ON THE CONTEXT OF POLICE CYNICISM AND PROBLEM BEHAVIOR

Matthew J. Hickman
Seattle University

This study presents an extension of Niederhoffer's (1967) work on police cynicism, arguing that the effect of officer cynicism on problem behavior should vary by work environment (i.e., police districts, precincts, or similar organizational entities) in concert with differences in the "reality" of police work across those entities. It is argued that officers working in particular environments may experience greater difficulty returning to professional commitment, increasing the likelihood of cynicism taking hold and evolving toward an anomic condition. Furthermore, some environments may tend to "breed" cynicism. Using survey data collected from a sample of Philadelphia police officers, as well as official departmental records, this study examines the effects of officer cynicism and ecological characteristics of police districts on police problem behavior (PPB). Results indicate that although there is significant district-level variation in PPB, and cynicism predicts PPB while controlling for other officer characteristics, the effect of cynicism on PPB does not confirm ecological variation. Implications for theory, policy, and practice are discussed.

Police misbehavior has serious and far-reaching societal costs. There are "tangible" costs such as physical harm to citizens and the impact on municipal budgets, as well as the larger problem of erosion of public trust and confidence in law enforcement (e.g., Tyler, 1990; Weitzer, 2002). Researchers studying police agencies have examined correlates of police behavior, generally organized within the sociological, psychological, and organizational or anthropological paradigms (Kappeler, Sluder, & Alpert, 1994; Worden, 1995). Theoretical work has been slow to develop and reflects a loose arrangement of definitions, concepts, and hypothesized "causes" of

Correspondence concerning this article should be addressed to Matthew J. Hickman, Ph.D., Department of Criminal Justice, Seattle University, 901 12th Ave. / PO Box 222000, Seattle, WA 98122; Phone: 301-693-6747; Email: mattorit@comcast.net

police behavior. This body of work has yet to develop into a substantive theory with which to frame research efforts (for a notable exception see Klinger, 1997). On a more applied level, emphasis has been placed on developing mechanisms for holding law enforcement accountable for their behavior, and specifically on the measurement and prediction of future behavior. This is evidenced by the growth of citizen oversight during the past 30 years (Walker, 2001) and more recently by increasing attention directed toward data-driven, Early Warning (EW) or Early Intervention (EI) Systems designed to help police agencies avert potential problems (Walker, 2003a, 2003b).

There is a growing body of empirical evidence demonstrating that context matters when seeking to explain police misbehavior. For example, Smith (1986) studied 60 neighborhoods in three cities and found that the racial composition of neighborhoods was predictive of police coercion (e.g., physical force, verbal threats). Using data from the recent Project on Policing Neighborhoods (POPN), Mastrofski, Reisig, and McClusky (2002) found that police disrespect toward the public was significantly more likely to occur in disadvantaged neighborhoods, and that the effect of citizen race on police disrespect is only significant when neighborhood context is controlled. As another example of the importance of context, Kane (2002) recently demonstrated that structural disadvantage, population mobility, and change in Latino population predicted variation in police misconduct among New York City precincts and districts.

Prior to the emergence of research on neighborhood context and police behavior, most work focused on officer attitudinal/psychological traits and socialization processes. While work at the individual, group, and neighborhood levels of police behavior has developed greatly, the interaction between immediate work environment and officer attitudes has been neglected to some degree. Research has tended to favor the study of officer attitudes in a global sense without recognition of meso-level work environments. This is important as officer attitudes may provide an important theoretical link for observed relationships between officer and neighborhood characteristics and district-level behavior, resulting in an elaborat-

ed understanding of police behavior and thus greater fidelity in the translation of research to monitoring systems and policy.

Police cynicism in particular has persisted in the literature as an important attitudinal trait. A great deal has been written about individual officer cynicism as well as its relationship with job satisfaction and job performance (e.g., Crank, Regoli, Poole, & Culbertson, 1987; Langworthy, 1987; Niederhoffer, 1967; Regoli, 1976). However, there has been minimal examination of police cynicism in the context of officer work environments. An exception is Klinger (1997), who has argued that the police district is a more meaningful ecological unit of analysis for police research, and has hypothesized that exposure to higher levels of district-level deviance generates police cynicism about the usefulness of police action, which accounts (in part) for variation in the vigor of police action. The effect of cynicism on officer performance generally, and problem behavior in particular, remains both theoretically and empirically unclear in the context of immediate work environments.

Niederhoffer (1967) proposed a strain theory to explain the generation of cynical attitudes among police officers. He argued that police officers experience frustration and disillusionment when faced with the contrast between ideal expectations and the reality of police work on the street, which generates cynicism and, without return to professional commitment, eventually leads to apathy and alienation, or anomie. This is believed to occur over the course of officer careers, beginning with the contrast between academy training and initial field experience, and later as an effect of continued exposure to administrative changes perceived as being out of balance with street-level policing, observed failures of the criminal justice system, as well as contagion effects from other cynical officers (Niederhoffer, 1967).

In large municipal police departments, the management of policing is decentralized by means of smaller organizational entities, such as precincts or districts. There is variation between these districts in terms of workload demands, community composition, leadership style, and workforce composition; these characteristics can vary dramatically between districts within large agencies.

These district-level characteristics structure the reality of policing for those who work there, and police behavior must then be viewed within these contexts. In essence, the reality of policing varies from district to district and thus the degree of contrast between the ideal and the reality is also likely to vary. Some work environments may exhibit poorer police performance overall, and may tend to "breed" cynical officers. Most important, it will be more difficult for officers to return to professional commitment in these environments, increasing the likelihood that officer cynicism will take hold and eventually evolve toward anomie. Thus, while it is expected that officers having higher levels of cynicism will have higher levels of problem behavior, and certain work environments will also exhibit higher levels of problem behavior, the effect of cynicism on police problem behavior would also be expected to vary between work environments. In the present study, I extend Niederhoffer's (1967) work on police cynicism and explore the effect of officer cynicism on police problem behavior, while controlling for other individual characteristics and those of meso-level work environments (i.e., police districts). I also explore the extent to which the effects of officer cynicism vary by work environment.

LITERATURE REVIEW

In his classic and often-cited study of police cynicism, Niederhoffer (1967) sought to explain why some officers "go wrong" during the course of their careers, particularly in light of the transition toward a professional model of policing that promised increased standards for selection, training, and performance standards for officers (see Walker, 1992). These new professional police should perform well and create a higher regard among the public. Unfortunately, the reality of police work and the persistence of public opinion that policing is a low prestige occupation (and officers' knowledge of this opinion) created doubt that professionalism would materialize.[1]

Education would supplant experience, and promotion and choice details would become more competitive. In addition to threatening the existing police order and its attendant norms and values,

the professional model also imposed a more idealistic view of policing for all officers. It is argued that police officers experience a severe contrast between the ideal expectations and the reality of policing on the street. Officers quickly discover that doing things by the book is a near impossibility, if not entirely impractical. Discretion in the enforcement of the law is an initially frightening but necessary feature of the daily work of policing. Rules and regulations must occasionally be bent in order to accomplish immediate needs on the street, as there can be no comprehensive set of procedures to address every contingency encountered while on patrol (Manning, 1977). Officers learn that fighting crime is little of what they do on a daily basis, and dealing with inebriated and other disorderly individuals is their primary business.

These conditions result in frustration and disillusionment as officers attempt to maintain their commitment to professional values. This further generates cynicism, hopelessness in fulfilling their role, contempt for the administrative apparatus that imposes unrealistic goals and objectives, distrust in the public, and general frustration with the criminal justice system. These aggravations build over the course of an officer career, beginning with the disconnect between academy training and initial field experiences. Continued disappointments and exposure to management and administrative changes which are far removed from the officer on the street, perceived failures of the courts (especially with regard to restrictive decisions impacting officer autonomy) and the criminal justice system as a whole, as well as exposure and attachment to other cynical officers (what Niederhoffer refers to as an occupational subculture of cynicism) eventually lead to a stage of "aggressive cynicism." Aggressive cynicism is marked by overt hostility toward the sources of frustration and rejection of the goals or objectives that cannot be attained. Cynical attitudes manifest in police problem behavior as officers act out their frustrations in the course of their daily interactions with citizens and other officers (Niederhofffer, 1967).

Based primarily upon his experience as a police officer, Niederhoffer (1967) proposed eleven hypotheses, designed a scale to measure cynicism, and administered a survey to a sample of 220

New York City police officers. The most frequently cited finding from Niederhoffer's (1967) study is the discovery of a curvilinear relationship between years of service and cynicism: police recruits exhibited the lowest levels of cynicism, and cynicism increased steadily during the first 7 to 10 years of service, thereupon declining (although never returning to the low levels found among recruits). Although the idea of the curvilinear relationship is intuitive and has gathered much anecdotal support, replication studies have been inconsistent in their findings regarding the relationship between length of service and cynicism (Langworthy, 1987). Nor has subsequent work been consistent in the measurement of cynicism, or provided much confirmation of the other hypotheses advanced by Niederhoffer (1967).

