

Intercepting money thrown at schools: why teacher unions are bad for students and teachers

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There is no doubt that the most important requirement for effective schooling is good teaching. Although many factors can affect student performance, classroom teaching determines the school's contribution. The effectiveness of schools, and teachers, depends on the environment they face. The current education system in Australia involves a politicised monopoly where political action, lobbying and playing the system rather than better service is the way to increase producer benefits.

The teachers unions are extremely well organised, powerful and influential players in the education, policy and political arenas. Any media report on an education issue of education issues invariably contains a quote from a teacher union official.

Yet they receive little scrutiny in Australia. Even in this conference, the focus is on private sector unions – the ones you deal with. In contrast, a number of recent American books have been published on Teacher Unions. Their blunt, even lurid, titles reveal their contents:

- Myron Lieberman's "The teacher unions: how the NEA and the AFT sabotage reform and hold students, parents, teachers and taxpayers hostage to bureaucracy".
- Linda Chavel's "Betrayal: How Union Bosses Shake Down Their Members and Corrupt American Politics" and
- Peter Brimelow's "The Worm in the Apple: How the Teacher Unions Are Destroying American Education"

My title is less ambitious: why teacher unions are bad for students and teachers. What I want to do today is:

- look at the American evidence on the effects of teacher unions – how they were responsible for the decline in the test score of school students in the United States
- examine how unions decrease student achievement.
- Then I want to argue a more surprising conclusion – that teachers unions may be bad for teachers. The interests of union leaders may conflict with their members. I will set out the effects of teacher unions on wages and conditions. Good teachers would certainly do better in a competitive market.

The US test score decline

In the mid-1960s a 50-year trend of gains in the knowledge and basic skills of those graduating from high-school was reversed, when a decline that lasted until the early 1980s started. Scores fell on both tests of achievement and aptitude – on tests for the general high school population, for college entry, for military applicants, and for applicants to graduate and professional schools. For the first time, new entrants to the

workforce were not better prepared academically than earlier generations with the same amount of schooling.¹

The most well known evidence of the decline in academic achievement is scores on the Scholastic Aptitude Test (SAT). Mean SAT scores declined in every year between 1963 and 1980.² The fall from peak to trough was 0.48 standard deviations for verbal and 0.28 for maths.³ The SAT is a college entrance test and the population that takes it is self-selected. An expansion of the proportion of students interested in admission to selective colleges meant that changes in the composition of the test population accounted for some of the decline. This effect was mainly before 1970 and it appears that even taking these changes into account, average score declines were real and significant.⁴ For example, the white SAT score declined even though the white SAT pool was shrinking and becoming more exclusive socio-economically.⁵ The fall in SAT scores reflected a decrease in the academic achievement of America's most capable young people. The college bound track had become more mediocre, as academic standards declined.⁶ Moreover, within the college bound student population the most gifted students also suffered a sharp decline in test scores. Between 1972 and 1984 there was a decline in the absolute numbers of high achieving students on the verbal SAT.⁷

Scores on the other widely used college test, the American College Testing Program's ACT Assessment followed a similar pattern (and fell by 0.42 of a standard deviation),⁸ as did average scores on the various admission exams taken by those applying to graduate and professional schools.⁹

Results from tests taken by populations more representative of the high school population, such as the Iowa Test of Educational Development,¹⁰ the National Assessment of Educational Progress,¹¹ the Armed Forces Qualifying Test taken by military applicants,¹² and many other achievement tests¹³ showed a similar pattern – falling from 1967 to the early 1980s. For example, the composite scores of Iowa's 9th grade students dropped by 0.28 standard deviations from 1967 to 1980, and seniors by 0.35 standard deviations – or 1.25 grade equivalents.¹⁴ The decline appears to have been caused by something that happened to children after the third grade, as test scores of first to fourth graders increased.¹⁵

¹ See Bishop (1989).

² See Sowell (1993), Peltzman (1993) and (1996).

³ Hanushek (1996a) p.47.

⁴ See Hanushek (1996) p.13, Hanushek (1996a) p.47 and Hedges and Greenwald (1996) p.77.

