POLICE OFFICERS' ATTITUDES, BEHAVIOR, AND SUPERVISORY INFLUENCES: AN ANALYSIS OF PROBLEM SOLVING*

ROBIN SHEPARD ENGEL
University of Cincinnati

ROBERT E. WORDEN
State University of New York at Albany

This paper examines the influence of officers' and supervisors' attitudes and priorities toward community policing and problem solving over the time officers spend conducting problem-solving activities. Analyzing data collected for the Project on Policing Neighborhoods, a multi-method study of police patrol in two police departments, results show that officers' perceptions of their supervisors' priorities for problem solving affect the amount of time they spend conducting these activities, although their own attitudes toward community policing are unrelated to their behavior. We also find that officers' attitudes regarding problem solving are weakly correlated with their supervisors' attitudes and, further, that officers' perceptions of their supervisors' attitudes are often inaccurate.

Police work entails a tension between the exercise of discretion by officers on the street and the control of that discretion by police organizations. Discretion inheres in policing because the task environment is heterogeneous and the technology of policing is "intensive" (see Thompson, 1967), as officers must devise responses to the complex and dynamic situations in which they intervene. Yet in a democratic polity, the public expects that police officers will be constrained not only by the rule of law, but also—and perhaps especially—by bureaucratic rules, regulations, and standard operating procedures. Such "overhead democracy" is one common approach to controlling public bureaucracies (Redford, 1969:70–71). But hierarchical controls, by which officers' compliance with bureaucratic

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direction and limitations is monitored and enforced by hierarchical superiors, are unreliable when the task environment is heterogeneous and the technology is intensive. They are still less reliable when the technology is not well developed, that is, when the complexity and dynamics of the situations that police handle are not well understood, and no codified body of knowledge guides the application of police resources to produce desired outcomes. Thus, as Bittner (1970) observes, the police must act based on “an intuitive grasp of situational exigencies.” The management of such discretionary choices is, as Whitaker (1979) notes, a “central dilemma of police administration,” and often gives rise to a tension between the discretionary nature of police work and the imposition of hierarchical controls.

This tension manifests itself on a day-to-day basis in routine (and nonroutine) street encounters between citizens and police. These encounters present complex contingencies that cannot be taken into account as if-then provisions in rules and procedures, so formal expectations for officers’ choices among alternative courses of action are inevitably vague. Furthermore, only a small percentage of encounters can be directly observed by hierarchical superiors, who consequently have far less than perfect information about both the nature of the situations and how officers handle them (Prottas, 1978).

Tension arises in still more dramatic form when police executives attempt to implement organizational changes, whereupon the expectations for officers’ performance shift. Managing discretion is problematic when the rules of the game are stable, but it is still more problematic when the rules of the game change. The rules of the game are changing in some police organizations. The focus of policing is shifting from incident-driven responses to calls for service toward more creative, problem-focused responses (Goldstein, 1990).

Insofar as officers make discretionary choices based on their own judgments, we might expect that their decision making and behavior would be shaped by, and bear strong relationships to, their occupational attitudes and values. Writing almost 20 years ago, Smith and Klein (1984) speculated that much of the variation in officers’ behavior that was unexplained by situational characteristics could be accounted for by officers’ “attitudes, values, and beliefs.” At that time, however, attitude-behavior relationships in police work had been examined only in an exploratory way. This intuitively plausible hypothesis underlies prescriptions for organizational change. For example, Lurigio and Skogan have characterized the implementation of community policing as a process involving a “battle for the hearts and minds of officers” (1994:315). Indeed, many scholars and practitioners suppose that administrators must change officers’ attitudes
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Insofar as officers' choices are constrained by bureaucratic forces, we might expect that their behavior would be affected by the demands of their immediate supervisors, because field supervisors represent the most proximate and perhaps most potent bureaucratic force. Field supervisors work most closely with officers and therefore have the greatest opportunity to monitor what officers do (and fail to do), and to guide officers' decision making. They negotiate the application of ambiguous rules to complex situations (Manning, 1977:161–179), control the limited rewards and sanctions routinely available to police departments (Van Maanen, 1983), and instruct officers how to perform the police craft (Muir, 1977). Consequently, managing officers' discretion, especially in a less stable and less predictable organizational environment, is a task that falls first on the shoulders of field supervisors.

In this paper, we examine the influences of both officers' attitudes and supervisors' expectations on officers' decision making using data collected through direct observation and structured interviews with patrol officers and field supervisors in two police departments for the Project on Policing Neighborhoods (POPN). Our study bridges the gap between two broad areas of theoretical development and empirical research: the social-psychological literature that has examined the attitude-behavior relationship, and the organizational literature that has described the role of supervision in hierarchical, paramilitary organizations. Specifically, we analyze the relationships among patrol officers' engagement in problem-solving activities and their attitudes toward community policing and problem solving, their supervisors' attitudes toward and priorities for community policing and problem solving, and officers' perceptions of their supervisors' goals for patrol work.

THEORETICAL FRAMEWORK

ATTITUDES AND BEHAVIOR

A substantial body of qualitative research on the police posits that officers' behavior is shaped by their occupational outlooks. Skolnick (1966) described the "working personality" of police—including suspiciousness, social isolation, and strong in-group loyalty—and its potential relationship to officers' conformity with the rule of law. Van Maanen (1974) portrayed the acculturation of new officers and the occupational attitudes, values, and norms into which they were socialized. Niederhoffer (1969) characterized patterns of cynicism toward the public and toward the police institution, which he believed affected officers' receptivity to
police professionalization. Yet, all of this research focused predominantly on central tendencies in both outlooks and behavior and therefore does not form a sound basis for testable hypotheses about the relationship between attitudes and behavior.

Several studies formed four-fold typologies of patrol officers that depict variation in attitudes and behavior (Broderick, 1977; Brown, 1988; Muir, 1977; White, 1972). Taken together, these studies describe five types of officers and a number of attitudinal dimensions along which officers vary (see Worden, 1995b). This research suggested that officers varied in their outlooks on the police role, citizens, legal restrictions on their authority (e.g., limitations on search and seizure, and on the use of force), and legal institutions (e.g., prosecutors, courts). Moreover, this research suggested that officers’ behavioral tendencies varied correspondingly. Brown (1988), for example, reported that officers who defined the police role as one of crime-fighting and law enforcement were more aggressive on the street—stopping cars and people to conduct field interrogations and searches—than were officers with broader role conceptions. His analysis further suggested that officers whose role conceptions differed in these respects differed also in their approaches to minor disorders and service requests.

However, most quantitative research on police behavior has found only weak relationships between officers’ attitudes and their behavior. Smith and Klein (1983) found that officers’ job satisfaction was unrelated to their arrest decisions. Meyers et al. (1989) and Mastrofski et al. (1994) found that officers’ attitudes, including their individual enforcement priorities, bore weak relationships to their patterns of DUI enforcement. Stith (1990) reported that officers’ attitudes had little effect on their decision making in domestic violence situations. In analyses of dispute resolution, traffic enforcement, and proactive patrol or “aggressiveness,” Worden (1989) found that officers’ attitudes (including their role orientations, perceptions of citizen respect for and cooperation with police, and attitudes toward legal restrictions) “fail to account for more than a very small part of the variation in behavior.” Terrill and Mastrofski (2002) found that officers’ use of coercion was unrelated to their attitudes (also see Worden, 1995a). Such findings led Riksheim and Chermak (1993) to conclude that police behavior is based primarily on situational determinants rather than officers’ attitudes.

