

Decentralization's Impact on the Accountability and Responsiveness of Public Services: Evidence from Pakistan

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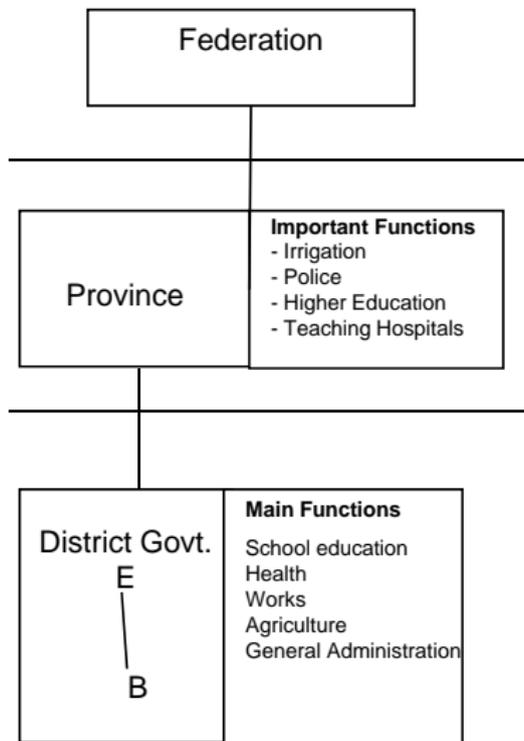
Motivation and Potential contribution

- Traditional approaches to measuring the empirics of decentralization, say thru a before-after methodology, are open to the challenge of not addressing some of the concurrent changes taking place along with decentralization
- This paper improves identification using a double-diff (D-D) (and later a triple-diff) approach but one based on utilizing institutional and contextual knowledge to produce cleaner results
 - ▶ we exploit WITHIN sector differences
 - ▶ we explore the channels through which decentralization works - e.g. what public goods are affected by it and why
- we are also exploring an additional source of variation - 9/11 and social sector aid infusion after it - to better identify these channels
- caveat: this paper deals with budgetary and not real outcomes

Decentralization in Pakistan - Cheema et al. (2006)

- Decentralization in Pakistan in 2001 resulted in establishment of a third tier of government - LGs
- It resulted in major changes in governance structure:
 - ▶ level changes - scope of LGs substantially enhanced by decentralizing several, though not all, sectors
 - ▶ however within each sector, not all activities are decentralized - establishment charges are still under provincial control
 - ▶ budgeting, planning and development functions devolved to LGs
 - ▶ accountability changes - bureaucracy made accountable to local elected tier
- Budgetary allocations now decided by an elected local politician for development and non-establishment expenditures
- Provincial governments not quite keen on LGs - a conflict of interest between provincial and local politicians

Current LG Structure



Lower tiers of LGs - Tehsils and Union Councils - are not shown here

Empirical strategy

- Within a given sector, not all activities are decentralized (e.g. dev and non-estab decentralized and estab not)
- Not all sectors are decentralized (e.g. school vs college education)
- We exploit the following differences in expenditures:
 - ▶ over time (Before-After)
 - ▶ across type of expenditures - establishment (Control) vs. development and non-establishment (Treatments)
 - ▶ across sectors based on the devolution principle (devolved vs non-devolved sectors)
- We also explore use of a second 'natural' experiment, orthogonal to decentralization, and examine "treatment heterogeneity" by looking at the diff-in-diff impact between (social) sectors that were no longer salient to local politicians (due to an unanticipated shock) compared to those (non-social) sectors that were

Data Description

- Unique data set from 34 district governments of Punjab province (90 m people) from before (2001-02) and after decentralization (2002-03, 2003-04) that comprises actual expenditures for all sectors, adjusted for inflation

$$\begin{aligned} Inexp &= \beta_0 + \beta_1 Post1 + \beta_2 Post2 + \beta_3 Treat1 + \beta_4 Treat2 \\ &+ \beta_5 Post1 * Treat1 + \beta_6 Post1 * Treat2 \\ &+ \beta_7 Post2 * Treat1 + \beta_8 Post2 * Treat2 + \varepsilon \end{aligned} \quad (1)$$

