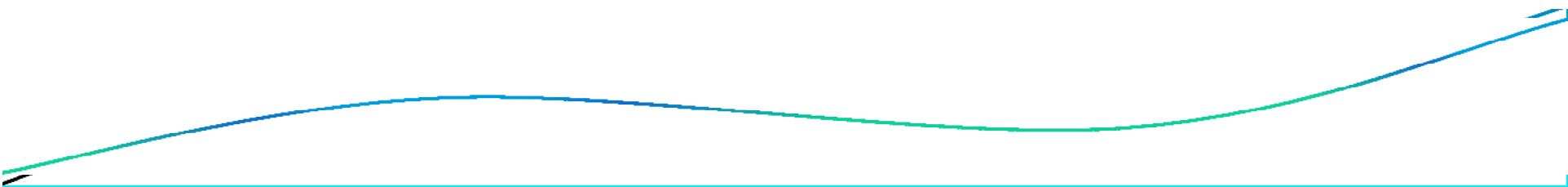


**AN EMPIRICAL INVESTIGATION OF THE LINK
BETWEEN HUMAN DEPRIVATION, LANDLESSNESS
AND VIOLENT CONFLICT IN PAKISTAN**

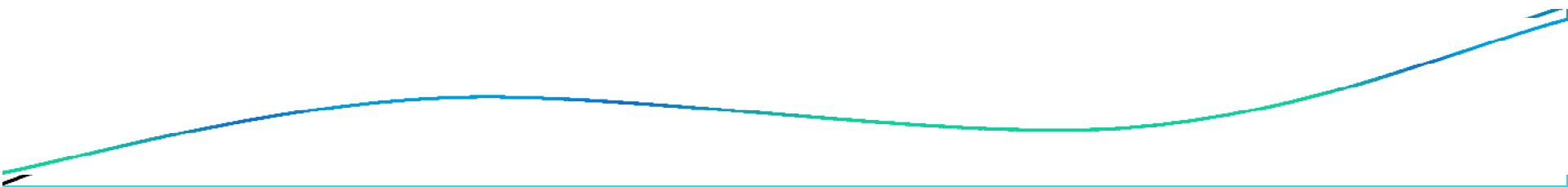
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INTRODUCTION AND OBJECTIVES OF THE STUDY

- Violent Conflicts are urgent humanitarian and development concerns of present day developing world.
- Most violent conflicts today are internal in nature
- Impose huge costs
 - Generate human misery and insecurity in the short run
 - Affects the economic, political and social structure of a country in the long run.
- In Pakistan, violent conflicts have escalated over time
 - Total number of violent attacks increased from 254 in 2005 to 3816 in 2009.
 - Total number of conflict related deaths increased from 216 in 2005 to 12,815 in 2009.

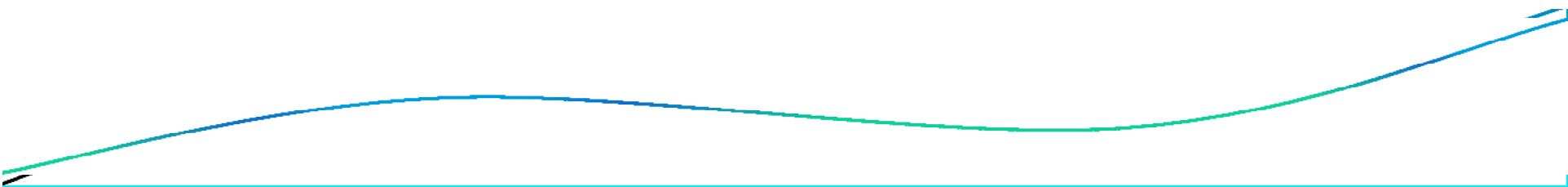


INTRODUCTION AND OBJECTIVES OF THE STUDY (Cont.)

- Some Costs of Violent Conflict in Pakistan:
 - Economic costs including direct as well as indirect costs represent 5.1 percent of the GDP.
 - Displacement of three million people.
 - Costs in terms of the achievement of MDG goals.
 - Anxiety and stress as well as rising physical insecurity.
 - Distortion in the international image of the country.

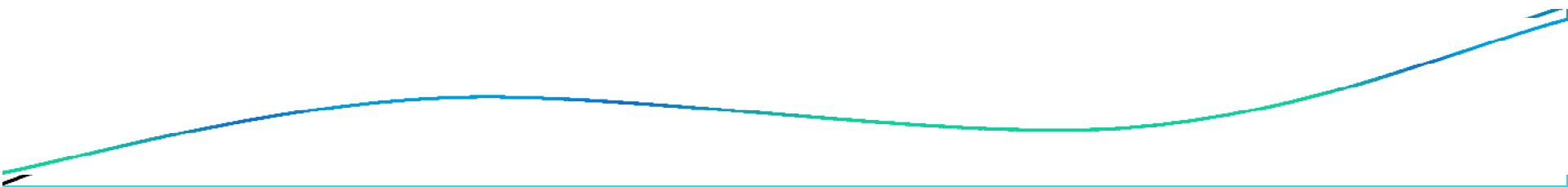
INTRODUCTION AND OBJECTIVES OF THE STUDY (Cont.)

- Despite such repercussions - no systematic study on the key drivers of violent conflict in Pakistan.
- Most studies are related to political science literature and the key arguments include:
 - Formation of violent groups traced back to Cold War era
 - Growth of radicalization in the Zia era
 - Reaction to western imperialism
- These explanations are important but may not be adequate explanations:
 - Conflict is a complex phenomenon
 - Root causes may relate to multiple domains:
 - Political
 - Geostrategic
 - Socio-economic



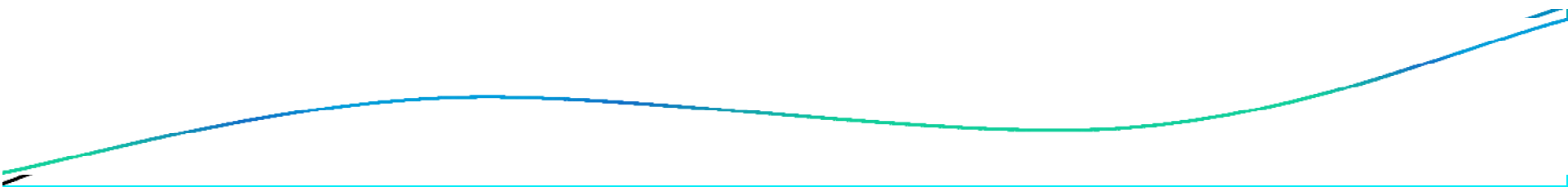
INTRODUCTION AND OBJECTIVES OF THE STUDY (Cont.)

- Objectives of the present study:
 - Investigate – in a systematic manner - the role of socio-economic factors in promoting
 - (a) The incidence of violence.
 - (b) Support for militant groups.
 - Socio-economic factors include:
 - Poverty
 - Human Development
 - Literacy
 - Employment and lay-off rate
 - Rural landlessness
 - Food insecurity



KEY HYPOTHESES/ ARGUMENTS IN CONFLICT LITERATURE

- Greed Hypothesis
 - Economic opportunity and ability to finance armed rebellion as the key driver s of conflict
 - Mostly occurs in societies with
 - Abundance of natural resources
 - Dependence on the export of primary commodities
 - Presence of large diasporas
- Grievance hypothesis
 - Grievances of marginalised groups as the key driver of conflict
 - Mostly occurs in societies where political means to address grievances are limited.
 - Horizontal inequalities and conflict
 - Failure of social contract and conflict
 - These conditions are likely to *fuel* conflict if not *cause* it directly



KEY HYPOTHESES/ ARGUMENTS IN CONFLICT LITERATURE

Empirical Evidence

- Nepal: Poverty, social exclusion and landlessness identified as key drivers of conflict
- Sub Saharan Africa: Poverty, relative deprivation, political exclusion and failure of social contract identified as drivers of conflict
- Middle East (Israeli-Palestinian Conflict): Poverty and illiteracy not a factor
- Kyrgyzstan: Political and economic interests of key actors in conflict including the political elite identified as a key driver of conflict

KEY HYPOTHESES/ ARGUMENTS IN CONFLICT LITERATURE

For Pakistan – Two notable studies:

1. Fair (2008) conducted a survey of 141 households of slain militants and found:
 - Respondents were considerably more educated than the average households.
 - Madrassahs were irrelevant to militant recruitment
 - Unemployment was high among militants despite basic education
2. Aftab (2008) conducted a descriptive analysis of the spatial distribution of poverty
 - Found little evidence to support the hypothesis that poverty, in and of itself, fuels extremism.
 - Poverty declined between 2001 and 2006 – a period of rising extremism.

DATA AND EMPIRICAL METHODS

$$CI_i = a + \beta X_i + e_i$$

Where CI is a measure of conflict intensity in district i;

a is the intercept parameter;

X_i is a vector of socio-economic and geographic characteristics at the district level;

e_i is the error term



DATA AND EMPIRICAL METHODS(Cont.)

Measures of Conflict Intensity:

1. The number of violent attacks (normalized by population) in each district in 2009 - collected by Pakistan Institute of Policy Studies (PIPS).
2. The number of militant and sectarian organizations with bases in each district compiled from Rana (2003).



DATA AND EMPIRICAL METHODS(Cont.)

