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The school governance environment in Uttar Pradesh, India: Implications for teacher accountability and effort

by

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Abstract

This paper examines the school governance environment in Uttar Pradesh, exploring in particular the extent to which this is influenced by teacher unions and teacher politicians. It musters evidence from a variety of sources in this potentially important but less researched area, in an attempt to investigate the implications for teacher salaries, teacher accountability, teacher effort and student achievement. Making use of existing data and a recent survey of teachers by the authors, the paper presents quantitative and qualitative evidence on the extent of political penetration of teachers, the activities of teacher unions and the stances of teachers' organisations and teacher politicians on various educational decentralisation and accountability reform proposals over time. Finally the paper examines how student achievement varies with both teachers' union membership and their political connections, after extensive other controls. Finding that students taught by teachers who have political connections or who are unionized have significantly lower achievement levels, it asks whether and to what extent this negative relationship works via unionized and politically connected teachers applying lower effort.

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1. Introduction

The problem of low quality of schooling, as measured by student achievement levels, is well documented in India¹. It is also well understood that quality education requires not only physical inputs such as school buildings, trained teachers, textbooks and facilities, but also intangible inputs the most important of which arguably is teacher effort. Early concern about teacher effort in India was expressed in Weiner (1990), Drèze and Gazdar (1997) and PROBE (1999). In more recent years, studies of teacher absenteeism and of teachers' time-on-task have attempted to measure teacher effort in India (Kremer et. al, 2005; MHRD, 2007; Sankar, 2007), and studies of teacher pay and professional development have considered ways to improve that effort, e.g. through performance-related pay (Muralidharan and Sundararaman, 2009; Duflo and Hanna, 2005) and performance related promotion (Pritchett and Murgai, 2007).

While teacher effort clearly depends on the presence of fair rewards, appropriate incentives and opportunities for professional development, an important aspect that also impinges on teacher motivation – but which has received less attention in the literature – is the wider governance environment of schooling. Teacher effort is likely to be greater in governance systems where there is a good system of school and teacher accountability and there are transparent information flows between schools, parents and policy makers.

However, teachers may not be only passive accepters of that wider 'school governance' environment; they may also consciously shape it to achieve certain working conditions that determine their effort levels. Teachers may influence that environment through their organizations (unions' negotiations with government) and, possibly in a more far reaching way, through their direct participation in politics, i.e. as teacher legislators who get a say in education related legislation.

This paper aims to probe these wider factors that impinge on teacher commitment and effort in India. In particular, we look at the role of teacher unions and of teachers' participation in politics, in shaping the school governance environment in Uttar Pradesh (UP), the largest state of India, and consider the implications for teacher accountability². We do this in two stages.

¹ The Annual Status of Education Report 2007 found that in a nationwide test, only 58.3% children of Grade 5 could read a Grade 2 level text and only 42% could divide three digits by one digit (Pratham, 2008). In secondary education the situation of quality is parlous too, though this is less well known. When an anti-cheating order was enforced in Uttar Pradesh (UP) in 1992 to prevent routine mass cheating, the pass rate in the UP High School Board examinations fell from 57% in 1991 to a mere 15% in 1992, as seen in Appendix Table 1. ² If it were a country, UP would be the 6th largest country in the world by its population size. Regarded as an

educationally backward state of India, UP is a Hindi-speaking state situated in the *Ganges* plain of north India.

Firstly, we consider teachers' participation in politics. A substantial proportion of the membership of the UP legislature is made up of teachers. In probing the reasons behind the politicization of teachers, the paper discusses teachers' constitutionally guaranteed right to be represented in the Indian state legislature via an electoral college consisting exclusively of teachers. It also presents statistics showing the percentage of UP legislature's Upper and Lower House membership that has been made up of teachers in successive governments over the past 55 years. We assess the influence of teachers' presence in the legislature on the school governance environment and on teacher accountability.

Secondly, we examine the role of teacher unions. A high proportion of teachers are fee-paying union members in state funded schools, i.e. in government and aided schools in UP. This section the paper asks: what have been the activities of teacher unions, the issues they have lobbied on, the methods they have used and their successes and failures. We also assess the extent to which unions have supported or resisted decentralizing reforms and how they have sought to influence the milieu and governance of school education.

There is very little data in India to study these issues. We have conducted our own unique survey of 570 teachers in rural primary and secondary schools of 5 districts of Uttar Pradesh. This survey yields data on teachers' union membership, participation in elections, political connections, private-tuition behavior, role in examinations and participation in education related litigation³. We have also accessed other types of data from different sources. Data on legislators' occupations was obtained directly from the UP state government secretariat library which keeps a register of records on all members of the Upper and Lower Houses of the legislature. Data on teacher unions' strikes and achievements is obtained from a variety of sources, including newspaper reports and teacher unions' magazines. In addition we have also used published official documents such as the report of the National Commission on Teachers (NCT, 1986) and the report of the Central Advisory Board on Education (CABE, 1992).

The paper is organized as follows: Section 2 examines teachers' participation in politics in UP and Section 3 discusses the role of teacher unions. In section 4, we examine the stances that teacher organizations have taken over time on decentralization reforms. Section 5 investigates the relationship between teachers' union membership and political connections on the one hand and various measures of teacher effort and student achievement on the other. Section 6 concludes.

³ The data collection was funded by the RECOUP Research Programme Consortium on Outcomes of Education for Pro-poor Development. We gratefully acknowledge the comments of Dr. Rukmini Banerjee, Mr. Sarvendra Vikram Singh and Dr. Pedro Vicente in improving the questionnaire, and the assistance of Mr. Pranav Chaudhari of Sunai Pvt. Ltd. in collecting the data.

2. Teachers' participation in politics

Teachers of the secondary level of education enjoy a privileged political position in India in that they have guaranteed representation in the Upper House of the state legislatures, granted by the Constitution of India in 1947. As a result, teachers have substantial political penetration in UP. Indeed, for reasons explained below, teachers have representation both in the Upper and Lower Houses of the UP state legislature. UP is a bicameral state, i.e. its legislature has an Upper House (called the Legislative Council⁴) and a Lower House (called the Legislative Assembly).

The representation of (non-government) secondary school teachers in the Upper House of a state government is ensured by Article 171 (3c) of the Constitution of India which provides that "... as nearly as 1/12 of the members of the Legislative Council shall be elected by electorates consisting of persons who have been at least three years engaged in teaching in such educational institutions not lower in standard than that a secondary school". Teachers can also be elected to the Upper House from the Graduate Constituency or be appointed by the state Governor as they may be regarded as 'having special knowledge or practical experience in respect of matters like literature, science, art, the cooperative movement and social service.' The only other groups empowered to elect members to the Upper House are the Members of the Legislative Assembly (MLA) and members of Local Bodies.

No other section of government employees has been given this special status enjoyed by the teachers. Public sector employees who are paid a salary by the government are supposed to hold an *office of profit* under the government, and a person is disqualified from being elected as a member of the Lower or Upper House if he/she holds such an office of profit (Article 191 (a) of the Constitution of India). There is a similar provision for disqualification of government paid servants from contesting election for the Parliament of India (Article 102) and identical provisions are also given in the Representation of People Act 1951.

In addition to government schools, there are two types of private schools in India – Private Aided and Private Unaided. While the former – the aided schools – are almost fully funded by the state government and have relatively little autonomy (in matters related to teacher appointments, salaries, fees, curriculum etc.), the latter – the private schools – are autonomous fee charging schools. In 2002, 44% of all secondary and higher secondary schools in Uttar Pradesh were aided, 47% were private and

⁴ Whereas at Independence, 8 of the largest states of India had a LC, in several states, the LC was subsequently abolished by Acts of Parliament. The states with a Legislative Council today are UP, Bihar, Maharashtra, Andhra Pradesh, Karnataka and Jammu & Kashmir. Andhra's LC was revived in 2007.

9% were government schools (NCERT, 2008)⁵. From 1971 onwards, following the passage of the Salary Distribution Act in Uttar Pradesh (and similar Acts in other states, such as the Direct Payment Agreement in Kerala in 1972), Aided school teachers are paid salaries directly from the state treasury and are de facto government paid servants who enjoy the same financial benefits as government school teachers but by law they are not deemed to be government servants. Thus, unlike government school teachers, aided school teachers can contest election to the Lower House.

Other publicly paid employees resent this 'privileged' treatment of publicly paid teachers. There have been many court cases in UP against aided school teachers not being deemed to hold an office of profit under the government (Kingdon and Muzammil, 2003, Chapter 5). However, successive judgments of the state High Court and of the Supreme Court of India have always upheld that aided school teachers are employees of their private managements and thus do not hold an office of profit under the government, despite being paid by the state government. Courts have thus maintained that it is not illegal for such teachers to contest elections to the state legislature and seek political office.

There have also been several attempts to abolish the guaranteed representation of teachers in the Upper House. The Chief Election Commissioner of India in a letter to the Law Minister in 1965 had suggested the abolition of teacher constituencies for election to the Upper Houses of state legislatures on the grounds that 'apart from there being no justification for singling out the teaching profession for special treatment, it seems to me undesirable that teachers should be dragged into party politics in this manner.' The matter was also considered by the Central Government on seven occasions between 1957 and 1979 but no change in the status quo was favoured. Finally in early 1990s, the Central Advisory Board on Education (CABE) also sought states' views about the desirability of the continuation of guaranteed teacher representation in state legislatures. Based on these, the CABE committee report stated: "the nature and extent of politicisation of teachers through involvement in elections in the context of the constitutional provision for their representation in Legislative Councils came up for discussion in various aspects. An apprehension was expressed that extending voting rights to elementary (school) teachers would further aggravate the situation. The sufferers would be the children in particular and the elementary education system in general. Such a situation would not be in accordance with the spirit of the provisions of the Constitution.....The Committee, therefore, is of the opinion that there is no need to retain the present provision of separate constituency for teachers in Legislative Councils" (CABE, 1992). While it expressed universally negative views about teacher representation in state legislative councils, its recommendations have never been carried out. Thus, the special status provided by the Constitution to teachers continues as is.

⁵ The rapid growth of private schooling has meant that by 2008, of all the 15413 secondary and higher secondary schools in UP, 3.7% were government, 30.0% were aided and the remaining 65.8% were private schools (personal communication from a Regional District Inspector of Schools for Lucknow Division of UP).

Table 1 shows the total number of Members of the Legislative Council (MLCs) as well as the number of *teacher* MLCs in successive UP state governments in the post-independence period. Teacher members as a proportion of total members has varied from 12 to 23 percent. The reason why the proportion is greater than one-twelfth (8.3%) of the total (which was stipulated by the Constitution) is because many teachers are also *appointed* by the Governor of UP. On average, about 17% of the membership of the Upper House is made of teachers (last row of Table 1), which constitutes a high degree of representation of teachers in political office, given that teachers constitute about 0.6% of the adult population in UP. It is a large enough proportion to exert substantial influence in legislative matters, including matters pertaining to the education sector and affecting teachers' pay and working conditions. Many members seek re-election term after term and some are successful in achieving that. For instance, Mr. Om Prakash Sharma, long-serving leader of the Aided secondary school teachers' union (Madhyamik Shikshak Sangh), has been a teacher MLC continuously for 38 years.

Table 2 shows teachers' proportionate share in the UP Legislative Assembly or lower house. The tenure of the Legislative Assembly is for five years. Table 2 shows a generally increasing trend in the representation of teachers in the lower house, except for an apparent downturn in the latest assembly. On average 6.6% of the lower house was made up of teachers over the post-independence period. In the 30 years upto 1980, around 5% of Members of the Legislative Assembly (MLAs) were teachers. In the 27 year period from 1980 to 2007, on average 8% of MLAs have been teachers. MLAs collectively make the laws that regulate and govern, *inter alia*, the system of education in the state.

Unfortunately, we do not know the occupations of the *contestants* for membership of the lower and upper houses, we only know the occupations of those successfully elected. However, our bespoke teacher survey of 570 teachers across 5 districts of UP provides another way of examining the extent of teacher participation in politics/elections.

Table 3 shows teachers' participation in politics and their connections with teacher politicians/ teacher legislators. It shows that these vary greatly between primary and secondary level teachers. In particular, primary level teachers are much less likely to personally know or to even have met teacher MLAs and MLCs or to report that a teacher in their area contested the last MLA or MLC election. Their lower connectedness with teacher politicians is consistent with the fact that primary school teachers are not part of the electoral college that elects teachers to the Upper House of the state legislature, i.e. they are unlikely to be wooed by teacher politicians.

Among secondary school teachers in Table 3, participation in political elections and connectedness with teacher politicians/teacher legislators vary much by type of school. In general, private and

government secondary school teachers are roughly equally likely to personally know or have met teacher MLAs and MLCs but among *aided* secondary school teachers, there are remarkably high levels of connectedness with teacher politicians. Nearly half (48%) of all teachers have either met or personally know a teacher MLC and 32% personally know a teacher MLC. It is patently clear that teacher MLCs maintain close links with the teacher community that forms the electoral college to elect teacher MLCs. While teachers' acquaintanceship with teacher *MLAs* (members of the lower house) is smaller – 35% of teachers have either met or personally know a teacher MLA compared with 48% who have met or know a teacher MLC – this is still nevertheless a very high proportion, given that MLAs are elected from a general constituency, rather than from a teacher constituency. This suggests that teacher MLAs represent not only a general constituency but that they also cultivate a teacher vote bank too, and this is not surprising because teachers are influential at the local level at election times, and because elementary school teachers man the polling booths at election time (Kingdon and Muzammil, 2003; Chapter 5 in Beteille, 2009).

