here.

Respondent demographics. Of course, the links between respondent demographic factors and confidence in local police are a topic of considerable scholarly interest in their own right. They receive attention here as compositional factors. Race, ethnicity, and class connections have received the most attention. Other important factors are briefly mentioned.

African Americans generally view the police more negatively than do Whites (Brown & Benedict, 2002; MacDonald et al., 2007; Sharp & Johnson, 2009), and Hispanics often hold middle positions between the two groups, thus giving rise to the term racialized perceptions of policing (Weitzer, 2000). Conceptually comparable differences by ethnicity surface in urban British policing surveys (Bradford et al., 2009). Race and ethnicity also affect residents' perceptions of the degree to which policing practices are racially biased, racial profiling is practiced, and police reform is needed (Bradford et al., 2009; Tyler & Wakslak, 2004; Weitzer & Tuch, 2004a, 2004b, 2005).

African American and White residents might agree on the differences in how police interact with citizens of different races, but may rely on different explanations, thereby structuring their views of police differently (Schuck & Rosenbaum, 2005; Weitzer, 2000). Neighborhood racial composition may or may not make individual-level race differences irrelevant (MacDonald et al., 2007; Reisig & Parks, 2000; Sampson & Bartusch, 1998).

The usual interpretation of race and ethnicity impacts on views about police relies on a conflict perspective, in which those holding nondominant positions in society are treated less well by the police. Several ethnographies strongly support this view (Brunson, 2007; Brunson & Miller, 2006a, 2006b; Simon & Burns, 1997). Of course white adolescents in relatively poor urban neighborhoods also can be treated poorly by police (Carr et al., 2007).

Findings of significant race impacts on confidence in police come largely from urban samples in relatively high crime cities. Analyses with national samples sometimes do *not* find significant impacts of race or ethnicity on police effectiveness or friendliness after controlling for recent contact experiences (Huang & Vaughn, 1996, Table 3.2), or find that race and ethnicity impacts depend on region of the country (Halim & Stiles, 2001).

Class affects views about the evenhandedness of the broader criminal justice system and of police (Hagan & Albonetti, 1982). Citizens in low SES urban communities may see police as less responsive to some local incivilities (Taylor et al., 2010). But class impacts may to some extent also be conditional on respondent race (Brown & Benedict, 2002).

Turning to other demographics, women may view police more positively, more negatively, or there may be no gender differences (Bradford et al., 2009, Table 5; Huang & Vaughn, 1996; Stewart, Baumer, Brunson, & Simons, 2009). Older people and those with more education sometimes report more satisfaction with the local police (MacDonald et al., 2007; Reisig & Parks, 2000).

A Consequence of Confidence in Local Police?

Numerous scholars suggest higher confidence in local police bolsters broader confidence in the criminal justice system generally (Skogan & Frydl, 2004). Confidence in police is critical to understanding broader perceptions of institutional legitimacy (Tyler, 1990b). That link will be examined here. Two aspects of confidence in local police will be separated: that portion predicted by the integrated model described above, and that portion not predicted. If predicted local police confidence affects broader system confidence but residual local police confidence does not, it would support earlier arguments that the two confidence judgments have strongly overlapping origins.

Summary of Key Questions

In sum, the current investigation seeks to test an integrated contextual model of confidence in local police. Four key questions are addressed. (a) For residents from urban, suburban, and rural county contexts, do perceived local incivilities, perceived procedural justice practiced by local police, and local social climate each have a net effect on confidence in local police? To the authors' knowledge, research to date has not yet considered this question. Finding such links would lend support to procedural justice views on confidence in local police, and to symbolic interactionist (Hunter, 1978) views on inferences residents make from local incivilities. (b) Do incivilities more powerfully erode confidence in some county contexts compared to others? Different, converging lines of argument suggest the strongest incivilities impacts in rural counties. (c) Where on the urban vs. rural continuum is confidence in police the lowest, after controlling for individual compositional factors and municipality crime and structure? (d) Finally, once confidence in local police has been predicted, do these

predicted scores connect to broader confidence in the criminal justice system? If they do, that supports the conceptual overlap between procedural justice and institutional legitimacy theorists.

Context, Method, Analytic Approach

Policing in the Commonwealth of Pennsylvania and the Rural—Urban Continuum

The current effort took place in the Commonwealth of Pennsylvania. In 2002, the calendar year preceding the survey, there were 1,092 reporting agencies.⁵ Police departments, in addition to the Pennsylvania State Police (PSP) can be at the borough, township, or multitownship (i.e., shared or regional) levels. There also are sheriff's departments at the county level for *every* county. In contrast to other states, however, sheriff's departments in Pennsylvania are not the major law enforcement agency in rural areas. PSP provides exclusive or partial coverage in many extremely rural locations. Total employees in local police departments ranged from 1 to 7,850 (Md = 5; IQR = 2-5).

Broad structural differences across Pennsylvania counties were captured with urban–rural continuum codes. Developed by the U.S. Department of Agriculture in 1975, and updated after every decennial census, these codes classify counties based on their degree of urban vs. suburban vs. rural character (Economic Research Service, United States Department of Agriculture, 2004).⁶ Those codes range from 0 for the most urban locations to 9 for the most rural. Our telephone survey generated respondents for all of the suburban metropolitan county types (codes 1-3), and for three of the nonmetropolitan, that is rural, county types (4, 6, 7). These classifications take into account both commuting and settlement patterns. Table 1 shows the distribution of respondents by county classification codes. These codes form three broad classes of counties: large urban cores, other, predominantly suburban or small city metropolitan counties, and rural, nonmetropolitan counties.

