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Education reforms, bureaucracy and the puzzles of implementation

A case study from Bihar



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Abstract

It is a widely accepted truth that the Indian state suffers from a serious crisis of implementation capability. Despite widespread recognition of this crisis, there is remarkably little analytical work on how the Indian state works, particularly at the level of implementation. We know very little about the everyday practices of local bureaucrats, the decision-making systems within which they function and the organizational culture and norms that this fosters. Such an understanding is critical both to unpacking the roots of this implementation failure as well as to understanding how reform efforts are institutionalized, interpreted and implemented on the ground. Crucially, it can offer insights into understanding why the implementation crisis persists and under what conditions this can be reversed.

Our research is an attempt to fill this gap in the literature by analyzing an attempt by the Government of Bihar (GoB) to adopt an alternative pedagogy tool in government schools to improve the quality of learning as part of a larger reform effort called the 'Mission Gunvatta,' initiated in the 2013-14 academic year. The pedagogical strategy was based on homegrown experiments that challenged mainstream assumptions about classroom organization and teaching based on set curricula. Critically, it was designed to strengthen local administrative capacity to support schools from the bottom up.

Through detailed qualitative interviews and time-use studies of Bihar's education administrators, this study points to the critical role played by organizational culture and resultant perceptions and practices of frontline administrators in interpreting, articulating and implementing reform choices on the ground. In our analysis, the successes and failures of

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service delivery reforms are as much about appropriate policy design choices, fostering innovation and leadership as it is about the interplay between reform objectives and the every-day practices of those tasked with implementing reforms. This, we argue, is the key missing link in contemporary understanding of public institutions and service delivery reforms in particular.

Section 1. Introduction

It is well known that the Indian state suffers from a serious crisis of implementation capability. This has prompted scholars and observers of India to variously characterize the Indian state as the "corrupt state," the "flailing state," the "wooden bureaucracy," a state with "weak state capacity" that is stuck in "capability traps." Yet, there is remarkably little analytical work on how the Indian state works, particularly at the level of implementation. Not much is known about the everyday practices of local bureaucrats, the decision-making systems within which they function and the organizational culture and norms that this fosters. Such an understanding is critical to unpacking the roots of this implementation failure, and to understanding how reform efforts are institutionalized, interpreted and implemented on the ground. Crucially, it can offer insights into understanding why the "flailing" character persists, and under what conditions this can be reversed.

Our research is an attempt to fill this gap by studying a unique moment of transition in the Government of Bihar's (GoB) elementary education policy. In April 2013, the GoB announced an innovative policy called 'Mission Gunvatta' (translated as Mission Quality, henceforth MG) aimed at improving learning outcomes for elementary education in the state. This reform was launched in the wake of a massive push by the GoB to improve public provisioning for elementary education. The most innovative component of MG was to re-group children in grades three to five according to learning levels, and provide them with remedial education for two hours during the school day. This component was particularly interesting because it built on a homegrown experiment implemented in Iehanabad district in Bihar. Through a partnership with a prominent and well-recognized education-focused non-governmental organization (NGO), Pratham, the Jehanabad experiment challenged mainstream assumptions about classroom organization (age-grade systems) and teaching based on set curricula by shifting classroom organization away from the age-grade matrix to re-grouping students by learning levels and teaching them according to what they know rather than what the curriculum requires them to know. Crucially, this experiment was based on building local administrative capacity to support schools from the bottom-up. With the launch of MG, this experiment was institutionalized and scaled up across the entire state.

The uniqueness of this effort provides fertile ground to answer important policy questions related to the implementation conundrum and education reform in India. What does it take to institutionalize service delivery reform in India? When and under what conditions do reforms get integrated and absorbed into the everyday workings of the state? And when and how is change resisted, subverted and distorted?

Our study attempts to answer these questions through the prism of the frontline administration. Drawing on a set of in-depth qualitative interviews and time-use studies of Bihar's education administrators, this study builds on the narratives of these frontline administrators to understand the conditions for success and failure of education reforms. Our research points to the critical role played by organizational culture and resultant perceptions and practices of frontline administrators in interpreting, articulating and implementing reform choices on the ground. In our analysis, the successes and failures of

service delivery reforms are as much about appropriate policy design choices and creating conditions that foster innovation and leadership as it is about the interplay between reform objectives and the every-day practices of those tasked with implementing reforms. This, we argue, is the key missing link in contemporary understanding of public institutions and service delivery reforms in particular.

The rest of the paper is organized as follows. Section 2 builds a conceptual framework for analyzing and interpreting the narratives of the frontline. It also draws on current literature to situate the discussion in the context of current debates on education reform in India. Section 3 briefly details the study methodology. Section 4 provides the background and context within which this particular reform program unfolded. Section 5 presents the body of the research. By unpacking narratives gathered through the interview and findings from the time-use study, this chapter presents an analytical account of the governance environment at the frontline. It then draws on this analysis to understand the state's experience with implementing the MG. Section 6 concludes.

Section 2. Building a conceptual framework

In this section, we develop a conceptual framework for understanding the every-day practices of the local bureaucracy and interpreting how these practices respond to pressures for reform. To do this, we bring together a number of theoretical concepts including "bureaucratic norms," "cognitive maps" and "accountability" systems. Since our case study specifically deals with the experience of implementing education reforms, we also draw on current literature on education systems and learning quality to develop a framework to interpret Bihar's experience from the specific perspective of understanding the effectiveness of reforms to improve learning outcomes in India.

2.1 Cognitive maps, bureaucratic norms, accountability and education reforms

Despite the widespread acknowledgement of India's "flailing" state, research on understanding the organizational dynamics of the local bureaucracy is relatively thin. There is a significant and influential body of ethnographic work that present vivid accounts of the interactions between local bureaucrats (or frontline officials), politicians and citizens. This body of work highlights the vast chasm between the Weberian ideal type of a rulebound, autonomous bureaucracy and the reality of the Indian state where boundaries between the state and society are fuzzy and blurred (Gupta 1995; Fuller & Benei 2001), and the behavior of local actors is shaped through subtle negotiations of power between citizens and the bureaucracy (Corbridge et al 2005; Mathur & Bear 2015).

The motif of the embedded state is also evidenced in much of the recent research on public service delivery. This research highlights the deeply entrenched patronage networks into which politicians and bureaucrats are tied. In these conditions, bureaucratic jobs have been documented as part of a market (Wade 1985; Béteille 2009) and once a job has been acquired, for frontline officials, absenteeism, low effort and corruption are common practices (Chaudhury et al 2006; Muralidharan et al 2014). Consequently, as Pritchett and Woolcock (2004) rather evocatively describe, the local bureaucracy (in India and many

other countries in the developing world) ends up "looking like a state" in the Weberian rational-legal sense but functioning under very different principles of patronage and rent extraction.

Missing in these powerful accounts of state-society dynamics is any significant scholarship on the nature of the local bureaucracy as an organization – the institutional design, internal culture, decision-making systems - and how these shape and respond to shifts in the sociopolitical contexts within which the state is embedded. We know very little about how the local bureaucracy interprets its role within the bureaucratic hierarchy and how this interpretation influences the articulation and implementation of reform choices.

The need to study the bureaucracy from this perspective is particularly relevant in the context of current debates on service delivery reform. There is now a near consensus within the policy debate that the solution to India's unruly and corrupt frontline lies in disciplining the frontline. The underlying assumption is that greater discipline through increased surveillance of the lower bureaucracy by citizens and the state will create conditions for the emergence of the Weberian ideal - an autonomous, rule-following bureaucracy (Aiyar and Bhattacharya 2015; Veeraraghavan 2015). In this context, bureaucratic accountability is defined in terms of "accounting" practices that serve to curb discretion and entrench hierarchy through strict monitoring of tightly defined rules and procedures.

This push towards discipline also coincides with a broader shift in the narrative of service delivery in India. Over the last decade, the role of the state in the provision of public services has witnessed a significant expansion. One illustration of this is the increase in financial resources allocated for public services (or social services in official parlance) as a percentage of total development expenditure. This increased from 12.7% in 2000-01 to 19.4% in 2009-10 (RBI 2014). At the same time, traditional assumptions about the nature of state engagement in public service delivery have been consistently challenged by civil society and academia. Increasingly, the role of the state in public service provision is being defined in terms of rights, entitlements and outcomes. State intervention is no longer limited to technocratic tasks like building infrastructure, hiring staff and implementing schemes. Rather the state is expected to protect socio-economic "rights" of citizens by "guaranteeing" an array of public services. Moreover, the yardstick for measuring effective service delivery is slowly shifting from mere provision to outcomes - "improved learning," "infrastructure maintenance," "behavior change" are far more relevant as indicators of success than mere construction of schools, roads and toilets. These shifting expectations raise an important, although rarely debated, analytical question about the structure and design of the local state: can systems designed to produce service delivery infrastructure deliver on complex expectations of rights and outcomes? In other words, is the Weberian model (enforced through tighter discipline and accounting for accountability) the right design for delivering public services effectively? Understanding the empirical realities of the everyday practices of the bureaucracy and identifying the conditions under which policy changes are likely to yield results are critical aspects of answering these questions. To do this, we draw on two, inter-related theoretical concepts.

First, we explore the concept of "cognitive maps." We see the idea of cognitive maps as important to locate how local bureaucrats see themselves vis-a-vis the organizational system within which they function. This, in turn, shapes how local bureaucrats "account" for themselves and how these accounts legitimize behavior. By "account," we mean the narrative that an individual actor in an organizational setting adopts to justify his/her actions. This narrative is linked to the wider set of professional norms and expectations placed on individuals vis-a-vis the socio-political contexts in which they perform their duties (Pritchett 2014).

To understand these "accounts" and how they shape the everyday behavior of local bureaucrats, we draw on Mehta and Walton's (2014) definition of cognitive maps. On this definition, cognitive maps refer to the "underlying interpretation of how the world works, and the more specific range of possibilities for action that an individual or group recognizes." Cognitive maps, in Mehta and Walton's conceptualization, exert significant influence in shaping the normative underpinnings for different behaviors. Thus, an explicit treatment of cognitive maps is extremely relevant to understanding the dynamics of the everyday practices of frontline bureaucrats and how reform ideas are articulated and interpreted.

To trace the roots of these cognitive maps, we draw on Mangla's (2014) work on the centrality of bureaucratic norms in shaping bureaucrats' behavior. In Mangla's framing, norms are defined as the unwritten yet widely observed rules within the state that shape the behavior of public officials and structure their relations with civic actors outside the state. Through his research, Mangla identifies two different types of bureaucratic norms visible in India. The first are "deliberative" norms, the norms that encourage bureaucrats to work collectively to solve problems, bend official rules if needed and promote civic participation. The second are "legalistic" norms that promote a hierarchical order with a strict adherence to norms and procedures often in a fashion that discourage civic participation and responsiveness to local needs and priorities. It is these norms that guide public officials on how to enact their roles and responsibilities in carrying out the tasks associated with policy implementation. Norms can also influence the degree of commitment amongst officials, their propensity to engage in collective behavior and their interpretation of the tasks given to them to fulfill their organizational mission.

Through our analysis of Bihar's frontline bureaucracy, we attempt to push the interpretation further to unpack how norms influence the cognitive maps of local bureaucrats and in turn, their articulation and interpretation of their daily roles and responsibilities. We, then, draw on this interpretation to understand how the frontline responds and implements reform ideas, and ultimately distorts reform objectives.

2.2 Education reforms and accountability for learning

In recent years, the policy narrative on elementary education reforms in India has undergone a significant shift. Even as the country has made significant strides in meeting the objective of universal primary education, it is increasingly being acknowledged that

learning quality is far from satisfactory.² In 2012, India witnessed a major shift in policy when the (now erstwhile) Planning Commission explicitly articulated improvements in learning outcomes as the stated goal for education policy in the 12th five year plan (Planning Commission 2013). However, even as the policy narrative is beginning to shift, there remains the challenge of identifying the appropriate pathway toward addressing the learning deficit.³ The debate on how to improve learning traverses a range of different perspectives on the determinants of learning outcomes (we address these later in the paper) ranging from the need for more resources and infrastructure; the presence of a disciplined workforce to shifting pedagogical strategies within classrooms. But even as these multiple perspectives compete with one another, an important challenge that has received scant attention is that of embedding shifts towards learning within the day-to-day functioning of the education system. Given this paper's interest in implementation and reform, it is important to locate Bihar's experience within the broader analytical debate on education systems' reform. To do this, we draw extensively on Pritchett's (2014 and 2015) framing of the systems' failure in elementary education.

Pritchett (2015) examines the links (or lack thereof) between learning outcomes and education systems through the lens of the larger analytical question that we pose in this paper: is the current architecture of service delivery systems capable of facilitating the transition from infrastructure provision and access to improving outcomes. In the specific context of elementary education, Pritchett hypothesizes that the primary reason why many countries around the world, including India, demonstrate low progress on basic learning outcomes, despite significant expansion of their education systems is because these systems are designed to cohere only around the goal of schooling (enrolment, access and other input related goals) rather than learning. In Pritchett's analysis, the goal of learning requires a very different set of accountability systems which simply do not exist in systems designed for schooling.

