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**The Impact of the Sixth Pay Commission on Teacher Salaries:
Assessing Equity and Efficiency Effects**

by

Geeta Kingdon*

Institute of Education, University of London

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Abstract

Following Sixth Pay Commission's recommendations, primary school teacher salaries have nearly doubled in Uttar Pradesh and presumably in other states that have fully or nearly fully implemented the recommendations. This paper examines the equity implications of the teacher salary increases by presenting five different ways of benchmarking government teacher salaries. The paper also assesses the efficiency implications of pay increases for teacher effort. Finally the paper considers the 'subjective well-being' consequences of teacher pay changes.

Correspondence: Professor Geeta Kingdon, Institute of Education, University of London, WC1H 0AL, United Kingdom. Email: g.kingdon@ioe.ac.uk Tel: +44 203 073 8316.

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Introduction

The starting salary of a regular teacher in a government primary school until December 2008 in Uttar Pradesh was Rs. 8370 per month. In early 2009 it was made Rs. 17996, an increase of 115%. The salary of an experienced teacher was Rs. 13020 and increased to Rs. 22955, a raise of 76%. Averaging over new and experienced teachers, there was a 92% 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 respectively¹. UP is not alone in this salary bonanza. The pay increases were agreed in late 2008 but are applied retrospectively from 1st January 2006². In addition to salary increases, the 6th Pay Commission also provides for increases in other benefits, in particular saying that the Children’s Education Allowance and Reimbursement of Tuition Fee will henceforth be “up to the maximum of Rs.1000 per child per month subject to a maximum of 2 children. Hostel subsidy may be reimbursed up to the maximum limit of Rs.3000 per month per child” (GOI, 2008, p225)³.

The pay increases are intended to improve the quality of public services delivered to the citizens. The increases are underpinned by the belief that higher salaries will attract better individuals into teaching and also motivate teachers, once in service. That is the intention but what are the likely actual effects?

We consider both the equity and efficiency effects of teacher pay increases following implementation of 6th Pay Commission’s recommendations. On equity effects in Section 2, we present five ways of benchmarking teachers’ salaries, i.e. how the pay of teachers who are covered by the Commission’s recommendations (regular teachers in government schools) will change relative to the pay of teachers who are not covered (government school para teachers and private school teachers), and how ratio of teacher pay to state per capita income will change, after implementation of the new pay scales. On efficiency effects in Section 3, we consider whether the pay increases are likely to improve teacher effort and performance. Finally in Section 4 we consider wider implications of the large shifts in relative pay between different types of teachers (regular, para, private), in terms of teachers’ subjective well-being and assorted other consequences of teacher salary increases.

¹Calculations are based on tables given in the *Report of the UP Pay Committee 2008*, also known as *S.A.T. Rizvi Committee* (GOUP, 2008), and further elaborated on pages 9-13 in a special issue of *Santusht* (2008).

² When the Fifth Pay Commission made its recommendations in 1996, the government of UP (GOUP) negotiated the pay increases with teacher unions for four years, finally accepting the full pay award in Dec. 2000 just before the state election in February 2001. By contrast, the Sixth Pay Commission recommendations in 2008 were almost accepted by GOUP, perhaps knowing that arguing with teacher unions would merely delay the inevitable, and because an election was imminent in April 2009 anyway.

³ The justification given for increasing the Child Education Allowance is that private school fees rose considerably after the implementation of the Fifth Pay Commission “since most of the reputed private schools also follow salary structure of Government schools” (GOI, 2008, p 225).

1. Equity effects of the 6th Commission pay increases

We present five ways of benchmarking regular teacher salaries in government schools, in terms of the equity criterion.

