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The impact of police social capital on officer performance of community policing

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Abstract *Social capital is used as a theoretical framework to reveal the importance of relationships between officers and their supervisors for performing community policing. It is expected that officers with higher levels of social capital will accomplish more community policing than their peers who have lesser amounts of trust, cooperation, group cohesion, and social support in their work relationships. Using data from the Project on Policing Neighborhoods, two measures of community policing were developed. Results from negative binomial and zero-inflated negative binomial regression models did not support the premise that police social capital is related to officer performance of community policing. Instead, officer performance varied significantly according to the department in which the officer worked, whether officers were assigned to be community policing specialists, and their levels of tenure. Implications of these findings are discussed in terms of organizational factors that promote or hinder the implementation of community policing.*

Introduction

Social capital has gained much attention in sociology as a construct useful for understanding the importance of social relationships in various settings (see Portes (1998) for a review). Over the past few years it has also been applied to the study of crime and disorder (McCarthy *et al.*, 2002; Rose and Clear, 1999; Sampson *et al.*, 1999) and specifically policing (Lyons, 1999; Manning, 1994; Miller, 1999; Pino, 2001). In this study social capital is used as a theoretical framework for understanding police behavior within the community policing era. Like employees in other work organizations, police employees rely on work relationships for information, access to opportunities, and support to increase the likelihood of productivity. Aspects of relationships believed to contribute to social capital include the level of trust, the frequency of cooperative exchanges, the level of group cohesion, and the amount of social support. Police officers' work relationships are considered to be a resource (if social capital is high) or a barrier (if social capital is low or not present) affecting the likelihood that officers will perform community policing.

Although various efforts made by police and/or citizens to enhance social control in the community are dependent in part on their levels of social capital, as of yet no one has examined the levels of social capital among police officers. If we do not know the distribution of social capital among police officers, and the barriers preventing and resources promoting its utilization, then our methods of encouraging strong police-community partnerships will remain



limited. Additionally, community policing activities may be especially dependent on police social capital, as there is evidence to suggest that this type of policing is substantially marginalized within the traditional police subculture (Miller, 1998; Pate and Shtull, 1994; Sparrow *et al.*, 1990). Investigating the relationship between social capital and the likelihood that officers will engage in community-oriented activities can provide us with both a broader and deeper understanding of police behavior during the community policing era.

Definitions and dimensions of social capital

In the sociology literature, social capital refers to relationships among individuals, networks of relationships, and people's "ability to mobilize a wide range of personal social contacts" (Newton, 1997, p. 577) to accomplish a particular objective. The empirical research on social capital often includes measures of the number of relationships as a proxy for social capital (Bursick, 1999; Burt, 1997; Coleman, 1988; Frank and Yasumoto, 1998; Furstenberg and Hughes, 1995; Granovetter, 1973; McCarthy and Hagan, 1995; Molinas, 1998; Robinson and Morash, 2000; Teachman *et al.*, 1997; Wellman and Wortley, 1990). Numbers alone, however, tell us nothing about the quality of the relationship or the potential of a relationship to be a social resource for those in it. Consequently, other less often empirical research has described social capital not only in terms of the number of relationships, but also in terms of their qualities that may enhance or constrain their potential to be a resource. The term "social capital" in this research refers specifically to the quality of officers' relationships with their peers and their supervisors. The literature has identified four dimensions of relationships that should be assessed when studying social capital: level of trust, cooperative exchanges, group cohesion, and social support[1]. It is assumed that people who have relationships that are high in these qualities have more social capital than people whose relationships do not possess these qualities.

Level of trust

People's level of trust, whether it is in a generalized form, in each other, in a particular group, or in a government, has been an important dimension of the social capital construct. Fukuyama (1995, p. 26), for example, puts trust as central to his definition of social capital: "social capital is a capability that arises from the prevalence of trust in a society or certain parts of it", as does Molinas (1998, p. 413): "social capital is defined here as the level of trust and community networking". Research at the micro-level has also found trust to be a central issue in how people create and maintain their levels of social capital (Coleman, 1988; Foley and Edwards, 1997; Newton, 1997; Portes, 1998; Woolcock, 1998). A recent study found that a lack of trust between police and citizens, as well as between community policing and regular patrol officers, had

a detrimental impact on community policing strategies to reduce crime and disorder (Pino, 2001).

Despite the wealth of literature on this subject, past measurement of this dimension is problematic for two reasons. First, many researchers have used the General Social Survey's questions on generalized trust as proxies for social capital, when these questions are not context-specific (e.g. "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?"). It would be more fruitful to ask whether a person trusts a specific person, place, or thing. Second, the social capital construct is more than just trust. Improved measurement of social capital necessitates specification and utilization of multiple dimensions of this construct.

Cooperative exchanges

Social capital researchers often refer to "norms of reciprocity," that when present in social relationships increase the potential of those relationships to be a resource. The underlying logic is that this type of norm makes people give back in exchange for taking. After an exchange occurs (whether it is money, material goods, information, or emotional aid like support or advice), it is understood by both parties that the exchange will be paid back at a later date. This is a form of trust in itself; trust in the belief that cooperation is beneficial and that exchanges will be reciprocated. Past researchers have investigated norms of reciprocity, or what is in this research called cooperative exchanges, by looking at patterns of giving and receiving in a community (Hofferth and Iceland, 1998), or analyzing actions one person in a relationship took that helped the other person maintain or acquire certain resources (Frank and Yasumoto, 1998). Others have measured cooperative exchanges by asking respondents questions such as, "How often do you and people in your neighborhood do favors for each other?" (Sampson *et al.*, 1999). Cooperative exchanges could also be measured with questions asking how often people share particular goods, such as information, or the level of cooperation within a particular group, such as a family, neighborhood, community agency or unit of police officers.

Group cohesion

Because social capital research is often done at the community-level, researchers have been interested in what makes groups cohesive. It is assumed that cohesive groups, or groups that have members who are supportive or trustworthy of each other, who share norms, and/or have similar beliefs, will have more social capital. Measurement of this dimension can be as basic as the proportion of residents in a particular neighborhood that are friends or acquaintances, the frequency that a group engages in social activities, or the amount of people in a group that simply like each other (Sampson, 1991; Sampson *et al.*, 1999; Bursick, 1999). Social ties that have emotional density, for example, with a high level of mutual confiding and

intimacy, are believed to increase social capital (Granovetter, 1973). Cohesiveness also has been measured by questions assessing similarity among group members. Bursick (1999) asked people whether they agreed with the statement “I have a lot in common with people in my neighborhood.” The assumption is that groups that “get along” and share similar beliefs and characteristics will have more social capital than groups whose members are antagonistic or have very different beliefs or values. Miller (1998) noted that the community policing philosophy represents the “feminization” of policing work, by valuing stereotypical female qualities such as communication, cooperation, and supportive personal relationships. Police work groups may be less cohesive if some officers’ possess a community policing outlook while other officers have cultural values that rest on traditional themes of masculinity, danger, suspicion and/or violence.

Social support

This dimension of social capital has been closely tied to the actions of people in a social relationship that help one member accomplish a particular goal. For example, Furstenberg and Hughes (1995) examined the support given and received in mother-child dyads, and found that it related to children’s successful school outcomes. Other researchers have investigated different types of social support in relationships, such as financial, emotional, and providing services, and found that the type of support is often a function of the type of relationship (e.g. whether the relationship is between friends, family members, neighbors, etc.) (Wellman and Wortley, 1990). Social support is therefore usually measured in a particular context, such as the family, workplace, or community. It is expected that high levels of social support make positive outcomes more likely, while these outcomes are more difficult to obtain in its absence. Given that community policing officers (CPOs) perceive less support from their supervisors than do regular patrol officers (Winfrey and Newbold, 1999), and are expected to engage in tasks undervalued by the occupational subculture, positive outcomes may be more difficult to achieve for these officers. What is meant by the term “community policing” is discussed in the next section, followed by a discussion of the three types of factors that are predicted to impact officer performance of community policing: police social capital, features of the work environment, and officer characteristics.

