

Crimes and Public Policing: Evidence from India

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ABSTRACT

This study deals with an enquiry into the nature of public policing on the volume of crime within Indian States. The study suggests that in majority of states, the increase in policemen per unit is associated with the increase of crime per unit. Also important is that for majority of states, within a period of about 40 years, starting from 1967 up to 2006, one might observe an increasing trend in the volume of crime.

Keywords: Criminal offence; public policing; Indian states.

Why does a person commit a criminal offence? A rational person commits a crime if his expected utility exceeds the level of utility he could derive from alternative (legal) activities (Becker, 1968) [2]. As regards economic consideration, a person commits a criminal offence due to the fact that his options and evaluation of their benefits and costs are different, not because his motivation differs from that of other persons. Becker (1968) [2] assumes that the number of crimes committed by an individual depends on his probability of conviction, the expected severity of his punishment, and the variables reflecting his legal income earning potentiality, environment and tastes. This can be represented in the following form:

$$O_j = f_i (p_j, e_j, v_j) \dots (1)$$

(Where O_j is the number of offences committed by a person j in a given period, p_j is his probability of conviction per offence, e_j is his expected punishment per offence, and v_j is a composite variable representing all other influences (legal). It is assumed that both p_j and e_j depends on the judge, jury, prosecutor, etc. that person j receives)

Increasing the severity of punishment or the probability of conviction decreases the incentive for committing crimes: o_j is decreasing in p_j and e_j . It is also evident from expected utility criterion.

$$p_j u_j (i_j - e_j) + (1 - p_j) u_j (i_j) \dots (2)$$

(Where $(1 - p_j)$ is the probability of non-conviction per offence, i_j is his income from an offence, u_j

is person j 's utility function. E_j is interpreted as monetary equivalent of the punishment)

Therefore given the utility function in income, an increase (decrease) in e_j decreases (increases) the equation (2). Similarly, an increase (decrease) in p_j decreases (increases) the equation (2).

Hence the fundamental issue is: how is it possible to increase the expected utility of income of person j with the effect of the composite variable v_j . The composite variable v_j is of two types: preventive and protective. The effects of preventive components of v_j have impact on o_j which might also influence the equation (2). For example, if some preventive components of v_j , like education intelligence increases, it is expected to reduce o_j which might have inverse effect on Equation (2).

How does protective component of v_j affect the expected utility in income of person j ? Some of the protective components of v_j are the deployment of policemen, court personnel etc. It is expected that if more is spent on policemen, it is easier to discover offence and convict offenders which might reduce o_j (the number of offences committed by person j) and, thereby, expected to reduce p_j and e_j . This might increase Equation (2), the expected utility criterion of person j .

Hence, the relevant issue is: does o_j (the number of offences committed by person j) decrease due to the per unit increase in the deployment of policemen (an important protective component of v_j to protect o_j)? This study tries to examine this issue among different Indian states. While examining the issue, we assume that increase in policemen per unit is associated with reduction in crime per unit. This study seems to be important in that if the number of offences committed by person j decreases due to the increase in deployment of police, it might increase the expected utility of income of person i through

legal work and, thereby, help increase the income of the society.

This paper is organized as follows: Section 2 - The theoretical implication of the reasoning of crime and the impact of crime on public policing priorities. Section 3 - portrays the results of the main objectives of this study. Section 4 - Concluding remarks.

Section 2

Most of the past theories pertaining to the causality of crimes were based upon psychological, social, economic and environmental reasoning(Goswami, 1964 [10]; Chang, 1976) [5]. In recent times, a series of studies have been done and emphasis has been placed on the context of treatment and preventive aspects of the crimes. These studies have been done by Simahadri (1979) [19], Nayar (1975) [13], Rao (1983) [16], Ghosh (1969) [9], Kerawala (1959) [11], Walsh (1977) [21] and Reckless (1971) [17]. They have examined the legal, socio-economic, political factors using various types of statistical methods based on empirical information and theoretical bases.

The intensity of crime and its association with socio-economic factors has been seen at national, state and city levels. Crimes such as murder, riots, criminal breach of trust, house breaking, theft, robbery and cheating are closely related with socio-economic factors of development, such as per capita income, work force in manufacturing sector, educational level, regular employment opportunities, gradation of social strata, etc. Environmental factors also seems to be a main indicator for committing crime.

Research into the communities- and - crime stand has identified a number of factors that contribute to regional variation in crime: land use, urbanization, residential stability, socio-economic heterogeneity, regional networks, social control, and socioeconomic strain are central to most studies of regional differences in crime in the literature (Patterson, 1991 [15]; Farrington et al., 1993 [7]; Sampson and Groves, 1989 [18]; Bursik and Grasmick, 1993 [3]; Agnew, 1999 [1]; Veysey and Messner, 1999 [20]; Weatherburn and Lind, 2001 [22]; Carcach and Muscat, 2002 [4].