To construct his argument, Pritchett draws on the accountability framework developed in the World Development Report (2003).⁴ The WDR identifies four features of the relationship of accountability – delegation of powers and responsibility, finance for the tools to get things done, information to judge performance and what Pritchett calls motivation or the agreement that determines the consequences of achieving appropriate outcomes.⁵ Pritchett draws on these four features to demonstrate the limitations of education systems designed to cohere around the goal of schooling in promoting learning. For instance, when the goal of a system is to provide schooling, then the delegation of

² The annual ASER reports have been tracking learning outcomes for over a decade now. The reports have been deeply influential in shaping the public discourse on the problem of learning in India. In addition, there have been a number of rigorous research studies highlighting the same problem. See Mukerji and Walton (2013) for a summary of the range of different academic studies on the quality of learning in India. See also Muralidharan and Zieleniak (2013); Das and Zajonc (2010); Education Initiatives (2010).

³ See Banerji (2014b) for a detailed discussion on this.

⁴ See World Bank (2003)

⁵ The WDR defines this as enforcement or carrot and stick incentives but Pritchett's formulation tweaks this to encompass a wider range of contractual arrangements and incentive structures that "motivate" actors to perform in a certain way.

powers related to schooling inputs is measured against the provision of the input rather than the outcomes that the specific input would result in. In other words, accountability is circular, for the specific task at hand, rather than the overarching outcome that the tasks can achieve. To illustrate, in such a system, if the Ministry of Education receives a budget for paying teachers, then the ministry is only accountable for the actual task of payment to teachers rather than the end objective of "teaching." A similar case can be made for school infrastructure and other school inputs, which collectively add up to creating the architecture of a schooling system. While school inputs are no doubt the foundation of an education system, when the goal or purpose of the system is limited to schooling, the accountability dynamic within which it operates limits itself to school specific inputs. In other words, the accountability coheres around the "form" of the system rather than the function for which the system is created in the first place. It is instructive that in India, the national education data-base, District Information System for Education (DISE) which is the basis on which annual targets and budgets are set, collects no information on student learning. Consequently, the accountabilities that govern the education system and determine the actions of the implementing agents end up having relatively little to do with the ultimate goal: learning.

Another way of understanding the incoherence between schooling and learning is through Pritchett's (2013) typology of thin vs. thick tasks. In Pritchett's framing, "thin" tasks are tasks that involve specific, verifiable activities that can be delivered by non-discretionary state action e.g. building a road, constructing a school building, hiring teachers according to qualifications. "Thick" tasks are transaction-intensive and require providers to tailor their actions to the specific conditions in which the task is being implemented. Teaching is a classic example of a thick activity. The task of teaching necessitates teachers to interact on a day-to-day basis with their students and tailor their methodologies to the specific learning capabilities of students in the classroom. Systems designed for schooling inevitably draw on "thin" rule-based criteria – budget allocations, teacher qualifications, enrolment, training and attendance numbers – to determine relationships of accountability even when these bear little consequence on the "thick" activities that they ought to be accountable for. As a result, the goal of learning fails to get internalized into the actors' account of themselves.

In unpacking Bihar's experience with implementing a learning outcomes focused program, we draw on Pritchett's framework of system failures to understand how these relationships of accountability and the norms they foster frame the cognitive maps of implementing agents and the degree to which this influences the institutionalization of education reforms that privilege learning outcomes. As we conclude, we return to the question of systems design raised by Pritchett and examine possible mechanisms through which norms of every day functioning of implementing agents can in fact be influenced in a manner that is aligned with the goals of achieving "thick" goals like learning.

Section 3. Methodology

This study draws on primary research conducted between July 2014 and March 2015 in three different sites in Bihar. The sites were chosen keeping in mind the diversity of

experiences with implementing the MG and the study objective of learning from these experiences to examine questions of implementation, scale and institutionalization of reform practices. The MG was implemented in partnership with Pratham in 13 districts in the state, while the state government took the lead in the remainder districts. We thus sampled one district from each category of districts. Bhojpur was identified as a district with no NGO support. We focused on Bhojpur because our initial conversations with various state-level stakeholders indicated that the district administration had taken an active interest in implementing the program. Amongst the districts that were implementing the MG with Pratham support, the district of East Champaran offered a unique opportunity to contrast two different experiences with implementation (see figure 1 for the location of the study sites). East Champaran was the site for a pilot program that played an instrumental role in the eventual roll-out of the MG. By studying the MG implementation in this district, we had the added advantage of being able to contrast the experience of the pilot with the scaled up state-level program. Thus, East Champaran was selected as the second district for the study (see table 1 below for the educational statistics of East Champaran and Bhojpur). Finally, research was also conducted in Jehanabad, where the first pilot was launched.

Figure 1: Location of study sites in Bihar



Table 1: Educational statistics for Elementary Education in Bhojpur and East Champaran

	Bhojpur	East Champaran
Total schools	2150	3330
% Government Schools	94.19	95.74
% Schools with Enrolment less than 50	3.9	1.3
Student Classroom Ratio	50	68
PTR	45	53
% Schools with Drinking Water	88	88.8
% Schools with Boys' Toilet	52.5	59.7
% Schools with Girls' Toilet	82.6	58.7
Enrolment: Classes I-V	364445	743995
Enrolment: Classes VI-VIII	165908	298085
% Girls Enrolment: Primary Level	50.3	49.7
% Girls Enrolment: Upper Primary Level	48.2	49.3

Source: District Report Cards, 2013-14, Volume 1. Retrieved from

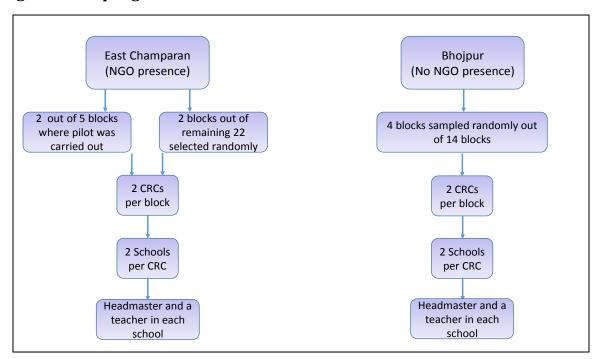
http://www.dise.in/Downloads/Publications/Documents/DistrictReport-2013-14-I.pdf

The fieldwork had two components: detailed, semi-structured interviews with all key stakeholders and time-use study of cluster and school-level administrators.

Sampling for interviews

In Bhojpur and East Champaran, an attempt was made to select sites for research in order to capture variation of experience. Interviews were conducted with teachers and headmasters, Cluster Resource Centre Coordinators (CRCCs), Block Resource Persons (BRPs), Block Education Officers (BEOs) and various officers in the district education line department (see box 1 for information on education officials at the level of district and below, and their key roles). The method of selection of the sites and officials is depicted in figure 2.

Figure 2: Sampling structure



In Jehanabad, we purposively sampled 4 CRCCs, HMs and teachers that had been part of the pilot in 2012 for our interviews. In total, interviews were conducted with over 110 frontline education officials. In addition, we conducted a number of interviews with state level officials, Pratham staff and other key stakeholders.

Box 1: Bihar's District Education Administration: Who's Who

- 1. Cluster Resource Centre Coordinator (CRCC) Position created in the mid-2000's under the Government of India's flagship elementary education program, Sarva Shiksha Abhiyan (SSA) to provide academic support to schools. Each CRCC is in-charge of an average of 15-20 schools in a cluster. A CRCC is a contractual employee selected from amongst the teaching community.
- 2. Block Resource Person (BRP) Sits at the Block Resource Centre (BRC, the administrative unit closest to the school) along with the Block Education Officer. The BRP is expected to supervise the CRCC. BRP is a subject expert at the elementary level and must be acquainted with basic principles of teaching, content and curriculum.
- *3.* Block Education Officer (BEO) The administrative head of the BRC. The BEO is a member of the Bihar Education Service. Most BEOs have some teaching experience.
- 4. District Institute of Education and Training (DIET): Is the district centre for training and learning. Headed by the DIET Principal, DIET faculty report to the Director (Research & Training) who heads the State Council of Education Research and Training (SCERT) located within the state line department for elementary education. DIET faculty are responsible for assessing the training needs of teachers and resource persons at the sub-district level among other activities.
- 5. District Project Officers (DPO): Each district has 6 DPOs in-charge of different aspects of education administration in the district. These include DPO establishment; planning and accounts; training, secondary education & literacy; elementary education & SSA; MDM; mahila samakhya. The DPOs are supported by a team of Program Officers (POs) who are field-level functionaries.
- 6. District Education Officer (DEO): The administrative head of the education department in the district.

Sampling for time-use

The time-use study was limited to observing a total of 4 CRCCs and 6 headmasters in East Champaran and Bhojpur.

Each study subject was accompanied by an observer for approximately 20 days during official duty hours between November 2013 and March 2014 (see table 8). The observer's role was to record, in detail, every activity that the subject was involved in during these hours. A format was especially designed to capture all the activities of the subject as well as allow the observer to document other observations.

The CRCCs were identified on the basis of their responses during the interviews conducted and logistical considerations. The attempt was to study pro-active CRCCs along with those who were relatively less enthused about their jobs, as reflected in the interview transcripts. In addition, 3 HMs were selected per sampled district (2 primary and 1 upper primary schools per district). The selected schools were in the same cluster as the selected CRCC.

Along with primary research, a detailed analysis of secondary documents, including all critical government documents related to the MG was conducted to understand the nature and range of education reforms underway in the state.

Section 4: Background and Context

4.1 Bringing Bihar's education system back on track

In late-2005, when the National Democratic Alliance (NDA) under the leadership of Mr. Nitish Kumar came to power, Bihar's education system was suffering from a severe crisis (Mathew and Moore, 2011). Decades of systematic neglect had resulted in massive teacher and infrastructure deficits. Enrolment rates were low and Bihar found itself with amongst the highest drop-out rates in the country (see table 2 below).

Table 2: Status of Elementary Education in Bihar in 2005

Pupil Teacher Ratio (PTR)			
Bihar	65		
All India	36		
Student Classroom Ratio (SCR)			
Bihar 92			
All India	39		
School Participation Rate (SPR)			
Bihar	65.2		
All India	82.1		

Source: DISE (2005-06); National Sample Survey (2004-05)⁶

The first step to fixing the education deficit was to address the human resource and infrastructure deficit. To this end, the state government launched a massive teacher recruitment drive, hiring a new cadre of Panchayat teachers, and began constructing new schools and classrooms in earnest. In addition, a slew of new initiatives were launched to reduce the number of out-of-school children in the state. Particular emphasis was placed on bringing girls and children from backward communities into the mainstream schooling system.⁷

This focus on bridging human resource and infrastructure deficits was followed by an effort to improve the quality of school functioning. Efforts included the launch of programs aimed at improving teacher training, monitoring school processes – school timings, teacher and student attendance and incentivizing student attendance through the expansion of entitlements (scholarships and uniforms) conditional on 75% attendance.

This frenzy of activities was supported by a significant expansion of the education budget. Between 2007 and 2013, expenditure on education in the state doubled from Rs. 5788

⁶ PTR and SCR for Bihar and India obtained from DISE for the year 2005-06 (http://dise.in/Downloads/Trends-ElementaryEducation-2013-14/ElementryEducationInIndia2013-14.pdf); SPR obtained from Employment and Unemployment Situation among social groups, National Sample Survey (NSS) Reports no. 516 (2004-05);

⁷ Data collected from BEPC annual reports (2006-2013)

crore to 13,388 crore in nominal terms.⁸ And, as table 3 below highlights, the results were impressive. Most remarkable was the state's turn around on drop-out rates for girls. In 2005, Bihar reported amongst the highest percentage of girls who were out of school. By 2011, Bihar's figures for the proportion of children out of school was lower than the national average and the gender gap had all but disappeared (Banerji 2014a).

Table 3: Expansion of Bihar's elementary education system

	2005	2012
Government schools	54061	69911
Government teachers	233887	349538
Pupil teacher ratio	65	53
Student classroom ratio	92	65
School Participation Rate	65.2	84.2

Source: DISE (2005-06 and 2012-13)

These remarkable improvements in elementary education were a consequence of three key factors. First, political will – in the early years, Nitish Kumar himself staked his personal political capital on improving elementary education in the state. Second, the continued presence of strong bureaucratic leadership that was given the space to innovate and experiment: it is instructive that between 2006 and 2012 there was almost no change in key leadership positions in the education ministry in the state. This, as students of Bihar politics have pointed out, was a consequence of the peculiar nature of Nitish Kumar's political base and the resultant need to isolate his development and governance agenda from his politics, which led to a governance strategy that relied almost entirely on the bureaucracy (Witsoe 2013). Kumar encouraged his bureaucrats to innovate and this was evident from the range of experiments – famous "Mukhayamantri Balika Cycle Yojna" to the scholarship scheme to incentivize attendance in schools – undertaken within the elementary education department itself. Third, the presence of strong civil society organizations and the government's willingness to partner with them, and engage in regular discussions and dialogue on the challenges facing the state.