The practice of community policing

Police activities considered to reflect a community policing philosophy can be grouped into three general categories:

- (1) police engagement of the community in the production of order;
- (2) a proactive response by police to community problems, for example using a problem-solving strategy; and

- (3) the use of a broadened police role to more frequently provide general assistance to citizens.

These community policing activities are discussed in the sub-sections below, although it must be recognized that in practice these categories would not necessarily be mutually exclusive.

Community engagement

This theme of the community policing philosophy emphasizes an expanded police presence in communities in order to facilitate community capacity to exercise social control. Police are no longer simply expected to enforce the law but to provide a broad array of services aimed at increasing safety and order within communities. As Rosenbaum (1998, p. 14) stated, “the challenge for police today and into the 21st century is to find creative ways to help communities help themselves”. The underlying premise guiding this expansion of the police role is that the police cannot solve community problems without the help of citizens and community agencies. Community policing advocates propose that the police and the public ought to become “co-producers” of public safety, each contributing to the maintenance of law and order, because “together, police and public are more effective and more humane co-producers of safety and public order than are the police alone” (Skolnick and Bayley, 1988, p. 1). In Chicago, holding regular meetings between officers and citizens at the beat-level was how the department was able to convey to the community that the new policing philosophy was a long-term strategy intended to stay (Skogan and Hartnett, 1997). Research findings and common experience dictate that community policing officers should attend meetings with various community groups to open channels of dialogue, ideally leading to the identification of community problems and the creation of strategies for their solution.

Problem-solving

Compared to the traditional strategy of random or preventive patrol, whereby police hope to decrease crime and disorder by their mere presence, problem-solving is a strategy police use to fight specific crimes with specific plans (Goldstein, 1990). Problem solving has been recognized as a central characteristic of community policing departments because it generally (but not always) uses community input to identify crime problems and determine the appropriate strategies to address them. To put it bluntly, “community policing without problem solving is not community policing” (Jolin and Moose, 1997, p. 291). Eck and Spelman (1987) developed the widely accepted and used SARA model of problem solving, which identifies four stages of the problem-solving process:

- (1) scanning to collecting information to identify a crime problem;
- (2) analysis to determine the nature and extent of the problem;

- (3) response through the creation of a specific strategy to address the problem; and
- (4) assessment to determine whether the response alleviated the problem.

Officers engaged in problem-solving would attempt to prevent the occurrence or recurrence of particular problems, and develop plans or projects that go beyond merely responding to a particular call in order to address the underlying cause of the problem.

Providing assistance to citizens

Community policing emphasizes a broad, social role for the police, with the goal of police becoming more responsive to citizen concerns. Also referred to as “personal service,” and following the trend in the private sector of putting “customers first” (Skogan, 1998, p. 162), this philosophical dimension aims to build trust and positive interactions between the police and the community (Cordner, 1998). No longer are police to be viewed solely as gatekeepers to the criminal justice system, they are being called on to monitor the turnstile to social service and government agencies as well. Community policing officers are encouraged to provide citizens with needed assistance and information, including referrals to other community agencies that might be better suited to handle their problems. Some goals of providing citizens with assistance, information, and support include:

- alleviating citizen fear about particular problems in the community; garnering citizen support for police initiatives to solve problems;
- educating citizens about their vulnerability to crime; and
- helping citizens solve problems for themselves (Goldstein, 1990).

The next section looks at the extent to which police social capital, features of the work environment, and officer characteristics are hypothesized to affect community policing performance.

Factors affecting officer performance of community policing

Police social capital

Past literature has revealed the importance of police work groups on police behavior, and there is no reason to expect these relationships to be less important in the community policing era. Research has documented that officers marginalized or excluded from their peer group (e.g. because they are of a minority race or are women) have suffered a lack of acceptance, a denial of needed information, sponsorship and promotion opportunities (Buzawa, 1981; Ellison and Genz, 1983; Holdaway and Barron, 1997; Martin, 1980; Milutinovich, 1977). These issues can subsequently impact work experiences, performance, and advancement within the police organization. A lack of social capital can contribute to marginalization in the workplace. Without social

capital in their work relationships, officers face higher hurdles and bigger barriers to getting the job done than their counterparts who are embedded in productive, supportive, and trustworthy work relationships. It is expected that officers who have relationships with peers and supervisors that are rich in social capital will be more productive than officers without similar levels of trust, cooperation, or support to engage in various community policing activities. CPOs in particular might need relationships that are strong in terms of trust, cooperative exchanges, group cohesion, and social support to accomplish a type of policing not wholeheartedly accepted within the police subculture.

Miller's (1999) in-depth study of neighborhood policing officers (NPOs) provides some insight into the importance of police-peer relationships in the community policing era. Specifically, she found that NPOs who assertively established relationships with beat officers experienced "greater understanding and cooperation from their colleagues" (Miller, 1999, p. 109). Although the community policing movement has drawn attention to the value of police relationships, there has not been a specific examination of the role that these relationships play in performance, and if and how it varies according to what policing tasks are being performed.

Quality relationships with supervisors also occupy an important place in police work. Social capital theory identifies people with decision-making authority, such as supervisors, as "targets" who may be especially important contributors to one's stock of social capital (Wood, 1997, p. 599). Officers rely on supervisors for information, support, and evaluations of their performance (Van Maanen, 1983). Positive relationships between officers and supervisors are so vital to efficient police work that programs specifically designed to increase positive interaction between the ranks have been suggested (Beck and Wilson, 1997). It is also important to remember that supervisor support is considered vital to the success of innovative community-oriented police activities (Geller and Swanger, 1995; Goldstein, 1990; Skogan and Hartnett, 1997). Without supervisor support the implementation, as well as instrumental success, of these programs is considered unlikely.

Miller (1999) documented how supervisor support allowed NPOs to overcome much of the stigma associated with performing community policing tasks (considered by many officers to be "social work" or "women's work"; i.e. not real police work). In the department studied by Miller (1999), many upper-level management positions were held by former NPOs and this had a legitimizing effect on the entire community policing program. Police social capital, then, may be more important to officers who are deemed to occupy marginalized roles within the police organization. Specifying these relationships becomes especially salient given the implications for performing community-oriented policing tasks.

While it is hypothesized in the current study that the social capital dimensions will be positively related to the likelihood that officers perform community policing, the social capital literature suggests that negative outcomes may also result. If officers who have high levels of social capital are found to be significantly less likely to spend time on community policing activities, this could be interpreted as an example of the “dark side” of social capital. For example, officers rich in this resource might be better able to circumvent departmental dictates supportive of community policing. In this case, the support, cooperation, trust and group cohesion officers have in their work units and/or with their supervisors could be used to cover up poor community-policing performance or shirk community-oriented activities, or to further other (possibly negative) policing outcomes not included in this study. Despite this possibility, the central hypothesis of the current study is that as levels of social capital increase, so will the likelihood that officers engage in community policing activities.

Features of officers' work environments

Department. The available evidence on the two departments included in this study suggests that officers' work environments might differ in important respects relevant to community policing, such as the interpretation of what is “community policing.” One department (Indianapolis) takes a “broken window” aggressive order maintenance approach, with the police chief emphasizing “traditional law enforcement activity” (Mastrofski *et al.*, 2000, p. 317) while the other department (St Petersburg) emphasizes building positive police-citizen partnerships (Paoline *et al.*, 2000). The practice of community policing in Indianapolis might therefore be indistinguishable from other policing activities. Furthermore, a greater proportion of officers in St Petersburg are assigned as community policing specialists (22 percent compared to 5 percent in Indianapolis) (Mastrofski *et al.*, 2000). This departmental difference could impact the frequency with which officers engage in community policing activities, resulting in St Petersburg officers performing more community policing activities.