As regards the impact of crime on public policing priorities, it is argued that local policing priorities will be identified as the impact of the local crime audits (Loveday, 2001: 50) [12]. Whilst little research has been undertaken on this in most of the countries concerned, there are considerable evidences that, increase in the deployment of public police does not lead to increase in crime. In South Africa, the evidence indicates no reduction in crime or increase in feeling of safety in public policing in project areas (Nedcor, 1998) [14]. In UK, there is indicated an absence of

evidence for the effectiveness of public policing in relation to crime reduction (Fieldind, 1995) [8]. The Overseas Development Administration (ODA), based on their projects in the police sector in some 60 developing countries between 1986-87 and 1996-97, found no clear-cut impact on reduction in crime or increase in feeling in safety and security in public policing project areas (Clegg and Whetton, 2000) [6]. However, in spite of paradoxical evidence of the effectiveness of public policing on crime, the incidence of police force is usually stepped up with the increase of crimes for the maintenance of law and order in all countries of the world. This study, however, tries to examine as to whether the increase in public policemen (not private policemen) per unit is associated with the reduction in crime per unit on the basis of time series data among different Indian states in South Asia.

Section 3

In order to identify the unit of both o_j and a protected component of v_j (police force), we consider both per unit crime and per unit policemen as per 1000 population on the basis of state level annual data for 21 major Indian states, available for 5 years- 2000, 2001, 2003, 2005, and 2006. The facts appear in Table 1.

As may be seen in Table 1, for majority of states (14 out of 21 states), an increase in policemen per unit (1000 in number) is associated with the increase of crime per unit. This fact does not support our hypothesis in majority of Indian states. However the hypothesis is supported, if not dearly, in three states- Goa, Rajasthan, and Tamilnadu. For the three states-Assam, Madhya Pradesh and Uttar Pradesh, a decrease in policemen per unit is associated with decrease of crime per unit ,if not significantly, and for one state (Bihar), a decrease in policemen is associated with an increase in crime per unit.

We now try to examine the incidence of crime among different Indian states, based on number of crimes per 1000 population, within a period of about 40 years, starting from 1967 up to 2006. The facts appear in Table 2. Worthwhile to mention that we considered data for 17 major Indian states out of 21 in Table 1 , because there was no existence of four states, namely Chattishgarh, Jharkhand , Uttarakhand and Goa during 1967.

In 1967, the highest volume of crime cases is observed in Madhya Pradesh (2.72) followed by Maharastra (2.12), West Bengal (2.04) Uttar Pradesh (2.01). The least is observed in Himachal Pradesh (0.76) followed by Haryana (0.90), Andhra Pradesh(0.94) and Punjab(1.00).

In 1977, the highest volume of crime cases is

Table 1. Incidence of Crime and Community Policing in Indian States

State	Total Crime Per 1000 Population					Police Per 1000 Population				
	2000	2001	2003	2005	2006	2000	2001	2003	2005	2006
Andhra Pradesh	1.591	1.707	2.059	2.062	2.282	0.774045	1.021	0.971	1.029	1.04
Assam	1.32	1.383	1.433	1.576	1.638	2.053683	2.001	1.953	1.953	1.953
Bihar	1.495	1.065	1.112	1.179	1.213	1.143274	0.547	0.633	0.615	0.622
Chattisgarh	-	1.846	1.846	2.094	2.168	-	0.586	0.983	1.121	1.445
Goa	1.797	1.737	1.665	1.572	1.635	1.872865	0.002	2.749	2.632	2.613
Gujarat	2.286	2.041	2.047	2.238	2.387	1.177458	1.191	1.137	1.137	1.657
Haryana	1.868	1.833	1.826	2.018	2.389	1.30005	1.504	1.424	1.716	1.631
Himachal Pradesh	1.832	1.892	1.976	2.031	2.154	1.968608	1.996	1.998	1.867	1.986
Jammu & Kashmir	1.727	1.923	2.093	1.983	2.049	4.121474	5.82	5.82	6.408	5.837
Jharkhand	-	0.944	1.195	1.305	1.35	-	-	0.779	0.912	1.068
Karnataka	2.07	2.064	2.127	2.225	2.227	0.963698	0.953	0.986	1.029	0.985
Kerala	3.11	3.261	3.104	3.277	3.306	1.327769	1.367	1.391	1.353	1.368
Madhya Pradesh	3.587	3.012	3.166	3.135	3.226	1.612364	1.612	1.011	1.23	1.265
Maharashtra	1.791	1.768	1.696	1.931	1.98	1.372996	1.357	1.439	1.405	1.586
Orissa	1.343	1.268	1.285	1.404	1.434	0.940452	0.948	0.958	0.949	1.053
Punjab	1.001	1.14	1.181	1.114	1.316	2.801511	2.802	2.802	2.914	2.953
Rajasthan	2.849	2.746	2.576	2.494	2.513	1.119008	1.122	1.134	1.109	1.157
Tamil Nadu	2.425	2.481	2.519	2.602	2.387	1.326209	1.286	1.285	1.346	1.35
Uttar Pradesh	1.057	1.072	0.572	0.735	0.764	1.271761	0.94	0.943	0.922	0.92
Uttarakhand	-	0.951	0.933	0.946	0.991	-	1.437	1.54	1.407	1.593
West Bengal	0.821	0.768	0.763	0.828	0.849	1.00445	1.041	1.035	0.998	1.005

