

Does Police Strength and Conviction Reduce Violent Behavior?

[An Empirical Investigation in Punjab]

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INTRODUCTION

- History of illegitimate activities
- Pakistan is an emerging economy where crime rate is increasing over time
- Some of the economists of country tried to explore the potential socio-economic and demographic determinants of crime
- less concentrated on law enforcement variables
- Overemphasizing on taking total crime as a proxy to determine the criminal behavior
- Murder crime rate to proxies the violent behavior
- Isolation to see the dynamics of crime rate at provincial level.

THEORETICAL FRAMEWORK AND EMPIRICAL RESULTS

- Rational economic theory
- A criminal activity takes place only when expected gain of criminal activity exceeds its expected cost.
- *Murder crime = f (police strength, conviction, population, unemployment, education)*
- $M_t = \alpha + \beta_1 PS_t + \beta_2 Conviction_t + \beta_3 PD_t + \beta_4 UR_t + \beta_5 LR_t + e_t$
- Data and data sources [Various Issues of LFS,PDS, Annual Crime Report DIG (Crime; Establishment)]

Estimation Procedure and Results

- Augmented Dicky fuller (ADF) test to check the stationarity or non stationarity of data
 - ADF test indicates that all the variables using in this study are stationary ($I=1$)
- Applied Johansen Maximum Likelihood (ML) approach

That has verified the existence of long-run relationship among the variables used.

$$M_t = 0.21 - 0.028PS_t - 0.0019Convict_t + 0.002PD_t - 0.0022UR_t - 0.015LR_t$$

(0.00731) (0.00020) (0.00018) (0.00101) (0.00150)

Interpretation and Discussion on the Results

- A negative and significant relationship between police strength and violence behavior
- Economic rationale
 - police strength increases the probability of arrest and consequently a high expected cost of such activity
 - Crime prevention authorities prefer to deter those types of crime first that can cause violence
 - Result lies in the line of David Lawrence Sjoquist (2012), Baltagi (2006), Vollaard (2005), Berkeley et al (2012), Kelaher and Sarafidis (2011)

Cont...

- A negative and significant relationship between murder and high conviction rate.
 - conviction is a necessary condition for punishment of some crime and our judicial system follows a capital punishment in case of murder
 - A rational criminal always considers the rate of conviction in case of murder particularly when resultant incentives are economic or political
 - Findings are quite logical as well as supported by Montolio et al (2008), Stephen (2000), Machin and Meghir (2000), Sjoquist (2012), Baltagi (2006)
 - conviction is a primary mechanism in reduction violence

Cont...

- A positive and significant relationship between population density and violent behavior
- Economic rationale
 - Population density reduces the expected cost of crime by reducing the probability of arrest
 - Increase in population density of some area indicates the completion of having a motivated offender, a suitable target, and the absence of a capable guardian
 - Crowded and poor living conditions cause violence particularly when there are resource limitations
 - A nation has a crime culture then a dense population has a positive impact on criminal behavior or vice versa
 - Results lies in line of Lorenz (1967), Cohen and Felson (1979) and Curtis (1975).

Cont...

- A negative and significant relationship between unemployment and violence behavior
- Results are very similar to Lin (2008), Duha T. Altindag (2011) Cook and Zarkin (1985)
- unemployment, can induce motivation to earn income illegally but not necessarily increase the violent behavior
 - crimes like murder are more affected by psychological, cultural or anthropological factors
 - unreliability of figures of unemployment can be a core reason of such a seemingly inadequate result
 - The crime unemployment relationship is considerably weaker in time-series as compare to cross-sectional comparisons

Cont...

- A negative and significant relationship between high literacy rate and murder crimes
- The economic rationale
 - Education promotes expectation about earnings high market wages (Forward looking)
 - Education promote hardworking and serving the society rather creating violence
 - A well-educated person feels cost of crime higher in term of time, imprisonment or capital punishment as compare to some illiterate
 - Results are simmilar to [Becker (1968), Lance Lochner (2007), Usher (1997)]

CONCLUDING REMARKS

- It has been empirically proved that police strength and conviction rate has a deterrence effect on violent behavior of the natives of Punjab
- Population density is main cause of violence behavior in Punjab
- A general belief of a positive relationship between Unemployment and crime is not necessarily to be proved true in each study
- Education plays a vital role to minimize the illicit behavior of the society

POLICY IMPLICATIONS

- **Regarding to deterrent variables**
 - An optimal allocation of police employees
 - Enhancing per capita police men available in Punjab
 - Above mentioned suggestion will also be helpful to increase conviction
- **Regarding to population**
 - Focus to control population growth rate
 - Effective planning regarding to the infrastructures of dense areas
 - Check and balance on migrants from other areas.
 - Developing new housing colonies near populated areas
- **Promoting education level**
 - Not only enhancing the literacy rate also creating more and more job opportunities

**THANKS
SUGGESTIONS
& COMMENTS**