- Firstly, comparing the rate of increase of teacher salaries with the rate of increase of per capita GDP – this speaks of equity between the mean earnings of teachers and the mean earnings of the average person in the state;
- Secondly, comparing the increase over time in salary and non-salary educational expenditure – this speaks of equity between different types of education expenditure;
- Thirdly, comparing regular teacher salaries with para teacher and private school teacher salaries – this speaks of equity between the salaries of different types of teachers;
- Fourthly, comparing the Indian ratio of teacher salary to per capita GDP with the value of this ratio for other countries – this compares the relative economic position of teachers in India with the relative economic position of teachers in other countries;
- Fifthly, and similarly to item four above, comparing the ratio of teacher salary to state per capita GDP across different states of India – to see the relative economic position of teachers in different Indian states

1. *The ratio of teacher salary to per capita GDP in India and outside*

The ratio of teacher salary to per capita income tells us how affluent the teacher is, with respect to the average person in the country. Thus, it gives a measure of the social distance between the teacher and the taught. In 2004-05, i.e. well before the 6th Pay Commission related salary increases, government teachers' pay as a multiple of India's per capita GDP was just above 5, as seen in Table 1, i.e. a ratio of teacher pay to per capita GDP of about 5:1, which compares with a ratio of 3:1 for Asian countries and of less than 2:1 for OECD countries (Mingat, 2002; http://portal.unesco.org/education/en/file_download.php/fa99ea234f4accb0ad43040e1d60809cmuller_en.pdf and http://www.uis.unesco.org/ev_en.php?ID=5381_201&ID2=DO_TOPIC – accessed 4 January 2010). Note that the ratios reported in Table 1 refer to salaries of *all* government primary school teachers (regular and para), and not only the regular teachers. The reasons for this are explained in the note to Table 1. Of course, if we consider the ratio of just *regular* teachers' pay to per capita GDP, the ratio would be greater.

Consider what a ratio of 7.3: 1 in UP or 12.4:1 in Bihar in 2004-05 implies. It means roughly that in UP (Bihar), a teacher is more than 7 (12) times as affluent as the average child, a huge social distance. Given the near doubling of regular teacher pay after the Sixth Commission pay increases, the ratio for India (5:1 in the last row of Table 1) could now be as high as 10:1, compared to Asian countries' ratio

of 3:1. Clearly, Indian teachers are much better paid (as a multiple of per capita GDP) than in other countries.

While the salary scales recommended for central government school teachers may often be applied nearly equally in the different states, the states have widely differing per capita income. This causes the ratio of teacher salary to state per capita income to be much higher in the poorer states such as UP and Bihar, than in the wealthier states, as seen in Table 1⁴.

Table 1
Ratio of primary-school teacher salary to state per capita income (Rupees), by state

State	Mean teacher pay at current prices (2004-05) Rupees*		State per capita GDP (1999 constant prices)#	State per capita GDP (2004 prices)	Ratio of teacher pay to state per capita GDP
	Monthly (a)	Annual (b)			
Andhra Pradesh	5642	67704	19884	24099	2.8
Bihar	8497	101964	6771	8206	12.4
Gujarat	6756	81072	23761	28798	2.8
J & K	5751	69012	14850	17998	3.8
Madhya Pradesh	5418	65016	12011	14557	4.5
Maharashtra	8548	102576	27040	32772	3.1
Rajasthan	6892	82704	14947	18116	4.6
Uttar Pradesh	7516	90192	10224	12391	7.3
West Bengal	9289	111468	19174	23239	4.8
Simple mean for states	7145	85745	16518	20019	5.1

Source: *Author's own calculations from NSS data, 2004-05. # Source: Directorate of Economics & Statistics of respective State Govts, <http://pbplanning.gov.in/pdf/Ranking%20of%20States%20Constant.pdf> (retrieved 7th Nov. 2009). Column (d) shows column (c) numbers inflated to 2004, using All India Consumer Price Index (General) for Industrial Workers.

