Law enforcement and false arrests with endogenously (in)competent officers

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Abstract

Many jurisdictions (such as the U.S. and U.K.) allow law enforcement officers to apprehend, arrest, and question individuals who they suspect are involved in a crime. Criminal researchers note that a vast majority of those arrested are, subsequently, found to be completely innocent of any crime. However, the law grants officers immunity from being sued by these innocent individuals who were arrested for a crime they did not commit. This paper studies the impact of these immunity laws in a game-theoretic framework of law-enforcement. We find that although such laws are designed to enhance enforcement, they may have perverse incentives. Specifically, in our model officers can choose to become competent, which allows them to better distinguish between criminals and innocent individuals. However, becoming competent is costly to the officers. We show that because immunity laws allow enforcers to arrest and question anyone (without fear of being punished for wrongful arrests), it can reduce the incentives of officers to become competent. Thus, instead of enhancing the effectiveness of law-enforcement, they may actually reduce their ability to detect criminals. Consequently, because officers are less competent under immunity laws, overall levels of crime are actually higher.

Keywords: Mistakes in law enforcement, immunity, detection
JEL: K4, K42, L5

1 Introduction

During the last several years there has been a series of high profile cases involving law enforcement officials who have falsely arrested (or attempted to arrest) innocent citizens. Many of these cases have occurred in the U.S., but there is ample evidence that false arrests routinely occur in almost every country.[1] A recent news article found that over the last 20 years authorities in the U.S. alone, have made more than a quarter of a billion arrests (about one third of adults), but only a small fraction of those arrests lead to actual convictions, while the majority of these arrests were dropped.[2]

Although there is a vast literature on the economics of crime and law enforcement dating back to Becker (1968), there is very little research on understanding why innocent citizens are apprehended or arrested with such frequency. From an economic standpoint Png (1986) showed that mistakes in enforcement are costly because they increase the costs of compliance, thereby, reducing the overall level of compliance. Thus, it would appear that a compliance maximizing regulator would want to minimize the frequency with which mistakes occur. Indeed, if there are some costs to officers for wrongful arrests, and benefits from rightful arrests, then law enforcement officials should be very unlikely to make such errors. Thus, although errors may occur, it is not clear why they should be so persistent.

In this paper we argue that a key to understanding these issues to focus on how criminals are actually detected. To understand this consider the canonical law-enforcement framework introduced by Becker (1968), where g is the gain from crime (g being drawn from some probability distribution), p is the probability of detecting a violator, and f the fine. In this context, those with $g \geq pf$ are violators while the rest are law-abiding citizens. What is not modeled in this framework is exactly what determines the probability of arresting a violator - p. In reality, p will usually be the function of several hours of investigations, the competence of the officers, the presence of witnesses to the crime, and several other such factors. Further, these investigations will sometimes involve officers questioning or appending, though not necessarily arresting or charging, suspects who may turn out to be innocent. If the investigation is difficult or the officers not very competent, then the likelihood of innocent individuals being apprehended may be very high.[3]

The goal of this paper is to explicitly model the process of detecting a criminal by separating the detection process into two parts: the investigative (or inspection) stage during which

[1] These cases refer to the killing of Michael Brown in Ferguson and of Eric Garner in Brooklyn, among others.

[2] As Arrest Records Rise, Americans Find Consequences Can Last a Lifetime, Wall Street Journal, August 18, 2014.

[3] Mookherjee and Png (1992) separate monitoring from investigation. However, in their model monitoring and investigation are not strategic choices of law enforcement. Instead they are two separate choice variables in the social planner's problem.

some innocent individuals may be apprehended or arrested, and the actual charging and conviction stage during which only guilty individuals are charged and punished.[4] Inspection by itself does not reveal anything, unless the officer undertaking the inspection/investigation is competent. Officers endogenously choose to exert costly (observable) effort which increases their level of competence. We use the term effort here very broadly to include investments by the officer in learning, human capital, or skill acquisition relevant to the case or generally. Officers who are competent are able to distinguish between innocent individuals and criminals at the investigative stage, whereas incompetent officers cannot. Since a competent officer can distinguish between criminals and innocents, such officers only apprehend criminals. Incompetent officers, however, cannot distinguish between the two types, and therefore, may sometimes apprehend innocent individuals. However, innocents who are apprehended will at some cost to themselves be acquitted eventually. These costs may reflect the cost of hiring a lawyer and the opportunity costs of being held. Further, officers who charge or arrest innocent individuals also incur some costs (which may be costs to their reputation, or actual penalties). Whereas officers who charge or arrest criminals obtain a reward.