To our knowledge, only two quantitative studies have found a significant relationship between officers’ attitudes and their behavior. Mastrofski et al. (1995) reported that officers with more positive attitudes toward community policing were significantly less likely to arrest suspects than were officers with more negative attitudes. Officers classified as “positive” toward community policing arrested only 5% of the suspects they encountered, compared to 17% arrested by officers classified as “negative”
toward community policing. The authors concluded, "it is remarkable that officers' attitudes should show a significant relationship at all, given the absence of such results in previous studies" (1995:558). Brehm and Gates (1993, 1997) reported that officers' rates of "shirking," or time spent "goofing off" or "loafing," were influenced by their professionalism, attitudes toward their jobs, and satisfaction with their supervisors.1

This small body of quantitative research is consistent with a much larger body of social-psychological research on attitude-behavior consistency, which has shown that the estimated relationships between attitudes and behavior are counterintuitively small (Ajzen and Fishbein, 1977; Weinstein, 1972). Innumerable studies have analyzed various forms of behavior and their relationship to attitudes. In their review of this research, Schuman and Johnson (1976:167–168) reported that "few plausible studies fail to find significant relationships," however, "in most cases investigated, attitudes and behaviors are related to an extent that ranges from small to moderate in degree." One explanation for weak attitude-behavior relationships is that attitude-behavior consistency is attenuated when the behavior is subject to the influence of "situational pressures" (Ajzen and Fishbein, 1980). Situational pressures include social norms, the norms of reference groups, and the behavior of others. In general, attitude-behavior consistency is greater when these social forces are congruent with a subject's predisposition than when they conflict (Ajzen and Fishbein, 1980).

Police work is rife with situational pressures, some of which originate in the police bureaucracy. Supervisors' expectations and priorities would presumably represent significant situational pressures on officers' behavior because supervisors are responsible for interpreting and enforcing bureaucratic requirements and restrictions. Thus, to the extent that supervisors can influence officers' behavior, the consistency between officers' attitudes and behavior may be diminished.

SUPERVISORY INFLUENCES

Supervisors can, in theory, influence officers' behavior through several mechanisms. The command model of supervisory influence is based on the formal authority of police supervisors and holds that supervisors influence subordinates' behavior by enforcing compliance with bureaucratic requirements and standards of performance (Allen and Maxfield, 1983). As we discussed above, however, the task environment of policing militates against the command model of supervision (Maxfield et al. 1981; also

1. However, we should note that "professionalism" was measured in terms of summary characterizations by observers of how officers conducted themselves across a work shift, and it is probably better interpreted as behavioral than attitudinal in nature.
see Allen, 1980; Brown, 1988; Tifft, 1971). In contrast, the exchange or bargaining model of supervision holds that supervisors and officers are mutually dependent: Supervisors rely on their subordinates to be productive and to "lay low and stay out of trouble," whereas officers rely on their supervisors for small favors (e.g., preferred work schedules, assignments, partners, beats, cars) and for protection from departmental discipline (Van Maanen, 1983). Through such reciprocity, rather than the formal chain of command, supervisors can influence officers' behavior (Van Maanen, 1983; also see Brown, 1988; Manning, 1977; Rubinstein, 1973). The influence of supervisors would be proportional to the rewards that they can offer to their subordinates; however, these rewards are limited in a public organization regulated by civil service provisions, as many police departments are. Therefore, one might hypothesize that officers' behavior is influenced by supervisors' priorities, but only rather modestly.

The exchange model of supervision in police organizations resembles transactional leadership identified in management studies (Bass, 1985; Bass and Avolio, 1994; Burns, 1978; Downton, 1973), and it is also similar to most principal-agent models in economics (Moe, 1984). Transactional leadership is based on the premise that an exchange or quid pro quo takes place between leaders and followers. In this exchange, the subordinate performs what is expected of him or her, while the leader specifies the conditions under which those expectations must be met and the rewards that the subordinate will receive when the requirements are fulfilled.

Police supervisors could also affect officers' behavior indirectly by influencing their attitudes, values, and beliefs. Muir (1977) surmised that field supervisors could have a substantial impact on the development of officers' understanding of people and the judiciousness with which they use their coercive authority. Some supervisors, he reported, took advantage of or made opportunities to teach lessons about human nature and coercive power, and to inoculate their subordinates against cynicism and moral corruption. Such influences may yield greater congruence between supervisory expectations and officers' attitudes and therefore may increase the consistency between officers' attitudes and behavior. However, Muir did not maintain that this was common supervisory practice, rather that the supervisor's role holds potential influence that supervisors may tap.

Muir's observations of the potential influence of patrol supervisors correspond with the transformational leadership style identified in management research (Bass, 1985; Bass and Avolio, 1994; Burns, 1978; Downton, 1973), and it is also similar to most principal-agent models in economics (Moe, 1984).

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2. Similarly, Wilson (1968:139) suggested that police administrators can influence the behavioral propensities of their subordinates by "instilling in them a shared outlook or ethos that provides for them a common definition of the situations that they are likely to encounter."
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1973), and with recent variations on principal-agent models in political science (Brehm and Gates, 1993, 1997; Miller, 1992; Waterman and Meier, 1998). Transformational leaders encourage their subordinates to bring creative perspectives to their work and stimulate a team vision through positive motivation. Although transactional leadership is based on contingent rewards, transformational leadership is based on idealized influence (i.e., viewing the leader as a role model), inspirational motivation, intellectual stimulation, and individualized consideration (Bass and Avolio, 1994).

Both transactional and transformational leadership styles are expected to influence subordinates' behavior. But they may not be equally effective in shaping all varieties of subordinates' performance. One might expect that transactional leadership would have the greatest effect on officers' productivity—the number of arrests they make and citations they issue—inasmuch as supervisors can establish clear, numerical expectations for these activities. Moreover, supervisors can readily monitor their subordinates' compliance, because these activities generate discrete outputs that can be quantified. One might further expect that this effect would be more pronounced for "police-invoked law enforcement" (Wilson, 1968:85–86), such as enforcement against vice or traffic offenses, because reasonable assumptions can be made about the opportunities that officers have to generate such outputs, and in some instances (e.g., an open-air drug market) supervisors can directly observe the outcome of enforcement efforts. Transactional leadership would be less effective, one might hypothesize, when the expectations cannot be clearly stated, discrete outputs are not generated, and compliance cannot be readily monitored.

Thus, as police organizations have evolved and greater stress has been placed on the goals of community-oriented policing and problem solving, scholars have placed a greater emphasis on transformational styles of leadership. Under the principles of community-oriented policing, patrol officers are afforded more discretion and are encouraged to develop creative problem-solving approaches. Supervisors are expected to facilitate this transition in objectives by encouraging team building, raising morale, and emphasizing their role as a coach and mentor (Goldstein, 1990). It is believed that this change in supervisory approach will strengthen supervisors' influences over officers' behaviors.

Several studies have empirically estimated the effects of supervision on patrol officer behavior. This body of research is limited because supervision has generally been measured as the amount of time supervisors are present at police-citizen encounters. Most of this research has focused on three general types of subordinates' behavior: the frequency and duration of encounters with citizens (Allen, 1980, 1982; Tifft, 1971); discretionary decision making toward citizens, including decisions to arrest or issue tickets (Allen and Maxfield, 1983; Engel, 2000; Mastrofski et al., 1994; Smith,
and officer misbehavior, including work shirking and departmental violations (Bittner, 1983; Brehm and Gates, 1993, 1997; Brown, 1988; Gates and Worden, 1989; Reiss, 1971a). No firm conclusions have been reached. Collectively, this body of research suggests that the effects of supervision are generally small in magnitude, but they vary across the types of behavior or tasks performed by subordinates and by the measure of supervision utilized (for review, see Engel, 2000, 2001).

Yet, both the transactional and transformational leadership styles imply that supervisors’ expectations for officers’ performance—and officers’ interpretations of these expectations—are likely to influence officers’ behavior. The empirical research on police supervision, however, has not estimated the effect of supervisors’ expectations on officers’ behavior; nor has this research examined officers’ perceptions of their supervisors’ expectations. Moreover, the bulk of this research has examined supervisory influences over traditional activities of patrol officers (e.g., decisions to invoke formal actions), yet has neglected more innovative forms of policing such as community policing and problem-solving activities, with one exception (DeJong et al., 2001), which we discuss below.

COMMUNITY POLICING AND PROBLEM SOLVING

Policing traditionally has been incident-driven and case-oriented, and it has relied predominantly or exclusively on the actual or threatened use of officers’ coercive authority. Problem solving, however, is an integral component of community policing that involves the identification and analysis of problems. Following Goldstein (1990), problems are defined as a set of incidents—such as larcenies or noise disturbances—that have roots in some common conditions. The formulation of responses directed at those conditions may include the use of civil laws or administrative regulations, changes in environmental design, the mobilization of third parties, and other alternatives to traditional law enforcement. Thus, the implementation of community policing and problem solving calls for officers not only to perform old tasks in new ways, but to perform substantially new tasks as well. As a result, the shift to problem-oriented policing is truly paradigmatic in nature.