However, even as the state witnessed significant improvements in infrastructure and access, the challenge of learning loomed large. Multi-grade teaching and low teacher quality remained persistent problems (Banerji 2014a; Kingdon et al 2007). A 2007 study by Kingdon et al found that close to half the teachers in primary schools could not complete simple teaching tasks correctly or effectively. Moreover, while enrolment had increased, student attendance rates and learning levels remained low. The ASER survey highlights

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⁸ Economic survey (2014-15), Finance Department, Government of Bihar

that in 2012, 44.4% students in class 5 could not read a class 2 text while 31.4% could not perform basic division.

Throughout this phase, the government remained engaged with the challenge of learning outcomes. To a large extent this was due to the presence of Pratham that had begun actively working in the state in 2004. By 2006, Pratham had initiated a partnership with the government to implement various programs and used this platform to engage the state (both elite bureaucrats and frontline education administrators) in a regular dialogue on learning. An important tool that Pratham employed to pursue the learning agenda was through its annual ASER survey reports. To engage the political establishment, Nitish Kumar was invited on multiple occasions to release the report in the state and initiate a dialogue on outcomes. The dynamics of this dialogue afford interesting insights into how the Chief Minister viewed the learning agenda. In 2009, when Nitish Kumar released the report for the first time, he acknowledged the learning deficit problem but emphasized the need for his government to adopt an incremental approach – one that focused on meeting infrastructure and access deficits as the first step toward improving learning (an approach that was evident in the programmatic approach adopted by the line department). By 2011, when the CM released the report for the second time, his approach to learning was more direct. To quote from his speech⁹:

During the first five years of the NDA administration in Bihar, we were concerned with the low enrollment figures and the high dropout rates among the school children. We have been able to overcome those problems and now we will turn our attention to the quality of education in schools and colleges.

In response to the CM's direction, in September 2011, the state launched "Samjhein Seekhein." Among other activities, the new program mandated the creation of a separate post of Quality Co-ordinator at the district level to implement this program. The co-ordinators were expected to monitor schools and in particular devise innovative tools to improve learning. This was coupled with a number of initiatives aimed at improving education administration such as the merging of various administrative posts; building new recruitment strategies for frontline staff; rebuilding teacher training institutions and strengthening community engagement through a new process of forming school level parent committees. 11

However, despite the rhetoric on learning, in practice, the focus remained on access (made even more critical by the Right to Education (RTE) which was enforced in 2010 and mandated that schools meet a minimum floor of infrastructure norms), strengthening education administration and improving school processes. Large-scale pedagogical changes and the need to set clear goals and targets finally made their way on the agenda in 2013, when our study began.

⁹ "Improving Quality of Education a Priority: Nitish", *Patna Daily*, 25 January 2011. Retrieved on 2 June, 2015

¹⁰ These positions were closed down in March 2014

 $^{^{11}}$ See Sinha (2014) for a detailed account of the range of action taken by the government to strengthen elementary education in the state

4.2 An explicit focus on learning: the pilot phase (2012-2013)

In 2012, two districts in the state, Jehanabad and East Champaran, partnered with Pratham to launch a successful experiment in improving learning in elementary schools. These experiments were based on a pedagogical strategy called "Teaching at the Right Level" (TaRL) developed by Pratham. The foundation of the TaRL method is the view that the diversity of India's classrooms renders curriculum based age-grade teaching difficult. Thus classrooms need to be organized on the basis of children's learning levels rather than age and grade so that teachers can focus on imparting basic literacy and numeracy skills by targeting lessons to the actual competency levels of their students rather than focusing on completing the curriculum. The process begins with an assessment of children's learning levels after which classrooms are re-organized into learning "groups." Teachers teach these groups using teaching materials designed by Pratham for an average of 2 hours a day.

Padho Jehanabad¹²

In 2012, the District Magistrate (DM) of Jehanabad, a district south of Patna, sought a partnership with Pratham to address gaps in elementary education in his district. Pratham drew on its understandings of the learning problem and the TaRL methodology, and proposed that the district adopt the method but with one important difference from past experiments – the CRCC would lead the program.

By design, the CRCCs are expected to provide regular pedagogical support to schools and serve as a link between schools and the education administration. However, in practice (as we will discuss in the next chapter), they receive very little training on pedagogical techniques and are rarely expected to perform their "academic support" roles. Recognizing the CRCC's position as vital to create a support system for schools and teachers, Pratham was keen to work with them. Although skeptical, the DM was willing to experiment. With this the "Padho Jehanabad" campaign was launched.

The program began with a 3 day training for the 15 CRCCs of the two blocks, Kako and Modanganj, selected for this program. The training was designed with the specific objective of motivating the CRCCs to take leadership of their schools by first understanding the problem and then working with schools and teachers to pursue the learning agenda. The first step in the training was a learning assessment. Participants were asked to estimate student attendance and reading levels for the schools under their charge. This estimation was followed by a simple school-based assessment survey. The CRCCs' estimations of learning were very different to the reality of what students knew. This exercise served to drive home the importance of focusing on learning and in so doing completely transformed the dynamic of the training as participants began to actively engage with the problem at hand. After the training, the CRCCs were sent out to conduct

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¹² This section draws on Banerji (2015), and on interviews with Pratham staff, the Jehanabad education administration and other relevant Pratham and GoB documents.

¹³ These blocks were chosen for size - Kako has 75 schools while Modanganj has 156 schools and the perception that the local administrators, particularly BEOs, were of relatively high quality.

"practice" classes for 15 days in schools. Through these classes, the CRCCs were able to observe changes in reading levels first hand.

The "Padho Jehanabad" program itself had three parts to it. The first part was for the CRCCs and teachers to undertake a baseline assessment to evaluate current learning levels. Next, students in classes 3, 4 and 5 were re-organized into learning-level groups. Third, the district administration demarcated a special period of an hour and a half within the school day (post the mid-day meal). Pratham teaching material was used to guide teaching.

Although there is no third party evaluation of the "Padho Jehanabad" experiment, data collected by Pratham and the midline and endline assessment by the CRCCs showcase the extent of change (see table 5 below). By the end of the school year, the percentage of children who could read a story or paragraph increased from 40.1% to 60.6% (Pratham 2013a).

Padho Poorvi Champaran

Just as news of Jehanabad's experiment began to spread through the state, the DEO of East Champaran, a well-known education change agent in the state, initiated a conversation with Pratham. The East Champaran experiment was a far more expansive pilot than the Jehanabad one. 5 blocks were selected by the DEO from different parts of the district covering close to 700 schools. The program ran for 5 months between January and May 2013.¹⁴

The structure and design of the intervention was similar to Jehanabad. The CRCCs anchored the intervention. To do this, they went through the practice-oriented training similar to that in Jehanabad. This was followed by a baseline and teaching according to actual learning levels. The DEO's leadership was crucial to the success of the intervention.

Pratham assessments highlight the program's success. Data from the baseline (January 2013) shows that close to 50% students in standards 3-5 couldn't read simple words. This proportion dropped to below 20% by the endline (May 2013) (see table 5 below).

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¹⁴ Based on interviews with state officials

Table 5: Change in the learning levels of students in pilot interventions

A) Jehanabad: Assessment by Pratham (all 224 schools in 2 blocks)

READING	% Children who can read at different levels			
LEVEL	Base line (August 2012)		End line (March 2013)	
Story	16.4	% Readers =	53.5	% Readers = 72.3
Para	14.4	30.8	18.8	% Readers = 72.5
Word	12.1		14	
Letter	22.7	% who cannot	9.5	% who cannot
Beginner	34.4	read even words = 57.1	4.2	even read words = 13.7
Total %	100	Total (16540)	100	Total (15972)

B) Jehanabad: Assessment by an external volunteers (sample of 60 schools in 2 blocks)

B) Jenanabad: 1133e33inent by an external volunteers (Sample of 00 Senoois in 2 block					
Donding lavel	% Children who can read at different levels				
Reading level	Base line (September 2012)		End line (February 2013)		
Story	26.8	% Readers =	42.2	0/ Doodons - (0.6	
Para	13.3	40.1	18.4	% Readers = 60.6	
Word	12.4		13.4		
Letter	23.8	% who cannot	18.3	% who cannot	
Beginner	23.8	even read words = 47.6	7.9	even read words = 26.2	
Total %	100	(Total=1448)	100	(Total=1463)	

C) East Champaran: Assessment by Pratham (all 681 schools in 5 blocks)

Dooding lovel	% Children who can read at different levels			
Reading level Base line (January 2013)		ry 2013)	End line (May 2013)	
Story	0	% Readers =	31.1	% Readers =
Para	22.8	22.8	25.5	56.6
Word	27.1		24.6	
Letter	29.7	% who cannot	14.6	% who cannot
Beginner	20.4	even read words = 50.1	4.2	even read words = 18.8
Total %	100	(Total=55539)	100	(Total=50785)

Source: Pratham (2013a, 2013b)

From pilots to scale – the Mission Gunvatta

The successful implementation of the Jehanabad pilot and the continuous conversation on learning outcomes initiated by Pratham with state policy makers set the stage for a significant policy shift in 2013.

In January 2013, Pratham was invited to share the findings of ASER 2012 with the CM. The meeting was attended by a number of key policy makers including the chief secretary, the education secretary, the State Project Director (SPD) or Sarva Shiksha Abhiyan (SSA) and the DM of Jehanabad. The ASER presentation was followed by a presentation on the Jehanabad experiment. This catalyzed a long debate on the possible solutions to the learning problem in the state during which the CM sent out a clear message - Bihar was now ready to focus its energies on solving the learning problem.¹⁵

In the months that followed, top education policy makers in the state engaged in many conversations with civil society and eminent educationists to develop a new education policy. The discussions revealed an important tension in the approach to reforms. While there was a clear consensus about the need to explicitly focus on learning, there was no consensus on the appropriate reform instrument. Perspectives ranged between the need to strengthen inputs to the importance of fixing the governance and institutional environment to the need to adopt the Pratham-initiated TaRL pedagogy focused approach. Eventually, these tensions were resolved in "Samjhein Seekhein 2" or the MG which incorporated a set of activities aimed at addressing the twin concerns of governance and the need to focus on improving classroom processes within the current system.

The MG was conceptualized as a 5 year program. The key focus of the governance-related activities involved strengthening a basket of on-going activities related to improving teacher recruitment and training processes, strengthening District Institutes of Education and Training (DIETs) and teacher training institutes, strengthening school processes through improved implementation of school-based entitlement programs, redesigned assessment tools, teaching-learning materials and school-level facilities, enhancing monitoring at all levels, changing recruitment patterns for the CRCCs and the BRPs, strengthening community engagement and earmarking a dedicated cadre of teachers for grades 1 and 2 (GoB 2013c).

The focus on improving classroom processes drew largely from the experiments undertaken in Jehanabad. The key activity mandated was to group students by learning level and teach them using specially developed teaching aids for two hours a day. To emphasize the focus on learning, the guidelines clearly identify a set of annual goals to be achieved for the year 2013-14, the year MG was to be rolled out: To ensure 100% students in class 5, at least 75% students in class 4, and at least 50% students in class 3 should be able to read and solve math problems of class 2 level by the end of the program's first year.

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¹⁵ Based on interviews with senior Pratham officials and Banerji (2015)

Targets for the later years were to be set based on the progress made by students in the previous year.

To implement the classroom-based activities under MG, the GoB entered into a memorandum of understanding with Pratham to assist in implementing the program in 13 districts (GoB 2013b).

4.3 Implementing Mission Gunvatta: Experience from 2 districts

In this section, we report on the unfolding of the MG in the study districts – Bhojpur and East Champaran. To understand the extent to which the pilots became embedded in the system, we contrast the experiences of East Champaran which had two unique characteristics – the past experience of participating in a successful pilot and the continued presence of Pratham – with Bhojpur that had no prior experience with the MG methods or the presence of NGO support.

Training for MG began in April 2013 with a one-day orientation organized by the state government in Patna. This was expected to cascade down to the districts based on guidelines prepared by the state government. While the MG itself consists of a number of different activities, the main emphasis of this orientation was on the teaching-learning aspects of the program, and in particular, on implementing the TaRL method. Perhaps for this reason, most of our interviewees primarily understood the MG as a variation of the "TaRL" program. Table 6 sums up the process of implementation in the two study districts.

Table 6: Timeline of MG related activities in East Champaran and Bhojpur

Activity	East Champaran	Bhojpur
State level orientation on MG for all district and block officials	April 5-6, 2013	April 5-6, 2013
BRP-CRCC training	September, 2013 (5 day-long, non-residential)	June-July, 2013 (1 day orientation at DIET)
Practice classes	September – October, 2013	Nil
Baseline test	August-Oct, 2013	July, 2013
Material reached	December, 2013 – January, 2014	Nil (till September 2014)
MG classes	January, 2014 – May 2014	July, 2013 - September, 2014
Midline test	Nil	Nil
Endline test	May, 2014	Nil

As is evident from the table above, the experience of implementing the program was different in Pratham-supported East Champaran compared with Bhojpur. The East Champaran training followed the pilot model of assessment and practice sessions while in Bhojpur, the CRCCs and the BRPs were given a one-day orientation on program guidelines in a routine fashion. So routine was the process that none of the interviewees could

accurately recall when the orientation took place nor could they explain the contents that could distinguish this from any other "training."