⁵ Murray and Herrnstein (1994) p.426-427.

⁶ Murray and Herrnstein (1992).

⁷ Hirsch (1996) p.39.

⁸ Bishop (1989) p.184.

⁹ Bishop (1989) p.185.

¹⁰ See Bishop (1989). Murray and Herrnstein (1994) p.423.

¹¹ See Hanushek (1996a) pp.49-51. Science and maths performance fell from 1970 to 1982, reading performance rose slightly for 17 year olds. Hanushek focuses on 17 year olds as that is the age at which students finish their schooling and enter the labour force or college.

¹² See Peltzman (1996).

¹³ See Bishop (1989) p.184 for a summary.

¹⁴ Bishop (1989) p.183.

¹⁵ Bishop (1989) p.184. National Assessment of Educational Progress for fourth graders, Iowa Test for Basic Skills for first to third graders and IQ tests for entrants all rose through the 1970s.

The decline in scores was larger for whites than for minorities, larger in the suburbs than in urban high schools with disadvantaged students and larger for able students. The declines were larger for higher-level skills.¹⁶

The fall took place in the face of massive increases in resources devoted to schooling. From 1960/61 to 1980/81, real expenditure per student in the United States more than doubled, and average class size fell by one-third.¹⁷ Most of the fall in class size was not caused by the expansion in special education.¹⁸

Many of the measures have rebounded since the early 1980s (especially tests taken by the broad high school population and tests in mathematics, but recovery has not been complete in science and verbal test scores, reading is mixed).

Why should we be interested in American test score data?

Why use US data?

Partly because it is available. The US has a tradition of testing. By contrast, in Australia, information on the performance of students suppressed and there is little information on student performance over time. Teachers' unions threaten to withdraw their co-operation in the administration of tests if the results are released to the public or researchers and have sabotaged testing programmes in the past.¹⁹ A favourite tactic of the education lobby is to argue that there is 'no evidence' for poor performance, and at the same time oppose the collection of evidence.

Education is primarily a state and local matter in the United States, and there is much variation between states, and between districts, to examine. For example, different states have different degrees of centralisation of funding at the state level; different rates of teacher unionisation; different industrial relations laws; different curriculum and testing policies; different rules on entry of charter schools; and different private school funding arrangements.

Although there are some differences in the funding and operation of schools between the United States and Australia (particularly the use of local property taxes to fund schooling in most US states), 'progressive' educational philosophies, originating in the United States, have been adopted in Australia. The empirical studies often provide evidence on how these policies and practices have worked.

Why test scores?

It is difficult to measure educational outcomes. They are often intangible, and the effects of education are cumulative and may vary in duration – they may be short lived or not appear until the long term.

¹⁶ Bishop (1989) p.194. Hanushek (1996a) pp.49-51 presents the National Assessment of Educational Progress scores by race in a diagram. In science, all race groups declined from 1970 to 1982, in mathematics whites declined and minority groups increased over this period.

¹⁷ Hanushek (1996) p.13, table 1.

¹⁸ Hanushek (1999) pp.140-144.

¹⁹ See the account of the Victorian school reforms in Caldwell and Hayward (1998), ch.4 and Fane (1984) on the 1975 Australian Council for Education Research literacy and numeracy tests.

To evaluate schools objectively requires measurable outcomes. Test scores provide hard evidence of academic performance. Clearly, the objectives of education are not limited to what can be measured, but also include personal, cultural, moral, social and spiritual development.

Although test scores are not the only, or even the most important, objectives of schooling, they matter. Two important functions of schooling are to teach basic skills (reading, writing and mathematics) and to introduce students to their cultural and scientific inheritance through the study of literature, the arts, history, geography, mathematics and science. Test scores can measure success at these tasks.