Aspects of police organizational structure such as size relate to rural—urban continuum codes. The largest departments (Philadelphia, Pittsburgh) with, respectively, several thousand and several hundred sworn officers, are located in the core cities of large metropolitan areas. The next largest departments are located in moderate size cities (e.g., Allentown, Erie, and Scranton) or suburban Philadelphia townships (e.g., Lower Merion, Upper Darby). The smallest departments are in the most rural counties. Coverage per capita differences across the rural—urban continuum, however, are less extreme once one moves past the four largest police departments.⁷

Survey Effort

Across the state of Pennsylvania in the fall of 2003, 1,289 Pennsylvania household respondents were interviewed by telephone and provided address information so their

Table 1. County Classifications for Surveyed Respondents

Classification code (<i>n</i>)	LABEL/Description
Urban (metropolitan) counties	
0 (426)	PHILADELPHIA AND ALLEGHENY COUNTIES Core county, metropolitan area > 1 million people
Suburban (metropolitan) counties	
1 (507)	PHILADELPHIA AND ALLEGHENY COUNTY SUBURBS Counties in metro areas of 1 million population or more outside of core county
2 (186)	SMALLER METROPOLITAN AREAS Counties in metro areas of 250,000 to 1 million population
3 (43)	SMALL TOWN/SUBURBAN/RURAL Counties in metro areas of fewer than 250,000 population
Non-metropolitan, mostly rural counties	
4 (76)	PREDOMINANTLY RURAL, NEAR SMALL CITIES Urban population of 20,000 or more, adjacent to a metro area
6 (35)	ALL RURAL, NEAR MEDIUM OR SMALL CITIES Urban population of 2,500-19,999, adjacent to a metro area
7 (16)	ALL RURAL, REMOTE Urban population of 2,500-19,999, not adjacent to a metro area

Note: Number in parentheses reflects unweighted *N* of survey respondents. Codes 0 and 1 revert to the pre-2003 rural-urban continuum codes, when central core counties of large metropolitan areas with more than one million population were separated out from the noncore counties. We do not show codes for county types (5, 8, and 9), which contained no survey respondents. In the group "Philadelphia and Allegheny County suburbs," one county, Pike County, is attached to the New York City/Northern New Jersey Metropolitan Statistical Area (MSA), rather than the Philadelphia or Pittsburgh MSA.

household could be geocoded to a location (Institute for Survey Research, 2003). It was a random digit dial (RDD) telephone survey which meant that households with unlisted phones were eligible. The cases come from two different sampling frames, one for the nine Pennsylvania and New Jersey counties in the Philadelphia metro area, and the second for the rest of Pennsylvania. About 400 Pennsylvania interviews were completed with households beyond the five counties (Philadelphia, Chester, Bucks, Delaware, and Montgomery) making up the Pennsylvania side of the Philadelphia metro area. Interviewers contacted households all days of the week, including weekends, and during the day and evenings. Most interviews were completed by the sixth call. The survey took about 35 min to complete and respondents were paid US\$10 via money order. The data were successfully geocoded, which means the municipality and county of the respondent was known. Municipalities are nested within counties.

Using the standardized, AAPOR minimum response rate formula (RR1) (American Association of Public Opinion Researchers, 2008), the response rate for the

Philadelphia area field effort was 24.4% and 23.2% for the survey effort in the remainder of Pennsylvania. These response rates roughly match the modal response rate of 25% in a review of several RDD surveys (McCarty, House, Harman, & Richards, 2006). The distribution of the completed interviews closely matched 2003 statewide Census-based estimates on gender, age, and race/ethnicity.⁸ Discrepancies were corrected by applying case weights. These weights also controlled for the number of phone lines in the household and the higher sampling rate in the five counties on the PA side of the Philadelphia metro area.

Survey Indicators

The main outcome is an index capturing confidence in the *local* police (Cronbach's $\alpha = .78$). The series was introduced with the prompt "The next questions are about police in your neighborhood." The items were "How much confidence do you have in the ability of the police to protect you from crime?" (1) *A great deal* / (2) *Quite a lot* / (3) *Some* / (4) *Very little*; "How much confidence do you have in the ability of the police to prevent crime?" (same response format); and, following another prompt to think about "police in your neighborhood," "The police do their job well" (1) *Strongly agree* / (2) *Agree* / (3) *Disagree* / (4) *Strongly disagree*. Each variable was reversed and *z* scored, and the average of the *z* scores used for the index.

Confidence in other components of the criminal justice system was captured with an index (Cronbach's $\alpha = .84$) based on the following: "How much confidence do you have in the criminal justice system?" (1) *A great deal* / (2) *Quite a lot* / (3) *Some* / (4) *Very little*; and, using the same response format, ". . . in The United States Supreme Court?", ". . . in your state prison system?", ". . . in your local court system?", and ". . . in your local jury system?" Items were reversed, *z* scored, then averaged.

Turning to key predictors, a five-item perceived incivilities index (Cronbach's $\alpha = .75$) included the following items. "I am going to read a list of problems that exist in your neighborhood. For each, please tell me whether you think it is (1) *a serious problem*, (2) *somewhat of a problem*, (3) *a minor problem*, or (4) *not a problem at all*: groups of unsupervised teenagers; abandoned buildings; abandoned vehicles; loud or noisy neighbors; graffiti on sidewalks and walls." Items were reversed, *z* scored, and averaged. Because the index produced highly skewed scores, the index was used in natural log form after adding four.