Note: We identified teachers using the NSS 3-digit occupation codes and isolated *government* school teachers by taking the subset of those reporting being in public (as opposed to private) sector employment. It is not possible to sort regular from para teachers in NSS data because of a lack of distinction as between these two teacher types in the occupation codes. In SchoolTells survey's salary data in 2007 (Kingdon, Banerji and Chaudhary, 2008), UP govt. regular teachers' mean pay was Rs. 11,800 pm but according to NSS data for the same year, mean pay is a lot lower at Rs. 8643 pm, suggesting that the NSS figure represents mean pay across all (regular and para) teachers.

The Sixth Pay Commission related teacher salary increases have greatly raised the Indian ratios, compared to those shown in Table 1. To illustrate, consider the case of UP: the average salary of a primary school regular teacher in UP in 2006 (under the new Sixth Commission pay scales which

⁴ For example, the per capita income of UP in 2004-05 was only about half (52%) of the per capita income of India as a whole, and only about 33% of the per capita income of prosperous states such as Punjab, Haryana, Himachal and Maharashtra. Moreover, the growth in total income at current prices in a state such as UP (7.5%) is lower than that of India (10.6%), when averaged over the period 1994- 2004.

although announced in January 2009 were applied retrospectively from January 2006) was Rs. 20476 per month, or Rs. 245,712 per year. UP state per capita GDP in 2006-07 was Rs. 14834 according to the state Annual Plan 2008-09 (accessed 7th Nov. 2009 on http://planning.up.nic.in/annualplan_0809/Vol-1%20Part-1/CONTENTS-VOL%201-PART%201.htm). So, the ratio of regular teacher salary to state per capita GDP was 16.6 or nearly 17:1 in 2006, i.e. more than twice as much as that shown in Table 1 (7.3:1) which includes both regular and para teachers.

A ratio of 17:1 implies that regular teachers are 17 times as affluent as the average person in the state. However, since rural per capita income is roughly only one-third of urban per capita income⁵, the social distance is even higher than 17 times in rural areas. It is known that hours worked per day are lower and weeks of holiday are higher in teaching jobs, compared with other regular waged jobs in the economy. Additionally, on any given day 25% of regular teachers are absent (SchoolTells survey by Kingdon, Banerji and Chaudhary, 2008; also Kremer, et. al. 2005) and another 22% arrive late in school (Kingdon, Banerji and Chaudhary, 2008), which further reduces teachers' annual working hours. Thus, if we calculated remuneration per hour, earnings inequality between teachers and many other workers would be even greater⁶.

When teachers are so much better-off than the students, they can look down on students with disdain since children in government schools typically come from poorer than average backgrounds in any case, and may come to school shabby, unclean and underfed. This gaping social distance may also partly explain the high teacher absence rate if well-paid teachers feel it 'beneath them' to teach such poor children or if it causes them to not take the education of these children seriously. Such social distance represents very unequal relations between teachers and the village citizenry and it may explain – at least in part – why community participation in monitoring education via Village Education Committees and School Education Committees has apparently not been effective in improving school and teacher accountability in India: “citizens face substantial constraints in participating to improve the public education system, even when they care about education and are willing to do something to improve it” (Banerjee et al, 2008). Also see Khemani (2008).

⁵ Chapter 32 in CSO (2007) shows that per capita income in rural and urban India in 1999-2000 was Rs. 10,652 and Rs. 30,095 respectively.

⁶ Apart from higher wages regular teachers enjoy a high degree of job- and income-security, an advantage not shared by most rural people, given that they are dependent on rain-fed agriculture, informal wage employment or casual labour (including time-limited public-works employment under the National Rural Employment Guarantee Act).