Beat characteristics. Regarding the primacy of territorial knowledge, Rubinstein (1973, p. 151) stated that an officer “combines his knowledge of local behavior with his conceptions of how the public streets are used to analyze and perform many of his routine obligations”. An officer's assigned beat has been found to impact his or her level and type of activity (Klinger, 1997; Smith, 1986). The conclusion by some scholars that community policing tends to work the least where it is needed the most (i.e. in poor, crime ridden, socially disorganized communities) also points to the profound impact that community or beat characteristics may have on whether community policing goals are accomplished (Skogan and Hartnett, 1997; Walker, 1999; Williams and Murphy, 1990). Officers who work in beats that have a significant amount of

crime problems (such as drug dealing, theft and burglary, or vandalism) might have less time to engage in community policing activities than their counterparts working in less troubled areas. As such, it is important to include officers' perceptions of beat problems in a model predicting community policing performance.

Shift and assignment. Recent research has investigated performance differentials between community policing officers and general patrol officers. Although the study conducted by Mastrofski *et al.* (1995) did find a difference in arrest rates, only one of the 17 variables examined differed to a statistically significant degree between the two groups of officers. Robinson and Chandek (2000) failed to find a significant difference between community policing and traditional units when handling domestic violence calls. Recently, however, DeJong *et al.* (2001) found that CPOs spent more time engaged in problem-solving activities than did officers assigned to general patrol. It would appear important to include officer assignment (community policing versus general patrol officer) in a model predicting community policing because theoretically community policing officers might be expected and given the resources to accomplish more community policing activities. Similarly, officers working the day shift would be expected to have more opportunity for community policing activities because it is more likely that citizens (and citizen groups) are awake and functioning during this time.

Officer characteristics

Sex. While most research finds very little difference in the performance of male and female officers, performance differences might emerge when we start to measure non-traditional policing activities, such as those guided by a community policing philosophy. For example, DeJong (2000) found that female officers are more likely to provide comfort to citizens than their male counterparts, and Hale and Wyland (1999) reported that female officers may communicate better and subsequently de-escalate potentially violent situations. Although the evidence is limited, it is reasonable to believe that female officers might more frequently engage in community policing activities.

Race. Research suggests that an officer's race is not an important variable to consider when measuring performance with traditional indicators such as making arrests or using excessive or deadly force (Fyfe, 1981; Reiss, 1968). To conclude that minority officers and white officers are identical, however, may be misleading. Mastrofski (1983) found that black officers were more knowledgeable of local citizen organizations in black neighborhoods. In Chicago, it was found that minority officers were significantly more optimistic about community policing than their white counterparts (Lurigio and Skogan, 2000). Although one cannot assume that attitudes are always consistent with behavior, it may be the case that racial differences emerge when non-traditional police activities, such as community policing, are analyzed.

Education. While there is no evidence to suggest that college educated officers behave differently on the street (Sherman, 1978), more recent research finds that performance improves as education increases. For example, college educated officers receive fewer complaints compared to their less educated counterparts (Kappeler *et al.*, 1992). Researchers who followed a cohort of officers for ten years found a positive relationship between college education and supervisor ratings of job knowledge (Truxillo *et al.*, 1998). Kakar (1998) found that officers with some college or a college degree performed better, and Palombo (1995) found that they were more professional. Officers with more education therefore may be more likely to engage in community policing.

Tenure. Roberg *et al.* (2000) report that younger officers tend to work harder and be more productive than older officers. The effect of tenure on community-oriented performance indicators has only recently been studied. DeJong (2000) found that tenure improved the likelihood that female officers would provide comfort to citizens. Conversely, more experienced officers were found to spend less time on problem solving than their less experienced counterparts (DeJong *et al.*, 2001). The available evidence, therefore, provides a conflicting account of the relationship between tenure and community policing.

Training. Officers who have received more training on how to perform community policing activities might be expected to spend more time engaged in these activities, due to an increase in ability (and perhaps confidence) in how to perform community policing. Although DeJong *et al.* (2001) did not find community policing training to increase significantly the amount of time an officer spends problem solving, others contend that training is the key to successful implementation of community policing (Glensor and Peak, 2000; Zhao *et al.*, 2000). It is therefore expected that as the amount of training an officer has received on community policing increases, so will the likelihood that he or she will perform community policing activities.

Methodology

The project on policing neighborhoods

This study involves secondary data analysis from the Project on Policing Neighborhoods (POPEN), a large-scale study of police behavior funded by the National Institute of Justice. Data for the study were collected from the Indianapolis, Indiana and St Petersburg, Florida police departments. This study was conducted during the summer months of 1996 and 1997, respectively, and involved two primary sources of data: Systematic Social Observation (SSO)[2] and structured interviews of police officers.

Trained observers accompanied patrol officers during their normally scheduled shifts, taking notes on the behavior of patrol officers, as well as other officers (peers and supervisors) and the citizens with whom they interacted. At the conclusion of these observational sessions, observers used their notes to provide detailed narrative accounts of the rides. This information was then

converted into coded data using observation instruments designed specifically for the project. Structured interviews were conducted with patrol officers, sergeants and lieutenants in both sites by trained interviewers during the officer's regular work shift. The interviews were designed to capture information on a variety of topics, such as officers' beliefs about proper police roles, goals, and priorities; officers' perceptions of their work groups and supervisors; and their attitudes toward community policing.

Sample

This study uses observational and survey data for the measurement of independent and dependent variables. Trained observers collected and coded observational data during 361 ride-alongs in Indianapolis and 368 ride-alongs in St Petersburg (totaling 729 rides). Ride-alongs lasted the duration of an officer's regular shift (8 hours in St Petersburg and 8.5 hours in Indianapolis), resulting in more than 5,700 hours of field observation (Parks *et al.*, 1999). Some officers were observed during more than one ride-along, some during just one ride-along, and others were not observed at all. A majority of officers in each site participated in the structured interview, resulting in a total of 728 surveyed officers. In Indianapolis, 93 percent of the 426 patrol officers were interviewed; in St Petersburg 98 percent of the department's 246 patrol officers completed the interview (Paoline *et al.*, 2000).

Observational and survey data were merged at the officer level to obtain a nonrandom sample of officers that had data for all measures required for this study. Dependent measures (community policing) were derived from the observational data and independent measures (social capital, officer characteristics, and work environment variables) were obtained from the officer surveys. The sample of officers who both completed the interview and were observed include 176 officers from Indianapolis and 142 officers from St Petersburg, resulting in a total sample of 318 officers.

Measurement and description of dependent variables

The operationalization of "community policing" was guided by the three categories of activities identified in the community policing literature and discussed previously (community engagement, problem solving, and providing assistance to citizens). Six measures of community policing were obtained from the observational data:

- (1) providing comfort to citizens;
- (2) providing information to citizens;
- (3) providing referrals to citizens;
- (4) attending community meetings;
- (5) problem-solving activity; and
- (6) crime prevention activity.

Two dependent variables were created from these six measures:

- (1) the number of community policing acts performed, per citizen encountered by the officer during the data collection period; and
- (2) the number of minutes the officer engaged in community policing activities, per 8-hour shift[3] worked by the officer during the data collection period.

