Patrol officer supervision in the community policing era

Robin Shepard Engel *

Crime, Law and Justice Program, Department of Sociology, The Pennsylvania State University, 1013 Oswald Tower, University Park, PA 16802, USA

Abstract

Scholars have speculated that in an era of community policing, the role of first-line patrol supervisors has changed. Given this change, can patrol supervisors effectively influence their officers' behavior? This question is addressed by examining data collected for the Project on Policing Neighborhoods (POPN), a systematic observational study of patrol officers and first-line supervisors in two metropolitan police departments in 1996-1997. Using four distinct supervisory styles created through factor analysis of attitudinal constructs identified in the management and policing literatures, the influence of different supervisory styles over the time officers spend per shift conducting particular types of activities and encounters is assessed. Findings from multivariate analyses show that officers with "active" supervisors spent significantly more time per shift engaging in self-initiated and community-policing/problem-solving activities, while officers with "innovative" supervisors spent significantly more time engaging in administrative tasks. Implications for policy and future research are explored. © 2002 Elsevier Science Ltd. All rights reserved.

Introduction

Many scholars have described the changing philosophies, goals, and strategies of modern American police departments. Although considerable debate exists regarding the definition, implementation, and effectiveness of community-oriented policing, it is clear that many departments are implementing innovative strategies to achieve their goals of building community relations and attending to quality of life issues, minor crimes, and public disorders, (Bayley, 1994; Goldstein, 1990; Kelling & Moore, 1988; Mastrofski, Worden, & Snipes, 1995; Skolnick & Bayley, 1986). It has been suggested that these changes in police organizations must be accompanied by changes in the roles of both patrol officers and first-line supervisors. Although changes in the roles and activities of patrol officers have received considerable research attention, little is known about changes in first-line supervision. Despite scholars' speculations regarding the changes in supervisors' roles, few empirical studies have explored these changes. Furthermore, no research has examined the influence of supervisors' role changes on subordinate behavior.

The following research seeks to address some of the remaining questions surrounding police supervision in an era of community policing. Using four supervisory styles identified in earlier research (Engel, 2001), the varying influences of supervisory styles on subordinates' behavior are examined. Specifically, the influence of supervisors described as "innovative" is compared to the influence of other supervisory styles. The findings show that while one supervisory style does have an important influence over the amount of time officers spend on police-initiated activities and community-policing and problem-solving activities, it is not the "innovative" supervisor as hypothesized.
The implications of these and other findings for policy and future research are discussed.

The evolving role of first-line patrol supervisors

Prior to the community era in policing, patrol field supervisors were described as performing traditional roles of supervision. They were expected by their superiors to monitor subordinate officers' activities and enforce departmental rules and regulations (Manning, 1977; Van Maanen, 1983). Furthermore, supervisors were expected to disseminate information both up and down the chain of command in organizations that were traditionally para-militaristic, hierarchical, and bureaucratic (Trojanowicz, 1980). Subordinate officers expected their supervisors to provide a buffer from higher levels of management; supervisors who protected their subordinates from criticism or punishment were especially respected by lower ranking officers (Rubinstein, 1973; Van Maanen, 1983). These traditional models of supervision were based on the exchange of favors between subordinate officers and their supervisors through a system of contingent rewards and punishments (Allen & Maxfield, 1983; Rubinstein, 1973; Van Maanen, 1983). The ultimate goal for supervisors during this era of policing was to control subordinate behavior.

This supervisory role of controlling subordinate behavior is similar to "transactional" leadership. 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 (Bass, 1985; Burns, 1978; Downton, 1973).

As police organizations have evolved and greater stress has been placed on the goals of community-oriented policing and problem solving, scholars have speculated about the changing role for patrol supervisors (Goldstein, 1990; Van Maanen, 1983; Weisburd, McElroy, & Hardymann, 1988; Witte, Travis, & Langworthy, 1990; Wycoff & Skogan, 1994). Scholars now stress the role of the field supervisor as a coach and mentor for subordinate officers (Goldstein, 1990). Under the principles of community-oriented policing, patrol officers are afforded more discretion and are encouraged to develop creative problem-solving approaches. Supervisors can facilitate this transition in objectives by encouraging team building, raising morale, and emphasizing their role as a coach and mentor. Consequently, supervisors are expected to rely less on their formal authority. The ultimate goal for supervisors in this environment is to develop subordinates by emphasizing problem-solving skills, sound judgement, and creativity.

This role is similar to that of the "transformational" leader articulated by Bass and Avolio (1994). Leaders with a transformational style "stimulate interest among colleagues and followers to view their work from new perspectives, generate awareness of the mission or vision of the team and organization, develop colleagues and followers to higher levels of ability and potential, and motivate colleagues and followers to look beyond their own interests toward those that will benefit the group" (Bass & Avolio, 1994, p. 2). Transformational leadership is believed to do more than establish exchanges between supervisors and subordinates; it is based on idealized influence (leader as a role model), inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994).

Several scholars have noted variation in supervisors' willingness to embrace changes in their roles and encourage changes within their organizations. Cohen (1980) depicted the transition of the New York Police Department in the late 1970s from a primarily traditional department to a reform-oriented department that emphasized professionalism. Based on interviews with commanding officers, he reported two dominant styles of leadership: traditional-oriented and reform-oriented. These two types of leaders differed significantly in their willingness to support reforms proposed by the administration.

Other scholars have noted variations in resistance toward more recent reform efforts among supervisors. Van Maanen (1983) proposed that sergeants may resist changes as a reaction to the advent of community policing, where patrol officers are given more autonomy and control while sergeants have less authority and responsibility. Goldstein (1990) also noted the hesitancy of some supervisors to embrace a new role under problem-oriented policing, where they are less able to rely on their ability to control subordinates with departmental restrictions and formal authority. Recent research examining different supervisory styles of patrol supervisors further confirms that supervisors' attitudes toward policy changes differ significantly (Engel, 2000).