Local procedural justice was captured with an eight-item index (Cronbach's $\alpha = .86$) based on the following items: "How would you rate the police in your neighborhood on friendliness?" (1) *Very high* / (2) *High* / (3) *Average* / (4) *Low* / (5) *Very low*; "How would you rate the fairness of the police in dealing with people in your neighborhood?" (same response format); "Continuing to think about police in your neighborhood, please tell me if you agree or disagree with the following statements: "The police respect your basic rights;" "The police treat all people in your neighborhood equally;" "Police stop people without good reason;" "The police usually treat people with respect;" "Police are too tough on the people they stop;" and "Police are rude to

members of the public.” The last six items all used the same agree-disagree response format: (1) *Strongly agree* / (2) *Agree* / (3) *Disagree* / (4) *Strongly disagree*. Items were *z* scored, reversed as needed, and averaged to create the index. A higher score reflected more procedural justice.

Local social cohesion, including both social behaviors and sense of community threads, was captured with a seven-item index (Cronbach’s $\alpha = .77$): “Do you think of this neighborhood as your home (1), or just a place you happen to live (0)?”; “The next questions are about your close neighbors. By this, I mean the ten to fifteen families living nearest to you. How many of the adults would you know by name if you met them on the street? Would you know (1) *almost all of them* / (2) *more than half* / (3) *about half* / (4) *less than half* / or (5) *almost none*?” (reversed); “How often do you visit or get together with any of these neighbors just to chat or for a social visit? Would you say (1) *daily or almost every day* / (2) *one to three times a week* / (3) *one to three times a month* / (4) *less than once a month* / or (5) *never*?” (reversed); “How often do you and your neighbors do favors for each other? By favors I mean such things as watching each other’s children, lending garden or home tools, helping with shopping, or other things like these? Would you say” (same response format as previous item; item reversed); “There is a strong sense of community in my neighborhood” (reversed); “I feel like I belong to a community in my neighborhood” (reversed); and “My neighbors are friendly people” (reversed). The last three items used the same response format: (1) *strongly agree* / (2) *agree* / (3) *neither agree nor disagree* / (4) *disagree* / (5) *strongly disagree*. Responses to each item were *z* scored, reversed as needed, and averaged. A higher score indicated more local social cohesion.

Local organizational involvement around problems was captured just by summing responses to the following three items, (1) = *yes* / (0) = *no*: “In the past twelve months have you attended a meeting of a neighborhood association or block club?”; “attended a meeting at a place of worship to discuss neighborhood problems?”; and “met informally with neighbors to discuss a problem in your neighborhood?”

Demographics captured, in addition to gender, age, household income (logged), and education, a series of dummy variables for whether respondents were white or non-white, homeowners, employed full-time, married, or had children in the household.

For all survey variables, small amounts of missing data were estimated using the EM algorithm (Dempster, Laird, & Rubin, 1977).

Municipality Indicators

Respondents’ addresses were geocoded to municipalities. A total of 2002 violent and property crime counts were collected from Pennsylvania State Police files.⁹ In some cases, the data did not exactly match municipalities. There were instances where the PSP had substantial responsibilities for a municipality but reported only county totals, or a regional law enforcement agency was responsible for more than one municipality. In these instances, figures were allocated to municipalities based on population by municipality. Violent and property (excluding arson)

crime rates per 100,000 were then constructed and natural logged. Results shown use violent crime; no substantive differences emerged when property crime was used.

Using 2000 decennial Census data, fundamental municipality demographic structure was captured with a stability index which averaged the percent of owner occupied households and the percent of households residing there for at least 5 years (Cronbach's $\alpha = .69$). A socioeconomic status (SES) index (Cronbach's $\alpha = .81$) z scored and then averaged median household income, median house value, the percent of the population above the poverty line, and the percent with at least a completed college degree. 2000% non-White captured racial composition.¹⁰

Rural-Urban Continuum

Dummy variables for metropolitan, mostly suburban counties (continuum codes 1-3) outside the two large urban core counties, and for nonmetropolitan rural counties (4, 6, and 7 in this sample) were created. This made the reference string residents in the two core counties, Philadelphia and Allegheny (Pittsburgh), of the two largest MSAs in the state.¹¹

Table 1 explains the rural-urban continuum codes for the sample, and the unweighted n in each county type. Table 2 shows descriptive statistics for municipalities and respondents.

*Analytic Approach*¹²

Results reported here are from a three-level linear mixed model (Level 1 = *individuals*; Level 2 = *municipalities*, 502; Level 3 = *counties*, 60) (Rabe-Hesketh & Skrondal, 2005). Multicollinearity analysis indicated that all VIFs were below 5.5 and all tolerances above 0.18.¹³ To capture varying impacts of incivilities, a dummy coded interaction term was constructed for each code on the rural urban continuum, except the urban core counties. If a respondent's perceived incivilities index score was in the top tercile, and he or she was located in the relevant county type, the interaction term was coded 1, 0 otherwise.¹⁴

Results

Confidence in local police varied significantly ($p < .001$) across municipalities ($r_{icc} = .462$); variation across counties ($r_{icc} = .028$) was not significant. Coefficients from the mixed model appear in Table 3.

