A test of Lundman’s organizational product thesis with data on citizen complaints

Liqun Cao
Associate Professor, Department of Sociology, Anthropology, and Criminology, Eastern Michigan University, Ypsilanti, Michigan, USA

Xiaogang Deng
Assistant Professor, Department of Sociology, University of Massachusetts at Boston, Boston, Massachusetts, USA, and

Shannon Barton
Assistant Professor, Criminal Justice Department, Ferris State University, Big Rapids, Michigan, USA

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Abstract Applying Lundman’s organizational product thesis in explaining citizen complaints against police use of excessive physical force, the current study tests several hypotheses with a national data set. Tobit regression analyses of the data show that Lundman’s thesis is partially supported. Both organizational behavior and organizational characteristics are important covariates of the complaint rate against police use of excessive physical force. Although generalization is limited, police departments need to actively recruit more mature persons into the police force, reinforce field training officer programs, and continually provide more in-service training programs for its members if they are serious in reducing citizens’ complaints.

From the videotape of Rodney King’s beating in 1992 to the current conviction of New York police officer Robert Volpe, the police use of excessive physical force has captured national attention. Owing to exposure of such incidents in the national media, there is a renewed interest in understanding the police use of excessive physical force and an outcry for police accountability in similar incidents (Alpert et al., 1992; Maple, 1999). As a result, citizens’ complaints against police use of “non-negotiable coercive force” (Bittner, 1970) have also emerged as an important research agenda of both academics and police chiefs. At the core of the discussion is the unsettling issue of what is excessive force and what is unreasonable force. Not only do official definitions differ widely from one police department to another, but also citizens’ perception and understanding of it differ widely. Johnson (1981) argues, however, that
perceptions of police brutality have been at the heart of citizen distrust of, and complaints about, the police. As such, citizens’ complaints deserve special consideration.

In the research reported here, the attention focuses only on citizen complaints against police use of excessive physical force. The concept of excessive physical force is further defined from the perspective of a civilian: any allegation by a citizen regarding unnecessary and unwarranted physical force by sworn officers. It is acknowledged that the term police use of excessive physical force is part of the larger concept called police brutality. Police brutality, however, may sometimes include the use of deadly force and, at other times, of non-physical behavior of any practice that degrades citizen status, “that restricts their freedom, and that annoys or harasses them” (Reiss, 1971, p. 334). Citizen complaints about non-physical violation of their rights or verbal abuse are not included in our definition. It is also acknowledged that police use of excessive physical force could be defined from police administration viewpoint[1] (Fyfe, 1986, p. 207; Skolnick and Fyfe, 1993, pp. 37-42).

While estimates vary, the incidents of excessive physical force are infrequent (Adams, 1996; Dugan and Breda, 1991; Kerstetter, 1985; Klockars, 1996; Pate and Hamilton, 1991; Wagner, 1980). Citizens’ filings about the “infrequent” behavior occupy even a smaller proportion of all incidents involving excessive physical force (Dunham and Alpert, 1995; Russell, 1978; West, 1988). Even so, citizen complaints deserve special consideration both by academics and police administrators. The use of excessive force reduces public confidence in the police, depresses officer morale, and generates conflict between police and residents (Langworthy and Travis, 1994; Wagner and Decker, 1997). Scandals associated with abuse of authority jeopardize organizational stability and continuity of leadership (Sherman, 1978).

There is a sizeable theoretical literature on how to minimize police misconduct and brutality (Alpert and Fridell, 1992; Fyfe, 1996; Goldstein, 1977; Sherman, 1980; Skolnick and Fyfe, 1993; Wilson, 1968), but empirical research on citizen complaints is extremely limited. This is particularly true of research utilizing multivariate analysis at the organizational level. Sherman (1980) and West (1988) lamented that most of the previous research on police misconduct and citizen complaints has been descriptive and qualitative. More recently, Griswold (1994) called for additional quantitative research in this area. Heeding these calls, the study reported here addresses this gap primarily through reanalysis of data at the organizational level. It attempts to test hypotheses derived from Lundman’s organizational product thesis (1980).