But why may teachers wish to maintain such high levels of contact with teacher members of the upper and lower houses? The reason appears to be that teacher MLAs and MLCs are effective in helping teachers. Much business related to teacher appointments, transfers, and dispute-resolutions etc. in India (and in UP) occurs via supplicants approaching government ministers directly for help. It is usually very difficult to see a minister but teachers can more easily gain an appointment with a minister through the direct link of the district (or even block or tehsil) level teacher union functionaries who in turn approach teacher MLAs or teacher MLCs for backing in obtaining ministerial appointments and assistance. This is the logic why teacher candidates for the Legislative Assembly election are supported in their electoral campaign by other teachers and, once in office, the teacher MLAs are particularly sympathetic to the teaching profession, even though they are elected from a general rather than a teacher constituency. However, it is still likely to be true that teacher MLCs are of greater help to the teachers' cause than are teacher MLAs and this is reflected in (particularly secondary school) teachers' greater acquaintanceship with teacher MLCs than with teacher MLAs in Table 3.

3. Role of teacher unions

Teacher unions, as representatives of teachers in government negotiations, are key stakeholders shaping the school governance environment. In the first two decades after Independence in 1948, teachers generally viewed the union as the agency to fight against their exploitation at the hands of unjust school managers who dismissed them at will (Shrimali, 1951). Union's job was primarily to ensure job security to teachers and fight for improvements in teacher salaries and working conditions (Chaudhary, 1983). Teacher strikes and sometimes even violent struggles during the decades of 1960s and 1970s forced the UP government to enact centralising laws (Basic Education Act, 1972; Salary

Disbursement Act, 1971) that greatly reduced the powers of aided and government school managers – See section 4.2. While these Acts ended the era of virtual hire and fire in aided/government schools, managers asserted their right to discipline inefficient or unfit teachers, and the number of teacher related court cases increased. Teacher unions now help teachers in their *legal fight* to protect their service conditions and by making it possible for teachers to have their routine bureaucratic work (related to transfers, promotion etc.) done in government offices, by procuring ministerial/political help on behalf of teachers (more on this later).

There are different teacher unions working for different groups of teachers. For instance, at the secondary school level, the Madhyamik Shikshak Sangh (MSS) represents aided school teachers, the Rajkiya Shikshak Sangh (RSS) represents the government school teachers and the Vitt Viheen Shikshak Sangh (VVSS) represents the private school teachers, though many of the latter also feel that the MSS represents their interests. At the primary school level, the Prathmik Shikshak Sangh (PSS) serves government regular teachers and the para teacher Shikshak Sangh serves the contract teachers⁶.

The influence of unions can be gauged partly by the support they receive from teachers, as measured by the proportion of teachers that are paid-up members of the teacher union and take part in its activities. It can also be investigated by examining the issues on which unions have lobbied when seeking to influence decisions and legislations concerning teacher pay, working conditions and level of accountability (local versus centralised level).

Table 4 shows teacher union membership rates and the extent to which teachers turn to their union for assistance. We collected information on union membership in two different ways: firstly by asking "what percentage of teachers in your school are member of a teacher union?" and secondly by asking "are you a member of a teacher union?" While government school teachers' response to these two questions is very consistent (both approximately 85%), among aided school teachers there appears to be some under-reporting of union membership when the question is asked about own membership status (compared with 'the percentage of teachers in your school who are union members'). However, among private school teachers, there is a much larger discrepancy between the information from the two questions, especially at the secondary level, suggesting that many private school teachers are reluctant to admit being union members. This may be because private school teachers' services are not

⁶ Para teachers are teachers appointed on an annually renewable contract in government primary schools in UP. They differ from regular teachers in that they are locally recruited, have lower educational qualifications requirements, have annually renewable jobs and are paid about one quarter of the regular teacher pay. In addition to these major teacher unions, there are also some teacher welfare associations. Beteille (2009) finds that in Rajasthan and MP, teachers' unions have strong party affiliations. However, such political affiliation is less marked in UP, as is also the case in Beteille's study for the state of Karnataka.

as secure and those identified as 'trouble makers' can be more easily fired there than in aided or government schools.

Taking teachers' report of whether they are union members as the conservative estimate, Table 4 shows that overall 62% of primary school and 69% of secondary school teachers in UP are union members. However, this masks large differences in unionization rates by school type. While about 85% of all government and aided school teachers (at both the primary and secondary levels) are union members, only 5.1% among primary teachers and 37% among secondary teachers are unionized in private schools.

Table 4 also shows that teachers seek help from their unions in large numbers. For instance, 44% of aided school teachers sought help from the teacher union at least once and (not shown) nearly 30% have sought help twice or more. Government school teachers are about 14 points less likely to seek help from the teacher union than aided school teachers, and private school teachers are the least likely to turn to the union for assistance, though in their case, there may be under-reporting about contact with the union.

What are some of the problems teachers face, which require union help? In the RECOUP survey, teachers could circle upto three issues they wanted union to take up with government, so the reported percentages here do not add up to 100. About 62% of UP primary school teachers said they want their union to lobby for higher salaries; 43% of teachers wanted union to lobby for timely payment of salary, 30% for help in getting extra teachers, 16% for help in transfers- and promotion-related problems, 10% for better facilities for pupils and 4% for availability of teaching learning materials.

The above evidence helps to understand why teachers turn to their union – and even to teacher politicians – for help. The fact that teachers want union help in the timely payment of salaries, and in transfer- and promotion-related matters suggests they have genuine grievances against education department officials who try to extort bribes from teachers at the time of teacher recruitment, promotions or transfers. Secondary school teachers in general complain that corruption prevailing in government education offices forces them to seek the help of teacher union leaders. This is evident from the fact that senior education offices are on the rise and give instruction to lower level officers to check these. For instance, the Director for Secondary Education issued an order (No. Gen. Camp. 13498-588/2008-09 dated 21 November 2008) "Order related with corruption in Offices" (*Karyalayon mein Bhrashtachar Sambandhi Adesh*) which identifies that corruption prevails in matters such as appointment of a dependent of a deceased teacher; family pension of a deceased teacher; release of pension fund of teachers who died while in service; taking

charge of teachers newly appointed by the Secondary Education Selection Board, Allahabad; promotion of teachers; transfer of teachers and service related matters; issues related with the recognition of schools/colleges by government; payment of arrears to teachers; and advances from their pension fund being taken by the teachers. The high salary and job security of a teacher in government and aided schools leads to abuses, such as the sale of teaching posts. A recent study on financing of secondary education suggested that applicants for teacher positions commonly pay between Rupees 100,000 - 200,000 in order to be selected to work in aided schools (Tilak, 2008). In such a situation the system as a whole and education officials in particular are in a weak position to insist on greater teacher accountability; i.e. the educational administrator (poacher) who takes bribes from teachers would be abashed to turn into game keeper.

Table 4 shows that a high proportion of all teachers (more than 50% overall, and 77% among aided secondary school teachers) have participated in any meetings, protests or strikes organised by a teacher union. Although we do not present the data for this, most of these participations have been in the past year, suggesting that this level of participation is a regular annual occurrence. A remarkable 46% of all teachers (and 72.5% of aided secondary school teachers) say they discuss among themselves to reach agreement on who they will vote for in an election and then vote for that candidate *en bloc*. Finally, the last row of Table 4 shows that among those who say they vote en bloc, 53% of all teachers (and 68% of aided secondary school teachers) say their union motivates them to vote en bloc. Thus, many teachers' political/voting behaviour seems to be dictated by their identity as teachers rather than being based on other diverse individual-level considerations such as political beliefs and values, how the party manifestos affect their families, or indeed caste based considerations, etc. These results are suggestive that teachers, particularly in the aided and government school sectors, concertedly vote to elect candidates they believe will support teacher interests.

How do the characteristics of unionized and non-unionized teachers differ? and what are the financial benefits of joining a teacher union? Table 5 explores these issues in UP. It shows that within each school-type at both the primary and secondary school levels, union teachers are mostly substantially and statistically significantly older and more likely to have pre-service teacher training than their non-union colleagues. Within the private school sector, at the secondary level, union teachers are more likely to be male, and at the primary level, union teachers are more likely to be low caste (schedule caste, schedule tribe or 'other backward caste') than non-union teachers. Unionized teachers are apparently paid a great deal more than non-unionized teachers in all three school-types (government, aided and private) but particularly in the aided school sector; however this is because they are older and more likely to possess pre-service training. In government primary schools, there are two types of teachers – regular and para teachers. While Table 5 does not provide the breakdown by regular and para status, the mean salary of the former in our data was about Rs. 11850 per month while that of

para teachers is about a quarter of that, at about Rs. 3000 per month, and private primary school teachers' 940 Rs. per month. Within the regular teachers' group in govt. primary schools, union teachers' mean pay is Rs. 12139 and non-union teachers' pay is much lower at Rs. 8302. The aided sector's vast discrepancy in teacher pay between unionized and non-unionized teachers is explained by the fact that aided schools fill teacher vacancies with part-time teachers on low honoraria while waiting for the government to make teacher appointments against vacant posts. These temporary teachers generally tend not to be union members⁷.

A priori, controlling for characteristics, we would not expect any union pay premiums in either the government or the aided school sector since teacher salaries in these sectors are bureaucratically fixed (tied to seniority and education) and are not linked to individual teachers' union membership status. So, to what extent do the raw pay premia for unionized teachers persist when we control for other characteristics that are correlated with union status, such as age, experience and pre-service training.

Table 6 reports simple Mincerian earnings functions of teacher pay, by school type. It confirms that the union pay premium does disappear after controlling for characteristics in the government school sector but persists in the aided sector (we do not have a control for temporary/permanent nature of the teacher's contract, which is what the union variable is likely to be picking up). In the private sector there is a negative coefficient on the union membership dummy variable but it is statistically insignificant. In the government school sector, pay is not responsive to teachers' résumé characteristics and this is also the case in the aided sector (pay scales and determinants of pay are the same in the government and aided school sectors). In the private school sector however, pay is responsive to variations in teachers' tenure, training and first division marks (in higher secondary exams, a proxy for the teacher's own cognitive skills). This responsiveness to various productive characteristics is presumably because of the greater use of discretion and lack of rigid civil service rules in pay-setting in the private schooling sector.

Thus, just as teachers' connections with teacher politicians do not yield them any financial benefits, in the same way, teacher union membership is not associated with higher pay for individual teachers. Teachers' high level of participation in their unions then is explained more by the fact that strength of collective bargaining raises teacher pay across the board, rather than at the level of individual teachers.

How successful have teachers been in lobbying for better pay? We present four ways of assessing this success. Firstly, Table 7 shows that pay as a proportion of total recurrent education expenditure increased secularly over time in India, progressively squeezing out expenditure on non-salary

⁷ The great pay gap within the aided sector as between non-unionized (mostly part-time temporary) teachers and unionized (mostly permanent full-time) teachers, and the huge pay gap between private schools on the one hand and aided/government schools on the other, shows great segmentation in the UP teacher labour market.

expenditure. Secondly, Table 8 shows that between 1973 and 1996, regular teachers' real salaries grew at 5% per annum. Figures from the Penn World Tables show that over the same period, per capita GDP of India grew by 3% per annum (UP's is likely to be lower), i.e. teachers gained 2 percent per annum more than the average person, in real terms every year continuously for this 23 year period. Over the longer 33 year period 1973 to 2006, teacher salaries also increased by 5.1% in real terms. Thirdly, in 2005, government regular teachers' pay as a multiple of UP state per capita GDP was 7.8 (after the Sixth Pay Commission, the ratio is likely to be about 17.0, see Kingdon 2010), which compares with a ratio of 2.9 for Asian countries taken together (UNESCO, 2006), suggesting that Indian teachers are much better paid – as a multiple of per capita income – than in other countries. Lastly, government primary school teachers' pay as a multiple of private primary school teachers pay has increased dramatically over time. As Appendix Table 2 shows, in UP, government regular teachers' mean pay was 2.5 times private teachers' mean pay in the early 1990s (Kingdon, 1994); it was 5 times in the early 2000s (Singh and Sridhar, 2002) and it rose to 12 times in 2008 (current survey). Now that UP has applied Sixth Pay Commission's salary recommendations, regular teachers' salary in January 2009 (applied retrospectively from January 2006) has nearly doubled⁸, meaning that it is likely now to be, on average, up to 24 times mean private school teachers' pay in the same villages, since private school teachers' salaries are unlikely to be too affected by Pay Commission recommendations. Clearly public sector teachers have been very successful in lobbying for higher pay.

Nor is it the case that the Central Pay Commission's recommendations are always applied in the state, without reference to teacher demands. For example, after the Fifth Pay Commission in 1997, the UP government wished to apply a lower than centrally recommended pay increase for teachers in view of the state's tattered fiscal situation. The MSS lobbied tenaciously for four years to get the central government pay scales, and got them just before the next general election, despite the fiscal pressure on the state and despite the state being on average only half as wealthy as (and growing much slower than) India as a whole: state per capita income in UP in 2004-05 was only 52.7% of mean per capita income of the country as a whole, and mean annual growth of per capita GDP in current prices between 1994 and 2005 was 7.6% in UP and a higher 10.6% in India⁹.