The training sessions were followed by school-level baseline assessments. However, this is where the program began to run into implementation bottlenecks. Pratham was to design materials for the assessment and subsequent teacher training to be used in entire state while the state government was responsible for printing and circulating the material. For various administrative reasons, the printing process was delayed, and as a consequence, relevant materials, assessment tools and teaching content, did not reach schools till December/January 2014. To conduct the assessments, East Champaran used tools from the pilot and requested the CRCCs to pay for the printing from their own resources. Bhojpur, on the other hand, tested children using the standard grade-level text book. Teaching in groups began as soon as the assessment process was completed. There were minor tweaks in teaching style – greater interaction with students, more storytelling and encouraging students to use the blackboard to demonstrate what they've learnt.

During interviews, the CRCCs and teachers in Bhojpur indicated that teaching continued till the end of academic year 2013-14. However, when our study team visited the district for early pilots for this study, in October-November 2013, we did not find actual practice of MG methods in schools in the district. We did see charts and pictures on the school walls which suggested that some action had taken place during the school year. East Champaran (and all the other Pratham districts) waited till the materials arrived. Schools were supposed to have instructional material for children (story book (*Chulbuli Kahaniya*), charts for numbers and letters (*barahkhadi, ginati*), resources for teachers such as a Learning Facilitation Manual (LFM) (*Shikshak Saathi*), a manual for language and math teaching (CAMaL) and material that would help them teach in regional languages (*Setu Shabdavali/Shabdakosh*). Schools were also expected to utilize student progress report cards to keep track of children's progress, along with teacher report cards to assess teachers (GoB 2013c). It took till well into half way through the academic year for all this material to arrive. Teaching only began in January 2014.

Perhaps because of the slow start to the program, the state government attempted to pursue the classroom aspects of the MG with renewed enthusiasm in early 2014. In February 2014, the state government organized a day-long orientation for BEOs to take stock and motivate the administration to implement the program in a focused manner (GoB 2014a). Key officials including the Principal Secretary (education department) attended the meeting. Our study team observed the training. The team noted that the learning component of the MG was emphasized with far more seriousness in this set of discussions than in the past. In April 2014, a revised set of guidelines emphasizing the TaRL methodology was prepared and circulated by the state government. This was followed by an order for schools to spend April and May (the start of the new academic year 2014-15) focusing specifically on reading and math. Table 7 below presents shifts in learning levels recorded over time in 7 of the Pratham-supported districts.

Table 7: Change in the learning levels of students during MG in 7 Pratham-supported districts

A) Reading level

	% Children (classes 3-5) who can read at different levels				
	Base line		End line		
Story	23.1	% Readers =	40.2	% Readers =	
Para	19.3	42.4	25.4	65.6	
Word	23.4		20.3		
Letter	22.5	% who cannot	10.9	% who cannot	
Beginner	11.8	read even words = 34.3	3.2	even read words = 14.1	
Total %	100	Total = 1.44 million	100	Total = 1.37 million	

B) Math level

	% Children who can read at different levels				
	Base line		End line		
Division	19.9	% who could do	36.8	% who could do	
		at least		at least	
Subtraction	20.1	subtraction =	25.1	subtraction =	
		40		61.9	
Addition	21.1		19.4		
Number					
recognition 11	17.8		11.5		
to 99					
Number		% who could		% who could	
recognition 1 to	15.3	not recognize	5.6	not recognize	
9		numbers till		numbers till	
Beginner level	5.8	100 = 21.1	1.5	100 = 7.1	
Total %	100	Total = 1.44 million	100	Total = 1.37 million	

Source: Pratham (2014)

However, even as the state administration began to push MG with renewed enthusiasm, the political narrative in the state began to shift. In May 2014, Nitish Kumar's party received a resounding blow in the parliamentary elections. Nitish Kumar resigned and handed over charge of the chief-minister's post to Mr. Jitan Ram Manjhi. The new CM brought with him a new set of priorities, in particular a focus on the maha-dalit community. Learning was no longer on the top of the agenda. There were significant shifts in the bureaucracy. The old guard that spearheaded the MG was transferred followed by a spate of transfers at the higher and lower ends of the bureaucracy. This was the first time in ten years that the education administration went through so many transfers and shifts in such a short period of time. And in this process, the MG all but disappeared. By July 2014 when field work for

this study began in earnest, the entire exercise of grouping students and teaching by level for two hours a day had disappeared.

This brief descriptive account of the evolution of elementary education reform in Bihar and the very divergent experiences - relative success at improving infrastructure on the one hand but limited long term success in reforms aimed at improving learning outcomes speaks directly to Pritchett's framing of the limitations of education systems. It is well known that in 2005, Nitish Kumar inherited a broken state, characterized by weak bureaucratic capacity (measured both in terms of sheer numbers of staff as well as capability to govern). Yet, this very weak system, under the right set of conditions was able to cohere around the goal of schooling and through a combination of strategies, managed to deliver. In other words, the architecture of the administration had the right ingredients for enabling schooling - which once activated got the job done. Yet, the very same system failed at achieving sustained improvements in learning outcomes, even when the political and bureaucratic conditions were in place, thus suggesting that conditions for improvement in schooling may well be different to those of learning. The analytical question this experience raises, and one that we hope to answer in the discussion that follows is this: can education systems designed for thin, schooling related tasks actually produce learning? This is the lens we apply to understand the puzzle and challenges of implementation reforms discussed in the next section.

Section 5. Mission Gunvatta and the puzzles of institutionalizing reform

In this section, we turn to the central concern of this paper: understanding implementation and reform processes. The first step in our analysis is to unpack the implementation ecosystem within which the education reform processes unfolded in Bihar. We do this by tracing the "cognitive maps" of frontline administrators in Bihar and through a detailed time-use study illustrating how these cognitive maps shape behavior. The focus of our time-use analysis is on the CRCC – a critical actor in the MG reform experiment.

Next, we focus on the conditions under which the implementation eco-system shifts. To do this, we turn our attention to the two pilot experiments run in Jehanabad and East Champaran. Finally, we address the critical question of reform sustainability by examining the experience of the MG program itself, and draw on our analysis of the implementation eco-system to understand why the gains from the two pilots did not sustain in the long term.

5.1 Understanding the implementation eco-system

The Post Office State

Studies of the Indian state have long pointed to the centrality of the state as a vehicle for social mobility rather than as the provider of public goods in India. The twin factors of entrenched social inequality and the ideology of state-led development has ensured that the state is widely perceived as the principal means of power, an escape from the subordination of being at the receiving end of state power (Mehta 2003). Government jobs

or "Sarkari Naukri" are thus highly sought after in India. And no state epitomizes this search for the "Sarkari Naukari" better than Bihar. This obsession with government jobs is best summarized in the popular joke: "IAS banunga, Bihari hu na!"

This desire for a "Sarkari Naukri" was visible in all our interviews with Bihar's education bureaucrats. When asked about their primary motivation for joining the government, most interviewees said that they were motivated by the desire for a "Sarkari Naukri." More than half of our interviewees had attempted to join the elite Indian Administrative Services and the Bihar State Service cadre before applying for jobs with the Bihar education administration.

But for all the trappings of power that a government job affords, when we asked our interviewees to describe their roles within the education administration, their most frequently cited self-description was of being powerless cogs in a large machine over which they have no control. Our interviewees regularly (and across different levels of the administration) referred to themselves as "post officers" and "reporting machines" with little authority to take decisions. The post office was invoked repeatedly in interviews not from the perspective of the post-office as we know it - an efficient, well-managed system where each individual agent is given a clear set of tightly monitored tasks to perform. Rather the idea of the post-office was invoked from the perspective of the job of a post officer – forwarding mail from one level of the system to the next with no role or influence over the content of the mail. This is best illustrated through official perceptions of the role they play in decision-making:

<i>V</i>	Ve are just reporting machines.
	What suggestions can I give? I'm in government service. My first priority is to t government orders properly and then make any plans of my own.
In	the end whatever the 'sarkar' wants will be implemented.

This sense of powerlessness runs so deep that many interviewees referred to the "sarkar" as something outside of themselves and over which they have no control. This self-description of powerlessness is particularly difficult to grasp given that the narrative of power is central to both why government jobs are sought after and how the average citizen interacts with the state. The arrogance of the bureaucracy and the mechanisms through which local bureaucrats exercise power over citizens is well documented in popular and academic writing on India. So, how does an officer who seeks a position within the state to access its power end up building a narrative of powerlessness in her everyday experience of what it means to be an officer of the state?

In a companion study to this one, Aiyar and Bhattacharya (2015) explore the phenomenon of powerlessness amongst BEOs through a series of time-use studies and detailed interviews in different parts of India (including Bihar). The authors trace the roots of what they describe as the "Post Office State" to the top down, rule-based hierarchical organizational structure of the education administration. In this system, the central and

state governments delegate tasks to line agents at the district. The district, in turn, delegates tasks to the block and cluster office without any transfer of power or space to take decisions or bend rules based on needs. And in the absence of authority to implement tasks, officers have built a narrative of powerlessness. Aiyar and Bhattacharya illustrate their argument through the perspective of an interviewee, a block official, who states:

The head masters come here and I have no answer on what has happened to their request or problem. I have to send them to the district office or ask them to wait till I hear anything. I feel bad. I have no power to give them anything, but I don't know what happened to their case either.

The hierarchical culture also ensures that higher levels of authority rarely provide frontline officers with information or feedback on progress over decisions. Nor do they consult lower authorities when allocating tasks. Thus, local officers never fully comprehend the reasons why they are expected to perform tasks and inevitably reduce even the most complex of tasks to rules and orders received. For instance, in Aiyar and Bhattacharya's study, when block officials were asked to describe their role vis-a-vis school committees, most saw their role as that of communicating new rules and guidelines to HMs. Ensuring that committees function in a manner that enables effective parental engagement with the school was simply not on their agenda.

One important consequence of this deeply entrenched hierarchy is that it legitimizes a narrative of performance defined solely in terms of responsiveness to rules and orders received from above rather than meeting any specific service delivery goals. As a result, frontline officials have shaped themselves as passive rule followers rather than active agents of education services. Their "account" of themselves is entirely through the prism of rule-following rather than providing services, the implications of which will be discussed in the next section.

This obsession with hierarchy and orders was evident in our interviews. Most BEOs rarely visited schools or engaged with their subordinates on substantive issues of schooling and learning. For instance, all block and cluster level administrators are expected to submit monthly reports, including a quality monitoring report, to the block. These are to be compiled and forwarded to the district. However, none of the BEOs interviewed actually went through these reports from the perspective of understanding the functioning of their schools. The compilation was a mechanical exercise to respond to the "orders" of the district.

The dominance of hierarchy, rules and orders in the everyday narratives of Bihar's frontline bureaucrats suggests that Bihar's education system displays classic signs of Mangla's "legalistic" characterization where official rules, procedures and policies shape bureaucratic responses and behavior. In such systems, discretion and rule-bending is actively discouraged and it is for this reason that lower level officials are, as described here, rarely invited to share their opinions or provided feedback on information and data that they collect. Legalistic bureaucracies expect officials to function as powerless cogs in a large machine. And it is this legalistic system that has served to shape the cognitive maps of

Bihar's education bureaucrats such that they see themselves as no more than "post officers" who spend their days filling formats and responding to orders from above.

There is an important irony in this self-perception of "powerlessness." As mentioned, government jobs in Bihar (and other parts of India) are actively sought after for the power they exude and it is a well documented fact that local bureaucrats, even in the most "legalistic" systems bend rules and exercise discretion in order to exercise this power over citizens. Yet in their role as service providers within the government hierarchy, they seek to function entirely within the structure of rules and procedures. In other words, frontline bureaucrats function through a curious mix of rigid rule-following when it comes to doing their jobs and high levels of discretion through which they dispense patronage amongst their subordinates and citizens. They function both as passive agents of hierarchy as well as symbols of the power of the state – who work at their own will and agency. We explore these dimensions of the narrative of powerlessness and its implications on reforms in the next few sections. They function is implications on reforms in the next few sections.

Unpacking the everyday workings of the "Post Office State"

How does the narrative of the "Post Office State" shape the daily practices of local education bureaucrats? To answer this question, we tracked the time-use of cluster level officers.

The CRCC position traces its roots to the District Primary Education Program (DPEP) which introduced the concept of a cluster resource centre (CRC) in an effort to create a platform for schools and teachers to receive regular, continuous teaching support. The SSA expanded the role of the CRC beyond pedagogical support and mentoring to overall school improvement, data gathering, record checking and monitoring of school infrastructure. But despite the intention, the CRCCs across the country have largely functioned as administrators (Tara et al 2010). Recognizing the importance of strengthening the CRCCs' "academic" roles, in 2012-13, the GoB took a number steps to strengthen these positions. This included changes in the recruitment pattern from an ad-hoc "nomination" process to one based on transparent merit-based criterion and redefining the roles and responsibilities of the CRCC to emphasize their role as academic mentors to schools (GoB 2013a).

The key tasks for the CRCCs include assessing teacher-training requirements, spending at least two hours of the day with teachers as they teach in schools, support teachers particularly in teaching weaker students, and guide teachers to use teaching materials. In this section, we present data collected through our time-use study (see table 8 below) to understand how the "Post Office" syndrome influences the CRCCs' daily functioning.