**Theory and hypotheses**

Lundman (1980) proposes one of the most complete sociological theories of controlling police misconduct. His theory, labelled as the organizational product thesis, maintains that most police misconduct is a product of organizational deviance, so that what needs to be controlled is not individual officer’s behavior, but organizational climates. Building upon the previous
works of Bittner (1970), Reiss (1970, 1971), Sherman (1978), Van Maanen (1978), and Westley (1970), Lundman (1980, p. 141) argues that “police misconduct is organizational deviance when actions violate external expectations for what the department should do. Simultaneously, the actions must be in conformity with internal operating norms, and supported by socialization, peers, and the administrative personnel of the department.” Applying this thesis to the study of citizen complaints, police departments may have different rates of citizen complaints, and these vary with the particular departmental characteristics. Recognizing the complex nature of controlling police in a democratic society, Lundman believes that the police, as one public-serving organization, “are to be monitored and controlled so as to insure that the persons being served are those intended by reference to the commonweal mandate of the organization.” The public has a right to spell out the criteria and insist in their application through competent police administrators or through various civilian organizations.

While emphasizing organizational characteristics and outside control of police misconduct, Lundman (1980) does not ignore the great potential for competent police administrators and organizational regulations to reduce police brutality. Like many other police scholars (see Alpert and Fridell, 1992; Fyfe, 1996; Goldstein, 1977; Sherman, 1980; Skolnick and Fyfe, 1993; Wagner and Decker, 1997; Wilson, 1968), he also points out various ways that the use of unnecessary force can be reduced by various departmental policies and practices. No empirical studies so far, however, have ever applied his theory in studying citizen complaints and tested his thesis with data.

Studies have examined the extent and nature of citizen complaints (Decker and Wagner, 1982; Dugan and Breda, 1991; Dunham and Alpert, 1995; Kerstetter, 1985; Lersch and Mieczkowski, 1996; Pate and Hamilton, 1991; Wagner, 1980; Wagner and Decker, 1997). Griswold (1994) carried out a multivariate analysis of the factors on the disposition of complaints. Kerstetter et al. (1996) studied the impact of race on the investigation of excessive force allegations against police. Dunham and Alpert (1995) did a case study on controlling the police use of excessive force in Miami and reported that competent management can reduce citizen complaints. Lersch (1998) applied conflict theory in predicting the characteristics of complaining citizens. Lersch and Mieczkowski (1996) investigated the characteristics of the officers and citizens involved in complaints. They reported bivariate findings regarding the relationships between race and complaints, gender and complaints, and age and complaints. These studies, however, have only focused on a limited number of jurisdictions and the measures used have not been consistent across studies. Most studies used noncausal comparison approaches to study citizen complaints and various characteristics of individual officers. Few of these studies reported correlation of citizen complaints or control for other potential causes of complaints. While they are very useful in understanding citizen complaints at the individual level and can provide policies to deal with the
issues of a few “rotten apples” or “bad cops,” they miss the possibility that the entire “barrel” is rotten, and they could not address policy issues at the organizational level regarding citizen complaints.

At the organizational level, empirical research has not been undertaken either about the nature of the problem or about the efficacy of proposed solutions. Organizational characteristics and behavior have not been used to predict the complaint rate of police use of excessive physical force. Wagner and Decker (1997) argued that citizen complaints are more appropriate to be studied at the macro-level than the micro-level when considering efforts to stem police behavior perceived offensive by citizens.

The lack of data with regard to citizen complaints is a major reason for the limited empirical study at the organizational level. As Pate and Fridell (1993) note, police use of excessive force is low-visibility behavior, many victims do not report such incidents, and many police departments do not collect information on such events. Further, from the police standpoint, complaints concerning the use of unnecessary force may be due to the fact that subjects have been arrested for a legitimate offense. However, studies on the citizen complaints indicate that citizens do not file complaints simply for a personal revenge motive (Russell, 1978), nor do they file complaints with the intent of winning a large lawsuit. There are factors which discourage the filing of citizen complaints, such as personal fear of reprisal, complex and cumbersome filing procedures, and the highlighted possibility of criminal prosecution for making a false report (The National Advisory Commission on Criminal Justice Standards and Goals, 1973). Although not all citizens who are subject to unnecessary force file a formal complaint, not all formal complaints end up in the police files, and not all recorded complaints are legitimate, Bayley and Mendelsohn (1969) observed that willingness to file a complaint seems to be a function of what happens to people and what they expect to gain from it. Therefore, official data on citizen complaints, even imperfect as they are, should not be ignored. Instead, these allegations of police misconduct should be analyzed (Kerstetter et al., 1996), and treated as a “barometer of police performance” (Wagner and Decker, 1997), as “important indicators of public perception of the agency” (The US Commission on Civil Rights, 1981), and/or as “a valuable source of management information” (Skolnick and Fyfe, 1993, p. 231).