Within this framework we find several interesting results. First, we that if the cost of becoming competent is large relative to the cost of wrongly arresting an innocent, then officers will never become competent, and consequently many innocent individuals will be arrested. In this equilibrium, the level of crime will be relatively high. Second, if the cost of competence is low, then officers will choose to become competent, and innocents will not be arrested. In this equilibrium crime will be relatively low. Third, we find interestingly, if the cost of competence is neither to large or small multiple equilibrium are feasible. In one, there is high level of competence and low levels of crime (and few wrongful arrests), and in another there is low levels of competence with high levels of crime (and many wrongful arrests).

In many investigations, officers often do not incur many costs for wrongful arrests. Indeed, in most countries police are legally immune from being sued by suspects, and therefore suffer almost almost no damages. This immunity is especially strong when the authorities believe that there is a lot at stake in apprehending a criminal and therefore give the police significant leeway (or discretion) in the investigation. For example, recent U.K. counter-terrorism laws allow authorities to hold a passanger for questioning upto 9 hours even if the officer does not have "reasonable suspicion". Interestingly, our model predicts that this type of immunity actually makes the police less likely to become competent, and therefore less capable of detecting criminals effectively. Consequently, the overall level of crime may actually rise rather than fall. Thus, counter intuitively we find that granting law enforcement broad

[4]We do not make a distinction between apprehension and arrest because, at least within the U.S., the two are difficult to distinguish. We consider an arrest or apprehension as someone being questioned or investigated without being charged.

powers and immunity may actually raise rather than lower the level of crime.

We believe that this issue especially important because in many jurisdictions police are subject to "qualified immunity", which effectively makes them immune to charges of wrongful arrests. The argument in favor of such immunity is that it " shield officials from harassment, distraction, and liability when they perform their duties reasonably" (Pearson v. Callahan, No. 07-751). However, such immunity assumes that the police officials acted competently. Indeed, in a U.S. Supreme court case involving a Los Angeles Sheriffs detective and his supervisor who erred in executing a search warrant that lacked probable cause, the court sided with the detective stating that

> they were not plainly incompetent so as to be denied qualified immunity (U.S. Supreme Court, Messerschmidt v. Millender, 2013)

What our model suggests, however, is that wrongful arrests and incompetence are the co-determined in equilibrium and are possibly the result of qualified immunity itself. Thus, it is not clear whether the issue of immunity can be conditioned upon whether the officers were competent. Given the widely held support in the legal community for qualified immunity, our model offers some insights into the conditions under which this policy will be beneficial.

Following the introduction, we present our formal model in Section 2. Section 3 studies the impact of U.S. qualified immunity laws, and Section 4 concludes.

2 The Model

Consider a model with two players: agents and law enforcement officers (henceforth, officers). Agents choose to commit or to not commit some crime, where $g \sim U[0,1]$ is the distribution of gains from violating the law. Further, let α be the officer's belief about the fraction of agents who are law abiding. We shall assume that the officer can observe an aggregate signal of the agent's choices. For example, if the officer believes that about half the agents are violators, then when confronted with an individual agent he believes that with probability .5 the agent is a criminal. Given these beliefs, the officer then chooses whether to exert effort to become competent or not. Once this decision is made, officers then choose whether to arrest (or apprehend) an agent or not to not arrest than individual. If the agent is a criminal, the arrest leads to information regarding the crime so that the agent is fined f and the officer receives a reward of $r < f$ for arresting a criminal. If the agent is innocent she is eventually acquitted. However, acquittal comes at cost $c < f$ which may represent the legal fees associated with proving her innocence. An officer who wrongfully arrests an innocent individual is penalized d, which may be 0 if the officer is granted full immunity from wrongful arrests.

The timing of the game is as follows, with the extensive form representation in Figure 1.

