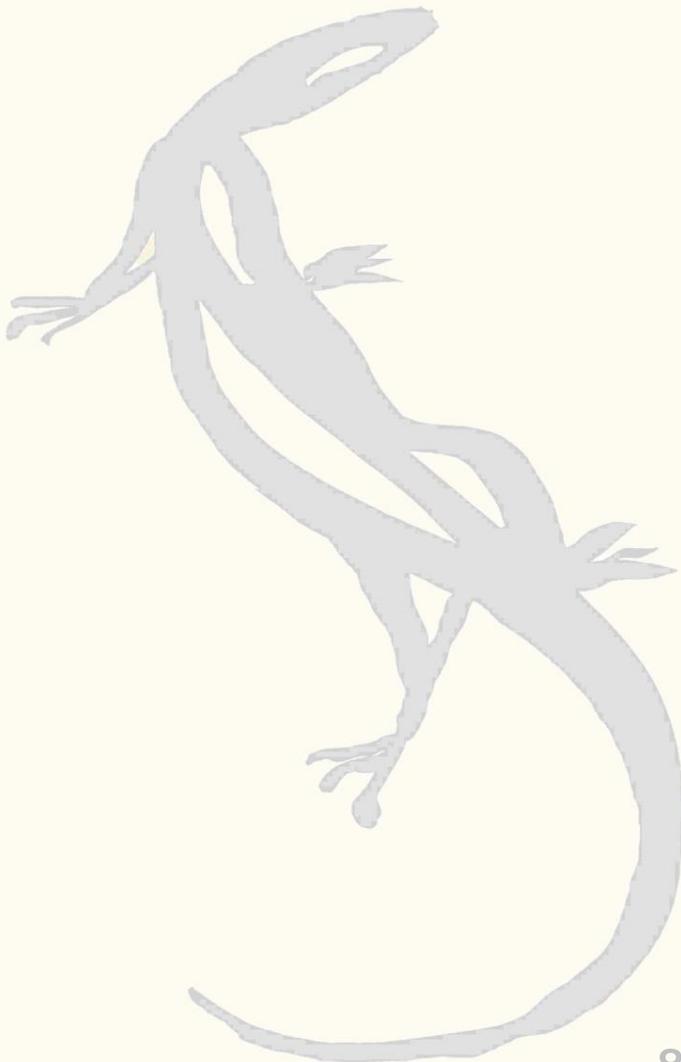


BARBARA PRESTON RESEARCH

Conditions for a dynamic and effective teaching profession

Keynote address to the
Independent Education Union NSW/ACT conference
The learning age: Teachers hold the key
Sydney

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'The Learning Age: Teachers hold the key'

The Masonic Centre, Castlereagh Street Sydney

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What are the conditions for a dynamic and effective teaching profession in five to ten years time? What are the likely trends, and what can teachers and their organisations do to best ensure such a profession, and the best quality teaching for all students?

I will begin by making some projections to set the scene:

- student enrolment numbers
- student:teacher ratios
- total teacher numbers
- the proportions of teacher in government and nongovernment schools
- the age profile of the teaching work force
- the demand for teacher education graduates to fill places in the teaching workforce, compared with projected supply.

I will discuss the historical context, and some of the implications of each. Among the most significant matters is the bifurcated age profile of the teaching profession, the projected increasing demand for new teachers, the possible inadequacy of supply to meet demand, the false dichotomy between teacher 'quality' and 'quantity', and the lack of commitment among governments (and others) to evidence-based policy where it is really needed.

I will then consider in some detail the nature of teacher professionalism and issues of professional regulation – specifically teacher registration. I will discuss policy and strategic initiatives open to the teaching profession, within the broader national and local policy contexts.

Student enrolments

Student enrolments over the past fifty years have followed the *wave* of the postwar baby boom, followed by a hiatus with very flat growth (even overall enrolment decline, or a trough, in a couple of years in the mid 1980s), before the children of the baby-boomers – the *ripple* of the shadow baby boom – went through school in their greatest numbers through the 1990s. After a 'shadow hiatus' over the coming period, enrolment growth is projected to pick up again at the end of the decade, but remain fairly stable – the water will be calm, the ripples dissipated.

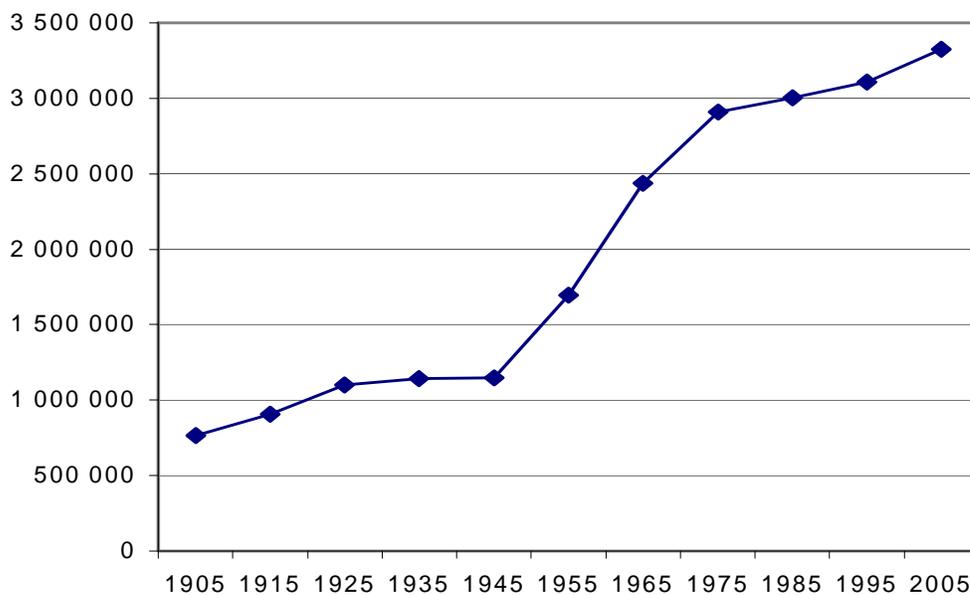
The graph (Figure 1) provides a picture of a century of enrolment growth. For the first half of the twentieth century there was little growth in school enrolments, increasing by less than 50 per cent between 1905 and 1945. However, over the next thirty years to 1975 enrolments increased by more than 150 per cent. Growth in student enrolments then slowed, with the expected growth for the following thirty years - between 1975 and 2005 - only about 15 per cent. A little more detail

for the recent and future periods: The annual increase from 1975 to 1995 was about 0.3 per cent. However, the rate of increase has recently increased, though it is expected to flatten again. Between 1995 and 2000 the annual increase almost tripled to 0.9 per cent. There were 3,247,456 in Australian schools in 2000. DETYA projections are for 3,323,955 in 2005 and 3,400, 636 in 2010. That is, an average annual increase to of a little under 0.5 per cent projected through the decade, but then likely to increase again to over 0.5 per cent (based on DETYA projections at the primary level).

The DETYA projections are for an increasing share of enrolments to be in the nongovernment sector. Overall enrolments are projected to increase between 2000 and 2010 by 4.7 per cent, in the government sector by 2.2 per cent, and in the nongovernment sector by 10.4 per cent (see Table 2). The DETYA methodology involves a convergence between the government and nongovernment sectors in the annual rate of enrolment increase, and I believe this leads to larger projected share of enrolments in the government sector, especially later in the period, than is likely to occur. So I expect that the growth in nongovernment sector enrolments will be more than 10.4 per cent, and in the government sector, less than 2.2 per cent. I will return to some of the implications of that later.

In summary, then, overall student enrolments are not expected to have a dramatic effect one way or the other, on total teacher numbers – unlike the situation in the 1960s and 1970s. However, matters such as changes in school starting age can have a very dramatic short term effect, as will occur in Western Australia for primary teachers around 2002. Then primary teacher numbers are projected to fall by almost four per cent as the half size cohort enters school (if there is not change in PTRs). That will be followed at the end of the decade an increase of similar proportions when the half size cohort leaves primary school. There will then be a similar effect on secondary teacher numbers. There has been a similar pattern in Tasmania following a change in school starting age in the early 1990s.

Figure 1. School students, Australia, 1905 to 2005



Source: 1905 to 1975 from Schools Commission (1981) *Report for the Triennium 1982 - 84*, Canberra: Schools Commission, p. 27; 1985 & 1995 from ABS *Schools Australia*, Cat No 4221.0; 2005 projection from DETYA Schools Division, 2000.

Student-teacher ratios

Student-teacher ratios improved significantly between the mid 1960s and the mid 1980s (from about one teacher for every 26 students to one teacher for every 15 students). In the early 1990s there was a sharp deterioration in the government sector in several States (because of the impact of the recession on state finances, and political choices) and consequently a national deterioration. In the late 1990s this deterioration in the government sector was reversed, and the improvements in the nongovernment sector continued. Table 1 sets out these developments through the 1990s.

Table 1: Student-teacher ratios (FTE teachers), 1990, 1995 and 2000

	1990	1995	2000	Percentage change		
				1990-1995	1995-2000	1990-2000
Government schools	15.0	15.4	14.9	+ 2.7%	- 3.2%	- 0.7%
Nongovernment schools	16.1	15.4	14.8	- 4.3%	- 3.9%	- 8.1%
All schools	15.3	15.4	14.9	+ 0.7%	- 3.2%	- 2.6%

Source: 1990 & 1995: ABS *Schools Australia* Cat. No. 4221.0, Table 18 (1990), Table 21 (1995)

2000: ABS *2000 Schools Australia Preliminary* Cat. No. 4220.0, Tables 12 & 15

It is reasonable to expect a continuation of improvements in student teacher ratios over the coming period for two major reasons. First, the financial circumstances of school authorities are expected to generally improve. Many nongovernment schools are receiving a substantial boost in Commonwealth funds, in the context of bipartisan-supported annual per capita real increases over many years, which is reflected in the past improvements in student-teacher ratios in the sector. Government school authorities are most unlikely to experience the dire fiscal circumstances some found themselves in the early 1990s recession, and new Commonwealth-State financial arrangements are expected to ensure greater stability and growth in State revenues. Thus school authorities are likely to have the means to fund improvements in staffing levels. But will that be where their funding priorities lie? I believe it will be for most school authorities because of the developing consensus among researchers and those who make policy that a most important factor for effective student learning is the quality of teaching, determined by staffing levels as well as teacher characteristics (including qualifications) and school organisation. Many school authorities may, following the evidence from research such as that of Linda Darling-Hammond (1999), give a higher spending priority to improving teacher characteristics (through increased salaries, improved professional development and other support, and other strategies to improve the standing of teaching in the community, the attractiveness of teaching as a career, and the professional competence of teachers). However, teachers' working conditions, including staffing levels, are a major aspect of the attractiveness of teaching, as well as a determinant of effective teaching and student learning. In addition, as I point out later, an increasing proportion of the teaching workforce will be beginning teachers who have not reached the top of the incremental scales. Thus a given level of funding will be able to cover the salaries of more teachers – at a rough estimate, the increasing proportion of teachers earning less than the top of the incremental scale will provide the means to fund at least an extra teacher for every one hundred teachers every year over the coming decade (other things being equal).