The acceptance of policy and philosophy changes by patrol supervisors is crucial for the successful implementation of these changes—particularly for community-oriented policing and problem solving (Goldstein, 1990; Weisburd et al., 1988; Witte et al., 1990; Wycoff & Skogan, 1994). Several scholars have reported that past failures of particular strategies and structural changes was due in part to the lack of support among patrol supervisors (Mark, 1976; Sherman, Milton, & Kelly, 1973; Walker, 1993). Further-
more, others have argued that if supervisors support changes within a department, their officers are more likely to implement these changes at the street level (Bayley, 1994; Goldstein, 1990; Sparrow, Moore, & Kennedy, 1990). This proposition, however, has not been empirically tested. That is, although research has shown that supervisors’ reluctance to support organizational changes is related to the failure of these changes, it is not known if supervisors’ support of innovative policies and strategies influences officers’ implementation at the street level. If supervisors do not encourage officers to change their behavior, organizational change is likely to fail—but it is unclear if supervisors’ encouragement is enough to change officers’ behavior.

Supervisors’ influence over patrol officer behavior

Although most scholars and practitioners agree that one role of police field supervisors is to control the behavior of their officers, the degree of control that supervisors actually have continues to be a matter of debate. Several researchers have hypothesized about this relationship (Brown, 1988; Muir, 1977; Van Maanen, 1983, 1984; Wilson, 1968) and others have tested it empirically. Most of the empirical research exploring the influence of supervision over patrol behavior has focused on three general types of behavior: the frequency and duration of encounters with citizens (Allen, 1980, 1982; Tifft, 1971), patrol officer discretionary decision making toward citizens, including decisions to arrest or issue tickets (Allen & Maxfield, 1983; Mastrofski, Ritti, & Snipes, 1994; Engel, 2000; Smith, 1984), and officer misbehavior, including work shirking and departmental violations (Bittner, 1983; Brehm & Gates, 1993; Brown, 1988; Gates & Worden, 1989; Reiss, 1971).

Tifft (1971) reported that differences in supervisory styles within or between districts had little to no effect on patrol officer effectiveness.1 In contrast, Allen’s (1980, 1982) research using systematic observational data of twenty-four police departments in three metropolitan areas (PSS data) reported that supervisor presence had a moderate effect on the time subordinates spent at encounters with citizens. Allen also noted, however, that supervisors were present at only seven percent of all police–citizen encounters observed. Using the same data, Smith (1984) classified police departments based on their level of professionalism and bureaucratization. Employing a multivariate probit analysis, he found that the presence of a supervisor at the scene of an encounter with a citizen significantly increased the probability that the subordinate officer would make an arrest. This effect, however, was contingent on the type of department. He concludes, “previous research has slighted the potential influence of supervisors on police officers’ arrest decisions... on the basis of some ethnographic evidence and, in light of current findings, this appears to be a serious omission” (Smith, 1984, p. 31).

Other studies using officer and supervisor survey data, however, have found that supervisors’ attitudes do not have an effect on subordinate behavior. Analyses of survey responses from patrol officers and supervisors in the Louisville Police Department found that subordinates’ reported behavior was not influenced by supervisors’ reported preferences nor patrol officers’ perceptions of supervisors’ preferences (Allen & Maxfield, 1983). Likewise, Brown’s (1988) survey of patrol officers and supervisors showed that the majority agreed that “the routine actions of field supervisors have but a marginal impact on the way they [patrol officers] use their discretion,” (p. 121). Finally, Mastrofski et al. (1994) found that neither officers’ perception of their immediate supervisor’s priority for Driving Under the Influence (DUI) enforcement nor officers’ perception of higher administrators’ priorities for DUI enforcement had a statistically significant effect on officers’ enforcement activities.

Collectively, studies examining patrol officer supervision have produced inconsistent findings regarding the effect that supervision has over patrol officer behavior. Some of this research lacks rigorous methodological designs and advanced statistical techniques. In addition, supervision is often inadequately operationalized as the quantity of supervision, rather than the quality or style of supervision (Engel, 2001). Although scholars have speculated about the changing role of patrol supervisors in the community policing era, no research to date has examined the varying influence that supervisors have over the community-policing and problem-solving activities of their subordinates. Using systematic observation and survey data from two metropolitan police departments, the present research seeks to address these issues.

Method

Data

This empirical examination of supervision uses data collected for the Project on Policing Neighborhoods (POPN), a large-scale study of police behavior funded by the National Institute of Justice. Systematic observation of patrol officers and field supervisors (sergeants and lieutenants) was conducted during the summer of 1996 in the Indian-
apolis, Indiana Police Department (IPD) and during the summer of 1997 in the St. Petersburg, Florida Police Department (SPPD).

Systematic observation was conducted in IPD with fifty-eight patrol supervisors (sergeants and lieutenants) during eighty-seven rides, totaling over 600 hours — 78 percent of IPD patrol sergeants and lieutenants were observed at least once. In SPPD, systematic observation was conducted with twenty-six patrol sergeants, four patrol lieutenants, and eight patrol officers working as the acting sergeant during seventy-two shifts — 96 percent of patrol sergeants in SPPD were observed at least once. In addition, field observation of patrol officers was conducted for over 5,700 hours in twenty-four neighborhoods across the two sites. In IPD, 194 patrol officers were observed during 336 shifts, while in SPPD, 128 officers were observed during 360 shifts. Combined, observers recorded information regarding encounters between officers and approximately 12,000 citizens on standardized coding forms (Mastrofski, Snipes, Parks, & Maxwell, 2000; Parks, Mastrofski, DeJong, & Gray, 1999).

Data were also obtained through structured interviews with sixty-nine of seventy-four patrol supervisors in IPD and all twenty-seven patrol sergeants in SPPD. The interview captured demographic and background information along with supervisors' views regarding a number of topics, including management priorities and innovative policies such as problem solving and community-oriented policing. More than 95 percent of patrol officers in IPD (398 officers) and 97 percent of patrol officers in SPPD (240 officers) also completed a structured interview of similar design.

