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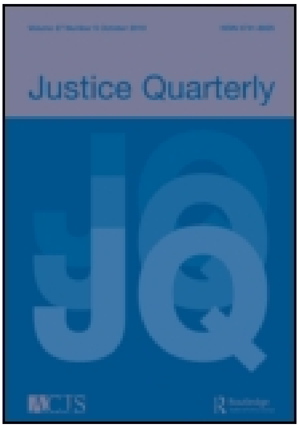

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Structural change in large municipal police organizations during the community policing era

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STRUCTURAL CHANGE IN LARGE MUNICIPAL POLICE ORGANIZATIONS DURING THE COMMUNITY POLICING ERA*

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The organizational structures of large municipal police departments in the United States have changed substantially during the twentieth century. Many of these changes can be attributed to new technologies, increasing demands from communities to broaden the scope of their services, and efforts to prevent corruption. Precinct-based police organizations employing only sworn police officers have been transformed into highly centralized, specialized, formal organizations with tall hierarchies and large administrative units. Community policing reformers have attempted to reverse this progression toward more "bureaucratic" organizational forms. They argue that police should thin out their administrative components to cut red tape and to focus more resources on the goals of the organization than on the organization itself; deformalize, eliminating unnecessary rules and policies; despecialize, to encourage departmentwide problem solving; "delayerize," to enhance communications and decision making by flattening the organizational hierarchy; and civilianize, to use departmental resources more efficiently. By altering many of their key administrative arrangements, critics argue, police departments can develop more flexible, more responsive service delivery. Using a quasi-experimental design combining data from a variety of sources, this paper examines whether the community policing movement has succeeded in altering the organizational structures of large municipal police departments over the six-year period from 1987 to 1993. The sample agencies experienced only minimal changes in organizational structure during the study period, and there were no significant differences in levels of change between agencies that claim to practice community policing and those which do not.

> Despite some continuity with past forms and functions, police organization in the twentieth century has evolved in response to changes in technology, social organization, and political governance at all levels of society. . . . Bureaucratization of the police has produced numerous changes within departments and has been strongly influenced by

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> changing conditions from outside of departments. Community-based and problem-oriented policing are reshaping the way in which some police organizations conduct their business. (Reiss 1992:51)

The organizational structures of large municipal police departments in the United States have changed substantially throughout the twentieth century. Many of these changes can be attributed to the emergence of new technologies such as the patrol car, mobile two-way radios, and advances in dispatching technology; all of which served to centralize police territorially (Manning 1992; Reiss 1992). Rising crime rates during much of the century, coupled with a change in focus on different types of crimes (e.g., drug violations, juvenile crimes, bias crimes, drunk driving, environmental crimes, family violence), led departments to modify their structures in a variety of ways, including the development of formal written policies and/or specialized units for dealing with these issues (Reiss 1992). Corruption problems, often concentrated more heavily in specific precincts, led to the development of administrative mechanisms for preventing future corruption (Fogelson 1977). Responses varied by department, but generally took the form of rigid control structures such as formal written policies, centralized operations, and larger administrative staffs. Throughout the twentieth century, precinct-based police organizations employing only sworn police officers have been transformed into highly centralized, specialized, and formal organizations with tall hierarchies and large administrative units (Fogelson 1977; Reiss 1992).

Over the past few years, however, community policing reformers have attempted to reverse this progression toward more complex police organizations by suggesting that police departments must modify their organizational structures to accommodate the new demands imposed by community policing. Bureaucratic departments, they argue, hinder efficient, effective, responsive service delivery. Police departments are now told that if they truly want to implement community policing, then they must begin by modifying their organizational structures. Specifically, they must decentralize, both territorially and administratively (Kelling and Moore 1988; Mastrofski and Ritti 1995; Moore and Stephens 1992; Skolnick and Bayley 1988); they must deformalize, eliminating unnecessary rules and policies (Goldstein 1990); they must despecialize, developing a front line of "uniformed generalists" (Mastrofski and Ritti 1995); they must "de-layerize" by shortening their rank structures (Mastrofski 1994; Moore and Stephens 1992); and they must civilianize by replacing sworn officers with civilians in a variety of clerical, technical, and professional duties (Crank 1989; Lutz and

Morgan 1974; Skolnick and Bayley 1988). Community policing reformers argue that police departments can serve their communities in a more flexible, more responsive manner by altering many of their key administrative arrangements.

In this paper I examine whether the community policing movement has succeeded in altering some elements of formal organizational structures in large municipal police departments over the six-year period from 1987 to 1993. We might expect to find such changes for two reasons. First, as highlighted above, reformers have *explicitly* outlined the types of structural changes that police organizations should make. Second, as organization theorists have known for many years, changes in the operational technology of an organization should *implicitly* produce certain structural modifications as the organization drifts toward an appropriate "fit" between technology and structure (Woodward 1965). According to reformers, community policing represents a fundamental shift in the social technology[1] of policing, from one centered on people-*processing* to one centered on people-*changing* (Mastrofski and Ritti 1995). To make this shift, which is at the very heart of community policing, police officers require a flexible organizational environment that enables them to design creative solutions to distinctive social problems. If police organizations truly are moving toward community policing, we should find evidence of structural change for either of two reasons: because it is an explicit element of the reform prescription, or because it is an implicit result of the change in the way police do business.

The analysis of structural change and community policing was made possible by forming a unique database consisting of data from five sources: three waves of the Law Enforcement Management and Administrative Statistics series (1987, 1990, and 1993) produced by the Bureau of Justice Statistics (Reaves 1992); a national survey of community policing conducted by the Police Foundation in 1993 (Wycoff 1994); and another national survey of community policing conducted jointly by the National Center for Community Policing at Michigan State University and the FBI Behavioral Sciences Unit (Trojanowicz 1994). Together these data sources provide abundant information for examining the relationship between community policing and structural change in large municipal police organizations.

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[1] For a review of the difference between social and material technologies, see Mills and Moberg (1982).

THE STRUCTURE OF POLICE ORGANIZATIONS

Organizational structure is the formal apparatus through which organizations accomplish two core activities: the division of labor and the coordination of work (Scott 1992). Mintzberg's definition of structure eloquently reflects these two dimensions:

> Every organized human activity—from the making of pots to the placing of a man on the moon—gives rise to two fundamental and opposing requirements: the division of labor into various tasks to be performed, and the coordination of these tasks to accomplish the activity. The structure of an organization can be defined simply as the sum total of the ways in which it divides its labor into distinct tasks and then achieves coordination among them. (1979:2)

Though all large municipal police organizations in this country perform similar functions, their structures vary widely, as in many other types of organizations. Scott (1992:1) comments, "[W]hile organizations may possess common generic characteristics, they exhibit staggering variety—in size, in structure, and in operating processes."