One might anticipate that such disruptions of the organizational equilibrium would not be enthusiastically received; efforts to change not only routines, but also the rules of the game are likely to confront resistance. Some analyses of this implementation problem suggest that advocates of community policing must first change officers’ attitudes, based on the assumption that behavioral changes would follow, and that these behavioral changes will not occur without supportive attitudinal changes. Hence, Lurigio and Skogan (1994:315) have characterized the implementation of community policing as a “battle for the hearts and minds of
officers,” and Lurigio and Rosenbaum (1994:147) have argued that to lose this battle is “to risk program failure due to apathy, frustration, resentment, perceived inequality, fear of change, and other factors that militate against the successful implementation of community policing.” Accordingly, many evaluations of community policing initiatives (Cordner, 1988; Hayeslip and Cordner, 1987; McElroy et al., 1993; Pate and Shtull, 1994; Rosenbaum et al., 1994; Skogan and Hartnett, 1997; Skogan et al., 1999; Wycoff and Skogan, 1994) have included assessments of officers’ attitudes toward community policing, and other relevant subjective outlooks (such as job satisfaction). Even so, the evidence that bears on these assumptions is rather weak: An aggregate change in attitudes does not establish that officers whose attitudes changed also changed their behavior, nor does this research establish that attitudinal changes preceded behavioral changes.

Research on organizational change in policing has maintained that field supervisors are an important piece of the implementation puzzle. Several studies found that past failures of particular strategies and structural changes were partly due to a lack of support among patrol supervisors (Mark, 1976; Sherman et al., 1973; Walker, 1993). Researchers have also argued that successful implementation of community policing hinges on supervisors’ acceptance of the philosophical, structural, and policy changes that community policing entails (Bayley, 1994; Goldstein, 1990; Sparrow et al., 1990; Weisburd et al., 1988; Witte et al., 1990; Wycoff and Skogan, 1994). Supervisors mediate the communication of new expectations to officers and the application of those expectations to street practice. They can facilitate implementation in numerous ways, including using their influence to prompt officers to engage in problem-solving activities, providing the necessary organizational support, and exhorting officers to embrace the philosophy and practice of community policing.

One recent study (DeJong et al., 2001) examined the time that officers spend on problem-solving activities. Using POPN data to test hypotheses derived from expectancy motivation theory, these scholars estimated the effects of officers’ opportunities and abilities to engage in problem solving, their perceptions of departmental expectations for conducting problem solving, and the personal and organizational rewards of conducting problem solving. DeJong et al. found that officers with a specialized community policing assignment spent more time on problem solving, and officers who perceived that their supervisors expected them to work on reducing repeat calls for service also spent more time engaged in problem solving. Officers’ own views about problem solving, however, were unrelated to their behavior. Our analysis extends the work of DeJong et al. to include supervisors’ own goals, thereby treating as an empirical question the relationship between supervisors’ goals and officers’ perceptions of supervisors’ goals.
HYPOTHESES

Problem solving has been described as an activity in which police officers often engage at their own initiative, rather than in response to a specific directive such as a dispatched call (Goldstein, 1990). As a consequence, whether and to what extent officers engage in problem solving presumably would be affected by their attitudes toward problem solving and community policing. These attitudes may include whether problem solving is a legitimate element of the police role, the priority placed on problem solving relative to officers' other responsibilities, and officers' perceptions of the citizenry and beliefs about citizens' role in addressing public safety matters. We might further expect that supervisors who are favorable toward problem solving and who make it a high priority could to some degree impose their expectations on subordinate officers. Yet, insofar as problem solving does not reliably generate documentable outputs or results, we might also expect that supervisors would be hard-pressed to enforce their expectations, and that their influence on officers' problem solving could be quite modest.

We hypothesize, therefore, that officers' attitudes toward community policing and problem solving will have an effect—albeit an effect of modest magnitude—on their engagement in problem solving. As with attitude-behavior relationships more generally (see Ajzen and Fishbein, 1977:912), we expect that the strongest attitude-behavior relationships will be observed for attitudes that are more specific to problem solving. We also hypothesize that supervisors' attitudes toward and priorities for community policing and problem solving will affect officers' engagement in problem solving, and that these effects will be wholly or partially mediated by officers' perceptions of their supervisors' attitudes.

METHODS

DATA

We analyze data collected for the Project on Policing Neighborhoods (POPN), a multi-method study of police patrol in two police departments—the Indianapolis, Indiana Police Department (IPD), and the St. Petersburg, Florida Police Department (SPPD)—that were both in the process of implementing community policing. The core methodology was systematic social observation of patrol officers in the field. Trained observers accompanied officers during their entire work shifts and unobtrusively took brief field notes about police-citizen encounters and other activities in which officers engaged.3 Based on these field notes, observers

3. Observational data may be biased by reactivity: Officers might alter their normal patterns of behavior to more closely conform with what is socially desirable. Few
prepared narrative accounts of the events that they observed and also coded data about the police-citizen encounters and other activities of the officers. Encounters were defined as any event in which there was face-to-face communication between a police officer and a member of the public; the communication normally involved verbal exchanges, but could have involved only the use of force by police. "Activities," such as motor patrol or traffic surveillance, comprised the remainder of officers' time.

Fieldwork was conducted during the summer of 1996 in Indianapolis and the summer of 1997 in St. Petersburg. Observations were based on both spatial and temporal sampling: Observers accompanied officers who were assigned to selected beats on selected shifts. Twelve beats in each city were selected with reference to their scores on an index of socioeconomic distress, in order to obtain variation in service conditions for police. This index was based on the percentage of a beat's population that was below the poverty line, the percentage of the population that was unemployed, and the percent of female-headed households; sampled beats varied from somewhat below average to high socioeconomic distress. The samples of shifts in each beat represented all times of the day and all days of the week, matched (roughly) across beats, although shifts during which police are normally busier (i.e., evening shifts, and shifts on Thursdays through Sundays) were oversampled. A minimum of 28 shifts were observed in each of the 24 study beats, and in all, over 5,700 hours of observation were conducted across the two sites. In Indianapolis, 194 patrol officers and 58 patrol supervisors (sergeants and lieutenants) were observed during 336 and 87 shifts, respectively. In SPPD, 128 officers and 30 supervisors were observed during 360 and 72 shifts, respectively (see Mastrofski et al., 2000; Parks et al., 1999).

In addition to observation, interviews were completed with nearly all of the patrol officers in the two departments: 398 (93%) of IPD's officers and 240 (98%) of SPPD's officers. Interviews of similar design and content were completed with 69 of 74 patrol field supervisors (including 48 sergeants) in IPD and 37 patrol supervisors in SPPD (including all 28 sergeants). The interviews captured information on officers' personal efforts have been made to assess the degree and implications of reactivity in observational data, but they suggest that the validity of observational data is, in general, quite high (see Mastrofski and Parks, 1990), and that the relationships between several forms of behavior and other variables (such as characteristics of the situation) are not affected by reactivity (Worden, 1989). It is intuitively plausible that some forms of police behavior, such as the use of physical force, are more likely to be affected by the presence of an observer than other forms of behavior would be. But as Reiss (1971b:24) observes, even "the use of force . . . is situationally determined by other participants in the situation and by the officer's involvement in it, to such a degree that one must conclude the observer's presence had no effect" (also see Reiss, 1968a, 1968b). We would expect that other, less sensitive behaviors would be even less susceptible to reactivity.
characteristics, training and education, work experience, perceptions of their beats, attitudes toward the police role, and perceptions of their department's implementation of community policing and problem solving. Participation was voluntary, and each respondent was promised confidentiality.