2. *The rate of increase of teacher salaries, and the rate of increase of per capita GDP*

Between 1973 and 1996, the real teacher salary rate grew at 5% per annum in UP, according to calculations in Kingdon and Muzammil (2003). Figures from the Penn World Tables (Heston, Summers and Aten, 2002) show that over the same period, real per capita GDP of India grew by 3% per annum (and of UP probably less), i.e. regular teachers gained about 2 percent per annum more than the average person, in real terms every year continuously for this 23 year period. Over the more recent period between 1996 and 2006, real teacher salary rate in UP increased at an annual rate of 5.4% (Kingdon and Muzammil, 2009) while per capita GDP has increased by 4.3% annually. Of course, regular teacher salaries have greatly increased in 2009 following Sixth Pay Commission, the increase applied retrospectively from 2006. Teachers' organisations have always been active in lobbying for salary increases, e.g. via ensuring that Central Pay Commission recommendations for teachers are applied as fully as possible within their state.

3. *Comparison of regular, para and private school teacher salaries*

Government regular teachers' pay as a multiple of *private* school teachers' pay has secularly increased over time. Table 2 shows private school teachers' mean pay as a percentage of regular teachers' mean pay at the primary/junior school level in different parts of India in different years. The implied ratio of government to private school teacher salary is given in parentheses below. It shows that in urban Lucknow district of UP, government regular teachers' pay was about 2.5 times private teachers' pay in the early 1990s (Kingdon, 1994); by 2002 the ratio was 5:1 in rural UP⁷ and rose further to 12:1 in 2007-08 in rural UP (SchoolTELLS rural schools' survey by Kingdon et al, 2008). A ratio of 12: 1 in UP is extreme inequality already but this is likely to have been further exacerbated after the Sixth Pay Commission increases which nearly doubled primary regular teachers' pay, with the ratio of government to private teacher pay now being possibly above 20:1 since private school teachers' salaries are unlikely to be affected too much by the Sixth Pay Commission awards. This says that private school teachers' mean pay is now likely to be around 5% that of govt. school regular teachers in UP, a truly grotesque level of inequality in teacher pay.

⁷ Singh and Sridhar's (2002) data on UP refer to 1998-99 in Deoria and Firozabad districts, and they do not distinguish between regular and para teachers.

Table 2

Private unaided schools' mean monthly teacher salary as a percentage of government school teachers' mean monthly salary, different parts of India, different years

School level	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	Kingdon, Banerji, Chaudhary 2008
	Lucknow City of Uttar Pradesh	City of New Delhi	5 districts of Madhya Pradesh	Baroda district of Gujarat	Many districts of Tamil Nadu	2 districts of Uttar Pradesh	20 states of India	11 districts of Bihar and UP
<i>Primary/junior level</i>	42 (2.5:1)	39 (2.5:1)	49 (2:1)	47 (2:1)	47 (2:1)	20 (5:1)	20 (5:1)	8 (12:1)

Note: In each column, the figure in parenthesis is the implied ratio of government school regular teachers' mean salary to private school teachers' mean salary. The Kingdon 1994 study sampled 182 teachers, Kansal 233 teachers, Govinda and Varghese 111 teachers, Bashir 419 teachers, Singh and Sridhar 467 teachers, and Kingdon, Banerji, Chaudhary study 734 teachers. We do not know the number of teachers sampled in Jain or Muralidharan and Kremer.

Source: Table 6.7 in Kingdon (2008), which also gives the references to the above studies.

Private schools mostly do not comply with government-mandated minimum wages, instead paying 'market-clearing' wages, i.e. their salary level is determined by the relative demand and supply of teachers. There are high levels of graduate unemployment in the country: the 2004-05 quinquennial round of the National Sample Survey on Employment and Unemployment shows the unemployment rate among those with undergraduate degrees as 11.7% in rural India and 10.1% in urban India (Kingdon and Sipahimalani-Rao, 2010). Such high levels of unemployment represent excess supply of educated persons, and private schools – like all small private sector employers – take advantage of this excess supply to pay market clearing wages to teachers, especially at the primary level of education where general skills in a teacher are deemed sufficient to teach classes 1 to 5.

