

Alternate pathways for teacher preparation and related matters

**Advice to the Minister for
Education, Science and Training**

July 2007

Introduction

In March 2007 the Australian Government Minister for Education, Science and Training, the Hon Julie Bishop MP, asked Teaching Australia to provide advice on alternative pathways for teacher registration.

Alternate pathways to teacher preparation are among several possible policy responses to address teacher shortages in particular subject areas or hard-to-staff rural and metropolitan schools. By providing different ways to enter the teaching profession, the pool of would-be teachers could be further broadened. Other strategies include:

- re-training existing or surplus teachers
- re-engaging former teachers of in-demand subjects
- employing specialist instructors and tutors under the supervision of qualified teachers
- using Information and Communications Technologies (ICT) to connect students in under-resourced disciplines with high quality teachers, or to provide isolated or out-of-field teachers with expert support.

Policy responses are best tailored to specific needs.

Schools are vital to the intellectual, social and physical development of young people and Australia's future economic prosperity. Rapid global change constantly tests their capacity to respond to changing demands. Now more than ever, schools are catering for young people from diverse backgrounds, with different learning styles, and from an increasingly participatory, image-driven and connected culture. This complex environment means schools must adapt their structures, staffing profiles and operations to meet the academic needs of their students as well as strengthening their resilience and personal wellbeing.

While Australian schools are strong performers in the international arena, with students often highly ranked, there is still a significant number of under-achievers requiring greater support. Australia's future success will in part, depend on the creativity, problem solving ability and interpersonal skills of its population as well as its strengths in areas such as design and technology – all of which is underpinned by sound literacy and numeracy. Quality teachers are key to building this capacity and are at the heart of continued success. Debates about teacher preparation, ongoing professional development, teacher retention and the status of the profession are increasingly focused on the question of quality.

There are around 250 000 teachers in Australian schools. There are also thousands of people with teaching qualifications who are not working in schools, many of whom want employment as teachers but do not match the vacancies available. Vacancies in rural and remote areas in particular remain unfilled despite employers offering significant incentives. The number of mature age applicants for teacher preparation courses often exceeds the places available, and most jurisdictions are

implementing small scale schemes that target recruitment and re-training for areas of need.

This advice explores the complexity involved in responding to teacher supply issues and suggests possible directions and areas for action. Because the most significant in-school factor affecting student achievement is the quality of teaching, this advice has been framed against a backdrop of policies and initiatives focussed on building and sustaining quality teaching. This approach reflects the ongoing public interest in standards for teachers and school principals, pre-service teacher education, and the status and attractiveness of teaching as a career.

What's happening in Australia

Skills demographics

Demographic changes over the next decade or so will lead to an increasingly competitive market for highly skilled people - including teachers. Multiple careers and high levels of mobility will characterise the future workforce. Skill shortages are reported in many areas and a wide spectrum of employers report difficulty in attracting and retaining staff. This reflects the combined effect of a shrinking cohort of young workforce entrants, a depleted stock of skills in some key industries and occupations and the accelerating need for new skills flowing from technological and business process change.

According to ABS data, from 1996 to 2005, the numbers of people in fulltime managerial and professional roles rose 32.4 per cent, while those in intermediate clerical, service and production roles rose only 2.17 per cent.¹ There is a hollowing out of the middle-ranked, middle-paid jobs, with a general trend toward relatively high wages for the highly skilled and lower wages for the less skilled. Such trends will affect the capacity of education systems to retain existing well-qualified staff, and to recruit high-calibre graduates into the teaching profession.

Support roles in schools

Schools and their student populations continue to be influenced by social, cultural, economic and technological changes that modify the expectations that all stakeholders have of schools and of those who work in them. Some notable shifts in thinking about schooling include:

- an increasing emphasis on whole school programs which promote academic achievement while emphasising students' overall personal wellbeing
- the importance of teachers being able to employ pedagogies integrated with technology both in formal (school) and informal (non-school) settings, especially as communications technologies play an important role in how young people form their identities and social relations
- the need to restructure schooling based on the findings of research into the aspirations, motivations and values of young people, for many of whom the

onset of maturity is coming earlier, and for whom school is just one activity in a complex and busy life.

As a result, there is growing recognition that schools need access to a wider range of skills and expertise. More specialised roles that assist learning and support students are emerging in schools. They range from targeted literacy support to ICT systems maintenance, from a focus on the emotional and social development of young people to vocational guidance and technical training. This is in addition to the more familiar specialised contributions of instrumental music teachers, sports coaches, language tutors, driving instructors, health counsellors and the like. Schools are seeking specialist expertise, either on a voluntary or fee-for-service basis, to support students and teachers, or to meet curriculum needs. Partnerships are being sought between schools and business enterprises, or with other educational institutions. In short, the range of people working in schools is diversifying.

Between 2000-2005, there was a 21 per cent increase in schools' employment of specialist support or administrative and clerical roles (including teacher aides).² This contrasts with an eight per cent increase in teaching staff over that period. Since 2005, the number of support staff is reported as still growing while teacher numbers appear relatively static.

Demand for teachers

Nationally, Australia has an abundance of people with teaching qualifications and a steady supply of new graduates from teacher preparation programs. Despite this, supply problems persist at the organisational level of schools and systems with teacher recruitment in certain subject areas, disadvantaged, or geographically isolated schools proving increasingly difficult.

This has significant equity implications for students within such schools in terms of the limited range of subjects and teacher expertise available. This is particularly the case in small schools with fewer overall staff to cater for individual student needs.

Trends in school student populations suggest that the overall number of teachers required will not grow, but the age profile of the teaching workforce is such that, depending on the success of strategies to retain older teachers, losses to retirement and other factors could be significant to 2010 and beyond.³ This could exacerbate teacher supply issues in particular subject areas and hard-to-staff schools. That said, there remains a substantial pool of teachers either not working nor seeking work as teachers but who could potentially be drawn back into the profession.