- Post1 = year-1 after decentralization
- Post2 = year-2 after decentralization
- Treat1 = development expenditures
- Treat2 = non-establishment expenditures
- Post1-Treat1 = change in dev exp in year-1
- Post2-Treat1 = change in dev exp in year-2
- Post1-Treat2 = change in non-estab exp in year-1
- Post2-Treat2 = change in non-estab exp in year-2

Summary Statistics - aggregate expenditures

	2001-02	2002-03	2003-04
Establishment	3440	7580	5570
Non-Establishment	748	1860	2730
Development	1310	2730	2680
Total Budget	5498	12170	9280

Devolved sectors include:

- Education
- Health
- Agriculture
- Rural Electrification
- Livestock
- Works

DD Results - basic, dist*time, sector, dist*sec*time

	(1)	(2)	(3)	(4)
post1-treat1	2.34*** (.621)	2.29*** (.630)	2.29*** (.629)	2.61*** (.673)
post2-treat1	5.42*** (.485)	5.36*** (.489)	5.33*** (.495)	5.65*** (.520)
post1-treat2	.164*** (.032)	.164*** (.031)	.173*** (.033)	.215*** (.042)
post2-treat2	.096** (.035)	.094* (.035)	.114** (.036)	.116* (.044)
treat1	-3.33*** (.515)	-3.33*** (.517)	-3.77*** (.511)	-3.90*** (.548)
treat2	-1.24*** (.036)	-1.24*** (.037)	-1.27*** (.037)	-1.29*** (.044)
post1	.847*** (.019)			
post2	.523*** (.029)			

DD Results: Treatment Heterogeneity across Sectors

	Educ	Heal	Agri	Elec	Live	Fish	Hous	Work
p1t1	.93 (.66)	1.54** (.58)	3.3*** (.82)	4.1*** (.69)	4.3*** (.94)	1.98* (.76)	9.7*** (1.73)	1.43* (.60)
p2t1	3.4*** (.67)	3.2*** (.58)	7.6*** (.82)	6.9*** (.71)	10.5*** (1.0)	12*** (.72)	7.97** (2.29)	3.3*** (.59)
p1t2	.04 (.34)	.13 (.27)	-.06 (.57)	.21 (.54)	.65 (.59)	1.4*** (.36)	-.57 (2.12)	.29 (.57)
p2t2	-.15 (.34)	-.16 (.27)	-.004 (.58)	.18 (.53)	.83 (.59)	1.3*** (.36)	.19 (1.54)	.20 (.56)
Obs	1625	1579	575	696	234	220	77	1012

Standard errors in parentheses

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Identification of political accountability mechanism

- we get considerable heterogeneity of results across sectors - exploring how best to interpret it, esp since we get this somewhat surprising effect of less increase in social sectors
- one idea we are exploring also helps isolate the political channel. Spending should increase in sectors which have greater LOCAL political salience. 9/11 led to external infusion in central govts' social sector spending. This is likely to have changed LOCAL political salience of various sectors. This seems to be supported in data
- from elections data, we estimate the probability of reelection of local politicians as a function of provision of different types of goods
- Results: some goods are NOT as important to the local politicians' re-election prospects ex post - infrastructure and economic sectors matter but social sectors do not

Probability of Reelection of Local Politician

LPM (1) (2) and Probit (3) (4)

	(1)	(2)	(3)	(4)
Physical sectors	.089* (.037)	.094* (.037)	.273* (.125)	.329* (.13)
Social sectors	-.097 (.058)	-.101 (.058)	-.375 (.234)	-.601 (.34)
HH size		-.20 (.226)		-.65 (.61)
House type (pacca)		.18 (.59)		.79 (1.69)
Literacy		.01 (.014)		.02 (.04)
Ethnic diversity		.31 (.56)		.85 (1.67)
Urban proportion		-.0027 (.012)		-.011 (.03)
Observations	68	68	68	68

Conclusion - ongoing and future work

- we use a novel source of (within sector) variation
- we get a large decentralization effect
- we get considerable treatment heterogeneity across sectors
- in ongoing work:
 - ▶ improving identification further (D-D-D) - comparing treatment heterogeneity between devolved and non-devolved sectors
 - ▶ exploring channels of local political accountability - distinguishing between goods that have different LOCAL political salience; and exploring if local politicians differentiate themselves by allocating more to goods that have greater local political salience in ways that the voters are reacting to favorably ex post
- future work: explore impact on real outcomes