⁸The starting salary of a regular teacher in a government primary school on 31st December 2005 in Uttar Pradesh was Rs. 8370 per month. From 1st January 2006 it was made Rs. 17996, an increase of 115% in one go. The salary of an experienced teacher was Rs. 13020 and increased to Rs. 22,955, a raise of 76%. Averaging over new and experienced teachers, there was a 95% percentage increase – or near doubling – in regular primary teacher salary overnight. In secondary education, the starting salaries of high school and senior secondary school principals rose by 101 and 103 percent respectively. These calculations are based on tables given in the *Report of the UP Pay Committee 2008* (also known *as S.A.T. Rizvi Committee*), and further elaborated on pages 9-13 in a special issue of *Santusht*, (Magazine of the teacher union *Madhyamik Shikshak Sangh*), October 2008. ⁹See http://planning.up.nic.in/annualplan0607/vol1/Annex-chap-28.pdf. While other government paid servants' pay may also have increased in line with teachers' pay in UP, we do not have the relevant salary information for them. For details of teacher union strikes to get the Fifth Pay Commission's central increases, see Chapter 10 in Kingdon and Muzammil (2003).

Apart from longer term across-the-board financial benefits, union membership also enables teachers to access help in matters such as averting disciplinary actions and resisting accountability pressures. There is evidence that unions help teachers with these issues, as shown in the next section.

4. Teacher power and school governance

This section examines the influence of teachers on school governance in Uttar Pradesh. It does this in two ways. First, it investigates the extent to which teacher unions and teacher politicians have upheld or subverted educational rules, disciplinary measures and governance arrangements that are in place in the state. Second, it examines the stances of teacher unions on various educational decentralisation reform proposals in UP over the past 40 years.

4.1 The stances of teacher unions and teacher politicians towards educational rules and governance measures

A number of teacher accountability measures exist in UP, such as school inspections by the District Inspector of Schools; Principal's annual entry into every teacher's character book/ register; system of teacher transfers as a disciplining device; and provision for suspension or withholding the salary increment of erring teachers. etc¹⁰. There are also rules for re-deployment of teachers from one school to another within the district, to harmonize pupil-teacher ratios and avoid excess teachers in some schools and scarcity of teachers in others. Finally, there are rules against corruption in the examination system¹¹.

However, evidence suggests that these accountability sanctions and probity procedures have not been effectively implemented because teachers resist them by pressurising the District Inspectors of Schools, both through their unions and via political pressure from teacher politicians. All politicians woo teachers – who are both a big voter bloc and who also 'man' the polling booths at election time – but *teacher* politicians specially woo teachers as they are elected from a teacher constituency. Teacher and non-teacher politicians use their considerable influence and ministerial connections etc. to shelter erring teachers or otherwise help teachers, in order to be seen as friends by the influential teacher voter bloc. Pandey's (1993) study of District Sultanpur in UP gives concrete examples of pressure by politicians on district education officers for a variety of tasks, such as : recommending appointment of

¹⁰ Teacher unions in UP have consistently been opposed to the use of positive incentives such as an element of performance related pay or performance related promotion, including in 2003 when primary school teachers opposed the introduction of tests, performance in which would be used to partly determine salary levels.

¹¹ While these rules are not listed in one convenient place, there are Government Orders (GOs) on this from time to time. A prominent example is the UP Anti Cheating rule of 1992 and in February 2008, there was also a govt. proposal to frisk teachers before letting them into exam halls for invigilation (this is discussed later in the paper).

certain individuals to teaching positions; asking that certain teachers be exempt from teaching duties; interfering in cases of rule-based teacher transfers; demanding that more schools be opened in a given area or more teachers be appointed in a school. She cites other sources furnishing similar evidence, suggesting that 62.5% of district education officers report suffering from political interference, and believes that the tendency for political interference in educational matters for expanding influence is on the increase.

A recent example of 2007 pertains to the District Inspector of Schools of Kanpur district deciding to rationalise staff strength at DAV Inter College, Kanpur, where there was a situation of 'excess' teachers due to falling student enrolment. In this school, pupil teacher ratio had greatly fallen and, as a result, 37 teachers were surplus to requirement. As per the rules of the UP government, teachers were required to move and were given the option to continue in other aided colleges¹² but the teachers became adamant not to comply with the rules and the request to move. The aided school teachers' union (MSS) came to support DAV College teachers by organising a sit-in (*dharna*, on 16 July 2007) at the college premises. All prominent leaders of MSS including the President and the Secretary (both also teacher MLCs) raised slogans against the management and the district education authorities. They succeeded in stalling the implementation of the order (*Santusht*, August 2007).

The DAV College episode is one example from the general scenario of 'excess' teachers in government and aided secondary schools in UP which, according to the District Inspector of Schools for Lucknow district, is due to the poor quality of schooling in these institutions which causes disenchanted parents to increasingly move their children to private schools. The newspaper *Hindustan* (dated 7.8.2007, Lucknow Edition) surveyed 10 aided secondary schools in Lucknow city (state capital of UP) and found an average pupil teacher ratio of 9.7:1, as against the mandated maximum of $40:1^{13}$.

Another recent example of unions protecting teachers from accountability pressures is from the Ballia district of UP where the District Inspector of Schools, Mr Umesh Tripathi, received death threats for wishing to take action against 81 teachers who he said were engaged in exam related corruption. There

¹² Female teachers and disabled teachers are exempt from the policy to move teachers when rationalising teacher numbers across schools.

¹³ The article reported that the number of students in government and aided secondary schools in Lucknow (UP state capital) has declined by about 75 percent over the last ten years. The article says that many of the schools earlier had 2000 - 4000 students but now pupils shy away from getting admission there. Private secondary schools have emerged in UP after the state government started allowing private schools on a 'no-aid' basis (so called *Vitt Viheen* schools) in the mid-1990s and, taking advantage of this, many parents are increasingly opting for private schools. The article lists 10 aided schools in Lucknow whose student enrolments have drastically fallen but whose teacher numbers remain high, giving a mean pupil teacher ratio of 9.7 students per teacher.

is evidence that such corruption is widespread in UP and that it involves teachers¹⁴. Teacher MLCs (who form the so-called 'Teachers group' in the Upper House of the State legislature) alleged in the House that Mr. Tripathi had sent a list of the accused teachers to the district police chief to initiate action against them under the UP Control of Organised Crime Act (UPCOCA). The teacher leader in the House (who was until recently also the Pro Tem Chairman of the Upper House) said that this Act had not come into force yet so the DIOS had no right to threaten teachers with it. The matter became the subject of so much political pressure that UP Legislative Assembly witnessed uproarious scenes (on 24th February, 2008). Teacher leaders (Mr R P Mishra and Mr Narendra Kumar Verma) also criticised the secondary education Minister for allegedly shielding the DIOS who in turn had to clarify that he did not order for any severe penal action against the concerned teachers ("Confrontation between TU and GOUP Rises", Hindustan, Lucknow 25th February, 2008). At first the Education Minister was defiant and said that he had not hurled abuse at teachers, nor slapped them but had only reminded them of their duty "it is hurting them because they are guilty. Only those interested in politics are not keen to teach," he added. However, in the face of calls for the Minister's removal by the 92,000 secondary school teachers who went on a protest march in every district of the state, the burning of his effigy in places like Lucknow and Azamgarh, and their threatening examination boycott if he was not removed, the Minister performed a volte face: far from defending the district inspector of schools' right to bring cheating teachers to book, he stated that he would protect the dignity and prestige of teachers by not implementing the proposed policy of frisking invigilating teachers when they enter examination halls. He said "we are fully conscious of the dignity of a teacher which is bound to suffer if any such thing is allowed" (Times of India, 26th February 2008). And it was only then that the MSS withdrew its examination boycott call. (Santusht, March 2008)¹⁵.

In 2005-06, UP state government decided to introduce familiarity with HIV as part of health education in secondary schools. The idea was to add AIDS awareness among students, as one of many areas of health concern. When the MSS decided to organise sit-ins (*dharnas*) to oppose this move, the State Government gave in the day before the threatened sit-in and declared that it would withdraw the objectionable portions from the books. Even despite a government order on 17 July asking school principals and teachers not to refer to the HIV material, and despite the government's promise to

¹⁴ As seen in Appendix Table 1, and mentioned in footnote 1, when the cheating that routinely takes place in the UP Board examinations was curbed in 1992 under an anti-cheating rule, the pass rate fell from 44% - 57% in the previous 4 years to a mere 15% in 1992. The rule was dropped and the pass rate has crept back to the previous artificially high levels. In the RECOUP teacher survey, we asked respondents their estimate of the proportion of students who cheat in the High School board exam in their district (mean estimates varied from 29% to 34%). We then asked whether and how teachers help students to cheat in this exam. 32% of teachers ticked the option 'teachers do not help students with cheating' but the remainder ticked different options showing the various ways in which teachers help students to cheat. The mean percentage of teachers who accept corruption money for providing unfair means during examinations was 23%, according to aided school teachers.

¹⁵ Santusht is the monthly magazine and organ of the MSS (Sharma Group) published from the Head Office of the MSS in Lucknow on the 8th of every month.

remove the concerned material from the concerned book (*Kishor Awastha*), teachers around the state burnt books on 21st July, as per their prior decision of 8th July. One news coverage at the time reported that "nowhere in the material that the children study have the words 'sex education' been used. Still, these words are repeatedly being used by teachers associations to create misconceptions and mislead the media"¹⁶. Usually the MSS becomes active at the time of Board examinations (in late February and March) but this instance came in July, the beginning of the school year.

In March 2007, the UP government passed an Act in the lower house (Legislative Assembly) regarding the reconstitution of the Intermediate Education Board which the government had to withdraw after the sit-in of the MSS leaders (present in the House) in the Well of the House itself. The Newspapers next morning reported the event in banner headlines. For example: "Govt. Withdraws Bill Passed by Houses", *Hindustan Times*, Lucknow 13 March 2007. *Rashtriya Sahara* (Hindi Daily) reported: "Vaapas Lena Para Sadan mein Parit Vedheyak" (Lucknow, March 13, 2007) which translated means the same as the above *Hindustan Times* headline. The MSS opposed the Amendment in the Intermediate Education Board Act because it wanted elected members out of the teacher leaders, as was the practice earlier. This appears to be a clear case of political pressurization of the UP Government by the MSS to the extent that the government had to withdraw an Act duly passed by both the Houses. *Times of India* (13.3 2007) reported: "Shiksha Sanshodhan Bill in for Reconsideration". The secondary teachers' union (MSS) described this success of teacher unions in the State Assembly as an "Unprecedented Event in the Legislative History of the State of UP" (for details of the Bill and the stance of the union, see *Santusht*, March, 2007).

In 2002, the then Education Minister Om Prakash Singh advocated a set of rules governing the conduct of teachers in the schools and outside as well, which he believed would improve the quality of secondary education and would make teachers a guiding force for society. According to the *Times of India* (15th July 2002), the minister stated that there was already a code of conduct in place for university and degree college teachers and that it would be good to extend the notion to teachers in secondary education too. The idea was to streamline the quality of education, making teachers realise that they must *take regular classes, keep away from activities which bring a bad name to the teaching community and above all, act as role models for their students.* (emphasis added). The minister said "a mere 40 per cent pass rate in the UP Board High School examinations is a matter of grave concern for us". However, teachers outright rejected the proposal saying "conduct can be improved through 'self evaluation' and not by imposition of rules". "Besides" they pointed out, "politicians should first have a code of conduct for themselves, before designing one for teachers". Although the minister had given assurance that the code of conduct would be implemented only after a consensus was reached, teachers

¹⁶ http://infochangeindia.org/200710026670/Health/Features/Storm-over-sexuality-education-in-UP.html

presented a united front in opposing the implementation of a code which they described as yet another instrument in the hands of the government and college managements to harass them. Devi Dayal Shastri, leader of MSS (Sharma group) and MLC from Lucknow, said that "the code of conduct would not be appropriate for teachers as it projects the picture that the teachers are at fault and the government is out to rein them in. Instead, the teachers should themselves conduct a self evaluation", he suggested. The President of MSS (Pandey group) also decried the move to implement such a code on the teachers, saying that 'a code of conduct already exists in the community and that the government should keep away from 'teaching' teachers about what they should do. "Things like good conduct, inspiration and motivation come from within and cannot be imposed by the government," he pointed out. ("Govt, teachers clash over conduct code", *Times of India*, Lucknow 15 July 2002).

What are the implications of such power and influence, for teacher accountability in UP? When teacher unions can pressurize even the government to withdraw a duly passed Act, they are unlikely to respect district level accountability measures that are in place. Similarly when teacher unions can force the state Education Minister to retract legitimate enquiries about teachers' conduct during examination time, it is hard to see how teachers can remain accountable towards the less powerful district education officers or towards school principals and parents.

The report of the National Commission on Teachers (NCT, 1986) supports the notion that the school governance environment created by teachers' unions and their political connections serves to avert the proper use of teacher accountability measures. The Commission rued that union-backed teachers did not fear adverse repercussions if they were lax in their work. It noted that some of the Principals deposing before it "lamented that they had no powers over teachers and were not in a position to enforce order and discipline. Nor did the District Inspectors of Schools and other officials exercise any authority over them as the erring teachers were often supported by powerful teachers' associations. We were told that there was no assessment of a teacher's academic and other work and that teachers were virtually unaccountable to anybody" (NCT, 1986, p68).