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 $^{^{16}}$ We are grateful to Dr. Saumyajit Bhattacharya, discussant at the IGC Bihar Growth Conference for this insight.

Table 8: How does a CRCC spend his time in Bihar?*

	CRCC 1	CRCC 2	CRCC 3	CRCC 4
Number of days the CRCCs were observed	19	23	20	16
Median start time	10.30 am	9.30 am	11:00 am	10:30 am
Median end time	3:00 PM	3.15 PM	2:30 PM	2:30 PM
Observed working (% of duty hours)	63%	69%	54%	53%
Number of days visited school (s)	11	15	14	6
Number of schools visited per day	2	2	2 to 3	1
Time spent per school visited	50 min	60 min	40 min	120 min
Time spent inside school(s) (% of total time observed)	24%	43%	42%	38%
No. of days classrooms were visited	3	5	8	5
Time spent in classrooms (% of time spent in school(s)	13%	21%	12%	43%
Time spent on meetings (% of total time observed)	27%	20%	13%	44%
Time spent per CRC meeting	3.5 hrs	3 hrs	1.75 hr	5 hrs
Time spent on paperwork (% of total time observed)	19%	17%	19%	31%
Travel time (% of total time observed)	8%	12%	24%	2%

^{*} Time spent in schools, in meetings, on paperwork and in travel will **not** add up to 100%.

The overall time-use data shows that the CRCCs work between 4-6 hours a day. Their working hours are split between school visits, meetings and completing paper work. And while the bulk of the CRCC's time is spent on school visits, the actual time spent in a classroom is very limited. On average, a CRCC spends between 10% and 20% of his time in schools inside the classroom (see figure 3 below). For the rest, the CRCCs are busy checking attendance registers, examining the mid-day meal scheme and engaging in casual conversations with headmasters and teacher colleagues. Our time-use study reveals some interesting features that show how a typical CRCC in Bihar functions.

First, there is little structure to how a typical CRCCs works on a particular day. As mentioned, all CRCCs are required to prepare a monthly school visit plan based on which they are expected to go about their daily routines. This plan is to be submitted to the BRC. The primary objective of the monthly plans was to facilitate "mentorship" – the CRCCs could identify schools that needed different types of support, relative to the strengths and weakness of classroom process in each school and visit them accordingly.

However, our observations of the CRCCs suggest that the CRCCs and their supervisors never clearly understood the objective of these plans. In character with the "legalistic" bureaucracy, where hierarchy and rules have to be followed, block and district officials

view these monthly plans largely as an instrument for monitoring the CRCCs. The CRCCs in turn, did everything within their power to resist this surveillance and dodged making these plans. In the absence of monthly plans, school visits by the CRCCs were ad-hoc. In yet another illustration of the dominance of legalism, to the extent that there was a structure or purpose to the CRCCs' visits – this was usually linked to specific requests that might have been made by the block office. Consequently, the process of school visits was reduced to a mechanical exercise of ticking boxes and collecting relevant data. Academic "mentoring" of teachers was not part of the agenda.

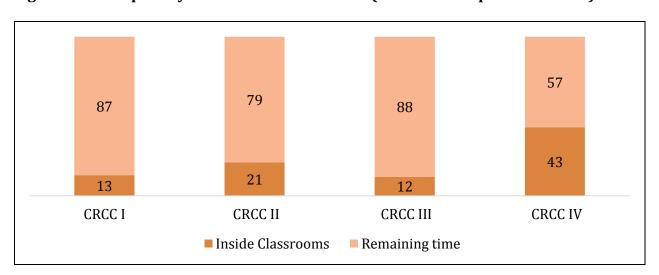


Figure 3: Time spent by the CRCCs in classrooms (as % of time spent in schools)

Second, this lack of structure and the ad-hoc nature of school visits resulted in infusing a great deal of variability in the quality of the CRCCs' interactions with teachers. The majority of the CRCCs we studied spent between 45 minutes to 1 hour monitoring classrooms. Usually, this time is split across 1 or 2 classes. Only 1 of the 4 CRCCs sat through the entire period. While in classrooms, the CRCCs would either observe the teacher or take over teaching entirely. Some CRCCs interacted with students and asked questions but never gave feedback to students or teachers. The legalistic culture runs so deep that in the few instances that the CRCCs offered feedback to teachers, this was usually in the nature of establishing hierarchy rather than "mentoring" the teacher. The dynamic of these interactions is described in box 2.

Box 2: The CRCC and the classroom

.... (The CRCC) visited a primary school. But didn't enter the classroom. Next he visited a middle school. The students were playing outside. One child was wearing a cap. The CRCC asked them if they knew a story involving a monkey and caps. Apparently, this story is in the syllabus of grade 3. None of the students knew the story. The CRCC told them the story and left the school. He was there for about 15 minutes or so.

Next he visited an upgraded middle school. He went to grade 7 classroom. The teacher who was teaching social studies soon left and the CRCC took over. He asked students about types of fabric and the origins of cotton. Nobody could tell. He proceeded to explain. This went on for 10 minutes. Postlunch, he entered a classroom where students of standards 5-6 were sitting together. Taught the science class from the textbook for 10 minutes. Then he left the school.

....Researcher field notes

Third, platforms for engagement between the CRCCs and teachers, while available, were rarely used to discuss issues of pedagogy and learning. The CRCCs are expected to meet teachers every month to discuss teaching-learning and through peer-to-peer engagement resolve difficulties and share experiences. During the course of our time-use study, our researchers had occasion to observe the proceedings of these meetings. Rather than discussing teaching and pedagogical practices, these meetings were used as platforms to share information received from the block office. And when the discussion turned to pedagogy, it was clear that the CRCCs themselves lacked the skills to facilitate such conversations (see box 3 for a granular description of the proceedings in these meetings).

Box 3: Observations from a monthly cluster level meeting in Bhojpur 29.8.2014

29.08.2014

Start time: 11.30 AM End time: 2 PM

Ten teachers attended today's meeting. Participants first marked their attendance amidst general chit chat. The CRCC announced the meeting should commence with a prayer. The CRCC followed this up by asking someone to narrate a story and then sing a song. This was followed by a few announcements pertaining to MG and the state wide 'Midline Teacher led Assessment' due to be held on September 22nd. The CRCC asked teachers if they knew the purpose of this assessment but was met with silence. He kept calling out to one teacher who did most of the talking during the meeting. Barring a couple of teachers who spoke up occasionally, most remained silent. Only two teachers were observed jotting down information during the meeting.

The CRCC then asked participants to discuss any topic related to any subject taught in school. Silence, again. He tried to cajole them into speaking but ultimately sought help from the talkative teacher. The teacher remarked that such a mahaul (environment) had never been created before so he was going to use the opportunity to speak about the wonders of Math and the immense power of the number '0' in particular. The monologue continued for half an hour after which the meeting was concluded.

.....Researcher field notes

Just as the CRCCs have meetings with teachers, the CRCCs too are expected to have monthly interactions with block and district officials in the DIET and in block offices. The meetings rarely led to debate and discussion amongst participants. The CRCCs listened to their superiors and took instructions.

Moreover, the dynamics of the conversation between the CRCCs and their superiors is entirely transactional and usually restricted to administrative matters. These interactions are conducted in the grammar of hierarchy with relatively little space for junior officers to engage, interact and debate with their superiors. Block level officials mostly interact with the CRCCs to place requests for information about certain schools (no doubt based on requests received from their district and state officials). Throughout our study, we found no evidence of any discussion between the CRCCs and block and district officials on how the CRCCs manage their time (barring requests for submission of monthly plans) and the nature of their school visits.

Interestingly, although the CRCCs often complained about being overwhelmed with requests for paper work from the block, we found limited evidence of this. No doubt, the only time that block officials called officers and proactively engaged with them was when they needed data. However, these calls were not frequent. Of the approximately 300 hours

we spent observing the CRCCs, they spent about 10% of their time fulfilling paper work related requests.

One interpretation of the allocation of the CRCC's time and the nature of their interaction with schools and teachers is that this is typical of an apathetic, unaccountable bureaucracy that lacks discipline. However, our detailed inquiry into the daily routine and functioning of the CRCCs presents a more complex picture – one that can be traced back to bureaucratic culture within which the CRCCs are embedded. Viewed from this prism, part of the explanation of CRCC behavior lies in the legalistic norms and the narrative of the "Post Office State" that it fosters. This, in turn, has stimulated and sustained an atmosphere of administrative apathy in two distinct ways.

First, a CRCC's core job is to act as an academic mentor and agent of academic improvement in their schools. However, the idea of mentorship stands in sharp contrast to the daily practices of hierarchy characteristic of legalistic bureaucracies. Mentorship in this instance needs to be nurtured. But throughout our observations of the CRCCs, we saw little to suggest that superiors engaged with the CRCCs in a manner that would facilitate a shift from hierarchy to mentorship. In the absence of this nurturing, the narrative of the post-office remains dominant. And the CRCCs drew on this narrative to legitimize their own projection of their hierarchical superiority over schoolteachers on the one hand and passively await orders from their superiors on the other. And this served to legitimize their position within the hierarchy of implementation as passive agents rather than leaders of academic change. It is instructive that during interviews when the CRCCs were asked whether they interpreted their roles as "leaders" of schools or supporters, the unanimous response was that they saw themselves as supports in a system over which they had relatively little agency.

Second, as described in the previous section, legalistic systems are characterized by the absence of feedback loops, where performance is judged on the basis of responsiveness to "orders" rather than responding to service delivery needs. Interestingly, throughout the 5 months that we observed the CRCCs, they were never requested to collect information related to classroom behavior. According to the MG guidelines, all CRCCs are expected to fill a quality-monitoring format (QMT) based on their observations of teaching-learning practices. But these are almost never "requested" for by the block office. And unsurprisingly, our researchers saw virtually no evidence of the QMT being filled. Moreover when our researchers developed a shopping list of the kinds of "orders" that the CRCCs received during the time-use study, we found that not one of the fourteen requests had anything to do with teaching-learning processes. No surprise then that classroom monitoring and academic support never made it to the CRCC's list of priorities.

This lack of interest in learning also serves as evidence of Pritchett's (2015) framing of the limitations of the current education systems in many parts of the world – that the current institutional architecture is designed and incentivized to be accountable for the goal of "schooling" rather than learning. Such systems inevitably break down accountability for tasks in terms of achieving the specified output (filling in a format, processing payments, building schools) rather than the outcome around which these outputs ought to cohere. As

is evident from our description of what the CRCCs do through their working life, accountability, to the extent that is sought at all, is circular – for the achievement of the specified task rather than the overarching objective around which the task ought to cohere thus entrenching an implementation structure that is accountable for the operation of schools rather than actual achievement of learning within schools.

It is for this complex set of reasons that the CRCCs "account" for their actions entirely on the basis of orders that they receive. And for the rest of the time, in the words of one of our interviewees, they view their jobs as "Complete Rest in Comfortable Conditions."

5.2 The Puzzles and Challenges of Reform

When and under what conditions does the "Post Office State" move and are these shifts sustained?

Can reforms induce the "Post Office" dynamic to shift? An important diagnostic challenge for studies of public sector institutions is to identify and understand variation in organizational performance. Scholars have argued that even the most hostile of governance settings can foster "islands of effectiveness" which can help drive reforms (Levy 2011). The key question therefore is: what are the underlying dynamics that enable these "islands" to be formed and do they sustain?

Our study design enables us to answer this question by first examining the conditions that led to the success of the pilots in Jehanabad and East Champaran, and then studying the degree to which the changes engineered through the pilots sustained as the program scaled up and institutionalized itself into the daily routines of the local bureaucracy.

Unpacking the success of the pilots

Our interviews highlight the following key features of the conditions under which the narrative of the "Post Office State" shifts.

First, *strong leadership*. This will come as no surprise to students of public policy and reforms. Leadership is a key factor in any successful transformation. In Jehanabad, all stakeholders made consistent references to the critical role played by the DM in mobilizing the administrative system, from district officers to teachers, to take the experiment seriously. Regular references were also made to the DM's own role in monitoring and problem-solving during the implementation phase of the pilot. But perhaps, the most important contribution that the leadership made was in creating subtle shifts in the everyday dynamics of how the lower bureaucracy worked. For instance, the DM held regular meetings with the CRCCs to discuss the implementation of the program, and based on their inputs, instructed senior officials to take appropriate action. This helped build a sense of empowerment amongst the CRCCs. This shift is best described in the words of one CRCC:

We had direct access to the DM. We directly raised the issues we saw in the school with the DM. The DM would then instruct his officers (our seniors) to buckle up and take action. He was listening to us instead of the officers more than anything else. With the DM's backing, we (CRCCs) felt extremely empowered.

A similar narrative unfolded in East Champaran where most stakeholders credited the DEO for single-mindedly motivating the CRCCs and teachers to implement "Padho Purvi Champaran." One CRCC described the role of the DEO thus:

..... (the) DEO did not force any official to implement PPC. He told the officials to work as honestly as they could, without any fear of punishment, as this was an experiment. This struck teachers and inspired them to take it up on their own.