Analyzing the influence of supervisors' attitudes and goals on patrol officers' behavior requires that we link observational and interview data on officers with interview data on their individual supervisors. Officers were not asked for the names of their direct supervisors in order to encourage candid responses to potentially sensitive items about the quality of supervision. Therefore, officers were matched with their direct sergeants through other information. For IPD, officers were matched with the sergeant assigned to the same district, shift, and work schedule. Of the 194 officers observed, 133 were also interviewed and matched with a sergeant who was also interviewed. For SPPD, officers were matched with the sergeant assigned to the same district, shift, and community policing area. Of the 128 officers observed in this department, 115 were interviewed and matched with a sergeant who was also interviewed.5 Five officers observed across 14 shifts were eliminated from the sample due to missing data on the survey. Therefore, the analyses that follow are based on interviews with 243 officers, observations of these officers during 577 shifts, and interviews with 70 sergeants.

THE POLICE DEPARTMENTS

The Indianapolis Police Department serves the city of Indianapolis, with an estimated population of 377,723 in 1995. At that time, the city included 39% minorities, 8% unemployed, 9% below the poverty level, and 17% female-headed households with children. The UCR Index crime rate in 1996 was 100 per 1,000 residents. During that year, the department employed 1,013 sworn officers, 17% of whom were female, 21% of whom were minorities, and 36% of whom had a four-year college degree (for details, see Mastrofski et al., 2000; Parks et al., 1999).

4. Fewer cases were eliminated from SPPD because it was easier to determine officers' direct sergeants in this department. In SPPD, each supervisor was assigned to a geographic area and was expected to supervise officers also assigned to that geographic area. In IPD, however, supervisor and officer pairings were based on work schedules. To ascertain officers' work schedules, a sample of daily log sheets was examined for multiple days throughout the study. These sheets indicated officers' "letter days" or their assigned days off duty. Supervisors and officers working the same district, shift, and work schedule were considered a match. If officers changed work schedules during the course of the summer, they were excluded from the analyses. Officers from both departments were also excluded if they were observed but not interviewed. Finally, officers were excluded if their direct sergeant was not interviewed.
IPD’s patrol division was divided geographically into four districts. Each district differed slightly in character, mission, and the emphasis placed on community policing. Three of the four patrol districts deployed community policing specialists in district teams, whose approach to problem solving differed slightly across districts (see DeJong et al., 2001). The chief of IPD and other top administrators stressed that the philosophy of community policing should guide the practices of all patrol officers. Although they emphasized a more aggressive order maintenance approach to community policing, which included traditional law enforcement activities to improve quality of life within neighborhoods, all officers were expected to participate in IMPACT, a program that provided for innovative problem solving (DeJong et al., 2001; Parks et al., 1999).

Supervisory structure and form also differed across IPD districts and shifts. Each sergeant’s work schedule was congruent with that of a group of patrol officers. Most sergeants, however, did not bear formal responsibility for individual officers. In practice, the division of supervisory labor was adapted to suit the particular needs of the individual sergeants and lieutenants in each district and on each shift. For example, supervisory responsibilities might be divided geographically, or they might be divided functionally. Hence, supervision in the IPD was, in effect, provided by an organizational work group rather than by individual supervisors to a group of individual officers for whom they were responsible. The exceptions to this rule were the specialized community policing units on the “day tact” shifts; officers working these shifts were directly supervised by one sergeant whose sole responsibility was to monitor and direct the activities of the officers in that unit. The ratio of sergeants to officers in IPD was 1 to 8.2.

St. Petersburg, Florida, with a population of 240,318 in 1995, is located at the southern tip of Pinellas County. In 1995, the city consisted of 24% minorities, 5% unemployed, 6% below the poverty level, and 10% female-headed households with children (Parks et al., 1999). The UCR Index crime rate (per 1,000 residents) was 99 in 1996. During that year, SPPD had 505 sworn officers, 13% of whom were women, 22% of whom were minorities, and 26% of whom had a four-year college degree (for details, see Mastrofski et al., 2000; Parks et al., 1999). SPPD stressed problem solving and geographic deployment of officers, and had “developed an international reputation as a leader” in these programs (Parks et al., 1999; also see Weiss, 1998). The department was divided into 3 districts and 48 community policing areas (CPAs), with at least one community policing officer (CPO) assigned to each area whose full-time responsibility was “resource management and facilitation.” CPOs were allowed to “flex” their schedules according to their personal needs and the needs of the community. These officers were freed from dispatched assignments and
were encouraged to apply innovative problem-solving tactics in their areas. In addition, CPOs were expected to become the main liaisons with neighborhood organizations. As in IPD, administrators of SPPD stressed that the philosophy of community policing and problem solving should guide the practices of all patrol officers (Parks et al., 1999).

The structure of supervision within SPPD had undergone tremendous change in the years prior to the study. At the time of POPN field research, supervision reflected a compromise between geographic deployment and a squad system. Sergeants were directly responsible for a “team” of officers on a particular shift working in a specific sector or geographic area (three sectors in each district). In addition, each sergeant had responsibility for one or more CPAs and the CPOs assigned to those areas within his/her sector. Sergeants were scheduled to work three 8-hour “temporal” shifts, and then “flex” their schedule for the remaining 16 hours each week. During a “temporal” shift, a sergeant was responsible for the direct supervision of all patrol officers working that shift for the entire district. During “flex” shifts, sergeants were expected to work on problem solving in their specific CPAs, supervise their community policing officers, and complete administrative paperwork. The ratio of sergeants to officers in SPPD was 1 to 8.9.

The differences between IPD’s and SPPD’s approaches to community policing and problem solving have been thoroughly described by DeJong et al. (2001). As they indicated, IPD committed a much smaller percentage of its patrol officers as community policing specialists (5%) than SPPD did (17%). Furthermore, specialists in IPD worked within distinct units, while SPPD specialists were more integrated into teams working with patrol generalists. IPD district commanders were more involved than their SPPD counterparts in setting priorities, while SPPD managers played a more supportive and facilitative role. Finally, problem-solving efforts in IPD focused on a narrower range of problems than those in SPPD.

MEASURES

PROBLEM SOLVING

Following Parks et al. (1999:498), problem solving is defined as “a
programmatic approach to identifying and understanding patterns of incidents as ‘problems,’ seeking solutions, and evaluating those solutions systematically and empirically.” Thus, we measure problem solving as the percent of an officer’s shift that was spent in encounters with citizens and other activities that were part of a long-term plan or project (that is, one developed prior to the observation session), or in which the officer: (1) tried to determine the nature, extent, or causes of a problem, (2) tried to prevent the occurrence or recurrence of a problem, or (3) communicated with representatives of citizen organizations or other service providers. As shown in Table 1, officers in this sample spent an average of 9.6% of their shifts engaged in problem-solving activities or encounters. There was some variation by department: officers from SPPD spent significantly more time per shift engaging in these activities (11.6%) than IPD officers (6.9%).

OFFICERS’ ATTITUDES

The POPN interview instrument enables us to measure seven attitudes concerning community policing and the police role more generally: orientations toward problem solving; priority for problem solving; orientations toward law enforcement, aggressive patrol, and order maintenance, respectively; officers’ distrust of citizens; and officers’ perceptions of citizens’ cooperation. The first two of these are fairly specific to problem solving, while the others are either more abstract in nature or pertain less immediately to problem solving. We form additive scales when multiple items measure one underlying construct, but for several attitudes, we use single-item indicators.

Officers’ orientations toward problem solving concern “the degree to which officers’ role conceptions encompass a responsibility for handling problematic conditions” (Paoline et al., 2000). Officers were asked how often patrol officers should be expected to do something about each of three kinds of potentially problematic conditions: litter and trash, parents who don’t control their kids, and nuisance businesses (1 = never, 2 = sometimes, 3 = much of the time, 4 = always). Principal components factor analysis confirms that these three items produce only one factor with an eigenvalue greater than one (explaining 55.0% of the variance), and the additive index has an alpha score of 0.59.

Officers’ priority for conducting problem solving is captured in a dichotomous measure. Officers were asked to identify, from among a set of seven listed goals, the two that they regarded as the most important for patrol officers, and the two that they regarded as least important. Four of the seven goals relate directly to community policing and problem solving: reducing repeat calls for service, reducing the level of public disorders, getting the public involved in improving their neighborhood, and reducing
the public’s fear of crime. Officers who identified two of these four goals as their most important are considered to place a high priority on problem solving.