Further, test scores may be correlated with other objectives. For example, Lieberman argues “It is probably safe to assume that schools which show good academic results would show good non-academic outcomes as well.”²⁰ It is difficult to see how schools could promote one at the expense of the other. A school that cannot teach its students basic academic skills is unlikely to do anything particularly well. Test scores are correlated with earnings and important socio- economic outcomes and are increased by schooling. Parents are willing to pay more for houses located in areas with schools that achieve higher test scores (after controlling for other factors that affect house prices), and test scores do better than per-pupil expenditures as a measure of school quality that parents are willing to pay for. For example, one study finds that an increase in test scores of 5 per cent in an elementary school test scores leads to an increase in house prices of approximately 2.1 per cent.²¹

Good test performance is a necessary, but not sufficient condition for a good school.

What caused the test score decline?

Some argue that the test score decline was not the fault of schools but was caused by non-school factors, such as:

- an increased proportion of children living in poverty;
- increased crime; and, especially,
- changes that reduced parental input into children’s education such as the growth in working mothers and single-parent families (caused by welfare policy and increased divorce).²²

On the other hand, different trends appear to be positive forces for student achievement – family sizes have fallen and parental education levels risen.²³

The importance of these various factors is not clear. Given that the biggest test score falls were for able students, for whites and for those in suburban schools, it appears unlikely that problems of increasing poverty and social disintegration are to blame. Because the declines did not show up until after the fourth grade, it is difficult to believe a decline in levels of parental inputs were to blame.

²⁰ Lieberman (1993) p.80.

²¹ Black (1998) p.91. A survey of this technique is in this paper pp.89-91.

²² See, for example, Hedges and Greenwald (1996) p.75.

²³ Hanushek (1999) p.138.

Economist Sam Peltzman examined the causes of the decline in test scores for college bound and non-college bound students.²⁴ Given the pattern of test score declines, he looks for variables that changed considerably in the 1960s and 1970s and either stopped changing or reversed course thereafter.

Peltzman finds that the declining performance of America's schools can be explained by changes in the political economy of public education – the growth in teacher unionisation and the centralisation of school finance towards the state rather than the local level. The effects show up first in the college bound students, then on the non college bound.

Teacher unionisation was non-existent in the United States prior to 1961. By the late 1960s half of all teachers were unionised, three-quarters by 1980. It then flattened out.²⁵

Another trend in US schooling has been the decreased reliance on local property tax-based funding and increased reliance on state funding. From 1960 to 1980, state governments increased their share of funding from 40 to 50 percent. The share then stabilised. The proportion varies widely from state to state (for example, in 1990 it was 100 percent in Hawaii and 7 percent in New Hampshire).²⁶ Increased state funding decreases local control and increases central control.

Local property tax financing, combined with residential choice, gives a high level of allocative efficiency. It provides incentives to both residents and school staff to maintain effective and efficient schools. Families are attracted to districts with successful schools, and school success raises local property values. Districts with unsuccessful schools experience falling property values. This provides local residents an individual incentive to monitor school performance and either to support the status quo if it is producing good results, or to work for change if it is not. It also rewards schools that perform well, because rising property values increase property tax revenues. Local financing allows diversity, as well as giving parents some choice and matching expenditure levels with parental preferences. It is not a perfect mechanism – certainly it is more costly to exercise choice, and incentives are much more limited compared with a voucher scheme – but it does quite well.²⁷

When more funding is from the state government, schools become more oriented towards that government than towards local families. There is a drift away from local control and autonomy, a reduction in parental responsibility and in incentives for cost efficiency. Student achievement is closely and positively related to the per cent of funding derived from local sources.²⁸

Peltzman focuses on cross-state differences in the changes in school performance over time. States that went the furthest in centralising finance and unionisation had the

²⁴ College bound in Peltzman (1993) which uses SAT and ACT scores and non-college bound in Peltzman (1996) which uses AFQT scores of military applicants and draftees. Both are self selected samples, but he detects no selection bias.

²⁵ Peltzman (1996) p.6-7.

²⁶ Hoxby (1997c).

²⁷ Hoxby (1996a) and (1997c).

²⁸ Hoxby (1997c).

greatest test score declines. He finds that the negative effects are through state government policies rather than inside schools. That is, the effects are fairly uniform within a state despite the fact that unionisation is not.