Incivilities, Procedural Justice, and Local Social Climate

Across all of Pennsylvania, residents perceiving more intense incivilities in their neighborhood expressed less confidence in their local police ($p < .01$). This corrosive

Table 2. Descriptive Statistics: Municipalities and Respondents

Municipality-level indicators						
Variable	N	Mean	Median	SD	Min	Max
2000 population (pop2000)	502	14,090	6,417	69,977	159	1,520,000
Socioeconomic status index (status)	502	0.1	-0.01	0.76	-1.5	2.7
Stability index (stabi)	502	69.6	71.78	9.8	21.38	85.93
2000 % nonwhite population	502	6.86	3.36	10.8	0	84.37
2002 reported violent crime rate (violra)	502	74.9	6.11	914.56	0	20,059.00
2002 violent crime, logged (lviolra)	502	2.1	1.96	1.49	0	9.91
2002 reported property crime rate (propra)	502	387.48	61.52	2,955.50	0	63,335.00
2002 property crime, logged (lpropra)	502	4.06	4.14	1.97	0	11.06
2000 household median income (US\$) (hhmdinc)	502	45,495	42,362	15,462	19,477	102,759
2000 median owner-occupied house value (US\$) (hhmdval)	502	111,265	101,200	50,211	29,200	361,700
2000 % unemployment	502	4.53	3.85	2.54	0.38	16.73
Individual level						
<i>Outcomes</i>						
Confidence in local police (locpolco)	1289	-0.013	-0.050	0.84	-2.97	1.57
Confidence in criminal justice system (govcon)	1289	-0.001	-0.037	0.77	-3.56	1.79
<i>Predictors</i>						
Female (=1)	1289	0.366	0	0.482	0	1
Race (1 = White; 0 = nonwhite) (whited)	1289	0.868	1	0.333	0	1
Age (in years) (age_m)	1289	50.8	49	16.8	18	95
Work full-time (= 1 ; 0 = other) (workftd)	1289	0.522	1	0.499	0	1
Married (= 1; 0 = other) (marrd)	1289	0.612	1	0.487	0	1
Homeowner (=1) (ownd)	1289	0.762	1	0.426	0	1
2002 household income (US\$) (newinc_m)	1289	48,003	45,000	29,513	5,000	130,000
Log of household income (newinc_l)	1289	10.6	10.7	0.74	8.52	11.7
Police contact, neutral outcome (f2fneut)	1289	0.0296	0	0.17	0	1
Police contact, dissatisfied outcome (f2fdisat)	1289	0.0521	0	0.222	0	1

(continued)

Table 2. (continued)

Municipality-level indicators						
Variable	N	Mean	Median	SD	Min	Max
Police contact, satisfied outcome (f2fsatis)	1289	0.144	0	0.351	0	1
Education: only completed HS (edhsonly)	1289	0.415	0	0.493	0	1
Education: only some college (edcosome)	1289	0.162	0	0.369	0	1
Education: only completed college (edcoonly)	1289	0.188	0	0.391	0	1
Education: postcollege (edcoplus)	1289	0.109	0	0.312	0	1
One or more children in household (kidsd)	1289	0.375	0	0.484	0	1
Procedural justice (projus)	1289	-0.01	0.01	0.708	-3.19	1.71
Local participation (locsocax)	1289	0.802	1	0.878	0	3
Local social climate (soccoh)	1289	-0.004	0.072	0.643	-2.23	1.27
Perceived incivilities (inciv)	1289	0.006	-0.259	0.696	-0.459	3.4
Perceived incivilities, logged (inciv_l)	1289	1.37	1.32	0.151	1.26	2

Note: Results shown after weighting. Respondents are heads of households surveyed in Commonwealth of Pennsylvania in Fall, 2003 using RDD. 2000 municipality data from decennial Census. For individual household income, respondents were placed at the middle of each US\$10,000 category, or at US\$5,000 for the lowest category (below US\$10,000), or at US\$130,000 for the highest category (above US\$125,000). Police contact variables reflect outcome of police-initiated face-to-face contact in the last year (dummy variables). The two outcomes, perceived incivilities, local social climate, and procedural justice are indices built on z-scored variables. For logged variables (household income, violent crime rate, perceived incivilities), natural logs were used after adding a constant.

effect of incivilities was partially qualified however, by moderating impacts in two county types. Compared to the impact of incivilities in the large urban core counties containing Philadelphia and Pittsburgh, in smaller metropolitan areas (classification code = 2) the impact was significantly weaker ($p < .05$), and in all rural counties near medium or small cities (classification code = 6) it was significantly stronger ($p < .05$). Thus, in support of the symbolic interactionist view on incivilities (Hunter, 1978), residents' views about local police are adversely affected by the nearby physical and social problems they see, suggesting they hold the police at least somewhat responsible for them. But, at the same time, county context at some points on the rural versus urban continuum moderates the strength of this adverse effect.