Officers’ orientation toward law enforcement is described by Paoline et al. (2000:588) as “the priority that officers attach to the law-enforcement function.” Officers were asked to describe their agreement level with the statement “enforcing the law is by far a patrol officer’s most important responsibility” (1 = disagree strongly, 2 = disagree somewhat, 3 = agree somewhat, and 4 = agree strongly). Officers’ orientation toward aggressive enforcement concerns “the extent to which officers endorse a proactive style of patrol involving frequent stops and field interrogations” (Paoline et al., 2000:589), and it was measured based on their agreement with the statement “a good patrol officer is one who patrols aggressively by stopping cars, checking out people, running license checks, and so forth,” (1 = disagree strongly, 2 = disagree somewhat, 3 = agree somewhat, and 4 = agree strongly).

Officers’ orientation toward order maintenance involves “the degree to which officers include in their role conception a responsibility for handling routine order-maintenance situations” (Paoline et al., 2000). Officers were asked how often patrol officers should be expected to do something about each of three kinds of disorderly incidents: public nuisances, neighbor disputes, and family disputes (1 = never, 2 = sometimes, 3 = much of the time, 4 = always). Principal components factor analysis confirms that these three items load on one factor (explaining 62.1% of the variance) and have an alpha score of 0.69.

Following Paoline et al. (2000), we also examine two distinct beliefs about citizens: officers’ distrust of citizens, and officers’ perceptions of citizens’ cooperation. Our measure of the former is based on officers’ agreement with the statement “police officers have reason to be distrustful of most citizens” (1 = disagree strongly, 2 = disagree somewhat, 3 = agree somewhat, and 4 = agree strongly).

6. The other three goals were: handling the calls in their assigned area; making arrests and issuing citations; and seizing drugs, guns, and other contraband.
7. Although a previous analysis of these data (Paoline et al., 2000) conceptualized officers’ orientations toward order maintenance and problem solving (labeled order maintenance and community policing, respectively) as conceptually distinct, one might instead assume that officers’ responses to both incidents and their underlying conditions might be considered orientations toward community policing more broadly. When included in an additive index, each of these six items—officers’ expectations to do something about litter and trash, parents who don’t control their kids, nuisance businesses, public nuisances, neighbor disputes, and family disputes—load on one factor using principal components factor analysis (explaining 44.8% of the variance), with an alpha score of 0.75. The inclusion of officers’ orientations toward community policing as a single measure does not significantly alter the results from analyses reported in the text.
somewhat, and 4 = agree strongly). The latter is measured with an additive index, including responses to the following three questions: (1) How many of the citizens in your beat would call the police if they saw something suspicious? (2) How many of the citizens in your beat would provide information about a crime if they knew something and were asked about it by police? (3) How many citizens in your beat are willing to work with the police to try to solve neighborhood problems? (1 = none, 2 = few, 3 = some, and 4 = most). Principal components factor analysis confirms that these three items load on only one factor (explaining 67.1% of the variance) and have an alpha coefficient of 0.75.

OFFICERS' CHARACTERISTICS

We also include in our analysis characteristics of officers, including their race, sex, length of service, education, assignment (as community policing specialists or patrol generalists), training in and self-assessed knowledge of community policing philosophy and concepts, and career aspirations. Each of these characteristics bears an a priori association with occupational attitudes (see Paoline et al., 2000), and we therefore treat these variables as proxies for attitudes of which our measures are imperfect. Sex and race are measured as dichotomous variables (1 = male and white, respectively). Officers' education, also measured as a dichotomous variable, captures whether officers have a four-year college degree. Officers' length of service with their department is measured in years. A dichotomous variable measures patrol officers' assignment as community policing officer or 911 responder. The amount of training officers received on the concepts and principles of community policing is measured on a five-point scale (1 = no training; 2 = less than one day; 3 = one to two days, 4 = three to five days, and 5 = more than five days). Officers' self-assessed knowledge of community policing concepts and principles is tapped in a dichotomous variable (1 = "very" knowledgeable). Finally, officers' career aspirations are measured as an additive index based on two items: respondents' reported importance of getting promoted and reported importance of moving from patrol to a specialized unit (1 = very unimportant, 2 = somewhat unimportant, 3 = somewhat important, 4 = very important).

OFFICERS' PERCEPTIONS OF SUPERVISORS' PRIORITIES

Officers were also asked to identify, from among the same set of seven goals described above, the two that they believed their immediate supervisor regarded as the most important, and the two that they believed their immediate supervisor regarded as least important for patrol officers. Officers who identified two of the four community-policing goals as their
supervisors' most important goals are considered to believe their supervisors place a high priority on problem solving.

SUPERVISORS' ATTITUDES

We include in our analyses supervisors' attitudes toward community policing and problem solving on the assumption that the mechanisms of supervisory influence are not captured entirely in our measure of officers' perceptions of their supervisors' priorities. Supervisors' attitudes might be communicated to officers as expectations in a variety of ways. Our measures of these attitudes (see Table 1) parallel those of officers' attitudes, described above, with but one exception: The supervisor interview instrument did not include items about citizens' cooperation. The indices that measure supervisors' orientations to order maintenance and to problem solving have an alpha reliability of 0.74 and 0.72, respectively.8

SUPERVISORS' CHARACTERISTICS

Our analyses also include supervisors' characteristics: sex, race, length of supervisory experience, training, and self-reported knowledge in the principles of community policing. Supervisors' characteristics, like those of officers, might be expected to bear relationships to their occupational attitudes. Therefore, these variables are also considered proxies for attitudes. In addition, some research has speculated that supervisors' characteristics have an influence on patrol officer behavior (Engel, 2000, 2002; Van Maanen, 1983, 1984). All of the measures of supervisors' characteristics parallel those of corresponding officers' characteristics described previously; supervisory experience is measured in years of experience as a supervisor.

SHIFT CHARACTERISTICS

In the analyses that follow, characteristics of the shift are included as controls for officers' opportunities to engage in problem solving. Two separate dichotomous measures capture the time of the shift—day or evening—with the overnight shift as the omitted category. A dichotomous variable also measures the department (SPPD or IPD). Following Reisig and Parks (2000), the "concentrated disadvantage" (Sampson et al., 1997)

---

8. Again, these items were also combined into one additive index measuring an orientation toward community policing defined more broadly. Principal components factor analysis shows that these six items load on two factors (five items load heavily on one factor, while the remaining item loads heavily on the second factor), but have an alpha reliability coefficient score of 0.78. The inclusion of supervisors' orientations toward community policing as a single measure does not significantly alter the results from analyses reported in the text.
of officers’ assigned beats is a four-item weighted factor score (eigenvalue \( = 2.75 \), factor loadings > .75), which includes percent of the population below the poverty line, percent unemployed, percent female-headed households, and percent black. Finally, to control for the amount of time that officers have available to conduct community policing and problem-solving activities, the percentage of discretionary time during a shift (i.e., time not assigned by a dispatcher, citizen, or another officer) was measured as a continuous variable.

**ANALYSES AND RESULTS**

In order to simultaneously examine the influence of officers’ and supervisors’ attitudes on problem-solving behavior, two separate three-level hierarchical linear models are estimated (Bryk and Raudenbush, 1992; Raudenbush et al., 2000). The POPN data are hierarchical in nature, nested within three levels. The first level is that of the shift (or ride), of which 577 were observed. The second level (within which the first is nested) includes 243 officers who were observed during these shifts. The third level (within which both the first and second are nested) includes 70 patrol sergeants who were responsible for supervising each officer included in the analyses. Given the inherent hierarchical structure of the POPN data, estimating hierarchical linear models is the most appropriate statistical method because standard regression techniques violate the assumption of independent observations. That is, ignoring the nested structure of multilevel data can lead to biased standard errors and false tests of statistical significance (Bryk and Raudenbush, 1992).