Centralisation did not narrow the gap between the top and bottom of the achievement distribution or help the bottom quartile of students or blacks. Although these groups have done better over time, increased centralisation tended to retard their progress – despite the fact that increased state funding was often motivated by a desire to make educational spending between rich and poor areas more equal. Either centralisation did not equalise resources or the associated negative effects outweighed the impact of increased resources for the poor.

Peltzman finds little support for the notion that a broader process of social disintegration is responsible for the decline of public education, even though divorce and crime rates peaked or flattened around 1980 when the academic decline ended. The marginal explanatory power of growth in crime rates and children living in single parent households is nil.

Hoxby (1996c) also finds that teachers' unions increase school inputs but reduce productivity sufficiently to have a negative overall effect on student performance. She finds that union effects are magnified where schools have monopoly power. She carefully measures the extent of unionisation, accounts for the omitted variables problem – that there may be some school factors (e.g. incompetent administrators) that cause both unionisation and poor performance – and uses longitudinal data that allows her to examine changes in unionisation over time.

She estimates that unionisation raises per pupil spending by about 12 per cent – three-quarters of which goes for higher teachers' salaries and lower student/teacher ratios. Unionisation raises teacher salaries by about 5 per cent and lowers student/teacher ratios by about two students per teacher. Yet unionisation raises student drop-out rates. In nonunionized schools, lower student/teacher ratios and higher teachers' salaries lead to reduced drop-out rates. In unionised schools, neither student/teacher ratios nor teacher salaries affect drop-out rates. The findings on the effect of unionisation on costs is consistent with earlier studies.²⁹ A recent survey of the literature summarises the evidence as “the general sense that is emerging suggests a negative role for unions when isolated from competition through a centralised school bureaucracy.”³⁰

The effects of unions help explain the lack of a relationship spending and outcomes in the cross-section. Unionisation raises teacher salaries and lowers student/teacher ratios, yet unionisation reduces student outcomes.

These findings have strong implications for Australia, where state schools are highly unionised and funding is centralised at the state and Federal level. The adverse effects of unionisation are likely to be felt by all schools, public and private. Unions influence public policy. Damaging curriculum, assessment and teacher training policies will adversely affect all schools.

²⁹ See Easton (1988) pp.56-57 for a survey.

³⁰ Nechyba (1998) p.11.

How do unions decrease student achievement?

Public sector teacher unions have a strong incentive to be politically active to influence the behaviour their employer, the government. In effect they help elect their board of directors and management and play a role in determining the agenda for those facing them at the bargaining table.³¹ The outcome of teachers' strikes depends on the mobilisation of public and political opinion, not on economic pressure.³² For example, the employer does not lose revenue during a strike, as in the private sector.

Unions have large political clout at the centralised level and, as a result, central departments often set rules and regulations that promote union objectives. They even use their centralised payroll to collect union dues and transmit them to the union. Teacher unions will be interested in any education policy that affects terms and conditions of employment. They also influence other education policies, such as the extent of competition between schools, teacher promotion policies and curriculum policies.

Union officials are just doing their job, but we should be clear about what that job is, because they have been successful in portraying their self-interest as concern about students. Al Shanker, the former president of the American Federation of Teachers once said "When school children start paying union dues, that's when I'll start representing the interests of school children."³³

Teacher unions were established to promote teacher welfare and their job is to look after their members' interests – not to represent parents, students or to maximise educational achievement. Teacher unions invariably promote teacher and union benefits. They divert school spending into the things they care about – increased teacher pay and improved working conditions (including reduced class sizes).

It is not surprising that unions decrease student educational achievement. If what was good for teachers was automatically good for students, schools could simply be turned over to be run by teachers.

The pressure is on unions to increase gains for their members regardless of the implications for the educational achievement of students. For example, they push for more generous leave provision. The union continually seeks to expand eligibility for sick leave, the purposes for which leave is granted and the number of sick and personal leave days.

Sick leave expands from coverage of the teacher to coverage of anyone in the immediate household, from actual illness to medical and dental appointments. Personal leave is stretched to include leave for meetings with lawyers to discuss a divorce settlement. If leave does not accumulate, there is no incentive not to use it and use becomes rampant. The effect on student achievement is likely to be negative.