Creating two dependent measures avoided the problem of summing indicators that were measured at different levels of analysis. For three of the community policing indicators it makes intuitive sense to count the number of citizens receiving an act of community policing during a police-citizen encounter, while the remaining three indicators lend themselves to a measurement of the number of minutes the officer was engaged in the activity.

The variable “Community policing acts” (providing comfort, information, and referrals to citizens) provides a count of how many citizens were given comfort, information, and/or referrals from each officer during the observational period. These indicators reflect yes/no responses to the following questions:

- (1) *Comfort*. “During the encounter, did the police comfort or reassure the citizen?”
- (2) *Information*. “Did the police provide this citizen information on how to deal with a problem on their own initiative (without the citizen’s request)?”
- (3) *Referrals*. “Did the police ask/tell the citizen to seek the help of other service agencies to solve the problem?”

These three measures were summed to provide a variable representing the total number of community policing acts the officer performed during the data collection period[4]. The total number of community policing acts was then divided by the total number of citizens with whom the officer came into contact during the data collection period. The resulting variable (CP acts) is therefore a standardized measure of the number of community policing acts provided by officers per citizen encountered during the data collection period[5].

The “Community policing time” variable was derived from observational data that enabled the identification of activities where officers engaged in problem-solving, crime prevention, or attending community meetings. These indicators reflect the number of minutes spent in the following activities:

- (1) *Problem solving*. “Was this activity part of a long-term[6] plan or project to deal with a problem?”
- (2) *Crime prevention*. “During this activity, were the police trying to prevent the occurrence or recurrence of the problem (beyond the end of the shift)?”

(3) *Community meeting.* “Did this activity involve a meeting with representatives of a citizen organization[7]?”

These three measures were summed to provide a variable representing the amount of time (in minutes) that the officer was engaged in community policing during the data collection period[8]. Each officer’s community policing minutes were then divided by 480 minutes to standardize the measure for an 8-hour shift. The resulting variable (CP time) is therefore a standardized measure of the number of minutes per shift the officer spent on community policing during the data collection period[9]. Descriptive statistics for the two dependent variables, and the measures used to create them, are presented in Table I.

During the approximately three-month data collection period, the average officer comforted three citizens, provided information to six citizens, and gave referrals to 24 citizens. Summing these reveals that the average officer provided 33 acts of community policing to about 17 citizens during the data collection period. Each citizen encountered therefore received more than two acts of community policing by the average officer. The majority of officers ($n = 290$; 91 percent) provided at least one community policing act per citizen.

Variable	Description	Min	Max	Mean	SD
	No. of citizens receiving comfort/reassurance from officer	0.00	28.00	2.92	3.76
	No. of citizens receiving information from officer	0.00	45.00	6.19	7.45
	No. of citizens receiving referrals from officer	0.00	98.00	24.50	20.95
	Total no. of citizens receiving CP acts.	0.00	145.00	33.61	29.19
CP acts =	Total no. of citizens encountered by officer	1.00	54.00	17.17	9.25
	Total CP acts/total citizens =	0.00	14.50	2.42	2.41
	“Acts of comforting, providing information, and/or providing referrals per citizen encountered”				
	Minutes spent by officer attending community meetings	0.00	319.00	4.46	30.20
	Minutes spent by officer problem solving	0.00	640.00	9.37	53.53
	Minutes spent by officer engaged in crime prevention	0.00	791.00	26.52	87.46
	Total community policing time in minutes	0.00	1559.00	40.45	148.34
	Total minutes observed/480 minutes = shifts	0.15	10.13	2.30	1.84
CP time =	Total CP time/total shifts =	0.00	194.17	11.02	25.37
	“Minutes spent attending community meetings, problem-solving, or engaged in crime prevention per 8-hour shift”				

Notes:

$n = 318$

Table I.
Measurement and descriptive statistics for dependent variables

Values provided for CP Acts reflect the change of one outlier from 34.0 to 14.5
CP acts and CP time were transformed to integers for regression requirements
This was accomplished for both variables by simply rounding to the nearest whole number

Descriptive statistics for the CP time variable indicate that during the data collection period, the average officer spent about four minutes attending community meetings, about nine minutes problem solving, and about 26 minutes engaged in crime prevention. Summing these reveals that the average officer spent about 40 minutes on these community policing activities, and was observed for approximately two 8-hour shifts. The average officer therefore spent about 11 minutes per shift on community policing, or roughly 2 percent of each shift. Unlike the CP acts variable, the majority of officers ($n = 200$; 63 percent) spent no time engaged in community policing activities[10].

Measurement and description of independent variables

The independent variables included in the present study are grouped into three categories:

- (1) social capital dimensions;
- (2) characteristics of the officer's work environment; and
- (3) officer characteristics.

The measurement and descriptive statistics for all independent variables are contained in Table II.

Police social capital. This construct was measured by four variables: one ordinal variable and three variables that contain results from Principal Components Factor Analyses. Level of trust was measured by the officer's agreement with the statement "I have complete faith[11] in my supervisor." Most officers scored high on level of trust (83 percent agreed that they had "complete faith" in their supervisors). Items in the cooperative exchanges dimension reveal that 61 percent often gathered public safety information from other officers, and 73 percent said they would share hard-to-get information with all or most of the officers in their work group. Fewer cooperative exchanges occurred with supervisors: less than one in four (22 percent) often gathered public safety information from their supervisors. The group cohesion dimension reveals that about six out of ten officers consider their work units "better than most others," (61 percent) and consider all or most officers in their unit to be friends (57 percent). A majority of officers (78 percent) enjoy working with their supervisor. The support dimension also shows a high degree of positive sentiment among the officers. More than eight of every ten officers agreed that their supervisor looks out for the welfare of their subordinates (88 percent), supports the officer when he or she is right, even if it may make things difficult (86 percent), and rarely criticizes them (90 percent).

Work environment. A total of 38 percent of officers worked the day shift, 60 percent worked in the Indianapolis police department during the data collection period, and about one-third of officers had a community policing assignment.

Variable	Description	Values/range	Percent/mean	SD
<i>Officer characteristics</i>				
Female	Officer is female	1 = Yes 0 = No	20.8 79.2	0.41
Non-white	Officer is non-white	1 = Yes 0 = No	28.6 71.4	0.45
Education	Officer's highest level of education	1 = Some high school 2 = HS/GED diploma 3 = Jr college 4 = Assoc. degree 5 = 2+ yrs college 6 = Bach. degree 7 = Some grad. 8 = Grad. degree	0.7 16.4 26.6 6.8 17.4 27.3 4.4 0.3	1.63
Tenure CPO	Years at department Community policing officer	0-31 1 = Yes 0 = No	9.1 37.4 62.6	7.21 0.48
CP training	Additive scale of seven types of training (alpha = 0.81)	7-32	15.6	5.25
	Public speaking	1 = None 2 = < one day 3 = One to two days 4 = Three to five days 5 = > five days	62.2 15.6 9.5 3.4 9.2	1.29
	Computer/automated information systems	1 = None 2 = < one day 3 = One to two days 4 = Three to five days 5 = > five days	2.4 21.1 41.5 23.8 11.2	0.98
	Concepts/principles of CP	1 = None 2 = < one day 3 = One to two days 4 = Three to five days 5 = > five days	9.6 16.1 34.6 26.7 13.0	1.14
	Code enforcement/civil regulations	1 = None 2 = < one day 3 = One to two days 4 = Three to five days 5 = > five days	33.0 28.9 19.9 8.2 10.0	1.28
	Mediation	1 = None 2 = < one day 3 = One to two days 4 = Three to five days 5 = > five days	54.8 18.5 16.4 6.5 3.8	1.14

Table II.
Measurement and
descriptive statistics for
independent variables

(continued)