Niederhoffer's (1967) original scale consisted of multiple-choice sentence completions that resulted in less than desirable results when re-analyzed using more sophisticated techniques (Langworthy, 1987; Rafky, 1975; Regoli & Poole, 1979). Regoli (1976) modified the original scale by transforming the items into a 5-point Likert-style format (ranging from "strongly agree" to "strongly disagree"), and reversing some of the items to avoid response set bias. Although Regoli's (1976) analysis was the first to submit Niederhoffer's scale to commonly accepted tests of validity and reliability, it was not the last word on the measurement and dimensionality of police cynicism. Some researchers have found support for the unidimensionality of the trait (Hou, Miracle, Poole, & Regoli, 1983), while others have not (Langworthy, 1987; Rafky, 1975; Regoli, 1977). Recently, Gould and Moore (2003) administered both the MMPI-2 and the Niederhoffer scale to a sample of 171 police academy trainees, and found that the Niederhoffer (1967) scale was moderately correlated with the MMPI-2 cynicism scale. They concluded that the Niederhoffer scale had sufficient reliability and validity to be used as a less-costly alternative for measuring cynicism in policing applications.

A variety of officer-level factors have been shown to be both related and unrelated to cynical attitudes, and a great deal of attention has been directed at various dimensions of cynicism (e.g.,

cynicism toward the public, cynicism regarding the organization), and their relationships with other constructs. Cynicism in general, and particularly cynicism toward the police organization, has been shown to be related to poor relationships with other officers and supervisors, as well as low job satisfaction (Bennett & Schmitt, 2002; Regoli, Crank, & Culbertson, 1989; Regoli, Crank, & Rivera, 1990; Regoli, Crank, Potgieter, & Powell, 1990). Regoli (1977) reported a significant relationship between cynicism and complaints, but only when the sample was restricted to large agencies.

The theoretical underpinnings of Niederhoffer's (1967) police cynicism, which are quite thorough and have produced a strong impact on the field (as evidenced by subsequent research on police cynicism), could benefit from the modification to more contemporary terms. The issues surrounding the professionalization of police are not as strong a concern today. For instance, agency recruitment, screening, and selection methods have developed greatly, with nearly all local police agencies in the U.S. relying on background investigations, personal interviews, drug tests, psychological and medical exams, written tests, and other methods (Hickman & Reaves, 2003). In addition, the percentage of local police officers employed by a department requiring some level of college education has tripled during the 1990s. In 2000, new police recruits were required to complete an average of 1,600 hours of academy and field training, and many departments authorize special pay incentives such as tuition reimbursement or other education incentives (Hickman & Reaves, 2003).

Technological advancements linked with a managerial focus on measurement and accountability have increased the range of performance measures against which officers are rated. With greater use of administrative rule-making, particularly in critical areas such as use of force, domestic violence, vehicle pursuits, handling the mentally ill, handling the homeless, etc., the nature of discretion and the exercise of discretion has changed somewhat since Niederhoffer's (1967) research. With movements toward greater accountability for decision making, discretion also comes with a potentially intense amount of scrutiny. Movements toward increased

oversight and managerial accountability are perhaps best exemplified by the increasing popularity of the COMPSTAT process. The idea of holding police commanders personally accountable for the crime activity in their precinct or district, largely popularized as part of former NYPD Commissioner Bratton's zero-tolerance approach to policing, is consistent with trends in other public agencies during what has been termed a panoptical era of public administration (Anechiarico & Jacobs, 1996).

Given the progress made toward professionalization since Niederhoffer's (1967) writing, the study of police cynicism should focus on the ideal and the reality of policing, and should be extended to explain variation within the organizational structure of departments. Niederhoffer's notion of an occupational subculture dedicated to cynicism is not very detailed, but it does provide some of the impetus for the study of cynicism within meso-level contexts.

Organizational context, and particularly an individual's immediate work environment, is an important unit of analysis for understanding variation in behavior within an organization. In large municipal police departments, the management of policing is decentralized by means of smaller organizational entities, such as police precincts or districts. Police behavior occurs within these geographic entities, the borders of which encompass the reality of policing for those who work there. The neighborhood composition, workload, and other characteristics can vary greatly from one district to the next. A growing body of research suggests that these neighborhood characteristics are essential to understanding police behavior. Smith's (1986) widely cited analysis of data collected as part of the 1977 Police Services Study (PSS) identifies several variables related to neighborhood context that account for differences in police behavior between neighborhoods. In particular, neighborhood socioeconomic status, racial heterogeneity, percentage of Non-White citizens, crime, and instability were all found to be important factors.

More recent work by Mastrofski and his colleagues (2002), based on the 1996-97 Project On Policing Neighborhoods (POPN), has tended to reinforce the importance of context. Their study of police disrespect toward the public found that while several encoun-

ter-level variables were predictive of police disregard, concentrated disadvantage also predicted disrepect with the greater level of neighborhood disadvantage corresponding to an increased likelihood of police contempt toward citizens. Importantly, citizen race was only significant when neighborhood context was controlled (such that White citizens are more likely to experience police disrespect).

Terrill and Reisig (2003) explored the role of concentrated disadvantage and homicide rate on the level of force employed by police. While controlling for 26 encounter-level variables, they found that both concentrated disadvantage and homicide rate were predictive of the level of force used by police. That is, police were found to use higher levels of force in areas characterized by concentrated disadvantage and higher crime (as indicated by homicide rate). Similar to Smith (1986), they also found that the encounter-level effect of minority status on level of force used by police was mediated by concentrated disadvantage.

Research findings are likely to be misleading, and in some cases simply incorrect, when context is not controlled. Smith's work was largely an empirical exercise aimed at determining whether that very point was true, and although he offers a number of potential explanations for his findings, he does not go so far as to articulate a theory of police behavior that explains behavior in context. Klinger (1997) was probably the first to do so, as his ecological theory is largely based on the notion that district-level characteristics structure the reality of policing for the officers who work there. Klinger (1997) argues that police behavior is an outgrowth of officers' shared understanding of district-level deviance. In large part, district-level deviance is defined by the types of calls for service that are actually dispatched (i.e., subsequent to dispatcher filtration processes), and the shared experience of officers as they respond to the district workload. But the perception of district-level deviance is also influenced by other characteristics that officers associate with deviance, such as the "sights, sounds, and smells of patrol" (Klinger, 1997, p. 289). Thus, one might think of district-level deviance as a latent variable that is approximated by a variety of indicators of physical and social disorder. Klinger (1997) argues that the level of deviance

in a police district in turn structures the way in which officers understand and regulate deviance within that district. In sum, Klinger contends that the degree of police vigor (the degree to which officers exercise their authority via arrests, taking reports, etc.) is expected to be lower in districts where the level of deviance is understood (by officers) to be higher. For example, crimes that might be regarded as "extreme" in districts with generally low levels of deviance may be regarded as "normal" in other districts with higher levels of deviance. Victimization, too, may be regarded as a somewhat "normal" event, with less attention consequently being devoted to victims. This is exemplified in Smith's (1986) study, where he found that as the level of neighborhood crime increases, the probability of police reporting (i.e., filing of official incident reports) decreases. At the least, it suggests that police may set thresholds for what constitutes "serious" crime (i.e., deserving of official reaction) based on the level of crime in the neighborhood. In addition, Klinger (1997) points out that workload pressures are greater in districts with high levels of deviance, thus less attention can be devoted to the full range of behavior that occurs there.

Finally, officers in districts with high levels of deviance are more likely to experience the failures of the criminal justice system and incorporate subsequent cynicism about the utility of police action (Klinger, 1997). Because the reality of policing (defined by neighborhood characteristics) varies across police districts, it follows that the degree of contrast between the ideal and the reality of policing should vary. It is therefore likely that frustration and disillusionment also varies across districts, and thus manifestations of cynicism should also vary across districts. In addition, the impact of managerial and administrative changes (i.e., the extent to which such changes are perceived as in- or out-of-balance with street-level reality) should vary across districts, feeding the generation of cynicism. Cynical officers would be expected to exhibit greater problem behavior as they act out their frustrations in the course of their daily interactions with citizens and other officers. It might be more difficult for officers working in some environments to return to professional commitment, suggesting that, in essence, some environments

may "breed" cynicism, increasing the likelihood that cynicism takes hold and evolves toward anomie.

SUMMARY AND KEY HYPOTHESES

Theories of police cynicism should focus primarily on the contrast between the ideal expectations of policing and the reality of policing as officers experience it. Further, that the reality of policing is defined in large part by characteristics of the work environment. Police behavior occurs within decentralized, geographically-defined organizational and managerial entities, the borders of which constrain the reality of policing for those who work there. These characteristics contribute to officers' understanding of the level of deviance in their work environment (Klinger, 1997), and police behavior is in part an outgrowth of those perceptions. In addition, theories of police cynicism should not only be able to account for variation at the individual level, but also for divergent effects of cynicism between work environments. As the reality of policing differs across districts, the degree of contrast between the ideal and the reality of policing should also conflict. To the extent that such contrast results in frustration and subsequent cynicism, districts should exhibit varying effects of cynicism. Some districts will also be less supportive of professional commitment; they will tend to "breed" cynicism, increasing the likelihood that cynicism takes hold and evolves, and the effect of officer cynicism on problem behavior should be stronger in these environments. Thus, it is hypothesized that the effect of cynicism on police problem behavior will evidence ecological variation.