This moderating result would seem to be important for two reasons. First, although the incivilities literature has concentrated largely on deleterious dynamics in urban locations, the strongest influence on police confidence appeared in some of the smallest scale communities. Possible reasons are discussed below. Second, and more

Table 3. Multilevel Model Predicting Confidence in Local Police

Predictor	<i>b</i>	SE(robust)	<i>z</i>	<i>p</i>
County type				
Rural	-0.336	0.093	-3.61	<.001
Suburban	-0.149	0.061	-2.44	<.05
Municipality				
Stability	-0.006	0.003	-1.93	ns
Socioeconomic status	0.075	0.041	1.8	ns
Percent nonwhite	-0.002	0.003	<-1	ns
Violent crime rate (logged)	-0.009	0.021	<-1	ns
Individual				
Female	0.083	0.038	2.2	<.05
White	-0.103	0.048	-2.14	<.05
Age	0.003	0.002	1.97	<.05
Work full time	-0.012	0.034	<-1	ns
Married	0.002	0.057	<1	ns
Homeowner	-0.108	0.050	-2.16	<.05
One or more children in household	-0.074	0.043	-1.7	ns
Household income (logged)	-0.041	0.034	-1.23	ns
Highest education = only high school	-0.157	0.072	-2.19	<.05
Highest education = some college	-0.069	0.085	<-1	ns
Highest education: only completed college	-0.252	0.088	-2.86	<.01
Highest education: post-BA/BS	-0.097	0.058	-1.65	ns
F2F: Neutral outcome	-0.039	0.112	<-1	ns
F2F: Dissatisfied with outcome	0.036	0.094	<1	ns
F2F: Satisfied with outcome	0.020	0.047	<1	ns
Local organizational involvement	-0.056	0.024	-2.38	<.05
Local social cohesion	0.062	0.036	1.74	ns
Procedural justice	0.727	0.028	25.87	<.001
Perceived incivilities (logged)	-0.455	0.169	-2.69	<.01
Interaction: County type × incivilities				
(1) Suburbs around large urban cores	0.027	0.067	<1	ns
(2) Smaller metropolitan areas	0.128	0.056	2.3	<.05
(3) Small town/suburban/rural	-0.281	0.189	-1.48	ns
(4) Predominantly rural, near small cities	0.187	0.190	<1	ns
(6) All rural, near medium/small cities	-0.334	0.142	-2.36	<.05
(7) All rural, remote	-0.495	0.417	-1.19	ns
Constant	1.863			

Note: Results from multilevel model (xtmixed in Stata) with individuals nested within municipalities which were nested within individual counties. Random effects allowed for intercepts at both the county and municipality levels. Maximum likelihood estimation. Wald χ^2 (31) = 3459; $p < .001$; Log pseudo-likelihood = -912. Outcome = confidence in local police index (see text). Higher score means more confidence, $N = 1,289$. Weighted results. Municipality demographic data from 2000 census. F2F = face-to-face, police initiated contact within the last twelve months. Uncoded reference string for F2F = no police initiated contact. All F2F variables, and female, white, work full time, married, homeowner, one or more children in household, are dummy variables. Outcome, local social cohesion, procedural justice, and perceived incivilities are indices. Household income, violent crime rate and perceived incivilities index natural logged after adding a constant. For county type = suburban, classification codes 1-3 (see Table 1) coded 1, others = 0. For county type = rural, classification codes 4, 6, and 7 = 1, others = 0. For these two dummies, contrast counties are Philadelphia and Allegheny (Pittsburgh). For the interaction terms, person coded 1 if in top tercile of distribution on perceived incivilities, and living in county type indicated; otherwise coded 0.

broadly, it suggests that the incivilities—local police confidence relationship is contextually sensitive. The macro context moderates the microlevel relationship. Such cross-level relationships are theoretically important (Liska, 1990). To these authors' knowledge, this appears to be the first time this contingency has been demonstrated.

Turning to procedural justice, as expected from the extensive literature, those seeing fairer treatment of locals voiced more confidence in local police ($p < .001$). Although this impact is sizable and expected, what is new here is that this is demonstrated for a statewide sample spanning urban, suburban and rural locations, and while controlling not only for key individual attributes and experiences including perceived incivilities and local social climate, but also for crime and structure at the municipality level. The link between perceived procedural justice and confidence in local police appears robust and broadly applicable.

As explained earlier, two aspects of local social climate were considered: participation in local groups around local concerns, and local social cohesion. Residents' local problem-oriented involvement linked *negatively* to confidence in police ($p < .05$). Those involved with more organizations voiced less confidence. Perhaps those who were more involved were less confident in police because their involvement brought more police-related concerns to light.

Position on Rural-Urban Continuum

Two county-level dummy indicators contrasted either nonmetropolitan rural counties (continuum codes 4, 6, 7) or metropolitan suburban counties around large urban cores or in smaller metro areas (county codes 1-3) with large urban core counties. Confidence in local police was significantly *lower* in counties outside the urban cores ($p < .001$ for nonmetropolitan counties; $p < .05$ for other metropolitan counties). Confidence was *highest* in the two largest urban core counties. The result, especially for the rural counties, is especially surprising given earlier work linking rural policing with a community policing style.

Municipality Impact

None of the indicated municipality-level variables achieved statistical significance. But if a stricter definition of multicollinearity was adopted (all VIFs < 4 , all tolerances $> .3$), and either percent non-White or the log of the violent crime rate was eliminated from the model, then municipality SES achieved statistical significance ($b = .08$; $p < .05$). Confidence was stronger in higher SES municipalities.

Other Individual-Level Results

Some demographics correlate in expected ways with confidence. Women and older residents reported more confidence ($p < .05$). Perhaps less expected was that Whites ($p < .05$) and homeowners ($p < .05$) demonstrated lower confidence. With race,

however, it is worth repeating that some national surveys do not find race impacts on confidence (Huang & Vaughn, 1996). Furthermore, this is the first statewide survey of which the authors are aware that examines race and homeownership across the full range of urban-to-rural communities, while controlling for community context, including crime, and police contact. Finally, compared to those without a high school degree, those completing only high school ($p < .05$), and those completing only undergraduate college ($p < .01$), reported *less* confidence. Impacts of education appear to be nonmonotonic; this aligns with previous summaries of work in this area (Brown & Benedict, 2002, pp. 550-551) suggesting links with class are complicated.