Organizational structures vary along numerous dimensions. Over the past three decades, organizational theorists and empirical researchers have identified dozens of individual structural variables. Some of these have been discussed widely in the literature; others have appeared only briefly. Some have achieved a broad consensus among organizational scholars as core elements of structure; others have been dismissed or ignored. Some overlap conceptually with others; some are considered conceptually distinct. But nearly all relate to the way an organization divides, controls, coordinates, and organizes its workers and its work. The core elements of organizational structure are differentiation, formalization, centralization, and administration (Blau and Schoenherr 1971; Child 1973; Hage and Aiken 1967; Hall, Haas, and Johnson 1967; Hsu, Marsh, and Mannari 1983; Kriesburg 1976; Mintzberg 1979; Rushing 1976; Scott 1992).

Elements of Organizational Structure

Differentiation, according to Langworthy (1986), takes four forms: vertical, functional, occupational, and spatial. Vertical differentiation focuses on the hierarchical nature of an organization's command structure, including its segmentation, concentration, and height. Organizations with elaborate chains of command are more vertically differentiated than those with "flatter" command structures. Segmentation is the number of command levels in an organization, concentration is the percentage of personnel located at various levels, and height is the social distance between the lowest-

and the highest-ranking employees. Functional differentiation is the degree to which tasks are broken down into functionally distinct units. An organization with a sales force, a separate production staff for each product, a planning staff, and an engineering group is more functionally differentiated than an organization containing only one department. Occupational differentiation is the degree to which an organization uses specially trained workers.[2] Occupational and functional differentiation are sometimes, but not always, related. Functional differentiation measures the division of tasks; occupational differentiation measures the division of staff (Langworthy 1986). Spatial differentiation is the extent to which an organization is spread geographically (Bayley 1992; Langworthy 1986). A police agency with a headquarters and several precinct stations is more spatially differentiated than a department that operates out of a single police facility.

In addition to the four primary elements of differentiation, three other elements of organizational structure are centralization, formalization, and administration. Centralization is the extent to which the decision-making capacity in an organization is concentrated in a single individual or a small, select group. Formalization is the extent to which actors in an organization are governed by specific rules and policies. Administrative density or "administrative overhead" refers to the size of the administrative component in an organization (Crank 1990; Langworthy 1986; Monkkonen 1981; Scott 1992). In the organizational literature, these three structural elements are often known collectively as "control" or "coordination" mechanisms.

Other measures of structure have emerged as well: some are similar to those explained here but are named differently, and others are labeled mistakenly as elements of structure. The dimensions of organizational structure listed here are not exhaustive, but represent those appearing most frequently in the literature. These elements are not merely theoretical categories; they represent real choices faced by those seeking to design or redesign an organization. Taken together, like separate components of a personality, they define an organization's structure.

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[2] Langworthy (1986) operationalizes this variable as the percentage of civilians employed by the agency. Although civilians in police organizations perform a variety of functions that are not necessarily specialized (e.g., Lutz and Morgan 1974), they represent a separate occupational category from sworn police officers.

The Evolution of Police Organizational Structures

Organizational structures do not stand still: They have been targeted by reformers for decades, and they have evolved in response to a number of social, political, and technological themes prominent in American history. During the earliest stages of American policing, police departments were geographically based. Precinct Captains were the main source of power in the organization; each one running essentially a small-scale department. Officers walked beats, rang neighborhood callboxes, and were responsible for particular patches of "turf." Policemen were "amateurs"; often their authority was based on the man rather than the institution (Miller 1977). Partisan control of the police, and thus corruption, were prominent in the early days of policing (Fogelson 1977; Miller 1977; Woods 1993). Police agencies were characterized by relatively simple organizational structures.

In the twentieth century, a variety of social and technological changes led to a gradual increase in the complexity of police organizations (Kelling and Moore 1988). The emergence of the patrol car and the mobile two-way radio led to the initial displacement of the old geographically based model. Police cars enabled officers to cover greater areas of territory, and emerging dispatch technologies enabled supervisors to exercise control over officers far away. According to Reiss (1992:52), "the span of technological control widened the span of administrative control," thereby laying the groundwork for police organizations to centralize both geographically and administratively. Problems with police corruption furthered the trend toward centralization as departments sought to buffer themselves from the threat of future corruption.

The emergence of new technologies (e.g., ballistics, automated fingerprinting, computerized crime analysis) led police departments to form specialized units for handling these functions and/or to hire new personnel with specialized skills. Newly emerging (or newly discovered) social problems fostered increasing functional differentiation as police agencies formed new squads to handle issues such as family violence, bias/hate crimes, and environmental crimes.

Increases in specialization and centralization led departments to expand their administrative components and implement an increasing number of formal rules, policies, procedures, and standards in order to manage the increasing organizational complexity. The result of this historical evolution in police organizational structures is the bureaucratic structural form that characterizes most police organizations today and has been attacked by critics and reformers for many years (Angell 1971; Bayley 1994; Cordner 1987; Skolnick and Bayley 1986).

Critics argue that the bureaucratization of large police organizations has insulated them from the communities they are supposed to serve (Kelling and Moore 1988). Past reform efforts have not succeeded in remedying these structural defects. Following the influential report of the President's Commission (1967), most police departments developed or expanded specialized community service units that focused mainly on community outreach activities. In team policing, which emerged in the early to mid-1970s, specialized squads of officers were decoupled from the "regular" patrol force to engage in a variety of problem-solving and community engagement activities (Walker 1993).

Neither community service units nor team policing squads were very successful in bringing police closer to the public. Both approaches separated the work of community outreach, community engagement, and problem solving into specialized units, thereby shifting the responsibility for performing these functions away from the entire department (or the whole patrol force). Thus community engagement and problem solving became isolated activities, practiced by only selected personnel in the organization. By isolating community activities into peripheral specialized units, police departments buffered their patrol operations from the demands of reformers, adopting a classical institutional response to external demands for reform: They implemented symbolic efforts at reform that were only loosely coupled with the day-to-day operations of the organization (Crank and Langworthy 1992; Manning 1971).[3] These early reform efforts had little impact on the structures of police organizations.