Consistent with Niederhoffer (1967), an individual effect of cynicism on problem behavior is also anticipated as officers act out their frustrations with this contrast in their interactions with citizens. Therefore, it is hypothesized that at the individual level, officers having higher levels of cynicism will have higher levels of police problem behavior.

Crime rate, socio-economic status of residents, stability, and racial/ethnic composition emerge from the literature as important

covariates of police behavior (Smith, 1986), including coercion and disrespect (e.g., Mastrofski et al., 2002). Since these characteristics vary across districts, it is argued that police problem behavior will also vary. Thus, police districts that have: (a) higher crime rates; (b) lower levels of resident socio-economic status; (c) lower levels of residential stability; and/or (d) greater population heterogeneity, will likely have higher mean levels of police problem behavior.

METHOD

The data come from a study of police integrity in the City of Philadelphia (Greene, Piquero, Hickman, Lawton, 2000), including (1) data collected through a survey instrument administered to a random sample of 499 Philadelphia police officers, and (2) official departmental records relating to officer background and personnel data, internal affairs history (complaints, uses of force, internal investigations), and disciplinary action. The study population was all Philadelphia police officers assigned to patrol in January 2000, amounting to 3,810 officers from 23 patrol districts. Table 1 presents demographic statistics for the entire population of officers, as well as the final sample of 499 officers. As can be seen, the sample demographics mirror those of the population. Specifically, the sample is largely male (68.3%), and fairly evenly split between White (46.5%) and Black (45.7%) officers, with the remainder being Latino (6.2%), Asian (1.4%), and American Indian (0.2%). The mean officer age is about 35 years, and the mean years of service is about 7.5 years. The majority of the officers in the sample are at the rank of Police Officer (91.2%), and the remainder are in supervisory roles.

The official departmental data included automated forms of the following: (1) Police Board of Inquiry discipline database, which contains records of disciplinary charges and outcomes; (2) Internal Affairs investigations database, which contains records of all investigations conducted by the Internal Affairs Division; (3) Internal Affairs Complaints Against Police (CAP's) database, which contains records of all citizen complaints filed against officers; (4) Internal Affairs Use of Force (UOF) database, which contains records of all reported uses of force by officers; and (5) Personnel

Database, which contains basic biographical information about all personnel.

Table 1. Population and Sample Demographics

	Population (N = 3,810)		Sample (n = 499)	
	N	%	n	%
Sex				
Male	2,720	71.4	341	68.3
Female	1,090	28.6	158	31.7
Race				
White	1,915	50.3	232	46.5
Black	1,614	42.4	228	45.7
Latino	238	6.2	31	6.2
Asian	31	0.8	7	1.4
Amer Ind	8	0.2	1	0.2
Other	4	0.1	0	0.0
Rank				
P.O.	3,418	89.7	455	91.2
Sgt.	302	7.9	35	7.0
Lt.	90	2.4	9	1.8
Age*				
Mean (SD)	35.22 (8.37)		35.14 (8.24)	
Min – Max	20 – 75		20 – 61	
Years Service*				
Mean (SD)	8.04 (7.14)		7.46 (6.93)	
Min – Max	0 – 48		0 – 37	

* Age and years of service are reported as measured at the time of sampling. Years of service equal to zero indicates an officer with less than one year of service.

Researchers who study problem behavior have tended to rely on official data, which can be problematic. At best, official data represent behavior known to and officially recognized by the police administration; it is unclear whether these data reflect actual behavior plus a "gray figure" residual, or if they simply reflect the department's willingness or commitment to combat misbehavior (Klockars, Ivkovich, Harver, & Haberfeld, 1997). There is also some evidence that the official data in some agencies may be less than accurate due to diversion at the front-end, generally poor record-keeping, and numerous other reasons. This presents a potential "measurement gap," as the official departmental data does not reflect actual incidents. One possible fix for this situation is to utilize multiple fallible measures. That is, recognizing that official data are not perfect, having at least two (and preferably more) data sources should help to provide a more accurate picture. One potential but unexplored source of information about officer behavior is officer self-reports.

Dependent Variables

The primary dependent variable is a composite measure of officer problem behavior, termed the police problem behavior (PPB) scale. This measure attempts to capture a range of events that indicate underlying behaviors of varying degrees of seriousness. The scale consists of six items, with two sources of data for each item (six self-reported, and six official). The specific items are: (1) ever having been the subject of a formal citizen complaint; (2) ever having been the subject of a complaint by another officer; (3) ever having been charged with a violation of the disciplinary code; (4) ever having been the subject of an internal investigation; (5) ever having a hearing before the Police Board of Inquiry; and (6) ever having been involved in a use of force incident. The items are dichotomous, and additively higher scores indicate a greater degree of problem behavior. An important secondary set of dependent variables are the two sources of data themselves (i.e., do the predictors of problem behavior have differential effects on self-reported vs. official problem behavior?). Table 2 summarizes the data for the two parallel sets of variables.

Table 2. Police Problem Behavior

Item	Coding	Self-report	Official
Ever the subject of a formal citizen complaint	0 = No	245	305
	1 = Yes	237	194
Ever the subject of a formal complaint by another officer	0 = No	461	485
	1 = Yes	23	14
Ever charged with a violation of the Disciplinary Code	0 = No	360	331
	1 = Yes	117	168
Ever the subject of IAD investigation	0 = No	295	404
	1 = Yes	188	95
Ever had hearing before PBI related to disciplinary action	0 = No	393	425
	1 = Yes	87	74
Ever been involved in a "Use of Force" incident	0 = No	325	471
	1 = Yes	157	28

Independent Variables

Cynicism was measured using Regoli's (1976) modification of Niederhoffer's (1967) cynicism scale. Regoli modified the wording of some of the original items, and changed the response categories to a 5-point Likert format. Items were also modified to be gender non-specific. The items appear in Table 3 below. Responses to the cynicism items were coded as 1 (Strongly Disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), and 5 (Strongly Agree), with eight of the twenty items reverse coded. Item scores were summed, with lower total scores indicating greater levels of cynicism. The mean value for the full scale is equal to 59 (SD = 7.60, Min = 30, Max = 85). Alpha for the cynicism scale was equal to .67, and a principal components analysis with Varimax rotation revealed up to seven possible underlying factors. These findings are consistent with Regoli (1976), who reported Alpha equal to .66 and up to six underlying factors. As I have only made predictions for general cynicism, I have chosen to use the scale as a unidimensional measure.[2]

Table 3. Cynicism Scale

	Item	Mean	SD	Min	Max
CYN_1:	Police Supervisors are very interested in their subordinates.	3.39	.91	1	5
CYN_2:	Disciplinary action is a result of pressure on supervisors from command staff to give out discipline.*	2.93	1.16	1	5
CYN_3:	Arrests are made because the police officer is dedicated to performing his/her duty.	3.91	.93	1	5
CYN_4:	The best arrests are made as a result of hard work and dedication to duty.	3.82	1.05	1	5
CYN_5:	A college degree requirement for appointment to the police department would result in a much more efficient and effective police department.	2.94	1.24	1	5
CYN_6:	When you get to know the department from the inside, you begin to think that it is a wonder that it does one-half as well as it does.*	2.78	1.08	1	5
CYN_7:	Police Academy recruit training should be cut in half.*	4.26	.96	1	5
CYN_8:	Professionalization of police work is already here for some groups of officers.	3.61	.88	1	5
CYN_9:	When a police officer appears before the Police Board of Inquiry, the officer will probably be found guilty even when he/she has a good defense.*	2.63	1.06	1	5
CYN_10:	Police officers are dedicated to the high ideals of police service and would not hesitate to perform police duty even though he/she may have to work overtime without extra pay.	2.67	1.11	1	5
CYN_11:	The rules and regulations dealing with officer conduct off duty are fair and sensible.	3.12	1.11	1	5
CYN_12:	The public is more likely to obstruct police work than cooperate.*	2.82	1.04	1	5

Table 3. Cynicism Scale (continued)					
CYN_13:	Getting special assignments in the police department depends on who you know, not on merit.*	2.14	1.13	1	5
CYN_14:	When testifying in court, police officers are treated like criminals when they take the witness stand.*	2.83	1.07	1	5
CYN_15:	Police department citations for summary offenses are issued by police officers as part of a sensible pattern of law enforcement.	3.66	.85	1	5
CYN_16:	The public shows a lot of respect for the police.	2.34	1.01	1	5
CYN_17:	Youth problems are best handled by officers who are trained as juvenile officers.	2.73	1.03	1	5
CYN_18:	Police officers have a different view of human nature because of the misery and cruelty of life which they see everyday.*	2.65	1.07	1	5
CYN_19:	The newspapers generally try to help police departments by giving prominent coverage to items favorable to the police.	1.90	.89	1	5
CYN_20:	Detectives have special qualifications and are superior to patrol officers.	1.98	.94	1	5
* Reverse coded					

Table 4 presents district-level characteristics included as predictors of police problem behavior. District-level crime rate (OFFRATE) was measured as the total number of Part I offenses reported to the FBI per 1,000 residents, and varies from a low of 54.60 to a high of 277.93 (mean = 156.31; SD = 58.17). District-level socio-economic status (SES) was measured via an index combining the percent of district residents unemployed, percent of adults and children living in poverty, percent without a high school education, and percent of households with incomes less than $10,000. These variables were z-scored and averaged to form the SES index. The

standardized Alpha was equal to .97, and scores ranged from -1.40 to 1.67 (higher scores indicating lower socio-economic status), with a mean of zero (SD=0.95).

