Journal of Public Economics 93 (2009) 99–113

Contents lists available at ScienceDirect

Journal of Public Economics

journal homepage: www.elsevier.com/locate/econbase

The limit of oversight in policing: Evidence from the 2001 Cincinnati riot ☆

Lan Shi

Department of Economics, University of Washington, Box 353330, Seattle, WA 98195, United States

ARTICLE INFO

Article history:
Received 23 July 2007
Received in revised form 24 July 2008
Accepted 30 July 2008
Available online 5 August 2008

Keywords:
Incentives
Oversight
Police officers
Crime

ABSTRACT

Oversight in policing involves investigating officers for complaints against them and punishing them if found guilty. Officers commit errors in policing and, since reducing the error rate is costly, they cut down policing to avoid complaints. This paper tests the hypothesis that oversight reduces policing by exploiting a quasi-experiment: In April 2001, a riot erupted in Cincinnati after a white officer shot dead an unarmed African-American adolescent; the sharply increased media attention, a Justice Department investigation, together with a "racial profiling" lawsuit, exogenously raised the expected penalty of an officer's errors. Compared with the period from January 1999 to March 2001, arrests during the remaining months of 2001 fell substantially. The decline was more significant for offenses where the error rate was higher. Communities with a greater percentage of African-Americans experienced greater arrest reductions. Felony crime surged during the same period.

1. Introduction

Understanding police officers' behavior is important, since they are delegated the power and authority to enforce law. Possible misconduct includes corruption (bribery, forged evidence, etc.), racial discrimination, excessive use of force, and false arrests.[1] Since police officers interact with the public, the latter can provide feedback on officers' performance. Observing officers' wrong decisions, the public (a person or an interest group) can file complaints against them. If found guilty following the investigation, the officer will be penalized. This paper aims to examine the effect of oversight on policing.

This paper posits that oversight reduces officers' incentives to police. Officers' job involves making decisions in a fast-evolving environment, therefore errors may happen. This paper focuses on type I error, examples of which are excessive use of force, wrongful arrests, or even wrongful deaths.[2] The incidence of type I error depends on the error rate and the number of arrests, the latter of which in turn depends on the officer's effort in patrolling and policing. Although the officer can exert effort in searching for signals that can inform the officer and thus reduce the error rate, it is costly or even deadly in certain circumstances. While it is true that officers' reduced policing will cause an increase in crime, the public can hardly bring their complaints about higher crime against an individual officer, as they can, for instance, in an incident of excessive use of force. Therefore to reduce complaints and the resulting investigations and penalties, officers will reduce the number of interventions.

I test the hypothesis that oversight reduces policing by exploiting a sudden and large increase in the expected penalty for type I errors following a dramatic event. On April 7, 2001, a white officer shot dead an unarmed African-American adolescent. A three-day riot erupted. The riot brought heavy media attention to the Cincinnati Police Department (CPD). In May 2001, the Department of

☆ I am most grateful to Marianne Bertrand and Canice Prendergast for their guidance and support. I would also like to thank Bo Becker, John Eck, Gervan Fearon, participants of seminars at University of Washington and the 2006 ASSA meetings, and especially two anonymous referees and Co-Editor Jonathan Gruber for helpful comments. All remaining errors are my own.

E-mail address: lanshi@u.washington.edu.

[1] This paper focuses on policing errors that might be unintentional, e.g., excessive use of force and false arrests, not intentional wrongdoings, e.g., corruption.

[2] The other type (type II error) is that true offenders are let go.

0047-2727/$ – see front matter © 2008 Elsevier B.V. All rights reserved.
doi:10.1016/j.jpubeco.2008.07.007

Justice (DOJ) began a civil-rights investigation of the department, and the shooting officer was indicted with criminal charges in the same month. Also in May, the involved parties began negotiating an agreement to settle a "racial discrimination" lawsuit brought against the city and the CPD in March 2001. All of these events around the riot caused an abrupt and large increase in the cost of committing another error by causing fresh media coverage and hence, a greater likelihood of investigation, harsher punishment, or both.

A number of empirical facts support the existence of the reduced policing with the increased expected penalties for errors. First, examining incident-level data on felony arrests and misdemeanor arrests from January 1999 to November 2001, I find that monthly felony arrests changed little and misdemeanor arrests decreased substantially after April 2001. Second, the decrease in arrests was greater for the type of offenses where officers had more discretion and hence had a greater error rate. For example, arrests for drug- and drinking-law violations saw drops of 44 and 69%, respectively, while arrests for domestic violence changed little. Third, a panel analysis shows that a higher percentage of African-Americans in a community was strongly linked to greater arrest reductions after the riot. According to my difference-in-differences estimates, a community at the 75th percentile of African-American percentage experienced an additional 35% decrease in the monthly arrest rate relative to a community at the 25th percentile. Crime, especially violent crime, surged during the same period.