With this understanding in mind, we make use of data collected by Pate and Fridell (1993), which were designed to be a comprehensive national survey of law enforcement agencies on the matter of police brutality. Their data provide a national picture of citizen complaints against police use of force as reflected in official records. Their own study, however, only provided comparison of simple percentages and bivariate analysis. Theories and hypotheses were not tested rigorously against each other in the multiple variate analysis. Furthermore, Pate and Fridell (1993) attempted to cover a much wider variety of topics, from
citizens’ complaints about excessive force to internal investigation about unnecessary force, from physical force to verbal abuse of power, and from use of deadly force to litigation.

Our study, in contrast, focuses on citizen complaints against police use of excessive physical force. It is further limited to records of complaints in large city police departments with more than 50 employees (Crank and Wells, 1991), because data in large police departments are more impersonal and accurate, and large municipal police departments employ the majority of police. It is also at the city level that most citizens have contacts with the police (Langworthy and Travis, 1994) and that most citizen complaints are generated (Pate and Fridell, 1993). Compared with the centralized police system in most non-common law countries in the world, the American police system is highly decentralized and the police are held accountable locally (Langworthy and Travis, 1994; West, 1988). It is, therefore, most appropriate to examine citizen complaints against the police at the municipal level.

Since Lundman (1980) suggests that organizational behavior and organizational characteristics may be related to the citizen complaint rate against police, an appropriate test of his theory is at the organizational level. From Lundman’s organizational product thesis, we deduce three testable propositions:

**Hypothesis 1:** The establishment of civilian review boards reduces the citizen complaint rate.

The control of police use of excessive force through outside civilian organizations is widely hailed as one solution by a number of scholars (for example, Goldstein, 1977; Lundman, 1980). West (1988, p. 108), for example, states that the closed system (or bureaucratic model of control), where police investigate the police, is contrary to “the rules of natural justice and is, by definition, imperfect.” The empirical efficiency of outside organizations such as civilian review boards is tested in this research.

**Hypothesis 2:** The personnel composition of a police department is related to the citizen complaint rate. The larger the proportion of females and African-Americans in the department, the higher the educational level of police department personnel, and the longer the average service years of a police department, the lower the citizen complaint rate.

Individual-level data provide evidence that the presence of women officers on the force may act to reduce the likelihood of violence in police-citizen encounters (Grennan, 1987), they initiated fewer detentions and made fewer felony and misdemeanor arrests (Sherman, 1975), and they are significantly less likely to have a citizen complaint against them (Lersch and Mieczkowski, 1996). Individual-level data provide conflicting evidence regarding minority officers. While minority group officers have been found to be less antagonistic to the public and to display greater ties to the community than their white colleagues (Berg et al., 1984), they are also more likely to have a citizen
complaint (Lersch and Mieczkowski, 1996). Since gender and racial issues are at the core of the criminal justice system (Browning et al., 1994; Cao et al., 1996; Henderson et al., 1997; Locke, 1996), our study tests these associations at the organizational level.

Beginning with August Vollmer, the police chief and reform advocate at the turn of the century, the education of police officers has become an increasingly important issue. In recent decades, there has been a concerted effort to raise the educational level of police recruits. The federal government has expended millions of dollars on law enforcement education. It has been argued that college-educated police officers are more sensitive to citizens, can communicate better, and are more effective. Research also indicates that average service years is expected to negatively relate to police use of force and to citizen complaints (Langworthy and Travis, 1994; Lersch and Mieczkowski, 1996; Sherman, 1980). We test this hypothesis in our model.

**Hypothesis 3:** The presence of psychological exams as a condition of admission to a police academy, field-training officer programs, the number of in-service training programs on the use of force, regular reviews, reporting to supervisors, a written policy on the use of less-than-lethal weapons, and reporting requirement on the use of force tend to reduce the citizen complaint rate.

These hypotheses are also reflected in many of the recent calls for the police reform (Alpert and Fridell, 1992; Fyfe, 1996; Skolnick and Fyfe, 1993; Wagner and Decker, 1997). Police misconduct can be controlled by hiring the best-qualified officers, by issuing and enforcing rules, and by close supervision. The pre-service psychological exam is one of the screening methods to assess a propensity toward risk factors often connected with hyperaggressive violent behavior and the impairment of an officer’s ability to maintain control of his or her temper. This study tests the efficacy of psychological exams empirically.