District-level residential stability (STABLE) was measured by combining the percentage of owner occupied housing units and the percentage of housing units occupied by the same family for at least five years. These variables were z-scored and averaged to form the STABLE index. The standardized Alpha was equal to .98, and scores ranged from -2.04 to 1.35 (higher scores indicating greater stability), with a mean of zero (SD=0.99). Population heterogeneity was measured as the proportion of residents who are White multiplied by the proportion of residents who are not (POP_HET). This variable ranges from values of 0.03 to 0.25 (higher scores indicating greater racial heterogeneity), with a mean of 0.16 (SD=0.06).

Table 4. District Characteristics (Level-3)

Variable	Mean	SD	Min	Max
OFFRATE: Offenses per 1,000 residents	156.30	58.20	54.60	277.90
SES: Socio-economic status of resident population	0.00	0.95	-1.40	1.67
STABLE: Residential stability	0.00	0.99	-2.04	1.35
POP_HET: Population heterogeneity	0.16	0.06	0.03	0.25

Note: OFFRATE is 1998 UCR Part I offenses known to police per 1,000 residents; SES combines percent district residents unemployed, percent adults and children living in poverty, percent without a high school education, and percent households with incomes less than $10,000 (higher scores indicate lower socio-economic status); STABLE combines percent owner occupied housing units and percent housing units occupied by the same family at least five years (higher scores indicate greater stability); POP_HET is percent White multiplied by percent Non-White (higher scores indicate greater racial heterogeneity).

Control variables include officer gender, race, and years of service (see Table 1 for descriptive statistics), and two dichotomous variables that control for potential response distortion. The first distortion variable is the response to the survey item, "When filling out a survey or questionnaire that reads 'Your responses will be kept confidential':" and is coded '1' if the officer selected the answer that "I seriously doubt that any information I give will be kept confidential." Fifty-three percent of respondents selected this response.[3] The second distortion variable is the response to the survey item, "You are in a room, filling out a survey with your fellow officers. As you look around the room, you think:", coded '1' if the officer selected the answer that "Most of the officers have lied about their record, at least a little bit." Seventeen percent of respondents selected this response.

A correlation matrix reveals significant relationships among a few of the district-level variables, in logical directions (Table 5). In particular, the stability measure (STABLE) is strongly and nega-

Table 5. Correlation Matrix

Officer-level	MALE	NON-WHITE	YEARS	CYNICISM	DIST1	DIST2
MALE	1.000					
NONWHITE	-.315**	1.000				
YEARS	.192**	-.230**	1.000			
CYNICISM	-.016	.037	-.056	1.000		
DIST1	-.078	.171**	-.055	-.255**	1.000	
DIST2	-.196**	.134**	-.008	-.172**	.137**	1.000

District- level	OFFRATE	SES	STABLE	POP_HET
OFFRATE	1.000			
SES	.488**	1.000		
STABLE	-.743**	-.371	1.000	
POP_HET	.206	-.160	.009	1.000

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

tively correlated with offense rate (OFFRATE) ($r = -0.74$, $p<.01$), indicating that as residential stability increases, the offense rate decreases. Socio-economic status (SES) is also correlated with the offense rate ($r = 0.49$, $p<.01$), indicating that as socio-economic status increases, the offense rate decreases (higher values of SES indicate lower socio-economic status).

There are also relatively weak to moderate correlations among the officer-level variables. Interestingly, the distortion variables are correlated with cynicism; affirmative response to DISTORTION1 (doubt in confidentiality) is associated with higher levels of cynicism ($r = -0.26$, $p<.01$). Affirmative response to DISTORTION2 (belief that most other officers are lying to some degree) is also associated with higher levels of cynicism ($r = -0.17$, $p<.01$).[4]

Analysis

Because the data are nested (officers within districts) and derived from two data sources (self-reported and official), it is necessary to develop an analytic model that can incorporate measurement characteristics and allow for the simultaneous evaluation of predictors of problem behavior (i.e., handle multivariate outcomes). The analytic model draws on Kuo, Mohler, Raudenbush, and Earls' (2000) hierarchical multivariate model for paired informants, as well as recent work by Johnson and Raudenbush (2003) on multilevel item response models for self-reported criminal behavior. The model is a 3-level multivariate nonlinear (bernoulli) hierarchical model incorporating both self-reported and official data in an item response measurement model at level-1, with officer characteristics at level-2 and police district characteristics at level-3. This model is described in detail in Appendix A. This approach allows the use of all available information at level-1, regardless of whether a given respondent has data from one or both sources, in a single model to study the multilevel predictors of problem behavior while examining whether and how these predictors vary across the two sources of data.

The level-1 data file must be structured with twelve records per officer-respondent; six for the self-reported scale items, and six for the official scale items. Two dummy variables indicate from

which source the particular item score is derived (SR and OF), and an "outcome" variable indicates the actual item score. Self-report items with missing values are deleted from the level-1 file.[5]

RESULTS

Due to space limitations, only the results of the base measurement model and the final model are presented in detail here. The overall modeling process is described in detail in Appendix B, and detailed results for all of the intermediate models are available from the author upon request. The results of the base measurement model indicated that there was a significant amount of level-2 (officer) variance in the slopes for self-report (SR) and official (OF) police problem behavior (PPB), as well as in the corresponding level-3 (police district) intercepts. Ninety-three percent of the variance in SR PPB and 92% of the variance in OF PPB was at level-2 (officer), and 7% and 8%, respectively, at level-3 (police district) (Table 6).

After introducing level-2 predictors, it was found that MALE and YEARS were predictive of both SR PPB and OF PPB. Specifically, male officers and those having greater years of experience exhibit greater levels of PPB, whether measured via self-reports or official data. CYNICISM was also a significant predictor of both self-reported and official police problem behavior, with the greater level of officer cynicism corresponding to a greater level of PPB. NONWHITE, DIST1, and DIST2 were not significant predictors of PPB in the level-2 models.

Table 6. Final Estimation of Level-2 and Level-3 Variance Components, Base Measurement Model

Random effect	SD	Variance component	df	Chi-square	p-value	Reliability
Level-2 (officer)						
SR slope	1.286	1.655	464	1028.387	p<.001	0.568
OF slope	1.212	1.470	464	841.758	p<.001	0.474
Level-3 (police district)						
SR intercept	0.350	0.122	22	43.138	p<.010	0.467
OF intercept	0.362	0.131	22	43.781	p<.010	0.476

Hypothesis tests for the equality of parallel level-2 regression coefficients indicated that the coefficients for MALE (SR=.603, OF=.455; $\chi 2$=13.77, p<.010), YEARS (SR=.076, OF=.065; $\chi 2$=60.15, p<.001), and CYNICISM (SR=-.054, OF=-.034; $\chi 2$=29.03, p<.001) were significantly different for self-reported versus official police problem behavior. Specifically, although the effects of gender, years of service, and cynicism were significant for both types of data and in the anticipated directions, the effects were stronger for self-reported than official PPB. As such, pooled estimates were not used for these variables in subsequent models.

The addition of varying slopes did not add significantly to the model (i.e., the variation in the slope coefficients for cynicism was statistically insignificant: variance component for SR CYNICISM was .0001, $\chi 2$=17.35, n.s.; variance component for OF CYNICISM was .0005, $\chi 2$=26.76, n.s.). Results of the modeling process to this point indicated stability of level-2 predictors for both types of data, but only two level-3 predictors achieved significance: police district residential stability and population heterogeneity. However, residential stability was a significant predictor of district k mean self-reported, but not official, PPB, and population heterogeneity was a significant predictor of official, but not self-reported, PPB. In the final model, these two variables were entered simultaneously, and results for this model appear in Table 7.