Government primary schools also employ para teachers who are typically appointed by the village panchayat and are usually on some kind of an impermanent (e.g. annually renewable) contract. According to SchoolTELLS survey, in January 2008, the mean salary of regular teachers in UP was Rs. 11800 per month but that of para teachers was a fraction of that, at Rs. 3000 per month, meaning that para teacher pay was only about 25% of regular teacher pay. This gives a ratio of regular to para teacher salary of about 4:1. Nationally, the ratio in 2004-05 was about 3:1 as seen in Table 3. The ratio of regular to para teacher salaries is likely to have worsened (become bigger) since the great increase of regular teacher salaries under the 6th Pay Commission, because para teacher pay has risen but little (e.g. in UP from Rs. 3000 to 3500 per month, compared with the starting salary of a regular teacher which rose from Rs. 8370 to very nearly Rs. 18000 per month). Again, para teacher schemes

presumably survive despite low salary levels because of an excess supply of individuals with the requisite levels of education to become para teachers.

Table 3
Comparison of regular and para teacher salaries, by state

State	Regular teachers (Mean pay in 2004-05) (a)	Regular teachers (Mean pay (in 2007)* (b)	Para teachers (Mean pay in 2007) (c)	Ratio of regular teacher pay to para teacher pay (d)
Andhra Pradesh	5642	6488	1500	4.3
Bihar	8497	9772	4000	2.4
Gujarat	6756	7769	2500	3.1
J & K	5751	6614	4500	1.5
Madhya Pradesh	5418	6231	3500	1.8
Maharashtra	8548	9830	3000	3.3
Rajasthan	6892	7926	2000	4.0
Uttar Pradesh	7516	8643	3000	2.9
West Bengal	9289	10682	1500	7.1
Simple mean for these states	7145	8217	2833	2.9

Source: Author's own calculations from raw NSS 2004-05 61st round data in column (a); NCAER (2008) for para-teachers' wages in column (c);.

Note: * Column (b) inflates column (a) figures to 2007 using the All India Consumer Price Index for Industrial Workers (from <http://labourbureau.nic.in/indtab.html>, accessed 7th Nov. 2009). In Bihar, para teachers with training are paid Rs 4500 per month, rather than Rs. 4000pm.

4. Trends in salary and non-salary expenditure in education

Teacher salary expenditure as a proportion of total recurrent education expenditure increased secularly over time in India, progressively squeezing out non-salary expenditure. Between 1960 and 1982, the share of non-salary expenditure in total recurrent primary education expenditure fell from 12% to a mere 3% (Kingdon, 1994). Tilak and Bhatt (1992) estimated that in some Indian states by the early 1990s, 99 percent of the total recurrent primary education expenditure went towards salaries.

Despite increased school inputs under *Sarva Shiksha Abhiyan*⁸, we estimate that non-salary recurrent education expenditure is still less than 5% of the school's total recurrent education expenditure. While teacher salaries have increased greatly, there is no concomitant or commensurate increase in non-salary education expenditures. This reflects teacher unions' successful lobbying for pay increases over decades; there are no tenacious parents' lobbies to demand expenditure on non-salary school items.

⁸ Such as expenditure on in-service teacher training, teaching learning materials (TLM) grant of Rupees 500 per year per teacher, and the school grant (fixed rate of Rs. 5000 per year) and the primary school maintenance grant (up to Rs. 5000 per year).

The National Commission on Teachers observed that “the main preoccupation of teachers’ organizations particularly since independence has been with the improvement of salary and service conditions of teachers and in this they have achieved considerable success” (NCT, 1986, p. 73) and it drew attention “to the need to promote actively parents’ organisations all over the country....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 the teachers and their organisations” (p 71).

It is apparent from the list of consulted organisations given on its website (accessed 7th Nov. 2009 on <http://india.gov.in/govt/paycommission.php>) that the 6th Central Pay Commission held hearings only with public servants, their associations and unions but not with other stakeholders of public services (education, health etc.) such as parents of students, who might have stressed the importance of a balance between salary and non-salary expenditures.