³¹ Freeman (1986b) p.42.

³² Lieberman 1997 p.110.

³³ Quoted in Clowes (2001).

Unions push to restrict teacher duties, teacher responsibilities to parents and students, teacher accountability and discipline, and evaluations of teachers.³⁴

The unions push for salary, promotion, and transfer policies that rely heavily on seniority and have nothing to do with teacher quality. They try to restrict entry into the occupation.

The empirical evidence is that autonomy in personnel matters is key to a school's success.³⁵ What makes a good school is a good principal who has the power to run the school how he wants and the incentives to do it properly. Because the most important requirement for effective education is good teaching, autonomy in choosing and setting incentives for staff is vital. That is exactly what unions want to prevent. They push for centralised control over who schools can hire, how much they can pay them and whether they can dismiss staff. For example, unions promote restrictions on disciplinary action that make it extremely difficult to dismiss incompetent teachers. Unions protect members of the union – whether they are good teachers or not. Often, it is easier to give poorly performing staff extended leave rather than dismiss them, with adverse effects on the incentives and morale of the remaining teachers.

The lack of school autonomy makes it difficult to identify and reward good teachers, and teaching performance is difficult to measure from outside the school.

It appears, as in other industries, that competition improves school performance. Even the limited competition sometimes permitted between government schools, and between a fringe private sector and a dominant state system, improves school performance.³⁶

A combination of self-interest and ideology leads producer interests to favour policies that increase centralisation and reduce accountability. Unions promote government policies that restrict competition. They weaken their rival service providers. For example, unions try to prevent government subsidies to, and impose regulatory burdens on, private sector rivals.

Unions oppose policies to make schools more accountable, like standards and testing.

Other state government policies associated with centralisation and unionisation that could have led to the declines in student achievement include:

- a dumbing down of textbooks, curricula and requirements for homework, courses and graduation and a neglect of the gifted;³⁷
- poor discipline policies that affected teacher and student incentives;³⁸
- low academic standards and an anti-intellectual curriculum focused on psychological conditioning, social propaganda and ideological indoctrination;³⁹
- progressive education practice and lack of a core curriculum⁴⁰

³⁴ Lieberman (1997) pp.222-223.

³⁵ See for example, Chubb and Moe (1990) and Woessman (2001).

³⁶ See Hoxby (1996b), (1997a), (1997b), (1998), (1998a) and (2001a), Dee (1998).

³⁷ Murray and Herrnstein (1994) p 417.

³⁸ Murray (1984) pp 172–175.

³⁹ Sowell (1993) pp 21–102.

⁴⁰ Hirsch (1996) p 179.

Why unions may be bad for teachers

The public education lobby respond to criticisms of current arrangements for paying teachers with accusations of ‘teacher bashing’. As economist Tom Sowell points out, “A word like ‘bashing’ conveys absolutely no information other than a dislike of criticism, and contributes nothing to a logical or factual assessment of its validity”.⁴¹

To criticise teacher unions and the incentives inherent in a public system is not to criticise individual teachers. There are many good teachers who put in enormous amounts of effort, despite the lack of incentives to do so. In fact, the interests of individual educators may conflict with the interests of those who represent them. Teacher unions may be bad for teachers.

The Unions represent teachers in the political process, and union officials have a vested interest in maintaining a centralised system, and a politicised process for determining education policy, which provides them with a greater role and more power.

Unions sell representational services. They have an interest in maintaining a centralised system to boost demand for those services – even if it disadvantages some or most of their members.

Teachers as a whole may be better off in a system that rewards good teaching rather than union activism.

From a teacher’s point of view, the government is a monopoly buyer in the market for teacher services. Teachers will most likely graduate from a government owned, funded and regulated teacher-training institution, to work at a government-owned school. Government decisions directly influence teacher salary, working conditions and promotion prospects and determine the quantity and quality of future teachers.