As can be seen, MALE, YEARS, and CYNICISM retained strength, directionality, and significance for both self-reported and official PPB. In addition, DIST1 was significant for self-reported PPB, indicating that affirmative response to the first response distortion item was predictive of lower self-reported PPB. STABLE remained a significant predictor of self-reported PPB, and POP_HET remained a significant predictor of official PPB. This model explained about 27% of the variance in self-reported police problem behavior, and 21% of the variance in official police problem behavior. The chi-square tests for all variance components were significant. The reliabilities for the level-1 slope coefficients were 0.478 and 0.417 for SR and OF, respectively. The reliability estimates for the corresponding level-2 intercepts were 0.475 and 0.450.[6]

Table 7. Hierarchical Regression Results, Final Model

	Final Model		
Variables	b	se	t
Self-reported PPB (π_{11jk})			
MALE	0.574	0.171	3.362**
NONWHITE	-0.050	0.169	0.293
YEARS	0.078	0.011	7.329***
DISTORTION 1	-0.304	0.152	-1.990*
DISTORTION 2	-0.202	0.202	-1.004
CYNICISM	-0.051	0.010	-4.960***
Official PPB (π_{12jk})			
MALE	0.437	0.178	2.458*
NONWHITE	0.141	0.177	0.799
YEARS	0.065	0.011	5.905***
DISTORTION 1	-0.074	0.159	-0.466
DISTORTION 2	-0.084	0.209	-0.399
CYNICISM	-0.033	0.011	-3.082**
Mean self-reported PPB (B_{110jk})			
OFFRATE			
SES			
STABLE	0.202	0.102	1.976++
POP_HET	-0.969	1.821	-0.532
Mean official PPB (B_{110jk})			
OFFRATE			
SES			
STABLE	0.059	0.104	0.566
POP_HET	-3.518	1.849	-1.903++

Table 7. Hierarchical Regression Results, Final Model (continued)

		Base Model		Final Model	
Variance Components		Comp	Chi-sq	Comp	Chi-sq
Level-2	SR Slope	1.655	1028.39***	1.189	860.49***
	OF Slope	1.470	841.76***	1.156	762.72***
Level-3	SR Intrcpt	0.122	43.14**	0.108	42.38**
	OF Intrcpt	0.131	43.78**	0.106	39.78**
Total	SR	1.777	--	1.297	--
	OF	1.601	--	1.262	--
Variance Explained					
	SR PPB		--		27.0%
	OF PPB		--		21.2%

***p<.001 **p<.01 *p<.05 ++p<.10

DISCUSSION

Officer-Level Findings

Consistent with Niederhoffer (1967), it was hypothesized that officers having higher levels of cynicism would have higher levels of PPB. The analysis found that cynicism was a significant predictor of PPB, while controlling for officer gender, minority status, years of service, and survey response distortion. Importantly, this finding held true regardless of whether official or self-report data was used to measure PPB.

Male officers had higher levels of PPB, regardless of data type. There are a number of possible explanations for this finding, including the possibility that male officers are generally more aggressive in carrying out their duties, or that they are responded to more aggressively. Another possibility is that male officers might receive higher risk assignments where they are more likely to use aggressive methods. There may also be a leniency process operating whereby female officers are, for example, unofficially protected from official processes such as disciplinary procedures, whereas

males are more likely to receive full-processing and thus both have official records and self-report these events.

Officers having greater years of service have higher levels of PPB, regardless of data type. This finding probably reflects greater exposure, rather than an increased propensity for PPB, with additional years of service. The PPB indicators simply accumulate over the course of officer careers. Although years of service and cynicism are theoretically anticipated to be positively related to one another, they are not significantly correlated in the present study. This is a departure from Niederhoffer (1967), as one of the more frequently cited findings in his work is that cynicism increases with years of service. The finding of no relationship in the present study gives cause to reconsider the notion that cynicism builds over the course of officer careers. Perhaps officer cynicism has a more dynamic component that can vary in degree at different points in officer careers. At the least, this finding suggests that more research is needed to investigate the conditions and processes that generate cynicism.

Officers who responded affirmatively to the first response distortion variable had lower levels of PPB when the outcome is self-reported, but not when the outcome is derived from official data. This finding suggests that the variable is potentially useful in detecting survey response distortion, although having not evaluated it in the context of existing social desirability scales, nor subjected it to validation study, this should be regarded as a tentative finding requiring additional research.

District-Level Findings

The analysis confirmed theoretically anticipated district-level variation in police problem behavior (PPB). Specifically, between 7% and 8% of the variance in PPB (self-reported and official, respectively) resides at the district-level. It was hypothesized that police districts having (a) higher crime rates, (b) lower levels of resident socio-economic status, (c) lower levels of residential stability, and/or (d) greater population heterogeneity, would have higher mean levels of PPB. The analysis found that residential stability and population heterogeneity predicted district mean levels of PPB. The former predicted self-reported PPB, while the latter predicted offi-

cial PPB. District-level offense rate and SES were not predictive of PPB, either self-reported or official.

As population heterogeneity in a police district increases (i.e., the more heterogeneous the district), the district mean level of official PPB decreases. At first glance this finding is counter-intuitive. Smith (1986), for example, found that as racial heterogeneity increased, the probability of police coercion increased. However, Smith (1986) also found that percentage of Non-White individuals was a significant predictor of police coercion. It may be that the heterogeneity effect in the present study is being driven by relatively homogeneous Black districts.[7] The effect of population heterogeneity was also significant for official PPB, but not self-reported PPB. It may be that officers working in homogeneous districts (particularly homogeneous Black districts) are less likely to self-report PPB (or more likely to under-report PPB). In some ways, this could be related to varying thresholds of deviance and subsequent police action (e.g., Klinger, 1997) in so far as certain types of PPB are regarded by officers, and perhaps even citizens, as less serious. In contrast, it is also possible that this finding highlights differences in the official processing of police misbehavior at the district-level; for example, it is possible that less "informal" processing of PPB occurs in these districts as compared to homogeneous White and more racially heterogeneous districts, resulting in a higher mean level of PPB. Similarly, it may be that official PPB indicators in these districts reflect more serious events that are also more likely to receive official processing.

The greater the residential stability in a police district, the higher the district mean level of PPB. Again, at first glance, this finding is counter-intuitive. Note, however, that residential stability was predictive of district mean PPB when the outcome is self-reported, but not when the outcome is derived from official data. This is very interesting in light of Smith's (1986) finding that as residential instability increases (i.e., as neighborhoods become more unstable) the filing of official incident reports by officers also increases. Conversely, in more stable districts the filing of incident reports is less likely. Perhaps officers are using informal resolu-

tions to a greater degree in these districts, deferring more to citizen complainant preferences, and any related negative police-citizen encounters may not receive official attention. Thus, we might expect that officer self-reports of PPB would reflect a greater level of PPB than official data.

Finally, it was argued that theories of police cynicism should not only be able to account for variation at the individual level, but also for varying effects of cynicism across work environments. Contrary to theoretical expectations, the analysis revealed that the effect of cynicism on PPB did not evidence ecological variation. In other words, the effect of officer cynicism on PPB is equivalent across districts. This finding raises questions about the progression of cynicism in officers and the idea of subcultures of cynicism. More importantly, it raises questions about the extent to which the contrast between the ideal and the reality of policing actually varies across districts, and tends not to support Klinger's (1997) argument that officers in districts with high levels of deviance will be more likely to incorporate cynicism about the utility of police action.

Implications for Theory

This study joins others (e.g., Kane, 2002; Mastrofski et al., 2002; Smith, 1986) in documenting theoretically anticipated district-level variation in PPB. The findings regarding ecological predictors, however, are somewhat mixed. For example, district-level offense rates have been found to predict police use of force (e.g., Terrill & Reisig, 2003), yet offense rates were unrelated to PPB. Likewise, neighborhood socio-economic status has been shown to predict police decisions to arrest (Smith, 1986), but had no effect on PPB in the present study. Population heterogeneity and residential stability were related to PPB, but in ways counter to what would be expected based on prior studies. Part of the problem is that the present study advances a more general measure of problem behavior, whereas others have focused on more specific behaviors or outcomes. In addition, there is a tendency for researchers in this area to rely on "concentrated disadvantage" as a summary indicator of local social ecology (e.g., Mastrofski et al., 2002; Terrill & Reisig, 2003). But concentrated disadvantage tends to confound ecological char-

acteristics such that we don't really know what is driving observed relationships. As a consequence, it is difficult to compare a finding that concentrated disadvantage predicts police disrespect toward the public (Mastrofski et al., 2002) with more specific ecological predictors. Further, theoretical development will be severely limited by this approach; while one may conclude that, in general, problem behaviors (including physical force, verbal threats, disrespect toward the public) are more likely to occur in areas characterized by disadvantage, it is unclear exactly what features of neighborhoods account for the relationship.

This study also joins others in finding that officer cynicism is an important attitudinal trait in the study of police behavior. A great deal has been written about individual officer cynicism as well as its relationship with job satisfaction and performance (e.g., Crank et al., 1987; Langworthy, 1987; Niederhoffer, 1967; Regoli, 1976), but prior to this study, police cynicism had not been investigated in the context of meso-level work environments. In an extension of Niederhoffer's (1967) work, it was argued that such variation should be expected, given that the reality of policing varies across districts. Klinger (1997) also provided some theoretical basis for such an investigation in arguing that exposure to higher levels of district-level deviance generates police cynicism about the usefulness of police action, which accounts (in part) for variation in the vigor of police action. Yet, the present study did not find ecological variation in the effect of cynicism on PPB, suggesting instead a more general relationship. Though disappointing, this result is the first of its kind and should not be taken as guidance to abandon this theoretical extension. Rather, more research is needed in other agencies and using alternative measures of cynicism to establish whether ecological variation in the effect of cynicism exists. In short, the failure to detect ecological variation in the effect of cynicism should be regarded as a problem of data, not a problem of theory.

Future theoretical work in the study of officer cynicism should also focus on elaboration and measurement of the "ideal" and the "reality" of policing, and the contrast between the two. The present study, drawing on Klinger (1997), argued that the reality of

policing is structured by characteristics of the immediate work environment. Yet, the reality of policing may include daily patrol operations, bureaucratic requirements and functions, court attendance, and other features of police work. What are new officers' expectations? How much of a difference is there between their expectations and experiences? Does the difference between these expectations and experiences predict subsequent cynicism and problem behavior?