KEY EXPLANATORY VARIABLES

1. POVERTY

- Headcount poverty (Cheema 2010)
- Multidimensional headcount poverty (Jamal 2009)

• HUMAN DEVELOPMENT

- Human Development Index (UNDP 2003)
- Literacy rate (UNDP 2003)

• EMPLOYMENT

- Employment rate (PSLM 2006-07)
- Lay-off rate (PSLM 2006-07)

• LAND OWNERSHIP

- % of rural population that does not own farm land (PSLM 2006-07)

DATA AND EMPIRICAL METHODS(Cont.)

- FOOD SECURITY ZONES

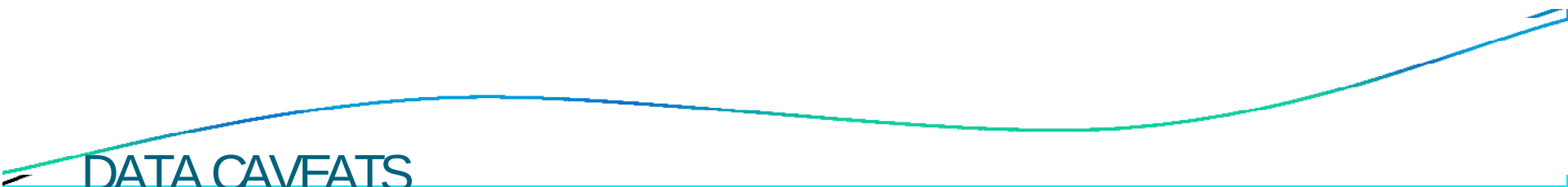
- Five food security zones constructed by WFP (2003)
 - Extremely insecure
 - Very insecure
 - Less insecure
 - Moderately secure
 - Reasonably secure

- MADRASSAHS

- Number of madrassahs normalized by district population (AEPAM 2005)
- Number of madrassah enrolment normalized by district population (AEPAM 2005)

- LAND FORMS

- % of total district area covered by mountains (NARC)

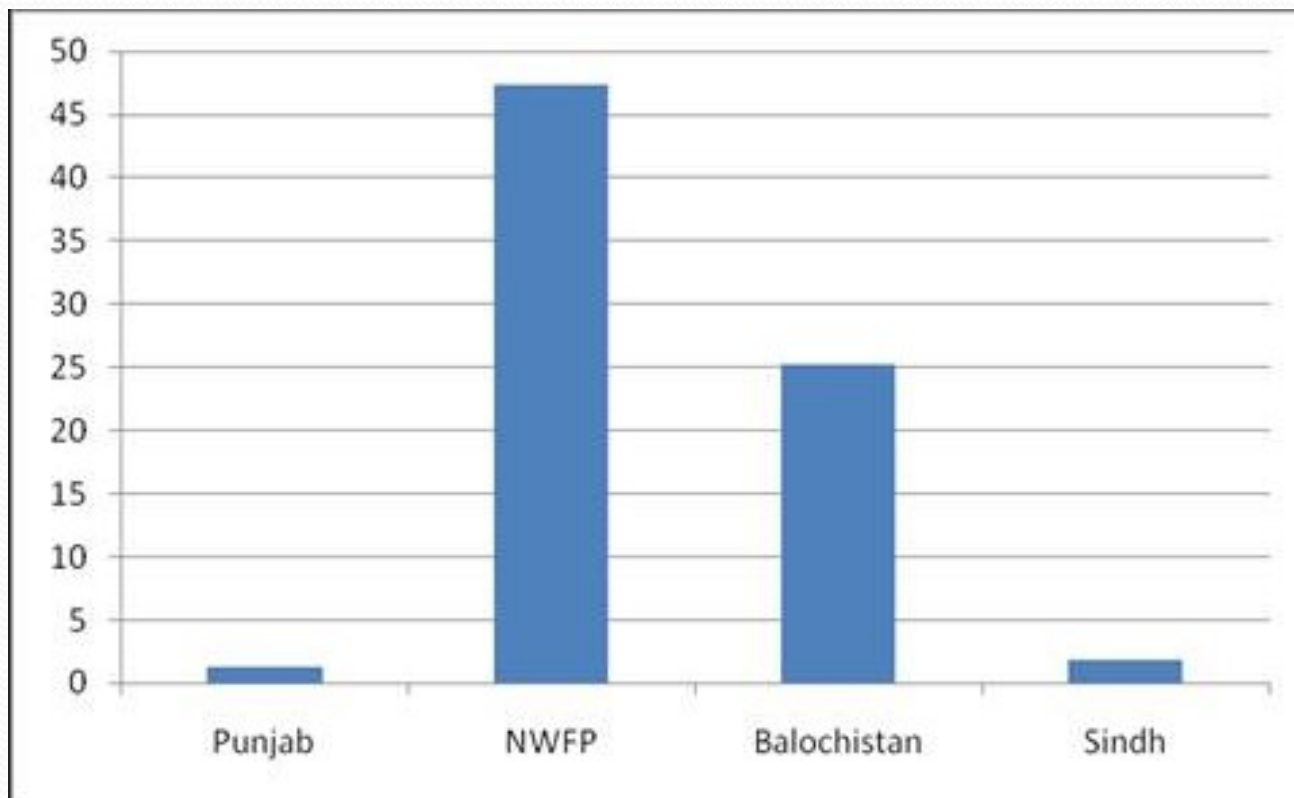


DATA CAVEATS

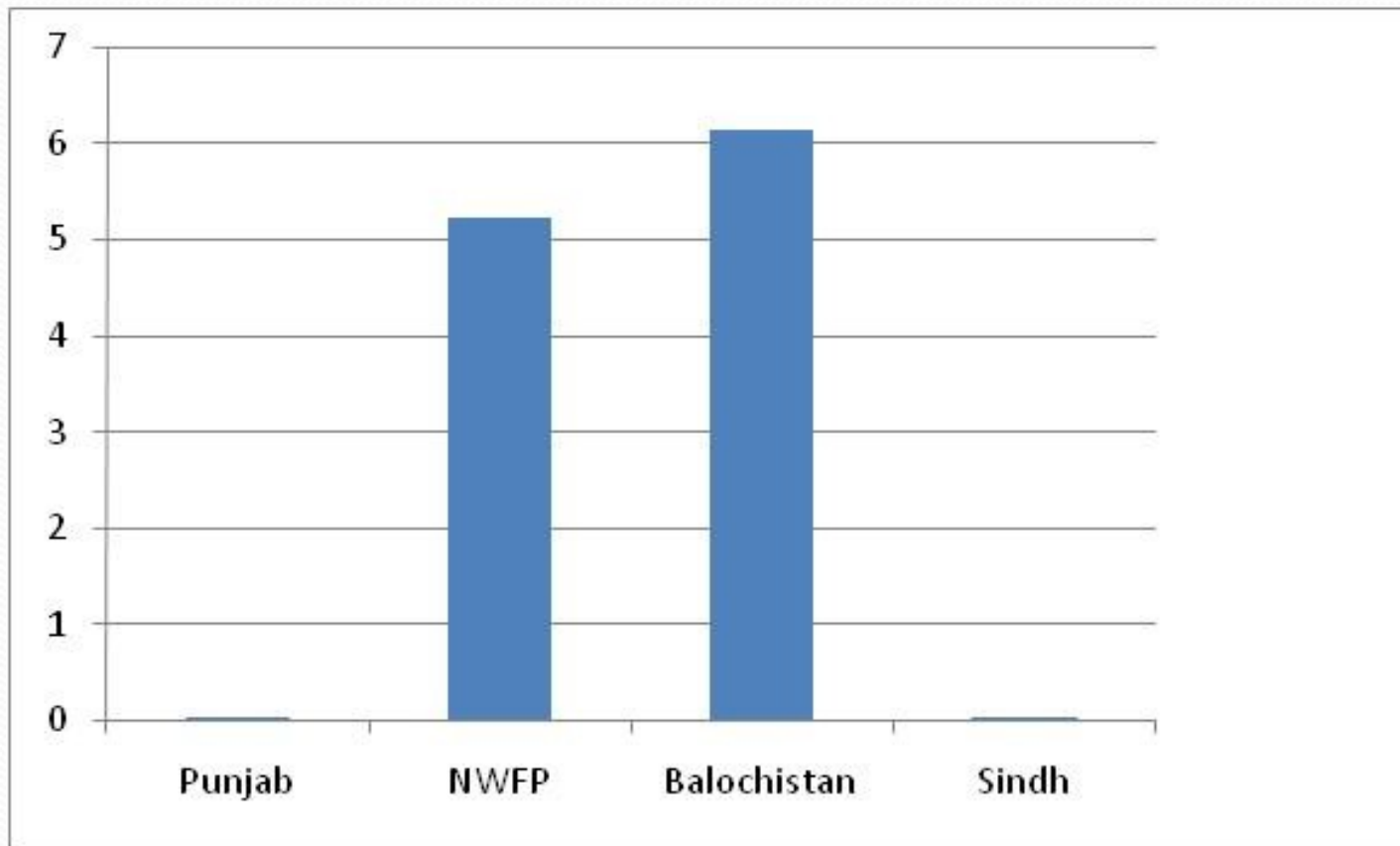
- Limitations of the data on conflict
 - Limited data
 - Possibility of measurement error
 - Need to improve the collection and compilation of data in this area.
- Exclusion of FATA and FANA
 - District level data on socio-economic variables is not available
 - Exclusion of these regions may bias the coefficient estimates of socio-economic variables.
- Endogeneity of poverty and food insecurity
 - Used (where available) pre-conflict socio-economic indicators.
- The relationship may not be causal if
 - There are other factors that drive both poverty and conflict.