Second, *clarity and alignment* throughout the system on what needed to be done. Since the district leadership sought the program, there was clarity of thought and ownership of the intervention at the highest level. This translated into a clear sense of priorities for the frontline. Goals were clearly set, activities clearly defined and the entire system understood the message that a focus on learning was the sole item on the agenda during the pilot phase.¹⁷

Third, the *relationship with Pratham*. Our interviews suggested two key aspects of Pratham's work that motivated the CRCCs and teachers. First, Pratham's training technique that focused on engaging the CRCCs in assessments and practice classes was critical. In the words of one interviewee:

Unlike earlier trainings, we weren't subjected to mere theory. Earlier, we would have to understand the theory and do the practical from our own end... (and there was) no feedback. In this program... we were assigned the task of applying these lessons entirely on our own and then reflecting on the findings plus reflecting on our strengths and weaknesses as teachers ...this is one area where we felt like leaders.

This strategy of assessment and practice-based training served to make the problem of learning and possible solutions visible to the CRCCs. This served to temporarily shift the cognitive maps of the CRCCs for, in their own words, they felt relevant and had a greater sense of ownership of the program.

The second role that Pratham played was in the provision of regular, on-site support to the CRCCs. For the first time, the CRCCs were actually encouraged and given the technical support necessary to engage schools and unpack the nuts and bolts of assessment, alternative pedagogical practices and teacher training. This enabled the CRCCs to feel both

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¹⁷ Pratham stakeholders repeatedly emphasized the importance of this in the interviews.

empowered as well as capable of delivering on their key task of providing academic support to schools.¹⁸

Fourth is the *continuous monitoring, with feedback loops,* by all levels of the system. As described earlier, discussions between the CRCCs, teachers and official usually focuses on data requirements and orders from the district and state rather than teaching and learning. During the pilots, this changed substantively. As one interviewee described it, the entire system was talking about teaching-learning. Everyone from the DM to the block level officers to the CRCCs visited schools and discussed classroom progress with teachers. This ensured that there was continuous feedback on progress and teachers themselves had a better sense of how to tackle problems as and when they encountered them.

The common thread running through these different features of what worked is the subtle shift in the dynamic of leadership and how this shift interacted with the rule-based "business as usual" way of getting things done. In both instances, the district leaders created multiple spaces for active dialogue and problem-solving with the CRCCs. This was in sharp contrast to the regular, hierarchical, disciplining character of interactions that frontline officers are used to. These interactions were complemented by Pratham's problem solving, mentorship approach to training. It was this combination of supportive leadership, regular dialogue about teaching–learning coupled with an assessment and practice based training that enabled a momentary transition in the cognitive maps of the CRCCs away from the passive "Post Office" narrative toward a more problem-solving "agent of change" and "empowered leader" one.

But did this momentum sustain? And did the changes initiated through the pilots embed themselves within Bihar's education system? On the surface, it would appear that both pilots resulted in large-scale success with the launch of the state wide MG. However, a close look at the experience of implementing MG in the areas where the pilots took place as well as in our study districts presents a far more complex picture.

5.3 Understanding failure and the puzzle of why the "Post Office State" takes over

As described in the previous sections, the GoB's experience with implementing MG was checkered, at best. The program began with some gusto across the state. However, one year into implementation, when we began our field work, the methods and practices adopted through the MG had all but disappeared. We found little evidence of the CRCCs and teachers (even those who had been particularly enthusiastic about the program in the pilot phase) drawing on the teaching methods that had been taught. In fact, many CRCCs and teachers frankly admitted that teaching-learning had slipped right off the education administration's agenda. The "empowered" CRCCs (many of whom had been transferred or returned to

¹⁸ It is important to stress that Pratham's presence in the district wasn't without tensions. Many government officials were hostile to the idea of "outsiders" coming in and "owning" the program. However, despite this opposition, interviewees appreciated the regular support they received through Pratham's continued presence in the field.

schools as Head Masters) from the days of the pilot had now gone back to their "Post Office" ways and it was, for the most part, business as usual.

The obvious interpretation of the short-lived nature of the pilots and the MG experiment and their failure to embed themselves within the education system in the state is the shift in politics. The change in political leadership defused an important condition for success: the alignment between the goals of the program and leadership at the top.

While politics and resultant diffusion of leadership is certainly part of the explanation, when viewed from the perspective of implementation, there remain a number of unanswered questions that are central to understanding why the momentum gained from the initial pilots and roll-out of the MG failed to withstand political and leadership change. For instance, why did the initial sense of "empowerment" described by the CRCCs not lead to a longer-lasting shift in the CRCCs' self-perception of their roles as academic mentors? Why did the teachers not demand this support and mentorship once the initial momentum reduced? Moreover, what prevented teachers and the CRCCs from adopting practices learnt through the initial implementation phase into their everyday classroom transactions?

To answer these questions, we return to our framework of unpacking narratives and cognitive maps of the frontline. Our analysis highlights the degree to which the legalistic culture and the narrative of the "Post Office State" that it fosters, serves to impede and ultimately distort reform efforts to shift classroom practices in the state. Based on this analysis, we argue that the solution to the "flailing" state in general, and the learning conundrum in particular, requires a deeper, structural re-haul of the administrative design and the norms of functioning, which can, in turn, shift the way administrator's see themselves and their roles.

In what follows, we draw on the key narratives that emerged through our conversations with Bihar's frontline to articulate the challenges of embedding reforms like the MG in a "Post Office State." As we demonstrate below, the cognitive maps of the actors involved play a critical role in shaping the ultimate outcomes of reform.

The Learning Disconnect: Frontline perspectives on learning and their influence on reform efforts

During our interviews, all frontline officers were asked to share their perspectives on what causes learning gaps in their schools. The responses were strikingly similar across the different levels of administration. Mirroring the "Post Office" narrative, the common thread running through these responses was the degree to which the problem of learning is a consequence of larger failures in the administration of education that remain outside the control of the frontline bureaucracy. Broadly, the responses can be categorized as follows:

1. **Policy and administration:** Interviewee concerns ranged from shifts in classroom policy brought about by the RTE to the introduction of new programs and activities in schools that made concentrating on teaching difficult. There were also numerous complaints about multiple meetings and data collection formats that had reduced

the role of administrators and teacher to that of being "reporting machines." Still others complained about the Mid-Day Meal program which served to distract students and teachers.

- 2. **Teacher hiring policies**: For school teachers and headmasters, the differing teacher hiring policies and resultant salary gaps between the regular and contract teachers were the cause of the problem. These pay differences had created an environment of conflict in schools and demotivated teachers. Administrators too added teacher hiring to their list of factors that contribute to low learning outcomes. However, their concerns related to teacher quality and not teacher pay scales.
- 3. **Children and parents**: And finally all interviewees were unanimous in their view that students and parents were also a big part of the problem. Many argued that students in government schools now increasingly come from very backward and economically weaker sections of society where parental interest in "education" is limited thus making it difficult to ensure regular attendance and that students take their schooling seriously.

Missing in the entire discussion on the limitations of the current school system was any discussion on the role of classroom transactions – pedagogical strategy, curriculum, quality of textbooks, heterogeneity of classrooms – in influencing learning outcomes. In line with the dynamics of the "Post Office State" – the administration or *Sarkar* considered the *Sarkar* itself to be the cause of the problem. There was little reflection on the fact that the administrators themselves were part of the *sarkar*.

Despite this strong, articulated perspective about the "education administration" being the problem, when the discussion turned to the TaRL pilots and the MG experience, administrators and teachers alike, highlighted the degree to which the changes in pedagogical strategy, realignment of the classroom into groups and the teaching materials used, did in fact accelerate student learning without recognizing that it was the same administration, and the 'problems' mentioned existed even during then. Moreover, most interviewees appreciated the teaching methods and pedagogical practices, the practical training sessions, the assessment process and the effort to re-align the classroom by groups. The grouping system was also appreciated by teachers in Bhojpur, none of whom had received any training in the alternative pedagogical tools. Several teachers and the CRCCs, especially in East Champaran, noted that attendance went up visibly during the MG phase as a result of the new teaching methods and students began approaching their teachers and sharing their problems with them. Many also remarked how this was the first time the entire system was talking about "teaching-learning."

Regardless of these gains and the lived experience of very visible shifts in learning through changes in classroom dynamics and shifts in the roles of teachers and administrators, when it came to articulating the learning problem and the possible solutions to this, almost every interviewee (with one exception) reverted back to the "larger" system issues that needed to be resolved to ensure that learning improves. From the frontline's point of view, the benefits of TaRL were only valuable as a short term method. Most were certain that the TaRL methods could not be applied to a "regular" classroom setting. On further probing, it became clear that this resistance to the long term use of TaRL methods did not come from

methodological considerations. Rather, it was a product of the entrenched belief that the problem of learning lies outside of the classroom and within the system. Box 4 below illustrates how this cognitive dissonance between the understanding of the problem and the solutions offered play out in practice.

Box 4: Snippets from an 'Udhbhav' training session for teachers of standards 3-5 at a BRC

Day 2 of a 3 day long training session 11.30 AM

The trainer was soliciting responses from the participants and chalking them down on the blackboard when we arrived at the venue. "Why are students not interested in Math?" the trainer asked aloud. Kids were not being taught using fun methods; TLM was not being used effectively; students were not being taught according to their actual learning level – these were some of the responses we heard. BRP picked up the last response and said that they had gathered to understand where the teaching-related gaps lay. He mentioned ASER findings and asked for reasons behind the low learning levels and ways to motivate students to study.

Teacher A: Parents don't pay attention to their children's homework.

Teacher B: Only students from "weak backgrounds" come to my school!

Trainer: Which only increases our responsibilities!

Teacher C: Most students in government schools come from financially weaker backgrounds. Despite this there are some students who perform much better than students who hail from financially stable families. You can't use this as an excuse.

Teacher D: We call parents and tell them to just sit with their children and see if they're doing their homework. Verbally encourage them, ensure that they have all the things required to do the home work, even if they cannot themselves check the work owing to their illiteracy. If they start viewing their children's education as an asset rather than a chore, parents would express more interest in spending time with them over their homework.

Teacher E: Let's get the kids to "teach" themselves. This will get them thinking for themselves.

.....Researcher field notes

In our interpretation, this cognitive dissonance can be traced back to the dynamics of the "Post Office State." The fact that frontline administrators largely perceive themselves as cogs in the administrative machine inevitably leads the frontline to internalize and interpret the challenges they face in their jobs as something that remains outside of their control thus legitimizing a culture of apathy and lack of responsiveness toward understanding and directly addressing the learning deficit. It is instructive that many stakeholders in the pilots, most of whom appreciated the effectiveness of the approach, hesitated at the thought of scaling up and continuing implementing the MG with the same momentum over a longer duration. Instead of viewing it as an opportunity to pursue

change, the CRCCs started listing potential obstacles which could hamper progress. This is best illustrated in the words of one interviewee:

Padho Poorvi Champaran was a success...now the thought of having to not just match but do better than...will require more effort to inspire teachers, and also to create the right working environment.

In summary, the focus on classroom-based approaches to learning improvement in the MG challenged the "Post Office State" and particularly the self-perception of passive recipients of orders that it fosters amongst implementing agents. However, as is evident from the narratives of the frontline, these norms of functioning have been so deeply internalized that efforts to embed practices like the TaRL which challenge these norms, without grappling with the structural causes of the "Post Office" narrative, inevitably lose out in the long run.

There is another side to the learning disconnect that is important to consider when interpreting behavior at the frontline. The policy debate on the cause and appropriate pathways to resolving the learning deficit in India is a deeply contested one. Banerji (2014b) documents what she calls the multiple "theories of change" or normative views on the education problem and how best to solve it. These theories range from prioritizing inputs to improving monitoring systems, strengthening parental voice and choice, improving the quality of teachers (teacher training, recruitment criterion and so on) and lastly, focusing on pedagogy by aligning classroom practices to student learning levels. As Banerji argues, each of these theories has its own internal logic of action and implementation choices. These different choices are often in direct conflict with one another. This results in confusion on the ground, dilution of focus and ultimately leads to weak outcomes.

The consequences of these competing narratives were very visible in Bihar. Throughout our interviews on the ground, we heard regular references to the different perspectives on the MG at the top and the resultant contradictory messages that were being sent to the ground. For a system used to responding to orders, the conflicting and multiple messages it received served to legitimize the view that frontline officials were overburdened with multiple orders and had little agency. More critically, these multiple orders contributed to deepening the system-related narrative on learning. This in turn, meant that the gains from the pilots and implementation of the MG had to compete and eventually lose to deeply entrenched perspectives on learning.

From the perspective of understanding the challenges to education reforms in India, it is useful to trace the roots of these competing narratives. In our interpretation, these different theories of change are illustrative of the deeper, structural argument made by Pritchett (2015) around the incoherence between the goals of schooling and learning. The dominant cognitive map, amongst the policy-making elite in India, is shaped by a commitment to addressing learning through an expansion of school inputs (reflected in the Right to Education Act) implemented through a rule-following, disciplined administrative hierarchy. To draw on Pritchett's thin vs. thick typology, the dominant assumption is that

learning can be addressed through an expansion of "thin" accountability systems enforced through greater compliance. In a legalistic system, where the frontline takes cues from their superiors, this dominance of inputs has resulted in the frontline internalizing this perception – one which is further entrenched by the behavioral patterns that the "Post Office State" fosters.