To the extent that cynicism leads to PPB, one direction for future theoretical development is to focus on the conditions and processes that generate officer cynicism. This work has suggested that cynicism's impacts operate independently of years of service. This raises questions about the stability of cynicism over officer careers, as well as the stability of officer occupational expectations. And, as previously mentioned, it is possible that cynicism is more complex, including both a dynamic component that varies at different points in officer careers and a more static component. Future work might focus on observations of small work groups in order to understand the genesis of cynical attitudes and subsequent behavior. In addition, there is a clear need for longitudinal research designs that closely track officers over the course of their careers.

Implications for Policy and Practice

District-level variation in PPB also has implications for agency monitoring policies and practices. Simple approaches to monitoring, such as Early Warning Systems (EWS) based on a "three-strikes" model, might be considered inefficient as they do not consider variations in behavior by location. It may be that a certain level of PPB is considered normal (i.e., average) in some districts, and abnormal (i.e., above average) in others. This raises the question of whether monitoring systems should trigger on thresholds or on deviations from the mean. That is, are we really interested in officers who reach a certain threshold number of events? Or, are we interested in officers whose behavior is substantially different from their fellow officers, either in a specific work context or in relation to the department as a whole?

Inefficient systems might also result from neglect of underlying theoretical processes. Without understanding the theoretical

linkages between officer characteristics, work environments, and behavior, monitoring via EWS may be motivated by potentially spurious relationships in the data. Subsequent personnel actions (such as transfers to other districts, mandatory re-training, employee counseling, etc.) may also be inefficient to the extent that such actions are based upon simple models, and may even result in negative or unanticipated outcomes—particularly if the placement of an officer in a certain context, for example, places him/her at a greater risk for problem behavior.

To the extent that cynicism leads to PPB, one direction for future policy-oriented research is to focus on addressing the conditions and processes that generate officer cynicism. Attempts to minimize cynicism might focus on early field experiences during the training process. A recent national study of basic law enforcement training academies in the U.S. (Hickman, 2005) found that only 38% conduct field training within their basic recruit training program, the remainder leaving this important task to hiring agencies, post-academy field training officers, or some other post-academy process. Perhaps by exposing recruits to daily policing operations early in training through repeated ride-alongs with patrol officers and walk-alongs with foot patrol officers, recruits may not experience as much shock when they transition to their assignments, and the emergence of cynicism might be diminished.

At the time of Niederhoffer's (1967) writing, the NYPD would send recruits on a limited number of field experiences during academy training. This exposure may have raised questions in the recruits' minds about the utility of their training, but Niederhoffer argued that cynicism would remain low and not overshadow the recruit's idealism. An even greater exposure to the reality of police work may be beneficial to the extent that the realities of police work are effectively transmitted to recruits. In some cases, this may even discourage some recruits who would otherwise pose problems for the agency from pursuing the career altogether. Early diversion would come with great cost savings to the hiring agency and the citizens served: the average cost of training in municipal academies is about $36,200 per trainee (Hickman, 2005). The cost of PPB to municipal

governments is much greater. As one example, from 1990-1999, the City of Los Angeles paid out $66.3 million in civil judgments and settlements involving brutality and misconduct by officers of the LAPD (Lonsway, Wood, Fickling, DeLeon, Moore, Harrington, et al., 2002). While civil judgments and settlements may speak to the actual harm to citizens, the broader social costs of PPB in terms of erosion of public trust and confidence in the police are arguably much greater, though also much harder to quantify.

Study Limitations

The preceding analysis and discussion is subject to a number of study limitations. This study was conducted in a single agency, the Philadelphia Police Department (PPD). The PPD is a large municipal police department, one of nearly 18,000 law enforcement agencies presently operating in the U.S., and one of just 15 municipal agencies serving populations of one million or more residents (Hickman & Reaves, 2003). Although case-studies of individual departments have been essential to the development of our understanding of police behavior, the extent to which results obtained in any such study can be translated to the universe of police departments and/or officers is not known without additional empirical study.

The present study used a cross-sectional research design. As such, it is not possible to disentangle cause and effect relationships in the data. For example, a finding that higher levels of cynicism are related to higher levels of PPB, absent a longitudinal research design, leaves unclear whether cynicism leads to PPB, PPB leads to cynicism, or both feed one another in a reciprocal relationship. Although theory favors the first, cynicism may also result from departmental responses to PPB (i.e., cynicism resulting from the perceived injustice of experienced departmental discipline). In the present study, cynicism was measured at the time of study while PPB was accumulated over time prior to the study. This study cannot rule out the possibility that observed cynicism is an effect, rather than a cause, of PPB.

Measurement issues limit the extent to which conclusions may be drawn about many of the variables in the present study. With regard to the independent variables, at the officer-level, it should be

noted that cynicism is the only attitudinal indicator in the model. Although cynicism has persisted as an important attitudinal trait in the police literature, the present research did not include any concurrent or competing attitudinal indicators. The literature on police cynicism has shown it to stand out as a distinct explanatory variable among other attitudinal predictors (e.g., Gould & Moore, 2003; Regoli et al., 1989), yet it is always possible that some other, as yet unspecified, attitudinal trait excluded from the model has resulted in coefficients which may be inflated.

This study did not include any organizational climate indicators at the district-level. For example, there are no measures of bureaucratization, task complexity, or span of control. Aside from studies of organizational change primarily associated with community- and problem-oriented policing (e.g., Maguire, 2002; Rosenbaum & Wilkinson, 2004; Zhao, 1996), organizational research in policing has been relatively neglected. Klinger (2004) recently argued that police researchers have overlooked the organizational research agenda, and should focus on the extent to which organizational characteristics intersect with ecological constructs to explain officer behavior. In short, although ecological indicators such as those employed in the present study (e.g., residential stability, population heterogeneity) are theoretically and empirically sound, and may partially reflect the work context on the street, they do not completely describe the organizational contexts in which officers work. In the present study, findings regarding ecological predictors of PPB might have revealed a very different pattern had the study been able to include other indicators of organizational context. The extent to which ecological predictors would be tempered by or interact with organizational features is not known.

The dependent variable in this study is a composite of proxy indicators for underlying problem behavior. These indicators merit attention in part because they are used by many departments as part of their monitoring systems. Nonetheless, the dependent variables are reports of behavior, not actual behavior. In addition to being indirect, the indicators may have limited content validity, as PPB may extend far beyond these proxy indicators. Further, the quality

of these official data may be a concern. The official data represent behavior known to and officially recognized by the police administration; it is unclear whether the recording of these data partially reflects the department's willingness and commitment to combat misbehavior (Klockars et al., 1997). The quality of the PPD's record-keeping has also been questioned. This has occurred during official audits of annual submissions to the FBI's Uniform Crime Reporting (UCR) program during the 1990s, and in analyses of official complaint investigations records obtained during discovery in litigation (e.g., Fyfe, 1998). The official data also were accumulated over the course of several administration changes in the PPD, and the quality of official data may have varied across these administrations.

CONCLUSION

This study examined the effects of officer cynicism and ecological characteristics of police districts on self-reported and officially recorded police problem behavior. Using survey data from a sample of Philadelphia police officers and corresponding official departmental records, this study simultaneously examined the role of context (police district), individual (police officer), and data (self-reported and official). The study found that officer cynicism predicts PPB while controlling for other officer characteristics, but that the effect of cynicism on PPB does not vary significantly by district. The study found significant district-level variation in PPB and that residential stability and population heterogeneity predict district-level mean PPB—self-reported PPB in the case of the former, and official PPB for the latter.

Overall, the study's findings suggest that monitoring systems should consider the context in which behavior occurs; inefficiencies may result to the extent that context is ignored. Future theoretical work on PPB should be multilevel in nature, accounting for officer, district, and even agency variation. Cynicism continues to be an important theoretical construct in the study of police behavior (and with this study, police problem behavior) even though this study did not find anticipated variation in the effect of cynicism by work environment. The theoretical extension advanced in this study

should be tested in other agencies and with alternative measures of cynicism. Additional work should focus on measuring the contrast between the ideal and the reality of policing, variations in this contrast across organizational entities, and the effect on police behavior. Researchers also need to study the conditions and processes that generate officer cynicism with an eye toward developing effective training methods to prepare officers for the reality of policing and avoid subsequent cynicism and problem behavior.

REFERENCES

Anechiarico, F., & Jacobs, J. (1996). *The pursuit of absolute integrity: How corruption control makes government ineffective*. Chicago: University of Chicago Press.

Bayley, D. H., & Mendelsohn, H. (1969). *Minorities and the police: Confrontation in America*. New York: The Free Press.

Bennett, R., & Schmitt, E. (2002). The effect of work environment on levels of police cynicism. *Police Quarterly, 5*, 493-523.

Berg, B. L., Gertz, M. G., & True, E. J. (1984). Police-community relations and alienation. *Police Chief, 51*, 20-23.

Bittner, E. (1967). The functions of police in modern society. Washington, DC: NIMH.

Black, D. (1980). *The behavior of law*. New York: Academic Press.

Crank, J. P., Regoli, R., Poole, E., & Culbertson, R. (1987). The measurement of cynicism among police chiefs. *Journal of Criminal Justice, 15*, 37-49.

Fyfe, J. J. (1998). Good judgment: Defending police against civil suits. *Police Quarterly, 1*, 91-117.