2. Educational efficiency impact of the Sixth Pay Commission

The report of the Sixth Pay Commission (GOI, p 208) states: “The focus of the report is to ensure better delivery mechanisms for the citizens of this country....Teachers are critical as they are an investment for the future of the country. To ensure that best available talent enters the Government in these fields and continues to feel motivated to give their best after joining, the Commission has consciously recommended higher entry level pay scales for constables, teachers and nurses.” In other words, higher salary is expected to lead to more talented people entering the teaching profession and to continue to be well motivated, leading to better delivery of education. How does this expectation compare with reality?

Larger salaries do attract more *able* individuals to choose teaching as a career. In the SchoolTELLS survey, regular teachers have higher test scores in a teacher test, i.e. they appear to be drawn from a higher part of the ability distribution in the population than are para teachers and private school teachers. However, there is also evidence in the same dataset that despite being paid four times as much, regular teachers are less motivated, i.e. apply less effort than para teachers: their absence rate of 25% (1 out of every 4 school days) is double para teachers absence rate of 12%, and their self-reported teaching time on a typical day is 75% rather than 83% for para teachers. Other studies also report substantially higher absence rates for regular than para teachers (EdCil, 2007; NCAER, 2008; Sankar, 2008)⁹. That paying teachers better clearly does not increase effort casts doubt on declared rationale

⁹ Part of the motivation for their higher effort could be because para teachers they face annually renewable jobs and can be ousted if deemed not to be performing well, but regular teachers have jobs for life irrespective of shirking Kingdon and Sipahimalani-Rao (2009). A recent study commissioned by the Ministry of Human

for Sixth Pay Commission salary increases, and highlights the importance of other factors that mediate motivation/ effort, such as the extent to which greater accountability is demanded with higher pay.

‘Efficiency Wage’ theory in labour economics says that employers can get higher productivity from a worker by paying her more, but only providing there is a credible threat of dismissal if the worker is found to be shirking. Government school regular teachers face no such credible threat or accountability pressure, e.g. they are rarely dismissed despite widespread shirking and, in these circumstances, even very large across the board salary increases are unlikely to be a productive investment.

What is the impact of across-the-board teacher salary increases on student learning outcomes? International and Indian school effectiveness research shows that teacher salary increases do not consistently raise student achievement (Hanushek, 2003, Table 6; Kingdon, 1998, Tables 2, 6), but there is some evidence that performance-related pay increases *do* increase achievement (Muralidharan and Sundararaman, 2008, for Indian state of Andhra Pradesh; Lavy, 2007, for Israel). However, teacher organisations have consistently rejected performance related pay.

Finally, a high salary rate may also create a jam of applicants and some willingness to use any method, legal or illegal, to get through. Larger salaries may also attract applicants who are not intrinsically interested in teaching but are drawn merely by the high salary. At lower salaries¹⁰, there may be greater chance of attracting people who apply because they are motivated to be teachers, rather than primarily for the money.

3. Consequences

What are some of the consequences of creating the grotesque pay inequalities documented above? Even modest levels of inequality are known to powerfully reduce subjective well-being or perceived happiness level of individuals (Alesina et. al., 2004; also see the literature on the effect of relative income , i.e. income of others, on self-reported happiness, e.g. Helliwell, 2002; Kingdon and Knight, 2007). The literature on worker pay and job-satisfaction shows that an increase in colleagues’ income sharply reduces the index-individual’s subjective well-being because of feelings of relative deprivation (Clark and Oswald, 1996). It is not surprising then that the implementation of 6th Pay Commission recommended salaries in UP was followed by violent protests by the UP Non-Aided Teachers’

Resource Development observes that “Contract teachers would be more cautious in absenting themselves from school frequently while regular teachers do not fear any adverse effect of absence on their job.” (p20, EdCil, 2007). .

¹⁰ Lower, but not low, salaries.