1. Agents choose whether to comply or commit a crime.
2. Officers do not observe an individual agent's decision (but only receive an aggregate signal) and decide whether to choose $E = 1$ or $E = 0$.
3. Officers choose whether to arrest/apprehend (R) or not apprehend (N) the agent
4. Courts/judges determine the guilt or innocence of an individual. Innocent individuals are acquitted and the officer penalized d, criminals are fined f and officer is rewarded r.

Given some belief α the officer always reports as long as

Assumption 1

$$\alpha(-d) + (1-\alpha)r > 0$$

.

It should be noted that the previous assumption is, in fact, a condition that will need to be satisfied in equilibrium.

Turning to the officer's choice between $E = 1$ and $E = 0$. The officer's expected payoff from choosing $E = 1$ is

$$\alpha(-e) + (1-\alpha)(r-e),$$

or

$$(1-\alpha)r - e.$$

Let q be the probability that the officer chooses to apprehend or arrest the agent (conditional on $E = 0$). The expected payoff from $E = 0$ is

$$q[\alpha(-d) + (1-\alpha)(r)] + (1-q)0.$$

It is straightforward to see that if equation 1 holds, then $q^* = 1$, i.e. the officer always reports (regardless of beliefs regarding the fraction of compliant agents). Thus $E^* = 1$ if $-e > \alpha(-d)$.

Turning to the agents, if $E = 0$ an agent is a violator if $g \geq f - c \equiv \underline{g}$, while if $E = 1$ and agent is a violator if $g \geq f \equiv \overline{g}$. We now re-write Assumption 1 as

Assumption 2 *We assume that*

$$(1-\overline{g})r \geq \overline{g}d.$$

Note that if this condition is satisfied at $\overline{g}$ it is also satisfied at $\underline{g} < \overline{g}$. We now identify the equilibrium in the following proposition.

Proposition 1 *Several equilibrium are feasible, depending on the parameter values. Specifically,*

- *If* $-e < f(-d)$*, then all officers are incompetent* $E^* = 0$*, there is a high level of crime at* $\underline{g}$*, and innocent individuals are wrongfully arrested (but acquitted)*
- *If* $f(-d) < -e < (f-c)(-d)$*, then there are two possible equilibrium. In the first* $E^* = 0$*, there is a high level of crime at* $\underline{g}$*, and in the second* $E^* = 1$*, there is a high level of crime at* $\overline{g}$*.*
- *If* $(f-c)(-d) < -e$*, then all officers are competent* $E^* = 1$*, there is a low level of crime at* $\overline{g}$ *and only criminals are arrested (no wrongful arrests occur).*

Proof. Suppose $-e > \alpha(-d)$ at $\alpha = \overline{g} = f$, then $(e^* = 1, \overline{g}^*)$ is an equilibrium. At this equilibrium the officer beliefs that $\alpha^* = \overline{g}^*$. Suppose $-e \leq \alpha(-d)$, at $\alpha = \underline{g} = f - c$, then $(E^* = 0, \underline{g}^*)$ is an equilibrium.

It is easy to see that both are feasible. Specifically, if

$$f(-d) < -e < (f-c)(-d),$$

then both equilibrium may arise. ■

It is easy to infer that when e is small (i.e. officer learning costs are low) then only the high compliance equilibrium is likely. If e is large only the low compliance equilibrium is likely. If e takes on an intermediate range, then multiple equilibrium are feasible. Similar, if d is very small (or 0), then officers do not suffer any costs from arresting innocent individuals. Consequently, as a result of immunity officers never become competent.

3 Policy Implications: Qualified Immunity Laws

In this section we examine whether qualified immunity rules improve the outcomes described above. Suppose that officers do not receive total immunity, but are only subject to qualified immunity. That is, in keeping with the U.S¿ Supreme Court's ruling we assume that if $E = 1$, and the officer arrests an innocent individual, he is not penalized d. It is easy to see that Assumption 1 and 2 are not affected. Further note that when officers are competent, then d is only incurred "off-equilibrium". Thus, qualified immunity rules do not change the likelihood of the perverse equilibrium identified in proposition 1. We state this result below.

Result 1 *Qualified immunity rules do not reduce the likelihood of perverse equilibrium.*

4 Conclusion

Many legal jurisdictions, including the U.S., give law enforcement officers considerable immunity from being penalized for wrongful arrests. Relatedly, in many counter-terrorism investigations, law enforcement agencies such as the F.B.I. are now given considerable immunity from being sued for arresting innocent citizens. Support for this investigation largely stems from view that it enhances the ability of the officers to detect and arrest criminals or other offenders.