The most recent Demand and Supply report available from the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) (2004) indicates:

- while there is an adequate supply of generalist primary teachers overall, recruitment difficulties persist in some geographic locations and in Languages Other Than English (LOTE) and Special Education
- secondary schools are experiencing recruitment difficulties in rural, remote and difficult-to-staff metropolitan locations - especially in maths, science,

technology and LOTE. The lack of relief teachers in these areas is identified as a significant concern

- there is potential for significant teacher shortages between now and 2014 if substantial numbers of teachers retire.

About 9,000 teachers will reach the potential retirement age of 55 years each year over the next few years.⁴ While some 8,500 graduates from initial teacher preparation courses are projected to enter the profession each year, one estimate suggests that up to 25 per cent are likely to leave it within five years.⁵ The actual numbers of early departures seems to vary significantly between jurisdictions.

A 2006 survey by the Australian Secondary Principals Association (ASPA)⁶ reported that, of its sample of 386 secondary schools, over one third of their principals and more than half their deputy/assistant principals plan to retire within five years.

Surveys have also identified various management and resource issues affecting their health and wellbeing, and in turn the appeal of the role. Difficulties recruiting high calibre candidates to principal positions are exacerbated in today's competitive employment market.

What is being done to address shortages?

A range of strategies and initiatives have been put in place around Australia to address particular needs.

Financial incentives for teaching in remote locations include:

- South Australia – Country Teaching Scholarships (\$2500 per year) for trainee teachers who will teach in the country upon graduation. Also a 'Sea Change' incentive (up to \$12 000) to attract experienced maths/science teachers to rural areas
- Western Australia's Remote Teaching Service provides extra allowances of \$10 000-\$15 000 per year
- Queensland offers compensation and incentive cash benefits of up to \$5000 per annum to teachers in rural and remote locations
- New South Wales offers various benefits for teaching in rural areas including a \$5000 per annum bonus in isolated schools
- Northern Territory offers teacher education bursaries of \$12 000 per year with preference to those willing to teach in remote locations
- Queensland's Remote Area Teacher Education Program provides community-based teacher education to remote Indigenous students. Scholarships are available for university study, along with paid internships to pre-service teachers to undertake placements in remote schools.

Financial incentives to teach in areas of subject shortage include:

- New South Wales offers scholarships to trainee teachers in maths, science, technology to cover Higher Education Contribution Scheme (HECS) costs plus \$1500 per year allowance, and guarantees permanent employment
- Northern Territory offers teacher education bursaries of \$12 000 per year to trainee teachers to specialise in areas of subject shortage
- Western Australia offers scholarships of up to \$22 500 plus bonuses for pre-service teachers to graduate in particular subjects and teach in rural schools. In July 2007, Western Australia introduced a scheme to pay retired teachers around \$75 000 with an option to salary package up to 100 per cent into superannuation. Returning teachers can work full time for a short period such as one term, a semester or a year, or part time for as many hours per week as they choose
- Queensland offers scholarships for teachers to gain qualifications in special education. It meets course costs for a Graduate Certificate in Special Education.

Targeted recruitment of 'career-change' candidates occurs in some states

- the Accelerated Teacher Training Program (ATTP) in New South Wales is an intensive pre-service program. Sponsorships to people undertaking the ATTP, and teaching in areas of staffing need, meet the cost of tuition and course administration fees (approximate value \$18 000), and provide a one-off training allowance of \$1500 towards the cost of incidentals and textbooks. The Department guarantees employment as a teacher and, from 2008, will offer a starting salary of at least \$50 522
- the Victoria Career Change Program gives trainees financial support and paid study leave as they combine supervised classroom duties with study towards a teaching qualification during a two year training period. On completing the program, participants receive a lump sum of between \$7000 and \$11 000 and a retention benefit of \$4000 after two years in their initial teaching appointment. Career change teachers are either recruited to the Change Program from the area in which the vacancy exists, or are required to relocate there.

Re-training teachers for areas of subject shortage

- South Australia offers a professional development pathway that counts towards a Graduate Certificate or Masters in Education for existing teachers to re-train as maths teachers. Course costs and teacher relief are paid for, but not other expenses
- New South Wales offers re-training programs for qualified teachers in various areas of shortage. Participants are given a salary for six months study, plus course fees, plus a \$300 allowance

- Victoria's Rural Retraining Scheme pays existing teachers to re-train in an area of need and pays schools up to \$20 000 for course costs and relief teaching.

Technical training expertise and other teaching support from outside school

- under arrangements variously known as Permission to Teach or Limited Authority to Teach, unregistered teachers, such as people with specialist knowledge and trainers with Vocational Education and Training (VET) qualifications, can be engaged to teach students in schools, often on a part-time or sessional basis. The duty of care able to be exercised by such people is limited in some states, requiring them to work under the supervision of a qualified, registered teacher. In other cases however, they can be in charge of students or a class. Recruiting specialist support and VET trainers remains difficult, especially in the traditional trades
- the Commonwealth's Australian School Innovation in Science, Technology and Mathematics (ASISTM) scheme is seeking to build a culture and practice of innovation in schools. Projects funded under ASISTM typically include the engagement of researchers or tertiary students to work as teacher associates with students thereby, acting as role models and helping teachers to inspire and motivate students by sharing their experiences in the classroom. On average, two or three teacher associates are expected to be engaged for each project, over part or all of a project's duration, and may be paid or voluntary.