Variable	Description	Values/range	Percent/mean	SD	The impact of police social capital
	Using crime data to solve problems	1 = None 2 = < one day 3 = One to two days 4 = Three to five days 5 = > five days	50.2 29.4 13.7 4.8 2.0	0.99	
	Organizing community groups	1 = None 2 = < one day 3 = One to two days 4 = Three to five days 5 = > five days	76.4 13.4 6.8 1.4 2.1	0.84	
<i>Officer's work environment</i>					
Department	Officer's department	1 = Indianapolis 2 = St Petersburg	59.7 40.3	0.49	
Day shift	Officer works day shift	1 = Yes 2 = No	37.7 62.3	0.49	
Beat problems scale	Additive scale of officer's perceptions of seven problems in beat (alpha = 0.72)	7-21	15.7	2.96	
	Theft	1 = Not a problem 2 = Minor problem 3 = Major problem	1.4 50.3 48.3	0.53	
	Litter	1 = Not a problem 2 = Minor problem 3 = Major problem	20.0 44.8 35.2	0.73	
	Vandalism	1 = Not a problem 2 = Minor problem 3 = Major problem	15.9 57.8 26.3	0.64	
	Drug dealing	1 = Not a problem 2 = Minor problem 3 = Major problem	7.3 28.8 63.9	0.63	
	Gangs	1 = Not a problem 2 = Minor problem 3 = Major problem	26.3 40.1 33.6	0.77	
	Loitering	1 = Not a problem 2 = Minor problem 3 = Major problem	17.2 37.6 45.2	0.74	
	Abandoned buildings	1 = Not a problem 2 = Minor problem 3 = Major problem	25.6 38.8 35.6	0.78	
Dept pro CP scale	Additive scale of officer's perceptions of department support of CP (alpha = 0.82)	5-20	9.9	3.34	
	Department clarifies role of officers in CP	1 = Poor 2 = Fair 3 = Good 4 = Excellent	29.5 34.2 30.8 5.5	0.90	

(continued)

Table II.

Variable	Description	Values/range	Percent/mean	SD
	Department fairly distributes workload of CPOs and patrol officers	1 = Poor 2 = Fair 3 = Good 4 = Excellent	46.0 30.4 18.3 5.2	0.91
	Department gives officers enough time for CP	1 = Poor 2 = Fair 3 = Good 4 = Excellent	46.4 28.2 19.2 6.2	0.94
	Department gives officers information for CP	1 = Poor 2 = Fair 3 = Good 4 = Excellent	22.7 40.5 28.2 8.6	0.90
	Department rewards officers for CP	1 = Poor 2 = Fair 3 = Good 4 = Excellent	33.8 45.6 18.1 2.4	0.78
<i>Social capital dimensions</i>				
Trust	Officer has complete faith in supervisor	1 = Disagree strongly 2 = Disagree somewhat 3 = Agree somewhat 4 = Agree strongly	5.2 11.9 29.0 53.8	0.88
Cooperation	Principal component FA (alpha = 0.23) Officer gets public safety information from other officers (factor loading 0.56)	39 percent variance explained 1 = Never 2 = Rarely 3 = Sometimes 4 = Often	0.0 6.2 33.1 60.7	0.61
	Officer gets public safety information from supervisor (factor loading 0.62)	1 = Never 2 = Rarely 3 = Sometimes 4 = Often	5.9 26.2 45.9 22.1	0.83
	Proportion of unit that officer would share hard-to-get info with (factor loading 0.70)	1 = None 2 = A few 3 = About half 4 = All or most	0.3 15.4 10.9 73.4	0.76
Group cohesion	Principal component FA (alpha = 0.29) Officer rating of work unit compared to others (factor loading 0.76)	43 percent variance explained 1 = Not as good 2 = About the same 3 = Better than most	3.1 36.3 60.6	0.55
	Proportion of unit that officer considers to be friends (factor loading 0.79)	1 = None 2 = A few 3 = About half 4 = All or most	2.1 19.9 21.0 57.0	0.87

Table II.

(continued)

Variable	Description	Values/range	Percent/mean	SD	The impact of police social capital
Support	Officer enjoys working with supervisor (factor loading 0.33)	1 = Disagree strongly 2 = Disagree somewhat 3 = Agree somewhat 4 = Agree strongly	5.2 9.3 11.4 74.0	0.87	
	Principal component FA (alpha = 0.71)	64 percent variance explained			
	Supervisor supports officer when he/she is right (factor loading 0.89)	1 = Disagree strongly 2 = Disagree somewhat 3 = Agree somewhat 4 = Agree strongly	5.3 8.5 28.9 57.4	0.85	
	Supervisor seldom criticizes officer (factor loading 0.59)	1 = Disagree strongly 2 = Disagree somewhat 3 = Agree somewhat 4 = Agree strongly	3.8 5.9 19.4 70.8	0.77	
	Supervisor looks out for welfare of subordinates (factor loading 0.88)	1 = Disagree strongly 2 = Disagree somewhat 3 = Agree somewhat 4 = Agree strongly	4.5 7.3 21.6 66.6	0.82	

Table II.

An additive scale was constructed from seven issues the officer perceived to be a major problem in his or her beat. The mean response to the Beat Problems Scale was 15.7 (out of a maximum possible score of 21), indicating that most officers perceived several issues to be problems in their beats. The problem most frequently described by officers as a “major problem” was drug dealing (64 percent), followed by theft (48 percent), and loitering (45 percent).

Another additive scale was created from five items assessing officers’ perceptions of whether their department is supportive of community policing. The Department Support of Community Policing Scale had a mean response of 9.9 (out of a maximum possible score of 20). Less than one in ten officers described their department as “excellent” on any of the five items comprising this scale. Officers most frequently described their department as “poor” on two of the items:

- (1) “My department fairly distributes the workload of community policing and patrol officers” (46 percent).
- (2) “My department gives officers enough time for community policing” (46 percent).

Officer characteristics. The majority of officers in this study are male (79 percent) and white (71 percent). More than one in four officers hold a bachelor’s degree (27 percent), and more than half of the officers (56 percent) have an associate’s degree or more education. The average officer worked in the police department for nine years. A Community Policing Training scale was constructed using the amount of time each officer spent on seven types of

training[12]. The mean response was 15.7 (out of a maximum possible score of 32). Most officers reported receiving no training on organizing community groups (76 percent), public speaking (62 percent), or mediation (55 percent). Most officers received some training in computer/automated information systems (98 percent), concepts/principles of community policing (90 percent), or code enforcement/civil regulations (67 percent). About half of officers received some training on using crime data to solve problems (50 percent).

Regression models for count data

For the regression models, 14 independent variables were included in the regression analysis of 262 officers[13], resulting in approximately 18 cases per variable[14]. Dependent variables that involve counts of the number of times a particular act or event occurred, such as those being tested in the current study, can be found throughout social science research. There exists a burgeoning literature on regression models for count data that was consulted for this study (see Greene, 2000; Land *et al.*, 1996; Long, 1997; Zorn, 1998). Count variables represent types of events that are generally not experienced by most of the sample being studied, and are characterized by a nonlinear distribution. Applying the linear regression model (LRM) would therefore produce values that are inefficient, inconsistent, and biased. A more basic concern is that applying the LRM to count data could produce predictions that are less than zero (e.g. a negative amount of time spent on community policing). Two types of regression models that have been developed particularly for count outcomes are used in this study.

Negative binomial regression model. The primary benefit of the negative binomial regression model (NBRM) is that it was designed to address the issue of overdispersion that often exists in count data as a result of the variance exceeding the mean. The NBRM allows for the estimation of overdispersed count variables by adding a parameter that allows the conditional variance to exceed the conditional mean, known as the dispersion parameter, or alpha. The statistical package LIMDEP computes alpha, the dispersion parameter, for the NBRM. If the *t*-test of the alpha parameter is statistically significant ($p < 0.05$) this is evidence of a significant amount of overdispersion (i.e. the NBRM is suited to the data). A significant amount of overdispersion was evident in both the CP acts and CP time models.