4.2 Teacher union stances (and influence) on decentralising reform proposals

Theoretically, if teachers are locally answerable for their jobs and salaries, they are likely to apply more effort since local managers can both observe effort (regularity of attendance and time on task) and are also empowered to take action against laxity. Thus, effort application is likely to be higher if teacher accountability rests at the *local* level. In this section we examine UP teacher unions' stances towards the geographical level at which teacher accountability rests.

Teachers' preference for more centralised forms of school management has been clear in UP since the mid 1960s when the primary school teachers' union (Prathmic Shikshak Sangh, or PSS) lobbied for local government (local body) schools to be brought under state government management,. Similarly, the secondary school teachers' union (Madhyamik Shikshak Sangh, or MSS) lobbied for aided secondary schools to be brought under state government control. Unions demanded centralised management not so much to avoid being locally managed but to achieve other aims: in the case of primary teachers, they wanted centralized management in order to get rid of spatial differences in teacher pay and working conditions (pension entitlements, housing and dearness allowances, etc.) and in the case of secondary school teachers salaries on a par with government school teachers despite the obligation to pay their teachers government-mandated minimum wages. However, whatever the underlying motivations for it may be, the *effect* of centralised management is to reduce teachers' local level answerability and to create a gap between local managers who can observe teacher effort but cannot reward / penalise teachers, and distant managers who are empowered to reward / discipline teachers but who cannot observe teacher effort.

Between mid-1960s and early 1970s, teacher union agitations grew in intensity. Table 9 shows that teachers came out in very large numbers to press their demands. In late 1968, initially 3000 teachers demonstrated (600 were arrested) but then the strike intensified, about 20,000 teachers were sent to jail and schools remained closed for 45 days. Demands included pay parity between aided schools' nonteaching staff and government school employees and direct salary to aided school teachers from the state government treasury. In early 1971, schools were closed for 23 days as a total strike was observed on grounds of lack of implementation of agreements. There was widespread disruption to teaching and about 1000 teachers and their leaders were arrested. The continued agitation by teacher unions over three years (1968 to 1971) culminated in the legislation of the Salary Disbursement Act of April 1971 and the Basic Education Act of 1972. Described as the biggest achievements of teacher unions in UP, these Acts massively centralised the management of school education in UP. Henceforth the salaries of teachers of local body and aided schools would be paid directly by the state government. This led to a loss of teachers' local level accountability to their (private school or local body) managers. It was only a little short of nationalizing private-aided and local body schools. While aided school teachers became government-paid servants, legally they remained the employees of their schools' private managements, creating an anomalous position¹⁷.

Having won this momentous victory, teacher unions sought to consolidate it, by having the provisions of the Salary Disbursement Act extended to aided *junior* schools (instead of applying only to aided

¹⁷ In spite of being government paid servants, aided school teachers continued not to be deemed to hold an office of profit under the government and could therefore continue to contest elections for political office.

secondary schools). They succeeded in achieving this and other concessions in 1978-79. The MSS claims that there was a *several fold increase* in the issuance of education related Government Orders (GOs) in the period 1970 to 1983 as compared to the number of GOs issued from 1920 to 1970. They cite this as a measure of teacher influence in having a say in the governance of school education in UP (Sharma, 2008).

The 42nd amendment to the Constitution of India in 1976 placed education on the 'Concurrent List' whereas previously it had been on the State List. This gave the Central government in Delhi powers to intervene in education within the states. The idea was to facilitate administrative reform in education in the states by giving more say to the central government in the governance of school education. The UP secondary teachers' union (MSS) strongly opposed this amendment. Indefinite strike and *Jail Bharo Andolan* ('fill the jails' campaign) was waged in December 1977 which continued till January 1978 (see Table 9). This was the second biggest agitation of UP teacher unions after their prolonged strikes of 1968-71. The demands included nationalisation of education and a national pay scale for teachers. Unions resented the amendment because it would reduce their power to influence the education agenda at the state level in case any move was initiated by the Central Government.

Various decentralising reform measures in education have been periodically attempted to improve school and teacher accountability or for wider improvements in the education sector. What have been the unions' reactions to these proposed reforms?

The early 1990s saw the UP government announce a decentralising reform package. The government dissolved the UP Secondary Education Selection Board which used to appoint teachers to serve in aided schools, thus allowing autonomy to aided school managers to appoint their own teachers. The MSS called this dissolution a retrograde step. The Raj Nath Singh government also introduced certain other education reforms in 1992, such as an increased role of school management in the payment of teacher salaries and in disciplining/suspension of a teacher, and the Salary Disbursement Act came under scrutiny. All these measures were vehemently opposed by the MSS which announced a big agitation in March 1992 and decided to boycott Board exams beginning on 26 March 1992. The government capitulated, abandoning the changes it proposed in the UP Secondary Education Selection Board and in the Salary Disbursement Act.

The mid 1990s were a time of the launch of economic reforms in UP, as in India as a whole. In 1994, the UP government appointed an Autonomy Committee (*Swavalambi Samiti*) with the aim to make schools more autonomous in financing and reducing their dependence on the state government. A new scheme was to be introduced in which part of the funds for teacher salary were to be paid by government and part to be raised by the private management of the school by raising fees as user

charges. This move was opposed by the MSS which alleged that it 'contrived' to do away with the 1971 *Salary Disbursement Act* benefits given to teachers and that it tried to restore in essence the previous system of payment with lesser direct responsibility of the government. The president of the MSS dubbed agreement with it as agreeing to "sign one's own death warrant". The MSS waged a large agitation and successfully pressurized the government to withdraw the proposals.

The late 1990s witnessed another attempt by UP government to introduce local level accountability of primary school teachers, this time by transferring educational powers to *panchayats* (village local government). Primary teachers muscled in on the panchayats in the initial phase of decentralisation (about 1994-95) when all the panchayats received one hundred thousand rupees a year for rural development programmes¹⁸. However, when the subject of education was given over to panchayats in 1999, teachers started strongly opposing such decentralisation of powers. The MSS viewed decentralised primary education as being against the teacher interests, as an abdication of government responsibility and as the first step towards *privatisation* which would put obstacles in the way of education of poor children from the village as the panchayats were dominated by socially and economically influential persons. The MSS decided to fight against the decentralisation of education and empowering panchayats in this regard.

Teachers oppose decentralisation because they fear that their salaries will not be assured because the state government may in the future reduce its share and get panchayats to bear an increasing percentage of the salaries of teachers. Teachers do not trust that panchayats will be able to raise adequate revenues to pay them properly. They fear that fiscally empowered panchayats may discriminate against or harass teachers. When the government issued a Government Order (GO) in July 1999 to empower panchayats in education, teacher organisations put massive pressure on the government to revoke this order. The government caved in for populist reasons (it was near election time) and revoked the GO on the 4th of August, i.e. within just 4 weeks. However, in an interesting turn of events, this revoking GO was itself withdrawn because the Election Commission of India disallowed State governments from issuing any new GOs in the run up to the national elections, in order to prevent populist measures! The World Bank has also observed that "decentralisation although constitutionally mandated by the 73rd and 74th amendments, has been resisted in most states by line departments and *state level politicians* (emphasis added) who fear an erosion in their prerogatives and authority when power is transferred to local institutions."(World Bank, 2006, p.46).

¹⁸ Somewhat similar observations have been made in the context of West Bengal. In his study of Panchayat decentralisation and its effects on education in West Bengal, Acharya (2002, p. 796) notes that "through this system of party panchayat, a class of new mandarins have emerged in the village society who are unscrupulous to the extreme and heinously power-hungry. Unfortunately, primary teachers being a major group of panchayat members, are also involved in this unholy power game. This has also vitiated the primary (education) system".

Finally, as a more recent example of teacher union stances to decentralising reform, consider teacher reactions to the 2005 draft of Right to Education Bill (which was subsequently enacted in August 2009) which comprised certain provisions for elementary schools such as the constitution of School Management Committees (SMC) for each school with wide powers, and school based teacher cadres. The powers of SMC in the draft bill included teacher appointments, salary disbursement to teachers and ability to take disciplinary action against teachers (e.g. cut pay based on absences). The provision of school based cadre implies that once a teacher is appointed in a school he or she cannot seek transfer to another school. These provisions had far reaching implications in the school education scenario. Teachers from all over the country protested against these provisions of the bill, with the All India primary teachers Federation (AIPTF) taking the lead. They resorted to strikes, picketing and 'fill the jail' campaigns. The All India Secondary Teachers Federation (AISTF) also opposed the Bill by organizing pickets and demonstrations. They demanded that the Central government should not send this bill to states. The AISTF organized a sit-in before the national Parliament in 2006 and the MSS in UP started a campaign of sending post cards to the President of India, the Prime Minister of India and the Human Resource Development Minister, among others. They also organized awareness seminars to educate the public about what they described as the ill effects of this Bill. Presumably partly due to this pressure, the amended Bill passed by Parliament in August 2009 excluded the provisions that offended teacher unions, namely school based teacher cadres and a role for School Management Committees.

The teacher unions in UP have come out openly to oppose the move of the UP Government to introduce a voucher system for primary education in the state. In May 2008, when UP government contemplated adopting a voucher system in education, the MSS opposed it. Its leader dubbed it as the conspiracy of the education mafia and bureaucracy in the State. He reportedly said that it was a scheme for plundering by the private sector the governmentally allocated money to primary education. The government in turn postponed the high level meeting that was to decide the framework and the introduction of this scheme (*Hindustan*, Lucknow 16 May 2008).

In summary, the evidence above suggests that teachers through they organisations have generally opposed various decentralising reforms in education in UP.

5. Implications of the governance environment for student achievement and for teacher effort

Relation between teachers' union membership / political connections, and pupils' learning outcomes

The RECOUP teacher survey of primary and secondary schools that we have used so far, was carried out in tandem with the SchoolTELLS survey of primary schools by one of the authors, i.e. the sample of primary schools was the same in both surveys. The SchoolTELLS survey tested students of grades 2 and 4 so we have information on student learning achievement levels in language and maths. When merged with (the primary school portion of) RECOUP teacher data, we can link pupils' achievement with the characteristics of the primary school teachers that taught them. This permits us to see the relationship between teachers' union membership and their political connectedness on the one hand, and student learning outcomes on the other. The SchoolTELLS survey did not collect any data from secondary schools. Our dataset is small (62 schools and <300 teachers), and it is generally difficult to establish causal relationships without randomized trial studies, but our findings will at least be suggestive.

Table 10 shows an achievement production function fitted for the sample of students in government primary schools in Uttar Pradesh. Student achievement score has been converted into z-scores, i.e. number of standard deviations from the mean score (the average score of all students of classes 2 and 4, in language and maths tests, and in both wave 1 and wave 2). We have included dummy variables for class, subject and wave. We have extensive student level controls (age, gender, health, maternal education and family's asset ownership) and teacher level controls (age, gender, education, and teacher type). The variables of particular interest are the union membership variable and the political connection variable. 'Political connection' equals 1 if the teacher has met or personally knows a teacher MLC, otherwise it is 0. The first three columns show OLS estimation and the last three columns show school fixed effects estimates, i.e. within school estimation. The latter considerably reduces the problem of endogeneity bias in parameter estimates because one is comparing achievement only across students who have chosen the same school.

In Table 10, teacher variables mostly have 'rightly' signed associations with student achievement, with one surprise being that contract (or 'para') teachers produce higher pupil achievement: the achievement of a student taught by a para teacher is about 0.22 SD higher than that of a student taught by a regular teacher. However, the finding is consistent with that in other applied studies: Goyal and Pandey (2009) and Kingdon and Sipahimalani-Rao (2010) find para teachers have higher effort than regular teachers, and Muralidharan and Sundararaman (2008) and Atherton and Kingdon (2010) find that students taught by para teachers do better than those taught by regular teachers.

Focus initially on the OLS (first three) columns of Table 10. Students taught by a unionized teacher have achievement score about 0.06 SD lower than those taught by a non-unionized teacher, after extensive controls. Pupils taught by a politically connected teacher have achievement scores about 0.24 SD lower than those taught by non politically-connected teachers. When both variables are included together in column 3, the coefficients do not change much.

To what extent may these negative coefficients be the result of endogeneity bias? There are two potential sources of endogeneity bias. First, is reverse causation, i.e. the possibility that causation runs from low student achievement to a teacher's decision to become union member or acquire political connections in order to avoid being disciplined. Even in government schools where the threat of dismissal is low, it is possible that bad teachers – whose students score poorly – become union members or politically connected in order to increase their chances of warding off possible future disciplinary proceedings.

Second consider omitted variable bias as the source of endogeneity. If the less able or less motivated students systematically sort into schools with unionized and politically connected teachers, then the negative coefficients on these two variables could be due to low ability students being taught by unionized and politically connected teachers.