The government monopoly provides a powerful reason for teachers to demand a union. The fact that state school managements do not face market incentives and can pursue personal and political objectives increases the need for protection of teachers and for explicit personnel practices and grievance machinery (but protection from the government, not by the government).⁴²

Although unions may successfully promote teacher interests in a monopolised and politicised system, it is not clear that teachers as a whole are better off than they would be in a competitive market, where teacher pay and working conditions are determined through competition between potential employers. On the one hand, in a centralised system the government may use its monopoly power to force down pay and working conditions. On the other hand, the system may favour teachers because, if they organise into unions, their employer faces no competition, can more easily pass costs on to taxpayers than competitive firms can to their customers, and so has less incentive to resist teacher demands.

⁴¹ Sowell (1993) p 249.

⁴² Freeman (1986b) p 63.

Although the political process favours organised producer interests, teacher organisations must compete with other calls on the public purse. The outcome may change over time as demographic and social changes affect the political importance of education against other issues.

A consequence of centralised provision is that teacher conditions are dependent on the vagaries of the political process, with damaging effects on teacher morale and the attractiveness of teaching as a profession.

- For example, winning a pay rise depends on the success of political and industrial campaigns rather than successfully satisfying customers – and often means battling against an unsympathetic government and against competing public sector priorities.
- Career prospects in a centralised system are highly uncertain, and they can change dramatically with outcomes of political battles and elections that may turn on non-educational issues.
- Partisan political battles will always alienate a substantial fraction of teachers.
- Union officials have an incentive to encourage a siege mentality to maintain loyalty.
- Continual harping by unions and others that resources are too low (whatever the true picture) affects motivation and creates excuses for failure.

Political accountability is an inevitable outcome of government funding. Government bodies, partisan politicians and taxpayers all feel they have a right, indeed the duty, to scrutinise and criticise teachers – a certain recipe for antagonism and resentment.

What effect do teachers unions have on wages and conditions

The ability of teacher unions to improve wages and working conditions is often exaggerated. Collective bargaining takes place every few years. In the absence of bargaining, employers would increase benefits incrementally. Instead, changes are made at contract renegotiation and the union takes the credit. The fact that the improvements may have occurred anyway, perhaps even sooner, is ignored. Indeed, if employees are represented by a union, employers are more likely to withhold or delay benefits because it is more difficult to reduce them in the future if necessary.⁴³

The public system is heavily unionised and dominates the teacher market. There is little to compare current compensation arrangements with, and it is difficult to determine what might have happened in the absence of the unions.

It is even more difficult to compare current arrangements and their effects with what may happen in a competitive market.

In the United States there is more variety, because the rate of unionisation differs between states. The wage effects of unions have been estimated by comparing union and non-union teachers:

⁴³ Lieberman (1997) pp 208–209.

- The estimated effects range from small to large.
- Unions raised the premium for teachers' educational qualifications and experience but reduced the relative secondary to primary school wage.
- The union wage differential is smaller when teacher demand is strong.⁴⁴

These studies are fraught with problems:

- Teachers in unionised states were paid more than in non-unionised states even before unionisation.
- The union may boost non-union wages. For example, private schools may have to offer more to attract good teachers and survive.
- It is difficult to measure the value of fringe benefits. Public sector unions often have a strong focus on raising retirement and other fringe benefits because that helps keep the cost hidden from taxpayers and they are negotiating with politicians with a short time horizon (to the next election).
- It is difficult to determine the extent to which other working conditions adjust when wages are increased. For example, what if the union wins increased wages but, as a result, class sizes are increased? The extent teachers gain will depend on their preferences for higher wages against larger classes. They may even lose.⁴⁵
- Further, teacher unions may have broader goals than raising wages. For example, they often increase education budgets and increase (rather than reduce) employment in their industry. They place a greater weight on employment than private sector unions because additional employees increase their political power.⁴⁶

It is difficult to determine whether teachers as a whole gain or lose from unionisation. First, it is difficult to specify the appropriate comparison group. If unions do increase teacher wages and fewer teachers are employed, are teachers better or worse off? Those in jobs may be better off, but those who do not join the profession because of scarce job opportunities, or because union policies make the profession unattractive to them, are worse off – and difficult to identify.