The future of education reforms in India lies in grappling with these multiple theories of change and actively engaging with the analytical question Pritchett raises: can education systems that cohere around the goal of schooling make the transition to improving learning outcomes without structural shifts in accountability systems? Our work adds a second dimension to this problem – how can one engineer these shifts in a manner that alters the dynamic of "Post Office State" toward building a system of active change agents at the frontline who are incentivized to be accountable for learning outcomes? We return to these questions in the concluding section of this paper.

The disciplining state: Does tight monitoring serve to embed change?

Under MG, no official came to visit us...... so we did not bother to teach as we should have.

As argued previously, there is a growing consensus within and outside government in India that disciplining the frontline is in fact the route to bringing the Indian bureaucracy closer to the Weberian ideal. This pursuit of discipline stems from a deep-seated mistrust amongst the higher levels of the policy making elite towards the lower bureaucracy. As Mehta and Walton (2014) argue "A common elite perspective on the middle and front-line bureaucrats is lack of trust: the dominant cognitive map is that India's government workers are corrupt, unresponsive and caught up in distortionary local political and social networks. Teachers and nurses do not turn up to work, police officers insist on bribes, office bureaucrats push paper with no regard to real effects." This has led to a self-reinforcing arrangement where the elite solution is to strengthen compliance through greater discipline which, in turn, serves to further disempower front-line officials.

At the level of implementation, one consequence of this penchant for disciplining is that it has served to entrench a work culture where "responsiveness" and "performance" is defined entirely in terms of what gets monitored. This is hardly surprising. It is conventional wisdom that what gets measured gets done, a fact that is borne out by recent work on teacher absenteeism in India, which highlights the critical difference that regular monitoring visits by officials can make to increasing teacher presence in schools (Muralidharan et al 2014).

The problem arises when discipline becomes the primary and only driver of action on the ground. In other words, accounting becomes the only mechanism through which accountability can be enforced. In such contexts, the frontline internalizes this understanding to create a culture which only responds to "discipline." It is ironic that throughout our interviews with the frontline, those who are at the receiving end of this penchant for disciplining, made regular appeals for more monitoring and tighter

surveillance from superiors. A commonly heard perspective was this: we will work only as long as someone is "watching" and ordering us to do so.

The sharpest, most visible illustration of the consequences of a system that functions only through monitoring and discipline can be found in the notebooks maintained by the CRCCs who participated in the "Padho Jehanabad" pilot. During the pilot, each CRCC was expected to maintain a diary that recorded meetings attended, monthly school visit plans, data collected through regular school interactions, student assessments and notes on teaching styles observed during school visits. The notebooks opened with the first meeting that was held by the DM with all CRCCs and was followed by pages of diligently kept notes. These notebooks were often inspected during the DM's monitoring visits. The last entry in the diaries was for January 2013 when the DM was transferred after which the diary had nothing but empty pages. As one of our study team researchers commented, it was almost as if the fear of being disciplined had been lifted and the system heaved a sigh of relief and packed away all the work in a far corner of the CRCC's cupboard. And as the quote above highlights, it was this lack of monitoring that was a commonly cited reason amongst pilot enthusiasts for why momentum for the MG waned.

From the perspective of embedding education reforms and shifting bureaucratic practice in the long term, this obsession with discipline, both at the top and the bottom of the administrative hierarchy, can serve as a serious impediment. If the education system's only account of its behavior is framed by what it is "disciplined" or forced to do rather than the professional expectations of being a bureaucrat may *require* them to do, any effort at change is rarely internalized. After all, there are no incentives for implementing agents or their superiors to understand and engage with the logic of reforms and through this engagement, build new norms of functioning which can subsequently change their own accounts of their behavior. Thus a reform works, as long as discipline can be enforced, and like in Jehanabad, once the pressures of disciplining are lifted, the system defaults back to its "Post Office State."

The demands for "accounting" in themselves are not sufficient to change the foundational norms on the basis of which agents "account" for their jobs. This is precisely why the importance of focusing on classroom processes, despite the success of the pilots and the MG failed to take root in the "accounts" of the BEOs, the CRCCs and teachers that participated in the program. Ultimately for reforms to be embedded into a system, the objective of the reform needs to find its way into how implementing agents account for themselves. And as our narrative highlights, an excessive emphasis on accounting serves as an impediment to such long term change.

Section 6. Discussion and conclusion

By focusing on the narratives of the frontline, their interpretations and understanding of their jobs, the learning challenge and the implications of change, in a particular reform

¹⁹ Most CRCCs pulled these diaries out their plastic packets and cupboards when the study team visited.

setting, we have attempted to demonstrate the central role that the cognitive maps of implementing agents and the bureaucratic culture within which they are embedded, play in shaping outcomes.

Debates on social policy reforms in India have tended to dismiss frontline perspectives as nothing but petty complaints of an apathetic bureaucracy serving to legitimize its apathy and inaction. However, our research highlights that embedding change requires a far deeper engagement with these perspectives and consequently, the organizational design and culture that sustains these complaints. In our analysis, the culture of hierarchy and strict adherence to rules and procedures, prevalent in Bihar's education administration, has created a work environment where frontline bureaucrats shape their professional identity solely as passive rule followers rather than active facilitators of learning in schools.

By unpacking the narratives emerging from our interviews, we demonstrate the degree to which this self-identification as "passive agents" and "post officers" has shaped officials' understanding of schools, the learning deficit and their own role in education administration. As "passive agents," administrators interpret the learning challenge entirely through the prism of the administrative machine in which they are powerless cogs. In this world, behavior shifts only when "rules" and "orders," closely monitored by superiors, demand change. So the frontline is energized and willingly takes on new roles, as the CRCCs and teachers did during the pilots studied, when they are ordered and monitored. Once the orders become routinized and monitoring wanes, the system defaults back to its routine of rule-following.

In this hierarchical, order-driven culture, frontline agents understand "performance" entirely on the basis of responsiveness to orders and calls for compliance. Thus, even when reforms are introduced, the frontline rarely seeks to understand and internalize the logic for shifts in behavior – in this case, an explicit focus on classroom-practices and changes in pedagogy. Consequently, as we saw in the two pilots studied, reforms last as long as "reform champions" demand change from the system, and once they are transferred, or turn their attention away from the problem, the energy and enthusiasm to pursue reforms simply disappears.

Organizational culture matters significantly to the successes and failures of reform. Debates and scholarship around public administration and service delivery reforms in India needs to actively engage with this. Reforms will only be embedded within a system when reform efforts are aligned with the underlying dynamics of organizational culture, and investments are made in building professional identities around norms of service delivery; in this instance, ensuring learning rather than responsiveness to hierarchies.

From a policy perspective, this leads to the obvious question: what kinds of organizational forms and cultures can facilitate a more service-delivery oriented bureaucratic system and how best to engender these shifts to change behavior? In the context of education reforms (and service delivery, more broadly) this question is particularly important to consider in light of the larger analytical point that this paper sought to make: can systems designed to cohere around the goal of schooling (and other "thin" provision and access related service

delivery goals) make the transition to delivering on "thick" outcome and rights related objectives? As our work highlights, much of the current debates on administrative reforms in India continue to search for reforms and solutions to implementation failures within the context of the thin accountability systems which privilege the hierarchical, rule-bound legalistic system.

Our research highlights the limitations of legalistic systems. As we demonstrate, even when solutions approached the learning deficit by building a set of thick activities – the pedagogical shift in this instance – the legalistic culture in which these thick activities are rolled out ends up distorting rather than facilitating long lasting change by attempting to embed thick activities through tools designed for thin accountability. The policy challenge, therefore, lies in acknowledging the limits of legalistic systems and identifying alternative systems needed to achieve social policy goals.

Mangla's (2014) comparative analysis of deliberative versus legalistic norm offers some useful insights into the kinds of norms or cultural practices which might be more effective when dealing with complex service delivery problems. In his analysis, legalistic systems (and our work in Bihar substantiates this) fail to foster innovation and build practices that encourage bureaucracies to be responsive. And as we demonstrated in Bihar, even if shifts occur, the legalistic culture prevents these changes from being internalized in the long term. In contrast, the deliberative culture in Himachal Pradesh encouraged state bureaucrats to work with the frontline and solicit their feedback, which in turn motivated the frontline to identify locally relevant solutions to problems, even if that meant bending rules in few instances.

So how can the shift from legalistic to deliberative norms be induced? Mangla's own work suggests that norms are a product of long-term political formation and social history. But given the urgency of service delivery problems in India today, it is worth considering whether technocratic fixes that foster change in culture can be identified. This is an area for further research and requires a more detailed engagement with the nuts and bolts of administration in India. Thus, definitive conclusions are beyond the scope of this study.

However, some insights can be drawn from recent work on organizational culture and management practices, particularly in Latin American bureaucracies (Pires 2010; Piore 2010). These studies offer a useful starting point for re-imagining management practices that can induce cultural shifts within bureaucracies. The interesting departure that these studies make is that they go beyond new public management approaches that emphasize high-powered incentives to focus on management practices that can facilitate and incentivize problem solving. Pires refers to this as "experimentalist governance approaches" to public administration. Greater discretion with robust feedback loops through platforms for regular interaction between peers and superiors are the hallmarks of this approach.

In his discussion on organizational culture, Piore identifies three distinct "management" processes that can influence the evolution of organizational cultures. These are recruitment; socialization and training of new recruits and finally, regular discussion and dialogue amongst line agents and managers about work processes. Of these, Piore

emphasizes the central role of discussion and dialogue. When applying these management approaches to the specific instance of elementary education there are some clearly identifiable lessons that can be drawn from Bihar on "how to" and "how not to" induce changes in organization culture.

First, as we highlighted in the paper, in 2012-13, Bihar attempted to shift work culture in schools by changing the recruitment patterns and training processes for the CRCCs. These changes, however, failed to induce any significant shifts in behavior. Part of the problem was that the changes to recruitment were made using the thin criterion of qualifications rather than focusing on the skills needed for a CRCC to function as an "academic mentor" to teachers and schools. There is a growing body of evidence from research around the world which suggests that employee characteristics that determine on-the-job capability are often difficult to identify at the time of recruitment, particularly when recruitment is tied to the thin criteria of qualifications and performance on examinations (Muralidharan 2015). As Muralidharan argues, most of these character traits are observable only through on-thejob observation. Consequently, recruitment strategies may only be successful if the qualification-based approach (perhaps necessary to ensure objectivity in hiring) is complemented by on-the-job observations. The only way this can be achieved is if recruitment strategies are re-designed along lines that facilitate an exit clause, if the observed on-the-job behavior is not adequate. Through his work, Muralidhran proposes a contractual structure to do just this.

However, in our assessment, there are two pre-requisites to doing this successfully. First, a careful evaluation needs to be done to articulate and then quantify actual skills that frontline bureaucrats may need to demonstrate in order to meet the objectives of their jobs. This is an area of scant discussion or research in India. No amount of performance-based contracting will be successful if the criteria for performance themselves are inadequate. It is instructive that the debate on administration in India has often focused on the relevance of current recruitment strategies for the elite Indian Administrative Services and the particular challenges that IAS officers face in their daily work. However, a similar debate for the frontline is yet to be had.

Second, accurately capturing on-the-job behavior in a manner that is relevant to the tasks at hand requires a very different approach to the current monitoring techniques that the bureaucracy is attuned to. Getting this right requires building capabilities to monitor "thick" tasks through long term observations and performance criteria that align with the nature of tasks expected of frontline workers (see Pritchett (2014) for a deeper discussion on this).

There are, of course, many constraints to achieving these shifts in recruitment strategy and contractual arrangements, politics being the most critical. Many efforts in India to create cadres of contract teachers whose long term future is dependent on on-the-job performance have been stymied due to strong unionization on the part of employees whose demands for regularization become politically impossible to ignore at the time of

elections.²⁰ Given this reality, perhaps then the real area where change can in fact be induced through technocratic solutions is in changing training and management practices such that once employees are recruited, they are socialized into a work culture that promotes greater deliberation and engagement across levels of hierarchy. We turn to this next.

As we have described through this research, the reform process in Bihar did attempt to create multiple spaces for dialogue and discussion within everyday work processes. Moreover, the Pratham assessment and practice class approach can well be interpreted as an attempt to do what Piore's cellphone case study proposes – build a common language amongst implementing agents on the nature of the problem and ideating on the solution. Yet, in the long run, the prevailing hierarchies within the system overtook these processes and the gains were short-lived.

Here, the pilots studied offer an important lesson – leadership matters. For instance, during the pilots in Jehanabad, the manager (DM) spent considerable time engaging and interacting with cluster officers to learn about their experiences with implementing the pilots, and solve problems. As we demonstrate in this study, this process helped engineer a temporary shift in how the CRCCs approached their work and for a brief moment, inculcated in them a sense of being empowered leaders of their schools. Extending such practices into the day-to-day dynamics of the interaction between district leaders and cluster officers could be one approach.