To address endogeneity bias, we estimate school fixed effects equations in the last three columns of Table 10. Here, the identification comes entirely from *within school* variation in both student achievement and in teacher union membership and political connections. While these within-school results change from the across-school (OLS) results, they are qualitatively the same. The achievement of a student is 0.10 SD lower if taught by a unionized teacher and 0.14 SD lower if taught by a politically connected teacher, and both coefficients are statistically significant. When both variables are entered together in column 3, the political connections coefficient becomes statistically insignificant, though its size remains substantial.

But might it be the case that even *within a school* there is systematic matching of less well performing (i.e. less able) students to the unionized and politically connected teachers? i.e. might the problem of endogeneity exist even in the school fixed effects equations in Table 10? This is unlikely for two reasons. Firstly, there is only one class of any given grade in these rural primary schools, so it is not as if a teacher has a choice of teaching a smarter or weaker class. Secondly, even if teachers could somehow choose to match to particular classes (and therefore to particular students) within the school, in fact, if anything, unionized/ politically-connected teachers would be likely to use their power to choose classes of the *better* performing students. Thus, if there is within-school non-random matching of students to particular teachers, then the true negative effect of these variables would be even bigger than what we see. Even so, teacher unobservables *are* in the error term of the achievement equation and in theory they may be correlated both with union and political connection status of teachers on the one hand, *and* with student achievement on the other. To address this endogeneity issue, we use the procedures outlined in Altonji, Elder and Taber (2005) to assess the potential size of any bias due to the unobservables in the equation. The Altonji et al procedure assesses how important these

unobservables would need to be to explain away the entire effect from the treatment variable (i.e. union variable or political connection variable, in our case).

Let us illustrate the Altonji procedure with the example of the union membership variable, say U. The achievement equation is :

 $A = \alpha + \beta X + \epsilon$

Where A is child achievement, X is the vector of observed determinant variables, β is the coefficient vector and ε is a normally distributed error (containing all the unobservables that affect achievement). The union membership (U) of a teacher is a 0/1 variable that is included in the X vector, and its coefficient is β_1 . Altonji et al shows that if achievement depends on a large number of variables, and the included regressors (X) are a random subset of this set of factors and none of the factors dominates the relationship with child achievement or teacher union membership, then the relationship between the indices of *observables* in the union membership and achievement equations is the same as the relationship between the unobservables (Altonji, Elder and Taber 2005). To get an idea of how much the union membership effect might be affected due to unobserved covariates, we can compute how large the omitted variables bias must be to make our results invalid. If the union membership variable takes only values 0 and 1, we can compute the normalized shift in schooling due to observables $\{E(X'\beta|U=1) - E(X'\beta|U=0)\}$ / Var(X'\beta) and ask how large the normalized shift due to unobservables $\{E(\varepsilon|U=1) - E(\varepsilon|U=0)\}/Var(\varepsilon)$ would have to be in order to explain away the entire estimate of β_1 (coefficient on union membership variable). If selection on unobservables has to be very large compared to selection on observables in order to attribute all our union membership effect to omitted variables bias, then we feel more confident about our estimated treatment 'effect' being a real causal effect from teacher union membership onto child achievement¹⁹.

The bottom part of Table 10 shows the results from the Altonji procedure. When we look at the preferred school fixed effects results, we find that while the sign on the union effect is negative, the estimate of the potential bias induced by a correlation between the unobservables and the union variable (reported in the penultimate row of Table 10) is positive. A positive correlation between the unobservables in the achievement equation and the union variable (and also a positive correlation of the unobservables with the political connections variable) implies that the negative effects of unionization and of political connections on achievement are both underestimated. Thus the evidence points to the estimates of the union membership effect and the political connections effect as being *underestimates* of their true negative impact on achievement²⁰. The result for the union membership

¹⁹ For a clear description of the Altonji procedure, see Esther Duflo's MIT/Harvard Lecture Notes on Empirical Methods <u>http://www.jourdan.ens.fr/piketty/fichiers/enseig/ecoineg/articl/Duflo2002.pdf</u>. For other applications of the Altonji et al procedure, see Goyal (2009), Emran and Shilpi (2007) and Kingdon and Teal (2010).

²⁰ If the sign of the effect and the bias were the same (as they are in the OLS equation in column 2), this would be open to the interpretation from Altonji, Elder and Taber (2005) that it measures the size of the shift in the

variable is similar to that found in Kingdon and Teal (2010) who use a sample of private secondary school teachers from 16 Indian states, where the methodology was pupil fixed effects estimation.

Relation between teachers' union membership / political connections, and teacher effort

Here we consider why the relationship between student achievement, on the one hand, and both teacher union membership and teacher's political connectedness, might be negative. In particular, we examine whether unionized and politically connected teachers apply less effort.

What are the theoretical models that drive the relationship between an individual teacher's union membership and her/his effort within a school? Suppose unions support only teachers who are paid up members. One reason why teachers may join a union is because they wish to maximise child welfare, believe they know the best teaching methods, and being a union member gives them greater power to implement their approaches and innovations in their classes (due to the backing of their union which represents the collective strength of teachers, in case of any disputes about pedagogy between the teacher and the school authorities). Under this model, unionized teachers will be motivated to apply greater effort because of perception of greater empowerment. Another potential reason why teachers may join a union is that they maximise a different objective function, one in which their own interests receive greater weight than students' interests (Hoxby, 1996). Here they join a union because it shelters them from penalties/sanctions from the school authorities when they are lax in their work, since unions protect their members, e.g. by intervening on behalf of teachers. Under this theoretical model, union membership will lower teacher effort. Therefore, a priori, we cannot sign the relationship between union membership and teacher effort. It is an empirical issue. Similarly, teachers may cultivate political connections to increase their autonomy to implement their (superior) teaching methods within their school, or because such connections help them to avert disciplinary action by school authorities when they err. The former is likely to lead to a positive relation, and the latter to a negative relation, between political connections and teacher effort.

We have several measures of teacher effort, including teacher's absence rate²¹; teacher's self-report of the proportion of the typical school day that s/he spends in teaching (time on task, when present in school), in organising prayer assembly and games or the mid-day meal or in office/register work;

distribution of the unobservables necessary to explain away the implied union effect. Thus in column 2, the effect of any remaining unobservables that affect achievement (after our extensive controls) would have to be 1.85 times the effect of the included observable variables for the whole of the political connections effect to be due to unobservables (i.e. due to endogeneity), which seems unlikely especially given that many of the factors affecting a child's achievement that are typically unobserved in most datasets are in fact observed, available and included in our data/model. In any case, we would prefer the more stringent School Fixed Effects estimates.

²¹ Teacher absence rates were calculated by making four unannounced visits to the sample schools within one school-year, and noting the presence of each appointed teacher. Thus, the teacher absence variable takes values such as 0, 0.25, 0.50, 0.75 and 1.

whether teacher gives private home tuition; has an occupation other than teaching; number of days of non-teaching duties in the past year; and contesting any elections, or fighting an education-related court case etc. These are all activities that potentially distract teachers from teaching and reduce their time on task. We regressed each of these effort measures on both teacher's union membership status and on teacher's political connectedness (Table 11). The regressions are fitted for the same sample of government primary schools in Uttar Pradesh as that used in Table 10. Using a school fixed effects method allows us to control for everything unobserved about the school, and abstract from the problem of the endogenous matching of teachers to particular schools.

The results in Table 11 show that after controlling for a range of teacher characteristics and for everything about the school in which the teacher teaches, union membership of a teacher is not negatively and statistically significantly related to most of the teacher effort measures²². Thus, there is no evidence here to support the hypothesis that union membership lowers child achievement via lower teacher effort. An alternative explanation for the negative association of union membership with pupil achievement in Table 10 (if union membership does not lower teacher effort), is that bad teachers reveal their type by joining unions, i.e. ineffective teachers (i.e. those whose students have lower achievement) are more likely to join a union, perhaps to increase their chances of warding off potential disciplinary procedures in case they are found to be incompetent.

However, teachers' political connections are significant predictors of several measures of teacher effort in Table 11. Two political connection variables have been used: 'teacher has met or personally knows a teacher MLA or teacher MLC', and 'teacher has met or personally knows a teacher MLC'. While the mean of the former is 8.6%, the mean of the latter is 4.6%, i.e. less than 10% of government primary school teachers have political connections.

Teacher absence rate is an important indicator of teacher effort. Teachers who are connected to a teacher MLC have an absence rate 16 percentage points higher than teachers not so connected, though this is much lower and not statistically significant for teachers who are connected to either a teacher MLA or MLC. This suggests that connection with teacher legislators who are elected from a *teacher* constituency is more powerfully associated with reduced teacher effort than connection with teacher legislators elected from a *general* constituency. Teachers' self-reported time on teaching and in organising prayer-assembly and games etc. is significantly lower for politically connected teachers.

 $^{^{22}}$ This differs from the findings in Halsey Rogers et. al. (2004) who find that overall teacher absence rate in Ecuador is 14% and that after an extensive set of controls, teachers' union membership is associated with a 3% greater teacher absence rate, though this effect is only weakly statistically significant (at the 10% level).

Neither giving private home tuition, nor days of non-teaching work outside school varies significantly with teacher's political connectedness, though in the latter case the coefficients of both political connection variables are very large (5 days of non-teaching work more than for non-politically connected teachers). About half of all teachers have occupations other than teaching, which has the potential to reduce teaching effort within school. Teachers who are connected to teacher MLA/MLC are significantly more likely to have occupations other than teaching. Both types of political connection strongly raise the chances that the teacher will cite that he/she does 'social service works' when asked a question about occupations other than teaching. However, again the size of the relationship is much larger (double) for connection with a teacher MLC.

Contesting elections and raising resources for elections takes time, and similarly fighting a court case takes time. Thus whether a teacher has contested any political or union-office election (at the local, district, state or national level) and whether teacher has filed a education related court case are likely to be at least crude proxies for teacher effort within the school. They are only crude because we do not have an idea of when the teacher fought an election or a court case. Both measures of political connection are associated with a significantly higher probability of the teacher contesting an election her/himself. However, they are both negatively related to the likelihood of filing a court case. This may suggest that being politically connected helps to solve teachers' grievances so they are less likely to have to seek legal remedies.

Finally, we asked to what extent the teacher agrees with the statement that 'frequently absentee teachers should be paid less'. Those who agreed with this view 'fully' are presumably less tolerant about frequent teacher absence and may have a more responsible attitude towards the importance of teacher effort. Connection with a teacher MLC is very negatively associated with this measure of teacher effort.

These results are not conclusive because, while school fixed effects estimation removes the biasing effect of school level unobservables, it is possible that teachers' union membership status and their political connections status are driven by their *own* unobservable characteristics (which remain in the error term) which also determine their effort. Moreover, we have a relatively small sample of less than 300 government primary school teachers. We can conclude that the results are suggestive that (i) teachers' political connections – particularly with teacher MLCs – are associated with significantly lower teacher effort and that lower teacher effort is the mechanism by which children taught by politically connected teachers have lower achievement. (ii) teachers' union membership is negatively related to student achievement but not with teacher effort; this suggests that bad teachers are more likely to join the union, possibly as a protection against disciplinary actions. While further research is needed with a larger dataset to be more confident about these results, research by Beteille (2009) finds

similar results to ours: she no relationship between union membership and teacher absence and a strong positive relationship between political party membership and teacher absence. She explains her union results (chapter 6) in terms of the fact that mere union membership may not predict teacher effort but that a teacher's position in a union's hierarchy likely gives him a greater feeling of power and ability to get away with errant behaviour.

6 Conclusions

This paper has mustered evidence from a variety of sources to shed light on teachers' participation in political elections, their connections with teacher politicians, their union activities and their stances towards the state government's accountability-related initiatives and decentralising reform proposals over a 40 year period. It has also explored the implications of teachers' union membership and political connections for teacher effort and for student achievement.

The aim has been to understand how teachers have sought to shape the school governance environment and to achieve what types of goals. Our analysis reveals that teachers are remarkably active in their unions and, particularly at the secondary level of education, are well connected to teacher legislators in both the lower and upper houses of the state legislature. While this does not lead to increased pay at the individual teacher level, it is beneficial as it provides assistance from teacher union leaders and teacher politicians to avert disciplinary actions and inconvenient transfers/postings, and to shelter teachers from certain accountability pressures. More benignly perhaps, union and political connections help to deliver teachers from the corruption they face in government education offices in matters such as transfers, promotions and timely payment of salaries and pensions etc²³. Since government officials take bribes from teachers, they are in a weak position to demand teacher accountability (the poacher would be abashed to turn into gamekeeper).

We saw that teachers lobbied hard for centralised salary distribution in the late 1960s/early 1970s and robustly opposed decentralising reforms at various subsequent junctures. They also fought hard for pay increases and achieved considerable success: the salary share of total recurrent education expenditure secularly rose over time; absolute teacher salaries rose impressively in real terms over time; government-paid regular teachers' mean salary rose from 2.5 times private school teachers'

 $^{^{23}}$ But this is in return for political/union loyalty. Beteille (2009) also suggests a pecuniary motive: that while politicians act as patrons by helping teachers in service-related matters to cultivate teacher loyalty, they also (in her case study in Rajasthan) distort the system of teacher transfers to ensure they can earn bribe monies from it. This seems less applicable to UP and may reflect structural differences between the two states. For instance, UP has an Upper House and thus has teacher legislators who – since they are elected from (and answerable to) a teacher constituency –are likely to be less extractive from teachers; this may cause the dynamics of the relationship between politicians and teachers to be different in UP compared to those in Rajasthan.

mean salary in the early 1990s to 12 times in 2008; and government-paid regular teachers' salary as a multiple of per capita GDP in UP is several times the average for South Asia.