Research sites

The IPD serves the city of Indianapolis, with an estimated population of 377,723 in 1995. At that time, the city consisted of 39 percent minorities, 8 percent unemployed, 9 percent below the poverty level, and 17 percent female-headed households with children. The VCR Index crime rate in 1996 was 100 per 1,000 residents. During that year, the department employed 1013 sworn officers, 17 percent of whom were female, 21 percent minority, and 36 percent with a four-year college degree (Mastrofski et al., 2000).

IPD's patrol division was divided geographically into four districts. Each district differed slightly in character, mission, and emphasis placed on community policing. Twenty-four officers within the department were designated as community-policing officers (CPOs) working in teams within three of the four divisions their approach to problem solving differed slightly across districts (see DeJong, Mastrofski, & Parks, 2001). Officers were expected to participate in IMPACT, a program that emphasized innovative problem-solving techniques. In addition, top administrators emphasized a more aggressive order maintenance approach to community policing, which included traditional law enforcement activities to improve quality of life within neighborhoods. The chief of IPD and other top administrators stressed that the philosophy of community policing and problem solving should guide the practices of all patrol officers (Parks et al., 1999; DeJong et al., 2001).

Supervisory structure and form also differed across IPD districts and shifts. It was unclear if a direct supervisor—subordinate relationship existed because this department did not have a formal evaluation process in place. Patrol officers and sergeants were assigned particular work schedules that provided that sergeants worked the same schedule as the group of officers they were responsible for. Officers working in specialized community-policing units were directly supervised by one sergeant whose sole responsibility was to monitor and direct the activities of the officers in that unit.

St. Petersburg, Florida, (population of 240,318 in 1995) is located at the southern tip of Pinellas County. In 1995, the city consisted of 24 percent minorities, 5 percent unemployed, 6 percent below the poverty level, and 10 percent female-headed households with children (Parks et al., 1999). The VCR Index crime rate (per 1,000 residents) was 99 in 1996. During that year, the SPPD had 505 sworn officers, 13 percent of whom were women, 22 percent minority, and 26 percent with a four-year college degree (for details, see Mastrofski et al., 2000; Parks et al., 1999).

SPPD a focused on problem solving and geographic deployment of officers, and had "developed an international reputation as a leader" in these programs (Parks et al., 1999). The department was divided into three districts and forty-eight community-policing areas (CPA) with at least one 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 utilize innovative problem-solving tactics within 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 practices of all patrol officers (Parks et al., 1999; DeJong et al., 2001).

The structure of supervision within SPPD had undergone tremendous change in recent years prior to the study. During the period of observation,
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), along with a handful of CPOs assigned to a CPA. Each sergeant had responsibility for one or more CPAs (and the CPOs working in those areas) within their sector. Sergeants were scheduled to work three "temporal" shifts (twenty-four hours) and then "flex" their schedule for the remaining sixteen hours each week. During a "temporal" shift, sergeants were responsible for the direct supervision of all patrol officers working that shift for the entire district, not just their sector. During "flex" shifts, sergeants were expected to work on problem solving in their specific CPA, supervise their CPOs, and complete administrative paperwork.

The differences between the community-policing and problem-solving approaches for IPD and SPPD have been thoroughly described by DeJong et al. (2001). As they indicate, compared to SPPD, IPD committed a much smaller percentage of their patrol officers as community-policing specialists (5% in Indianapolis compared to 17% in St. Petersburg). Furthermore, specialists in IPD worked within a single unit, while SPPD specialists were more integrated into teams working with patrol generalists. In regards to management, IPD district commanders were more involved in setting priorities, while SPPD managers played a more supportive and facilitative role. Finally, as described by DeJong and her colleagues, problem-solving efforts in IPD focused on a narrower range of problems than those in SPPD.

**Measures of supervision**

Using systematic observational data, "supervision" has been operationalized in past research as a measure of the number of field contacts between a supervisor and a subordinate (Allen, 1980, 1982; Gates & Worden, 1989), or as the presence of a supervisor at the scene of a police/citizen encounter (Brehm & Gates, 1993; Smith, 1984; Smith & Klein, 1983). Only one study utilizing observational data attempted to measure styles of supervision. Tifft (1971) systematically observed patrol officers based on a sampling of supervisors who were self-identified as having a particular style. Note, however, that the validity of these self-categorizations was never established.

In the following analyses, the substantive nature of supervision was measured rather than the quantity of supervision, by using the underlying attitudinal dimensions of supervisory styles identified from the management and policing literatures (Engel, 2001). Combining both sites, eighty-one supervisors who were both interviewed and included in the analyses—seventeen lieutenants and thirty-nine sergeants from IPD and twenty-five sergeants from SPPD. Nine attitudinal dimensions were identified and measured from supervisors' survey responses (i.e., power distribution, decision making, activity level, relationships-orientation, task-orientation, inspirational motivation, expect community-relations, expect aggressive enforcement, and view of subordinates). These attitudinal dimensions were combined through factor analysis to create four different factors, interpreted as distinct supervisory styles and labeled as traditional, innovative, supportive, and active. For a detailed description of the selection of underlying attitudinal constructs and creation of supervisory styles, see Engel (2001). A brief description of each supervisory style is given below.

**"Traditional"** supervisors expect aggressive enforcement from subordinates and do not expect community-oriented activity. These supervisors are highly task-oriented (expect subordinates to produce measurable outcomes and also emphasize paperwork and documentation) and are decision makers. These supervisors give more instruction to subordinates and are more likely to take over a situation or handle it themselves. Finally, these supervisors are less likely to reward and more likely to punish subordinates. The ultimate concern for traditional supervisors is to control subordinate behavior.