Association (UPNTA) in the state capital¹¹. Para teachers are also agitating in some states in reaction to the 6th Pay Commission's recommendations, which exclude them. Economic inequality of the magnitude documented here can lead to extreme dissatisfaction and something needs to be done to ameliorate its damaging consequences.

Moreover, as stated before, income inequality of these proportions creates a large social distance between the teacher and the taught, reducing the chances that (highly paid) teachers will take seriously the education of poor children, or be accountable to parents who are mostly in a far weaker economic position vis à vis teachers. Evidence from SchoolTELLS survey corroborates this: teacher effort (both attendance rate and self-reported time on teaching task) is considerably greater among contract teachers, who are less socially distant from the children, than among regular teachers who, being paid four times as much as contract teachers, are much more socially distant from the children they teach (Kingdon and Sipahimalani-Rao, 2010). Banerjee et al (2008) suggest a similar explanation for why community participation has not improved education service delivery in UP: “teachers in Uttar Pradesh generally come from outside the village, belong to upper social strata compared to parents, and are powerfully unionized”. They conclude that “citizens face substantial constraints in participating to improve the public education system, even when they care about education and are willing to do something to improve it”. Thus, an important consequence of increased economic inequality between teachers and parents induced by the Sixth Pay Commission is that it makes it even more unlikely that community participation mechanisms – such as Village Education Committees or School Management Committees with parental representation mandated by the recently implemented Free and Compulsory Education Act in April 2010 – can be effective in improving public education delivery.

As for other consequences, the generous increases in teacher (and civil servants') pay and emoluments imply a new financial burden on some already fiscally-challenged states, which have to cut developmental and welfare-related expenditure¹². They also arguably represent regressive transfers from the mostly poorer private sector workers (who are the most numerous tax payers) to the better off minority, i.e. public sector workers.

¹¹ “Protesting teachers baton-charged by police in Lucknow”, 12th February 2009. <http://blog.taragana.com/n/protesting-teachers-baton-charged-by-police-in-lucknow-314/>; Retrieved 7 Nov. 2009).

¹² UP Pay Committee of 2008 warned that “the additional expenditure caused by the hike in salary and allowances would affect the ability of the government to finance developmental projects”, that the government will run “the risk of violating the UP Financial Responsibility and Budget Management Act (UPFRBM) 2004”, and that to counter the additional burden, the government should “increase user charges of public utilities like government-run hospitals and schools” (Bhatt, 2008).

References

- Alesina, A., Di Tella, R. & MacCulloch, R. (2004) "Inequality and happiness: are Europeans and Americans different?," *Journal of Public Economics*, vol. 88(9-10), pages 2009-42, August.
- Banerjee, A., Banerji, R., Duflo, E., Glennerster, R. & Khemani, S. (2008) "Pitfalls of participatory programs : Evidence from a randomized evaluation in education in India", Impact Evaluation series No. IE 21, Policy Research working paper, WPS 4584, World Bank, Washington D.C.
- Bhatt, V.N. (2008) "Sixth pay panel will hit development work in state, says committee", *Indian Express*, 16th December 2008. <http://www.indianexpress.com/news/sixth-pay-panel-will-hit-development-work-in-state-says-committee/399020/> accessed 4th January 2010.
- Clark, A. E. & Oswald, A. J. (1996) "Satisfaction and comparison income," *Journal of Public Economics*, vol. 61(3), pages 359-81, September.
- CSO (2007) *National Accounts Statistics: Sources & Methods*, Central Statistical Organisation, Ministry of Statistics and Programme Implementation, Government of India. Accessed 10th May 2010 from http://mospi.nic.in/rept%20%20pubn/sources_methods_2007/Chapter%2032.pdf
- EdCil (2008) *Teachers' Absence in Primary and Upper Primary Schools in Andhra Pradesh, Madhya Pradesh and Uttar Pradesh: Abridged Report*. Educational Consultants India Ltd., New Delhi.
- GOI (2008) "Report of the Sixth Central Pay Commission", Government of India, March 2008. Downloadable from <http://india.gov.in/govt/paycommission.php> (accessed 7th Nov. 2009).
- GOUP (2008) The Report of the Uttar Pradesh Pay Committee, Government of Uttar Pradesh, Lucknow (Hindi language only). Downloadable <http://uppc2008.up.nic.in/default.htm> (accessed 7th Nov. 2009).
- Hanushek, E. (2003). "The Failure of Input-Based Schooling Policies", *Economic Journal*, 113, (485), F64-F98.
- Helliwell, J.F. (2002) How's life? Combining individual and national variables to explain subjective wellbeing, *Economic Modelling*, 20, pp. 331–60.