The failure of police reform efforts in the 1960s and 1970s, to bring police closer to communities set the stage for the emergence of community policing (Walker 1993). Community policing, as defined in the vast reform and research literatures, involves many of the same strategies as earlier reform efforts, such as community outreach, problem solving, and community engagement. One major difference is that community policing is envisioned, in its ideal form, as a departmentwide activity *with distinct implications for the way police organizations are structured.*

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[3] In addition, officers engaging in community-based work were often marginalized by other officers for not doing "real" police work. In fact, there is some evidence that community officers were selected for such duties because they were deemed unfit for "regular" police work (Skolnick and Bayley 1986). As Moore recalls, "[T]he community relations units became known as 'grin and wave' squads and 'rubber gun' squads" (1992:135).

COMMUNITY POLICING

Community policing is embraced by many as the "new orthodoxy" in American policing (Eck and Rosenbaum 1994). Over the last decade, the community policing movement has gained a great deal of support from scholars, reformers, politicians, and the public (Rosenbaum 1994). Police executives are pressured by citizens and local government officials to implement community policing strategies (Friedman 1994; Zhao 1996). It has been endorsed by a variety of national and international professional police organizations (Community Policing Consortium 1994). The last three U.S. presidents—Bill Clinton, George Bush, and Ronald Reagan—have supported it. And with the implementation of the 1994 Crime Act, particularly the $8.8 billion "Cops on the Beat" program, community policing has received a legislative seal of approval from the federal government (U.S. Congress 1994). Police agencies who want to receive federal aid to hire new police officers under the Crime Act *must* implement it. The message is simple and clear: Police departments who don't accept community policing aren't doing the right things.

Given the tremendous pressure on American police agencies over the past decade, to implement community policing, one might expect that many have succumbed to the pressures for reform. Indeed, in the sample of 236 large metropolitan American police agencies used in this study, 44 percent report that they have adopted community policing, 47 percent say they are currently in the planning or implementation process, and only 9 percent report that they have no plans to adopt community policing. Because of recent federal initiatives to promote community policing, it is likely that many of these "holdouts" will move toward community policing in the near future.

Although most large American police departments say that they already have implemented or are planning to implement community policing, it is uncertain to what extent they have actually made substantive changes. Community policing has become the new rhetoric of policing in the 1990s, and many people do not understand what the term means (Greene and Mastrofski 1988; Hunter and Barker 1993; Manning 1988). For some it means problem solving and order maintenance; cleaning up tattered neighborhoods, revitalizing depressed areas, and fixing "broken windows" (Wilson and Kelling 1982). For others it means community relations: instituting foot and bicycle patrols, becoming familiar with residents and business owners, and many other activities that are designed to bring police officers closer to the communities they serve. To the leaders of the movement, much of what is new in policing, from the mundane to the ambitious, is mislabeled as community policing (Goldstein 1994; Skolnick and Bayley 1988). To many critics, including some police officers, community policing is nothing more than image management or a public relations gimmick. As Bayley (1988:225-26) warms, "[I]t is a trendy phrase spread thinly over customary reality. Unless the state of affairs changes, . . . it will be remembered as another attempt to put old wine into new bottles."

Most scholars and police executives who support the community policing movement view it as a new philosophy of policing rather than a simple programmatic innovation. Two seminal articles in the movement, written by Goldstein (1979) and by Wilson and Kelling (1982), set forth the framework for a new vision of the police role (Walker 1993). To these authors, community policing means more than implementing ministrations and foot patrols, or setting up neighborhood watches. Community policing, in its ideal sense, means changing the traditional definition of policing from one of crime control to one of community problem solving and empowerment. In additional to redefining the police mission, a practical shift to a community policing strategy means changing the "principal operating methods, and the key administrative arrangements of police departments" (Moore 1992:103). To effectively implement this strategy, reformers argue, police departments must redesign their organizations from the ground up.

WHY COMMUNITY POLICING MIGHT PRODUCE STRUCTURAL CHANGES

For two compelling reasons, we should expect to find evidence of structural change in police agencies that have implemented community policing. First, community policing reformers have *explicitly* included prescriptions for structural change in their overall reform agendas. Second, community policing represents a significant change in the core operational technology of the police. As organizational theorists have known for many years, changes in technology, whether social or material, often lead *implicitly* to changes in structure.

Explicit Structural Change

Nearly every reference in the community policing literature mentions the need for police organizations to implement some form of structural innovation as part of their overall effort at implementation. The organizational structures of community policing departments are supposed to differ markedly from those of "traditional" departments. Manning (1989), for example, distinguishes between "community policing" and "bureaucratic" police departments, implying that the two are polar opposites. Similarly, in his discussion of the "Cedar City" Police Department's difficulty in adopting community policing, Scheingold observes that "it was one thing to direct the department along responsive lines and quite another to give up bureaucratic control to the extent required by community policing" (1991:113). Greene, Bergman, and McLaughlin believe that organizational structure is integral to the very survival of the movement:

> For community policing to become a central feature of American law enforcement, the institutional framework and organizational apparatus of police organizations must be altered. . . . The success or failure of community policing then is in large measure affected by the organizational structures and processes that characterize modern-day policing. (1994:93)

Because traditional organizational structures are blamed for many of the ills plaguing American police departments (Angell 1971; Goldstein 1977:114-15), the community policing literature overall argues forcefully that structural change is necessary for the survival of community policing.

If contemporary reformers are correct, then departments that implement the programmatic components of community policing without the structural changes required by an overall shift in philosophy will lack the appropriate infrastructure to support community policing activities, and will maintain or eventually revert to more traditional forms of policing. Major changes in an organization's structure are not accomplished by renaming divisions or by shuffling boxes on an organizational chart. They involve significant changes in the administrative apparatus of the department. Community policing reformers have exhorted police organizations to decentralize their operations and management, to reduce their reliance on specialized units, to flatten their chains of command, to reduce needless formal policies and procedures, to replace sworn officers with civilians where possible, and to reduce the size of their administrative components. These structural changes are supposed to produce leaner, more responsive police organizations (Mastrofski 1994; Mastrofski and Ritti 1995).

Yet there are significant obstacles to implementing such changes. Organizational inertia constrains reformers' ability to implement significant structural changes *in any type of organization* (Hannan and Freeman 1984), and police organizations are notoriously difficult to change (Guyot 1979; Sparrow, Moore, and Kennedy 199; Tafoya 1990). Therefore departments probably vary widely in the quantity and quality of structural changes motivated by their plans for, or adoption of, a community policing strategy.