Efforts by universities to respond to changing teacher recruitment needs

Australian universities involved in teacher preparation have long been delivering teacher preparation programs in various modes and on a part-time as well as full-time basis. Some are making a concerted effort to respond to both the demands of students and identified teacher shortages by devising new programs and modifying existing ones. These include facilitating career-change entrants through a combination of multi-mode delivery and offering advanced standing in courses through Recognition of Prior Learning (RPL) and Recognition of Current Competency (RCC).

- La Trobe University, for example, accepts a range of mature students into its Graduate Diploma in Technology Education based on a range of qualifications and experience. Units of study are delivered on weekends and in vacation periods and the program has a total of 82 days practicum
- the University of Newcastle offers a Bachelor of Education (Design and Technology) in which each student has an individual program depending on the nature of their previous education, work and life experience. It has a high proportion of school-based activity and can be completed in 18 months to two years

- Charles Sturt University and Victoria University, working closely with Victorian education authorities, have designed programs to support the government's targeted career change program.⁷

The demographics of those seeking to enter the teaching profession have taken an interesting turn in recent years. A snapshot of students commencing initial teacher preparation programs in 2004 reveals a substantial percentage of mature age participants. Of the nearly 22,000 course entrants, 40 per cent were aged 25 years and older, with 26 per cent aged 30 years and older. Of the students commencing Graduate Diplomas and other postgraduate initial teacher preparation courses, 64 per cent were aged 25 or older, and 41 per cent 30 years or older.⁸ Entrants aged over 25 years may well have been in the workforce for some years prior to starting their teacher preparation program. Those 30 years and older are even more likely to have been fairly well established in other careers or to have had diverse life experience. The profile of entrants varies from state to state and trends can change significantly within a couple of years. In Queensland, for example, there seems to have been a shift away from mature age students in recent times.

What's happening internationally

Teacher policy is high on the national agendas of OECD countries as they seek to improve their schools and respond better to higher social and economic expectations. The retirement of many of the teachers recruited during the 1960s and 1970s is regarded by most OECD countries as both a major challenge and an unprecedented opportunity. The common policy directions include an emphasis on teacher quality within a knowledge-rich profession, aligning teacher development with school needs, and making teacher preparation more flexible.⁹ Teacher shortages are not universal, but some countries experiencing supply problems have introduced alternate teacher preparation programs as part of a range of other policy measures.

Alternate pathways into teaching

Alternate routes for entry to teaching are being used, particularly in the United States and England, to deliver teachers into areas of identified need. Needs include specific subjects such as maths, science, technology and languages as well as schools experiencing recruitment difficulty - typically, rural and poor inner-city schools. Alternate routes are commonly used to attract career-change teachers, or well qualified graduates from fields other than education. They are usually school employment-based and typically involve 'fast-track' pre-service professional preparation. This has prompted considerable debate about the quality of alternate route entrants into the profession – a matter that is dealt with in more detail below.

A frequently used model of alternate program delivers all pre-service preparation within one summer. Spanning abbreviated coursework and a field experience of student teaching or classroom observations, the program is a highly condensed version of a traditional teacher education program. The entire pre-service component in such programs can range from 4-12 weeks and tends to focus on practical techniques such as classroom management or lesson planning rather than cognition or child development. Candidates start training in late June or early July,

and assume responsibility for their own classes in September, completing their formal preparation on-the-job. The best alternate programs provide strong in-school mentoring and ongoing professional development to enable the new entrants to achieve the proficiency needed to become licensed or certified teachers.

United States

In the USA there is a variety of alternate pathway programs on offer – and the quality is also variable. Overall, these alternate routes produce approximately 35,000 newly certified teachers a year.¹⁰ It is estimated that the United States needs about 240,000 new entrants to the profession each year. Alternate routes, therefore, deliver about 15 per cent of the numbers required. In 2007, it seems that all states will offer at least one alternate certification program. The use of alternate routes has been highlighted over the last decade by increasingly intense public concern about the standards of schools and the distribution of qualified and unqualified teachers across public schools. A recent United States journal article described the situation in the following terms:

Policymakers have addressed these issues of teacher quality and quantity in a variety of ways. Some states have tightened regulation of teacher preparation and certification – for example, extending course requirements for teachers and imposing more entry exams. Many states have also tried to attract more and different people to teaching by reducing entry requirements and introducing “alternative certification” programs. Although the two approaches are seemingly at odds, each could potentially either improve or reduce the quality of the pool of potential teachers. The precise effect of each depends on how it interacts with complicated labor market dynamics driven by teachers’ preferences, local school systems’ hiring decisions, and economic fluctuations.¹¹

Some of the better known initiatives involving alternate pathways are Teach for America (a selective national program that targets graduates of elite universities to teach in deprived schools), Troops to Teachers, Passport to Teaching and New York’s Teaching Fellows program which targets both mid-career professionals and recent graduates, usually to address particular subject shortages like maths, science and special education. Most alternate route programs are locally developed to meet specific needs and tend to attract career-change candidates or paraprofessionals already working in schools.

Specifying exactly what constitutes an ‘alternate program’ in the USA is difficult. There is considerable variation in the content of purportedly similar programs, and what is regarded as traditional preparation programs in some states may look very similar to alternate preparation in others.¹²

The National Council for Accreditation of Teacher Education (NCATE) defines alternate programs as ‘post-baccalaureate programs designed for individuals who did not prepare as educators during their undergraduate studies’.¹³ Under such a definition the one year Australian graduate diploma in education would be considered ‘alternate’. NCATE notes that alternate programs ‘usually lead to recommendation for a state license, accommodate the schedules of adults and

recognize their earlier academic preparation and life experiences. In some instances, candidates may be employed as educators while enrolled.'