**"Innovative"** supervisors expect community-oriented activity from their subordinates. They are strongly relation-oriented and are not task-oriented (that is, they do not expect production of measurable output). Innovative supervisors have more perceived power in the organization and have positive views of subordinates. They are more receptive to innovative policies and changes in the organization. The ultimate goal for these supervisors is to develop the problem-solving skills of subordinates. This is typically done through mentoring and coaching subordinates.

**"Supportive"** supervisors are also highly relation-oriented, however, they show concern for subordinates by protecting them from unfair criticism and punishment. These supervisors provide a buffer between subordinates and management. They have high levels of inspirational motivation, emphasize teamwork, and encourage creativity by supporting subordinates. They are also more likely than other types of supervisors to reward subordinates. Supportive supervisors are not task-oriented; that is, they are not concerned with work output measures. The ultimate goal for supportive supervisors is to develop subordinates, however, this is accomplished through providing protection and
being an advocate. Unlike innovative supervisors, supportive supervisors see management as something officers need to be protected from.

"Active" supervisors are characterized by their high levels of activity in the field. This activity includes both patrol work and supervisory functions. These supervisors tend to be decision-makers, taking over and handling situations themselves. Unlike traditional supervisors, these supervisors feel they have power within the organization and have positive views of subordinates. Active supervisors also have lower levels of inspirational motivation. The ultimate goal for active supervisors is to be active field supervisors, performing the dual function of street officer and supervisor.

The distribution of supervisory styles for this sample of sergeants and lieutenants is reported in Table 1. There is a roughly equal distribution of each style, however, when the styles are examined for each department separately, significant differences emerge. Traditional supervisors are significantly overrepresented in SPPD, while active supervisors are underrepresented. IPD sergeants are evenly distributed across all styles, however, IPD lieutenants are slightly more likely to be classified as innovative and less likely to be classified as traditional (Engel, 2001).

Differences between male and female supervisors are also reported in Table 1. Female supervisors are disproportionately represented as traditional supervisors (50 percent of female supervisors are classified as traditional supervisors). Few other differences in classification are apparent. There are no statistically significant differences in classification with regard to the supervisors' race, rank, age, years of experience, or education. The four types of supervisors also do not differ from one another in their reported views of subordinates. Active supervisors also have lower levels of inspirational motivation. The ultimate goal for active supervisors is to be active field supervisors, performing the dual function of street officer and supervisor.

Hypotheses

To examine the influence of supervisory styles over officer behavior in departments emphasizing community policing, the amount of time officers spend on four types of behaviors—proactivity, problem-solving/community-policing activities, administrative tasks, and personal business—were examined. Based on the findings from the literature, two main hypotheses were tested in the following analyses. It is expected that supervisors’ influence over officer behavior varied based on: (1) the specific type of officer behavior examined and (2) the specific supervisory style examined. That is, it was hypothesized that the strength of the relationship between supervision and officer behavior varied based on the type of task the officer was engaged in, and the style of supervision experienced by the subordinate.

Wilson (1968) was one of the first researchers to suggest that police administrators' influence over subordinates' use of discretion varied with the characteristics of the situation. He hypothesized that administrators have greater control over patrol officers' behavior in both police-invoked and citizen-invoked “law enforcement” situations compared to “order maintenance” situations. Wilson suggested that administrators could control officer discretion in police-invoked law enforcement situations “by observing substantive outcomes or by measuring the output of individual officers,” and could control officer discretion in citizen-invoked law enforcement situations “by setting guidelines on how such cases will be handled and by devoting, or failing to devote, specialized resources... to these matters” (p. 88). It was only in order-maintenance situations that the ability of administrators to effectively control police officer discretion was questioned. Wilson's hypothesis that administrators have less control over police officer discretion in order-maintenance situations is especially salient today, as police departments evolve and patrol officer roles emphasize handling order-maintenance situations and quality of life conditions.

In contrast, both Jermier and Berkes (1979) and Van Maanen (1983) have proposed that control over

<table>
<thead>
<tr>
<th>Supervisory styles</th>
<th>Overall (n = 81)</th>
<th>Males (n = 69)</th>
<th>Females (n = 12)</th>
<th>White (n = 69)</th>
<th>Non-White (n = 12)</th>
<th>IPD lieutenants (n = 17)</th>
<th>IPD sergeants (n = 39)</th>
<th>SPPD sergeants (n = 25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>0.26</td>
<td>0.22</td>
<td>0.50</td>
<td>0.26</td>
<td>0.25</td>
<td>0.12</td>
<td>0.18</td>
<td>0.48</td>
</tr>
<tr>
<td>Innovative</td>
<td>0.27</td>
<td>0.30</td>
<td>0.08</td>
<td>0.26</td>
<td>0.33</td>
<td>0.35</td>
<td>0.28</td>
<td>0.20</td>
</tr>
<tr>
<td>Supportive</td>
<td>0.23</td>
<td>0.25</td>
<td>0.17</td>
<td>0.25</td>
<td>0.17</td>
<td>0.24</td>
<td>0.26</td>
<td>0.20</td>
</tr>
<tr>
<td>Active</td>
<td>0.23</td>
<td>0.23</td>
<td>0.25</td>
<td>0.23</td>
<td>0.25</td>
<td>0.29</td>
<td>0.28</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Entries are means representing the percent of supervisors with that predominant style.
subordinate behavior may be affected by task differentiation. Specifically, Van Maanen hypothesized that "the less certain the task, the less visible its performance, the less direction provided from above, and the lower the official work load, the more opportunity a sergeant has to provide his men with a definition for their duties" (pp. 297–298). Administrators and supervisors, however, often fail to clearly define the goals of community policing and problem solving. Therefore, it is believed that supervisors have little control over community policing and problem-solving tasks because these tasks are often ambiguous and unclear.