Given the strength of teachers (about 600,000 teachers in UP in 2007-08), their influence on the electorate in rural areas where they are often among the most educated people, their strategic voting behaviour, and the fact that government school teachers man polling booths at election times, no political party has the courage to ignore teachers. It is not surprising then that teacher unions have been very successful in pressing their demands for better pay and working conditions and for school governance systems that shelter them from local level accountability.

But what has been the impact of teachers' political connections, their union activities and of the centralised school governance system which they have favoured, on school education? It is generally difficult to gauge this because the data requirements for tracing any such impacts over time are simply not met in most countries, including India²⁴. However, our access to unique data enabled us to examine the relationship between teacher's union membership and political connections on the one hand and student achievement levels and teacher effort on the other. Though further research with a bigger dataset is needed to be confident about these results, our findings suggest a substantial negative relationship between both teachers' union membership and political connections and student achievement. A student taught by a teacher who is both a union members and politically connected has about 0.20 SD lower achievement score than his/her counterpart in the same school who is taught by a teacher who is neither a union member nor politically connected. Low teacher effort is the channel through which teachers' political connections reduce student achievement; however, low effort could not be confirmed as the reason for the lower achievement of students taught by unionized teachers'.

This rather negative assessment of the influence of union membership and political connections is supported by the available qualitative information, such as that presented in Section 4 above. The National Commission on Teachers (1986) – in a report based on findings from interviews with a large number of educational stakeholders (teachers, school principals, educational administrators, teacher union representatives, etc.) over an extended period of two years – viewed the effects of teacher politics and of teacher unions on the functioning of the schooling system as being very negative. The Commission's report is written with much sympathy for the teaching profession. However, it did not shy away from a frank assessment of the situation. It concluded that "the most important factor responsible for vitiating the atmosphere in schools, we were told, has been the role of teacher politicians and teachers' organisations." (NCT: 1986, p. 68). The report stated (as quoted in Section 4) that union-backed teachers did not fear adverse repercussions if they are lax in their work, noting

²⁴ See Hoxby (1996) and Kingdon and Teal (2010) for examples of two cross-section studies based on data that links achievement levels of children to the characteristics of their teachers, including union membership status.

that "some of the Principals deposing before it (i.e. before the Commission) lamented that they had no powers over teachers and were not in a position to enforce order and discipline. Nor did the District Inspectors of Schools and other officials exercise any authority over them as the erring teachers were often supported by powerful teachers' associations. We were told that that there was no assessment of a teacher's academic and other work and that teachers were virtually unaccountable to anybody" (NCT, 1986, p68). The Report levels the following three criticisms at teacher unions: firstly that there is too much *politicisation* in the teachers organisations; secondly that there has been too much *proliferation* of such organisations and it would be a good thing if their numbers could be reduced substantially; and thirdly that teachers' organisations have not paid enough attention to the intellectual and *professional development* of their members. It made the impassioned appeal: "we must draw attention ... to the need to promote actively parents' organisations all over the country. At present there are hardly any organisations interested in providing good education to their children. We feel that such organisations are desperately needed to promote and safeguard the educational interests of their wards and to counteract the negative and unhealthy political preoccupations of some of the teachers and their organisations". (NCT, 1986, p71).

Political interference in the district level administration of education was documented extensively in the work of Pandey (1993) for UP. A more recent study by Khandelwal and Biswal (2004) is based on a survey of 225 teachers, 17 education administrators and 33 other respondents, also in UP. It concludes that one of the "visible factors affecting the development of education" is "a highly politicized teaching force and the resulting low level of accountability". It cites "political and bureaucratic interventions" and "institutional barriers such as trade unions and teacher unions" as being among factors that are perceived by educational stakeholders to be the main causes of unethical practice in the education sector" in UP. Nor is political interference exclusively a UP based phenomenon: based on work in Rajasthan and Andhra Pradesh, Sharma and Ramachandran (2009) argue that a patronage based system means that well-connected teachers cannot not be taken to task, and Beteille (2009) finds similar evidence of political interference in her study of Karnataka, Madhya Pradesh and Rajasthan.

While the assessment of the National Commission on Teachers (NCT: 1986, p.73) that "the main preoccupation of teachers' organisations particularly since independence has been with the improvement of salary and service conditions of teachers" remains true today, teacher unions have on occasion made positive moves for quality in education. For example, the MSS Summer Conference of 2005 discussed the course curriculum in High School and Intermediate and made suggestions for improving upon the syllabus in various subjects, and the MSS has acted as a watchdog by drawing attention to government irregularities in the appointment of teachers. The MSS also raised its concern over malpractices in the examination system and in the evaluation of answer scripts of students

(*Santusht*: 2005). For instance it gave the Director of Secondary Education a list of 25 schools and colleges where it claimed organized copying was going on in UP Board examinations and also named teachers who had been issued fake identity cards for invigilation and facilitating copying (*Times of India*, Lucknow, March 12, 2008).

How might the school governance environment be improved in India? Some policy prescriptions that arise from the evidence of this paper are as follows. Firstly, it would be good for the national government to bring a constitutional amendment to do away with the constitutional provision to provide guaranteed representation to teachers in the Upper Houses of state legislature. This provision has led to a culture of political activism amongst teachers and has heightened the scope of political interference in the management of schools and teachers. As shown in the paper, professional teacher politicians brow-beat education officials in order to shelter erring teachers and this interferes with the proper application of teacher accountability sanctions where needed. Secondly, it would be useful for the apex court and for the national government to recognize aided secondary school teachers as holding an office of profit under the government, since they are *de facto* government paid employees just like civil servants, even though nominally they are meant to be the employees of their private managements. This would prevent aided secondary school teachers – the most politicized group – from contesting elections to the Lower House of the state legislature. Thirdly, the fact that 50-67% of the 'polling party' that mans polling booths at general election time is comprised of government school teachers also gives teachers a perceived influence over politicians. It would be better for the Election Commission to reduce this proportion to 25-33%, the rest being made up of other diverse types of employees. Fourthly, in line with the recommendations of the 1986 National Commission on Teachers, it would be useful to encourage parents' organizations that will represent the interests of students and provide a counterpoise to the dominant influence of unionized and politicized teachers on educational decision-making. Lastly, and importantly, it would be helpful to involve teachers in every aspect of education reform to benefit from their perspectives, once they are not in a position to unduly influence outcomes due their privileged political position and to power.

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Year	Total seats	Teacher	Ex-teacher	Total	Teachers as %
		Members	members	Teachers	of total
1952	72	7	5	12	17
1954	72	7	4	11	15
1956	72	6	4	10	14
1958	108	10	4	14	13
1960	108	12	4	16	15
1962	108	16	2	18	17
1964	108	14	3	17	16
1966	108	10	4	14	13
1968	108	12	2	14	13
1970	108	14	2	16	15
1972	108	14	0	14	13
1974	108	18	1	19	18
1976	108	17	3	20	19
1978	108	14	1	15	14
1980	108	15	0	15	14
1982	108	16	2	18	17
1984	108	19	5	24	22
1986	108	13	0	13	12
1988	108	17	1	18	17
1990	108	15	1	16	15
1992	108	16	4	20	19
1994	108	15	3	18	17
1996	108	16	3	19	18
1998	108	14	0	14	13
2000	100*	17	6	23	23
2002	100	16	7	23	23
2004	100	17	5	22	22
2006	100	15	4	19	19
2008	100	14	4	18	18
Average	103	14	3.23	16.9	16.6

Table 1 Teacher representation in UP Legislative Council, various years

Note: *After the split of Uttarakhand (the hilly regions) from UP, the total membership of the Upper House was reduced to 100. There are 8 teacher constituencies in UP. Source: Records available in the Assembly Library, Lucknow.

Legislative Assembly	Total MLAs	Teacher MLAs	Teacher MLAs as % of total	
First Assembly (1952-57)	430	NA	NA	
Second Assembly (1957-62)	430	11	2.6	
Third Assembly (1962-67)	430	26	6.0	
Fourth Assembly (1967-69)	425	21	4.9	
Fifth Assembly (1969-74)	425	27	6.4	
Sixth Assembly (1974-77)	425	22	5.2	
Seventh Assembly (1977-80)	425	23	5.4	
Eighth Assembly (1980-84)	425 (421)	39	9.2	
Ninth Assembly (1984-89)	425 (422)	30	7.1	
Tenth Assembly (1989-91)	425 (422)	27	6.4	
Eleventh Assembly (1991-93)	425 (401)	36	8.5	
Twelfth Assembly (1993-96)	425 (422)	46	10.8	
Thirteenth Assembly (1996-2002)	425	37	8.7	
Fourteenth Assembly (2002-07)	404	24	5.9	
Average	424	28.4	6.6	

Table 2: Teacher MLAs in Legislative Assembly, various years

Note: Figures in brackets show the actual strength of members.

Source: Records available in the Assembly Library, Lucknow.

Table 3Teachers' participation in politics and connections with teacher politicians,Uttar Pradesh 2008

	Primary	Secondary	Total
% who know a teacher MLA personally		<u>_</u>	
Govt. schools	3.0	7.9	4.4
Aided schools		17.6	17.6
Private schools	5.1	5.5	5.3
Total schools	3.6	10.8	7.2
% who know a teacher MLC personally			
Govt. schools	0.5	5.3	1.8
Aided schools		32.4	32.4
Private schools	5.0	11.1	8.2
Total schools	1.8	17.6	9.6
% who have met or know a teacher MLA			
Govt. schools	6.6	26.3	12.1
Aided schools		35.3	35.3
Private schools	6.3	19.8	13.5
Total schools	6.5	27.5	16.9
% who have met or know a teacher MLC			
Govt. schools	4.6	22.7	9.6
Aided schools		48.0	48.0
Private schools	6.3	23.3	15.3
Total schools	5.1	32.6	18.6
% saying a teacher contested the last			
MLA election in their area			
Govt. schools	3.1	6.6	4.0
Aided schools		9.8	9.8
Private schools	7.5	12.1	9.9
Total schools	4.3	9.7	7.0
% saying a teacher contested the last			
MLC election in their area	4.1	15.0	7.4
Govt. schools	4.1	15.8	7.4
Aided schools		32.7	32.7
Private schools	7.6	13.2	10.6
Total schools	5.1	21.3	13.1
% of teachers who contested any local			
body (Zila parishad/panchayat) elections		1.0	
Govt. schools	1.4	1.3	1.4
Aided schools		5.8	5.8
Private schools	5.7	3.3	4.5
Total schools	2.7	3.7	3.2

Note: There are no aided schools at the primary level in UP in our sample. This reflects published data from the school census (Seventh All India Education Survey of 2002), which shows that a very small proportion of primary schools in UP are aided schools. Also see (Bashir, 2005) who shows the proportion of total public expenditure on aided schools at different levels of education.

Source: Authors' calculations from the RECOUP teacher survey, 2008.

Table 4Teacher union membership, by school level and school-type

	Primary schools	Secondary schools	Total
Self reported union membership status	i i iiiai y schools	Secondary schools	1 0141
Govt. schools	84.7	84.0	84.5
Aided schools		85.3	85.3
Private schools	5.1	36.7	21.9
Weighted average	62.0	69.0	21.7
% of teachers in your school who are	02.0	09.0	
members of the teacher union			
Govt. schools	83.3	86.7	84.2
Aided schools		90.8	90.8
Private schools	10.3	56.6	35.0
% teachers who have ever taken help	10.5	50.0	55.0
From their teacher union *			
Govt. schools	30.8	25.0	29.2
Aided schools		43.7	43.7
Private schools	15.9	20.9	18.4
% teachers who say the teacher union		_0.7	
helps to address the problems they have+			
Govt. schools	76.4	66.7	73.7
Aided schools		75.5	75.5
Private schools	5.0	38.5	26.2
% saying they believe that unions help			
teachers with problems related to transfers			
Govt. schools	62.4	36.5	55.1
Aided schools		53.0	53.0
Private schools	33.9	36.0	35.3
% teachers who ever participated in			
strike/meeting/protest by a teacher union			
Govt. schools	62.2	68.4	63.9
Aided schools		76.5	76.5
Private schools	3.2	20.0	13.7
% teachers who have fought election for			
teacher union office			
Govt. schools	0.5	9.2	2.8
Aided schools		10.7	10.4
Private schools	1.1	0.0	0.6
% teachers saying they discuss among			
themselves to reach agreement who they			
will vote for in an election and vote en bloc			
Govt. schools	47.2	50.0	48.0
Aided schools		72.5	72.5
Private schools	10.9	37.7	27.6
Of those saying they vote en bloc, %			
saying their teacher union motivates them			
to vote en bloc in elections			
Govt. schools	45.2	55.3	48.1
Aided schools		67.6	67.6
Private schools	0.0	52.5	44.7

Note: *This question was immediately after asking teachers whether they had had any difficulties /harassment from a variety of entities/officials in the past 2 years (education officials, school management, parents, etc.). Thus the question may have been interpreted as "have you taken from the teacher union when you have had such difficulties/ harassment from education officials, school management etc.

+ This question was asked immediately after a question asking teachers to list the problems which they want their union to take up as lobbying issues.