DESCRIPTIVE ANALYSIS

ABSOLUTE NUMBER OF VIOLENT ATTACKS IN 2009

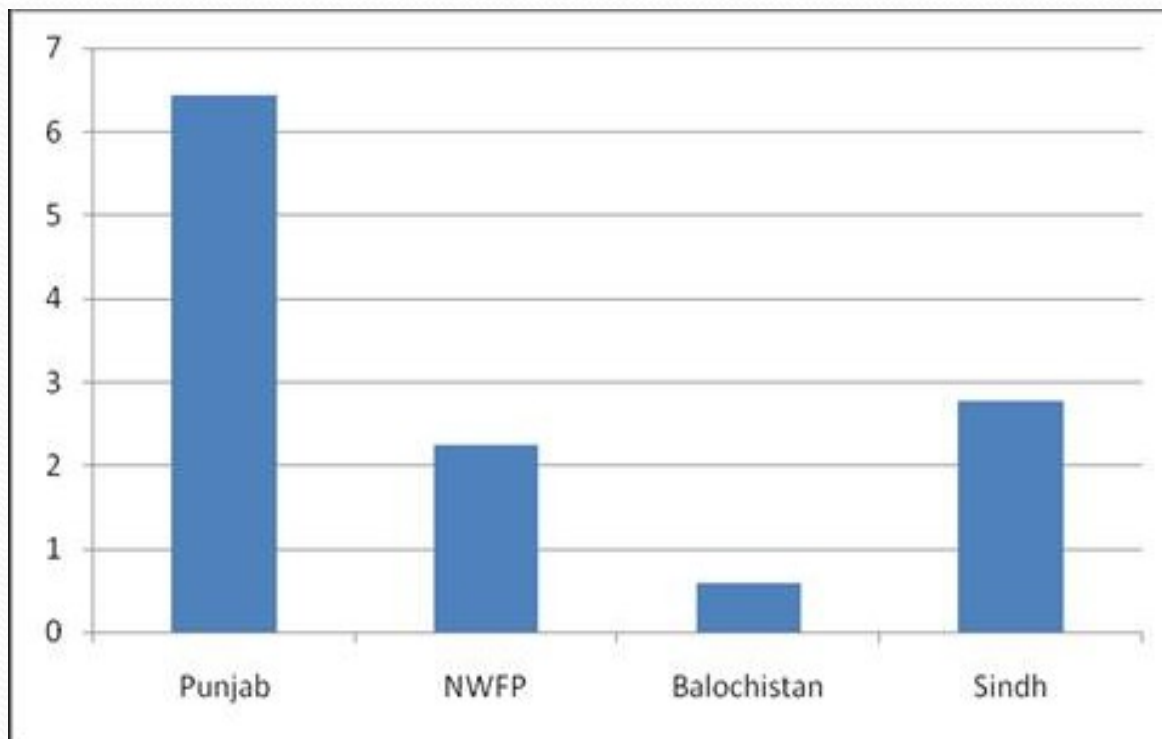


ABSOLUTE NUMBER OF VIOLENT ATTACKS NORMALIZED BY DISTRICT POPULATION



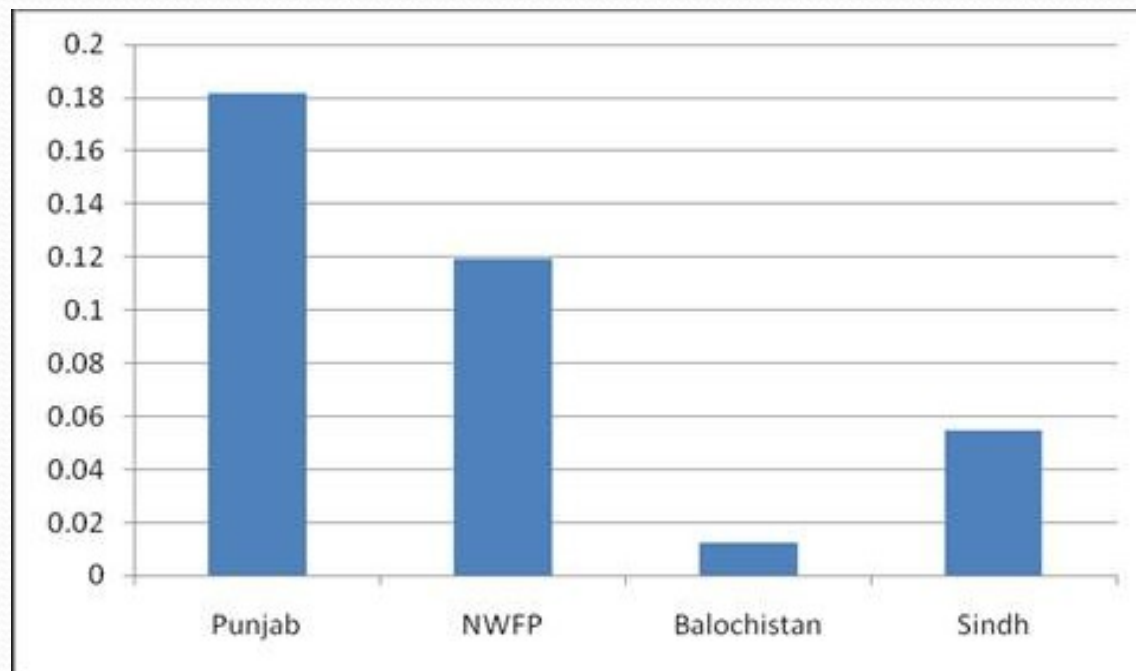
DESCRIPTIVE ANALYSIS(Cont.)

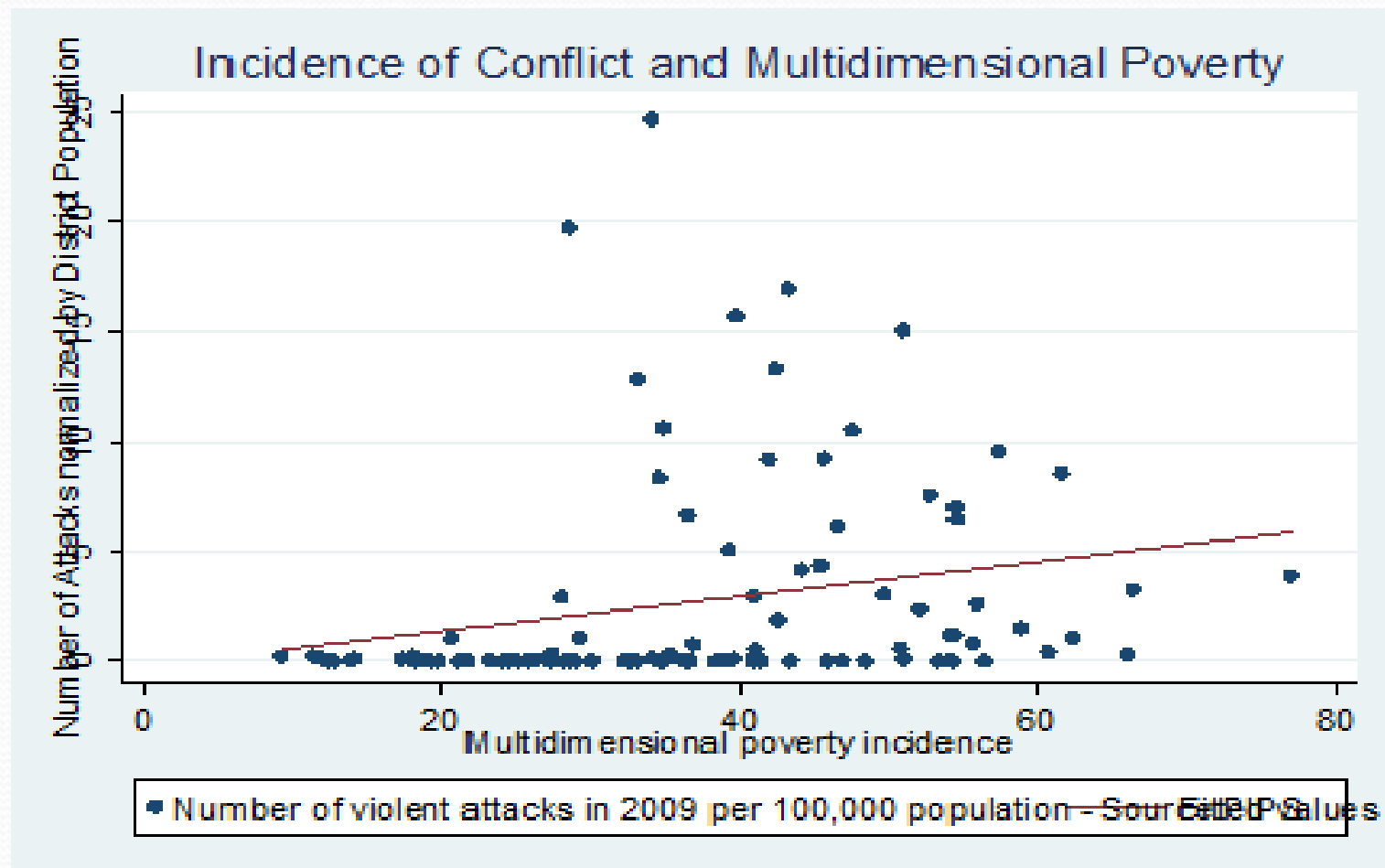
ABSOLUTE NUMBER OF MILITANT AND SECTARIAN GROUPS