Reformers are uncertain whether structural change is a *component* of community policing (e.g., Skolnick and Bayley 1986, 1988), a necessary *precursor* to community policing (e.g., Greene et al. 1994), or simply a *helpful feature* that might enhance community policing (Goldstein 1979). The literature, although clear about highlighting the need for structural change, is unclear about where it fits temporally into the implementation process (Wycoff 1994). Yet despite this uncertainty, nearly all reformers agree that structural change should be included as at least one element in a department's efforts to implement community policing.

Implicit Structural Change

Community policing is a new way of doing police work. For many years, policing has been described as a people-processing enterprise characterized by a variety of impersonal techniques for "slotting" clients into categories and providing canned responses to unique social problems[4] (Lipsky 1980; Prottas 1978; Waegel 1981). Reformers argue that police should not be so obsessed with routine *people-processing* activities (e.g., making arrests, filling out reports, issuing citations), but should focus instead on *people-changing* activities (Mastrofski and Ritti 1995). These might include building up neighborhoods, designing custom solutions to local problems, forging partnerships with other community agencies, and various other nonroutine police activities.

Community policing, in its ideal sense, represents a dramatic change in the way police organizations operate—a fundamental change in their operational "technology." Organizational theorists generally define technology as "a system of techniques" for accomplishing work or transforming raw materials into outputs (Perrow 1967; Scott 1992; Thompson and Bates 1957:325). Whereas manufacturing organizations tend to rely on material technologies such as computers and mechanical devices, service organizations such as the police depend more on "social" technologies (Glisson 1978; Manning 1992; Mills and Moberg 1982; Reiss 1992). People are the raw material of police organizations, and the type of social technology that the police select dictates how they process their raw materials. Because community policing entails a fundamental shift in the way the police transform raw materials into outputs—from people-processing to people-changing—it is a new technology of policing (Mastrofski and Ritti 1995).

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[4] The tendency to slot clients into categories is not restricted to the police; it is also common in other criminal justice agencies (McCoy 1993; Sudnow 1965) and in many other types of human service bureaucracies (Lipsky 1980).

Changes in operational technology frequently produce changes in organizational structure. Technology lies at the heart of functionalist theories of organizations, which assume that *what organizations do* determines how they are structured. Since the influential work of Woodward (1965), organizational scholars have regularly employed measures of technology in models explaining organizational structure. Many researchers have confirmed that technological differences produce structural differences (Dewar and Hage 1978; Hage and Aiken 1969; Van de Ven and Delbecq 1974; Woodward 1965), though others have found that the relationship is weaker than expected (Hickson, Pugh, and Pheysey 1969; Hsu et al. 1983; Pugh et al. 1969). The lack of consensus on the effect of technology on structure may be attributable to the variety of measurement schemes used and to the diversity of organizations studied. Different types of organizations use widely different technologies, and capturing this variation is extremely difficult.

Still debated is whether there exists a "technological imperative" that implicitly dictates how organizations are structured.[5] If such a technological imperative exists in police organizations, we should find evidence of structural change in those agencies which practice community policing.

RESEARCH QUESTIONS

The formal structures of large organizations vary along a number of dimensions. Nearly all of the dimensions that I discussed above are relevant in some way to community policing reform. Unfortunately, however, not all of these variables are available in existing data sources on American police agencies. Specifically, the data used in this analysis contain no measures of centralization or spatial differentiation. Thus the number of structural elements included here represents only a subset of those

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[5] Mohr (1971:452) explores an alternative possibility, that "technology may not actually force structure, but rather that organizations will be effective only insofar as their structures are *consonant* with, or follow the dictates of, their technologies". The consonance hypothesis has received qualitative support over the years from researchers noting how the "fit" between technology and structure is integral to organizational effectiveness (Burns and Stalker 1961; Mastrofski and Ritti 1995; Woodward 1965). If the consonance hypothesis holds, we may find evidence of structural changes only in those police organizations which are "effective." As with all human-service agencies, however, judging effectiveness in police organizations requires normative judgments about agency goals; therefore measuring effectiveness is difficult (Langworthy 1986; Ostrom 1973).

which interest community policing reformers. In this study I examine patterns of change in five structural variables: functional differentiation, vertical differentiation, occupational differentiation, formalization, and administrative density.

Functional Differentiation

Functional differentiation, as described earlier, is the degree to which an organization's tasks are broken down into functionally distinct units (Langwsorthy 1986). Police organizations have become more and more functionally differentiated during the twentieth century (Reiss 1992).[6] Under community policing, however, police organizations are encouraged to develop a front line of "uniformed generalists" well versed in dealing with a variety of social problems. This arrangement avoids placing all responsibility for particular problems on a single unit because, as Moore (1992:135) suggests, "[O]nce a special squad is formed, everyone else in the department is seemingly relieved of responsibility."

Although police departments have become more functionally differentiated in recent decades, it might be expected that departments practicing community policing would experience a reversal of this trend. The first research question examines whether functional differentiation in police organizations decreased from 1987 to 1993, and whether there are discernible differences between agencies which claim to practice community policing and those which do not.

Vertical Differentiation

Height, one component of vertical differentiation, is the distance from the bottom to the top of the organization, or the amount of social space between the lowest- and the highest-ranking employees (Black 1976; Langworthy 1986). Smaller organizations generally tend to be flatter and larger organizations tend to be taller, but not all the variation in height can be explained by organization size.[7] Langworthy (1986:40) measured the height of police departments with a standardized pay differential that he constructed by "subtracting the lowest paid officer's salary from the highest paid officer's salary and dividing that difference by the lowest salary."

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[6] The police are famous for dealing with new problems by forming specialized units (Bayley 1994; Mastrofski 1994; Moore 1992). Sparrow, Moore, and Kennedy (1990) quote an appropriate London Metropolitan Police saying: "When in doubt, form a squad and rush about."

[7] In Langworthy's (1986) study, size explained between 2 and 26 percent of the variance in height, depending on the sample used. Crank and Wells (1991) found that size has a nonlinear effect on height: The effects of size on height are greater in smaller departments.

The larger the difference, the greater the height of the organization. Police rank hierarchies have been described (and criticized) for decades as rigid, paramilitary control structures that stifle innovation and slow decision making (Angell 1971; Bayley 1994; Guyot 1979; Heisel and Murphy 1974; Moore 1992).