Applying Wilson's (1968) propositions to field supervisors, one might suppose that street-level supervisors also have varying influences over officer discretion. In situations where work output is easily measured, it is hypothesized that supervisors have greater control over subordinate decision making. For example, reports, arrest, and citations create statistics that serve as a means for supervisors to measure their subordinates' work output. As suggested by Van Maanen (1983), supervisors use these "stats" to influence subordinates' behavior because they are concrete measures that are interpretable by both supervisors and subordinates. Applying these propositions, it is hypothesized that supervisors will have a stronger influence over officers' proactivity and administrative activities and less influence over problem-solving/community-policing and personal business activities.

Given traditional and active supervisors' emphasis toward task-orientation (e.g., producing measurable outcome), it is speculated that officers with traditional and active supervisors will spend more time engaging in proactivity and conducting administrative tasks than those officers with innovative or supportive supervisors.

Although the overall influence of supervision on community-policing activities undertaken by subordinates is likely to be small, the effect is expected to vary by the type of supervisory style. It has been speculated that supervisors who support innovative strategies and philosophies can encourage subordinates to do the same (Goldstein, 1990). Therefore, one would expect officers with supervisors who are more "transformational" (i.e., supervisors who are more likely to coach, mentor, and facilitate officers) will spend more time engaging in community-policing and problem-solving activities.

In the present research, sergeants categorized as innovative are more likely to coach or mentor officers and expect officers to perform problem-solving and community-policing activities. Therefore, it is hypothesized that officers with innovative supervisors will spend more time per shift conducting problem-solving activities.

Likewise, although supervisors may have limited influence over the amount of time officers spend on personal business during their shifts, particular types of supervisors may have more influence than others. It is hypothesized that the amount of time subordinates spend conducting personal business will decrease as the amount of supervision increases. Active supervisors have been described as more active on the streets, engaging directly in patrol work and interacting with subordinates. Likewise, traditional supervisors emphasize adherence to rules and regulations. Innovative supervisors are less likely to hold officers directly accountable for their time (e.g., they are not "task-oriented"), while supportive supervisors have stronger relationships with subordinates and are more likely to protect them. Therefore, it is hypothesized that officers with active and traditional supervisors will spend the least amount of time conducting personal business during their shifts, while officers with supportive and innovative supervisors will spend the most.

Analyses

Sample

Analyses of the effects of supervision on patrol officer behavior were contingent upon linking officers with their individual supervisors. Officers were not asked for the name of their direct supervisor to encourage forthright responses on the officer survey, which included sensitive questions about the quality of supervision. Therefore, officers were matched with their direct sergeants through other information collected from the officer and supervisor surveys. In IPD, both officers and supervisors were assigned to districts, shifts, and work schedules. Of the 194 officers observed, 82.9 percent were matched to their direct sergeant. In SPPD, officers and supervisors were assigned to districts, shifts, and CPAs. Of the 128 officers observed in this department, 92.5 percent were matched to their individual sergeant. Only the 239 officers matched with a sergeant were included in the following analyses. Analyses were conducted at the shift (or ride) level—officers with an identified sergeant were observed during 518 shifts.

Dependent variables

To explore the effects of supervision on police officer behavior, the time officers spend per shift conducting four general types of behaviors were examined: proactivity (i.e., police-initiated activities),
community-policing/problem-solving activities, administrative activities, and personal business activities. Each of these behaviors was measured as the percent of time spent engaging in that particular activity per eight-hour shift observed (see Parks et al., 1999).

Proactivity was measured as the percentage of time per shift that officers engage in activities that are self-initiated (i.e., activities that are not initiated by a dispatcher, citizen, supervisor, or other officer). This measure includes activities and encounters with citizens involving suspicious situations, public disorders, victimless or moral offenses, traffic offenses, service needs, and problem focused activity (e.g., surveillance, security checks, property searches, ordinance enforcement, backing up other officers, etc.). This measure however, excludes time spent on general patrol, traveling en route to a location, personal business, and administrative activities or encounters. As shown in Table 2, officers spent an average of 13.2 percent of their shift engaging in self-initiated activities and encounters. Officers with active supervisors spent the most time per shift (15.4 percent), while officers with innovative supervisors spent the least amount of time (10.7 percent).

The amount of time per shift that officers engage in community-oriented policing and problem-solving activities was also examined. This measure includes time spent on all activities and encounters between officers and citizens that were considered “part of a long-term plan or project,” or if officers were “trying to determine the nature, extent, or causes” or “prevent the occurrence or recurrence” of a long-term problem (DeJong et al., 2001; Parks et al., 1999). This measure also includes time spent in meetings/phone calls with representatives of citizen organizations or service providers, along with time spent gathering information. On average, officers spent 9.8 percent of their shifts engaging in what has been defined as problem-solving activities or encounters (see Table 2). Again, officers with active sergeants spent the most time per shift (11.3 percent) engaging in problem-solving activities, while officers with innovative sergeants spent the least amount of time (8.0 percent) engaging in these activities.

One might speculate that increases in problem-solving and community-policing activities will be accompanied by increases in time spent on administrative duties documenting these activities. To account for the time officers spend on problem solving, many departments (including IPD and SPPD) require that officers complete additional paperwork documenting problems and the strategies used to solve those problems (Parks et al., 1999). In addition, the percentage of time spent per shift engaging in any administrative activities (e.g., report writing, processing evidence, court time, etc.) is also measured. On average, 17.3 percent of an officer's shift is spent engaging in these types of activities and encounters. Officers with active supervisors spent the least amount of time engaged in administrative activities (13.3 percent), compared to 19.2 percent of shifts observed for officers with traditional sergeants.

Finally, personal business was measured as the amount of time spent at nonwork-related encounters and activities. Although the time spent on personal business may have been somewhat attenuated due to the presence of observers, one may still expect variation among officers due in part to supervisory influences. Obviously, some time per shift was expected to be spent on personal business (e.g., meals, restroom breaks, etc.). Unfortunately, there was no measure that controls for the legitimacy of the time spent on personal activities. It was assumed that the amount of time spent per shift on personal activities and encounters increased proportionally with the amount of time spent “shirking” work responsibilities (Brehm & Gates, 1993). As shown in Table 3, officers were observed to spend on average, 15.5 percent of their shifts engaging in personal business. Officers with innovative supervisors spent the most amount of time per shift on personal business (18.3 percent), while officers with active supervisors spent the least amount of time (12.9 percent).