Conclusions: teacher numbers

Figure 2 shows the broad effects of the developments in student numbers and student-teacher ratios on teacher numbers (full time equivalent) from 1955, projected to 2015. The greatest rate of increase in teacher numbers was between 1965 and 1975, and there was continuing strong growth into the mid 1980s. There has been a slight increase in the rate of increase in teacher numbers since the mid 1990s, and this is expected to continue for the next decade.

Figure 2: Number of Australian teachers (FTE), actual 1955 to 1995, projected 2005 and 2015

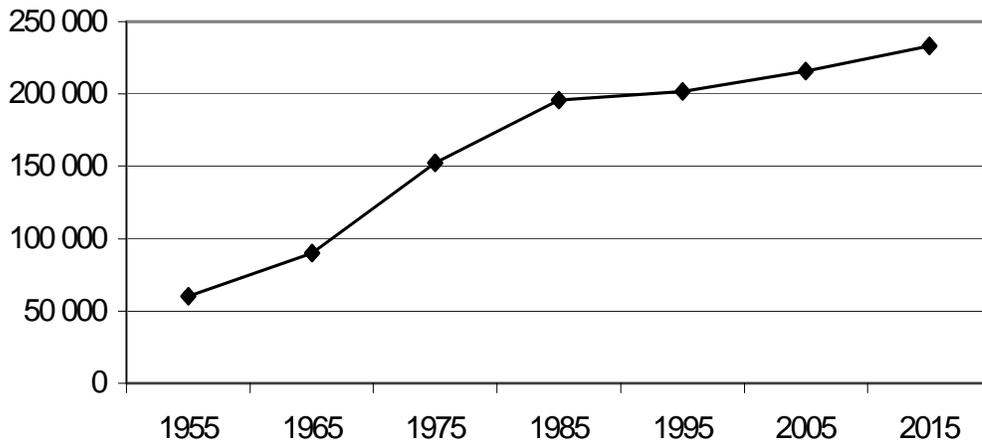


Table 2 provides details of student and teacher numbers, and student teacher ratios, in government and nongovernment schools, in 1990 and 2000, and projected for 2010.

The final factor in total teacher numbers is the magnitude of part-time employment. There has been a steady increase in part-time employment over the past few decades. In 1990 there were 212,909 teachers in Australian schools, and 199,214 full time equivalent (*ABS 1990 Schools Australia*, Table 21, page 69), a ratio of 1.069. In 1999 there were 239,325 teachers, and 215,724 full time equivalent (*ABS 1999 Schools Australia*, Table 65, page 81), a ratio of 1.109. This increase is likely to continue because of the increased proportions of teachers in the nongovernment sector, in the childrearing and post-retirement age ranges, and who are women (see following sections). If the needs in terms of new recruits to teaching is being considered it is the actual number of teachers, not the full-time equivalent, that is relevant, while a full time equivalent measure is usually more suitable when assessing needs in terms of actual teaching and student learning conditions.

Overall, a steady increase in total teacher numbers is likely over the coming decade, the rate of increase a little greater than that of the 1990s – the difference in PTR improvement outweighing the difference in rate of enrolment growth.

Table 2. Student enrolments and teacher numbers (FTE), government and nongovernment schools, 1990 and 2000 (actual) and 2010 (projected)

	1990	2000	2010	Change 1990-2000		Change 2000-2010	
				Number	%	Number	%
<i>Government schools</i>							
Enrolments	2 193 347	2 248 275	2 297 602	54 928	2.5%	49 327	2.2%
PTR	14.97	14.93	14.20	-	-0.3%	-	-4.9%
Teachers	146 477	150 610	161 803	4 133	2.8%	11 193	7.4%
Govt school teachers as % of all teachers	73.5%	69.1%	67.2%	-	-6.0%	-	-2.7%
<i>Nongovernment schools</i>							
Enrolments	848 310	999 181	1 103 034	140 712	16.6%	103 853	10.4%
PTR	16.09	14.81	13.95	-	-8.0%	-	-5.8%
Teachers	52 737	67 449	79 071	14 712	28.0%	11 622	17.2%
Nongovt school teachers as % of all teachers	26.5%	30.9%	32.8%	-	16.6%	-	6.1%
<i>All schools</i>							
Enrolments	3 041 657	3 247 456	3 400 636	205 799	6.8%	153 180	4.7%
PTR	15.27	14.89	14.12	-	-2.5%	-	-5.2%
Teachers	199 214	218 059	240 874	18 845	9.5%	22 815	10.5%

Source:

1990 enrolment and teacher data: ABS *1990 Schools Australia* Cat. No. 4221.0, Tables 6 & 21

2000 enrolment and teacher data: ABS *2000 Schools Australia Preliminary* Cat. No. 4220.0, Tables 12 & 15

2010 enrolment projections: DETYA (Schools Division) enrolment projections, provided in November 2000. Note that the DETYA methodology involves a convergence between the government and nongovernment sectors in the annual rate of enrolment increase, and I believe this leads to larger projected share of enrolments in the government sector, especially later in the period, than is likely to occur.

Assumptions & method for 2010 PTRs and teacher numbers:

PTRs are very hard to project/forecast. Table 1 indicates the great fluctuations in PTRs that occur (fluctuations that were much more marked in particular jurisdictions – for example in Victorian government schools PTRs increased by 14% from 13.2 in 1990 to 15.1 in 1995). Here the annual rate of change in PTRs between 1995 and 2000 for the government and nongovernment sector is assumed to reduce by 25% for both sectors over the period to 2010. This results in a reduction in PTRs of 4.87% in the government sector, and 5.84% in the nongovernment sector. The broad assumptions are that the nongovernment sector is likely to experience greater per student funding increases (from all sources), but that the government sector is a little more likely to allocate more of its increased funds towards teaching staff. 2010 teacher numbers derived from applying the PTRs to DETYA-projected enrolments in the government and nongovernment sectors.

In summary, by the end of the decade:

For all schools:

- student enrolments are projected by DETYA to increase by just under 5 per cent to 3,400,636
- student-teacher ratios are expected to increase by a little over 5 per cent to 14.12 students for every teacher
- thus, full time equivalent teacher numbers are expected to increase by more than 10 per cent to 240,874 (about 270,000 persons)

For government schools:

- enrolments in government schools are projected by DETYA to increase by 2 per cent to 2,297,602 (I believe it will in fact be a less because of DETYA's problematic methodology)
- I expect student-teacher ratios in government schools will improve by about 5 per cent to 14.2 students to every teacher
- thus, government school teacher numbers are expected to increase by 7 per cent to 161,803
- government school teachers as a proportion of all teachers are expected to decline from 69 per cent to 67 per cent - down from 74 per cent in 1990, and 80 per cent in 1980 (I believe it will in fact be a smaller proportion because of DETYA's problematic methodology)

For non-government schools:

- nongovernment school enrolments are projected by DETYA to increase by more than 10 per cent
- I expect that student-teacher ratios will continue to improve – to fewer than 14 students per teacher
- thus, the numbers of teachers in nongovernment schools is expected to increase by around 17 per cent, to 79,071 - 33 per cent of all teachers.

Proportion of women teachers

Before considering the age profile of teachers, I would like to comment briefly on the proportion of teachers who are women.

In a decade it is likely that women will make up an even higher proportion of the teaching workforce than they do today.

The proportion of commencing 'education' students in universities who are women has increased a little over the decade of the 1990s – from 72 per cent in 1991 to 75 per cent in 2000. (The 'initial teacher education' DETYA data is too flawed to be more specific).

Table 3 shows women as a proportion of all teachers, by level and sector of schooling, in 1978, 1990, 1999 and 2000. Because of the changing role of religious teachers in nongovernment schools, the government sector should probably be used to indicate the underlying trend – from women making up 57 per cent, increasing to 67 per cent of teachers over the period from 1978. (In 1978 between a third and a half of primary nongovernment school teachers were religious, though the number of religious had been falling sharply – from 7727 in 1974 to 6088 in 1977 (Commonwealth Schools Commission 1981, p. 114).)

This general 'feminisation' of the teaching workforce should be no necessary cause for concern – though there might be justified concern about a lack of male teachers in particular circumstances. It appears that the increase in the proportion of women teachers is in part a consequence of women teachers tending to take less extensive periods of time out from teaching for child-rearing purposes. This would generally mean a higher level of continuity, and, perhaps, professional commitment and competence of those women who do not leave teaching for such extensive periods. Figure 3, based on ABS Census data, indicates the flattening between 1961 and 1996 of the curve of the proportion of women in each five-year age range, with the very substantial dip in the proportion of women around the main childrearing age range almost disappearing. (Primary teachers are over-represented in the data, so the actual figures overstate the total proportion of women teachers.)