The dependent variable—percentage of time per shift spent conducting problem-solving activities—is highly skewed; officers spent no time on problem-solving activities during a large proportion of shifts (26%). Kolmogorov-Smirnov tests confirm that this variable is not normally distributed \( (p = .000) \). This skewed distribution is similar to those associated with count variables—nonnegative integers that measure relatively rare events (Liao, 1994; Raudenbush et al., 2000). Therefore, the dependent variable is treated as a count variable and two separate three-level hierarchical overdispersed Poisson sampling models are estimated (Liao, 1994; Raudenbush et al., 2000). The first analysis is a three-level, unit-specific hierarchical model examining shift- and officer-level data. The second
<table>
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<tr>
<th>Variables</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard Deviation</th>
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<td>Distrust of citizens</td>
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analysis is a three-level, unit-specific model that adds supervisor data. The analyses were designed to estimate the effects of officers' attitudes, officers' perceptions of supervisors' attitudes/expectations, and supervisors' attitudes/expectations on officers' problem-solving behavior. The regression coefficients, standard errors, and p-values for the first analysis are presented in Table 2, model A. At the shift level, only one variable (percent of discretionary time per shift) is a significant predictor of the percent of time per shift that officers engage in problem-solving activities and encounters. The results show that discretionary time is inversely related to time spent on problem solving; this counterintuitive finding was also reported by DeJong et al. (2001). Two null findings are also somewhat surprising: Neither shift assignment nor the characteristics of the assigned beat have a significant effect on the amount of time officers spend engaged in problem-solving activities.

At the officer level, officers' perceptions of supervisors' priorities affect the time that they spend on problem solving. The percentage of a shift devoted to problem solving is 1.6 times greater for officers who perceive that their supervisors place a priority on problem solving. In addition, female officers and officers with fewer years of experience spent significantly more time conducting problem solving. In this model, officers' attitudes all have small and statistically nonsignificant effects on their behavior. Together, the variables in this model explain 64% of the variance between officers.

Model B tests the influence of supervisors' attitudes on officers' behavior. The Poisson regression coefficients, standard errors, and p-values for the three-level, unit-specific, overdispersed model are displayed in Table 2, model B. At the shift level, the effects of two variables (department and
percent discretionary time) reach statistical significance. At the officer level, as in model A, officer gender and length of service are significant predictors of the time officers spend conducting problem-solving activities. As before, none of the officer attitudes are significant predictors of time spent conducting problem solving. However, officers' perceptions of their supervisors' priorities for problem solving remain significant. The percentage of time per shift officers engage in problem-solving activities is 1.4 times greater for officers who perceive that their supervisors' most important goals include problem solving.

Finally, at the supervisor level, only one supervisor attitude—orientation toward aggressive enforcement—significantly predicts officers' behavior. Officers whose supervisors have a stronger orientation toward aggressive enforcement spend significantly less time per shift engaging in problem-solving activities. Specifically, the percentage of time per shift officers spent conducting problem-solving activities is 1.4 times lower if their supervisors have a positive orientation toward aggressive enforcement. In addition, officers with female supervisors spend significantly more time conducting problem-solving activities. The full model explains 75% of the variance between officers, while explaining nearly all of the variance (99%) at level three.¹³

One might speculate that the degree of supervisory influence on officer behavior would vary across police departments. Officers in SPPD were held directly accountable to specific supervisors, while officers in IPD were held accountable through more collective forms of supervision, so it is plausible that supervisors in SPPD would have a stronger influence over the amount of time their officers engaged in problem solving. The results of separate regression analyses (not displayed in tabular form) show few differences across departments.¹⁴ As with the full sample, a handful of officers' characteristics were significant predictors of officers' behavior in

¹³. This near-perfect explained variance exists, in part, because of the limited amount of variance at level three to explain initially.

¹⁴. Due to the smaller sample sizes, the three-level hierarchical linear models would not converge, so nonhierarchical regression analyses were performed on the logarithmic transformation of the dependent variable. The coefficients for these separate equations were compared through the use of the following formula:

\[ z = \frac{(b_1 - b_2)}{\sqrt{S.E. b_1^2 + S.E. b_2^2}} \]

where \( b_1 \) = unstandardized coefficient for SPPD, \( b_2 \) = unstandardized coefficient for IPD, and S.E. = standard error. (For details regarding this technique, see Paternoster et al., 1998). The results show that four sets of coefficients across the two departments were significantly different from one another (\( p \leq .05 \): officer education, officer assignment as a community policing officer, officers' orientation toward problem solving, and the amount of training officers had received in community policing principles. However, only one of these coefficients—officer assignment—was a significant predictor of
Table 2. Three-Level Hierarchical Linear Poisson Regression Models Predicting Time Officers Spend Conducting Problem-Solving Activities and Encounters

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model A</th>
<th>Model B</th>
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<td></td>
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<tr>
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<tr>
<td>Department (SPPD=1)</td>
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<td>.06</td>
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<td>.00</td>
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<td>.01</td>
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</tr>
<tr>
<td>Between officers (level 2)</td>
<td>.118</td>
<td>64%</td>
</tr>
<tr>
<td>Between officers and supervisors (level 3)</td>
<td>.098</td>
<td>13%</td>
</tr>
</tbody>
</table>

**NOTE:** Entries are unstandardized coefficients and standard errors for the unit-specific model.

*p ≤ .05; **p ≤ .01; ***p ≤ .001.

VC = variance component of the intercept; VE = variance explained.
each department; however, no officer attitudes had a statistically significant effect in either department. In addition, no supervisor characteristics or attitudes were statistically significant for either department.

Findings from the full analysis indicate that officers’ perceptions of their supervisors’ priorities for problem solving have a stronger influence over their behavior than either their own priorities or their supervisors’ (actual) priorities for problem solving. One might suppose that officers’ perceptions of their supervisors’ priorities mediate the effect of supervisors’ priorities on officers’ behavior, but as shown in Table 3, officers’ perceptions of their supervisors’ goals bear a weak relationship to their supervisors’ stated goals (r = .03). Of the 51 officers whose supervisors reported that their most important goals included two of the four community policing and problem-solving goals described previously, only 10 officers (19.6%) identified any two of these as their supervisors’ most important goals. Thirty-two of the remaining 192 officers (16.7%) incorrectly perceived that two of these four goals were their supervisors’ most important goals.

Interestingly, however, officers’ perceptions of their supervisors’ priorities correspond very strongly with their own reported priorities (Pearson’s r = 0.50). Specifically, 86% of officers indicated that their supervisors’ priorities for problem solving were the same as their own priorities. Of the 35 officers who reported that problem solving was an important priority to them, 22 officers (63%) reported that this was also an important goal of their supervisors. Only 2 officers (5.7%), however, had supervisors who reported that problem solving was a priority. Likewise, of the 208 officers who reported that problem solving was not a priority to them, only 20 officers (9.6%) believed problem solving was an important priority for their supervisors; however, 49 officers (23.5%) had supervisors who reported that problem solving was a priority. These findings are consistent with other literature that suggests that individuals perceive others’ attitudes to be similar to their own (Felson, 1985, 1993; Jussim and Osgood, 1989).

Moreover, officers’ perceptions of their supervisors’ priorities mediate the effect of officers’ own priorities on their behavior. To examine whether officers’ attitudes were being suppressed by their perceptions of their supervisors’ expectations, we estimated model B in Table 2 without the percentage of time spent engaging in problem solving. In IPD, officers with a community policing assignment spent significantly more time conducting problem-solving activities ($b = 1.56; S.E. = 0.69$).

15. In IPD, female officers, officers with community policing assignments, and officers with less training in community policing philosophies spent significantly more time conducting problem-solving activities and encounters. In SPPD, significantly more time was spent engaging in problem solving during the day, by female officers, and by officers with less experience.
officers' perceptions of their supervisors' expectations. Results (not displayed in tabular form) show that when officers' perceptions of their supervisors' priorities for problem solving are omitted, officers' own priorities for problem solving have a statistically significant effect on the time that they spend on problem-solving activities ($b = 0.37; \text{S.E.} = 0.16$). However, none of the effects of other officer attitudes achieves significance in this model.