To overcome this state of affairs, community policing reformers suggest that police organizations must become flatter, either by developing more informal managerial methods that would give subordinates more flexible access to superordinates, or by formally reducing the number of command levels (Mastrofski 1994). In the second research question I address whether reformers have been successful in "flattening" police organizations, and whether there are differences between community-policing and noncommunity-policing agencies.[8]

Occupational Differentiation

Langworthy (1986) operationalized occupational differentiation as the proportion of employees who are not sworn police officers, or the degree of "civilianization" (Crank 1989; Lutz and Morgan 1974).[9] Proponents herald civilianization as a cost-effective means of redeploying more expensive sworn officers from duties that could be performed as well by nonsworn personnel. Many police agencies, however, have resisted civilianization because officers perceive civilians as a threat to future police hiring, as an affront to the militaristic image of policing, and as a technique used by police executives to gain more extensive control over departments (Crank 1989).

Civilianization was one of the recommendations for police reform made by the President's Commission in 1967, and in recent decades, police departments have employed increasing numbers of civilian personnel (Guyot 1979). Unlike the other elements of structural reform discussed here, civilianization is an ongoing trend that community policing reformers encourage rather than seeking to reverse. The third research question is whether civilianization has continued to increase in this sample of police agencies, and whether there are discernible differences between community-policing and noncommunity-policing agencies.

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[8] Unfortunately, the data sets used in this study do not contain information on segmentation and concentration, the remaining two components of vertical differentiation.

[9] Although we are interested in the theoretical concept of occupational differentiation, this variable has been operationalized in prior research as the level of civilianization. Because *civilianization* is a more straightforward term for describing the proportion of police employees who are not sworn officers, I use it throughout the remainder of this paper.

Formalization

Formalization is the degree to which an organization is governed by formal (written) rules, policies, procedures, and standards (Hall et al. 1967). Formalized organizations are characterized by mountains of rules, piles of forms, and rigid standards of conduct. Accounts of overformalistic police agencies are common. As an extreme example, Reiss (1992) cites the Kansas City (MO) Police Department, which has 356 separate forms for reporting police matters.

Community policing advocates often argue that formalization stifles creativity and encourages generic, stock responses to the complex social problems that the police face each day (Mastrofski 1994). Although police have become more formalized during the twentieth century (Reiss 1992), it might be expected that this trend would be reversed under community policing. Thus the fourth research question is whether formalization in police organizations decreased from 1987 to 1993, and whether there are discernible differences between agencies which claim to practice community policing and those which do not.

Administrative Density

Administrative density is the size of the administrative component (Langworthy 1985). In the general literature on organizational structure, studies often use this variable as an overall indicator of bureaucratization (Scott 1992).[10] The logic of this rationale is simple: The more people employed in administrative duties, the fewer people doing the actual core work of the organization. Police organizations have become increasingly bureaucratic since the late nineteenth century (Monkkonen 1981; Reiss 1992). Under community policing, however, police organizations are supposed to become less bureaucratic (Mastrofski 1994). Thus the fifth research question is whether administrative overhead has decreased in those agencies which claim to practice community policing.

DATA AND METHODS

I obtained data for this study by merging five separate databases. The first three of these databases are the three separate waves of the Law Enforcement Management and Administrative Statistics (LEMAS) series (1987, 1990, and 1993) produced by the

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[10] This study uses a measure of "horizontal" administrative density, which refers to the amount of resources devoted to administrative support. Some theorists contrast this usage with "vertical" administrative density, which refers to the size of the supervisory component.

Bureau of Justice Statistics (Reaves and Smith 1995). The LEMAS series provides a wide range of information on the organizational features of American police agencies, and is used here to measure the various elements of structure.

The fourth database used here is a national survey of community policing conducted by the Police Foundation in 1993 (Wycoff 1994). This survey was distributed to the same large police agencies as the LEMAS surveys, and thus offers an opportunity to link the separate data sources.

The fifth database is another national survey of community policing, conducted jointly by the National Center for Community Policing at Michigan State University and the FBI Behavioral Sciences Unit (Trojanowicz 1994). This survey contains only two variables of interest, one of which is not available in any other data source: how long agencies have been practicing community policing. Because the implementation of community policing is regarded in this study as a quasi-experimental "treatment" occurring between 1987 and 1993, I use this variable to verify the assumption that nearly all agencies began practicing community policing during or near this period.[11] The data are being released only to selected scholars by the National Center for Community Policing (e.g., Yeh 1994), but the Center was kind enough to supply me with information on two variables.

Together these data sources provide abundant information for examining the relationship between community policing and structural changes in large municipal police organizations.

The Sample

The sample of police agencies used in this study was not selected randomly. I seek to generalize only to large municipal police agencies employing 100 or more full-time (actual, not authorized) sworn officers. Because there are only about 435 such agencies[12] in the United States, according to the 1992 Directory Survey of Law

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[11] The MSU data contains information on year of community policing (CP) implementation for 115 of the 236 agencies in this sample (recall that only 104 agencies in the Police Foundation data claimed to practice community policing). Only 68 (59 percent) of the agencies that reported to MSU the year they had implemented community policing later reported to the Police Foundation that they practiced CP. Thus 41 percent of the agencies reporting year of CP implementation to MSU *later reported to the Police Foundation that they didn't practice CP.* This issue is covered in greater detail in the "discussion" section.

[12] Municipal police agencies are those which serve local governments; this definition excludes all special, county, state, and federal law enforcement agencies. There are 12,444 municipal police agencies in the United States serving 165,113,274 persons and employing 349,647 sworn full-time police officers. Although the 435 largest of these agencies account for only about 3 percent of the total, they serve 48 percent of the total population covered by all municipal police agencies, and employ 57 percent of the police officers.

Enforcement Agencies (Reaves 1993), it would have been advantageous to select the entire population for this analysis. Unfortunately, however, this was not possible because of survey and item nonresponse in one or more of the four primary data sets: To be selected for inclusion in this study, a department had to respond to all four of the surveys constituting the merged data set, and also must have completed every applicable survey item. Only 236 of the 435 eligible departments (54 percent) met these criteria. Thus, due to survey and item non-response, the data set used for this analysis is based on a nonrandom sample of large municipal police agencies.

To test for possible nonresponse bias, I compared sample data for the most recent panel (1993) with data from the 1993 LEMAS survey (Reaves and Smith 1995). Of the 435 departments constituting the population of interest, 413 (95 percent) responded to the 1993 LEMAS survey. I compared the 236 sample respondents with the 177 nonrespondents on all of the variables included in the analysis, and detected some nonresponse bias. Independent-samples *t*-tests revealed significant differences for four of the seven variables in the model: The sample used here contains agencies that, on average, are larger, taller, more functionally differentiated, and perform a greater scope of tasks than nonrespondents.[13] In subsequent multivariate analyses I attempt to control statistically for nonresponse bias.