A competing explanation of a reduction in arrests is that officers felt unappreciated by the community, unsupported by the city, and strategically slowed down. This was indeed partly what was going on, and I include a dummy variable for months that were immediately after the riot and before the establishment of a task force against violent crime in late July of 2001 to control for the intensity of the alienation effect. In addition, I offer evidence of policing reduction beyond this alienation effect. First, officers with longer tenure harbored less fear and thus cut down policing to a lesser degree. Second, in periods where the motive for strategic slowdown was absent, yet the likelihood of investigation was greater, officers reduced their policing.

The closest papers are Prendergast (2001) and Heaton (2005). All examine the impact of greater oversight on policing, although using different sources of variation: Prendergast (2001) exploits changes in procedures at the Los Angeles Police Department that increased consumers' ability to complain against officers, Heaton (2005) exploits changes in policy and procedures following a racial profiling scandal in New Jersey and Maryland, and this paper exploits the perceived increase in penalties in a period right after a race riot. Furthermore, while Prendergast (2001) and Heaton (2005) use city- and state-level data, respectively, this paper uses rich incident-level data.

The remaining paper is organized as follows. Section 2 presents a stylized model of police officer behavior. The next section provides a brief account of the events and the sources of variation. Section 4 presents the empirical evidence and explores alternative explanations. Section 5 provides evidence from the 1991 Rodney King beating and the 1992 Los Angeles Riot, and Section 6 concludes.

2. The theory

A stylized model of police officer behavior is hereby offered. Three actors exist in this model: the city and its police department (the principal), the police officer (the agent), and the public (the ultimate principal). The objective of the police department is to i) minimize crime, ii) minimize errors, and iii) minimize wage expenditures.

Various contracts can be used. Police officers' compensation can be tied to the crime rate, the shortcoming of which is that it subjects officers to uncontrollable risk. Their pay can be based on the number of arrests, but this may cause them to frame innocent people and target easy offenses (Dixit, 2002). Specifying structures and procedures and then monitoring officers in an ongoing fashion is costly (Bawn, 1997; Lupia and McCubbins, 1994). One particular form of contract is ex-post oversight — investigating officers for complaints against them and penalizing them if found guilty. This section focuses on the officers' behavioral response to the use of oversight; for a complete analysis of what is the optimal degree of bureaucratic oversight, see Prendergast (2003).

Facing ex-post oversight, the objective of the police officer is to maximize his utility:

$$\underset{e}{\text{Max}}\, w - N(e) * q * \rho_c * \rho_i * \rho_g * \Delta + f[N(e)] - \frac{1}{2}e^2$$

where w is the wage offered by the department to the officer, N is the number of arrests made by the officer, which is a positive function of e, the officer's effort in policing (patrolling and investigating), q is the officer's rate of type I errors in making decisions (allocating resources),[3] ρ_c is the probability of complaints for the officer's wrong allocation, ρ_i is the probability of the officer being investigated for the complaints, ρ_g is the probability of the officer being found guilty of wrongdoing in making that wrong allocation,[4] Δ is a penalty imposed on the officer,[5] $f[N(e)]$ captures the fact that more policing (and hence lower crime) is desired and rewarded by the principal, and the term $\frac{1}{2}e^2$ is the cost of effort. The term $\rho_i{*}\rho_g{*}\Delta$ thus parameterizes oversight.

[3] I do not introduce officer's effort in collecting information, a dimension that can reduce the rate of type I error for two reasons. First, in many scenarios decisions must be made in a split-second, and collecting information can be deadly. Second, although introducing another dimension of effort makes a richer model, the goal here is to present the most simplified model that can guide my empirical analyses.

[4] The probability of being found guilty, ρ_g, is not always 1; the officer's decision can be upheld given the information he has despite being wrong ex-post. A wrong allocation means that the person is eligible for the resource (the resource being freedom) but the resource is denied. Misconduct, or being guilty, means that the officer knows that the person is eligible but acts to deny the resource; not guilty means that the officer thinks that the person is ineligible and acts accordingly. In complex cases, deciding whether the officer is guilty or not can be very difficult and controversial; the probability of the officer being found guilty (ρ_g) thus depends on two factors: one is the environment involved in the decision-making, the other is the political environment.

[5] The penalty, Δ, can be just the costs associated with the investigation itself, termination of employment, or even criminal charges.