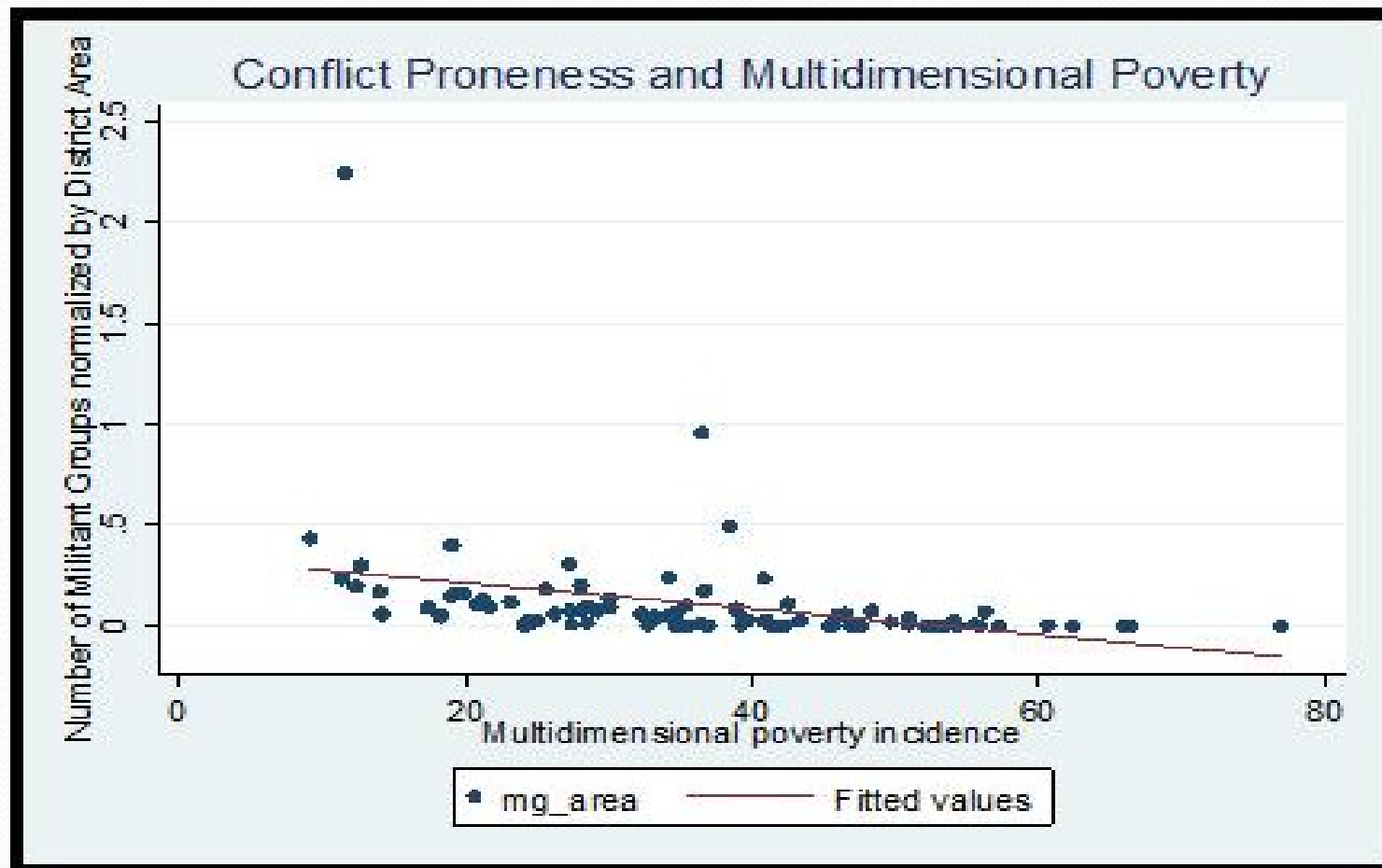


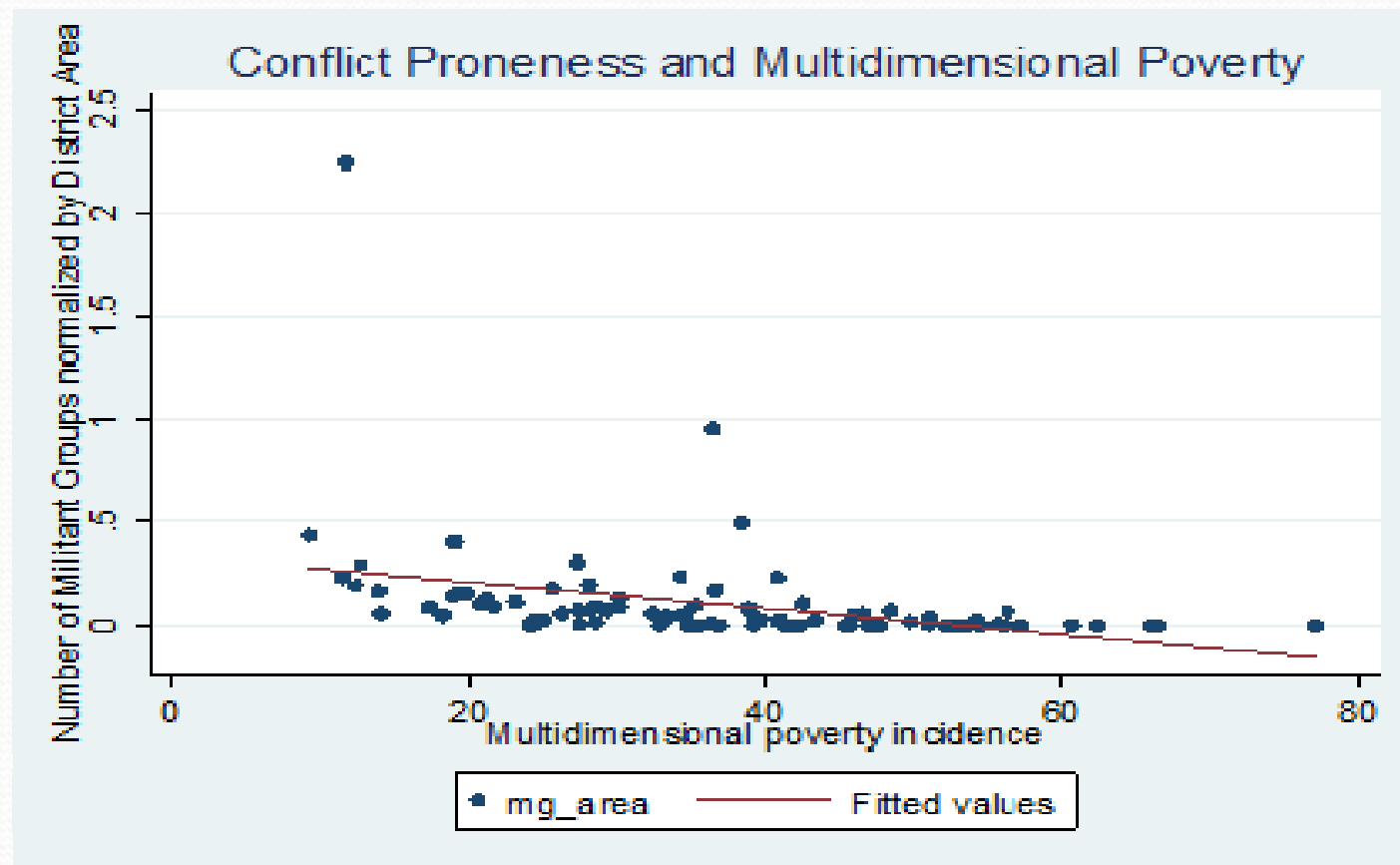
DESCRIPTIVE ANALYSIS(Cont.)