Variables

Functional differentiation is an additive index consisting of responses to nine separate questions on whether the department has a full-time specialized unit to deal with each of a variety of issues. Each component item is scored 0 for no special unit and 1 for a full-time special unit.[14] Higher scores indicate greater functional differentiation. Height is measured as the difference between the chief's salary and the entry-level salary, divided by the entry-level salary (Langworthy 19086). Civilianization is the percentage of full-time actual employees who are not sworn officers. Formalization is an additive index consisting of responses to 10 separate binary questions about whether the department has a formal written policy on a number of subjects. A score of 7, for example, indicates that the department has written policies governing seven of the 10 specific subject areas. Administrative density is the percentage of full-time actual employees who serve an administrative function.

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[13] The main source of the nonresponse bias was easy to locate. Whereas the 1990 and 1993 LEMAS surveys collected data from all law enforcement agencies with more than *100* sworn officers, and sampled smaller agencies, the 1987 LEMAS survey collected data from all agencies with more than *150* sworn officers and sampled smaller agencies. Thus the sample used in this study contains all respondents with more than 150 sworn officers, and only a subset of agencies with 100 to 150 sworn officers. In the 100 to 150-officer category, only those agencies which were selected randomly for the 1987 LEMAS sample are included here.

[14] Although functional differentiation (FD) has been measured in a number of ways, in this study I follow the method suggested by Reimann (1973:464), who operationalizes functional specialization as "the number of discrete, identifiable functions performed by at least one, full-time specialist." I obtained similar results from subsequent analyses that treated FD as an additive index composed of indicators in which 0 = no unit, 1 = part-time unit, and 2 = full-time unit. The part-time category, however, is a probable source of uncertainty in the FD construct because respondents may be unsure what exactly constitutes a part-time special unit. Walker and Katz (1995) discovered a substantial degree of measurement error in one of the

In addition to the five structural variables, two covariates are included in the multivariate analysis as controls. Size of the organization is measured as the number of full-time sworn and nonsworn personnel employed by the agency (Langworthy 1986). Most studies have found consistent positive relationships between organization size and structural complexity (Blau 1970; Blau and Schoenherr 1971; Child 1973; Hsu et al. 1983; Pugh et al. 1969; Terrien and Mills 1955), though some have found a weaker effect than expected (Beyer and Trice 1979; Hall et al. 1967). A number of others argue that size is a less important predictor of structure than are organizational tasks or technologies (Aldrich 1972; Thompson 1967; Woodward 1965).

Task scope is an additive index consisting of responses to 17 binary questions on the primary functions performed by the department, such as "Does your agency have primary responsibility for enforcement of traffic laws?" (Reaves and Smith 1995). A score of 8 on the task scope index indicates that the department is responsible for performing eight of the 17 tasks listed. Agencies that perform more tasks probably exhibit greater structural complexity: Previous research found a modest causal link between task scope and structure (Dewar and Hage 1978; Van de Ven and Delbecq 1974). Although neither size nor task scope is of substantive importance to this study, I include them here as controls because changes in either variable may produce changes in structure.[15]

LEMAS questions regarding specialized units: Among the departments that indicated in their LEMAS responses that they had a specialized unit for enforcing bias crime statutes, 37.5 percent reported that they never had such a unit when contacted subsequently by researchers. Similar problems presumably would affect questions about other types of special units, which are combined to form the composite FD index in this study.

[15] Although size and task/technology are the primary explanations for structure in the organizational literature, there is some evidence that other factors may influence structure as well. Dozens of variables have been hypothesized to affect or constrain structure in a wide range of organizational types, but the two primary factors found in the policing literature are environment (Crank and Wells 1991; Langworthy 1986) and age of the organization (King 1994). Research has shown that relative to size and technology, neither factor exerts a very strong effect on organizational structure. Because this study is not concerned with explicitly modeling structure, the exclusion of these controls should have little effect on the findings.

I grouped the sample according to level of community policing implementation, as reported to the Police Foundation in 1993. Three separate groups were formed: have not implemented community policing, planning to implement community policing, and have implemented community policing. I measured each structural variable at three time points (1987, 1990, and 1993) based on separate waves of the LEMAS series. Research has shown that six years is an ideal period in which to examine structural adaptation to changes in causal variables such as size or technology (Dewar and Hage 1978). Descriptive statistics for all variables are shown in Table 1.

Table 1. Mean Values within Community Policing and Time Categories

Variables	Year	Not Implemented	Implementing	Implemented
Covariates				
Size	1987	306	811	872
	1990	326	852	876
	1993	329	879	907
Task scope	1987	9.27	9.09	9.14
	1990	8.86	8.70	8.56
	1993	9.23	8.82	8.60
Structural Variables				
Functional Differentiation	1987	3.82	4.39	4.07
	1990	3.77	4.67	4.60
	1993	3.77	4.95	5.07
Formalization	1987	8.00	8.31	8.13
	1990	8.09	8.26	8.08
	1993	8.14	8.11	8.19
Administrative density	1987	.070	.069	.071
	1990	.065	.063	.060
	1993	.047	.062	.062
Height	1987	1.45	1.59	1.57
	1990	1.34	1.36	1.25
	1993	1.30	1.41	1.40
Civilianization	1987	.195	.220	.217
	1990	.198	.222	.229
	1993	.214	.222	.226
Number of Cases	(*N*=236)	22 (9%)	110 (47%)	104 (44%)

Methods

First I used paired *t*-tests to test for changes in structure for the whole sample over each of the three data-collection points of the LEMAS series (1987, 1990, and 1993). The results are shown in Table 2. Next I conducted repeated-measures multivariate analyses of variance with covariates (MANCOVA) to examine differences in structure across levels of community policing implementation (groups), over time, and across the group-time interaction. To control for the sample selection bias discussed earlier, I calculated a "hazard rate" variable that represents the likelihood of exclusion from the sample.[16] Three covariates—size, scope of tasks performed by the agency, and the hazard rate—were included to control for the possibility that these variables, rather than group differences alone, may be responsible for the variance in structural change. The model provides an F-statistic to test the hypothesis that group, time, or group-time differences differ significantly from zero. The results of the model are shown in Table 3.