Table 3: Female teachers as a percentage of all teachers (FTE) at the same level and sector of schooling, Australia, 1978, 1990, 1999 and 2000

	1978 %	1990 %	1999 %	2000 %
<i>Primary</i>				
Government	68	72	78	-
Nongovernment	84	78	79	-
Total	71	73	78	-
<i>Secondary</i>				
Government	44	49	54	-
Nongovernment	50	53	54	-
Total	46	50	54	-
<i>All schools</i>				
Government	57	61	67	67
Nongovernment	66	63	65	65
Total	59	61	66	66

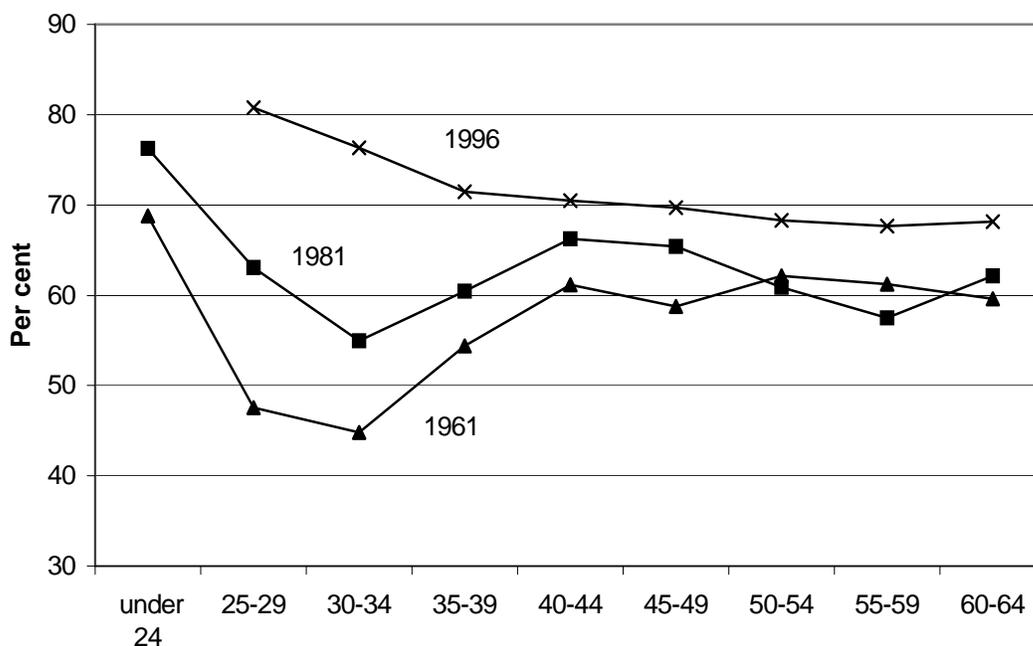
Sources: 1978 data: Australian Schools Commission (1981), *Australian students and the schools*. Canberra: ASC, p. 118

1990 data: Australian Bureau of Statistics, *1990 Schools Australia*. Cat. No. 4221.0, Table 20, p. 68.

1999 data: Australian Bureau of Statistics, *1999 Schools Australia*. Cat. No. 4221.0, Table 64, p. 80.

2000 data: Australian Bureau of Statistics, *2000 Schools Australia Preliminary*. Cat. No. 4220.0, Table 15, p. 16. (Does not include separate primary and secondary teacher data.)

Figure 3: Females as a percentage of all teachers in five year age ranges, 1961, 1981, and 1996



Source: ABS Census custom tables

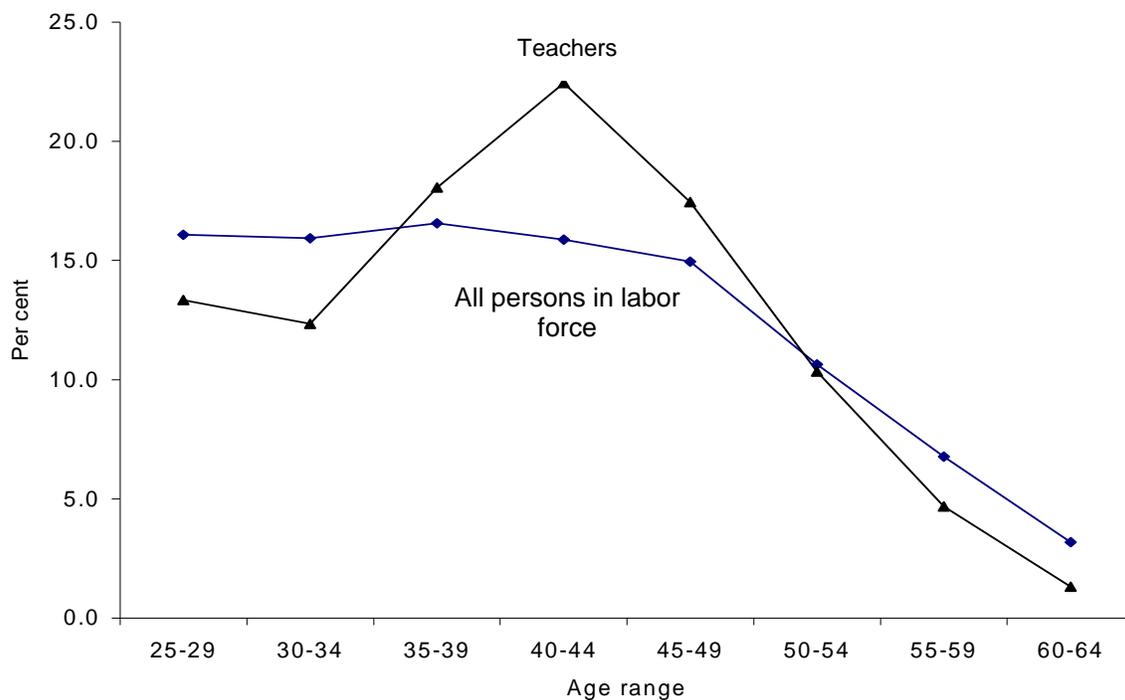
Age range

The age profile of the teaching workforce

The age profile is a key factor in the future of teaching. It has a very large influence on the culture in staff rooms and schools, and the interrelationships between teachers and school communities (especially in country towns). It largely determines the size of the pools from which professional leaders (and those who fill a range of other roles in the profession) are drawn, and thus the age profile is a significant factor in the need for particular types of continuing professional education and support. The age profile is the major factor in change in the need for new recruits to teaching, and it has implications for the availability of teachers in various locations and for various types of employment, and thus for recruitment, staffing and support strategies.

In a decade the age profile of the Australian teaching workforce will be very different from what it is today. It will be flatter, a much smaller proportion of teachers will be in their forties, and a higher proportion will be under thirty and over fifty. The exact structure cannot be predicted. But the crucial, immutable element is the aging of the cohort of teachers recruited during the rapid expansion around the 1970s, and who are now around their late 40s.

Figure 4. Age profile - teachers, and all persons in the labour force, 1996 Census



Source: ABS Census custom tables

Compared with the peak in the teaching workforce, the bump of baby boomers in the general workforce appears trivial. According to 1996 ABS Census data, of those aged 25 - 64, almost 60 per cent of teachers were aged 35 - 49, but only about 48 per cent of those in the workforce were aged 35 - 49 (it would be 38 per cent if there were equal numbers in all equal age ranges – a flat profile from 25 - 64) (see Figure 4, and Appendix 1). Yet you may remember the publicity given a few months ago to a report prepared by Access Economics (2001) for the Minister for Aged Care, Bronwyn Bishop. The report points out that the effects of aging on the general Australian workforce will begin to impact significantly next year – in 2002, ‘when the peak year of baby boomers, those born in 1947, will reach age 55’ (p. 22). Access Economics point out that,

according to their projections, the rate of growth in the workforce is about to drop sharply in most states. The sharpest falls will occur from about 2002 in South Australia, and from about 2005 in NSW and Victoria. Growth will be negative in Tasmania from about 2003, in South Australia from around 2010, in Victoria from around 2012, and in NSW from about 2020. The rate of growth will slow sharply in Queensland and Western Australia around 2012, but will stay positive. In the Northern Territory it will remain fairly constant around current levels, and in the ACT it will drop sharply to around zero around 2012, remaining there through the projection period to 2051.

Access Economics points to the general labour shortages that are likely to accompany the falls in workforce growth. 'If the shortage of labour is not addressed through higher participation rates among mature Australians, the current account may widen, wages may take off and returns to the owners of capital may fall' (p. 32). A general labour shortage is certainly of direct benefit to the unemployed and those seeking to increase hours of work and pay. But is generally not of benefit to employers and their customers or those they serve – including school students and their communities.

There are two implications of the Access Economics work for the teaching workforce:

First, if there are such concerns about the general workforce with its relatively flat age profile (see Figure 4), why is there not more concern about the impact of the age profile on the future for the teaching workforce?

Second, the projected labour shortages will have an impact on the teaching labour market. In general, the sharper the fall in the rate of growth in the general workforce, the greater the general labour shortage, and the greater the efforts by employers outside teachers to attract those with teaching qualifications to their employment. As noted above, the very large and steep falls are projected for South Australia, New South Wales and Victoria. I will return to this later, when I discuss teacher supply and demand projections.

The age structure for the coming decade can be projected from ABS 1996 Census data, with assumptions about student enrolments, student-teacher ratios, net separation rates for teachers in each age range, and the age of teachers at initial recruitment. Table 3 shows the actual age structures in 1991 and 1996, and those I have projected for 2001, 2006 and 2011 for four age ranges that broadly match career stages. Figure 5 shows similar projections for all five-year age ranges, for 2001, 2006 and 2011. (Those years are ABS Census years.)

The age structure will become flatter as the age peak of those recruited around the 1970s moves through retirement age, though it will most probably be followed over the next thirty years by a lesser shadow peak of those recruited over the coming decade, replacing those retiring. Between the two peaks is a substantial trough, reflecting the low rate of recruitment around the early to mid 1990s.

The increasing proportion of teachers in the under thirty and over fifty age ranges (a bifurcation in the age profile) indicates the inappropriateness of the measure of *average age* of teachers when assessing future demand or considering the general nature of the teaching profession – in fact the average will soon be in the five year age range with the smallest proportion of teachers!