The results of our model suggest that such policies can have perverse incentives. Specifically, by reducing the penalty for arresting innocent individuals, officers have less incentive to invest in costly measures that make them more capable of distinguishing criminals from innocents. Thus, instead of decreasing the level of crime, such policies may increase the level of crime by reducing the incentives for officers to invest in human capital that makes them better enforcers.

The result regarding the relationship between competence, arrests of innocents and immunity is especially interesting and important in light of a U.S. Supreme Court rulings which concluded that as long as the officers are acting "competently" they are immune from being sued for apprehending an innocent individual. Our model suggests that competence and the likelihood of arresting innocents are co-determined in equilibrium and may be a consequence of immunity rules. Thus, care must be can to ensure that such rules do not reduce the incentives for enforcement officials to become competent.

References

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5 Appendix

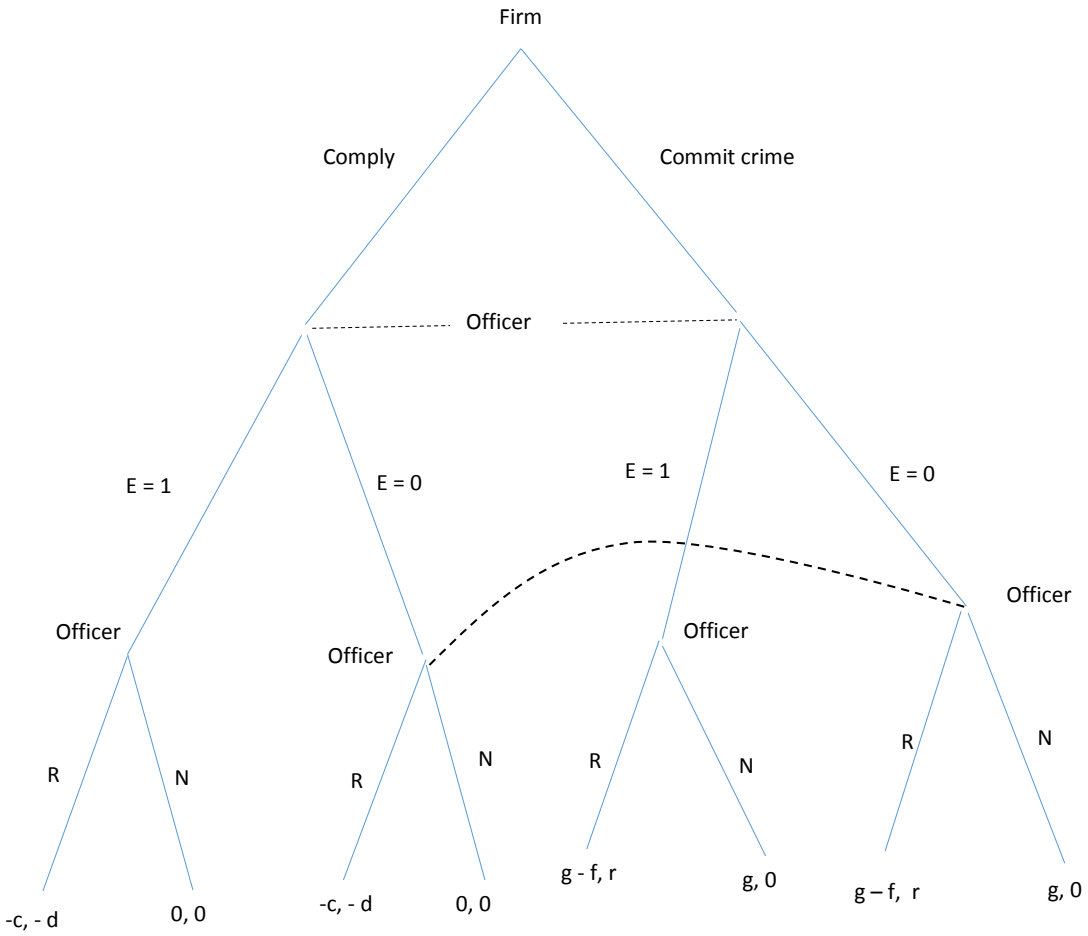
Firm
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Figure 1