Police socialization begins at the police academy, and it continues in field training and throughout an officer’s career. Wilson (1968) and Goldstein (1977) advise police agencies to strengthen institutional training specifically to prevent improper conduct. Alpert and Fridell (1992) and Skolnick and Fyfe (1993) also call for competent training to minimize the police use of excessive force. Dunham and Alpert (1995) find that, through selection, training, close supervision, and holding officers accountable, police departments can reduce citizen complaints even in very dangerous areas, arresting large numbers of dangerous offenders. The current study tests the effectiveness of field training officer programs, in-service training programs, and regular reviews and close supervision of officers’ behavior in reducing citizen complaints.

Part of the problem in controlling police use of excessive force is that what is and what is not excessive has not been clearly defined by the court (Alpert and Smith, 1994). Evidence regarding police use of deadly force suggests that implementation of more restrictive policies decreases the use of deadly force (Fyfe, 1986). Since not all police departments have a written policy on the use of...
less-than-lethal force or mandatory reporting systems on the use of force, it is expected that those with written policies and mandatory reporting systems will have fewer citizen complaints.

Finally, our model controls for the environment in which police work. Previous research has found that the population size and the arrest rate are both positively associated with police brutality (Jacobs and O’Brien, 1998; Pate and Fridell, 1993; Sherman, 1980). The population size is highly correlated with ethnic diversity and wider social strata in a city, and the arrest rate proxies confrontational encounters a police officer has in a year. In carrying out their tasks as a police officer, “police intervention means above all making use of the capacity and authority to overpower resistance” (Bittner, 1970, p. 40). As long as some members of society do not comply with the law and resist the police, an imposition of force on an unwilling person will remain an inevitable part of policing (Skolnick and Fyfe, 1993).

Methods
Sample
We utilize the information of the municipal police departments in Pate and Fridell’s data. The response rate of the survey was 72.4 percent for city police departments (for a detailed discussion of the sample procedure, see Pate and Fridell [1993]). For our purpose, we select a subsample of large city police departments with a cutting point at 50 employees or more (Crank and Wells, 1991). This further selection is warranted since large police departments are generally considered more bureaucratic and having better records than small and medium-size police departments.

Missing data are a problem with Pate and Fridell’s data set. The largest category of missing value in the current study is the variable length of service (28 percent), followed by percentage with BA/BS degrees (27 percent). In order to minimize the problem, Schafer’s Norm was used to handle all missing data[2]. The Norm is a sophisticated computer program specifically designed to handle missing data in complex data analysis. It uses the multiple imputation method, which is a simulation-based approach to the statistical analysis of incomplete data (see Schafer (1997) for more detailed discussion). The final number of municipalities included in our analysis is 535.

Measures
Table I presents the sample characteristics in terms of means, standard deviations, range, and percentages of missing data of all 15 variables. Also, percentage distribution of population served is reported.

Dependent variable. To provide a standardized estimate for each police department, the complaint rate per 100 sworn officers is calculated, using the total number of citizen complaints about excessive, undue, unnecessary use of physical force in 1991 as the numerator and the total number of the sworn
The number of citizen complaints of excessive physical force per 100 sworn officers | 5.96 | 6.52 | 0.82 | 25.23 |
Civilian review board | 0.10 | 0.30 | 0.1 | 0.37 |
Percentage with BA/BS | 25.99 | 15.89 | 0.99 | 26.73 |
Percentage blacks | 7.31 | 10.29 | 0.86 | 1.68 |
Percentage females | 5.70 | 4.41 | 0.39 | 1.50 |
Length of service | 11.06 | 3.70 | 4.23 | 27.66 |
Pre-service psycho exam | 0.94 | 0.23 | 0.1 | 13.27 |
FTO program | 0.89 | 0.31 | 0.1 | 13.08 |
In-service training | 7.25 | 1.32 | 0.8 | 17.94 |
Regular reviews | 2.54 | 0.64 | 1.3 | 14.58 |
Reporting to supervisors | 0.77 | 0.42 | 0.1 | 0.75 |
Less-than-lethal policy | 0.95 | 0.22 | 0.1 | 13.08 |
Reporting requirement | 6.62 | 2.06 | 0.8 | 20.04 |
Arrests per officer | 7.75 | 7.43 | 0.57 | 24.67 |
Population served | 3.72 | 0.58 | 1.4 | 0.00 |

Notes: 1 = under 10,000 residents 0.7%; 2 = 10,000 to 24,999 4.7%; 3 = 25,000 to 49,999 16.4%; 4 = 50,000 and over 78.1%

Descriptive statistics in the analysis (N = 535)
and those not having one as 0. These two variables capture the concept that only the best fit persons are recruited and they receive best available training before they become independent officers on their own.