Table 2. Mean Changes over Time: Full Sample

Variables	1987-1990	1990-1993	1987-1993
Covariates			
Size (# of employees)	22	24*	46***
Task scope	-.53***	.11	-.41***
Structural Variables			
Functional differentiation	.35*	.38**	.72***
Formalization	-.03	-.03	-.04
Administrative density	.00	.00	.00
Height	-.25***	.06	-.19***
Civilianization	.009**	-.003	.006

*$p < .05$; **$p < .01$; ***$p < .001$ (paired t-tests, two-tailed)

Table 3. Results of MANCOVA Repeated-Measures Analyses with Group, Time, and Interaction Effects (Controlling for Size and Task Scope)

Scales	Community Policing	Time	Interaction
	F	F	F
Functional Differentiation	.67	3.74*	1.19
Formalization	.17	.09	.67
Administrative Density	.42	1.10	.40
Height	.46	14.38***	1.04
Civilianization	2.60	2.02	1.26
Model	.50	4.38***	1.00

$p < .05$; ***$p < .001$

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[16] Sample selection bias resulting from nonrandom sampling procedures "is proportional to the probability of exclusion" (Berk 1983:392). In most studies the probability of exclusion is unknown; the data used in this study, however, offer the possibility of calculating the estimated probability of exclusion for each case. Using data from the 1993 LEMAS survey, which contains information on 413 of the 435 agencies in the population of interest (95 percent), I estimated a logistic regression equation predicting sample exclusion with the seven variables employed here. From this equation I calculated the predicted probability of exclusion from the sample and then introduced it as a covariate in the MANCOVA model.

RESULTS

Table 2 shows, for the full sample, the mean changes in each variable from 1987 to 1990, from 1990 to 1993, and across the entire period, 1987 to 1993. I compute significance levels for each difference, using paired *t*-tests without any controls. The two covariates—size and scope of tasks performed—are listed first. Police departments grew at an average rate of 3 percent over each period, for an average overall increase of 6 percent in the number of employees. The scope of tasks performed by the police decreased significantly from 1987 to 1990: Departments dropped an average of .5 tasks (out of a total of 17). Task scope did not change significantly from 1990 to 1993, but the initial change remained significant across the entire period.

Functional differentiation increased significantly across both periods: Departments added an average of .7 full-time special units between 1987 and 1993. Thus, despite the expectations of community policing reformers, departments appear to be increasing rather than decreasing their reliance on specialized units. Formalization did not change significantly across any of the periods, contrary to the expectations of community policing reformers, who suggest that departments should become less formalized. Similarly, although community policing reformers suggest that departments must focus more of their resources on the *ends* of the organization (accomplishing their core street-level tasks) than on the *means* (such as enforcing rules and policies) (Goldstein 1979), administrative density did not seem to change significantly over any of the periods.

Height decreased significantly from 1987 to 1990 but not from 1990 to 1993. The initial change remained significant across the entire period, from 1987 to 1993. The reduction in the height of police organizations is one indication that reformers may have succeeded in convincing police agencies to flatten their rank structures (Mastrofski 1994).[17] Civilianization increased significantly from 1987 to 1990, continuing the upward trend of the past several decades. This trend showed an insignificant reversal, however, from 1990 to 1993. The two changes canceled each other out, producing a statistically insignificant change in civilianization across the entire period, from 1987 to 1993.

The results of the MANCOVA analysis are displayed in Table 3. When the hazard rate and the differences in size and task scope are controlled, the F-statistics for the grouping variable show no significant differences in structural change between police departments who are not implementing, who are planning to implement, and who have implemented community policing. This result holds for each structural variable individually and for the model as a whole.[18] The F-statistics for the time variable show that police organizations indeed have modified their structures over the period from 1987 to 1993: Functional differentiation increased significantly, and height decreased significantly. Civilianization increased, but the change is not statistically significant ($p = .07$). Formalization and administrative density show no significant changes over time. The F-statistics for the group-time interaction reveal no significant differences over time and between groups from 1987 to 1993. Thus the MANCOVA analysis shows that the grouping (community policing) variable was unrelated to differences in either levels of structure (cross-sectional) or structural change (longitudinal) in police organizations.

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[17] The standardized pay differential between the highest- and the lowest-ranking employee has been used in the past to measure height (Langworthy 1986) but is a more abstract element of vertical differentiation than segmentation, or the number of command levels (Crank and Wells 1991; Langworthy 1986). Unfortunately, measures of segmentation are not available in the LEMAS series or in any other national data set on American police agencies.

DISCUSSION

For nearly a decade, reformers have tried to diffuse the community policing movement throughout the United States. One substantial element of this reform involves structural change in police organizations. Although this study focuses only on a subset of relevant structural variables, the results suggest that community policing reformers have not succeeded in convincing large metropolitan police agencies to modify their existing organizational structures.

Only two of the five structural variables examined in this study changed significantly from 1987 to 1993, and one of these changes was in the wrong direction. First, police departments showed a significant decrease in organizational height. Community policing reformers have called repeatedly for police departments to flatten their rank structures or "de-layerize" so as to speed decision making and enhance upward and downward communications (Mastrofski 1994). Although reformers might find this trend encouraging, further research should explore vertical differentiation using more complete data sources. Second, continuing a trend of several decades (Reiss 1992), functional differentiation in police departments

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[18] If police agencies implemented community policing and made structural changes before 1987, these changes would not be reflected in this set of analyses and might explain some of the null findings. To examine this possibility, I dropped the 25 agencies that claimed to have implemented community policing before 1987, and reran the analyses. I found no significant differences between the two sets of models.

increased significantly from 1987 to 1993. Community policing reformers apparently have been unable to convince large metropolitan police organizations to despecialize.

Unfortunately, the research design used here permits inferences only about whether large municipal police agencies have made structural changes over a six-year period; it does not allow for inferences about the *causes* of structural change. I now suggest four possible explanations for the results obtained in this study: the time frame of the analysis, the attitudes of police executives, the environments of municipal police agencies, and the degree of organizational commitment to community policing.

First, it is possible that six years is not enough time to expect core structural changes in police organizations. In theory, however, community policing represents the most fundamental shift in the way police do business since the invention of the automobile and the two-way radio. The six-year period between 1987 and 1993 saw the emergence of the single largest reform effort in the history of the police, when *community policing* became a household phrase. If ever we would expect to find structural changes in police organizations, it would be the period examined here.