Confidence in the Broader Criminal Justice System

To address the connection between confidence in the police and confidence in the broader criminal justice system, similarly structured three-level mixed models were run with confidence in the criminal justice system as the outcome. Only two predictors were included at the individual level: the predicted score on confidence in local police from the mixed model shown, and the residual from that model. Both the predicted ($b = .49$; $p < .001$) and unpredicted portions ($b = .44$; $p < .001$) of confidence in local police significantly influenced confidence in the broader criminal justice system. Those with higher predicted police confidence reported more positive views toward the broader criminal justice system (not including any police), as did those whose unexplained (residual) confidence in local police was higher. The predicted confidence impact aligns with the expectations of institutional legitimacy theorists (LaFree, 1998; Tyler, 2003) that these two assessments have strongly overlapping origins. The significant impact of the unexplained portion of local police confidence may reflect monomethod bias (Cook & Campbell, 1979), or incomplete conceptual models of confidence in police and the criminal justice system.¹⁵

Discussion

The discussion starts by revisiting key highlighted questions. Then implications for policy, theory, and future research are suggested. Study limits and strengths are noted.

Turning first to incivilities, the overall impact seen here—those seeing more local problems have less faith in local police—aligns with the symbolic interactionist approach to incivilities, originally proposed by Hunter (1978; see also Harcourt, 2001). Residents *do* appear to be holding police at least partially responsible for these problems, assuming residents can differentiate between incivilities and crimes (Gau & Pratt, 2008). Furthermore, the finding that this impact is partially moderated by context also aligns with this view, and with the recently highlighted concept of signal disorders (Innes, 2004; see also Harcourt, 2001). The latter notion strongly suggests that the *import* of local incivilities is context dependent. Incivilities had the strongest adverse impact in nonmetropolitan, all-rural counties near small cities, and the weakest in smaller metropolitan areas.

Unpacking this partially moderated relationship will require additional investigation. Three threads may be worth pursuing. First, as has been previously argued and empirically supported (Taylor & Shumaker, 1990), perceptions of incivilities may be subject to some of the same perceptual adaptations seen with natural hazards. Future researchers will need to explore the slippage between assessed and perceived incivilities in counties spanning the urban—rural continuum. Second, if police in rural and small town locations devote a lot of effort to reducing incivilities such as drunks, dogs, and noise (Payne et al., 2005), residents may have stronger expectations of results. It would be worth gathering direct information on these expectations. Third, the stronger social embeddedness of local law enforcement in rural areas and small town locations (Esselstyn, 1953, p. 181; Falcone, Wells, & Weisheit, 2002; Kidder, 1999) may generate views about local law enforcement that are just *generally* more demanding. Again, direct evidence would be helpful. These lines of argument remain mere speculation until sound evidence from across the rural vs. urban continuum becomes available.

Turning to procedural justice, residents who saw local police treat local citizens more fairly reported more confidence. This is the first study to report an impact of procedural justice on confidence in local police across the full urban—rural continuum, and while controlling comprehensively for municipality structure and crime, recent police contact, perceived incivilities, residential composition, and local social climate. The findings here bear on the controversy noted above about the relevance of procedural justice.

Of course, procedural justice has numerous facets. Future work hopefully will begin to unravel the relevance of different components to confidence in local police. Relevant too will be weighing the importance of perceived police fairness vs. perceived police corruption and legal cynicism (Carr et al., 2007). That future work hopefully also will be able to make connections with behavioral outcomes such as willingness to report crimes to local police or to assist in witness identification (Carr et al., 2009).

Turning to consequences, confidence in local police predicted greater confidence in the broader criminal justice system. The overlapping conceptual underpinnings between institutional legitimacy (LaFree, 1998) and procedural justice frameworks (Tyler, 2004) seem warranted given that predicted police confidence predicted general justice system confidence (Tyler et al., 1989).

At the same time, *unpredicted* portions of local police confidence also connected to broader system views. If the latter link was not just reflecting monomethod bias or some other source of spurious correlation, it would suggest there are elements of police and system confidence dynamics not yet captured with the integrated model used here. Future studies based on longitudinal panel design surveys can hopefully sort out what is happening here and confirm the widely accepted sequencing of confidence in local police → confidence in the broader justice system.

Turning to local social climate, those involved in more local improvement-oriented organizations reported weaker confidence. This aligns with political science work on neighborhood mobilization. “Instead of reducing people’s anxieties about local crime

and disorder, neighborhood identity,” and the organizational involvement that may follow, “can actually inflate worries about these dangers” (Crenson, 1983, p. 124). Part of those inflated worries appears to be concerns about police capacities or commitment. Ecological variation in police responsiveness to residents’ concerns has been theorized (Klinger, 1997) and observed (Taniguchi, 2010), as has variation in residents’ perceived responsiveness of police (Taylor et al., 2010). How these variations link to residents’ mobilization deserves further attention in future.