Zero-inflated negative binomial regression model. An additional issue raised with count models is the prediction of zeros. Typically, the NBRM under-predicts the amount of zeros in the dependent variable. Zero-inflated models for count outcomes, such as the zero-inflated negative binomial (ZINB) regression model, address this problem by modeling the predicted zeros specifically. These models assume that a different process occurs for officers who perform no community policing compared to officers who perform some community policing. The tau parameter evaluates whether the

data should be modeled with a zero-inflated count model. A significant ($p < 0.05$) t -test of the tau coefficient indicates that the ZINB is a more efficient model and better at predicting zeros in the outcome measure compared to the standard NBRM.

Tau was significant for the CP time model, but not for the CP Acts model. The ZINB is therefore a more appropriate regression model for CP Time compared to the NBRM. This is not a surprising result given that the majority of officers did not engage in any minutes of community policing activity per shift (i.e. 165 of 262 officers had scores of zero). For CP acts, on the other hand, tau was never significant and the prediction of zeros never improved with the ZINB. When we consider that most officers did provide at least one act of community policing per citizen encountered (i.e. only 23 of 262 officers had scores of zero), it makes intuitive sense that the NBRM is better suited to CP acts than is the ZINB. In conclusion, results from LIMDEP indicate that NBRM is the best suited model for CP acts, whereas ZINB is the best suited model for CP time.

Independent variables included in the regression models were tested to determine the presence of multicollinearity. A condition number was derived by dividing the largest characteristic root from the correlation matrix by the smallest, then taking the square root of that number[15]. According to Greene (2000), a condition number less than 20 indicates that the variables are not multicollinear. The condition number for the matrix of independent variables was 4.32, indicating that concerns regarding multicollinearity are unwarranted.

Results

Bivariate findings

Table III presents the correlation analysis of the independent and dependent variables. What is most notable from this table is the lack of significant findings: only four of 28 relationships tested reached the conventional level of statistical significance. Only one variable increased the likelihood of community policing occurring – the other variables were negatively related to community policing. Police social capital was not related to community policing performance at the bivariate level.

Female officers engaged in more community policing as measured by CP time. On average they spent 23 minutes per shift engaged in crime prevention, problem solving, or attending community meetings, while male officers spent less than 10 minutes per shift on these activities. Indianapolis officers performed significantly less community policing, as measured by both CP time and CP acts, compared to St Petersburg officers. IPD officers spent about eight minutes per shift on community policing (compared to 18 minutes per shift for SPD officers) and provided two acts of community policing per citizen (compared to more than three acts per citizen provided by SPD officers). Officer

Table III.
Bivariate correlates of
community policing
variables

	CP time per shift		CP acts per citizen	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
<i>Officer characteristics</i>				
Officer female	0.178	0.004	0.074	0.234
Officer non-white	-0.038	0.536	-0.052	0.400
Officer education	-0.013	0.839	0.075	0.228
Officer tenure	-0.054	0.388	-0.174	0.005
CPO	0.101	0.102	0.064	0.300
CP training scale	0.008	0.895	-0.084	0.177
<i>Work environment</i>				
Department (IPD)	-0.185	0.003	-0.218	0.000
Day shift	-0.008	0.899	-0.104	0.095
Beat problems scale	-0.030	0.626	-0.047	0.447
Department pro-CP scale	-0.016	0.792	-0.069	0.267
<i>Social capital</i>				
Trust variable	0.057	0.360	0.017	0.779
Cooperation factor	-0.010	0.873	-0.072	0.243
Group cohesion factor	0.024	0.697	-0.042	0.502
Support factor	-0.014	0.827	0.053	0.396
Note: <i>n</i> = 262				

tenure was also negatively related to CP Acts. As tenure increased, the number of community policing acts provided per citizen decreased.

Multivariate findings

Table IV presents the findings from the regression analyses. The ZINB was used to regress officer characteristics, work environment, and social capital variables on CP time per shift. The NBRM was used to regress CP acts on the same set of independent variables. What is again notable is the overall lack of statistically significant predictors of community policing. None of the independent variables were significant predictors of CP time, and the social capital variables again were not related to either measure of community policing.

The regression for CP acts produced three significant predictors that all reduced the likelihood of citizens receiving acts of community policing. First, as officer tenure increased, the likelihood of CP acts decreased significantly (a reduction of 3 percent per year of experience)[16]. An officer with 11 years of experience, for example, would be 30 percent less likely to provide acts of community policing compared to an officer with one year of experience. Second, officers who had a community policing assignment were 30 percent less likely to provide acts of community policing to citizens compared to officers without a community policing assignment. The strongest effect was produced by the department variable. Officers working in Indianapolis decreased the expected number of CP acts by 47 percent.

	CP time per shift Zero-inflated negative binomial			CP acts per citizen Negative binomial		
	<i>B</i>	SE	<i>P</i>	<i>B</i>	SE	<i>P</i>
Constant	2.49	1.57	0.113	2.23	0.58	0.000
<i>Officer characteristics</i>						
Officer female	0.56	0.34	0.105	0.27	0.15	0.072
Officer non-white	0.05	0.42	0.901	-0.14	0.15	0.334
Officer education	0.05	0.10	0.587	0.03	0.04	0.442
Officer tenure	0.01	0.03	0.721	-0.03	0.01	0.004
CPO	-0.04	0.41	0.922	-0.36	0.18	0.038
CP training scale	0.03	0.04	0.456	0.00	0.02	0.808
<i>Work environment</i>						
Department (IPD)	-0.55	0.32	0.087	-0.63	0.16	0.000
Day shift	0.15	0.35	0.675	0.00	0.14	0.989
Beat problems scale	-0.01	0.06	0.816	-0.01	0.02	0.480
Department pro-CP scale	0.01	0.05	0.826	-0.01	0.02	0.581
<i>Social capital</i>						
Trust variable	0.07	0.32	0.829	-0.12	0.13	0.388
Cooperation factor	-0.08	0.18	0.642	-0.07	0.05	0.196
Group cohesion factor	0.19	0.19	0.299	-0.02	0.07	0.826
Support factor	-0.27	0.26	0.294	0.06	0.13	0.213
Alpha	1.09	0.22	0.000	0.27	0.07	0.000
Tau	0.13	0.04	0.002			
<i>Model fit</i>						
Log-L	-593.33			-503.52		
Vuong	10.91			52.86		
Df ^a	2			1		
Sig.	0.000			0.000		

Notes:

^a Compared to the Poisson model

n = 262

Alpha compares Poisson to the negative binomial regression model (significance indicates overdispersion and a better fit of the NBRM). Tau compares the NBRM with the zero inflated negative binomial regression model (significance indicates that the model significantly improves as a result of zero alteration). ZINB regressions were analyzed for both dependent measures. Tau indicated that ZINB was always better than NB for CP Time, but did not improve the fit for CP Acts. For the Vuong statistic, a value greater than +1.96 favors the ZINB model over the NBRM

Table IV.
Regression models for
community policing
variables

Summary and discussion

Of the three categories of independent variables (social capital, work environment, and officer characteristics), the social capital group did not have any explanatory power with regard to community policing. The most consistent significant result (both statistically and substantively) was the organizational environment in which the officer worked. Officers working in Indianapolis produced fewer minutes per shift and acts per citizen compared to officers working in St Petersburg. The substantial difference in community

policing performance between the two departments provides a strong indication of the importance that organizational factors play in the likelihood that officers will perform community policing.