Second, there is some evidence that police executives may disagree with the prescriptions for structural change that appear in the reform literature. In the Police Foundation study of community policing implementation, only 61 percent of the executives of large (100+ sworn) municipal police agencies agreed that "community policing requires major changes of organizational policies, goals, or mission statements," and only 34 percent believed that community policing "requires extensive reorganization of police agencies" (Wycoff 1994:32). If police executives don't support the need for structural change, it is likely that community policing advocates will remain unsuccessful in their efforts to implement such change in American police agencies.

Third, the reforms promoted by community policing advocates often conflict with other demands placed on police organizations by their environments.[19] Under community policing, for example, police agencies are urged to become less formalized. Yet to become accredited, they must institute a number of formal written policies and therefore become more formalized (Brown 1995; Cordner and Williams 1996; Mastrofski 1986). Similarly, under community policing, police organizations are urged to despecialize. Yet, as Mastrofski and Ritti (1995) report, special units have a great deal of

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[19] Williams and Wagoner (1992), for example, predict that police organizations will maintain their paramilitary bureaucratic structures because they must respond to competing demands from disparate elements of their environments.

symbolic meaning for police departments: They represent a substantial effort by the department to "do something" about a particular problem (e.g., drunk driving) without actually disturbing the organization's day-to-day operations. Despecialization would be a symbolic gesture indicating that the problems formerly handled by special units are no longer important to the department. As institutional theorists have argued for many years, structural changes are most likely to occur under two conditions: when they have "symbolic" value for the legitimacy of the organization, and when they do not disrupt the day-to-day operations of the organization's "technical core," where most of the work is done (such as a factory's assembly line or a police department's patrol squad) (Crank and Langworthy 1992; Mastrofski 1994; Mastrofski and Ritti 1995; Meyer and Rowan 1977).[20]

Fourth, large municipal police agencies may not be implementing community policing in wholesale fashion. If police organizations are jumping onto the community policing bandwagon only for its symbolic appeal without implementing its actual substance, the adoption of this strategy might not represent a significant change in social technology; therefore we would not expect to find evidence of implicit structural change. I now discuss this possibility in greater detail as I examine the "community policing" label.

The "Community Policing" Label

What defines whether departments claim that they *have not implemented, are now implementing*, or *have already implemented* community policing? In discussing the Police Foundation survey of community policing practices, Wycoff highlights this common concern:

> One of the things this survey cannot tell us is "Who is really implementing community policing?" . . . Some questioners want to know which agencies are implementing practices and arrangements that, a priori, have been defined as being the operational representation of the philosophy. Others want to know whether the agency is doing these in an isolated and experimental way or whether it already has moved the entire organization in a new direction. Others want to know whether agencies know what they are talking about when they say they are implementing community policing: "Are they really doing community policing or do they just think they are?" And some want to know whether agencies are being honest: do they really *believe* they are implementing community policing . . . or are

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[20] Elements of the institutional approach were also implicit in earlier discussions of the police by Reiss and Bordua (1967) and Manning (1977).

> they just *saying* they are in order to increase their popularity in the community or, perhaps, to gain federal funding? (1994:133-34)

Wycoff points to a number of compelling reasons why police departments' claims may not reflect their actual involvement in community policing. It is far beyond the scope of this study to examine the validity of the "community policing" label, but simple reliability checks reveal some interesting patterns. Two studies have asked large municipal police agencies whether they have implemented community policing: the Michigan State University (MSU) survey administered in the summer of 1992 (Trojanowicz 1994), and the Police Foundation survey administered in May 1993.

After recoding the survey questions in both studies so that the response categories were equivalent, I found the correlations between responses to be only .43. Some of this discrepancy probably exists because the Police Foundation study was distributed approximately 10 months after the MSU study. Of the 236 departments I sampled from the Police Foundation data, 196 responded to the community policing question in the MSU study. Of these 196, 135 (69 percent) responded consistently by giving the same answers in both studies. Eleven departments (6 percent) responded to the MSU study in the summer of 1992 that they were not doing community policing, but then told the Police Foundation study in May 1993 that they were doing community policing.

Given the speed with which the community policing movement is sweeping the nation, this change is not unreasonable: New departments adopt community policing strategies every day. Even so, 50 departments (26 percent) responded to the MSU study in 1992 that they were currently practicing community policing, and then reported to the Police Foundation in May 1993 that they were not. Although it is reasonable to expect some attrition in the number of departments practicing community policing over the 10-month period between studies, the magnitude of the difference in this case suggests that the responses may be somewhat unstable.[21] The "community policing" label, as Skogan (1994) suggests, merits further inquiry.

If police departments' claims regarding their community policing status are not reliable (and presumably not valid), then the construct of community policing used here may mask the true relationship between community policing and police organizational structure. Regardless of this limitation, however, this study has revealed two important findings about community policing and structure in large police organizations. First, by linking separate data sources, the study (serendipitously) has uncovered evidence that police agencies' claims about their involvement in community policing are temporally unstable. This finding may appear banal to those who might have guessed as much, but it is the first piece of empirical evidence (from study with a large *N*) to support what most scholars probably suspected already. Second, this study has established that there are no structural differences between those agencies which *claim* to practice community policing and those which do not. Again, whether there is a relationship between structure and actual community policing status cannot be established until a reliable and valid measurement model of community policing is developed and tested on a large sample of police agencies.[22]

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[21] It is unknown whether the instability is due to sloppy survey responses, to a general misunderstanding about the intent of the questions, or to respondents' effort to present the organization in a favorable light.

CONCLUSION

In this study I found no significant differences in structural change between departments which claim that they have not implemented, are planning to implement, or have implemented community policing. When I collapsed these groups, only two significant findings emerged: Departments have decreased in height and have increased in functional differentiation from 1987 to 1993. Community policing advocates may find the decrease in height encouraging because they have suggested this structural reform for nearly a decade. On the other hand, advocates may be discouraged by the increase in functional differentiation because they have pressed police departments to despecialize as part of their overall reform prescriptions.

The other structural variables (formalization, civilianization, and administrative density) did not change significantly between 1987 and 1993. Overall it appears that in this sample of large metropolitan police agencies, community policing advocates have tended to be unsuccessful in implementing their structural reform agendas.

Although the research design of this study did not allow inferences about *why* structures change (or fail to change), I presented four possible explanations for the findings. All of these explanations should be considered as hypotheses that can be tested in future research. Longitudinal research will be needed to identify the causal mechanisms responsible for structural change and (more important for police organizations) for structural intransigence.

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[22] Some scholars have begun to establish various schemes for measuring levels and types of community policing activities, but nobody claims to have developed a "true" measurement model of community policing. Such an undertaking, although difficult, would be a tremendous contribution to the empirical study of community policing.

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