Source: RECOUP teacher survey, 2008.

	Primary sch	ools		Secondary schools			
	Non-union	Union	t-test of	Non-union	Union	t-test of	
	teachers	teachers	difference	teachers	teachers	difference	
Govt. schools							
Age (years)	30.3	36.5	2.52	41.5	48.0	2.29	
Male (%)	40.0	50.6	1.07	33.3	54.0	1.31	
SC/ST/OBC (%)	50.0	51.2	0.12	25.0	34.9	0.66	
Salary pm (Rs)	4237.2	7320.6	3.32	14518.1	14832.7	0.33	
MA education (%)	13.3	22.3	1.11	83.3	82.5	0.07	
Training (%)	46.7	65.1	1.92	100.0	93.7	0.89	
Aided schools							
Age (years)				37.1	47.6	3.82	
Male (%)				100.0	97.7	0.59	
SC/ST/OBC (%)				33.3	44.8	0.82	
Salary pm (Rs)				2801.9	14983.4	8.72	
MA education (%)				93.3	90.8	0.31	
Training (%)				80.0	96.6	2.57	
Private schools							
Age (years)	29.1	32.8	0.73	33.5	39.3	3.01	
Male (%)	68.3	100.0	1.34	62.5	90.9	3.10	
SC/ST/OBC (%)	51.7	0.0	2.03	40.3	45.5	0.49	
Salary pm (Rs)	965.0	1230.0	1.11	2686.2	4841.7	2.70	
MA education (%)	30.0	0.0	1.29	62.5	60.6	0.18	
Training (%)	10.0	50.0	2.41	47.2	78.8	3.15	

Table 5Teacher characteristics, by whether union member or not, UP

Note: In government primary schools, mean salary of para teachers was Rupees 2,982 pm and of regular teachers was Rupees 11,851 pm.

Source: RECOUP teacher survey, 2008.

	Government	Aided	Private
Male	0.067	-0.203	0.133
	(0.91)	(-0.45)	(1.32)
Age	-0.003	-0.001	0.046
-	(-0.13)	(-0.01)	(1.50)
Age square	0.000	0.000	-0.001
	(0.66)	(0.12)	(-1.20)
Low caste	0.012	-0.018	-0.103
	(0.16)	(-0.15)	(-1.17)
BA education or above	0.048		0.151
	(0.55)		(1.26)
First division in HS exam	0.057	0.062	0.274***
	(0.89)	(0.60)	(3.57)
Pre-service training	0.008	0.137	0.297**
C	(0.08)	(0.48)	(2.44)
Tenure	0.006	0.013	0.025***
	(0.78)	(1.23)	(3.17)
Teacher union member	0.090	1.568***	-0.132
	(0.89)	(8.60)	(-1.13)
Secondary school	0.071		0.818***
5	(0.70)		(7.48)
Para teacher	-1.048***		
	(-8.05)		
Constant	8.775***	7.472***	5.891***
	(14.70)	(5.55)	(10.79)
Observations	268	102	165
Adj R-squared	0.602	0.578	0.646

Table 6	
OLS teacher pay equations, by school type, U	JP

Source: Estimations based on RECOUP teacher survey, 2008. t-values in parentheses. *, ** and *** represent statistical significance at the 10, 5 and 1% respectively. Note: First Division in Higher Secondary exams is an indicator of the teacher's own cognitive skills.

YEAR	Recurrent as a % of total educational expenditure	• •	ercentage of tota ucational expend	
		Primary	<u>Junior</u>	Secondary
1960-61	74.7	87.9	85.1	72.3
1965-66	79.4	90.7	89.2	75.3
1969-70	85.0	92.3	90.4	85.6
1974-75	87.1	96.6	94.3	87.1
1981-82	94.8	96.7	93.8	89.9
1987-88	97.3	NA	NA	90.7

 Table 7

 Salary expenditure as a proportion of total expenditure

Source: Table 13.13 Kingdon and Muzammil (2003), constructed from (GOI, Education in India), various years. Note: The figures published for the year 1987-88 for primary and junior education levels are not comparable with figures published in previous years because for 1987-88, non-teaching staff salaries have been lumped together with the item 'other' giving the implausibly low figures of 94.0% and 91.6% for primary and junior education respectively. After the late 1980s, the publication of the breakdown of total educational spending into salary, consumables, and other expenditure has been discontinued, i.e. it does not appear to be published any more. For instance, the 1994-95 copy of 'Education in India', published in the year 2000, had no such table. Note that prior to 1960-61, expenditure information in published documents was not presented by item of expenditure (salaries, consumables, others, etc) but rather by expenditure on boys' schools and expenditure on girls' school, etc or expenditure by source.

Table 8	
Teachers' nominal and real salaries in UP (Rs. per month)	

YEAR	Principal Inter college		Headmaster High School		Assistant Teacher Inter college		Trained Teacher of High School		CT Grade Teacher		CPI 1960 =100
	Nom.	Real	Nom.	Real	Nom.	Real	Nom.	Real	Nom.	Real	
1960-61	250	250	225	225	175	175	120	120	75	75	100
1969-70	275	153	247	137	215	119	138	77	100	56	180
1971-72	500	260	400	208	365	190	300	156	220	115	192
1973-74	550	220	450	180	400	160	300	120	250	100	250
1975-76	850	272	770	246	650	208	450	144	450	144	313
1985-86	2200	355	2000	323	1600	258	1400	226	1350	217	620
1995-96*	8000	519	7500	486	6500	422	5500	357	4500	292	1542
2006-07**	20610	797	18750	725	16290	630	14430	558	13500	522	2585
Annual % increase											
1973 - 1996	12.9	4.0	13.6	4.6	13.5	4.5	14.1	5.1	14.0	5.0	
Annual % increase											
1996 - 2006	10.9	4.0	8.7	3.7	8.7	3.7	9.2	4.1	10.5	5.4	
Annual % increase											
1973 - 2006	12.2	4.0	12.0	4.3	12.0	4.3	12.5	4.8	12.8	5.1	

<u>NOTE:</u> The nominal amounts of pay are the minimum at the basic pay scale exclusive of 'Dearness Allowance'. * Revised pay scales announced in December 2001 but applied retrospectively from 1st Jan. 1996. The UP government conceded these Fifth Pay Commission pay scales after 4 years of lobbying by teacher unions. **In December 2008, the Sixth Pay Commission's recommendations were accepted and applied by the UP government without a fight with the unions. They more than double the basic pay scale of teachers from 1st January 2006 (as they will be applied retrospectively). CPI is the Consumer Prices Index. Source: Table 13.11 in Kingdon and Muzammil (2003), and updated to 2006.

Table 9Important teacher Agitations in UP (1956- 2000)

Year	From	То	Duration (days)	Details
1956	31 Jan.	31 Jan.	1	<u>-</u>
1959	3 May	8 May	2	Main demand: revision of pay scales
1964	24 Apr,	5	1	4,000 teachers demonstrated
	4 Aug.		1	10,000 teachers demonstrated; 11-point charter included demands for triple-benefit-scheme
1965	11 Mar.	28 Mar.	18	30,000 teachers demonstrated; demands included interim relief, equal pay to G and PA teachers; hunger strike by some teachers from 22-28 March; central govt announced financial help for UP Teachers; GOUP increased salaries of PA teachers by Rs. 20 per month.
1966	5 Dec.	10 Dec.	5	5,000 teachers demonstrated in violation of prohibitory order; demand was pay parity between G and PA teachers; teacher leaders were jailed but released on 17 th December.
1968-69	25 Nov.	5 Jan.	45	Initially 3000 teachers demonstrated (600 arrested); strike intensified; 20,000 teachers sent to jail; Demands included pay parity between PA non-teaching staff and G employees and direct salary to PA teachers from the state govt treasury
1971	27 Jan.	18 Feb.	23	Total strike observed; issues were lack of implementation of agreements; 1000 teachers and their leaders arrested.
1973	3 Dec.	23 Dec.	21	11-point charter of demands included nationalisation of education; 500 teachers arrested.
1974	14 Jan.	4 th Mar.	>2	Pandey group threatened to go on strike; on 4 th March, demonstration invited 'lathi charge'. Leader badly injured, remained hospitalised for 8 days. This was made an issue for prolonging the strike.
1975	31 Mar.	31 Mar.	>1	Demonstration in front of LA, demanding pay increases and nationalisation of education. 2000 teachers arrested.
!977-78	2 Dec.	13 Jan.	42	Organised by Pandey group of MSS; demands included the nationalisation of education, retention of education of State List, and parity in gratuity pensions etc. between PA and G teachers; 40,000 teachers took mass casual leave; 80,000 striked; 30,000 teachers were arrested
1979	1 May	1 May	1	Demonstrated against the Employees Service Conditions and Dispute Reconciliation Act, which sought to regulate the activities of teacher unions
1981	27 Jan.	27 Jan.	1	Pandey group's dharna and demonstration to ask for a Education Service Commission to regulate teacher appointments
	17 Aug.	17 Aug.	1	'Pen down' strike against the removal of temporary teachers from service
	21 Oct.	21 Oct.	1	'Pen down' strike in demand for pay revision
	7 Nov.	7 Nov.	1	Mass casual leave and demonstration because of dissatisfaction with the UP Pay Commission's recommendations
	16 Nov.	16 Nov.	1	Sit-in or dharna at Raj Bhavan in demand of pay revision
	24 Nov .	24 Nov.	1	'Fast until death' (A-maran Anshan) protest; fasting teachers arrested
	27 Nov.	27 Nov.	1	Pandey group and Sharma group stage separate demonstrations
	1 Dec.	3 Dec.	3	Strike in opposition to the UP Pay Commission's recommendations
1984	12 Jan.	18 Feb.	35	Demands included nationalisation of education; 3000 teachers sent to jail; schools remained closed for 35 days
1985	30 Aug.	30 Aug.	1	-Sharma group of MSS organised mass casual leave
	5 Sep.	5 Sep	1	-Sit-in at DIOS office, 'postcard to chief-minister' campaign
	5 Nov.	5 Nov.	1	-80,000 teachers took mass casual leave
	7 Nov.	7 Nov.	1	-40,000 teachers demonstrated; 28 demands included nationalisation of education, payment of salary for the previous strike period, abolition of private management in schools, and regularisation of ad-hoc teachers etc.
1986	5 Sept.	5 Sept.	1	All three groups had agitations in 1986. On 5 Sept. Scooter rally agitation against the appointment of part-time teachers
	20 Sept.	20 Sept.	1	'Chalk down' strike, against National Policy on Education

1987*	14 Nov. 15 Sept.	14 Nov. 7 Oct.	1 23	Rally to demand the implementation of the Fourth Pay Commission's recommendations, schools remained closed Agitations on 16 June (warning day), 15 September (historic rally of teachers with govt employees suppressed by use of tear gas and lathi-charge, one person died and many teachers were injured; many teachers were arrested; called off on 7
1988**	14 Oct.	26 Oct.	13	oct), and 13 November (60,000 teachers participated in a rally). GOUP announced generous improvements in DA. GOUP failed to implement 1987 agreement; Awareness week observed from 25 August. Big rally organised on 15 September; fasting by rotation organised from 25 Sept to 11 Oct; Shouting slogans: "Jeene Layek Vetan Do" (give wages worth a living). GOUP admitted that in giving new scales, a new burden of Rs 656 crores would come on its shoulders. Talks held 26 Oct. and agreement reached.
1989	19 Aug.	19 Aug.	1	All MSS factions in unified rally to demand Central pay scales for UP teachers; to make 450 more unaided schools aided; for the regularisation of ad-hoc teachers. Agreement pushed up GOUP education expenditure sharply.
1990	9 Aug.	9 Aug.	1	Pandey group's sit-in dharna in support of their 15-point charter of demands
	29 Aug.	30 Aug.	2	Sit-ins at Director of Education's offices. Agitation programmes for Nov /Dec. postponed in view of Babri Masjid unrest
1991	5 Jan.	5 Jan.	1	Pandey group demonstrated at LA in support of 51 point charter of demands, including regularlisation of ad hoc teachers, bringing more schools onto the aided list, and remove of pay anomalies. Thakurai group agitated in month of August
	27 Nov.	27 Nov.	1	Demonstration at LA and gherao of the Director of Education offices - demanding implementation of various govt orders. MSS underwent a further split this year - a new group (the Bhatt group) formed.
1992	10 Jan.	10 Jan.	1	10,000 teachers involved in a sit-in by the Sharma group of MSS on 10 th Jan.; Many days's teaching wasted in March due
	March	March	'many days'	to mass casual leave, demonstrations and sit-ins. Unions declared (but did not carry out) a boycott of examinations.
1993	21 July	21 July	1	No statewide agitation of teachers in 1993 but most previous issues were taken up at low levels of agitation. Thakurai
	5 Sept	7 Sept	2	group satyagrah on 21/7/93; sit-in on 7 th Sept and a processions and demonstrations on 5 th Sept (31 demands) and 16 th Oct.
	16 Oct	16 Oct	1	Many other demonstrations were also held during the year but they did not make a notable impact.
1994	25 Nov.	6-Dec.	11	Agitations took place on 5-6 May (demonstration); 25 th Oct (picket); strike 25 Nov-6 Dec (strike); main demands were: unaided private schools be brought on aid list, regularisation of ad hoc teachers, removal of pay anomalies, no modification be attempted in the Salary Disbursement Act
1995	24 Aug.	24 Aug	1	Sit-in at the offices of the District Inspector of Schools and at the LA, 49 point charter of demands
	14 Nov.	14 Nov.	1	All four groups of the MSS came together in historic unity to demonstrate
1996	17 Jan.	23 Jan.	7	Jail-bharo andolan (Fill-the-Jails agitation). Talks with the governor ended the agitation - but MSS factions accused each other for calling-off the agitation. Sit-in (dharna) on 6 June demanding salary payment in the first week of the month; demonstrations on 12 th Dec. at the district headquarters of all teacher unions in the state, with a 13 point charter of demands for district magistrates - one particular demand was the release of the report of the Fifth Pay Commission (FPC).
1998	1 July	6 Aug	37	Strike demanding implementation of the FPC recommendations, specifically for post-to-post parity in pay-scales
1999	25 Jun.	25 Jun.	1	MSS-leader teacher MLCs created chaos during a LC session, vehemently demanding implementation of FPC pay scales.
	1 Jul.	7 Jul.	7	Complete strike by teachers as part of a non-cooperation movement.
	31 Jul.	31 Jul.	1	Protest day observed by the MSS
	2 Aug.	13 Aug.	12	Dharna or picket outside Council House. On each day, teachers from different regions of the state assembled for dharna.
	22 Aug.	22 Aug.	1	Big rally organised by MSS; uproarious scenes marred the zero hour in the LC when angry teacher MLCs should slogans and walked out of the House in protest.
2000	9 Aug.	9 Aug.	1	MSS organised dharna at DIOS office in each district headquarter. Charter of 31 demands in addition to FPC demands
	18 Sept.	19 Sept.	2	Dharna at Directorate of Secondary Education Camp office in Lucknow
	23 October	23 October	1	Mammoth rally of Mahasangh in Jyotiba Phule Nagar for implementing Fifth Pay Commission recommendations.
	6 Nov.	6 Nov.	1	Large demonstration and massive courting arrest. Teachers sang slogan 'If this govt. does not pay heed, we will fill jails'
2004	1 April	7 April	7	Under the banner of Employees-Teacher Coordination Committee teachers went on strike and marched on roads for pressing their demand of merger of 50 percent of DA in the basic pay. The agitation continued for a week. The Government had to accept demands.