The change in age structure will mean a change in net separation rates, and thus in the need to recruit new teachers ('net separation rates' includes reentrants and returnees from leave, as well as retirements, resignations, the taking of leave, and other movements out of teaching – see Preston 2000, pp. 35-36). The over fifty and under thirty age ranges have high net separation rates, and the late thirties age range has a negative net separation rate (more teachers re-enter or return than leave teaching). I will return to this later.

Table 4: Percentage of teachers in each age range, 1991 and 1996 actual, and projected for 2001, 2006 and 2011

	Under 30 (beginning teachers) %	30 – 39 (middle level) %	40 –49 (senior) %	50+ (towards retirement) %
1991	22	37	30	11
1996	13	31	40	16
2001	19	21	37	24
2006	19	24	25	33
2011	22	27	19	33

Source: 1996 data from ABS Census custom tables, projections prepared by the author.

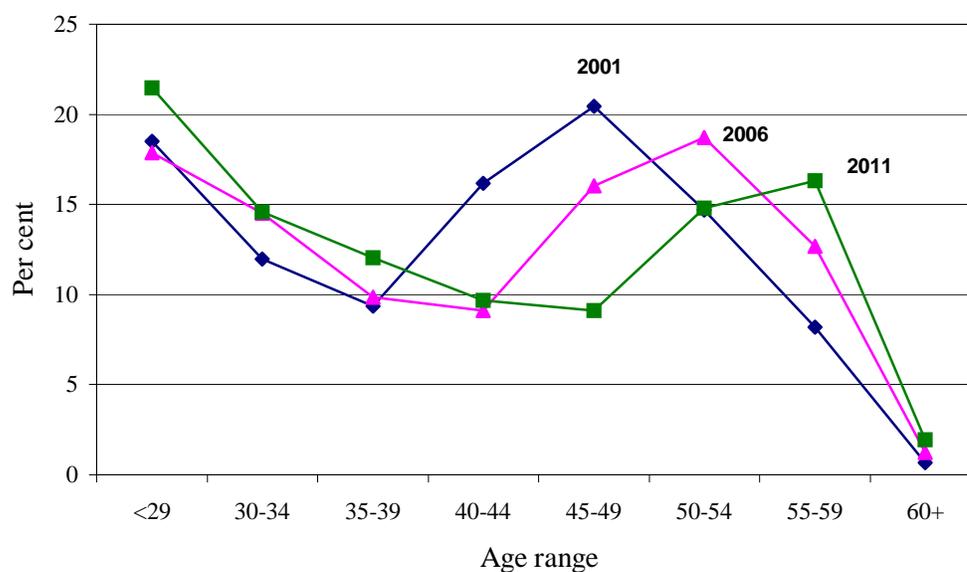
The projections assume constant student-teacher ratios from 1999; DETYA school enrolment projections; no substantial change in net separations (resignations, reentry and retirement) for each five year age range from 1996, and that beginning teachers are mostly under 30. Details of assumptions and calculations available from the author.

The projections assume the continuation of the general pattern apparent from 1991 and 1996 census data that, though about 80 percent of graduates enter teaching, by their early thirties fewer than 55 per cent of those with teaching qualifications are teaching; there is then a slight return to teaching through the late thirties, with almost 60 per cent of those in their early forties teaching; there is then a continuing loss through to retirement age; overall, fewer than half of those of with teaching qualifications of working age are teaching – see Preston 2000, pp. 65-66.

If there is an overall improvement in PTRs (see discussion in this paper), then there will be a higher proportion of teachers in 2006 and 2011 in the younger age ranges, and a smaller proportion in the older age ranges.

If retirement age generally increases, then there will be a higher proportion of teachers in the 50 plus age range, and a slightly smaller proportion in the other age ranges.

Figure 5. All Australian teachers, projected percentage in each five year age range, 2001, 2006 and 2011



See Table 4 for sources and method.

The projected age profiles indicate large changes in the proportions of teachers at various stages in their careers (see Table 4). In contrast to today, there will be a much smaller proportion of teachers with around 15 to 25 years of experience (aged in their forties) in 2011 because of the very low rates of recruitment of new teachers from the late 1980s to late 1990s - this period of low recruitment is reflected in the relatively small proportion of teachers under thirty in 1996, and it created a 'trough' in teacher numbers that contrasts with the 'peak' recruited around the 1970s. Currently almost 40 per cent of teachers are in their forties, and the proportion is rapidly falling as the peak of teachers initially employed around the 1970s are moving into their fifties. By 2011 I have projected that fewer than 20 per cent of teachers will be in their forties. However, in the years after 2011, the proportion of teachers in this 'senior' age range will most probably increase, as the increasing numbers of teachers recruited from the late 1990s enter this age range. The proportion of teachers aged over fifty, and thus moving towards retirement, is projected to increase to 2011 – approximately doubling. It is then likely to reduce back over the subsequent decades, with the 'trough' in teacher numbers moving into the retirement age around 2020.

The changes thus have implications for the career opportunities for cohorts of teachers, and for the staffing of schools. Teachers now in their early to mid thirties will have much greater opportunities for promotion and leadership positions over the coming decade than older teachers have had, or than younger teachers will have. School authorities will need to be aware that they will be selecting from a smaller pool of teachers for promotions positions, and thus will need to ensure that quality, accessible professional education and support is in place so that sufficient numbers of these teachers are well prepared for professional leadership.

The general pattern of a bifurcated age profile will be even more pronounced in many schools (just as it will be less pronounced in other schools). Strategies will need to be in place to ensure there is not a dysfunctional division between the over fifties and the under thirties where there are few in the ages between. Schools and systems that do not themselves have a greater bifurcation than average, yet seek to avoid any problems by recruiting teachers in their thirties and forties from other schools, will be unfairly exacerbating the problem elsewhere. The teaching profession as a whole may need to do what it can to ensure the equitable distribution of teachers of all ages, and the overcoming of problems related to age profiles by means other than shifting the problems to other schools.

A higher proportion of usually mobile younger teachers may mean that hard-to-staff schools are a little easier to staff – as long as there is an adequate overall supply. But it also means that hard-to-staff schools may have an overall younger and less experienced teaching staff than they currently have because there will be fewer experienced teachers in the workforce as a whole, and those teachers will be able to be more selective about where they teach. Thus school authorities will need to develop effective strategies to ensure that hard-to-staff schools have sufficient experienced and highly competent teachers. There are parallel implications for the profession.

Will teacher supply meet demand?

I have prepared projections of teacher supply and demand from the Australian Council of Deans of Education (ACDE) on a number of occasions over the past decade. The most recent were published in July 2000 (Preston 2000).

I have sought to develop a methodology that provides projections that are appropriate for good, evidence-based policy regarding teacher education intakes, and recruitment, staffing and other policies of school authorities and the teaching profession. The projections are:

- comprehensive – in that all relevant matters (including the nongovernment sector and sources of supply other than recent graduates) are taken into account, and 'supply' and 'demand' are presented on a comparable basis so that conclusions about projected shortfalls or surpluses can legitimately be drawn,

- transparent – in that the assumptions and methodology are explicit and reported in detail, so that they are open to analysis and critique, and scenarios can be easily developed according to alternative assumptions
- based on the best available data (within the resources of the project).

It is *projections* that are developed, not predictions. Thus actual outcomes may be different from the projections for many reasons, including the actions of stakeholders. In fact, the projections have served their purpose if projected shortfalls or surpluses do not occur because stakeholders have taken action to avoid them. I say this because my earlier reports have been criticised by ministers and departmental officials when projected shortfalls did not occur, yet major factors in supply more closely matching demand were actions by universities in increasing intakes, and by school authorities in carrying out active recruitment campaigns and providing generous incentives (Preston 2001a).

The methodology for the projections has been refined from projections prepared in earlier years, and there have been some changes. In particular, the method for deriving future net separation rates is new. It involves projections to 2005 of the age profile of primary and secondary teachers in each State, and the application of the historical, national rate of net separation for teachers in each five year age range. This rate is derived from 1991 and 1996 ABS Census data on the population of people with teaching qualifications, taking account of the difference in the proportion in each five year age range who are working as teachers after assuming that around 80 per cent of initial teacher education graduates enter teaching before age thirty (and some enter later).

My projections are for shortfalls at both the primary and secondary levels throughout Australia in 2005 (Table 5). There are variations between the States, and some major fluctuations over the period. The most substantial fluctuations are at the primary level in Western Australia, where a major surplus around 2002 is projected because of the change in school starting age resulting in a half size cohort entering school, and at the secondary level in Tasmania where a small cohort (resulting from a change in school starting age in the early 1990s) is passing through the secondary level, initially leading to a projected large surplus, then a shortfall at the end of the period as the small cohort begins to leave school.

Table 5. Projected 2005 shortages of graduates as a percentage of all teachers, and 2005 projected supply as a percentage of projected demand

	2005 projected shortages as % of all teachers		2005 projected supply as % of demand	
	Primary	Secondary	Primary	Secondary
NSW & ACT	- 0.6%*	0.9%	111%	87%
Victoria	1.9%	3.0%	69%	59%
Queensland	1.8%	2.9%	77%	66%
WA	1.2%	1.6%	80%	77%
SA	1.4%	2.9%	75%	56%
Tasmania	0.7%	3.8%	85%	51%
Australia	0.7%	2.2%	89%	70%

Source: Preston 2000, Tables C , D, E and F, p. 33

* surplus

Teacher shortages are never evenly spread – they affect most severely those schools that are generally hard-to-staff, and they usually occur most severely in those subject specialisations that are tight at the best of times. Some schools will never feel the damaging effects of a shortage, however severe – in fact such schools may benefit in the competition for status, teachers and students if other schools are experiencing the disruption and inadequate teaching that results from shortages of competent, qualified teachers. Students in hard-to-staff schools are usually already disadvantaged – by the very factors that make the school unattractive to teachers and thus hard-to-staff.