According to the National Center for Alternative Certification (NCAC) the term alternate has been used historically 'to refer to every avenue to becoming licensed to teach, from emergency certification to very sophisticated and well-designed programs that address the professional preparation needs of the growing population of individuals who already have at least a bachelor degree and considerable life experience and want to become teachers'¹⁴. In 1990 the National Center for Education Information (NCEI) developed a classification system to categorise alternate routes, ranging from Class A to Class J. Classes A-E are geared to graduates and/or involve higher education institutions in the delivery of the programs. Classes F-J are rarely used and apply to exceptional circumstances.

Alternate programs seem to have emerged in the United States from the mid 1980s as a response to problems associated with licensing of teachers. In the United States, teachers must be licensed to teach by state authorities. This generally involves state approval of university-devised preparation programs which are then undertaken by candidates seeking their teaching license. If the candidate meets the program requirements, they are then granted a license to teach. The requirements for obtaining a license to teach through 'approved program' routes vary enormously between states and institutions.

New Jersey was the first state to enact legislation for an alternative route for certifying teachers in 1984. Liberal arts graduates were actively recruited and put through a school-based program, in collaboration with universities, that entailed the candidate working with a mentor teacher, as well as formal instruction while teaching. This seems to have become a familiar pattern for alternate teacher preparation in the USA. By 2005, nearly all the states and the District of Columbia had approved at least one alternate program for the purposes of licensing teachers. These all require teachers to hold a bachelor degree; 80 percent require teachers to demonstrate subject matter knowledge by completing coursework or passing an exam or both.¹⁵

While alternate routes have proliferated, according to NCAC the most significant change to occur in recent years has been consensus of what defines an 'alternative route', not the program numbers. NCAC notes that:

In just the last five years, states have passed new legislation and/or created new teacher certification routes that look amazingly similar. All of them include the following components:

- the program has been specifically designed to recruit, prepare and license talented individuals who already have at least a bachelor degree for the teaching profession
- candidates for these programs pass a rigorous screening process, such as passing tests, interviews, and demonstrated mastery of content
- the programs are field-based

- the programs include coursework or equivalent experiences in professional education studies before and while teaching candidates for teaching work closely with mentor teachers
- candidates must meet high performance standards for completion of the programs.¹⁶

Because alternate programs are geared to adults who wish to earn a salary or some other type of financial compensation while enrolled, many alternate route programs offer opportunities for candidates to receive a stipend, fellowship, or remission of university tuition and/or fees, funded to varying degrees by both governments and philanthropic organisations to make them attractive. Alternate route programs appear to be effective in attracting men and people from minority groups to become teachers as well as recruiting, training, and placing teachers in classrooms where the demand for teachers is greatest, in both urban and rural settings.¹⁷

A 2005 report by the National Center for Education Information, *A Profile of Alternate Route Teachers* based on a survey of over 2,500 alternate route teachers, provides useful insights into the current state of play with such programs in the USA. Nearly half of those entering teaching through alternate routes said they would not have become a teacher if an alternate route to certification had not been available. Nearly all individuals who completed an alternate route to teacher certification program were teaching the following year. By comparison, only 40 percent of the 200,000 graduates taking the conventional route who receive a bachelor degree and are identified as qualified to teach are actually teaching one year later, according to the US Department of Education.¹⁸

About one third of the survey respondents said that they completed their alternate programs in one year – another third took two years. About 5 per cent took less than six months to become certified as teachers via the alternate program. Ninety per cent taught full time as the ‘teacher of record’¹⁹ as part of their alternate program and 61 per cent took university education courses as part of their program.

Alternate teacher programs remain an area of considerable debate in the United States, informed by research linking improved student achievement with quality teaching. This prompts argument about whether teachers with relevant subject knowledge should be in charge of classes before they have completed rigorous professional training – particularly in pedagogy. The variety of alternate programs available and the corresponding variability in the rigour both of the programs and the selection of candidates into them is another aspect that makes agreement on the merits of alternate programs difficult. Research findings are discussed in more detail in a later section of this advice.

England

The most significant alternate routes into teaching in England are the Graduate Teacher Programme (GTP) and the Registered Teacher Programme (RTP). These are managed through partnerships between training providers, schools and local authorities. The operation of these partnerships has been subject to the rigorous

inspection processes that characterise England's school education system, with the result that considerable information is available about these particular programs.

All teacher preparation in England is based on standards for initial certification as a teacher – leading to Qualified Teacher Status (QTS) – which are mandated by the Education Secretary of State.

These standards are outcome statements that set out what a new teacher must know, understand and be able to do. They are organised in three inter-related sections which describe the criteria for the award:

- professional values and practice - derived from the professional code of the General Teaching Council for England
- knowledge and understanding - of the subjects being taught, of how students should progress and what they should achieve
- teaching - skills of planning, monitoring and assessment, and teaching and class management.

The standards apply to all new teaching entrants irrespective of the route they take, including alternate preparation programs.

Graduate Teacher Programme

The GTP, which started in October 1997 is an employment-based route into teaching. It is focussed on mature people who want to continue earning while they train. The GTP now accounts for about 20 per cent of new teachers and is seen as a valuable way for schools to 'grow their own' teachers, taking on people who have often had prior voluntary involvement with the school, and have strong subject knowledge and a commitment to the school. Entry to the GTP is highly competitive. The aspiring teachers need a bachelor degree (or equivalent) and competence in mathematics and English. For primary teaching, candidates also need some knowledge of science. The programme normally takes one year, however trainees with teaching experience may be able to complete it in less time with three months being the minimum time.

The GTP is delivered by employment-based initial teacher training providers or designated recommending bodies in England. These are usually partnerships of initial teacher training providers such as universities, schools and local education authorities. These must assess which of the QTS standards the trainee meets, then construct an individual training plan to enable them to achieve the remaining standards. QTS standards give providers the autonomy to determine how to organise their training and respond to the individual needs of trainee teachers.