The in-service training is an index variable that assesses whether a police department provides in-service training programs in four areas: the use of non-lethal force, the use of deadly force, the use of non-lethal weapons, and firearm requalification. 2 = mandatory training is provided for all officers, 1 = optional training is provided, and 0 = not provided. The Cronbach’s alpha for this index is 0.78. The regular review is an ordinary variable, asking whether the police department reviews and investigates use of force reports filed by officers even if no citizen complaint or civil suit was filed: 3 = yes, reviews and investigates all reports, 2 = yes, reviews and investigates selected reports, and 1 = no, does not review or investigate reports. Reporting to the supervisor is a dummy variable where the department has a policy that requires police officers who become aware of a citizen complaint to report the information to a supervisor as 1 and no such requirement as 0. Less-than-lethal policy is a binary variable with departments that have written policy for the use of less-than-lethal force as 1 and those that do not have such a written policy as 0. Reporting requirement is an index variable consisting of four items. These four items all have the lead questions: what is your department’s policy regarding the reporting of the following type of use of force: chemical agents, batons, other impact devices, and flashlight. Filing mandatory reports is coded as 2, filing optional is 1, and no such requirement is 0. The Cronbach’s alpha for this index is 0.72. These variables embody the call for strengthening professional management of the police organization.

Finally, the two control variables are arrests and population size. Arrests refer to the average number of arrests an officer made with regard to the seven index crimes (excluding arson) in 1991. The population size is an ordinal variable with the proximate population covered by a police department with 1 = under 10,000 residents and 4 = above 50,000 residents (see Table I). The two control variables are expected to positively relate to the complaint rate against the police.

Research design
The Tobit model was employed to do the analysis since about 23 percent of police departments have no citizen complaints. Ordinary least squares model gives inconsistent estimates when the dependent variable has many zero values. Tobit is frequently employed to deal with such censored dependent variables because it uses two formulas to predict values of the dependent variable, one for cases at the limit value (zero in our case) and another for cases above the limit (Cao et al., 1997; Johnston, 1984; Tobin, 1958). The results show the jointly calculated effects.

Results
Table II provides zero-order correlations for the variables in our analysis. A common problem in organizational studies and one that has sometimes been
<table>
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<th>Variables</th>
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<td>1. Complaint rate</td>
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<td>2. Review boards</td>
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<td>3. Percent with BA/BS</td>
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<td>4. Percent of blacks</td>
<td>-0.21*</td>
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<td>5. Percent of women</td>
<td>0.11</td>
<td>0.19*</td>
<td>-0.08*</td>
<td>0.41*</td>
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<td>6. Length of service</td>
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<td>0.07</td>
<td>0.09</td>
<td>-0.01</td>
<td>-0.18*</td>
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<td>7. Pre-service exam</td>
<td>-0.14*</td>
<td>0.03</td>
<td>0.08</td>
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<td>-0.06</td>
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<td>8. FTO program</td>
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<td>9. In-service training</td>
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<td>-0.04*</td>
<td>0.13*</td>
<td>-0.22</td>
<td>-0.06</td>
<td>-0.19*</td>
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<td>0.08</td>
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<td>11. Reporting to supervisors</td>
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<td>-0.18*</td>
<td>0.03</td>
<td>0.09*</td>
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<td>12. Less lethal policy</td>
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<td>0.08</td>
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<td>0.02</td>
<td>0.22</td>
<td>0.22</td>
<td>0.37*</td>
<td>0.23*</td>
<td>0.01</td>
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<td>13. Reporting requirement</td>
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<td>-0.05</td>
<td>-0.01</td>
<td>0.04</td>
<td>-0.01</td>
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<td>-0.07</td>
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<td>14. Arrests</td>
<td>0.18*</td>
<td>0.06</td>
<td>0.07</td>
<td>0.14*</td>
<td>0.12*</td>
<td>-0.02</td>
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<td>0.11*</td>
<td>-0.03</td>
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<td>-0.03</td>
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<td>15. Population size</td>
<td>0.24*</td>
<td>0.09*</td>
<td>0.05</td>
<td>0.07</td>
<td>0.12*</td>
<td>0.13</td>
<td>0.14</td>
<td>0.08</td>
<td>0.10*</td>
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<td>0.07</td>
<td>0.10*</td>
<td>0.02</td>
<td>0.21*</td>
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**Note:** *Correlation is significant at the 0.05 level (two-tailed)
The departmental rate of citizen complaints against police use of excessive physical force varies a great deal. The mean complaint rate is six per 100 sworn officers, ranging from zero to 82 percent (see Table I). To capture the variation of the citizen complaint rate, the Tobit regression analysis is utilized. The results of the analysis are reported in Table III. There are two equations in the table. In Equation 1, the unique variables of Lundman’s organizational product thesis is tested with two control variables. In Equation 2, the complete model of Lundman’s organizational product thesis is tested.