Second, even limiting attention to current teachers, government education decisions do not affect all teachers (and potential teachers) equally, so some may gain while others lose. For example, teachers nearing retirement may have different interests from younger teachers. Some groups of teachers are definitely made worse off by the policies adopted under union pressure (such as maths teachers). How do we trade off the gains and losses to different groups?

Third, even if there is a transfer to union members, this may be dissipated in competition to get the transfer – so called rent-seeking. If wages are above market clearing levels, there will be an excess supply of teachers and the jobs must be allocated in some way. For example, prospective teachers may have to queue to get a job (remaining unemployed and applying to school after school to get one) or entry standards may be tightened and further years of training and education courses required. This 'rationing by ordeal' means those who eventually get a teaching job may not gain much from the increased wages – they have been spent in competition to get the job. As a result, the union premium may be wasted in queuing costs or

⁴⁴ Freeman (1986b) pp 54–55, 58–59.

⁴⁵ Lieberman (1997) pp 207–211.

⁴⁶ Freeman (1986b) pp 52, 61.

captured by the education colleges. Further, there is the cost of the resources spent in fighting to get the pay rise.

Although it is difficult to determine the overall effect that unions have on wages, the effect of some union policies is clear. They favour uniform absolute wage increases across the board, rather than wages that reflect the supply and demand for different types of teachers.

Unions compress salary differentials. For example, unions oppose the payment of salary premiums to attract teachers to fill subject area shortages, and support paying all teachers the same salary, based on time served and qualifications, regardless of subject. Current salary arrangements prevent the common-sense approach of paying more in subjects and schools that are difficult to staff than in subjects and schools that are amply supplied.

The result is that those in high demand are paid too little, those in low demand too much.

They cite shortages of mathematics and science teachers as a reason to raise all teacher salaries. Because it is too expensive to pay all teachers at the level needed to attract enough qualified mathematics and science teachers, the shortages persist and unqualified teachers teach mathematics and science courses. Clearly, teachers in the subject areas experiencing shortages lose from the unions' policy. Meanwhile, the increased salaries may induce excess supply of other types of teacher.

Unions are majority rule political organisations, and mathematics and science teachers are a small minority of union members. Union leadership has an incentive to promote policies that achieve benefits for the majority of members and not policies that give large rewards to a small group of members.⁴⁷

For the same reason, unions oppose merit pay. If merit pay is to be effective, it needs to be substantial – which limits it to a small number of teachers. Large rewards to a few teachers on the basis of their own efforts also undermine the union's interest in having members believe that everything they get is because of the union's efforts. Further, disputes over whether merit pay was fairly awarded will involve the union in antagonistic disputes between members, something it wishes to avoid.⁴⁸

The current salary system contributes to the problems faced in state schools: low teacher morale, difficulty in attracting, training and keeping good teachers, a declining quality of entrants into the profession and persistent shortages in particular fields and schools.

There are few rewards for good performance and a lack of sanctions for poor performance. Teachers who excel at their jobs or teach hard-to-staff subjects, such as mathematics and science, or who teach the most disadvantaged, are paid the same as if they were mediocre or could be replaced easily, which damages their morale.

⁴⁷ Lieberman (2000).

⁴⁸ Lieberman (2000). For a detailed, and compelling, treatment of why union leaders oppose merit pay see Lieberman (1989) pp 17–19.

The result is the able are most likely to prefer occupations where pay is more closely related to productivity, and the least able have an incentive to become teachers. Talented people who join the teaching profession are more likely to leave when they realise superior performance brings no reward.

Good teachers are extremely valuable, and there is no reason why they should not be earning six figure salaries – especially if schools were organised to get the maximum benefit from them. For example, three years ago (the most recent figures) the average state secondary school received \$260,000 in recurrent funding (excluding the cost of capital) for a class of 30 students. One possibility is that using whole class, interactive teaching methods, with large classes and excellent teachers, as so successfully used in Switzerland and Japan, would permit high salaries to good teachers and maximise children's exposure to them without any increase in costs.