Gould, L.A., & Moore, C.L. (2003). Comparison of the MMPI-2 and Niederhoffer cynicism scales for a sample of police academy trainees. *Journal of Police and Criminal Psychology, 18*, 20-27.

Greene, J. R., Piquero, A. R., Hickman, M. J., & Lawton, B. A. (2000). *Supporting police integrity in Philadelphia.* Final Report to the National Institute of Justice. Philadelphia: Center for Public Policy.

Hickman, M. (2005). *State and local law enforcement training academies, 2002*. Washington, DC: Bureau of Justice Statistics.

Hickman, M., & Reaves, B. (2003). *Local police departments, 2000*. Washington, DC: Bureau of Justice Statistics.

Hou, C., Miracle, A., Poole, E., & Regoli, R. (1983). Assessing determinants of police cynicism in Taiwan. *Police Studies, 5*, 3-7.

Johnson, C., & Raudenbush, S. (2003). A repeated measures, multilevel Rasch model with application to self-reported criminal behavior. *Sociology Methodology, 33*, 169-211.

Kane, R. (2002). The social ecology of police misconduct. *Criminology, 40*, 867-897.

Kappeler, V. E., Sluder, R. D., & Alpert, G. P. (1994). Forces of deviance: Understanding the dark side of policing. Prospect Heights, IL: Waveland.

Kline, P. (1994). *An easy guide to factor analysis*. New York: Routledge.

Klinger, D. (1997). Negotiating order in police work: An ecological theory of police response to deviance. *Criminology, 35*, 277-306.

Klinger, D. (2004). Environment and organization: Reviving a perspective on the police. *Annals of the American Academy of Political and Social Science, 593*, 119-136.

Klockars, C. B., Ivkovich, S. K., Harver, W. E., & Haberfeld, M. R. (1997). *The measurement of police integrity*. Washington, DC: National Institute of Justice

Kuo, M., Mohler, B., Raudenbush, S., & Earls, F. (2000). Assessing exposure to violence using multiple informants. *Journal of Child Psychology and Psychiatry, 41*, 1049-1056

Langworthy, R. (1987). Police cynicism: What we know from the Niederhoffer scale. *Journal of Criminal Justice, 15*, 17-35.

Lonsway, K., Wood, M., Fickling, M., DeLeon, A., Moore, M., Harrington, P., Smeal, E., & Spillar, K. (2002). *Men, women, and excessive force: A tale of two genders*. Beverly Hills, CA: National Center for Women and Policing.

Maguire, E. (2002). *Organizational structure in American police agencies: Context, complexity, and control*. Albany, NY: SUNY Press.

Manning, P. K. (1977). *Police work: The social organization of policing*. Cambridge: MIT Press.

Mastrofski, S. D., Reisig, M., & McClusky, J. (2002). Police disrespect toward the public: An encounter-based analysis. *Criminology, 40*, 519-551.

McNamara, J. H. (1967). Uncertainties in police work: The relevance of police recruits' backgrounds and training. In D. J. Bordua (Ed.), *The police: Six sociological essays* (pp. 163-252). New York: John Wiley.

Niederhoffer, A. (1967). *Behind the shield: The police in urban society*. New York: Anchor Books.

Rafky, D. (1975). Police cynicism reconsidered: An application of smallest space analysis. *Criminology, 13*, 168-192.

Raudenbush, S., & Bryk, A. (2002). *Hierarchical linear models in social and behavioral research: Applications and data-analysis methods*. Thousand Oaks, CA: Sage.

Regoli, R. (1976). An empirical assessment of Niederhoffer's police cynicism scale. *Journal of Criminal Justice, 4*, 231-241.

Regoli, R. (1977). Police in America. Washington, DC: University Press of America.

Regoli, R., Crank, J., & Culbertson, R. (1989). Police cynicism, job satisfaction, and work relations of police chiefs. *Sociological Focus, 22*, 161-171.

Regoli, R., Crank, J., Potgieter, P., & Powell, J. (1990). Police cynicism in Transkei. *Journal of Criminal Justice, 18*, 133-146.

Regoli, R., Crank, J., & Rivera, G. (1990). The construction and implementation of an alternative measure of police cynicism. *Criminal Justice and Behavior, 17*, 395-409.

Regoli, R., & Poole, E. (1979). Measurement of police cynicism: A factor scaling approach. *Journal of Criminal Justice, 7*, 37-51.

Rosenbaum, D.P., & Wilkinson, D. L. (2004). Can police adapt? Tracking the effects of organizational reform over six years. In W. Skogan (Ed.), *Community policing: Can it work?* (Ch. 4). Belmont, CA: Wadsworth.

Skolnick, J. H. (1966). *Justice without trial: Law enforcement in democratic society*. New York: John Wiley and Sons.

Smith, D. (1986). The neighborhood context of police behavior. In A. Reiss & M. Tonry (Eds.), *Communities and crime* (pp. 313-341). Chicago: University of Chicago Press.

Terrill, W., & Reisig, M. D. (2003). Neighborhood context and police use of force. *Journal of Research in Crime and Delinquency, 40*, 291-321.

Tyler, T. (1990). *Why people obey the law*. New Haven, CT: Yale University Press.

Van Maanen, J. (1978). The asshole. In P. K. Manning & J. Van Maanen (Eds.), *Policing: A view from the street* (pp.221-238). New York: Transaction Books.

Walker, S. (1992). The police in America. New York: McGraw Hill.

Walker, S. (2001). *Police accountability: The role of citizen oversight*. Belmont, CA: Wadsworth.

Walker, S. (2003a). The new paradigm of police accountability: The U.S. Justice Department 'pattern or practice' suits in context. *St. Louis University Public Law Review, 3*, 22-57.

Walker, S. (2003b). *Early intervention systems for law enforcement agencies*. Washington, DC: Office of Community Oriented Policing Services.

Weitzer, R. (2002). Incidents of police misconduct and public opinion. *Journal of Criminal Justice, 30*, 397-408.

Worden, R. E. (1995). The "causes" of police brutality: Theory and evidence on police use of force. In W. Geller & H. Toch (Eds.), *And justice for all: Understanding and controlling police abuse of force* (pp. 31-60). Washington, DC: PERF.

Zhao, J. (1996). *Why police organizations change: A case study of community oriented policing*. Washington, DC: Police Executive Research Forum.

Received: June 2007
Accepted: August 2007

Suggested Citation:

Hickman, M. J. (2008). On the context of police cynicism and problem behavior [Electronic Version]. *Applied Psychology in Criminal Justice, 4*(1), 1-44.

APPENDIX A
DESCRIPTION OF ANALYTIC MODEL

The level-1 measurement model, representing item variation within officers, recognizes that the two data sources (self-reported and official) are fallible measures and thus represents the outcome, η_{ijk}, as the obtained score plus measurement error. The outcome itself has little interpretive value (it is best thought of as a kind of 'placeholder') but would be interpreted as the log-odds of item endorsement (or item presence, for official data) on item i for officer j within police district k measured via either self-report or official data—essentially a function of whether or not the item was endorsed/present. The goal of the level-1 measurement model is to be able to incorporate differences in the measurement error structure found at each level in the model, as well as to calibrate the scale for differences in the seriousness of the items. At the officer level (level-2) the error structure is a function of the number of items and the inter-item correlations, while at the district level (level-3) it is a function of the number of officers and the inter-officer correlations. The measurement model corrects the correlations for measurement error, which would otherwise result in inflated estimates (see Raudenbush & Bryk, 2002). The level-1 model is specified as follows:

$$\eta_{ijk} = \log\left[\frac{\phi_{ijk}}{1-\phi_{ijk}}\right] = \pi_{1jk}(SR\_2) + \pi_{2jk}(SR\_3) + \pi_{3jk}(SR\_4) + \pi_{4jk}(SR\_5) + \pi_{5jk}(SR\_6) + \pi_{6jk}(OF\_2) + \pi_{7jk}(OF\_3) + \pi_{8jk}(OF\_4) + \pi_{9jk}(OF\_5) + \pi_{10jk}(OF\_6) + \pi_{11jk}(SR) + \pi_{12jk}(OF)$$

where π_{1jk} through π_{10jk} are slope coefficients for each of the self-reported and official measures (SR_2 to SR_6 and OF_2 to OF_6, respectively), and π_{11jk} and π_{12jk} are slope coefficients for two dummy variables indicating whether the source of the information is self-reported or official (SR and OF, respectively). The item slope coefficients represent the log-odds of item endorsement and are interpreted as the item severities, in contrast to an omitted item. One set of parallel items must be excluded from the measurement model in order to avoid perfect collinearity. For simplicity of interpretation, one typically chooses for exclusion the item(s) expected to be either most or least serious. In this case, the parallel items SR_1 and

OF_1 (the citizen complaint measures) were excluded. The slope coefficients for the SR and OF dummy variables are interpreted as the item severities for SR_1 and OF_1, respectively. The dummy variables SR and OF serve as level-1 intercepts for the construct being measured (i.e., ppb) via their respective sources of information.