In Equation 1, it is found, surprisingly, that the civilian review board has an effect on the rate of citizen complaints, but in the opposite direction as the theory would predict. That is, the establishment of civilian review boards tends to be associated with a higher rate of citizen complaints. A police department’s educational level has no appreciable effect on the rate of complaints. Gender and length of service are both significantly related to the rate of complaints. The larger percentage of females in a police department tends to reduce the rate of complaints, and the longer the average length of service in a police department.

### Table III.

Tobit analysis of citizen complaints against police use of excessive physical force

<table>
<thead>
<tr>
<th>Explanatory variables</th>
<th>Equation 1</th>
<th>Equation 2</th>
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</thead>
<tbody>
<tr>
<td>Independent variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civilian review board</td>
<td>0.35*</td>
<td>0.39*</td>
</tr>
<tr>
<td>Percentage with BA/BS</td>
<td>−0.00</td>
<td>−0.00</td>
</tr>
<tr>
<td>Percentage blacks</td>
<td>0.14*</td>
<td>0.01*</td>
</tr>
<tr>
<td>Percentage females</td>
<td>−0.01*</td>
<td>−0.01</td>
</tr>
<tr>
<td>Length of service</td>
<td>−0.04*</td>
<td>−0.06*</td>
</tr>
<tr>
<td>Pre-service psycho exam</td>
<td></td>
<td>0.18</td>
</tr>
<tr>
<td>FTO program</td>
<td></td>
<td>−0.37*</td>
</tr>
<tr>
<td>In-service training</td>
<td></td>
<td>−0.11*</td>
</tr>
<tr>
<td>Regular reviews</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>Reporting to supervisors</td>
<td></td>
<td>−0.13</td>
</tr>
<tr>
<td>Less-than-lethal policy</td>
<td></td>
<td>0.24</td>
</tr>
<tr>
<td>Reporting requirement</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>Arrests per officer</td>
<td>0.22*</td>
<td>0.21*</td>
</tr>
<tr>
<td>Population serviced</td>
<td>0.38*</td>
<td>0.41*</td>
</tr>
<tr>
<td>Intercept:</td>
<td>0.25</td>
<td>−1.13*</td>
</tr>
<tr>
<td>Log likelihood:</td>
<td>−688.19</td>
<td>−674.46</td>
</tr>
</tbody>
</table>

**Note:** *p < 0.01
department is, the lower the citizen complaint rate. Race is significant too, but its effect contradicts the theory’s prediction. The larger percentage of African-American officers is associated with increased complaints. Both control variables – arrests and population served – are positively associated with the rate of citizen complaints. The more arrests a police officer has to make per year, the higher is the citizen complaint rate, and the larger the population served by the police, the higher the citizen complaint rate.

In Equation 2, the complete model of Lundman’s organizational product thesis is tested with data. It is found that civilian review board and percentage of blacks continue to affect the rate of citizen complaints positively, and length of service is associated with the rate of citizen complaints negatively. The effect of gender on complaints is washed out. As predicted by the theory, formalized field training officer programs and in-service training programs are both negatively associated with the rate of citizen complaints. The police departments with formalized field training officer programs tend to have the lower rate of citizen complaints and in-service training programs reduce the rate of complaints. The rest of the independent variables, pre-service psycho exam, regular review, reporting to supervisors, less-than-lethal policy, and reporting requirement are not significantly related to the rate of citizen complaints. Both control variables remain significant. The more arrests a police officer has to make, the higher is the citizen complaint rate, and the larger population the police serve, the higher the citizen complaint rate.