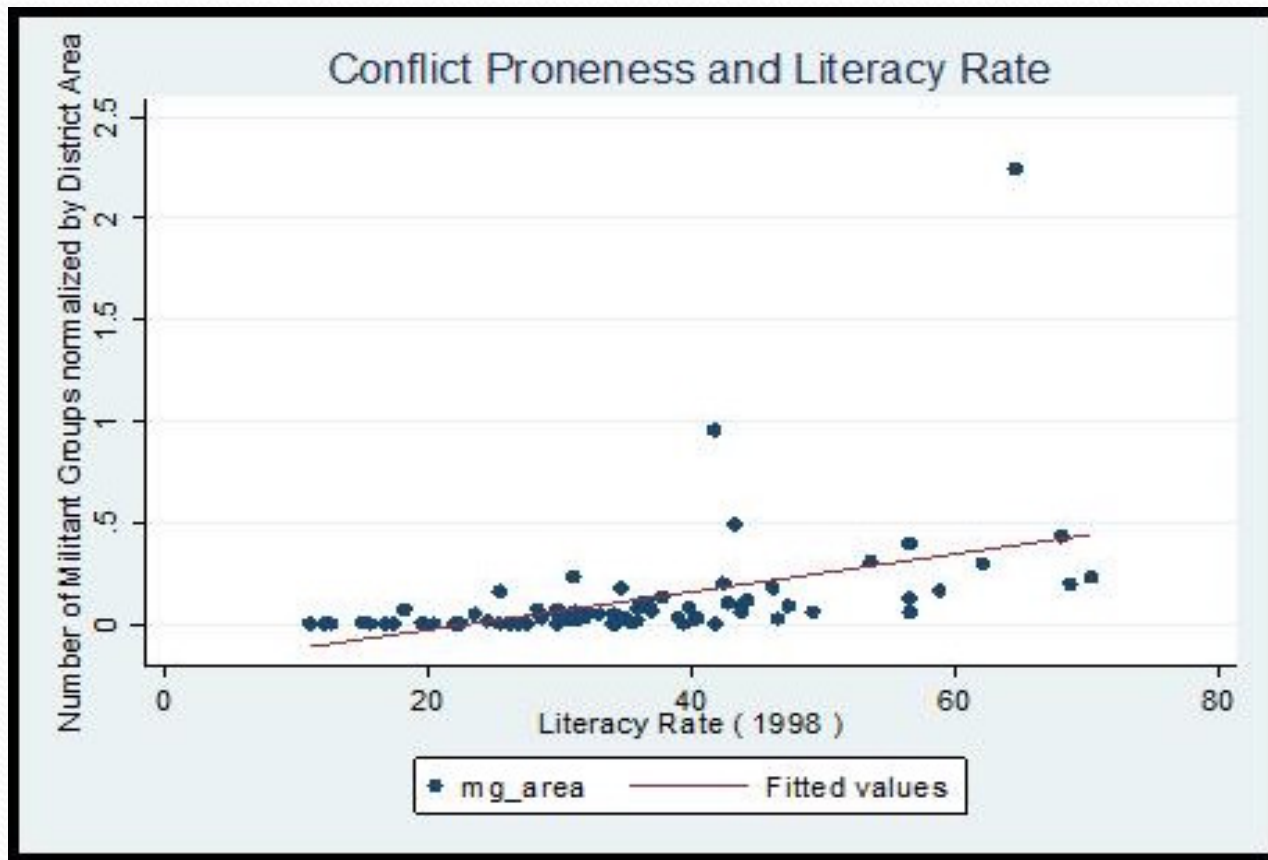
NUMBER OF MILITANT GROUPS NORMALIZED BY DISTRICT AREA

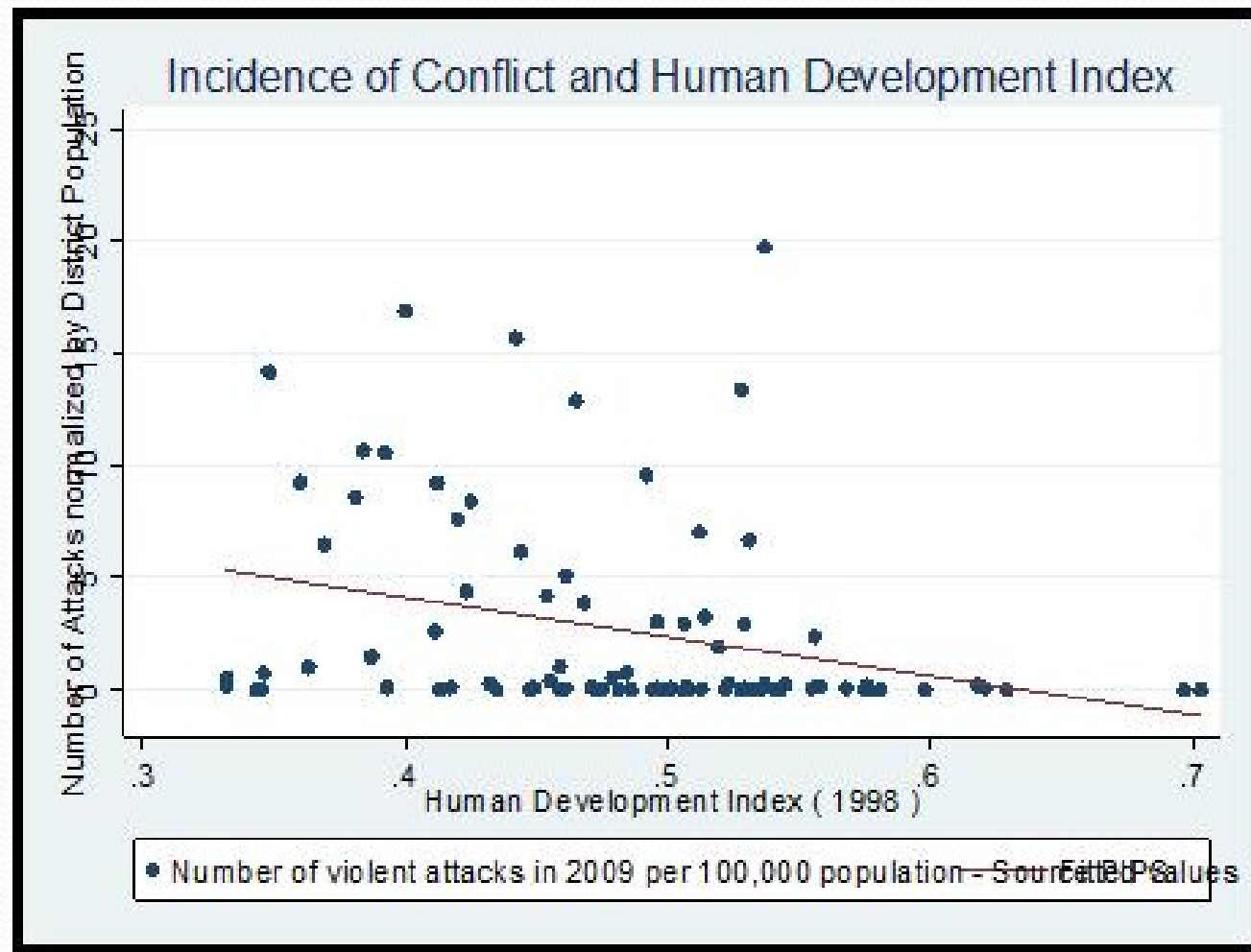


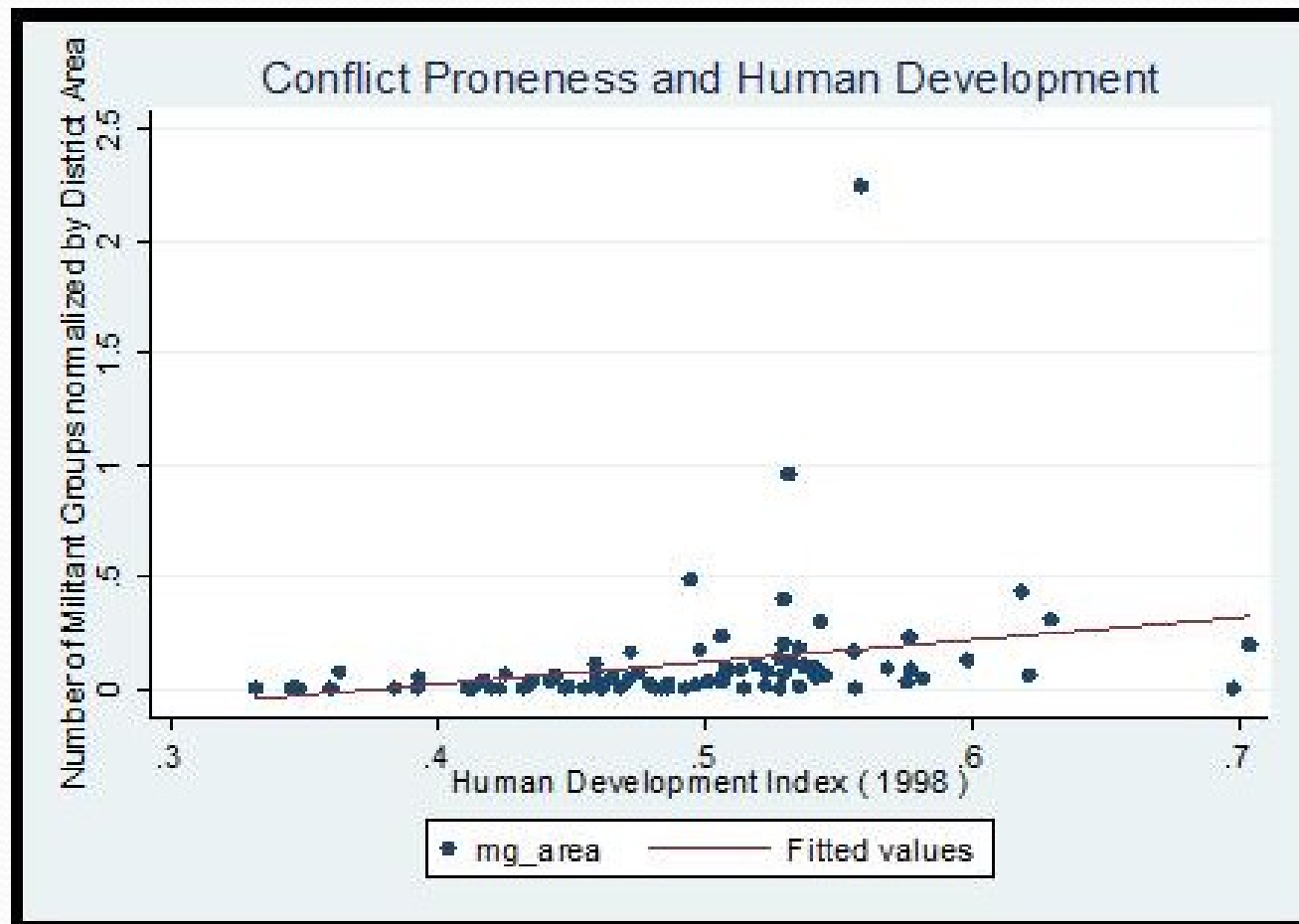


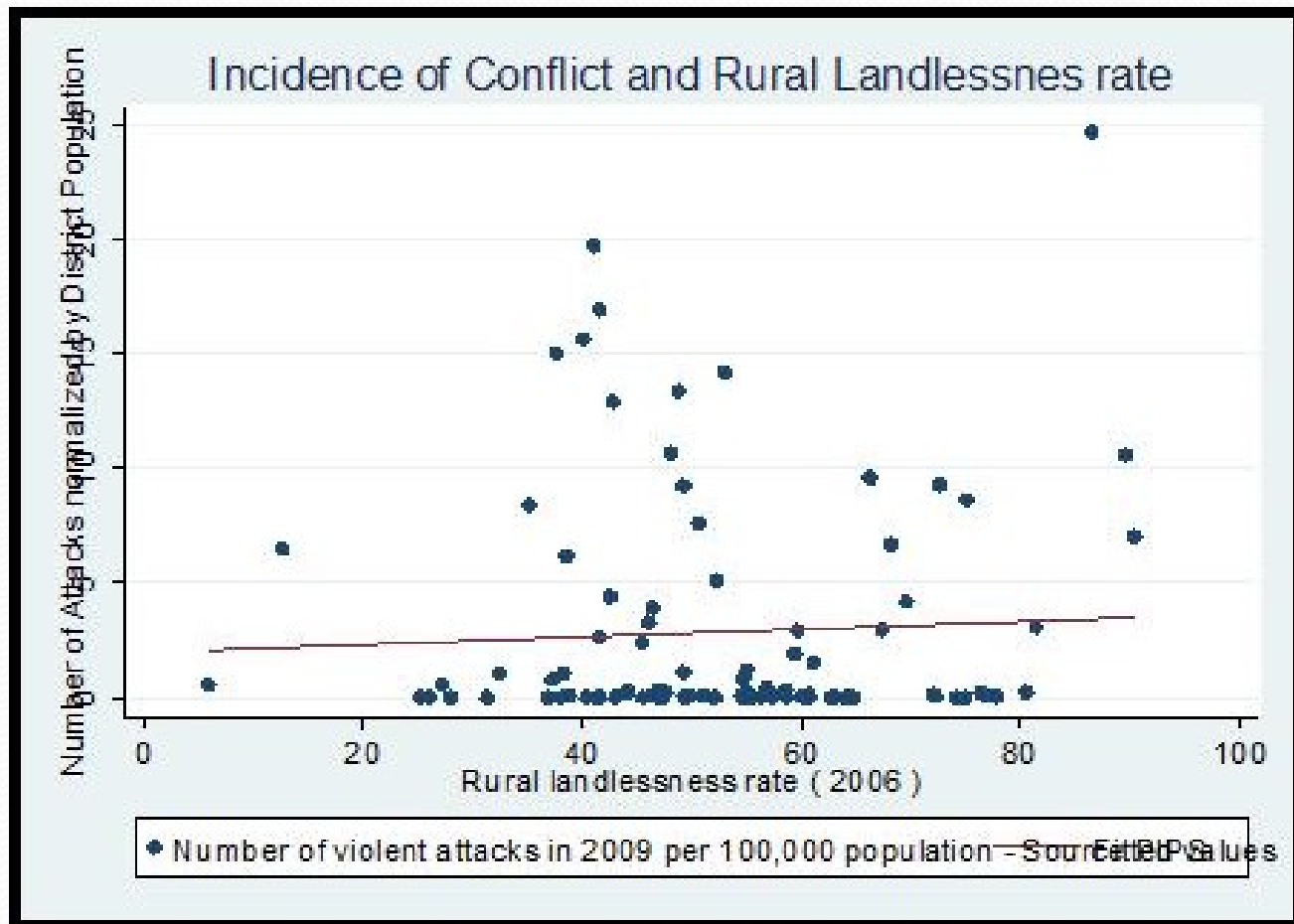


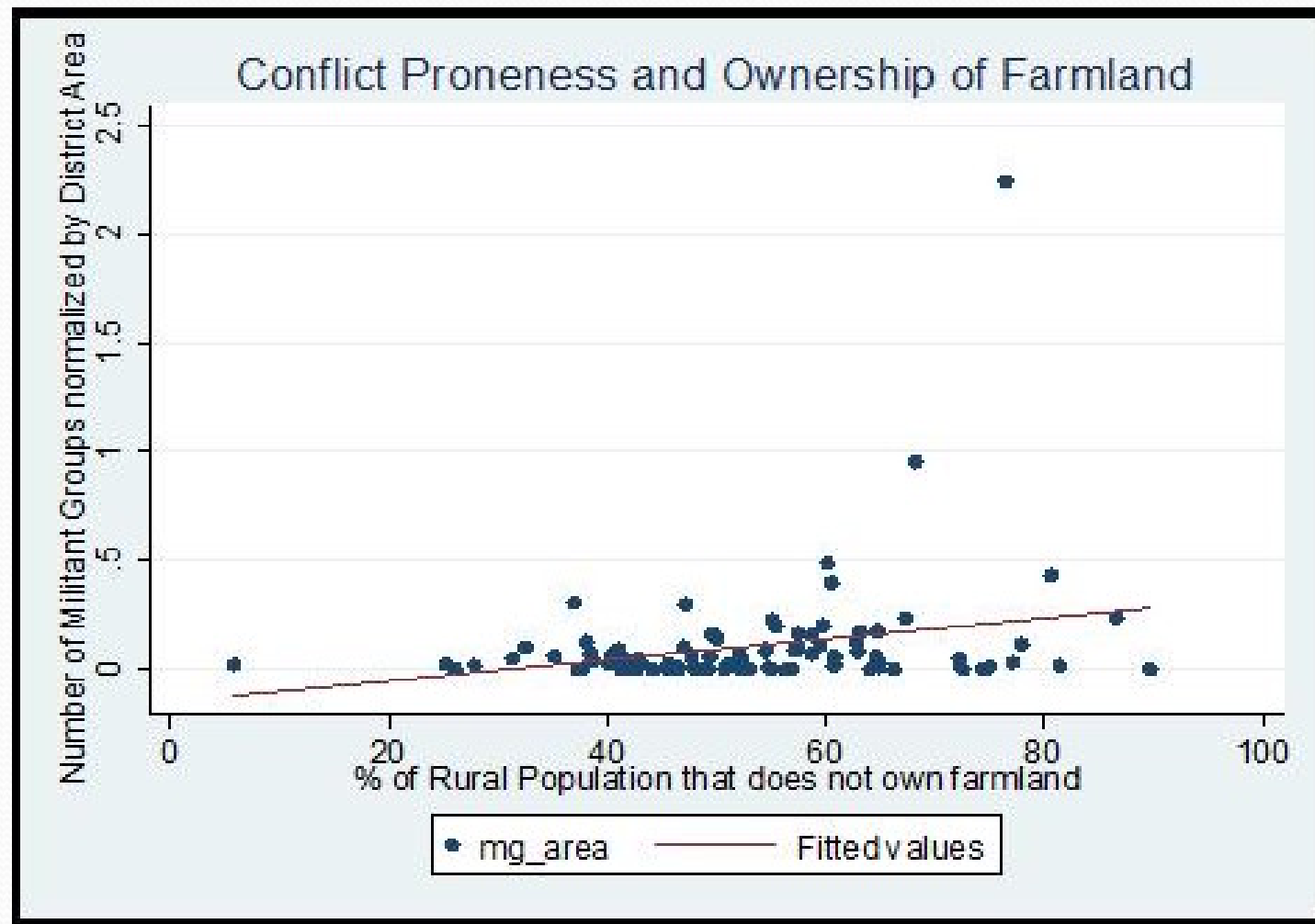


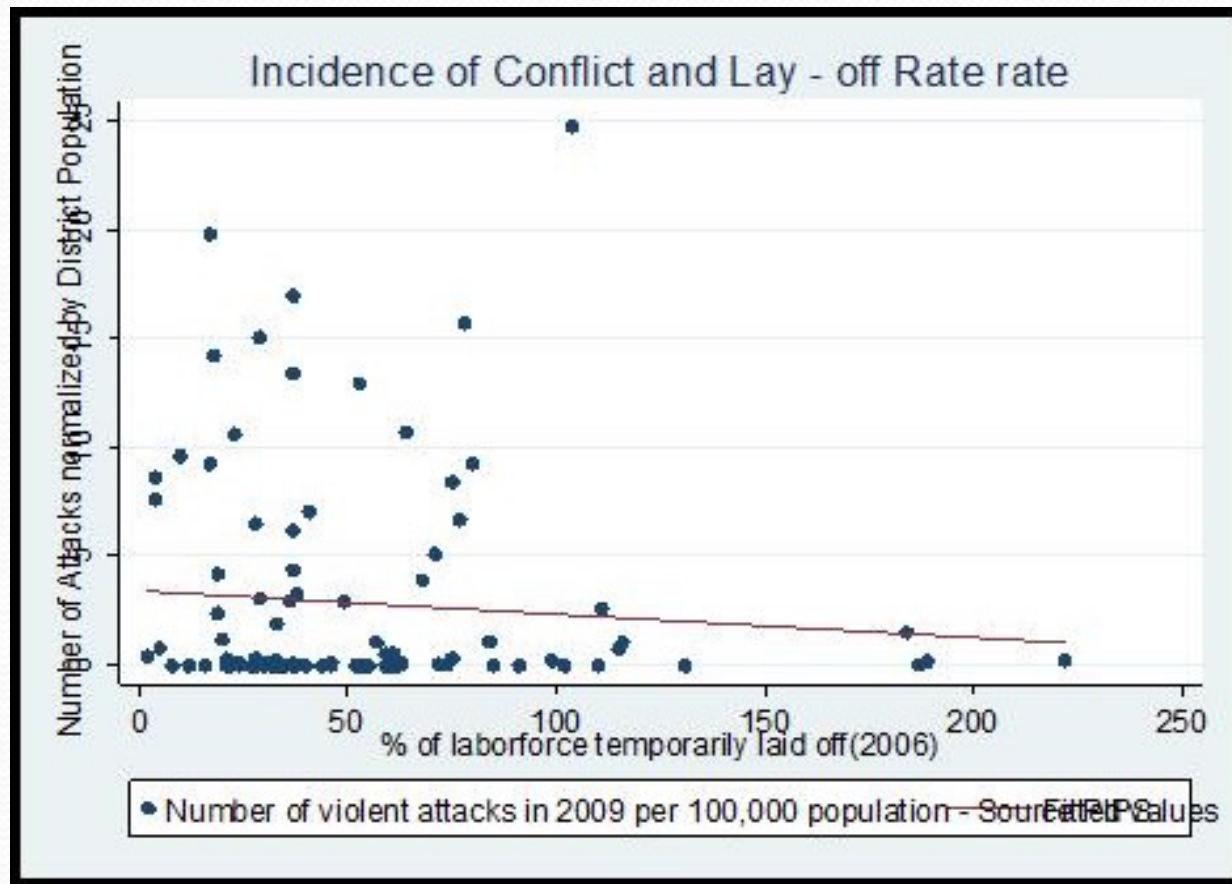


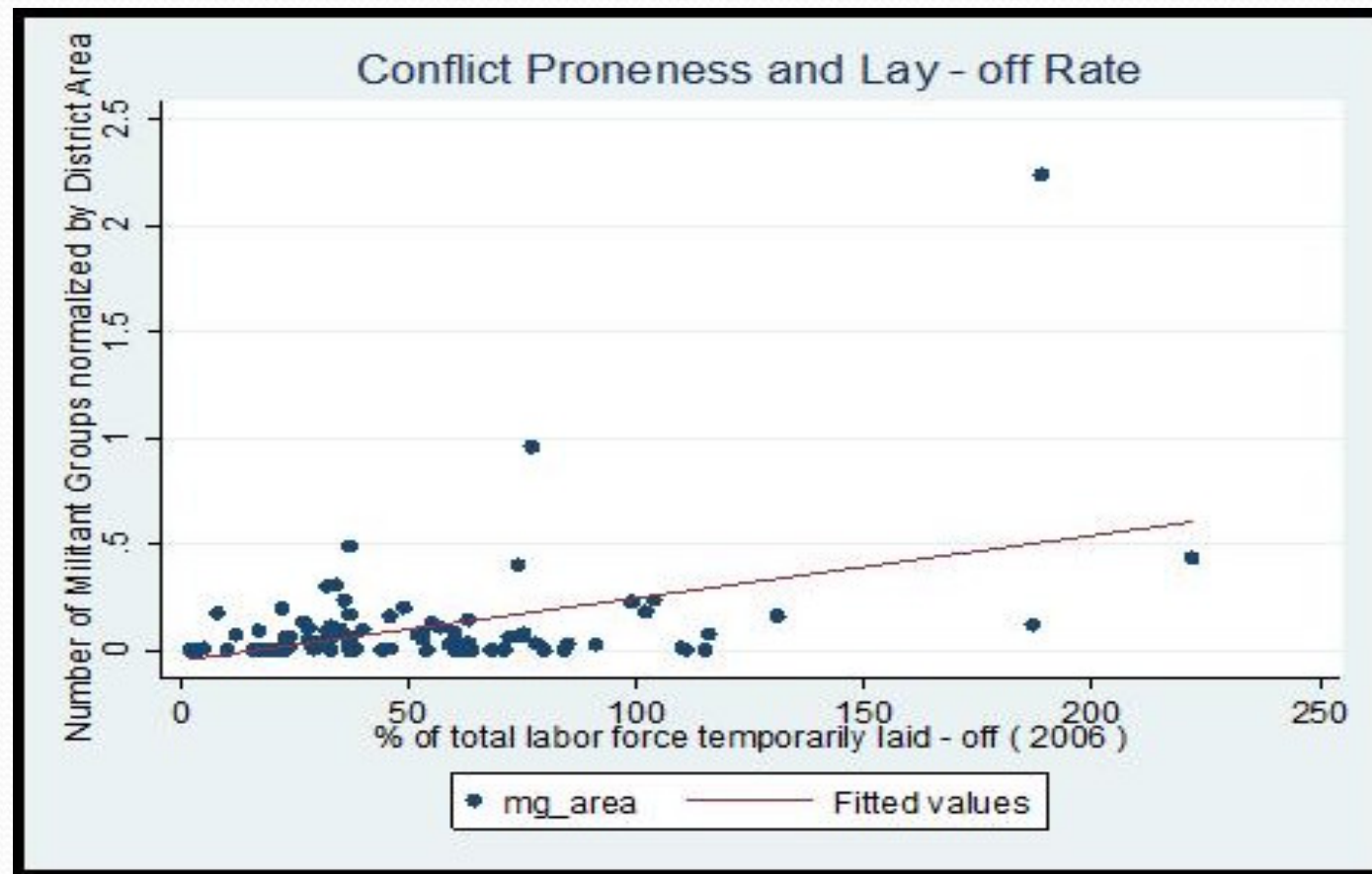


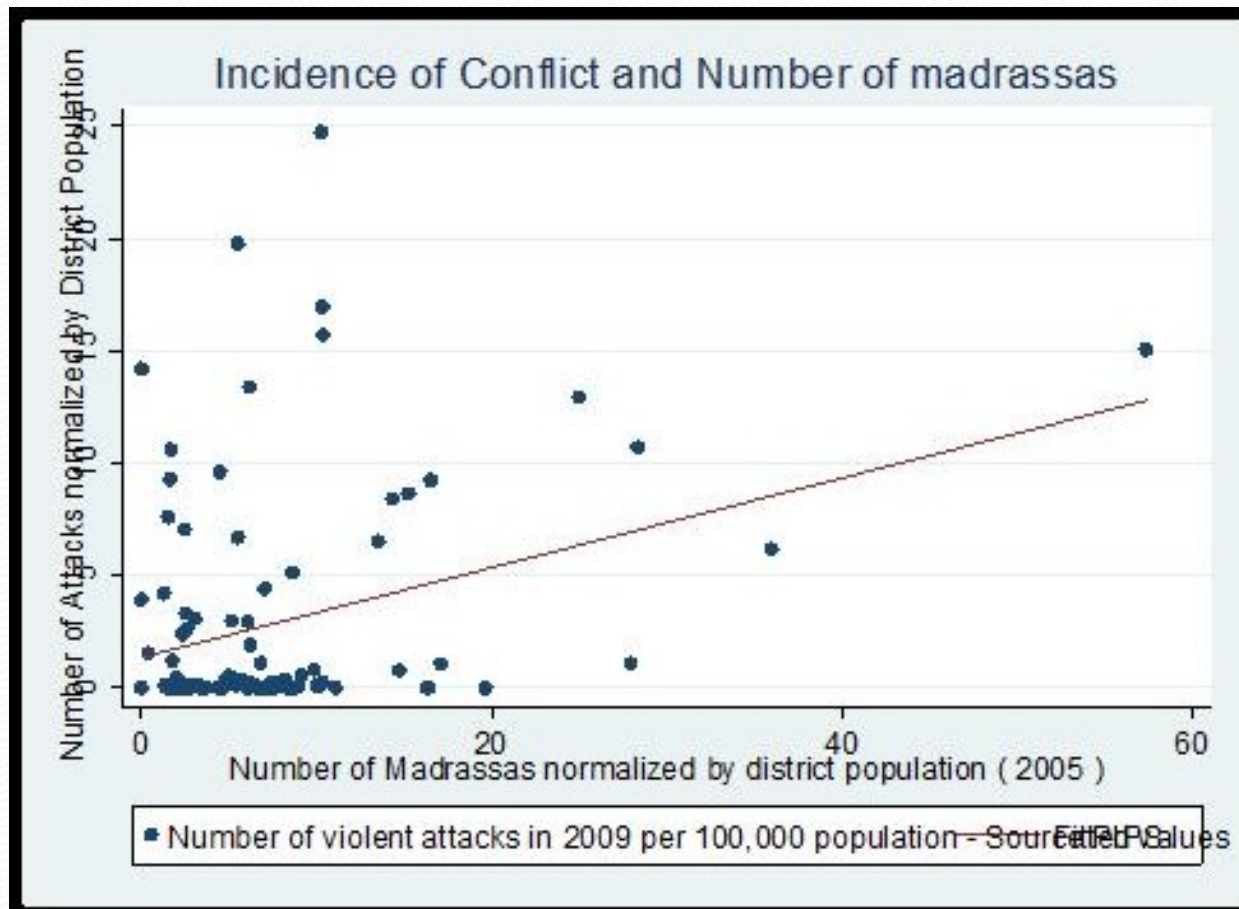












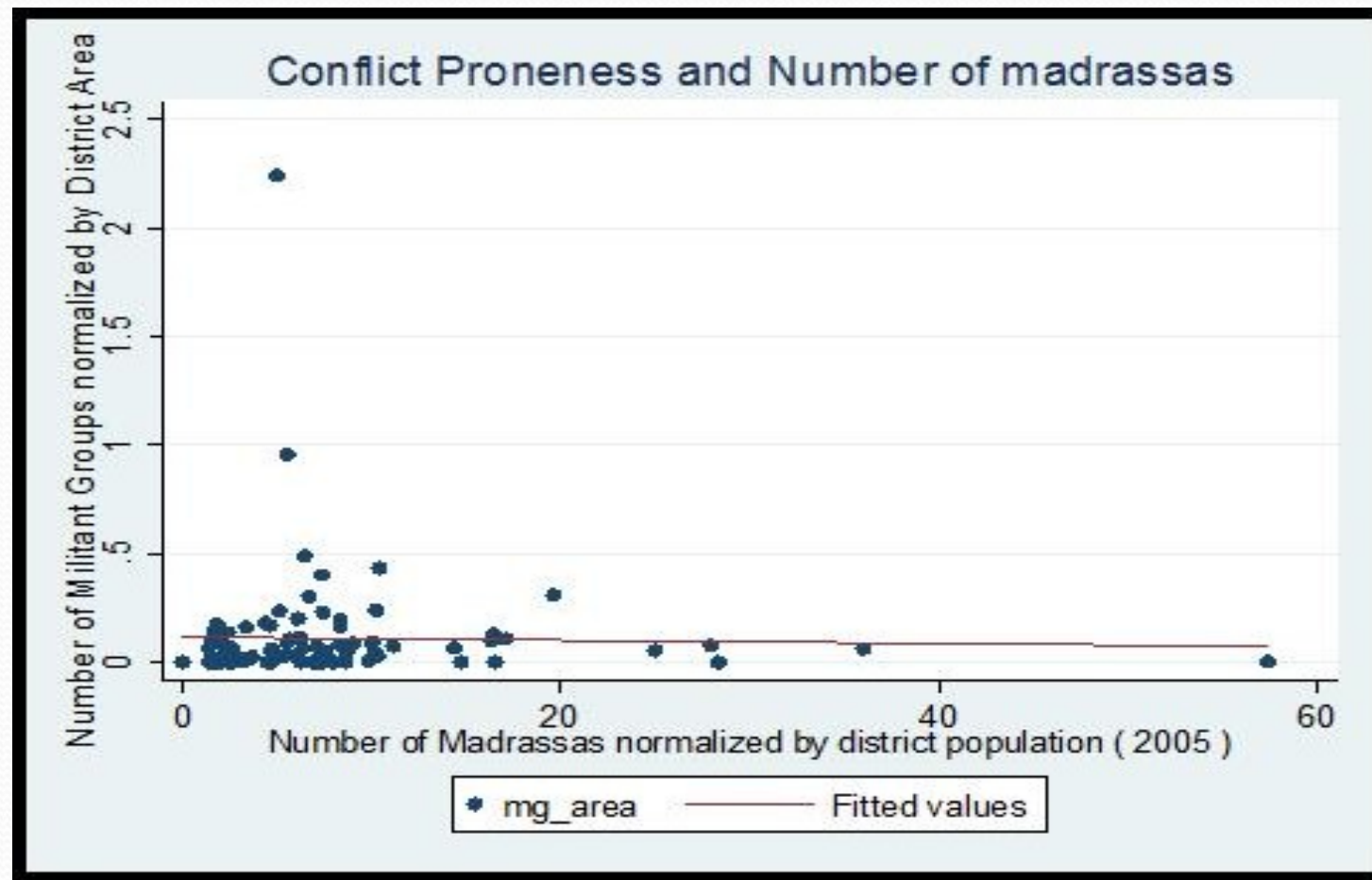


Table 7: Ordinary Least Squares Estimation Results
Dependent Variable: Number of Violent Attacks per 100,000 population

	[1]	[2]	[3]	[4]
Constant	0.082 (0.5)	5.286 (1.21)	-0.572 (-0.12)	-4.195 (-0.92)
NWFP	5.008*** (4.24)	6.775*** (4.69)	6.619*** (4.07)	5.587*** (3.53)
Balochistan	5.013** (3.07)	5.734** (3.18)	5.422** (3.11)	5.416** (2.71)
Punjab	0.009 (0.22)	0.899 (1.28)	1.327 (1.77)	0.752 (0.97)
% Area covered by mountains	-0.005 (-0.24)	-0.003 (-0.15)	0.003 (0.13)	0.005 (0.18)
Poverty headcount (Cheema 2010)		-0.160** (-3.13)	-0.137** (-2.64)	