Table 2
Dependent variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>S.D.</th>
<th>Traditional mean</th>
<th>Innovative mean</th>
<th>Supportive mean</th>
<th>Active mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Traditional mean</td>
<td>Innovative mean</td>
<td>Supportive mean</td>
<td>Active mean</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13.05</td>
<td>10.66</td>
<td>13.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.37</td>
<td>7.96</td>
<td>10.73</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>19.17</td>
<td>17.54</td>
<td>17.48</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14.94</td>
<td>18.27</td>
<td>16.59</td>
<td></td>
</tr>
</tbody>
</table>

Entries are means representing the percentage of each shift spent on activities and encounters. Also included are the means for shifts with each type of supervisor.
The bivariate relationships described above show a clear pattern of differences in the time spent by officers based on the supervisory style of their direct sergeant. To test these relationships while controlling for other possible influences, additional variables were included in the multivariate models that follow. Officer characteristics including sex, race, and assignment as a community policing or beat officer were measured as dichotomous variables, while job experience was measured as the number of years working in the department. Variables for the department, shift, and supervisory style of an officer’s sergeant were also measured as dichotomies.

Other control variables (percent of discretionary time and concentrated disadvantage of the beat assigned) were measured as continuous variables. The percent of discretionary time referred to the amount of time per shift that officers were not assigned to calls or activities by dispatchers, supervisors, or citizens. Neighborhood context was measured as the level of concentrated disadvantage of the beat that officers were regularly assigned to patrol. This measure was a four-item weighted factor score, which includes the percent poor, percent unemployed, percent female-headed families, and percent African American population of the beat (Mastrofski et al., 2000; Sampson, Raudenbush, & Earls, 1997). These variables are further described in Table 3.

### Findings

Ordinary least square regression was used to examine the multivariate influence of supervisory styles on patrol officer behavior. Due to the hierarchical nature of the data, hierarchical linear modeling estimates were also derived. Although ignoring the nested structure of multilevel data could lead to biased standard errors and false tests of statistical significance (Bryk & Raudenbush, 1992), the hierarchical linear model results indicated that there was not significant dependence between groups of observations. Therefore, multilevel modeling was not necessary (Bryk & Raudenbush, 1992). Furthermore, the estimates generated through HLM were similar to the logistic regression results and therefore were not reported in the text. Table 4 reports the ordinary least square regression coefficients and standard errors for each of the four dependent variables.

Table 4, Model A reports the unstandardized regression coefficients and standard errors for an analysis of time spent on police-initiated activities and encounters. Findings show that female officers, White officers, less experienced officers, and officers working shifts with more discretionary time spent significantly more time per shift engaging in proactivity. One supervisory style has an influence over officer behavior—officers with active supervisors spend significantly more time per shift engaging in proactivity compared to officers with innovative supervisors.

The analysis of time officers spend on problem-solving and community-policing activities is also reported in Table 4 (Model B). The results show that female officers, White officers, officers with less experience, and officers assigned to community-policing assignments spent significantly more time per shift engaging in problem-solving and community-policing behavior. In addition, day shift and department (St. Petersburg) were significant predictors. Again, one supervisory style—active supervisors—had a significant influence over officer behavior. Officers with active sergeants spend significantly more time per shift engaging in problem-solving and community-policing activities compared to officers with innovative sergeants.

Model C displays the analysis of the amount of time spent per shift on administrative activities and encounters. Officers with a community-policing assignment and officers who work in SPPD spent significantly more time engaging in administrative duties. In addition, officers with traditional supervisors, supportive supervisors, and active supervisors spent significantly less time on administrative duties than officers with innovative supervisors. That is, officers with innovative sergeants spend significantly
Table 4
Ordinary least squares regression analyses for time spent per shift (n = 539)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Police initiated: Model A</th>
<th>Problem solving: Model B</th>
<th>Administrative: Model C</th>
<th>Personal business: Model D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-4.64 (.58)***</td>
<td>-14.61(3.82)***</td>
<td>12.73 (3.70)***</td>
<td></td>
</tr>
<tr>
<td>Officer characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2.58 (1.15)*</td>
<td>2.89 (1.33)*</td>
<td>-0.32 (1.29)</td>
<td>-3.60 (1.12)**</td>
</tr>
<tr>
<td>Male</td>
<td>-2.87 (1.24)*</td>
<td>-7.40 (1.44)**</td>
<td>-2.12 (1.40)</td>
<td>-0.54 (1.21)</td>
</tr>
<tr>
<td>Years experience</td>
<td>-0.30 (0.08)**</td>
<td>-0.33 (0.10)**</td>
<td>-0.11 (0.09)</td>
<td>0.21 (0.08)**</td>
</tr>
<tr>
<td>CP assignment</td>
<td>2.17 (1.56)</td>
<td>5.97 (1.80)**</td>
<td>3.84 (1.75)*</td>
<td>-4.91 (1.51)**</td>
</tr>
<tr>
<td>Organization/shift</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department</td>
<td>0.67 (1.02)</td>
<td>4.78 (1.18)**</td>
<td>9.99 (1.14)**</td>
<td>-5.03 (0.99)**</td>
</tr>
<tr>
<td>Day shift</td>
<td>-0.42 (1.57)</td>
<td>3.91 (1.81)*</td>
<td>-0.61 (1.76)</td>
<td>3.11 (1.52)*</td>
</tr>
<tr>
<td>Evening shift</td>
<td>0.61 (1.27)</td>
<td>-0.40 (1.47)</td>
<td>-0.99 (1.42)</td>
<td>-1.57 (1.23)</td>
</tr>
<tr>
<td>Concentrated disadvantage</td>
<td>0.83 (0.48)</td>
<td>0.10 (0.56)</td>
<td>0.16 (0.54)</td>
<td>-0.26 (0.47)</td>
</tr>
<tr>
<td>Percent discretionary time</td>
<td>0.27 (0.03)**</td>
<td>-0.06 (0.04)</td>
<td>0.05 (0.04)</td>
<td>0.22 (0.03)**</td>
</tr>
<tr>
<td>Supervisory styles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>1.54 (.35)</td>
<td>-0.88 (1.56)</td>
<td>-2.92 (1.51)*</td>
<td>1.51 (1.31)</td>
</tr>
<tr>
<td>Innovative</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Supportive</td>
<td>1.94 (.51)</td>
<td>0.52 (1.75)</td>
<td>-2.93 (1.70)</td>
<td>2.29 (1.46)</td>
</tr>
<tr>
<td>Active</td>
<td>4.62 (.53)**</td>
<td>4.81 (1.77)**</td>
<td>-3.85 (1.71)*</td>
<td>-0.94 (1.48)</td>
</tr>
<tr>
<td>Model F statistic</td>
<td>12.11***</td>
<td>11.15***</td>
<td>11.39***</td>
<td>12.71***</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.22</td>
<td>0.20</td>
<td>0.21</td>
<td>0.22</td>
</tr>
</tbody>
</table>