Discussion
To better understand the organizational determinants of citizen complaints against police use of excessive physical force, the current research applies Lundman’s organizational product thesis in explaining the complaint rate and tests its efficacy by using large city police departments as the unit of analysis. This is a departure from the prior literature, which concentrates on the study of complaints at the individual level. In contrast, by analyzing the organizational covariates at the municipal level and by employing more appropriate statistical models, our results, even though tentative in nature, are robust and have contributed to our understanding of citizen complaints and of police organizational strategies in reducing the complaint rate. Our results indicate that Lundman’s organizational product thesis is partially supported by our data. There is evidence that both organizational characteristics and organizational behavior are important in predicting the complaint rate, which is also influenced by the environment the police have to work in. Several points of theoretical importance and policy implications are in order.

First, the hypothesis that the civilian review board is an effective way to control police brutality is not supported by our data. We find, instead, that the establishment of civilian boards is associated with higher citizen complaint rate. There are several ways to interpret this finding. One interpretation is that our finding may have captured the unmeasured concept, i.e. confidence toward the police (West, 1988). The establishment of civilian review boards increases
residents’ confidence toward resolving their complaints. Thus, in the short run, there is an increase in citizen complaints. Another interpretation is that the civilian review board may be an intervening variable. Some antecedent variables may affect both the civilian review board and complaint rates. The establishment of civilian review boards more often occurs in large cities and is a reluctant organizational decision to cool down some public outcry (Sherman, 1978; Walker and Bumphus, 1991). Our results may have captured the historical inertia of the police departments in transition. The correlational analysis in this study is not sufficiently equipped to answer such a causal order question. Yet, it is also possible that this positive effect of civilian review boards is spurious. The variable is highly skewed and not normally distributed: barely 10 percent of the police departments in our sample report that they have a civilian review board. For whatever interpretations, we think that a full evaluation of the effectiveness of civilian review boards in reducing citizen complaints is yet to be determined.

In fact, while Lundman (1980) argues for the civilian control of police misconduct, he recognizes the problems and failures associated with civilian review boards and thus suggests Citizen Monitoring Organization as a substitute of the civilian review board to control police. Police administrations in general resist the civilian review board (West, 1988), making it hard for the civilian review board to work properly and effectively. Past literature further indicates that, among existing civilian review boards, their functions, missions, formal structure, and operating policies vary considerably (Walker and Kreisel, 1997).

Second, the personnel composition of a police department is an important factor in predicting citizen complaints. The length of service tends to reduce significantly the rate of citizen complaints. This finding is quite consistent with the previous research on this relationship at the individual level (Lersch and Mieczkowski, 1996; Sherman, 1980). This means that police departments need to recruit more mature persons into police service if they are serious in reducing the citizen complaint rate. Furthermore, the effect of race, although it contradicts the theory, is consistent with the individual-level findings (Lersch and Mieczkowski, 1996) from the bivariate analysis of relationship between race and citizen complaints: African-American officers are more likely to have a citizen complaint. One interpretation of this effect is based on three distinct but not mutually exclusive possibilities. African-American police officers are more likely to patrol more dangerous areas (Skolnick and Fyfe, 1993; Toch, 1996), they are more likely to be younger, and they are readily influenced by organizational climate and peer pressure (Locke, 1996; Wagner and Decker, 1997). The other interpretation is that African-American officers continue to suffer from “double marginality” in our society because studies indicate that most complainants are also African-Americans (Lersch and Mieczkowski, 1996; Pate and Fridell, 1993; Wagner, 1980). This effect of race suggests that
citizen complaints are more complex than the white/nonwhite equation. It confirms our belief that it is the training and supervision of officers, not the race itself, that matter in reducing citizen complaints.

Third, the organizational behavior of police departments can shape officer behavior in reducing the rate of citizen complaints regarding police use of excessive physical force. This is consistent with individual-level findings on the topic (Dunham and Alpert, 1995). Police departments without a formalized field training officer program need to install such a program so that the recruits can benefit from the quality of such officers from day one. In-service training is also an effective method in reducing citizen complaints. Furthermore, bureaucratic regulations should be regarded as the starting point for significant change in organizations and these regulations are themselves not enough for any meaningful change in police behavior. In other words, the regulations are necessary, but not sufficient. There are many entrenched informal organizations of police behavior that have long been observed (Bittner, 1970; Lundman, 1979). Future studies may pay more attention to the applications of the organizational regulations in police daily operation and in their interaction with residents.