Source: National Crime Record Bureau, Ministry of Home Affairs, Delhi

observed in Madhya Pradesh (3.02) followed by Jammu and Kashmir (2.66), Maharashtra (2.54) and Uttar Pradesh (2.25). The volume is lowest in Punjab (0.93) followed by Haryana (1.13), and Himachal Pradesh (1.15).

In 2006, the highest volume of crime is observed

Haryana, Gujarat, Tamil Nadu, Andhra Pradesh, and Karnataka. The volume is lowest in Uttar Pradesh followed by West Bengal, Bihar, Punjab, Orissa, Assam and Maharashtra.

Table 2 clearly shows that the volume of crime

in 1977 and 2006, the volume of crime cases retained a much lower position. However within a span of forty year period, starting from 1967 to 2006, the data shows that the volume of crime cases is highly miserable in Kerala, followed by Madhya Pradesh ,Rajasthan, Haryana, Gujrat, Tamil Nadu, Andhra

Pradesh, and Karnataka. Uttar Pradesh, West Bengal, Bihar, Orissa, Assam and Maharastra have more of decreasing trend of crime. However, for majority of states, one might observe an increasing trend in the volume of crime within major Indian states within a period of forty years, between 1967 and 2006.

Table 2. Statewise Position of Crimes in Volume (per 1000 population) and the Ranks within Indian States

State	1967		1977		2006	
	Volume of crime	Rank in Descending order	Volume of crime	Rank in Descending order	Volume of crime	Rank in Descending order
Andhra Pradesh	0.94	15	1.38	14	2.282	7
Assam	1.56	8	2.02	7	1.638	12
Bihar	1.60	6	1.52	12	1.213	15
Gujarat	1.33	11	1.96	9	2.387	5
Haryana	0.90	16	1.13	16	2.389	4
Himachal Pradesh	0.76	17	1.15	15	2.154	9
Jammu & Kashmir	1.58	7	2.66	2	2.049	10
Karnataka	1.19	12	2.09	5	2.227	8
Kerala	1.12	13	1.66	11	3.306	1
Madhya Pradesh	2.72	1	3.02	1	3.226	2
Maharashtra	2.12	2	2.54	3	1.98	11
Orissa	1.52	9	1.41	13	1.434	13
Punjab	1.00	14	0.93	17	1.316	14
Rajasthan	1.43	10	2.04	6	2.513	3
Tamil Nadu	1.82	5	2.00	8	2.387	6
Uttar Pradesh	2.01	4	2.25	4	0.764	17
West Bengal	2.04	3	1.77	10	0.849	16

Source: National Crime Record Bureau, Ministry of Home Affairs, Delhi

Section 4

This study lends credence to the fact that in majority of Indian states in South Asia, the increase in policemen per unit is associated with the increase of

states within a period of about 40 years, starting from 1967 up to 2006, one might observe an increasing trend in the volume of crime within major Indian states. This might be an indication that the police

This may be due to a number of factors such as lack of modern tools for minimizing crimes, lack of public support in its investigation, increasing workload in the police department, lack of latest techniques in locating the accused, lack of timely support from attached departments or laboratory tests, political interference in the investigation system, and corrupt liaison practices between the accused and the investigation personnel.

Thus, considering the serious crisis of increasing crime hampering the smooth functioning of the society, proper attention should be paid to the police department, especially in areas of its staffing equipments and modern tools for minimizing crimes. Effective policing also requires the formation of partnership with civil society, especially with those groups who are most vulnerable to crime or to abuse of rights, and this is likely to involve a more inclusive and proactive approach to policing, equity, and justice. Together with it, a series of actions are simultaneously indispensable from several fronts—public awareness, government's responsibility in restructuring concepts and punishment levels of crimes, modification in the investigation and the legal systems, and programmes for employment and income-generation opportunities, economic development and the welfare of the society.

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