The final result deserving comment is the impact of the urban-rural continuum itself on confidence in local police. Compared to residents in large urban core counties (code 0), other metropolitan residents (codes 1, 2, 3) reported less confidence; the weakest confidence was reported by residents in rural, nonmetropolitan counties (codes 4, 6, 7). Several factors could be contributing to weaker rural police confidence including different preferred policing styles in different county types (Jiao, 2001), actually different policing styles, cultures, and coverage in rural locales (Cordner & Scarborough, 1997; Weisheit & Donnermeyer, 2000), or stronger order maintenance policing—but also citizen-alienating policing—in lower crime rural locales (Gau & Brunson, 2010). Whether some subset of these factors is responsible for the impact, or something else, remains to be determined. Hopefully, future researchers will consider not only the distinctiveness of rural policing, but also variations in policing structure, culture and citizen expectations across the entire range of urban to suburban to rural communities.

Turning to policy, given the limitations of these data just one clear implication emerges. Since *both* procedural justice and incivilities shape confidence, local police operations, priorities, and training need to balance both concerns. Overemphasizing either one—aggressive order maintenance policing which may reduce incivilities but alienate citizens (Gau & Brunson, 2010), or devoting so much time to taking input and fairly resolving disputes that order maintenance suffers—carries risks. Residents want local police who can *both* solve quality of life problems *and* treat citizens fairly. Making a more specific policy recommendation requires survey data be supplemented with observational data on police–citizen interactions and records of what police do.

This study of course has numerous limitations. Ideally, the survey instrument would have captured more detail about the different components of procedural justice (Tyler, 1988). The operationalization of these components remains an active area of research (Gau, 2011). Broader limitations of the survey effort, however, did not permit this level of differentiation. Second, some may disagree with the categorization used here to describe counties (Weisheit et al., 1999). Other classifications besides the rural-urban continuum codes were possible, such as, for example, the urban influence code. Nevertheless, the county categorization approach used here aligns appropriately with discussions in the policing literature distinguishing big city policing from suburban and small town or rural policing. Third, the causal ordering here followed the accountability model rather than the reassurance model of policing (Skogan, 2009). This is because perceived incivilities and local social climate were the key nonpolice local

features investigated, not crime concerns. Finally, even though questions of external validity are *always* empirical questions and *not* study limitations per se (Taylor, 1994, p. 162), it bears mentioning that results could be specific to the particular units of analysis used in the models, the Commonwealth of Pennsylvania with its own particular complex blend of law enforcement agencies, the survey year, or the particular facet of law enforcement views examined.

Perhaps offsetting these study limitations, however, are several study strengths. These include a telephone survey effort which was able to produce a representative sample; an analytic approach appropriately taking into account the nesting of respondents at multiple levels; key indices with acceptable measurement properties; and a survey sampling frame that included large urban core, metropolitan, and nonmetropolitan counties.

This work has investigated confidence in local police. An integrated model linking such confidence to incivilities, procedural justice, local organizational involvement, and urban versus suburban versus rural policing context received support. Local police confidence appears to underpin confidence in the broader justice system. A significant portion of that linkage is captured by current model.

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Notes

1. Of course, aside from residents' of perceptions of police, crime, and incivilities, there are extremely complicated questions about the connections between reported crime and assessed incivilities, whether incivility reduction efforts lead to crime reduction, and

- potentially counterproductive outcomes of such efforts (Eck & Maguire, 2000; Gau & Brunson, 2010; Harcourt, 2001; Katz, Webb, & Schaefer, 2001; Taylor, 2005).
2. It is extremely difficult to gauge the strength of the perceived fairness-legitimacy link, or links between either one of these and police cooperation because of the unevenness of some of these studies and ongoing concerns about convergent and discriminant validities (Gau, 2011). There are other concerns as well. Some studies develop indices on the same sample for which they report internal consistency coefficients or criterion correlations, violating the well-known “validity, reliability, baloney” concerns (Cureton, 1967). Some use oblique factor rotations while arguing for conceptual distinctiveness (cf. Gordon, 1968). Some use exploratory factor analytic techniques, while others use confirmatory techniques; for the latter “cross-validation or replication for an independent sample” which “is an important step in building confidence” is typically not carried out (Bollen, 1989, p. 305).
 3. The term “social climate” is used here to refer generically to an extremely broad array of features of community social life. As has been previously pointed out (Taylor, 2002), over the past three if not five decades a wide array of terms has been used to refer to various features, and sometimes different terms have been applied to comparable facets. Currently in vogue is collective efficacy (Sampson, Raudenbush, & Earls, 1997), which blends together willingness to intervene (Hackler, Ho, & Urquhart-Ross, 1974) or latent neighborliness (Mann, 1954) with sense of community (McMillan & Chavis, 1986). See Taylor (2002, pp. 782-784) for more details.
 4. In many states, local sheriff’s offices play greater law enforcement roles in rural counties. This is not true in Pennsylvania, however, where this study was conducted. In Pennsylvania, every county has a sheriff’s department, so there is no structural variation on this feature across the continuum, and state law severely restricts the range of law enforcement activities in which sheriffs may participate.
 5. Law enforcement personnel data for 2002, the full calendar year preceding the survey, were obtained from the FBI. This file provides employee counts and rates of coverage per 1,000 population. For 2008 data, for example, go to <http://www.fbi.gov/ucr/cius2008/police/index.html>. Police departments are named and the size of the population served indicated, although the file has no standard census identifiers (FIPS codes) for townships or counties. In Pennsylvania, 1,519 law enforcement agencies reported their personnel counts to the FBI. After removing state police subdivisions, university and college police, and special police for airports, state parks, and other locations with no resident populations, 1,180 agencies remained. Dropping all agencies with no employees in 2002 reduced the total number of agencies to 1,092.
 6. The codes “form a classification scheme that distinguishes metropolitan (metro) counties by the population size of their metro area, and nonmetropolitan (nonmetro) counties by degree of urbanization and adjacency to a metro area or areas.” (Economic Research Service, United States Department of Agriculture, 2004). Following the 2000 census, the rural–urban codes merged the central, core counties of large metropolitan areas with the surrounding counties; that is, they collapsed the codes here designated 0 and 1. We keep these urban core counties *separate* given the important differences shown in past work on our outcomes between large central cities and adjoining locales. Rural—urban continuum