Part of the programme's success appears to be due to effective promotion and recruitment - for example, marketing it as a way of 'reinvigorating love for a subject'. Success is also attributed to the significant levels of financial investment. The government Training and Development Agency for Schools (TDA) pays a grant to the school of up to £13 500 (\$31 700) towards the employment cost and up to £4270 (\$10 025) to cover training costs. Some places are available with a 'training

grant only' where the school can meet the full employment cost and where trainees have experience. GTP participants must be employed as an unqualified teacher on the unqualified pay scale: currently £13 938 - £22 041 (\$32 700 – 51 750) outside London and £17 529 - £25 629 (\$41 160 – 60 170) in inner-London.

GTP salary grant places are allocated using priority funding categories:

- secondary shortage subjects (mathematics, science, modern foreign languages, technology and English)
- high quality primary candidate applications
- high quality secondary candidate applications in any subject.

Registered Teacher Programme

The RTP offers candidates who have completed two years of higher education (or equivalent) the opportunity to qualify as a teacher while working in a school. Like the GTP, the RTP is delivered by employment-based initial teacher training providers or designated recommending bodies usually involving partnerships with teacher education providers, schools and local authorities. Trainees must be employed as an unqualified teacher. The TDA pays a grant of up to £8300 (\$19 500) to cover training over the two years that the program normally takes. Trainees with teaching experience may be able to complete the program in less time with the minimum being one year.

The trainee follows an individual program leading to qualified teacher status while completing a degree and once awarded QTS, can work as a qualified teacher. The RTP suits mature people who want to continue earning while they train. The RTP is a challenging route. It takes effort and commitment to work and train in a school and study for a degree at the same time.

Teach First

Teach First is high profile program run by an independent, business-and-government supported charity which targets high achieving graduates who are considered to have 'the energy, commitment and ability to communicate required to succeed in secondary classrooms, as well as the potential to become outstanding leaders in any field'.²⁰

Canterbury Christ Church University and the University of Manchester provide intensive pre-service training to participants in the summer before they start in a secondary school as an unqualified teacher, usually in the company of a small group of other *Teach First* participants. Qualified Teacher Status is often achieved on conclusion of the first year of teaching. So far over 800 *Teach First* graduates have been placed in challenging secondary schools in London and Manchester, and the program is about to be rolled out to Birmingham. *Teach First* only works with schools that are able to support participants through providing in-school subject and professional mentors.

The Government's TDA finances both the cost of the summer training participants and the salaries of the tutors employed to support participants in schools. The Department for Education and Skills (DfES) provides £2000 (\$4700) per participant employed. This goes directly to the schools to cover the mentoring time they provide under their commitment to the program. Participating schools pay *Teach First* a small fee per participant per term to help pay recruitment and support costs.

Teach First provides additional support through social and professional development events and online tools. Volunteer coaches support participants in their second year as they determine how they want their careers to develop. They also undertake a leadership development course involving the Tanaka Business School at Imperial College London and the Institute of Education.

While alternate routes are being used to deliver teachers into classrooms throughout England, those to emerge from these routes are not necessarily considered acceptable for employment in other United Kingdom jurisdictions. Scotland, for instance, has very particular requirements for teacher preparation programs, and the General Teaching Council for Scotland has a comprehensive Standard for Initial Teacher Education that must be met before graduates can obtain even provisional registration.

Alternate pathways – lessons from research and experience

Research into alternate pathways is still somewhat limited. The studies have largely been undertaken in the United States, where there are more alternate programs and where there has been a strong market-driven aspect to their development. The findings of studies focussed on particular alternate preparation programs cannot be readily generalised because of the great variety of alternate programs on offer. Indeed it has been argued recently that the research evidence is 'simply too thin to have serious implications for policy'.²¹

Comparative studies of the effectiveness of teachers from alternate preparation pathways have, 'for a variety of methodological and ideological reasons ... been inconclusive and controversy persists about whether one group of teachers is more effective'²². Another risk attending discussion about alternate programs is to base the arguments on a crude dichotomy between 'alternate' and 'traditional' programs that does not provide a sufficiently nuanced account of what is actually happening in the United States.

Information and evaluation around alternate programs in England is found almost exclusively in the work of the inspectorate that closely monitors the standards and practices of schools and teachers. In Australia, a recent government-sponsored study by consultants PhillipsKPA provides useful insights into programs designed to bring career-change teachers into the profession.

These various studies and reports have sought, to a greater or lesser extent, to examine the merits and challenges of alternate preparation programs and to identify quality assurance criteria that can be used to assess existing initiatives and to guide the development of new ones. The area remains highly contestable as interested

parties grapple with the tensions between the importance of quality teaching and teacher preparation and the use of alternate programs to try and 'fast track' potential teachers into the classroom. Much of the research and professional exchanges about alternate pathways – especially in the USA - have been used to advance one side or the other of a combative debate about the policy's value.²³

Lessons from the United States

As the key national organisation in the USA concerned with the quality of teacher preparation, NCATE provides a useful reference point for any consideration of research related to teacher preparation. A recent NCATE publication²⁴ on what makes a teacher effective summarises research related to teacher preparation. The report also highlights the importance of a knowledge base for the teaching profession; of teaching and teacher preparation standards; and of pedagogical training – ideally subject specific.

The research considered by NCATE produced five key findings:

- teacher preparation helps candidates develop the knowledge and skill they need in the classroom
- well prepared teachers are more likely to remain in teaching
- well prepared teachers produce higher student achievement
- leading industrialized nations invest heavily in pre-service teacher preparation
- NCATE makes a difference in teacher preparation.