Entries are unstandardized coefficients and, in parentheses, standard errors. Innovative supervision was the excluded category.

* P < .05.  
** P < .01.  
*** P < .001.

more time on administrative activities compared to officers with any other type of supervisor.

The amount of time spent per shift conducting personal business is examined in Model D. Although there are several significant variables (officer race, officer experience, officer assignment, shift, department, and percent discretionary time), supervisory style does not have a significant influence on the time officers spend conducting personal business.

Discussion

Collectively, these findings suggest that supervisory styles do influence some forms of subordinate behavior. Compared to other types of supervisory styles, supervisors with an active style appear to have the most influence over subordinate behavior. Active sergeants significantly increase officers’ time spent on self-initiated and problem-solving activities per shift, while also significantly decreasing time spent on administrative duties. In addition, controlling for other factors, officers with innovative sergeants spent significantly more time on administrative tasks than officers with any other type of supervisor. Finally, no supervisory style has a significant impact on the time officers spent conducting personal business during their shifts. This finding supports previous research that found supervisors had little or no influence over particular types of work shirking (Brehm & Gates, 1993; Gates & Worden, 1989).

It was interesting that officers with innovative supervisors did not spend more time engaging in police-initiated activities or problem-solving and/or community-policing activities, but did spend more time on administrative tasks. At first glance, it might appear that innovative supervisors (or those with a more “transformational” role) were not having the influence over officers’ behavior at the street level that scholars had speculated they would. Other research, however, has shown that community-policing specialists actually spend less time in face-to-face encounters with the public and more time engaging in administrative tasks and other “behind the scenes” activities (Parks et al., 1999). Therefore, the finding that supervisors who have embraced community policing have produced subordinates who spend more time per shift engaging in admin-
Administrative tasks is not surprising. If the goal of community-policing and problem-solving strategies is to have officers engaging in more self-initiated, community-policing, and problem-solving activities on the street. Supervisors who have embraced these strategies do not appear to be delivering the desired outcomes. Indeed, this research shows that supervisors with an active style (i.e., supervisors who are active in the field, making decisions and handling situations, controlling subordinates’ behavior, and have positive views of their subordinates) have the strongest influence over officer behavior.

Prior research has shown that active supervisors differ significantly from other types of supervisors in their own behavior—they spend significantly more time engaging in general patrol, making traffic stops, and going to incidents on their own initiative (Engel, 2001). They do not rely on “inspirational motivation” to influence subordinates, but rather “lead by example” (Engel, 2000/2001). This type of leadership is described by one active supervisor.

While discussing different “styles” of supervisors, S1 [the observed supervisor] said that, in a “traditional” department, sergeants were able to “leave their mark on their officers.” For example, if the sergeant wanted drug arrests, officers produced drug arrests, if he wanted drunks, they brought him drunks, etc. But, in an “innovative” department such as this one, there are few supervisors who can leave their “imprint” on an officer. S1 said that supervising subordinates in a traditional department is much different, where they gain compliance through fear and discipline. In an innovative department, gaining compliance was a totally different proposition and that is why supervisors need to lead by example (POPN).

Perhaps, supervision in the community policing era could be as simple as showing officers what is expected of them. Indeed, “transformational” leadership may not be the definitive answer scholars have proposed. Rather than instructing supervisors that their new role in the community era is to encourage subordinates through coaching and mentoring, they should be told to “get in the game” themselves. That is, perhaps, the best way to influence officer behavior is to have supervisors in the field engaging in the same activities they want their subordinates to engage in.

Take note, however, that there are problems associated with leading by example and the active supervisory style. Other research has shown that active supervisors also have a significant influence over their subordinates’ use of force. Controlling for other factors, officers with active supervisors are significantly more likely to use force against suspects they encounter (Engel, 2000). In addition, active supervisors themselves engage in more uses of force against suspects than other types of supervisors—at a rate of 0.14 times per eight-hour shift, compared to 0.009 times per eight-hour shift for all other supervisors (Engel, 2001). Similarly, the Christopher Commission’s (1991) investigation of LAPD has speculated that aggressive supervisors transmit these same aggressive values to officers. Together, this evidence suggests that supervisors do have an influence over subordinates’ behaviors, however this influence can be positive or negative depending upon the example they set.