Digging deeper, however, the real reason these platforms for dialogue were successful during the brief period when "Padho Jehanabad" was implemented, was because the district leadership and cluster officers were collectively engaged in the process of understanding classrooms, and identifying practices to improve classroom-transactions. Leadership shifts will only lead to improved dialogue if the leadership and implementing agents collectively engage with the same problem in a sustained manner.

One mechanism through which such processes and dialogues could be institutionalized is by engaging officials in efforts to measure learning and tracking progress. Every year, the education bureaucracy gets together to gather data on school inputs that are integrated into a national database called DISE. This data collection process could be extended to collecting information on key learning indicators on an annual basis. In the final months of the MG experiment, Bihar engaged with Pratham to experiment with a similar idea where students from district training institutes and cluster coordinators were roped in to conduct a school-based learning assessment. This model could be institutionalized into an annual practice that if leveraged right, could well serve as a foundation for inducing greater dialogue within the education administration on learning and classroom processes.

Finally, on training. Our studies highlight that a key ingredient that made the pilots work was the continued presence of Pratham which served as a mentor and guide to the CRCCs

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²⁰ A good illustration of this is the recent decision by Bihar government to regularize all the Panchayat (*niyamit*) teachers in advance of the 2015 state elections.

as they engaged with teachers and focused attention on classroom processes. This suggests the centrality of building capability amongst block and district officials on strategies for mentoring. A reading of the key MG and other training documents for frontline officers suggests that while a lot of energy is spent on defining roles and offering details on program guidelines, very little effort is made in the current training curricula for frontline officers to provide them the skills needed to fulfill their responsibilities. Mentoring is a complex management skill that will need to be "taught" throughout the education administration.

There is a noticeable irony in this menu of possible policy prescriptions – that shifting hierarchical cultures in fact requires substantive top-down intervention. And the real analytical question that research on organizational culture and Indian public administration will need to contend with is whether top-down deliberation is in fact feasible. However, it is worth acknowledging that while leadership matters, leadership that "mentors" is perhaps more appropriate to embedding reforms than leadership that disciplines.

Moreover, from the perspective of education reform, for this shift in leadership to be successful, the accountability structures within which elite bureaucrats are embedded, need to shift dramatically from the current thin output or schooling-focused criterion to learning outcomes. In many ways, the elementary education sector in India today is ripe to make this shift – years of advocacy by civil society organizations such as Pratham and the large body on knowledge on poor learning outcomes in India developed by academics have helped shift the needle of policy expectation toward improving learning outcomes. The challenge now lies in building accountability structures that can facilitate a real change in action on the ground. One important way of achieving this is to measure learning and link plans and budgets to learning based goals and indicators.²¹

But achieving these shifts in leadership away from disciplining and towards mentoring and deliberation, and moving accountability structures away from thin accountability to thick learning-related indicators will also require shifts in the perceptions or cognitive maps of the bureaucratic elite.

It is striking that most debates on administrative reform in India concentrate almost exclusively on the elite Indian Administrative Services. The debate itself oscillates from two extremes – one that calls for dismantling the services completely and another (supported by the powerful network of the IAS) that calls for deepening the Weberian roots of the bureaucratic architecture by emphasizing bureaucratic autonomy, particularly from political interference. However, at no stage has the focus moved to the question of organization design, structure and management practices of the frontline and how these ought to align with the goals of "rights" and "outcomes." Shifting the debate on administrative reforms away from an exclusive focus on the IAS, in which debates on the frontline are confined to stricter monitoring, to an active engagement with the question of shifting work culture, building management practices that facilitate dialogue and above all

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²¹ See Pritchett 2014 and Aiyar et al (2015) for a deeper discussion on how this can be achieved.

create systems of "thick" accountability, is, thus, the real challenge for India today.

References

Aiyar Y, Bhattacharya S (2015). The Post Office Paradox: A Case Study of the Education Block Level Bureaucracy. Working Paper, Accountability Initiative, Centre for Policy Research, India

Aiyar Y, Dongre A, Kapur A, Mukherji A, Raghunandan T.R. (2015). Rules vs. Responsiveness: Toward an Outcome-focused Approach to Governing Elementary Education Finances in India. Working Paper, Accountability Initiative, Centre for Policy Research, India

ASER Centre (2012). Annual Status of Education Report. New Delhi.

Banerji R (2014a). Elementary Education: Learning the Hard Way. In N. K. Singh & N. Stern (eds), The New Bihar-rekindling governance and development. (pp. 172-185). Harper Collins, India.

Banerji R (2014b). Searching for the 'Silver Bullet': What Works in Improving Children's Learning Outcomes? Ideas for India. Retrieved from http://ideasforindia.in/article.aspx?article id=236#sthash.7T2mAD80.dpuf

Banerji R (2015). Background Paper for RISE. Forthcoming Publication

Béteille T (2009). Absenteeism, Transfers and Patronage: The Political Economy of Teacher Labor Markets in India. Dissertation. Stanford University.

Bihar Education Project Council (2006-2007). Annual Report. Government of Bihar

Bihar Education Project Council (2007-2008). Annual Report. Government of Bihar

Bihar Education Project Council (2009-2010). Annual Report. Government of Bihar

Bihar Education Project Council (2011-2012). Annual Report. Government of Bihar

Bihar Education Project Council (2012-2013). Annual Report. Government of Bihar

Chaudhury N, Hammer J, Kremer, M, Muralidharan K, Rogers F H (2006). Missing in Action: Teacher and Health Worker Absence in Developing Countries. Journal of Economic Perspectives, Vol. 20, No. 1, pp 91-116

Corbridge S, Williams G, Srivastava M, Véron R (2005). Seeing the State: Governance and Governmentality in India. Cambridge University Press, Cambridge, UK.

Das J, Zajonc, T (2010). India Shining and Bharat Drowning: Comparing Two Indian States to the Worldwide Distribution in Mathematics Achievement. *Journal of Development Economics*, 92(2), pp 175-187

Educational Initiatives (2010). School Learning Study. Educational Initiatives.

Fuller CJ, Benei V (2001). The Everyday State and Society in Modern India. Hurst and Company, London

GoB (2013a). Vide letter-12/Misc. – 38/ 2011 (Part) C No. 104988/11. Dated February 2). Department of Education, Government of Bihar dated 1-2-2013

GoB (2013b). Letter No. 5084. Dated July, 25. Bihar Education Project Council, Government of Bihar

GoB (2013c). Mission Gunvatta Guidelines. Department of Education, Government of Bihar

GoB (2013d). Vide letter no. 1596. Dated March 30, Department of Education, Government of Bihar

GoB (2014a). Vide letter no. 12/Misc. -17/2013/92. Dated February 14 Department of Education, Government of Bihar

GoB (2014b). Training Module for Cluster Resource Centre Coordinators. Directorate of Research & Training. Department of Education, Government of Bihar

Gupta, A (1995). Blurred boundaries: the discourse of corruption, the culture of politics and the imagined state, American Ethnologist 22 (1995): 375-402.

Kingdon G, Banerji R, Chaudhary P (2007). SchoolTELLS Survey of Rural Primary Schools in Bihar and Uttar Pradesh, 2007–08. Institute of Education, University of London, London.

Levy B (2011). Can Islands of Effectiveness Thrive in Difficult Governance Settings? The Political Economy of Local-level Collaborative Governance? World Bank Policy Research (Working Paper Number 5842). Retrieved from http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-5842

Mangla A (2014). Bureaucratic Norms and State Capacity: Implementing Primary Education in India's Himalayan Region. Boston, MA: Harvard Business School Working Paper, (14-099).

Mathew S, Moore M (2011). State Incapacity by Design: Understanding the Bihar Story. IDS Working Papers, 2011(366), 1-31.

Mathur N, Bear L (2015). Remaking the Public Good: A New Anthropology of Bureaucracy. The Cambridge Journal of Anthropology, 33(1), Spring 2015: 18–34

Mehta P (2003). The Burden of Democracy. Penguin (2003)

Mehta P, Walton M (2014). Ideas, interests and the politics of development change in India: Capitalism, Inclusion and the State. (ESID Working Paper No. 36). Effective States and Inclusive Development Research Centre, Manchester, UK: University of Manchester. Retrieved from http://www.effective-states.org/wp-content/uploads/working_papers/final-pdfs/esid_wp_36_mehta_walton.pdf

Mukerji and Walton (2013). Learning the Right Lessons: Measurement, Experimentation and the Need to Turn India's Right to Education Act Upside-Down. India Infrastructure Report 2012

Muralidharan K (2015). A New Approach to Public Sector Hiring in India for Improved Service Delivery. Working Paper. Retrieved on August 18, 2015 from http://econweb.ucsd.edu/~kamurali/papers/Working%20Papers/A%20New%20Approach%20to%20Public%20Sector%20Hiring%20(12%20July%202015).pdf

Muralidharan K, Das J, Holla A, Mohpal A (2014). The Fiscal Cost of Weak Governance: Evidence from Teacher Absence in India. Working Paper 20299, National Bureau of Economic Research, Retrieved from http://www.nber.org/papers/w20299.pdf

Muralidharan K, Zieleniak, Y (2013). Measuring Learning Trajectories in Developing Countries with Longitudinal Data and Item Response Theory. Presentation at the Young Lives Conference. Retrieved from http://www.younglives.org.uk/files/others/inequalities-conference-plenary-presentations/karthik-muralidharan

Patna Daily (2011). Improving Quality of Education a Priority: Nitish. Dated 25 January 2011. http://patnadaily.com/index.php/news/4891-improving-quality-of-education-a-priority-nitish.html Retrieved on 2 June, 2015

Piore M (2011). Beyond Markets: Sociology, Street-level Bureaucracy, and the Management of the Public Sector. Regulation & Governance, 5(1), 145–164. Retrieved from http://dx.doi.org/10.1111/j.1748-5991.2010.01098.x

Pires R R (2011). Beyond the Fear of Discretion: Flexibility, Performance, and Accountability in the Management of Regulatory Bureaucracies. Regulation & Governance, 5(1), 43-69.

Planning Commission (2013). Twelfth Five Year Plan (2012-2017) Social Sectors, Volume III. Government of India.

Pratham. (2013a). Padho Jehanabad Special Program for Improving Basic Reading An Initiative of District Administration – Jehanabad District, Bihar.

Pratham (2013b). Padho Purbi Champaran Special Program for Improving Basic Reading An Initiative of District Administration East Champaran District, Bihar – 2012-2013.

Pratham (2014). Basic Learning Improvement Program Scale Up in Bihar, India: Pratham-Bihar Government Partnership 2012-13 and 2013-14. Retrieved from http://www.pratham.org/impact/documents

Pritchett L (2009). Is India a Flailing State?: Detours on the Four Lane Highway to Modernization. HKS Faculty Working Paper series RWP09-013, John F. Kennedy School of Government, Harvard University

Pritchett L (2013). Folk and the Formula: Fact and Fiction in Development. United Nations University, World Institute for Development Economics Research

Pritchett L (2014). The Risks of Education Systems from Design Mismatch and Global Isomorphism. Faculty Research Working Paper Series (RWP14-017), Harvard Kennedy School, Harvard University

Pritchett L (2015). Creating Education Systems Coherent for Learning Outcomes: Making the Transition from Schooling to Learning. Research on Improving Systems of Education (RISE) Working Paper, Preliminary draft

Pritchett L, Woolcock M (2004). Solutions When the Solution Is the Problem: Arraying the Disarray in Development. World Development, Vol. 32, No. 2, pp 191-212.

Project Approval Board Minutes. (2013). Retrieved from http://ssa.nic.in/planning/pabminutes/copy_of_pab-minutes-2013-14 on June 21, 2015

Reserve Bank of India (2014). Handbook of Statistics on the Indian Economy: 2013-14. Reserve Bank of India, Mumbai.

Sarva Shiksha Abhiyan (2008). Seventh Joint Review Mission Bihar State Report January 21-February 5, 2008. Retrieved from http://ssa.nic.in/monitoring-documents_old/jrm/7th%20JRM/BIHAR_FINAL.pdf on June 21, 2015

Sinha A (2014, June 11). Education for All: Fixing Classroom Processes. Ideas for India. Retrieved from http://www.ideasforindia.in/article.aspx?article_id=298

Tara N, Kumar S, Ramaswamy S (2010). Study of Effectiveness of BRCs and CRCs in Providing Academic Support to Elementary Schools. Commissioned by EdCIL's Technical Support Group for SSA, on behalf of Department of School Education and Literacy, Ministry of Human Resource Development, Government of India

Veeraraghavan R (2015). Open Governance and Surveillance: A Study of the National Rural Employment Guarantee Program in Andhra Pradesh, India. Dissertation submitted in Information Management and Systems, Graduate Division, UC Berkeley, Berkeley.

Wade R (1985). The Market for Public Office: Why the Indian State is not Better at Development? World Development. Vol. 13, No. 4, pp 467-497

Witsoe J (2013). Bihar, in Kohli, A and Singh, P eds. Routledge Indian Handbook for Indian Politics. Routeldge

World Bank (2003). World Development Report 2004: Making Services Work for Poor People. World Bank. https://openknowledge.worldbank.org/handle/10986/5986 License: CC BY 3.0 IGO.

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