The central question addressed by the current research, “What is the relative contribution of police social capital in a model that also includes characteristics of the individual officer and their work environment?” can be answered in a straightforward manner: none. The quality of officers’ relationships with their peers and supervisors did not influence whether officers spent time on community policing or provided community policing acts to citizens, controlling for officer characteristics and features of their work environments. Given the wealth of literature pointing to the potential importance of social capital in understanding police behavior, how can the current results be explained? Aside from any methodological limitations that may have contributed to the null findings (discussed later), why would levels of trust, cooperation, group cohesion, and social support among police not matter to community policing performance?

One explanation is that the relationships that are really important to officers wanting to engage in community policing are not police relationships, but rather citizen relationships. This study did not provide information on the extent to which officers were networked into relationships in the community. The four social capital dimensions of trust, support, cooperation, and group cohesion could be viewed as especially important elements of relationships between officers and citizens. Given that the central tenet of the community policing philosophy is that police and citizens should work together to reduce crime and increase safety in communities, describing the qualities of these relationships could provide an important explanation of community policing performance. Future researchers should consider assessing community policing performance in terms of networks of relationships within police organizations, within other relevant agencies, and within the citizenry, as well as relationships that reach across these different groups.

Another way to interpret the finding that “social capital does not matter” is in positive terms. Some might argue that police performance should not be dependent on levels of police social capital. In other words, police should engage in community policing (or any other police mandate) regardless of whether they have relationships with their peers and supervisors that are rich in trust, cooperation, support and/or group cohesion. In other words, police officers should do their jobs no matter what their level of resources. However, this interpretation relies on an individualistic and self-determined perspective on policing where officers’ performance is viewed as based solely on their own will, motivation, and determination. It removes consideration of organizational or environmental characteristics that have been shown to play an important role in behavioral outcomes among officers.

In this study CPOs performed about one-third less community policing than did general patrol officers. This finding is unexpected in that CPOs were predicted to perform more community policing, despite the fact that past research has found inconsistent results (DeJong *et al.*, 2001; Mastrofski *et al.*, 1995; Robinson and Chandek, 2000). There are two ways to interpret this finding. The first is that CPOs are not engaged in community policing as often as are general patrol officers. Because there is evidence to suggest that community policing is undervalued by the police subculture, perhaps officers who are less productive or in a career cul-de-sac are given these assignments. Future research should test this proposition. The second interpretation is that CPOs are engaged in more community policing activities, but the current study does not measure what it is they are doing. If we believe that giving an officer a dedicated community policing assignment will allow him or her to engage in more community policing, then we need to reassess how we operationalized this type of police work because the measures employed in this study, while comprehensive, did not capture “community policing.” This has obvious implications for how community policing is funded, evaluated, and discussed in the literature.

Finally, the department where the officer works exerted a substantial impact on community policing performance in this study. Officers in Indianapolis performed about half the amount of community policing compared with their counterparts working in St Petersburg. What organizational factors can account for such a pronounced difference in community policing performance in these two departments? The community policing literature offers several explanations that are discussed below.

Leadership

“Providing leadership and vision is an important part of any organizational change strategy” (Skogan and Hartnett, 1997, p. 91). Top police administrators are supposed to communicate the department’s philosophy, mission statement, goals, policies, and strategies to officers. They can provide leadership as to what activities are encouraged within the department, as well as the activities that are discouraged. Leadership is considered by some scholars to be especially important in the community policing era, as leaders must effectively convey what community policing is, how officers should practice it, and how the organization will provide the necessary support to accomplish it. Leaders can also convey values and beliefs that they feel will increase efficiency and productivity within a community policing context. In one study that used social capital as a framework for understanding community policing partnerships, the failure of the community policing program was attributed in part to “a lack of proper leadership in the police department to promote and enforce norms of trust, reciprocity, and co-production” (Pino, 2001, p. 213).

Chiefs in both Indianapolis and St Petersburg were hired due to their support and promotion of a community policing philosophy, but they varied in how they translated this philosophy into practice (see DeJong *et al.*, 2001; Parks *et al.*, 1999). In other words, the “vision” of community policing was substantially different for the two chiefs. In Indianapolis, the chief encouraged officers to engage in community policing via an aggressive order maintenance response. The leadership he provided facilitated an increased use of traditional police tactics (e.g. stops, arrests, searches and seizures) in an attempt to increase residents’ feelings of safety. The “partnership” element of community policing was accomplished primarily at the district level, with staff members attending community meetings. Officer-level engagement of the community was not encouraged. Officers with specific community policing assignments were known as “Crime Bill” officers; they were supposed to work together on community policing projects. Collaboration with community groups or patrol officers was not emphasized. In short, community policing efforts in Indianapolis were compartmentalized as the responsibility of a few organizational members.

Alternatively, the style of community policing exhorted by the chief in St Petersburg focused on problem solving. In fact, he had gained an international reputation for the geographic deployment of officers to enhance their ability to engage the community. In contrast to Indianapolis, community partnerships were encouraged at the officer level rather than at the district level. Community policing officers were supposed to work with patrol officers as a team to problem solve in their assigned areas. The chief emphasized that community policing was a responsibility of all the officers in the department, not just those with special community policing assignments. In support of this, the Chief changed the performance appraisals of all officers to reflect the new emphasis on community policing. In short, community policing efforts in St Petersburg were integrated into the responsibilities of all organizational members.

It should be noted that there are limits to what leadership can accomplish. A nation-wide survey of police administrators found that 98 percent agreed that community policing was a worthwhile reform effort, but 47 percent admitted that what community policing actually meant in practical terms was not clear (Wycoff, 1994). Perhaps most troubling, only 27 percent of police administrators felt that implementing community policing would require extensive organizational change (e.g. to policies, goals or training). Under these circumstances, Mastrofski (1998, p. 183) cautions that “police agency leadership is not a driving force” for accomplishing organizational change; rather, successful long-term change usually results from leaders recognizing and “riding the wave” of broader demographic, economic, social, and technological forces.

Other studies using data from the POPN also reveal the limits of leadership within the community policing era. DeJong *et al.* (2001) concluded that leadership does not play an important role in implementing new programs because officers' belief systems (i.e. their acceptance of the community policing philosophy) were not related to the amount of time they spent on problem-solving activities. To increase the amount of time spent on problem-solving activities, the authors recommended assigning officers to special units that emphasize this type of activity and where there is time to engage in these activities. Their study is consistent with much police research finding that situational or organizational factors are much more relevant determinants of officer behavior than are attitudes or beliefs (see Robinson (2002) for a review). As Trojanowicz *et al.* (1998, p. 188) noted, "administrators may expect only a limited amount of problem solving to occur by decree". Leadership must be coupled with the structural changes needed to support officer engagement in community policing. Some of these relevant changes are discussed below.

Organizational structure

Geographic responsibility. "For community policing to be successful there must be some level of geographic permanence" (Trojanowicz *et al.*, 2002, p. 13). Geographic permanence promotes ownership and responsibility among police for what happens on their beats. The community policing philosophy dictates that officers should be integrated into the community, and this is best achieved by having them permanently assigned to a particular area. In St Petersburg, CPOs worked with the general patrol officers in their assigned beats. The combined strategy of geographic permanence and having all officers work together might be one explanation as to why community policing performance was more likely to occur in SPD.

On the other hand, in Indianapolis, community policing officers were supposed to work together to accomplish community policing goals. In effect, this meant that their geographic responsibility covered the entire city. Goldstein (1990, p. 160) sums up the limitation of such a strategy with his statement that "... so much of policing consists of dealing with problems. And while some problems can be viewed as citywide and relatively uniform wherever they occur, most have a local character to them or may even be unique to a specific beat. It requires officers close to a community to identify them and to deal with them". Coupled with the fact that officers in Indianapolis were not encouraged to work with the general patrol officers assigned to particular areas, it is not surprising that their levels of community policing performance were lower than in St Petersburg.