In the words of NCATE, 'well prepared teachers outperform those who are not prepared (and) no credible research reveals any advantage to students of having teachers without preparation'. While there is strong consensus about the importance of 'well prepared' teachers for student learning, the question remains as to whether alternate programs can actually produce teachers who are as 'well prepared' as those from traditional programs.

There is also a timeframe dimension to this question. Alternate teacher preparation pathways typically involve short, intensive pre-service training followed by professional education and on-the-job development – which should eventually lead to licensure as a certified teacher. The question turns, in part, on whether the focus is when the person starts their teaching, or when certification is granted.

NCATE has answered, in part, the question of what counts as good preparation by describing as 'positive' the results of a 2003 survey of its accredited institutions that identified '252 high-quality alternate route programs that have reduced financial barriers to entry at over 130 NCATE accredited institutions (with many institutions offering more than one program) These programs are helping both the teachers-in-training as well as hard-to-staff local schools where they teach'.²⁵ Nonetheless, the question is still dogged by various understandings that people have about what constitutes an 'alternate program'. NCATE seems to be clear about what it considers to be a 'quality alternate program' and has accredited such programs. But

NCATE accredited programs remain a relatively small part of the alternate program landscape.

An earlier US Department of Education report noted that alternate routes that have high standards for entry and require substantial pedagogical training, mentoring, and evaluation may in the end be similar in their ultimate effect to traditional college-based teacher education and tend to be successful in their production of qualified teachers. The report also observed that research comparing the characteristics and performance of traditionally and alternately prepared teachers over time will help clarify the complex issues around alternative programs.²⁶

Some relatively recent studies have examined particular alternate programs – such as *Teach for America (TFA)* - while others have sought to compare the effectiveness of alternate route teachers with their traditionally prepared counterparts – for example, a New York study of teacher effectiveness focussed on *TFA* participants and *Teaching Fellows*. The latter study concluded, among other things, that the variation in teacher effectiveness within a preparation pathway was far greater than the average differences between pathways.²⁷

The interpretation of the results by academics and others has varied with some similar studies having either produced different data, emphasised different aspects, or drawn different conclusions. The situation is compounded by the highly fragmented nature of the United States' education system, with multiple federal, state and local education authorities having varied approaches to standards and accreditation.

This, combined with the variety of alternate programs available, makes it difficult to form valid comparative statements about entry routes. While graduates of some alternate programs may have had limited exposure to relevant theory and coursework and not been rigorously assessed by the program, graduates of other alternate programs (especially those involving NCATE-accredited institutions) can reasonably be assumed to have had quality preparation.

What is apparent from the research, and from reflection on those programs that appear to be successful, is that alternate teacher preparation is a deceptively simple idea that places substantial, often unexpected, organisational and financial demands on those involved – the candidates, the schools, the universities, the education authorities.²⁸ Only where all those demands are effectively addressed are alternate programs likely to be able to produce teachers able to become fully effective in the classroom.

The experience of alternate pathways in the United States indicates that alternate programs likely to be successful, or considered quality programs by accrediting authorities, are characterised by the following:

- the alternate preparation program is highly targeted and closely aligned with the goals and policy purposes it is meant to serve. Policy makers and program directors are clear about the needs that they are trying to respond to – a dearth of skilled maths/science teachers, a teacher shortage in rural schools, a high staff turnover in tough, culturally diverse schools – and design programs that respond to those challenges. Considerable effort is applied so that potential candidates are clear about the purposes of their teacher

preparation, and their expectations and understanding are congruent with the experiences they will encounter in the schools to which they are assigned

- solid funding is a key success factor. For both education authorities and teacher preparation candidates, financial considerations are important. This is especially so for career-change teachers and for graduates with qualifications that attract good remuneration in other fields. Effective alternate programs structure their costs effectively and offer incentives for prospective candidates to enrol. They also focus on enabling new recruits to gain the anticipated rewards that sparked their interest in teaching. Inevitably, tension exists between maintaining the incentive of convenient alternate preparation and offering an in-depth program of coursework and professional experience. Schools must also receive appropriate funding to cover induction, mentoring and support costs given they have a key role in the success of alternate programs. Effective alternate programs can not be funded ‘on the cheap’
- within a policy context increasingly focused on teacher quality, alternate programs are more readily supported when they reassure stakeholders — parents, the public, the state authorities — that alternate pathway teachers are suitably prepared to assume teaching responsibilities within a supportive teaching environment. Quality alternate programs are committed to adhering to established standards and organisations like NCATE and NCAC play a valuable role in quality assurance
- close partnerships with schools are absolutely vital during the alternate preparation process, and like their traditional counterparts, alternate route teachers require ongoing support during the crucial early years of their employment. The best alternate programs involve schools that commit to ongoing support and development for new entry teachers, as few new teachers arrive fully competent in the classroom.

As interest in alternate preparation continues to grow in the United States, the distinction between alternate and traditional programs is blurring. Traditional programs have begun to streamline their training, while fast-track programs have begun to deepen theirs.²⁹ If standards are established for the accreditation of teacher preparation programs, ‘traditional versus alternate’ arguments are likely to diminish, because the focus will shift to whether the particular preparation program meets those standards.

Lessons from England

While research in the United States about alternate programs has been largely the province of academics and policy analysts, in England the bulk of the information and evaluation comes from the official inspection reports of alternate programs carried out by England’s Office for Standards in Education (Ofsted). The following sample of comments by inspectors about the GTP convey how GTPs are performing:

- the selection decisions are generally well-founded; nine out of ten trainees observed were assessed by inspectors as very suitable. Trainees are

committed and hard-working; they possess in good measure the intellectual, personal and professional qualities required to teach successfully

- there is considerable variation in how well training plans are devised; over half the training plans seen had significant weaknesses. Good training plans include comprehensive and detailed proposals and activities that are matched well to trainees' needs. Many of the best plans propose a well considered balance of school-based training with off-site subject specialist courses
- school-based trainers and mentors are often not adequately prepared for their role in implementing wide ranging training programmes for trainee teachers. The management and quality assurance procedures at the local level have not kept pace with the rapid expansion of this route into teaching
- the minority of cases of good practice in the training programmes and of high quality teaching by trainees indicate that the GTP can be an effective alternate route for training teachers.