Teacher shortages can often be coped with administratively, and might little effect school authorities' central offices. But shortages are felt at the school level by: teachers taking extra classes; by principals and administrative staff spending excessive time on finding staff at the expense of their other duties; non-teaching staff taking classes they would not otherwise take; post-compulsory students being sent home; classes being taken by temporary or permanent staff without appropriate specialist qualifications; permanent vacancies being filled by a series of short-term, part-time replacements; less than adequately competent or qualified staff being employed (including student teachers), and so on.

Shortages and standards are intimately, but paradoxically, linked: if there is a willingness to lower teaching standards initially shortages will disappear as any warm body is employed to cover classes, or class sizes and teacher workloads expand. But as teaching standards and working conditions deteriorate, being as a teacher becomes less attractive, loss rates increase and fewer people want to enter or re-enter teaching.

Reasons for projected shortages

There are a number of reasons for the projected shortfalls. On the demand side, the most important is the increasing rate of net separations, leading to increasing levels of demand for new recruits to teaching. Developments in two other areas are discussed here, but were not accounted for in the projections developed last year. These areas are the attraction of those with teaching qualifications to other occupations, or to overseas teaching positions. On the supply side, inadequate numbers of graduates are projected. These will be discussed in turn.

Separations have been one of the most controversial aspects of my (and other) teacher demand projections. It is a difficult matter to incorporate into projections models, and my current methodology is complex. It is *net separations* that are estimated, incorporating re-entrants and returnees from leave, and netting out those who move from one teaching job to another – from one system to another. The most important aspect of the net separations methodology is the projection of the age profile of teachers through the period, and the 'cohort analysis' basis of determining separation rates. In their classic text on labour force projections, Bartholomew & Forbes (1979) note that 'of all the flows in a manpower system, wastage is the most fundamental for manpower planning' (p. 12), and 'propensity to leave depends on length of service and in practice this seems to be the most important factor of all' (p. 14). For teachers in Australia today, age is, on balance, better than length of service in determining net separation rates. It is a reasonable proxy for length of service in the early years (high rates of leaving the profession generally occur during the first couple of years as people realise that they are not suited for the profession, or they are attracted into an alternative), age is more appropriate as women (and some men) take time out to rear children, then return some years later, and age is clearly the key factor in the later years when retirement is the reason for separation.

The method I now use to estimate average annual net separation rates for the period to 2005 was outlined earlier. The underlying net separation rates for primary and secondary teachers in 5 year age ranges are as follows:

Average annual net separation rates – primary teachers								
< 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 +
6.32%	3.55%	-1.25%	0.04%	2.13%	2.63%	17.0%	19.0%	80.0%

Average annual net separation rates – secondary teachers								
< 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 +
5.57%	3.07%	-0.02%	-0.39%	1.18%	2.25%	17.0%	19.0%	80.0%

The negative values in the 35 to 44 age range mean that a greater number of teachers return to teaching (from extended leave, or re-enter after earlier resigning) than leave teaching. (There are, of course, some new entrants to teaching in a particular State or Territory through all age ranges – they are teachers from interstate or overseas, and older graduates or others who have not taught before.)

Applying the above net separation rates to each age range in the projected age profiles for primary and secondary teachers in each State, I have projected total net separation rates for each year to 2005. As noted above, I have assumed that the state of the external economy and the relative attractiveness of teaching (etc) remain constant over the period, thus the age profile is the only factor affecting changes in net separation rates - alternative scenarios can be developed that incorporate variation in other factors.

Increasing net separation rates are projected because of an increasing proportion of teachers in the retirement and beginning teacher age ranges (see Table 4 and Figure 5). The net separation rate for primary or secondary teachers in most States generally increases from about 3.5 per cent in 2000 to about 4.4 per cent in 2005. Thus an increasing number of replacement teachers is projected – an increase roughly in the order of one third over the period. This increase in (net) replacement teachers needs to be added to the increase in total teacher numbers. In 2000 roughly 10,000 teachers new to teaching (that is, not re-entrants) will be recruited to all Australian schools. By 2005 this is projected to increase to a requirement of around 15,000, even if there is no change in student-teacher ratios (Preston 2000, p. 59).

Some of the projected net separation rates for 2000 and 2005 are as follows:

	NSW prim	NSW sec	VIC prim	VIC sec	QLD prim	QLD sec	SA prim	SA sec
2000	3.6%	3.3%	3.7%	3.2%	3.9%	3.6%	3.5%	3.4%
2005	4.3%	4.3%	4.5%	4.5%	4.6%	4.1%	4.6%	4.8%

Source: Preston 2000, Tables 1, 2, 3, 4, 5, 6, 9, 10, row 7 in each

The differences in rates depend on the current age profile (especially the sharpness of the peak of 1970s recruited teachers, the deepness of the trough in the thirties age range reflecting low recruitment around the early 1990s, and the numbers in their twenties and early thirties, reflecting more recent higher recruitment rates), and the projected expansion in teacher numbers.

The two extremes of secondary teachers in South Australia and Queensland illustrate key differences. In South Australia recent recruitment levels have been low, and almost no change in total teacher numbers is projected over the period (and thus no increase in recruits to add new places to the teaching workforce). At the moment the peak of those recruited in the 1970s dominates, and as yet the peak has not moved into the common retirement age, but that will occur rapidly over the next few years (and retiring teachers will be replaced by beginning teachers who

have a high propensity to leave). This change in net separation rates (alone) entails a change in demand for *new* teachers for the approximately 8,000-strong secondary teaching workforce in South Australia from 272 to 384 - an increase of 41 per cent. In Queensland there has been a steady and more substantial rate of recruitment over recent years, and thus the age profile is flatter, with a higher proportion of teachers in the higher separation younger age ranges, and a lesser trough in the low net separation age ranges through the thirties. Thus, the current net separation rate is higher than that in South Australia, and in 2005 it is projected to be substantially lower. The total Queensland secondary teacher workforce is projected to increase from about 19,500 to about 21,500 (largely because of projected school enrolment increases), but if total numbers are held constant (at 20,000, say), the change in separation rates (alone) entails a change in demand for new teachers from 720 to 920 – an increase of 28 per cent (compared with 41 per cent for South Australia).

When I prepared my projections I did not take account of the impact of the age profile of the total workforce and projected forthcoming general labour shortages – as discussed in the recent Access Economics report (2001) referred to earlier. There are parallels between the age profiles of the general workforce and the teaching workforce in the various States. The relative sharpness of the increase in net separation rates over the five years to 2005 in the four States noted above parallels the relative sharpness of the decline in general workforce growth noted earlier. South Australia has the greatest increase (36 per cent) in net separation rates, and the greatest fall in general workforce growth (though the most dramatic fall is projected to occur from around 2005 to 2013). Queensland's projected increase in net separations (19 per cent) is a little over half that of South Australia's, and Access Economics projects only a slight fall in workforce growth until around 2013. New South Wales and Victoria are in between on both measures, with Victoria closer to South Australia on both. Thus, especially in South Australia, Victoria, and probably Tasmania, general labour shortages within a few years may mean that employers outside teaching will be making their jobs relatively more attractive, and there will be more alternative job opportunities for those with teaching qualifications opening up in desirable locations. Thus it's reasonable to expect in those States that, compared with the assumptions on which I based my published projections, there will be a lower proportion of teacher education graduates available for teaching positions, and a higher rate of resignation of teachers who are changing to other jobs.

Another matter I did not take into account then, but that might be very important, is the apparently burgeoning recruitment of Australian graduates and experienced teachers to overseas positions. This is a qualitative change from the professionally and personally enriching 'working holiday' experience that has been common for many years, and the general movement of teachers into and out of Australia. The numbers appear to have substantially increased, highly competent, experienced teachers are being increasingly sought, and the positions being filled are potentially on-going. The USA, the UK and elsewhere are experiencing quite severe shortfalls that are not likely to ease in the near future, the 'international schools' network around the world is rapidly expanding, and countries such as Japan are seeking native English-speaking teachers, and easing immigration requirements to facilitate their recruitment. The clients of the overseas recruitment agents operating in Australia are generally very committed to obtaining the qualified teachers they want, and are willing to make attractive offers to Australian graduates and teachers.

Turning now to the supply side of the supply and demand projections: There has been a reduction in initial teacher education infrastructure that occurred with amalgamations and the creation of the 'unified national system' and the ending of the colleges of advanced education – the 'Dawkins revolution'. The impact differed substantially around the country because of the different historical circumstances of universities and colleges, and the missions of the dominant parties in amalgamations. For example, in Victoria teacher education had been dominated by two institutions, Melbourne College of Advanced Education and Victoria College, that were amalgamated with universities (Melbourne and Deakin respectively) that did not want to have

large faculties of education. Together, those institutions reduced their intakes in education courses between 1991 and 1998 by almost 70 per cent, and the reduction for Victoria as a whole was 50 per cent. In contrast, in New South Wales there was a wider spread of teacher education institutions, and universities amalgamating with major teacher education institutions did not demand such reductions in education intakes. Thus the overall reduction in New South Wales between 1991 and 1998 was only 22 per cent. The national reduction was 33 per cent (Preston 2000, Table 21, p. 60).

School authorities have generally provided little, if any, support for increases in initial teacher education intakes. University administrations (and DETYA) are themselves generally unwilling to allow increases in intakes in initial teacher education unless there is clear support for such increases from school authorities (usually universities prefer expansion in other, more lucrative or prestigious, fields of study). Unfortunately there is a dearth of adequate teacher supply and demand projections prepared by, or acceptable to, the major school authorities. The Commonwealth's position appears to be largely based on a report released by MCEETYA two years ago (and currently being updated) which is simply not up to the task - it is not 'comprehensive', so conclusions about projected shortfalls or surpluses cannot legitimately be drawn, and much of the data in the report is of very poor quality or inappropriate for the purpose (see Preston 2001a). In addition, some major school authorities tend to maintain a 'wage-case mindset' - asserting that there are not (and will not be) teacher shortages because current or projected shortages have been referred to by teacher unions in their arguments for increasing teacher salaries and thus the attractiveness of teaching. This appears to me to be a self-defeating position in the long run. It is all very well to argue that there are not (and will not be) shortages in the adversarial ritual of a wage case. However, to carry this argument over into the context of policy decisions about initial teacher education intakes is sure to lead to shortages actually occurring. Planning initial teacher education intakes is one area where policy clearly should be evidence-based, not based on wishful thinking. There also appears to be some evidence (in nursing as well as teaching) for a greater fear of political pressure from graduates who are not able to step into the job they expect, than from the real difficulties in schools (and hospitals) from shortages being coped with by overloaded teachers (and nurses), but students (and patients) not getting the standard of teaching (and nursing) they are entitled to.