Decentralization. This strategy assumes[17] that community policing will be best accomplished when officers work in an organization that is not controlled

centrally, but rather decentralized to enable variation in policing styles and strategies based on the characteristics and needs of different neighborhoods within a department's jurisdiction. Departments serious about community policing therefore push responsibility and authority down the organizational hierarchy rather than keeping it at headquarters. This restructuring is expected to enhance officer effectiveness because they are freed from rigid, standardized operating procedures and given the flexibility to create custom plans to address specific problems in their assigned beats. Decentralization empowers officers to use their discretion creatively without having their activities dictated to them by upper-management.

Reconfiguring the organizational structure to facilitate community policing took different forms in the two departments. In Indianapolis, community policing tasks were decentralized to the district level. This meant that district commanders were responsible for setting community policing goals and tasks and overseeing community policing projects occurring within their districts. To a certain extent then, officers still had their activities and priorities set for them by a member of management. St Petersburg more fully realized decentralization because community policing was decentralized to the officer level. This meant that individual officers would implement and develop community policing projects with the citizens they encountered on a daily basis. They were trusted to use their discretion appropriately to determine the types of community policing activities in which to engage. In terms of designing an organizational structure that facilitated officers engaging in community policing, therefore, SPD was more successful than IPD.

Methodological issues

In the field of social capital, researchers have expressed a concern related to social capital and how to "separate what it is from what it does" (Edwards and Foley, 1997, p. 669) because "equating social capital with the resources acquired through it can easily lead to tautological statements" (Portes, 1998, p. 5). The model tested in this research conceptualized social capital as a predictor of community policing, the idea being that officers with high levels of social capital would be more productive than officers who did not have this resource to draw upon to "get things done." In light of the findings, however, it might be productive to reconsider this conceptualization. The relationship between social capital and community policing, if one exists, is probably more complex. For example, a feedback-loop arrangement could exist where social capital and community policing are mutually reinforcing. That is, an increase in one leads to an increase in the other, and vice versa, and the cycle continues. The literature on social capital and educational outcomes has demonstrated that this is a distinct possibility (Furstenberg and Hughes, 1995; Teachman *et al.*, 1997).

Alternatively, we might conceptualize the relationship as having the reverse causal order than what was specified in this study: community policing performance could be influencing levels of police social capital. This model is feasible if we consider the possibility that productivity may increase social capital. For example, it makes sense to think of officers who frequently engage in problem solving, crime prevention, or attending community meetings as being able to increase their social capital because they are involved in projects that put them into contact with people with whom they may eventually form quality relationships. They may also be forced to share information and cooperate with other officers in order to successfully complete many community policing projects; this could also increase their social capital. Similarly, officers who frequently provide comfort, referrals, and information to citizens may be expected to have higher levels of social capital compared to officers who do not frequently engage the citizenry. These examples suggest that future researchers may want to consider carefully the causal order of the social capital and outcome constructs.

Finally, future research on police social capital should attempt to incorporate information on both the quantity and quality of both peer and supervisor relationships. An in-depth examination into one specific work group, including both qualitative and quantitative data collection, would aid our understanding of how and why police social capital is related to the performance of various policing activities. Officers could be asked specific questions about their peer and supervisor relationships, how these relationships help or hinder their performance, and their perceptions of the dimensions in these relationships that constitute the most important source of police social capital (trust, cooperation, cohesion, or support). We must also remember that police social capital could be two-dimensional: relationships with community members and with other police personnel. Observations of police-peer, police-supervisor, and police-citizen interactions therefore would constitute an invaluable source of data that could reveal the formation and utilization of social capital within this unique work environment.

Notes

1. The dimensionality of social capital is open to interpretation. One reviewer suggested that social capital also could be a second order construct in that it is measured by trust, and trust can be further measured by cooperative exchanges and group cohesion. Past research suggests that there are four dimensions of social capital, but this issue should be explored in more detail in future research.
2. An in-depth discussion of this methodology is provided by Mastrofski *et al.* (1998).
3. St Petersburg officers worked 8-hour shifts while Indianapolis officers worked 8.5-hour shifts. The decision was made to standardize the time measure by 8 hours because most police departments use shifts of this duration.

4. According to Carmines and Zeller (1979), scales that produce reliability coefficients greater than 0.70 are considered reliable. The reliability coefficient (Cronbach's alpha = 0.60) indicates that these three activities fall below the conventional standard; therefore findings related to this variable should be interpreted with caution.
5. Despite this standardization process, results could still be impacted by the ride-based sampling strategy and therefore additional tests were performed on this variable. Analyses were conducted to determine whether CP acts varied significantly depending on the number of rides for which the officer was observed. Results indicated that the mean CP acts did vary according to amount of observation: officers observed for one ride provided about one CP act; officers observed twice provided about two CP acts; officers observed three or more times provided almost five CP acts $F(2, n = 318) = 94.22, p < 0.001$. Despite the standardization of this variable, officers with multiple observations tended to provide more CP acts than officers observed only once.
6. Long-term was defined as longer than the ride being observed. Furthermore, the officer must have planned the activity prior to the ride.
7. Citizen organizations include neighborhood or other area-based groups, victim advocate groups, business groups, church or religious groups, school groups or other unspecified community groups. Additionally, the coding instructions required that representatives of the organization had to be acting as members on behalf of that organization for the activity to count as a community meeting.
8. The reliability coefficient (alpha = 0.72) indicates that this scale exceeds the conventional standard of 0.70 and can thus be considered reliable.
9. Analyses were conducted to determine whether CP time varied significantly depending on the number of rides for which the officer was observed. Results indicated that mean CP time did not vary according to the number of observations $F(2, n = 318) = 0.64, p = 0.53$. Overall, this dependent variable appears to have less measurement error and sampling bias compared to CP acts.
10. Removing the officers who spent more than 120 minutes from subsequent bivariate and multivariate analyses did not affect the results.
11. *Webster's Dictionary* defines faith as "confidence or trust in a person or thing." Although this variable is being used as a measure of trust, it could also be measuring faith or confidence.
12. The categorization of this variable reflects how it was asked on the surveys.
13. The statistical package used in this study, LIMDEP, requires that the dataset be free from missing data. The listwise deletion of cases missing scores on any of the variables resulted in the sample being reduced from 318 to 262 officers. In order to test whether this changed the sample of officers in any meaningful way, logistic regression analyses were run on the full sample ($n = 318$) to determine whether any of the independent variables significantly predicted the officer being excluded from the LIMDEP sample ($n = 262$). The dependent variable in these analyses, missing (coded 0 = included in sample, 1 = missing from sample), was not predicted by any of the independent variables to a statistically significant extent ($p < 0.05$).
14. According to Bryk and Raudenbush (1992), a common rule of thumb for multivariate analyses is a minimum of ten cases per variable included in the model. The sample to be analyzed in the present study therefore exceeds this minimum requirement.
15. Practically, this was accomplished by entering the correlation matrix for the independent variables into a database that was then read into LIMDEP. Commands were then specified to obtain the characteristic roots for the matrix. The condition number was then derived "by hand."

16. Long (1997, p. 228) provides a formula for transforming beta coefficients from Poisson or negative binomial regression into percentages for ease of interpretation. The formula is $(= 100[\exp(\beta) - 1])$. The formula was computed for all significant ($p < 0.05$) coefficients.
17. This assumption is commonly purported in the community policing literature. As one reviewer pointed out, however, there is little empirical support for this proposition.

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