The inspectors also made recommendations that reflect the advice emerging from research in the United States on alternate pathways initiatives. In order that the GTP continues to evolve as a high quality route into teaching, those with responsibilities need to ensure that:

- the development needs of individual trainees are systematically assessed
- training plans are tailored to individual needs and supported by the necessary resources
- school-based trainers have the time and training needed to perform their role effectively
- rigorous monitoring and evaluation procedures are in place to ensure all programme aspects, including trainee assessment, are carried out to a high standard.

England's experience with alternate programs aligns with that of the United States. That is, alternate programs require:

- excellent collaboration between universities, schools and education authorities
- significant financial investment to entice schools to participate, and to attract and provide for quality candidates
- close alignment of the purposes and goals to be met with the structure and content of the program.

Lessons from an Australian study

In Australia, the most recent and relevant study on alternate entry routes for Australian teachers is a report prepared for DEST by PhillipsKPA. It focuses on

career-change initiatives being pursued by various teacher employing authorities. Among the critical success factors highlighted by the study were what triggers people to consider a career change, the quality of the selection processes, and the quality of the professional experience, post-appointment induction, and mentoring programs offered by the schools and school systems involved.

According to the PhillipsKPA study quality inputs and processes in selection of participants, professional experience and induction, and career-change initiatives can deliver benefits to:

- schools and systems, by addressing shortfalls in staff and gaps in subject specialisation, particularly in remote and rural schools
- classrooms, using the knowledge and experiences career-change teachers bring to their practice
- the teachers themselves, by their revitalisation and the value attributed to their previous career.

The study found that while career-change teachers are usually highly motivated to become teachers, there is a significant level of personal and financial risk associated with giving up one career to study for another with no guarantee of success. The report does not comment on what appears to be an abundance of mature age applicants for initial teacher preparation programs, which suggests that many are in a position to cope with limited income while studying.

Effective selection processes are crucial to making a successful career transition and reducing the risks. Recruitment efforts must be targeted at high-quality applicants whose personal and professional strengths are truly suited to teaching. Alternate pathways programs cannot afford significant levels of attrition arising from poor selection decisions and programs.

Intellectual capability is highlighted as being critical to a successful career change – along with the capacity to deal with the pressure of alternate programs. Also critical is the quality of professional experience placements, especially the degree of correlation between participants' professional experiences and the reality of the schools to which they are eventually appointed. While participants having their professional experience in rural schools show a propensity to return to the country as teachers, there are many challenges associated with arranging such experiences in the first place. Arranging multiple participants to engage in the same rural professional experience has shown to be an effective strategy.

A strong link between expectations, professional experience and the type of school to which a teacher is appointed is a major consideration. The study highlighted as one of the virtues of the Victorian Career Change Program that career-change teachers are recruited to actual vacancies where the specialised requirements of the position form part of the selection criteria. It is incumbent upon schools to support and guide career-change teachers through their 'fledgling' period as beginning teachers.

The Australian study highlights considerations and issues involving alternate pathways that are consistent with the experience of such programs in the United States and England. From the information provided in the PhillipsKPA study it seems reasonable to conclude that alternate programs may be as successful as traditional programs and often deliver additional benefits. Although teachers emerging from such programs can vary in quality, success is likely if the selection of applicants has been sound, the pre-service courses have been well-designed and are of high quality, and schools have provided solid mentoring and support.

Responding to current research and experience on alternate programs

The recruitment, development and retention of high quality teachers in sufficient numbers require close collaboration between education authorities, universities and the teaching profession - particularly in the development of targeted responses to specific teacher shortages.

Consideration of alternate pathways in Australia occurs against a backdrop of differing views within and between universities and the wider profession about the quality and effectiveness of the current 12 month graduate diploma teacher preparation programs.

Tensions between course duration and content sufficiency persist, often brought to the fore in discussions about alternate pathways into teaching, where fast-tracking of the pre-service element is a key consideration. Some alternate program critics claim they simply 'clone technicians', sacrificing quality to expediency. Concerns surrounding the risks of fast-track programs 'de-professionalising' the teaching workforce are important matters for policymakers to consider.

The issue of quality lies at the heart of all considerations about teacher preparation, the profile of school staffing and the development of school leaders. The profession's effectiveness, credibility and status depend on the maintenance of professional standards. Robust, clearly articulated and nationally accepted standards for teacher preparation programs provide necessary reference points for decisions about strategies to draw people into the profession, for judgements about the merits of teacher education programs, and for the quality of the teachers who graduate from them. They also build public and political confidence in the profession, raise the profession's status by lifting the standards of those entering it, and have longer term implications for attracting and retaining good teachers.

Most of the alternate programs being encouraged in the United States and England are built on school-based employment or internships involving partnerships with a higher education provider of professional academic course work. Teacher preparation in Australia has not adopted this approach to any great extent, and teacher registration has been predicated on teachers' satisfactorily completing university-based preparation programs *before* commencing their teaching career.

Professional experience is a crucial element of teacher preparation. The current approach by universities is to place students in schools to learn this aspect of their chosen profession. However, it is becoming increasingly difficult to provide sufficient

relevant professional experience in a traditional program. In alternate programs the role of school-based experience is fundamental but is controlled by the school, not the university, which may make schools more amenable to their introduction.