codes are available *only* at the county level; they are not available at smaller spatial units such as municipalities or other civil divisions. This is because the codes link to other features of counties such as whether they are in a metropolitan area, the size of the metropolitan area, and the extent of the urbanized area.

7. Using the 2002 FBI police personnel file to examine the ratio of officers per 1,000 population and using the FBI (not the Agriculture Department) county size classification showed that coverage was noticeably higher in urban compared to rural locations. The coverage ratio was 4.5 for Philadelphia and 3.1 for Pittsburgh, and the median coverage ratio for Erie and Allentown, both with populations over 100,000, was 2.05. Median coverage ratios for all smaller jurisdictions, however, were not markedly different from one another, ranging from 1.6 to slightly over 1.
8. Low response rates suggest only potential nonrepresentativeness; identical surveys with markedly contrasting response rates can generate almost identical patterns of results (Keeter, Miller, Kohut, Groves, & Presser, 2000). Nonrepresentativeness is more of an issue than nonresponse (McCarty et al., 2006). Actual representativeness was captured for the entire PAS by comparing respondent demographic profiles to 2000 census data. "2003 Census data for gender, ethnicity, and age of heads of household for Pennsylvania were compared to the profile of completed survey respondents. The match was generally good. Gender of respondents to the survey matched the Census data closely, with the survey showing only slightly more female interviews (survey 4 percent higher). African-Americans were over-represented in the survey by 6 percentage points. Hispanics and Asians are slightly under-represented, but the small numbers involved make such differences unreliable. Caucasians were underrepresented compared to the 2003 Census by 8 percent . . . the age distribution showed only one category difference between survey and census of more than 4 percentage points—those aged 71 and above were under-represented by 8 percent compared to the survey, in part due to poor hearing and other health-related reasons." (Institute for Survey Research, 2003, pp. 24-25).
9. This year was included because it was the full calendar year preceding the survey field effort.
10. Some studies use a disadvantage index rather than an SES index, combining race indicators with SES indicators. Massey (1998) has argued against such a practice, because it confounds two different aspects of community structure.
11. Most of the respondents in suburbs of the biggest cities (continuum code = 1) were suburbs of Philadelphia and Pittsburgh, although a few respondents were located in Pike County attached to the NYC/Northern NJ MSA.
12. The analysis was run three completely different ways: (a) a regression model with contextual predictors and error terms clustered by either municipality or county; (b) a multilevel model using Empirical Bayes adjustments with individuals (Level 1), municipalities (Level 2), and county rural-urban continuum code classifications (Level 3); and (c) a mixed model with individuals (Level 1), municipalities (Level 2), and individual counties (Level 3). Results from all three sets of analyses yielded closely comparable coefficients and matching significance patterns. The only consistent differences in patterns of significance across the three analyses were as follows First, in (b), and in (a) depending on how the error terms

were clustered, individual-level social cohesion demonstrated a positive impact on confidence in police. It did not in (c). Second, the dummy for suburban continuum code was not significant in (b), but was significant in (a) and (c). This second discrepancy probably arose because in (b) there was Empirical Bayes adjustment of the Levels 2 and 3 means. Analysis (c) is reported here.

13. VIFs were further reduced to no larger than 3.3 and tolerances further increased to no lower than 0.30 if either percent non-White at the municipality level, or the logged violent crime rate at the municipality level, was removed. In addition to the models shown, all models were rerun two times, once with each of these variables removed. Differences in patterns of significance are noted later.
14. The model shown in Table 3 has main and interaction effects. Separate models with just the main effects were run. Adding the interaction terms did not change the pattern of significant main effects.
15. One reviewer has suggested that the impact of unpredicted police confidence on system confidence might “be evidence of CJ confidence predicting police confidence.” Although this is plausible, there are two arguments cautioning against such an interpretation. Most of the procedural justice work has framed the dynamic as moving from the public institution with which most citizens are likely to have some contact, police, to the broader system. Second, it is always risky to overinterpret residuals which are by definition unknowns, often with numerous contributing elements. Further clarification of the relationship between police and system confidence would seem to require panel design survey data providing an unambiguous causal ordering.

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Bios

Ralph B. Taylor is a professor of Criminal Justice at Temple University and holds a courtesy appointment in Geography and Urban Studies. Publications can be found online at www.rbtaylor.net/pubs.htm. Current projects include understanding long and short term micro-scale crime risk prediction, intrametropolitan spatiotemporal interactions in crime patterns, and communities and crime metamodels.

Brian A. Lawton is currently an assistant professor in the Department of Criminology, Law and Society at George Mason University. His research interests include patterns of crime over both time and place, police discretion and patterns of officers' use of force. His work has appeared in the *Journal of Research in Crime and Delinquency*, the *Journal of Quantitative Criminology*, and the *Journal of Criminal Justice*, among others.