At level-2, the slopes for SR and OF are outcomes interpreted as the true score estimates for the ppb construct and are predicted using paired level-2 predictors. Thus, the level-2 model represents variation between officers j within districts k on the true score estimates derived from the self-report and official measures (i.e., π_{11jk} and π_{12jk}), and includes several pertinent officer-level predictors. The goal of the level-2 model is to be able to predict officer problem behavior, as measured via both self-report and official sources, while exploring any differential effects of the predictors. The multivariate hypothesis testing procedure in HLM5 tests whether the level-2 predictors have differential effects for the two types of information (self-reported and official). If the coefficients for a given predictor are equivalent, a pooled estimate can be used. The level-2 model is specified as follows:

$$\pi_{11,jk} = \beta_{110,jk} + \beta_{111,jk}(MALE)_{jk} + \beta_{112,jk}(NONWHITE)_{jk} + \beta_{113,jk}(YEARS)_{jk} + \beta_{114,jk}(CYNICISM)_{jk} + \beta_{115,jk}(DISTORTION1)_{jk} + \beta_{116,jk}(DISTORTION2)_{jk} + r_{11,jk}$$

$$\pi_{12,jk} = \beta_{120,jk} + \beta_{121,jk}(MALE)_{jk} + \beta_{122,jk}(NONWHITE)_{jk} + \beta_{123,jk}(YEARS)_{jk} + \beta_{124,jk}(CYNICISM)_{jk} + \beta_{125,jk}(DISTORTION1)_{jk} + \beta_{126,jk}(DISTORTION2)_{jk} + r_{12,jk}$$

The level-2 intercepts (β_{110jk} and β_{120jk}) are interpreted as the expected scores on the dependent variables (self-reported and official problem behavior) for an officer in district k when all independent variables are equal to zero, β_{111jk} through β_{116jk} and β_{121jk} through β126jk are slope coefficients for each of the officer-level predictors, and r_{11jk} and r_{12jk} are officer-specific error terms.

The level-3 model represents variation across police districts in the mean self-report and official measures, and incorporates district characteristics as well as aggregated officer characteristics:

$$\beta_{110jk} = \gamma_{1100jk} + \gamma_{1110jk}(OFFRATE)_{jk} + \gamma_{1120jk}(SES)_{jk} + \gamma_{1130jk}(STABLE)_{jk} + \gamma_{1140jk}(POP\_HET)_{jk} + \mu_{110jk}$$

$$\beta_{120jk} = \gamma_{1200jk} + \gamma_{1210jk}(OFFRATE)_{jk} + \gamma_{1220jk}(SES)_{jk} + \gamma_{1230jk}(STABLE)_{jk} + \gamma_{1240jk}(POP\_HET)_{jk} + \mu_{120jk}$$

where γ_{1100jk} and γ_{1200jk} are the grand means, γ_{1110jk} - γ_{1140jk} and γ_{1210jk} - γ_{1240jk} are the partial effects of each of the level-3 predictors on the district *k* mean scores on self-reported and official problem behavior, and μ_{11jk} and μ_{12jk} are district-specific error terms.

APPENDIX B
MODELING PROCESS

A typical approach to model building in HLM generally starts with a fully-unconditional model, the purpose of which is to determine whether a significant amount of variance exists at higher levels as well as to set a baseline against which to compare subsequent models. With a measurement model at level-1, however, the closest analogue to the unconditional model is to run the measurement model with no predictors at higher levels. This indicates whether there is significant variance between officers and between districts on the outcomes, and serves as a base model. The next step is to introduce the parallel level-2 predictors of interest and determine whether the coefficients for the parallel predictors are significantly different, or if pooled estimates can be used in subsequent models. All level-2 predictors are then group-mean centered. This accomplishes three important goals. First, group-mean centering all the level-2 predictors changes the interpretation of the level-2 intercepts (β_{110jk} and β_{120jk}) from the expected scores on the dependent variables for an officer in district k when all independent variables are equal to zero (a condition which is not possible in the present case and thus renders the intercepts meaningless), to the district k (unadjusted) mean scores on self-reported and official police problem behavior. Second, group-mean centering the level-2 predictors pools variance within the groups (i.e., districts) and thus isolates level-2 and level-3 variation, which (third) has the effect of maximizing level-3 (district) variation.

Next, the slope(s) for officer cynicism are allowed to vary (i.e., police districts will take on their own coefficients for cynicism) because it is anticipated that the effect of cynicism will evidence ecological variation. If the varying slopes add significantly to the model (i.e., if there is a significant amount of variation and level-3 variance is reduced) then they are retained; otherwise, the slopes are constrained. Introduction of level-3 predictors, grand-mean centered, follows for the level-2 intercepts (district k mean police

problem behavior) while monitoring variance results. Each level-3 variable is entered alone, and any significant level-3 variables in combination in the final model.

ENDNOTES

1. Many scholars, including Niederhoffer's contemporaries, have written on this subject. The common argument is that although citizens rely on the police for countless reasons, the police may be regarded as a group of somewhat lower-class individuals working in a low-prestige occupation—even by those who summon them for help—for the simple reason that the police are the ones who will "get dirty" and deal with criminals or undesirable persons, often forced to fashion quick and dirty solutions or use methods that may be regarded by citizens as crude (Bittner, 1967; McNamara, 1967; Skolnick, 1966). Police are aware that the public tends to have a fairly low opinion of police in general (e.g., Bittner, 1967), and the media are almost universally regarded as unfair (Bayley & Mendelsohn, 1969; Berg, Gertz, & True, 1984; Niederhoffer, 1967), so that police tend to view citizens, the media, and other external groups with a certain degree of resentment and maintain distance when dealing with these groups on a daily basis. This helps to generate an "us-them" mentality, wherein citizens are seen as outsiders and "know-nothings" by the police (Van Maanen, 1978), and police are seen by citizens as the ones who will handle the problems citizens are unable or unwilling to handle themselves (Bittner, 1967).

2. In addition: (1) although several factors were extracted, some of the items were not logically consistent with the presence of other items; (2) the scree discontinuity test reveals the largest drop between the first and second factor (i.e., largest drop in eigenvalues), with two observable slope changes (it has been shown that automatic rotation of factors with eigenvalues greater than 1.00 will tend to overestimate the number of factors, and use of slope change, while more subjective, is a more desirable method; see Kline, 1994); and (3) a one-factor solution reveals item loadings greater than .15, save for four items (CYN_5, 8, 15, and 17). Alpha increases marginally from .67 to .73 with exclusion of these four items, and the full and reduced scales correlate at .96 ($p<.01$).

3. The fact that half of the respondents held the opinion that their responses would not be kept confidential tends to underscore the notion of police as a suspicious lot. The opinion may reflect a suspicion of the researchers, the police administration, or both. These individuals may be less likely to self-report, may exhibit greater levels of cynicism, or have other attitudes or opinions that affect their survey response. This variable is included as a control in subsequent analytic models.

4. To investigate the possibility of multicollinearity among the independent variables, tolerances and variance-inflation factors (VIFs) were estimated for both level-2 (officer) and level-3 (district) variables. The highest VIF among level-2 variables was 1.16. As is the case in most ecological research, some of the level-3 independent variables exhibited moderately strong correlations (see the correlation matrix in Table 5). Among level-3 variables, the highest VIF was equal to 2.97 (OFFRATE), followed by STABLE (2.52), SES (1.35), and POP_HET (1.26). Although there is no commonly accepted rule for VIF thresholds, the most

conservative modeling strategy is to enter each level-3 predictor individually to assess impact, followed by combinations of significant predictors.

5. Missing data on self-reported items varies from 15 to 22 cases per item (SR_1 - 17 cases; SR_2 - 15 cases; SR_3 - 22 cases; SR_4 - 16 cases; SR_5 - 19 cases; SR_6 - 17 cases).

6. Residual files were created for level-2 and level-3, based on the final model. Histograms of the level-2 Empirical Bayes (EB) residuals for the slopes and the level-3 EB residuals for the intercepts appear to be normally distributed. For the latter, it is difficult to gauge normality given a total of only 23 level-3 units, but the distributions appear to have more cases near the center of the range, and fewer toward the tails. Scatterplots comparing the level-2 and level-3 EB residuals with the Ordinary Least Squares (OL) residuals show a monotonic relationship for both SR and OF. These results are available from the author upon request.

7. To assess this possibility, a scatterplot of police districts was created with coordinates determined by mean official PPB and population heterogeneity (available from author upon request). Plots were categorized to indicate districts where 70% or more of the residents are Black, districts where 70% or more of the residents are White, and districts where Blacks and Whites each constitute less than 70% (i.e., the population is relatively more heterogeneous). Boxes associated with each point indicated the actual percentage of district residents who are Black. An examination of this scatterplot suggests that the observed heterogeneity effect may be being driven by relatively homogeneous Black districts, where the mean level of official PPB is higher than in homogeneous White districts and more racially mixed districts. This relationship points to the possibility of a specific effect of percent Black on official PPB, which may raise questions about police behavior and police-citizen interactions in Black communities. Further, as Smith (1986) reported, the effect in homogeneous White districts may be driven by the police response to Black suspects in those districts. In largely Black areas that still have a sizeable White population (particularly in communities experiencing population change, where Blacks are becoming the dominant group), White police officers may be “over applying” the law during interactions with Black residents (e.g., Black, 1980). And, where police authority is exercised to a greater degree, one might expect more citizen complaints about police behavior, as well as more force incidents. Unfortunately, the present study has no encounter-level data that would bear on these questions.