- Heston, A., Summers, R., & Aten, B. (2002). Penn World Table Version 6.1, Center for International Comparisons at the University of Pennsylvania (CICUP).
- Khemani, S. (2008) “Does Community Monitoring Improve Public Services? Diverging Evidence from Uganda and India”, Research Brief, Human Development and Public Services Research, World Bank.
- Kingdon, G. (1994) “An Economic Evaluation of school management types in India” DPhil thesis, St. Antony’s College, University of Oxford.
- Kingdon, G. (1998) “How Much Do Schools Matter to Pupil Achievement in India?”, *Journal of Educational Planning and Administration*, 12, No. 1: p5-25, January.
- Kingdon, G. (2008) “School-Sector Effects on Student Achievement in India”, in Chakrabarti, R. and P. Peterson (eds.) *School Choice International: Exploring Public-Private Partnerships*, MIT Press.
- Kingdon, G. & Muzammil, M. (2003) *The Political Economy of Education in India: Teacher Politics in India*, Oxford University Press, New Delhi.
- Kingdon, G. & Knight, J. (2007) “Community, Comparison and Subjective Well-being”, *Journal of Economic Behavior and Organisation*, 64, No. 1: 69-90.
- Kingdon, G., Banerji, R. & Chaudhary, P. (2008) “SchoolTELLS Survey of rural primary schools in Bihar and Uttar Pradesh, 2007-08”. Unpublished survey. Institute of Education, University of London.
- Kingdon, G. & Muzammil, M. (2009) “A political economy of education in India: The case of Uttar Pradesh”, *Oxford Development Studies*, 37, No. 2: 123-144, June.
- Kingdon, G. & Sipahimalani-Rao (2010) “Para teachers in India: Status and Impact”, *Economic and Political Weekly*, 45 No. 12, March 20 - 26.
- Kremer, M., Chaudhury, N., Rogers, F.H., Muralidharan, K. & Hammer, J. (2005) “Teacher Absence in India: A Snapshot,” *Journal of the European Economic Association*. Vol. 3, No. 2-3: 658-667

- Lavy, V. (2007) Using Performance-Based Pay to Improve the Quality of Teachers, *The Future of Children*. vol. 17(1), Spring, pp. 87-109.
- Mingat A. (2002) “Teacher salary issues in African countries”, World Bank, Africa Region, Human Development Analysis and Policy Development Support Team, processed.
- Muralidharan, K. & Sundararaman, V. (2008) “Teacher Performance Pay: Experimental Evidence from India”, mimeo, Harvard University.
- NCAER (2008) *Deployment and Professional Competence of Para-Teachers*. National Council of Applied Economic Research, New Delhi.
- NCT (1986) Report of the National Commission on Teachers, Government of India, New Delhi.
- Sankar, D. (2008). *Unraveling Teachers’ Time on Task and Nature of Tasks: Evidences from Three Indian States*. World Bank draft paper, New Delhi.
- Santusht (2008) - Shiksha Jagat Ki Pratinidhi Patrika: Monthly magazine of the teacher union *Madhyamik Shikshak Sangh*, Special Issue, October 2008. Lucknow.
- Tilak, J. B. G. & Bhatt, G. K. (1992) *Educational Planning at Grassroots*, New Delhi, Ashish Publishing House.