20	06 16 Decem	ber 16 Dec.	1	MSS organised 'Virodh Diwas' (opposition day) for ensuring pay protection and protection of service conditions, at all district offices of the DIOS. The teachers under e banner of MSS submitted their charter of demands to the concerned DIOS.
20	07 9 April	9 April	1	Demonstration in front of the Offices of the District Inspector of Schools in each District to press for timely payment of post retirement
				benefits (provident fund, gratuity etc.) before 30 June 2007
20	08 25 Februa	ry 25 Feb.	1	Big demonstration before the offices of the District Magistrates all over the state to register the protest of teachers against the
				statements made by the education Minster of UP which the TU took as derogatory to teachers. The MSS at district level submitted
				memorandum addressed to the CM to the respective DMs.
	21 July	21 July	1	Demonstration against the decision of the UP government to introduce HIV related education in secondary education of high school and
				intermediate classes, at the DOIS offices
	24 Decem	ber 24 Dec.	1	Demonstration under the banner of the MSS at each District headquarter at the District Magistrate Office for implementation of the
				Sixth Pay Commission recommendations at par with Central Government teachers
	29 Decem	ber 29 Dec.	1	Mammoth demonstration at the Vidhan Bhawan in Lucknow whole day long that crippled the traffic in city for implementation of the
				Sixth Pay Commission recommendation as given to teachers of Central Government

Source: Table 10.2 in Kingdon and Muzammil (2003), and updated with information from newspapers and teacher union magazines. Notes: * led by Sharma Group; ** led by Pandey and Thakurai Groups; PA= Private aided school; G=Government school

	Ordinary Least Squares			School Fixed		
	Union	Political	Both	Union	Political	Both
	Member	Connection		Member	Connection	
	(1)	(2)	(3)	(4)	(5)	(6)
Class 4	0.240***	0.239***	0.235***	0.285***	0.278***	0.285***
	(16.55)	(16.61)	(16.20)	(17.15)	(16.91)	(17.13)
Subject Maths	-0.0560***	-0.0579***	-0.0585***	-0.0664***	-0.0674***	-0.0675***
5	(-2.92)	(-3.01)	(-3.05)	(-3.66)	(-3.71)	(-3.71)
Wave 2	0.0983***	0.0981***	0.0981***	0.104***	0.103***	0.104***
	(14.59)	(14.57)	(14.57)	(16.38)	(16.31)	(16.36)
Child characteristics	× /	× /				× /
Age	0.0171**	0.0171**	0.0182**	0.0553***	0.0555***	0.0555***
e	(2.02)	(2.02)	(2.14)	(6.46)	(6.48)	(6.48)
Male	0.127***	0.122***	0.119***	0.147***	0.144***	0.146***
	(6.56)	(6.29)	(6.18)	(7.75)	(7.55)	(7.66)
Log weight (kg)	0.654***	0.658***	0.659***	0.495***	0.502***	0.496***
	(7.32)	(7.37)	(7.38)	(5.81)	(5.88)	(5.82)
Height (cm)	0.0072***	0.0070***	0.0071***	0.0058***	0.0057***	0.0057***
8	(4.04)	(3.96)	(3.98)	(3.32)	(3.28)	(3.29)
Recently ill§	-0.0793***	-0.0765***	-0.0776***	-0.0938***	-0.0926***	-0.0936***
2 0	(-4.00)	(-3.87)	(-3.92)	(-4.92)	(-4.85)	(-4.91)
Mother education	0.0423***	0.0430***	0.0427***	0.0427***	0.0427***	0.0426***
	(10.11)	(10.32)	(10.21)	(10.65)	(10.66)	(10.64)
Ln assets	0.101***	0.103***	0.103***	0.0591***	0.0605***	0.0601***
	(8.21)	(8.32)	(8.37)	(4.95)	(5.06)	(5.02)
Teacher characteristics	()		()			
Age	0.0095***	0.0094***	0.0084***	0.0118***	0.0108***	0.0117***
5	(6.08)	(6.05)	(5.30)	(5.73)	(5.58)	(5.67)
Male	-0.110***	-0.112***	-0.0913***	-0.150***	-0.136***	-0.150***
	(-5.27)	(-5.51)	(-4.29)	(-4.79)	(-4.71)	(-4.77)
Qualification BA	-0.0057	-0.0001	-0.0095	0.118***	0.0984***	0.120***
-	(-0.24)	(-0.00)	(-0.39)	(3.05)	(2.62)	(3.08)
Qualification MA	-0.00016	0.00383	-0.00654	0.120***	0.115***	0.126***
-	(-0.01)	(0.14)	(-0.24)	(3.03)	(2.98)	(3.16)
First division	0.0279	0.0291	0.0229	0.151***	0.147***	0.153***
	(0.97)	(1.02)	(0.80)	(3.78)	(3.69)	(3.84)
Para teacher	0.0968**	0.0939**	0.0614	0.233***	0.212***	0.231***
	(2.44)	(2.38)	(1.51)	(4.53)	(4.33)	(4.47)
Governance variables	· /	· /	. /	· /	· /	· /
Union member	-0.0589**		-0.0550**	-0.106**		-0.0904*
	(-2.21)		(-2.06)	(-2.37)		(-1.95)
Politically connected	. /		. /	. /		
-		-0.238***	-0.256***		-0.142**	-0.101
		(-3.77)	(-4.03)		(-1.99)	(-1.36)
Ν	8185	8185	8185	8185	8185	8185
Adjusted R-square	0.25	0.25	0.25	0.27	0.27	0.27
Altonji's estimated bias	0.141	-0.128		0.988	0.198	
Altonji's Ratio		1.85				

Table 10Achievement equation, government primary schools only, UP(Dependent variable: z-score of achievement mark)

t statistics in parentheses * p < 0.1, ** p < 0.05, *** p < 0.01

Notes: Constant included but not shown. § If child was ill enough in past 3 months to miss school consecutively for 4 or more days. 'Politically connected' = 1 if the teacher has met or personally knows a teacher MLC. Number of schools = 62. Estimations based on RECOUP and merged SchoolTELLS survey data, 2008. The Altonji estimate of bias is of the opposite sign to the estimated 'effect' in columns 1, 5 and 6, hence no Altonji ratio is calculated.

Table 11

The association of a teacher's 'union membership', and of his/her 'political connectedness', with some teacher effort and other outcomes (Govt. Primary Schools, Uttar Pradesh) : School Fixed Effects Estimates

	Coeff on union member variable	Coeff on 'met or personally knows teacher MLC/MLA	Coeff on 'met or personally knows teacher MLC
Dependent variable (Teacher effort indicator)			
Teacher's absence rate	-0.004	0.075	0.161**
	(-0.084)	(1.23)	(1.98)
Proportion of T's school time given to teaching on a typical day	-0.207	-0.498***	-0.373
	(-1.42)	(-2.62)	(-1.45)
Proportion of T's school time given to organising prayers/games	0.258*	-0.391**	-0.478*
	(1.86)	(-2.20)	(-1.96)
Proportion of T's school time to organising mid-day meal	-0.118	0.186	-0.034
	(-0.83)	(1.00)	(-0.14)
Proportion of T's school time to doing office/data/register work	0.185	0.107	-0.808*
	(0.68)	(0.30)	(-1.71)
Gives private tuition	0.065	0.052	-0.05
	(1.28)	(0.86)	(-0.62)
Number of days of non-teaching duties outside school	-2.609	5.127	5.467
	(-0.80)	(1.22)	(1.05)
Has occupation other than teaching	0.033	0.223*	0.052
	(0.27)	(1.66)	(0.27)
Cites 'social work' as an occupation	0.077	0.212**	0.452***
	(0.81)	(2.01)	(3.02)
Has contested any election^	0.057	0.312***	0.286**
	(0.8)	(3.07)	(2.53)
Has filed a education related court case	-0.068	-0.114**	-0.139*
	(-1.28)	(-2.01)	(-1.65)
Fully agrees that 'frequently absentee teachers should be paid less'	0.027	-0.139	-0.591***
	(0.21)	(-0.92)	(-2.86)

Note: In each underlying equation, we controlled for a range of teacher characteristics, though we do not report the coefficients of these variables. These controls are for teacher's age, gender, religion, education level, and para vs. regular teacher status. In this sample of government primary school teachers, 8.6% have met or personally know a teacher MLA or MLC, 4.6% have met or personally know a teacher MLC, and 84.6% are teacher union members. *, ** and *** represent statistical significance at the 10%, 5% and 1% levels respectively.

++ without being asked by enumerator to move to the class they were meant to be teaching (according to the time-table). Source: Estimations based on RECOUP teacher survey, 2008.

Appendix Table 1

Year	Percentage of exam-takers who passed						
	Regular	Private					
	candidates	Candidates	Total				
1988	49.6	40.6	46.6				
1989	47.6	39.4	44.8				
1990	46.4	40.4	44.2				
1991	61.2	52.2	57.0				
1992	17.3	9.0	14.7				
1997	52.4	36.4	47.9				
2002	41.5	29.1	40.2				

Pass rates in examinations by the UP High School Examinations Board

Source: Swatantra Bharat (High School Exam Results Supplement) Wed 15th July 1992, p3, and Muzammil (2004). Reproduced from Kingdon and Muzammil (2009).

Appendix Table 2

Evidence from Indian studies on private and government school teachers' monthly salaries (Primary/middle schools only)

	teacher is a % of	Kingdon's study 1994	Kansal's study 1990	Govinda/ Varghese 1993	Jain's study 1988	Bashir's study 1994	Singh/ Sridhar 2002	Murali- dharan, Kremer, 2006	RECOUP survey, 2008
		Urban	City of	5	Baroda	Many	2 districts,	20 states	5 districts,
		Lucknow,	New	districts,	district,	districts,	rural	of	rural
		Uttar	Delhi	Madhya	Gujarat	Tamil	Uttar	India	Uttar
		Pradesh		Pradesh		Nadu	Pradesh		Pradesh
G	regular	42	39	49	47	47	20	20	8
teache	er pay								
PA pay	teacher	43	39	66	-	50	-	-	-

pay

Source: Kingdon and Muzammil (2003) for first six columns; Muralidharan and Kremer (2006) for the penultimate column and authors' calculations from RECOUP teacher survey of 2008 for the last column.

Note: PUA is 'private unaided'schools; PA is 'private aided'schools; and G is 'Government' schools. The Kingdon study sampled 182 teachers, Kansal 233 teachers, Govinda and Varghese 111 teachers, Bashir 419 teachers, Singh and Sridhar 467 teachers, RECOUP UP survey 330 primary school teachers. The number of teachers sampled by Jain and by Muralidharan & Kremer is not known. In the RECOUP survey of rural UP, mean pay of public regular teachers was Rs. 11850 and mean pay of private school teachers in the same sample villages was Rs. 980 per month. From January 2009, regular public school teachers' salaries roughly doubled in UP. Thus, if private school teachers' wage remained around Rs. 980 per month, the ratio of private to public (regular) pay will now be 4% instead of 8% (Kingdon, 2010)