We would add that officers' priorities for conducting problem solving are significantly—but negatively—correlated with their supervisors' priorities for conducting problem solving, while officers' other attitudes toward community policing and problem solving, and toward the police role more generally, correlate very weakly with their supervisors' attitudes (see Table 3). The discrepancy between officers' and supervisors' reported priorities for conducting problem solving are greater in IPD than in SPDP. (IPD officers and supervisors do, however, share attitudes of distrust toward citizens.) We might infer that supervisors have not influenced officers' behavior by imparting their own priorities to their subordinates.

Further analyses (not shown in tabular form) indicate that some supervisors are more successful than others in communicating their priorities to their subordinates. Of the 70 sergeants originally included in the analyses, 58 directly supervised more than one officer in the sample. Forty percent of those supervisors placed a priority on problem solving that was correctly identified by all of their subordinates in the sample, while the priorities of 16% were correctly identified by none of their officers. Thus, the subordinates of many supervisors all agreed about their supervisors' priorities for problem solving, although in some cases, this consensus among subordinates was mistaken. This suggests that much of the miscommunication of supervisors' expectations stems from supervisors' behavior, rather than from officers' interpretations.

The supervisors who were able to accurately communicate their preferences to all of their officers did not differ from others by sex, race, experience, training, or reported knowledge of community policing principles. The only distinguishing trait of these supervisors was the message they were communicating. Of the 15 supervisors who reported that problem solving was a high priority for them, and who supervised more than one officer in the sample, only 1 (6.7%) was able to accurately communicate this priority to all of his/her officers. Furthermore, 60% of these 15 supervisors were unable to communicate this message to any of their officers. Unfortunately, it is not known how supervisors communicate these priorities to officers, nor how officers form their perceptions of their supervisors' expectations.
### Table 3. POPN (1996–1997) Correlation of Officers' Attitudes with Their Supervisors' Attitudes

<table>
<thead>
<tr>
<th>Officers' and Supervisors' Attitudes:</th>
<th>IPD AND SPPD (N = 243 officers)</th>
<th>IPD (32 officers)</th>
<th>SPPD (N = 111 officers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientations toward problem solving</td>
<td>-.02</td>
<td>.00</td>
<td>.02</td>
</tr>
<tr>
<td>Priorities for conducting problem solving</td>
<td>-.15*</td>
<td>.05</td>
<td>.09</td>
</tr>
<tr>
<td>Orientations toward law enforcement</td>
<td>.08</td>
<td>.02</td>
<td>.02</td>
</tr>
<tr>
<td>Orientations toward aggressive enforcement</td>
<td>-.04</td>
<td>.08</td>
<td>.05</td>
</tr>
<tr>
<td>Orientations toward order maintenance</td>
<td>.03</td>
<td>.01</td>
<td>.06</td>
</tr>
<tr>
<td>Distrust of citizens</td>
<td>.14*</td>
<td>.21*</td>
<td>.06</td>
</tr>
<tr>
<td>Officers' perception of problem solving as supervisors' priority</td>
<td>.03</td>
<td>13</td>
<td>.06</td>
</tr>
<tr>
<td>Officers' perception of problem solving as supervisors' priority</td>
<td>.50***</td>
<td>.29**</td>
<td>.61***</td>
</tr>
</tbody>
</table>

**NOTE:** Entries are Pearson's R correlation coefficients.

* *p ≤ .05; **p ≤ .01; ***p ≤ .001

### Discussion

Our analysis of the time that patrol officers spend conducting problem-solving activities is consistent with the findings of most previous research that officers' behavior is only weakly related, if at all, to their occupational attitudes. Previous research has examined police dispositions of disputes and traffic stops, and officers' responses to domestic violence. Research has also examined the frequency with which police make traffic stops and suspicion stops, and officers' arrests for driving under the influence. All of these are well-established domains of police work, in which most analyses have found weak or null attitude-behavior relationships. One exception is the analysis by Brehm and Gates (1993), which found that officers who dislike features of their job and are satisfied with their supervisors tend to "goof off" more, while officers who like their colleagues tend to "goof off" less. Hence, it appears that variation in how officers do their jobs is not congruent with their occupational attitudes, while variation in how much officers do their jobs is related to their attitudes.
The findings of previous research notwithstanding, one might expect that the officers whose occupational attitudes are the most compatible with problem solving and community policing would be more likely to embrace the practice of problem solving, which represents a substantial departure from widely accepted police practice. Yet for the most part, these expected relationships do not hold. Officers who adopt goals of community policing and problem solving as their most important goals tend to perceive these as their supervisors' goals also, and they tend to spend more time engaged in problem-solving activities. Otherwise, however, the time that officers devote to problem solving is unrelated to their attitudes, and it is also unrelated to their training in community policing, assignment as a community policing officer, self-assessed knowledge of community policing, and perceptions of the levels of cooperation from the residents of their beats.16

These mostly null attitude-behavior relationships could be due to situational pressures that originate in the police organization. In both departments, survey respondents indicated that the organization had only partially succeeded in providing time, information, and rewards for problem solving (see Paoline et al., 2000:587–588), and in both departments, observed officers typically devoted a small fraction of their time to problem solving. The limited organizational support can and should be understood as situational pressures that attenuate attitude-behavior relationships. Even officers who are enthusiastic adherents to a philosophy of community policing will seldom practice it if they do not have the organizational support they need, or if they face organizational impediments. It is also possible that attitude-behavior congruence in this domain of police work is undermined by uncertainty and ambiguity about the

16. The finding that officers' assignment is not a significant predictor of the time they spend conducting problem solving is contrary to the finding reported by DeJong et al. (1999) using POPN data. The difference in these results may be due to the use of slightly different samples. (DeJong et al. analyzed 614 shifts compared to the 577 shifts we were able to analyze due to missing data related to the matching of officers with supervisors), the use of different analytical techniques (DeJong et al. estimated an ordinary least-squares regression model, while we have estimated a three-level hierarchical Poisson model), or different model specifications (DeJong et al. examined several officer attitudes that we have not, while we have examined several officer characteristics, along with supervisors' characteristics and attitudes that were not included in their models). We should note that the use of a three-level hierarchical model makes a different and more elaborate adjustment for patterns of dependence among observations, giving less weight to multiple officers from the same supervisor and more weight to differences between supervisors. In IPD, community policing officers were assigned to a single supervisor in each district. In contrast, SPPD community policing officers were assigned to many different supervisors. When our models were analyzed separately for each department using ordinary least-squares regression, the coefficient for community policing assignment was statistically significant for IPD.
nature of problem solving. Even officers who are favorably disposed toward community policing and problem solving may be unsure how to proceed, and even those with training in concepts and principles may be ill-prepared to practice problem solving. It is, we believe, quite telling that the officers for whom problem solving is a high priority spend more time on problem solving to the extent that they perceive—in many instances erroneously—it is a priority for their supervisors.

This analysis also shows that the time officers spend on problem-solving activities is subject to modest, but negative, supervisory influence. In particular, officers whose supervisors are strongly oriented toward aggressive patrol spend less time on problem solving. It appears that supervisors who espouse an aggressive patrol style discourage problem solving, either overtly or implicitly, by encouraging their subordinates to make arrests and issue citations, or seize drugs, guns, or other contraband, so that less time is available for problem solving, as they work to meet a different set of supervisory expectations.

Officers' and supervisors' gender affects the time that officers spent conducting problem-solving activities. Specifically, the percentage of a shift devoted to problem solving was 1.6 times greater for female officers, and 1.4 times greater for officers with a female supervisor. Although some researchers have speculated that male officers behave differently than female officers due to cultural influences, most studies have reported that female officers behave similarly to males (for review, see Riksheim and Chermak, 1993), and that female officers' attitudes do not differ significantly from males (Worden, 1993). In IPD and SPPD, female officers were significantly less likely than male officers to report that problem solving was a priority (12.1% compared to 27.8%, respectively), but female supervisors did not differ from male supervisors in their priorities for problem solving or their abilities to communicate their priorities. However, further analyses reveal that female officers were better at accurately interpreting their supervisors' priorities for problem solving: the correlation between officers' perceptions of their supervisors' priorities for problem solving, and their supervisors' actual priorities for problem solving was 0.24 for female officers, but –0.01 for male officers. These findings are consistent with other analyses of POPN data that found that female supervisors had different supervisory styles compared to male supervisors (Engel, 2001).