Even so, there has been an increase in projected supply. In 1996, universities planned a total of 11,184 initial school teacher education completions in the year 2002. In 2000, 13,585 completions were planned 2002 – and increase of more than 20 percent. If universities had not increased actual and planned intakes the projected shortfalls would be substantially greater.

Strategies to avoid shortfalls

What action can be taken to avoid damaging shortfalls? Strategies need to be both general and specific, and focus on improving the conditions of teaching and on increasing potential supply.

A first step is to get good, appropriate research accepted by the key decision-makers so that their policies can be evidence-based. They need to understand the magnitudes involved, and the ways in which shortfalls (and surpluses) are manifest. They need to understand the inter-relationships between teacher 'quantity' and 'quality'.

Given that, some specific strategies include:

- increasing the attractiveness of teaching for current and potential teachers through improvements in salaries and conditions, teachers' working environments, the nature of their work, and the respect and esteem in which the profession is held;
- targeted incentives for hard-to-staff schools (housing and other support, allowances, extra leave provisions, improved professional development access; extra resources directly to the

schools themselves) and shortage specialisations (scholarships for initial and post-initial teacher education);

- increases in initial teacher education intakes – general and in specific specialisations; support for rebuilding teacher education infrastructure where required;
- increase teacher's professional competence and commitment – highly competent and committed teachers are less likely to leave teaching, and more willing to effectively take on the challenges of difficult, hard-to-staff schools.

Priority strategies will differ around the country, and over the period. In States such as Victoria that felt the severest impact of the Dawkins revolution, priority should be given to rebuilding initial teacher education infrastructure and intakes. Where the overall supply and demand are closer to balance, but there are distributional problems, targeted incentives may be a high priority – for both school authorities and universities, and other stakeholders. In my report for the Australian Council of Deans of Education (Preston 2000, pp. 14 – 17) I list about forty different strategies to avoid or ameliorate damaging shortages or surpluses, to be implemented by many different stakeholders (including university administrations, DETYA, education faculties, school authorities, teacher organisations, parent organisations, Indigenous organisations, and other community and special interest organisations such as farmer and scientific associations).

The effects of shortages also must be addressed. One of the most important will be the lack of availability of recent graduates for casual relief work – they will be able to readily obtain longer term and on-going positions. There will also probably be a substantial reduction in the availability of women giving priority to childrearing but available to for casual relief. This will be because of the low levels of teacher education graduates and teacher recruitment in the 1990s, as well as any changes in women's childbearing and career patterns. Thus school authorities need to develop and nurture alternative sources of casual relief staff – for example, by employing more permanent staff who are available for relief positions, and by utilising the increasing numbers of retired teachers (who will tend to be very selective regarding location, individual school, and even the individual class they will teach). Individual schools and regions who have difficulties obtaining the casual relief staff they need should be provided with additional permanent staff so that casual vacancies can be covered without repeatedly overloading the same staff.

There may be a tendency for school authorities and teachers in those systems and individual schools that are in a strong competitive position in the teaching labour market to give priority to making sure their own teaching workforce is complete and fully qualified in all fields – even to be complacent, or to revel in the advancement of their competitive position as others experience difficulties. However, as members of a profession, teachers have responsibilities for the work and conditions of the profession as a whole.

I will now turn to teacher professionalism and professional regulation, then back to supply and demand and teacher quality.

Teachers' professionalism

A highly professional teaching workforce has been a policy priority from time to time since the late 1980s and the 'teacher quality' projects of the Schools Council of the National Board of Employment, Education and Training, culminating in *Australia's Teachers: An Agenda for the Next Decade* (Schools Council 1990), followed by the 1991 to 1993 work of the collaborative National Project on the Quality of Teaching and Learning. Earlier, the Schools Commission had devoted much attention to teacher competence (through, especially, inservice professional development) and the quality of teacher's work though teacher participation in decision-making and support for innovative activities and programs for which teachers took major collective and individual responsibility. I think we would all agree here that enhanced teacher professional work is a key factor in the improvements needed in schooling for all students. However good schooling

may be, there is always room for improvement, and such improvement is necessary for social justice and better lives for everyone.

I believe that over the past decade or so there has been much confused thinking about the appropriate (and possible) nature of 'teacher professionalism', about structures and mechanisms to support that professionalism, and about the professional nature of teachers' work (Preston 1995). There has been a certain defensiveness, even a cringe, around teacher professionalism, often associated with a belief that teachers should be emulating the traditional elite professions (especially medicine). Yet this has often been associated with a misrepresentation or misunderstanding of the professional structures of those other professions, and the nature of their professional work – individually and collectively in contemporary Australian society.

In this section I want to outline my understanding of the nature of teachers' professional work, to draw out the implications of this, and to discuss some of the key aspects of professional structures that will need to be addressed if we are to have high quality teaching for all students in the coming decade.

We need to understand, and celebrate, the nature of teachers' professional work at its best. In judging what is the 'best' professional teaching the ultimate focus should always be on the quality of student learning, rather than some supposed similarity with the work of other professions.

The status and recognition of teachers as professionals should not be an end in itself, but a means to enhancing student learning – especially the learning of those students who come to school with the least advantages. Medical practitioners may have higher public status than teachers, but that is for deep historical reasons, public anxiety about illness and death, the relative scarcity of medical practitioners compared with teachers, and their market power as predominantly private practitioners in a largely publicly funded health system. Much of this teachers would not want to emulate - even if they could.

In important ways good teaching is more powerfully professional than mainstream, discretely individual, episodic medical practice. Let me explain how I understand professional teaching practice. Teaching:

- involves high level professional judgements
- is collective and strategic
- is democratic.

The need for *high level professional judgements* – complex situational judgements - arises from the complex diversity of students, educational objectives, contexts, and teachers themselves. There can be no predetermined 'one right answer', and the rule-based application of knowledge, technique and materials, however sophisticated, is insufficient. Teachers' professional judgements involve the integrated and appropriate application of personal qualities such as sensitivity, flexibility, patience and humour, combined with knowledge and understanding in depth and breadth covering areas such as the content to be taught, general pedagogical knowledge, curriculum knowledge, pedagogical content knowledge, knowledge of learners, knowledge of educational contexts, knowledge of education ends, purposes and values, combined with high level cognitive and social capabilities such as communicating effectively and working in teams (Preston 1996, pp. 248 - 249). Effectively teaching all students to their full potential is very different from instructing highly self-motivated and well-prepared students – the 'easily teachable' or 'already taught' (Schools Council 1990, pp. 29 and 50).

Effective teaching is inherently *collective and strategic*. These characteristics are features of teaching far more than many other professions. Teachers' work is not primarily the aggregation of discrete one-to-one relationships between professional and client. In a classroom teachers are relating to a group of students, and while individualising their teaching much of the time, the complex inter-relationships between all the students in the class and between the students and the

teacher is something the teacher needs to constantly manage. In addition, the education of particular students is dependent on the inter-relationships between the work of many teachers over many years. Some of those teachers have a direct teaching relationship with the students, while others play a part in curriculum development and creating the structure, culture and climate of schools and the system as a whole. These inter-relationships indicate the *collective* nature of teaching. That the education of students through schooling occurs over a period of time, and that the pattern and sequence of inter-relationships between the work of different teachers in part determines the nature and quality of learning, indicates the *strategic* nature of effective teaching. (Preston 1996, p. 252)

Effective teaching is *democratic* because effective learning requires respectful and willing collaboration between teachers and students – the students as active participants in their own learning -, and, in the early years especially, between teachers and parents. These democratic collaborative relationships are inherent to good teaching in a society such as ours – they are not incidental or occasional as they may be in the practice of some other professions. Partnerships with students and parents do not lessen professionalism, but demand a higher level of professionalism to manage. For effective learning partnerships must be democratic, rather than the traditionally understood hierarchical relationship between the elite professional and the submissive client (or patient). In addition, teachers (most explicitly those in the public sector) in democratic societies have a responsibility to educate for democracy, and that involves students experiencing and observing democracy at work around them.

Democratic professionalism is not a contradiction in terms, but it is not easy. A decade ago the OECD, in its report, *The Teacher Today*, noted the difficulties in its discussion of ‘open professionalism’ (a notion it had developed initially in the 1970s):

The concept ‘open professionalism’ enshrines the idea that the modern teacher, as the focal point of rapidly changing and highly demanding educational policies, needs to be both open to communal influence and co-operation – with colleagues, the school, on-going research and developments, parents, the community – and to receive respect as an individual professional. Reconciling these two elements in practice may not, however, be straightforward. It would entail an openness to outside influence that enhances, not diminishes, the individual’s sense of commitment and responsibility. (OECD 1990, p. 44)

I believe that our understandings of teacher professionalism, and the actual professional practice of teachers, in Australia today are powerful and robust enough for the reconciliation to be generally accepted and easy. However, a strong assertion of the traditional medical model of professionalism as one to be emulated will be a backward step.

I would like now to turn to institutional frameworks of teachers’ professional work in a federation such as Australia.

The importance of mandatory teacher registration

The collective and strategic nature of teachers’ professional work, as well as the historical and likely future development of schools and school systems in Australia, entails the inherent connection between the industrial and the professional, and the significance of the positive roles in teacher professionalism of *both* school authorities and teacher unions (Preston 1996). However, both teacher unions and school authorities have pressures and responsibilities that may work against the best professional practice, and thus optimal student learning. There are institutional arrangements and practical priorities that can lessen such negative effects, and both teacher unions and school authorities should develop and implement them as much as possible. One such arrangement that is both obvious and topical around Australia is statutory teacher registration, for which governments have responsibility, but school authorities’ positions are usually politically decisive.