Caution must be exercised in interpreting the findings of our study. As mentioned before, our study relies on official data. As such, the results must be viewed as tentative. All the problems associated with official data apply to our study. There is, further, some uniqueness regarding the official data on citizen complaints. For example, these complaints could be indicative of a number of departmental characteristics, including filing procedures and confidence of residents toward the police (West, 1988). In addition, the concept of excessive physical force is totally defined from the citizens’ viewpoint. With the vague phrase of the court in defining police excessive force (Alpert and Smith, 1994), it is known that citizens tend to define it broadly while police tend to define it narrowly (Klockars, 1996). Being reasonable to one side may be viewed as unreasonable to the other side, as the acquittal of officers involved in the King incident demonstrates. Thus, these complaints are better regarded as “a valuable source of management information” (Skolnick and Fyfe, 1993, p. 231). A final caution is that ours is a re-analysis of secondary data. Although the sample is representative and although we have many police departmental measures, the police jurisdiction’s social and economic characteristics are not completely accounted for. Wilson (1968) and Sherman (1978) argue that police behavior is part of the local political and social culture. Lundman (1980) argues that police misconduct is influenced by community anomie. Jacobs and O’Brien (1998) have recently found that city characteristics are important predictors of policing killing. We do not know to what extent and how those characteristics might also affect citizen complaints. Addressing the problems in official data, the nature of complaints, and additional structural variables of a city is apparently beyond the scope of the current study. Our results are as accurate and as reliable as the data.
Our data set, however, is the best available on the topic of citizen complaints against police use of excessive physical force. It contains many organizational variables and allows us to assess a more complete model of Lundman’s organizational product thesis in explaining the citizen complaint rate. According to Johnston (1984), estimates based on comprehensive models are less likely to be biased. Furthermore, our study represents the first quantitative effort in applying the organizational approach to the study of citizen complaints against the police. At minimum, it will increase academia and police chiefs’ awareness of research in the area of citizen complaints.

In summary, our analyses provide some support to Lundman’s organizational product thesis. Citizen complaints are more than an issue of a few “bad cops.” Both organizational behavior and organizational characteristics are related to the citizen complaint rate. Police departments should intentionally recruit more mature persons into the police force, reinforce field training officer programs so that the rookie officers will have a good start to their career, and continually provide more in-service training programs for its members. The police administration can influence its officers’ behavior, but regulations themselves are not sufficient for meaningful change in police behavior.

Notes
1. Fyfe (1986, p. 207) and Skolnick and Fyfe (1993, pp. 37-42) made a distinction of brutality and unnecessary force from the police administrative viewpoint. They define brutality as “the willful and wrongful use of force by officers who knowingly exceed the bounds of their office,” and “unnecessary force” as the result of ineptitude or carelessness. Also see Klockars (1996) for a detailed discussion of the definition.

2. Multiple imputation is a simulation-based approach to the statistical analysis of incomplete data (Schafer, 1997). In multiple imputation, each missing datum is replaced by \( m > 1 \) simulated values. The resulting \( m \) versions of the complete data can then be analyzed by standard complete-data methods, and the results combined to produce inferential statements (e.g. interval estimates or \( p \)-values) that incorporate missing-data uncertainty.

3. It is very difficult to substantiate complaints against officers due to the high evidentiary standards. Substantiation rate ranges between zero to 25 percent, with 10 percent or less being the norm (Pate and Fridell, 1993). It is argued that it is easier to win a civil suit than to have a complaint against a police officer found to be merited (Griswold, 1994; Sparrow et al., 1990).

4. In addition to the dependent variable, independent variables of arrests, percentages of female, African-American and college-educated officers are in log form to correct for skewed distributions.

5. Officers’ average age and length of service are too collinear to be used in the same equation. The age is dropped because length of service is considered to be a more accurate measure of both biological maturity and social experiences. Furthermore, as one of the reviewers pointed out, age, college degrees, and military service may all contribute to the maturity level of recruits, which could ultimately result in fewer citizen complaints.
References
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Walker, S. and Bumphus, V.W. (1991), Civilian Review of the Police: A National Survey of the 50 Largest Cities, University of Nebraska at Omaha, Omaha, NB.