Why teachers should support the market

A competitive market is likely to change the structure of pay and who is attracted to the teaching profession. Good teachers have a lot to gain from a market system because it would create competition for teaching services. Wages are likely to be more closely related to performance. The prerequisites are in place – performance of teachers varies widely and good performance can be measured at the school level (for example, by the principal). The result is likely to be wide salary ranges and increased rewards for good teaching – which in turn will encourage talented individuals to join and stay in the profession.

The effectiveness of different compensation arrangements, teacher hiring practices, training methods and institutional arrangements would be decided by open competition.

Schools may also expand employment opportunities for teachers by offering extra services that parents want. The benefits from privatisation are not limited to improved personnel policies but include improved entrepreneurship – the ability to spot and pursue business opportunities and to seek out and better satisfy consumer desires.

A number of US studies find that competition between schools improves teacher quality and increases teacher salaries.⁴⁹ It seems competition encourages schools to spend more productively to employ better teachers.

The incentives are completely different in a competitive industry compared with a public monopoly. In a competitive environment both management and employees at a school have an incentive to maximise productivity and adopt restructures that improve productivity in order to survive against competitors or to share in the gains. They must take account of the possibility that competitors will provide a better service at a lower price. Staff members must be concerned about the overall effectiveness of the school and the contribution of colleagues.

In contrast in public education, neither teachers or management would benefit from an improvement in productivity. Instead the main concern is about distributional rather than efficiency issues – the amount of spending and the share going to teachers. In

⁴⁹ See Hoxby (1997b) and (2000b), Hanushek and Rivkin (2001) and Vedder and Hall (2000).

public education, total funding is often fixed so that bonuses awarded to some teachers reduce funds that could have been used to raise salaries across the board. At the school level, poor performance may lead to additional resources.

Public schools usually have no competition and are not threatened by loss of business by agreeing to union demands that raise costs, promote inefficiencies, or lower school performance. Unions know they are not putting jobs at risk by pressuring for all they can get.

The power of incentives on teacher behaviour and attitudes can be seen in Japan. Teachers in Japan receive extra income working in lucrative after-school jobs in for-profit cramming schools or *juku*. The teachers' union is the main opponent of proposals to reduce the emphasis on exams.⁵⁰

As in other industries, increased competition reduces the union premium.⁵¹ Because competition also raises teacher wages, it seems that it reduces the role of unions and makes many teachers better off. Unions are less powerful and less needed by workers when there is competition compared with a public monopoly.

The evidence shows that market incentives result in an improved working environment for teachers. Studies of US private schools reveal the effects of managerial autonomy, combined with market accountability, in a competitive environment.

Private schools in the United States have better teachers than public schools despite paying less because they have policies and an environment that attract good teachers and encourage good teaching.⁵²

They draw on a larger talent pool by hiring teachers with high ability and strong subject knowledge but without teacher qualifications. Continued employment depends on classroom performance – they dismiss bad teachers.⁵³

Working conditions are just as, or more, important to teachers than pay. Teachers in private schools are more likely to express greater job satisfaction and strong, positive attitudes about their schools than teachers in government schools.⁵⁴

These findings are consistent with the evidence that private schools perform better than public schools, at lower cost, and that private school advantage is a result of superior policies, environment and educational practice within the school.

In a market system, competition between employers would determine the appropriate levels of pay for teachers and ensure that excellent teachers, and those in scarce specialties, can negotiate attractive compensation packages. A competitive system would not only give parents choice, it would give teachers choices they do not

⁵⁰ See The Economist (1997b).

⁵¹ Hoxby (1998) p 55. For the evidence from other industries see Peoples (1998).

⁵² See Ballou and Podgursky (1997) pp 129–133.

⁵³ Ballou and Podgursky (1997) chapter 6, pp 137–147, 164 and Ballou and Podgursky (2001).

⁵⁴ See Ballou and Podgursky (1997) table 6.1, pp 134–135; Brouillette (2001) p 42; Farkas et al (2000) p 35, Ballou and Podgursky (1997) pp 144–145.

currently have, such as a broader range of working environments. Teachers would be transformed into true professionals, rewarded on the basis of their skills and performance. Competition may make teachers better off, even if it makes unions worse off.

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