I was surprised at the position in the Report of the Review of Teacher Education, New South Wales (Ramsey 2000) on teacher registration. Mandatory registration is opposed as ‘an entry barrier to the profession’, and a ‘voluntary system of professional accreditation’ is proposed (p. 148). The report goes on to state that ‘parallels for such a voluntary, standards-based system exist in the accountancy, engineering and medical professions’. I think that bemusement would be the response of the medical registration boards around the country, and the ministers responsible for the comprehensive sets of legislation mandating registration for much of the actual professional tasks of engineers. The role of auditors and other members of the accountancy profession in the collapses of HIH and One-Tel, as I understand it, illustrates the high social cost of the self-interested ‘self-regulation’ of that profession. As Brian West points out in an article in the *Journal of Sociology* (West 1998), the issues involved (especially related to defining and determining ‘true’ and ‘fair’ accounts) have been on the accountancy profession’s standards agenda for many years (since the company failures of the 1960s), but have been resolved in the interests of the profession, not the interests of clients or the general public. Of course accountants generally perform their work in ways that are in the clients’ and public’s interest, and involve the skill and judgement we expect of professional work - just like teachers in States such as NSW that do not require registration. But when the pressure is on, the accountancy ‘standards’ have failed in their content and/or enforcement.

I do not want to directly address the Ramsey report, only to note its position – many of you will know much better than I how these matters are progressing. Rather, I want to outline what I believe are the fundamental reasons why there should be statutory (thus mandatory) teacher registration, which in Australia’s constitutional framework must be based in State/Territory, not Commonwealth, legislation.

But first, why is it that teacher registration is not already a statutory requirement for all school teachers in all States and Territories, as it is for nurses, medical practitioners and many other professionals? I believe there are several major reasons.

First, statutory teacher registration may be seen as effectively redundant, at least in periods of adequate teacher supply and where there are responsible school authorities. The argument is that the school authorities that employ teachers are committed to only employing appropriately qualified, competent teachers, and have more or less transparent and accountable mechanism for doing so. This has been the basis for most government and other major systems’ lack of concern about registration since the 1970s. The position has some validity, especially for centralised school systems and when there is an adequate supply of qualified teachers. But we must remember that the strong registration systems in Queensland, and in Victoria until the early 1990s, arose out of school authorities employing substantial numbers of unqualified and not competent individuals as teachers from the mid 1960s. The ensuing chaos in schools led to the Victorian Secondary Teachers Association’s Control of Entry campaign and union-run registration until the State governments established statutory registration in those and other States (Preston 1996, pp. 255 – 258).

Second, there is explicit opposition to registration, which is seen as an infringement on school authorities’ prerogative to employ as teachers those who they choose. This is commonly (and influentially) put by some independent school representatives. Not only is it believed that professional teaching qualifications are not always necessary to be a good teacher, but that those exceptions should be allowed to make the rule. This second element, that *exceptions make the rule*, is important. It’s quite possible that a particular vet or a nurse or a pharmacist could be an effective medical practitioner in some circumstances, and vice versa; or a particular person with knowledge and commitment but not the required formal qualifications could do the work in one of those professions with acceptable competence. But such exceptions are not allowed to make the rule.

There is a superficial sense to the old argument about the great teacher with a PhD in physics but no teaching qualifications. But it is a slippery slope. It appears acceptable when the schools concerned are in a very strong position in the teaching labour market (their choice is between the run-of-the-mill individual with teaching qualifications, and the ‘brilliant’ person without), and where the student body is easy to teach and highly motivated (and thus the central professional skills of *teaching* are less vital, but an ‘instructor’ or ‘facilitator’ with other strong attributes may be quite adequate). It is the slippery slope from this position that takes us to one of the key reasons why there should be statutory teacher registration.

Teacher registration is most important for schools in a relatively weak position in the teaching labour market in circumstances of teacher shortage (as experienced by them, if not by other schools). Without mandatory registration, school authorities (including individual schools when the decision is theirs) can make the easy, short-term decision of employing unqualified ‘teachers’. Those who care for the quality of student learning in such hard-to-staff schools (such as students, parents or teachers in the school) may have little power with the decision-makers, who might be primarily concerned with the administrative matters of ensuring there is at least someone covering classes, but the classroom itself is a black box for which they have little concern. Or, on the other hand, a school authority may be strongly committed to quality teaching, but, without mandatory registration, find it difficult to resist pressure to employ an available person without qualifications when no qualified teacher is readily available. Statutory registration forces school authorities to do the hard work of attracting and retaining qualified teachers, and not take the easy, but ultimately counterproductive, way out of any ‘warm body’.

Schooling is compulsory through most of childhood – students and their parents have no choice. If the state is going to require attendance at school, then its reciprocal obligation is to ensure that the quality of schooling provided is adequate and appropriate. Ensuring teacher quality through registration (and other mechanisms) is part of this.

As we move into a period likely to be characterised by an increasingly tight teaching labour market, registration will become more and more important for the actual quality of teaching and learning in schools, especially the hard-to-staff schools of the most disadvantaged students. It will not be some abstract debate about an apparently redundant mechanism. Already hard-to-staff schools in several states have engaged unqualified people as ‘teachers’. The chaos experienced thirty years ago may return, if on a lesser scale, without the constraint of registration.

Statutory registration is a way for governments to show their commitment to quality schooling, and, especially, to the entitlement to quality teaching of the already disadvantaged students in hard-to-staff schools. It is a message to the whole community that teaching is valued and important professional work. The employment of unqualified teachers must be expected to indicate that governments and school authorities do not see teaching as significant professional work. If they do not respect the teachers and their work why should the rest of the community? Why should young people see teaching as a career to aspire to?

This takes us back to the intimate relationship between teacher shortages and teaching standards. If standards are allowed to slide through the employment of unqualified teachers, shortages are exacerbated, especially in the long run. Registration is a crucial mechanism for ensuring teaching standards are maintained, and for a clear public statement of the importance of those standards and the value of the professional work of teachers.

A professional standards body or a representative body?

What, then, should be the nature of a body responsible for teacher registration and related matters of professional standards?

The discussions around the proposed Victorian Institute of Teachers, the Ramsey report recommendation for the establishment of an Institute of Teachers in NSW, and other

discussions around the country, indicate the need for clarity about the nature, role, responsibilities and function of professional representative bodies and standards bodies. The reluctance of many to acknowledge the role of the teacher unions as professional representative organisations (paralleling the industrially registered Australian Medical Association, for example) adds to the confusion.

I was struck last year by the difference between the fundamental objectives of the Ontario College of Teachers (a body that registers teachers, among other functions, and whose chair and accreditation manager were visiting Australia) to ‘serve and protect the public interest’ and that being considered by the Ministerial Advisory Council for the Victorian Institute of Teachers to ‘promote the profession’. I strongly believe that any body responsible for teacher registration (and deregistration) and other aspects of professional standards should have as its ultimate purpose the quality of teaching for optimal student learning – in the public interest. Promoting the profession may be associated with the ultimate purpose of quality teaching, but is not to be an end in itself for a standards body (though it may be a legitimate purpose of the professional representative organisation). We would be concerned if an objective of a medical registration board or similar standards body had as an objective ‘the promotion of the medical profession’, as distinct from the promotion of good medical practice. It is condescending to teachers, as well as inappropriate, for a standards body to have as an objective the promotion of the teaching profession.

I tabulated characteristics of professional representative organisations compared with professional standards organisation (as I saw them) some years ago (Preston 1995, p. 32), and the following is based on that tabulation:

	Professional representative organisation (for example, teacher union or subject association)	Professional standards organisation (for example, registration board)
<i>Basic nature and purpose</i>	Of the profession, for the profession.	Professional expertise, for the public interest.
<i>Mission and responsibilities</i>	<p>Represent and promote the interests of the profession; speak for the profession; negotiate on behalf of the profession.</p> <p>Ultimate responsibility is to the profession – to its members, current and future.</p> <p>Generally, a responsibility to the profession currently and into the future will entail a commitment to the highest professional standards and performance (individually, and collectively by the profession as a whole, including non-members). However, there may be times when there are inherent conflicts between the interests of the profession and those of clients of the profession and/or the public interest. Ideally the organisation should work to transcend and overcome such conflicts. But that may not always be possible – this is where the need for a professional standards body, or independent mechanisms for arbitration are essential.</p>	<p>To ensure high standards of:</p> <ul style="list-style-type: none"> • professional capability/attributes • practice/conduct <p>from</p> <ul style="list-style-type: none"> • individual professionals (through formal processes such as registration), • the profession as a whole (through professional support activities, policy recommendations to professional representative organisations and school authorities, and collaborative work with professional representative organisations and school authorities). <p>Ultimate responsibility is to students, their families and communities, and the wider society (including employers, further and higher education institutions, and other civil, political, cultural and social institutions).</p> <p>Standards of professional capability (or attributes or ‘competency’) for most beginning practitioners would, ideally, be (or be related to) the standards for graduation from an appropriately approved or accredited program of initial teacher education (see Adey 1998). There may be other formal requirements (concerning, for example, criminal records or health status, if these have not been part of the graduation standards). Those who are not recent graduates of approved/accredited institutions would need to be assessed against comparable criteria.</p> <p>Additional assessment could be required at the end of a probationary or induction period, and, perhaps periodically throughout a career (ideally this should be inherently related to good practice, and not require tasks or activities that are not cost-effective in terms of good professional practice).</p> <p style="text-align: right;"><i>continued . . .</i></p>