Multidimensional poverty headcount (Jamal 2009)				-0.036 (-1.02)
Human Development Index		-7.601 (-1.05)	-3.971 (-0.52)	-1.677 (-0.21)
Percentage of total labor force temporarily laid off		-0.006 (-0.54)	-0.008 (-0.75)	-0.08 (-0.75)
Employment Rate		0.057 (1.16)	0.052 (1.00)	0.049 (0.91)
Landlessness rate			0.049 (1.59)	0.059* (1.95)
Number of Madrassahs per 100,000 population			0.049 (0.60)	0.071 (0.82)
Food insecure districts			0.970 (1.23)	0.881 (1.03)
No of observations	80	80	80	80
R-squared	0.3227	0.3713	0.3925	0.3734

Table 8: Ordinary Least Squares Estimation Results

Dependent Variable: Number of Militant Groups' bases Normalized by District Area

	[1]	[2]	[3]
Constant	-0.697* (-1.81)	-1.108* * (-2.04)	-1.131** (-2.3)
NWFP	0.466** (2.32)	0.351** (2.1)	0.364* * (2.22)
Balochistan	0.258* (1.78)	0.253 (1.52)	0.287* (1.71)
Punjab	0.387** (2.16)	0.324** (2.02)	0.306* * (1.99)
% Area covered by mountains	-0.001 (-1.19)	-0.001 (-0.88)	-0.001 (-0.9)
Poverty headcount (Cheema 2010)	-0.015* (-1.84)		