Otherwise, and perhaps more remarkably, supervisory influence is negligible, in that officers whose supervisors espouse community policing and

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17. In general, it is expected that male officers will exhibit higher levels of aggression and coercive behavior than will their female counterparts (for review see Martin and Jurik, 1996; Mastrofski et al., 2000; Worden, 1993).
problem-solving goals engage in no more problem solving than other officers. Interestingly, however, this appears to be due not simply to their subordinates' resistance, but rather to a failure of these supervisors to communicate their expectations, inspire their subordinates to practice problem solving, and facilitate their efforts to do so. Officers who believe that their supervisors espouse goals that are problem-oriented spend more time on problem solving, but officers' perceptions of their supervisors' goals did not correspond to supervisors' actual goals. Establishing priorities is a challenge, particularly in the community era, as calls for service must be handled, and pressure for documentable outputs (such as arrests) with which to demonstrate the agency's productivity remains.

These results raise important questions for future research. Researchers have speculated that as police organizations place greater emphasis on the goals of community-oriented policing and problem solving, the role of patrol supervisors will evolve into one encouraging a "softer" management approach. Supervisors are expected to communicate goals of problem solving by coaching and mentoring officers (Goldstein, 1990). As transformational leaders, patrol supervisors are expected to communicate their priorities with less reliance on their formal authority. This research suggests, however, that supervisors who embrace priorities of problem solving have been unable to effectively communicate these goals to their officers. This finding is also consistent with Engel's (2002) finding that supervisors classified as having "innovative" supervisory styles did not have a significant influence over officers' behavior. Unfortunately, we do not know how supervisors communicate—and miscommunicate—their goals and priorities to subordinate officers, nor do we know how officers form their perceptions of their supervisors' expectations. Furthermore, we do not know whether supervisors induce officers to meet those goals, or whether it is sufficient for them simply to articulate the goals. These are all directions for future research.

These findings have important policy implications regarding the potential influence and limitations of supervisors in the implementation of policies at the street level. Goldstein (1990:157) has suggested that "however strongly the head of an agency may elicit a different style of policing, the quality of an officer's daily life is heavily dependent on how well the officer satisfies the expectations and demands of his or her immediate supervisor." Yet, one of the problems, it appears, is that supervisors' priorities for problem solving are not being effectively communicated to officers. In the absence of clearly communicated goals and directives, officers appear to substitute their own priorities for those of their supervisors. This is an impediment to implementation, because as other research has demonstrated, patrol officers have more negative attitudes toward
problem solving and community policing than officers of higher ranks (Lurigio and Skogan, 1994; Rosenbaum et al., 1994; Skogan et al., 1999).

Although it would seem sensible to believe that police executives would need to "win the hearts and minds of officers" in order to foster change at the street level, the present findings suggest that attitudinal changes alone will likely not influence officers' behavior. Police administrators are more likely to have an influence over officers' behavior by training and encouraging their supervisors to effectively communicate their priorities for problem solving and community policing. For initiatives that represent a departure from past practices, such as community policing and problem solving, it may also require extraordinary communication efforts to overcome potential department cultural inertia.

REFERENCES

Ajzen, Icek and Martin Fishbein

Allen, David N.

Allen, David N. and Michael G. Maxfield

Bass, Bernard M.

Bass, Bernard M. and Bruce J. Avolio

Bayley, David H.

Bittner, Egon
Brehm, John and Scott Gates

Broderick, John J.

Brown, Michael K.

Bryk, Anthony S. and Stephen W. Raudenbush

Burns, James M.

Cordner, Gary W.

DeJong, Christina, Stephen D. Mastrofski, and Roger B. Parks

Downton, James V.

Engel, Robin Shepard

Felson, Richard B.

Gates, Scott and Robert E. Worden

Goldstein, Herman

Hayeslip, David W. and Gary W. Cordner
Jussim, Lee and D. Wayne Osgood  

Liao, Tim Futing  

Lurigio, Arthur J. and Dennis P. Rosenbaum  

Lurigio, Arthur J. and Wesley G. Skogan  

Manning, Peter K.  

Mark, Jack A.  

Martin, Susan E. and Nancy C. Jurik  

Mastrofski, Stephen D., and Roger B. Parks  

Mastrofski, Stephen D., R. Richard Ritti, and Jeffrey B. Snipes  

Mastrofski, Stephen D., Robert E. Worden, and Jeffrey B. Snipes  

Mastrofski, Stephen D., Jeffrey B. Snipes, Roger B. Parks, and Christopher D. Maxwell  

Maxfield, Michael G., David N. Allen, and George E. Antunes  
1981 The role of street-level supervisors in police patrol operations. Paper delivered at the Annual Meeting of the American Society of Criminology, Washington, D.C.

McElroy, Jerome E., Colleen A. Cosgrove, and Susan Sadd  
Meyers, Allan R., Timothy Heeren, and Ralph Hingson

Miller, Gary J.

Moe, Terry M.

Muir, William Ker, Jr.

Niederhoffer, Arthur

Paoline, Eugene A., III, Stephanie M. Myers, and Robert E. Worden

Parks, Roger B., Stephen D. Mastrofski, Christina DeJong, and M. Kevin Gray
1999  How officers spend their time with the community. Justice Quarterly 16:483–518.

Pate, Anthony M. and P. Shtull

Paternoster, Raymond, Robert Brame, Paul Mazerolle, and Alex Piquero

Prottas, Jeffrey M.

Raudenbush, Stephen W., Anthony S. Bryk, Yuk Fai Cheong, and Richard T. Congdon

Redford, Emmette S.

Reisig, Michael D. and Roger B. Parks

Reiss, Albert J.
1971a  The Police and the Public. New Haven, Conn.: Yale University Press.

Riksheim, Eric C. and Steven M. Chermak

Rosenbaum, Dennis P., Sandy Yeh, and Deanna L. Wilkinson

Rubinstein, Jonathan

Sampson, Robert J., Stephen W. Raudenbush, and Felton Earls

Schuman, Howard and Michael P. Johnson

Sherman, Lawrence W., Catherine H. Milton, and Thomas V. Kelly

Skogan, Wesley G. and Susan M. Hartnett

Skogan, Wesley, Susan M. Hartnett, Jill DuBois, Jennifer T. Comey, Marianne Kaiser, and Justine H. Lovig

Skolnick, Jerome H.

Smith, Douglas A.

Smith, Douglas A. and Jody R. Klein


Sparrow, Malcolm K., Mark H. Moore, and David M. Kennedy

Stith, Sandra M.

Terrill, William and Stephen D. Mastrofski

Thompson, James D.
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Tifft, Larry L.

Van Maanen, John

Walker, Samuel

Waterman, Richard W. and Kenneth J. Meier

Weinstein, Alan G.

Weisburd, David, Jerome McElroy, and Patricia Hardymann

Weiss, Alexander

Whitaker, Gordon P.

White, Susan O.

Wilson, James Q.

Witte, Jeffrey H., Lawrence F. Travis III, and Robert H. Langworthy

Worden, Alissa Pollitz

Worden, Robert E.

Wycoff, Mary Ann and Wesley G. Skogan

Robin Shepard Engel is Associate Professor of Criminal Justice at the University of Cincinnati, and Research Affiliate of the Population Research Institute at The Pennsylvania State University. Her research involves theoretical and empirical explorations of police supervision, patrol officers' behavior, police response toward problem citizens, and criminal justice theory more generally. She is currently engaged in the collection and analysis of police-citizen contact data during all traffic stops for the Pennsylvania State Police. Recent research has appeared in Criminology, Justice Quarterly, and the Journal of Criminal Justice.

Robert E. Worden is Associate Professor of Criminal Justice and Public Policy at the State University of New York at Albany. His research interests revolve mainly around the accountability and responsiveness of the police to the public. He is currently conducting research on citizen oversight of the police, and on individual officers' patterns of complaints and other indicators of misconduct over time. His previous research has appeared in Law & Society Review, Criminology, Justice Quarterly, and other journals.