		<p><i>Mission & responsibilities continued:</i></p> <p>Standards of practice and conduct would need to take account of the actual circumstances of the practice/conduct involved. This might involve consideration of school authorities' deployment practices (whether an individual has appropriate specialist qualifications, or the necessary experience and skills for the actual position), and matters of professional support and health and safety (including stress).</p>
<i>Social role and status</i>	<p>The body which governments, employers, client organisations, community organisations, the media turn to when they want the views of the profession.</p> <p>High public profile helps effective representation.</p>	<p>Provides assurance to the community that high professional standards operate.</p> <p>The profession, school authorities and the general public should see the organisation's work as effective and legitimate.</p>
<i>Membership</i>	<p>All members of the profession are generally eligible for membership, and a high level of membership is important for credibility and general effectiveness. Membership will usually be voluntary, and not necessary for professional practice.</p>	<p>Membership of decision-making bodies (the governing council or board) should include major stakeholders in the work of the profession.</p> <p>For school teaching this would include, at least, representatives from:</p> <ul style="list-style-type: none"> • the school teaching profession, • school authorities, • teacher educators, • parents, • the wider community. <p>As a high level of professional expertise is essential, and legitimacy in the eyes of the profession important, usually members of the profession will make up a large proportion of the governing body.</p> <p>Membership of the decision-making bodies is distinct from the categories of registered members of the profession, who are not strictly 'members' of the body by virtue of registration. The term 'member' is misleading because those who are registered will not have the genuine membership status of members of representative professional organisations and other such voluntary associations. Being registered does convey formal, public recognition that the individual is a member of the profession (of teaching), but not a member of the particular 'board of registration'.</p>

<i>Legal status</i>	Legal status as appropriate to protect the interests of members and officers, especially regarding matters such as legal or financial liability.	<p>Statutory status is essential so that only registered professionals practice, and employers cannot employ unqualified individuals. Statutory status also ensures that professional (or employer) self-interest does not override the interests of the clients of the profession (students and the wider community)</p> <p>The statutory status should ensure clear protection from the whims of the government of the day. The governing body must be at arms distance from the government, and the views of the government taken up in the same way as those of other stakeholders (especially if the government is a major employer of members of the profession being regulated).</p>
<i>Principles of decision-making</i>	Democratically, according to the constitution and existing policies.	Decisions are made according to professional expertise (research, experience and informed judgement), within the policy framework determined by the governing body.
<i>Structure</i>	<p>Democratic structures that ensure participation by members is necessary for legitimacy as a representative organisation in the eyes of both members and those to whom members are being represented. Proper 'representation' requires a central place for the views of members of the profession.</p> <p>Decision-making processes should be transparent and accountable to the membership – in accord with its basic purpose to serve its membership.</p>	<p>Structure should be appropriate for its expertise-based role and to ensure the views of all stakeholders are heard. The views of members of the profession should not be privileged over other stakeholders (such as students, parents, or school authorities), though their professional expertise is essential.</p> <p>Decision-making processes should be transparent and ultimately accountable to the wider community – in accord with its basic purpose to serve the public interest.</p>

The characteristics are quite consistent with the Queensland Board of Teacher Registration (and teacher unions and professional associations in Queensland), similarly in South Australia. It is also consistent with medical and nursing registration boards (and the Australian Medical Council that accredits initial medical education programs and examines immigrant medical doctors), and the representative organisations of the AMA and ANF. However, the specialist medical colleges do combine the roles – and there are problems there. The distinctions tabulated are de facto broadly consistent with professional regulation in engineering, where the actual registering body has its own governing structure incorporating representatives of relevant ministers and others external to the profession, and engineering practice requiring registration is governed by a range of State/Territory legislation.

Quality and quantity intertwined

Registration is a necessary, but not sufficient condition for a dynamic and effective teaching profession. So, too, is ensuring that there are a sufficient number of qualified teachers available to

meet demand. The number available will not, alone, ensure quality teaching, nor the status of the teaching profession. However, if there is not effective policy in place to ensure the orderly provision of adequate numbers, the effectiveness of many initiatives to promote and ensure quality will be undermined.

Earlier in the year the Commonwealth Minister, David Kemp, put out a media release headed 'The status of teaching: quality not numbers' (K27, 19 February 2001). There are quite a few problems with the content of the statement that I will not go into here (especially in relation to PELS). I just want to address the clear implication that, currently and in the near future, the quality of teaching can be addressed while putting aside any consideration of 'numbers'.

Any tightness in the teaching labour market will affect some schools more than others, and some specialisations more than others. A generally tight teaching labour market forces school authorities to be less selective in employing teachers than they would like to be, taking on those with less than adequate competence, qualifications or commitment. The tighter the general labour market, the more severe those particular effects will be. Addressing the problems of hard-to-staff schools, shortage specialisations and general quality must always be two-pronged: ensure adequate overall supply, and deal with the specific problems with targeted strategies. The targeted strategies cannot work without adequate overall numbers.

Ensuring adequate numbers provides the 'room to move' to address distribution, specialisation matching, and quality. Adequate numbers provides the freedom for teachers to take time off for professional development – whether for a day or several years. When the situation is tight, school authorities are loathe to promote shortage specialists away from classroom teaching, and individual specialists, being committed to their students' education and knowing that they will be hard to replace, will be inhibited from seeking positions beyond the classroom. A lack of readily available positions encourages student teachers and graduates to think beyond their automatic first choice, and to prepare and apply for hard-to-staff locations or shortage specialisations. With attractive locations and schools readily employing graduates and others seeking teaching positions, there is little special recruitment campaigns for hard-to-staff schools can do if there are not even teachers out there looking for positions.

Exactly what ratio of 'supply' to 'demand' is an optimal balance will depend on the circumstances. While a surplus provides plenty of room to move, it also means that potential teachers will be discouraged because they perceive poor employment opportunities. The academic standard of teacher education students will fall, and consequently so might the standard of future teachers (especially if the surplus is followed by a shortage, and universities are under pressure to pass students they may not otherwise have passed, and school authorities cannot be very selective when recruiting).

The impact of shortages on the quality of ongoing teaching in schools was discussed earlier: students' learning is disrupted by unfilled vacancies, series of relief teachers without appropriate specialist qualifications, and their regular teachers and school leaders being overloaded and unable to give proper time to their primary professional duties because they have to perform the tasks of relief teachers. Teachers cannot take time for their own professional development or other out-of-school professional work because there are not relief teachers available to take their classes, and so on.

Dealing with shortages have other opportunity costs, taking time and resources from initiatives and programs directed to, for example, teacher quality. School authorities may put personnel and financial resources into emergency recruitment activities and dealing with problems with hard-to-staff schools and particular specialisation shortages, rather than other initiatives to improve the quality of teaching. Universities may have to give priority to the development of special courses in response to current shortages, rather than developing courses and providing research and developmental support for new areas (such as VET in schools). Professional associations and

teacher unions may have to give priority to supporting members who are forced to teach out-of-field or who are overloaded, rather than developing and supporting new initiatives in quality teaching and enhanced professionalism.

Concluding comments

This paper has been fairly wide ranging, there are a number of issues that have been raised that you might wish to take up – today or in the future.

- The implications of a bifurcated age profile for:
 - professional leadership ('succession planning', and other matters)
 - professional development and renewal, provided by the profession, by school authorities, by universities – for (a) beginning teachers and those in their early career years (induction and ensuring retention, especially in the cultural/social context of relatively large numbers of much older teachers), (b) mid career teachers (a small cohort available for traditional leadership positions, etc), (c) older teachers in their 50s (to keep them energised, committed and up-to-date)
 - school and classroom culture, and relationships with school communities
 - ensuring no schools have particularly damaging concentrations of young and/or old teachers (how can this be done?)
 - teacher unions and professional associations – their leaderships, active memberships, general memberships, policies and cultures.
- The implications of an increased proportion of both enrolments and teachers in nongovernment schools for:
 - ensuring equity in educational resources, including the distribution of teachers
 - the role of the IEU and its members in leadership/responsibility for professional matters (including initial teacher education, induction, continuing professional education)
- Likely teacher shortages, most probably at the secondary level in NSW. What can nongovernment school teachers do to avoid or ameliorate shortages? Perhaps:
 - take up (and encourage school authorities to take up) with the Commonwealth (and vice-chancellors) the need for timely, evidence-based policy that is informed by quality, appropriate research – especially for increased initial teacher education intakes as warranted
 - encourage school authorities to contribute to such research and policy formation
 - support effective strategies for staffing hard-to-staff schools and providing shortage specialists (opposing strong schools playing dog-in-the-manger).
- Implications of a lack of available recent graduates or women involved in mid-career childrearing for casual relief and limited term positions, and the likely greater availability of post-retirement teachers:
 - for particular regions, types of schools, even classes within schools
 - for appropriate employment conditions, career structures, etc of those (potentially) available for filling casual and short term vacancies (does mode of employment need to match the type of vacancy?)
- How best to ensure quality teaching for all students in shortage times, and provide public recognition of the importance of the skilled, committed *professional* work of teachers?

- Is statutory/mandatory teacher registration the best way?
- If so, how can school authorities (and others) be persuaded?
- What are the principles and key features of good/ideal teacher registration bodies?

The teaching profession in the future will be different to what it is and what it has been. What it becomes will be shaped, in part, by the deliberate actions, and the inaction, of today's teachers and their collective organisations.

Note

1. This version differs a little from that published with the conference proceedings – some typographical and formatting errors have been corrected, and some additional material referred to in the actual presentation and discussion has been added.
2. Much of this paper draws from 'Workforce needs to 2010', a chapter by the author in the Australian College of Education Year Book 2001, *Beyond the Rhetoric: Building a teaching profession to support quality teaching* (Kerry J. Kennedy ed.)

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Appendix 1:

All Australian teachers; all those with teaching qualifications; all in the labour force; all not in the labour force; and all persons - percentage of those aged 25 to 64 in each five year age range, 1996

	Teachers %	All with teaching qualifications %	All in labour force %	All not in labour force %	All persons %
25-29 years	13.4	11.8	16.1	11.2	14.7
30-34 years	12.4	12.4	15.9	13.0	15.1
35-39 years	18.1	17.6	16.6	12.2	15.4
40-44 years	22.4	19.9	15.9	10.2	14.3
45-49 years	17.5	16.0	15.0	10.3	13.7
50-54 years	10.3	10.8	10.6	10.7	10.7
55-59 years	4.7	7.2	6.8	13.7	8.7
60-64 years	1.3	4.4	3.2	18.6	7.4

Source: ABS 1996 Census, custom tables.