M ultidimensional poverty headcount (Jamal 2009)		-0.004 (-1.1)	-0.001 (-0.43)
Human Development Index	0.443 (1.32)	0.703* (1.93)	
Literacy Rate			0.008* * (2.99)
Percentage of total labor force temporarily laid off	0.003 (1.86)	0.003 (1.74)	0.003 (1.62)
Employment Rate	0.006 (1.63)	0.006 (1.49)	0.008 (1.83)
Rural Landlessness rate	0.005** (2.23)	0.006** (2.32)	0.005* * (2.21)
Number of M adrassahs per 100,000 population	-0.005 (-1.29)	-0.003 (-0.83)	-0.003 (-0.96)
Food insecure districts	0.158 (1.14)	0.147 (0.96)	0.129 (0.92)
No of observations	80	80	80
R-squared	0.4871	0.4333	0.4663

CONCLUSIONS

- The *incidence* of conflict is higher in NWFP and Balochistan
 - This result holds even after controlling for geographical terrain and socio-economic variables.
- Poverty is negatively associated with the *incidence* of conflict
 - This indicates that the likelihood of violent attacks increase in more affluent districts that are characterised by lower poverty
 - Consistent with international studies suggesting that the perpetrators of violence may not *originate* from but often *strike* at areas that are affluent and often metropolitan.
- With respect to the presence of militant groups - the Punjab dummy turns out to be statistically significant.
 - A useful finding given the low official recognition of the deep roots of militancy in Punjab.

CONCLUSIONS

- Poverty and human development do not seem to be associated with the presence of militancy in a statistically significant manner. Same is true for food insecurity.
- Literacy rate is positively associated with the presence of militancy
 - The size of the impact is very small, yet the coefficient is statistically significant.
 - Confirms the findings of Fair (2008)
- Madrassah factor in terms of promoting militancy also turns out to be statistically insignificant
- Rural landlessness is positively and significantly related to the presence of militant groups
 - This relationship is robust to the inclusion of other variables