Although identifying supervisory styles and examining their influence on subordinate behavior has provided interesting findings, caution should be exercised when interpreting them. The data used in this study of police supervision was limited in several ways. First, the POPN utilized a data collection design created for systematic observation of encounters between patrol officers and citizens. Although systematic observation has proven to be a useful technique to study patrol officers’ behavior, the utility of this technique for patrol supervisors was unknown prior to the POPN data collection. In pilot tests, the use of systematic observation techniques proved to be particularly difficult when used to examine supervisors’ interactions with other officers. As a result, POPN observers were instructed to focus more on detailed narrative writing of supervisors’ activities and encounters with other officers and citizens, while relying less on quantitative coding on a data collection instrument. This semi-structured narrative data was collected based on the principles of debriefing (Mastrofski & Parks, 1990). Observers were instructed to ask supervisors to describe their decision-making processes directly after observing situations and to directly probe supervisors during the shift for their views on departmental policies, management, their roles, and interactions with subordinates. Utilizing content analysis, a technique used to transform qualitative data into quantitative form (Holsti, 1968), future research will be able to explore some of the issues surrounding police supervision that have not been adequately addressed.

Second, while systematic observation and surveys provide a descriptive slice of police work, they often do not provide detailed information about long-term patterns of police behavior or the effectiveness of long-term policies and strategies. The study of patrol supervision may be better captured by some type of modified ethnographic research design where detailed information about the actual patterns (especially the underlying rationales, objectives, etc.) of supervisory
practices could be collected. While the POPN research design did have a partial ethnographic component containing detailed information collected during each ride, examinations of long-term patterns of supervision and the structural, environmental, and political factors affecting these patterns was nonetheless limited. Future research on police supervision should address these issues through a blending of qualitative and quantitative research techniques directed toward examining long-term patterns and supervisory practices.

Taken with previous research, the findings presented in this article have important policy implications. Experience has shown that field supervisors may impede the implementation and eventual success of innovative policies (Mark, 1976; Sherman et al., 1973; Walker, 1993). It has been generally recognized that field supervisors play an important role in communicating administrators' philosophies and policies. Their communication of these policies has a significant influence on their acceptance by subordinates (Van Maanen, 1983, 1984). This research, however, suggests that simply accepting community-policing and problem-solving strategies may not change line-officer behavior on the street. While officers with innovative supervisors do spend more time on administrative tasks, they do not spend more time engaging in community-policing and problem-solving activities on the street. Rather, officers with active supervisors are more likely to spend time engaged in these activities. It is possible that supervisors have embraced different forms of community policing—active supervisors may be more inclined to use and encourage aggressive enforcement tactics, while innovative supervisors may be more likely to use and encourage community-building tactics. This interpretation lends support to other findings that suggest officers with active supervisors (and active supervisors themselves) are more likely to use force against citizens. It is possible that officers and supervisors who use more aggressive policing styles are more likely to find themselves in situations where the use of force is needed (Engel, 2000).

In conclusion, these findings suggest that to have a significant influence over behavior, supervisors must lead by example. It is the example that they set, however, that should most concern police administrators and citizens. Active supervisors have the strongest impact on officers' behavior, however, this impact can be positive (e.g., increased time spent conducting community-policing and problem-solving activities) or negative (e.g., increased use of force). To influence officers' behavior, supervisors need to lead by example—but the example that they set has important and wide-reaching implications. Leading by example is only an effective supervisory tool if supervisors are engaging in activities that support the legitimate goals of their departments.

Acknowledgments

Previous versions of this paper were presented at the Academy of Criminal Justice Sciences Annual Meeting, Orlando, Florida, March 1999 and the National Institute of Justice Annual Conference, Washington, DC, July 18–21. This manuscript is based on data from the POPN, directed by Stephen D. Mastrofski, Roger B. Parks, Albert J. Reiss, Jr., and Robert E. Worden. The project was supported by grant no. 95-JJ-CX-0071 by the National Institute of Justice, Office of Justice Programs, U.S. Department. Points of view in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice. The author would like to thank the following scholars for their helpful comments and suggestions: Robert E. Worden, Hans Toch, David H. Bayley, David McDowall, Alissa Politz Worden, Stephen D. Mastrofski, and Roger B. Parks.

Notes

1. Officer effectiveness was operationalized as the number of incidents handled per tour, response to radio calls, time spent handling encounters, down time after an encounter was handled, and the manner of handling crimes, complaints, offenses, and disturbances.

2. Smith's findings must be interpreted with caution, however, because the seriousness of the offense was not adequately controlled. Offense seriousness is correlated with both supervisor presence and arrest, therefore, the relationship reported between supervisor presence and arrest may be spurious.

3. Previously, supervision was organized as a "squad system" where one sergeant was directly responsible for a fixed group of officers working the same schedule. After a change in administrative personnel, SPPD implemented a supervisory structure that focused on geographic deployment. Each sergeant in the department was assigned to a particular geographic area (CPA) that they were directly responsible for. As a result, sergeants were responsible for supervising patrol officers and CPOs who were assigned to their particular area across every shift. After about a year, this structure of supervision was reorganized because of the unrealistic demands it placed on sergeants.

4. Supervisors were excluded from the analyses if they were not both interviewed and observed (sixteen sergeants and lieutenants from IPD and three sergeants from SPPD). Also, eight patrol officers acting as temporal sergeants in SPPD were excluded, as were all the lieutenants from this department. For details, see Engel (2000).
5. There was not a complete match between officers and sergeants because not all sergeants from IPD were both observed and interviewed (thus, they were not categorized with a particular supervisory style). Also, in a handful of cases, a positive match could not be made between the officer and sergeant because the officer changed shifts during the observation period. Although a high percent of patrol officers from IPD were matched to supervisors with the same work schedule, supervision in this department appeared to be more collective in nature and concentrated at the shift level.

6. In SPPD, officers were not matched to a specific sergeant because they reported working CPAs that were not identified by supervisors as being their particular areas of responsibility. These particular CPAs were not "study beats" for the POPN project, therefore, systematic observation of these officers was limited.

7. Note, however, that the coefficient for the supportive supervisory style is only significant using a one-tailed test (P = .083).

References