The structure and logistics around both school and university-delivered aspects of programs need detailed planning and appropriate resourcing. Schools involved in alternate programs shoulder considerable responsibilities in the area of pedagogical training. Education authorities and employers have a key role in providing the necessary additional resources to schools to enable this to happen. In the USA, professional development schools have been used to give focus and rigour to developing pedagogical skills. It has also been proposed that some hard-to-staff schools should be re-configured as professional development schools, staffed by expert teachers and linked to teacher preparation programs, so that many teacher candidates can have the experience of working in challenging school settings.³⁰

In Australia, the traditional one year Graduate Diploma is typically 26 weeks in duration, including some 10-12 weeks of school-based experience. Therefore, about 14-16 weeks is devoted to theoretical and professional knowledge. An alternate graduate program, based on a school-based internship with a 16 week pre-service theoretical component, would be little different from its 'traditional' counterpart in terms of the amount of university study undertaken. The key difference is that alternate programs typically have the candidate working as a teacher in a school and in charge of a class, prior to satisfying the requirements of their professional study. This is not a readily available option in any of the Australian jurisdictions under existing teacher registration regimes. Should state registration authorities wish to recognise or accredit alternate programs for the purposes of licensing teachers, changes to legislation may be required in some, if not all, instances.

There is already a variety of teacher preparation programs on offer in Australia. Because universities will continue to be key agents for teacher preparation, it is important that they be directly involved in any moves to use alternate programs to respond flexibly and quickly to demands from career-change professionals and from education employers trying to meet urgent staffing needs of schools. The fast-track features of alternate programs typically entail modifications to existing courses or the development of new ones, without undermining quality. Overseas experience has demonstrated that this is no small undertaking, that schools and education authorities must collaborate wholeheartedly with universities (preferably as a joint venture) to ensure successful implementation, and that the existence of robust accreditation standards is a vital contributor to success.

Other overseas initiatives affecting teachers and schools

There is growing interest in several OECD countries to find ways of supporting teachers in their professional practice while meeting diverse student and community needs. This reflects social change and the increasing demands placed on schools and teachers. The changing nature of expectations on schools and the demands of students are generating debate and re-thinking about what it means to be a teacher and a school principal, and about roles and responsibilities within schools. Workforce remodelling is a new dimension of policy that has been pursued with considerable vigour in England and is outlined further below.

In the United States there has always been considerable diversity within and across states in how school workforces are structured, and the presence of educational support staff in schools is notable. The number of support staff in public schools in the United States increased by 28 per cent in the past 15 years and now makes up over 30 per cent of the public school workforce. The most dramatic increase in non-teaching personnel has occurred among so-called 'instructional aides' or 'paraprofessionals', whose numbers rose 62 per cent from 1990-2000. They provide tutoring, assist with classroom management, provide computer and media assistance, help with parental involvement, and even serve as language interpreters, in addition to other activities.

The growth in instructional aides reflects the increasing number of responsibilities that public schools have assumed in the United States. This is particularly evident in special education, where students receive extra support in the form of counsellors, special education teachers, and instructional aides.³¹ The use of bilingual teacher aides, especially in disadvantaged schools and those with high proportions of Hispanic and other language groups, is also an area of particular focus.

Under the USA's *No Child Left Behind* federal legislation, paraprofessionals may only serve as an instructor under the direct supervision of a fully qualified teacher. In addition, paraprofessionals may only facilitate instruction if they possess certain academic requirements. At minimum, they must either have an associate degree, two years of college, or meet a rigorous standard of quality through a formal state or local assessment.

Re-modelling initiatives in England

One of the most systematic and wide-reaching efforts to adapt the school workforce to educational and social demands is England's schools re-modelling initiative. Department for Education and Skills (DfES) figures show a 97 per cent increase in the number of support staff between 1997 and 2005, from 136 500 to 268 600. This compares with an eight per cent increase in the number of teachers over the same period. One of the fastest growing groups over this period is teaching assistants (61 300 to 148 500) while the number of technicians has increased from 12 700 to 21 700. Nearly half a million support staff are estimated to be working in schools with three quarters of them in part-time or part-year roles. Accredited training programs have been developed and career pathways established to help raise the status and quality of support staff.

The schools re-modelling program is based on a national agreement between the education minister and key partners including the local authority employers and school workforce unions. Reached in 2003, the agreement emerged from a 2001 PriceWaterhouse Coopers report on teacher workload, which found teachers were spending 20 per cent of their time on administrative and supervisory tasks that could be done by others.

The agreement acknowledged pressure on schools to raise standards, tackled unacceptable levels of workload for teachers and introduced a series of significant changes to teachers' conditions of service. A workforce agreement monitoring group (a partnership of organisations representing employers, the government and school

workforce unions made up of representatives of the signatories) oversaw its implementation and provided guidance and support to schools and local authorities.

The agreement does not focus solely on teachers. It acknowledges the vital role played by school support staff and has led directly to the establishment of higher-level teaching assistant standards and a certificate in school business management. The agreement has also helped create other new roles in schools for adults who support teachers' work and students' learning. Evaluation frameworks were developed for the pilot initiatives that preceded and informed final implementation.

At least 28 distinct support roles have been identified in schools. Increasingly, schools are recruiting support staff with specialist skills from diverse backgrounds, including business, industry and the arts.

Support staff are contributing to:

- support for learning – the delegation of clerical and administrative tasks has enabled teachers to increase their focus on improving the quality of teaching and learning. Teaching assistants play an important role in literacy and numeracy catch-up and intervention programs
- inclusion and achievement – many support staff play a key role in encouraging students' participation and learning, promoting positive behaviour, and improving attendance
- building relationships – staff can be effective mediators between different school groups. Teacher aides are usually drawn from the local community and therefore, are more likely to reflect the cultures of their community than teachers
- offering a broader curriculum – schools are recruiting support staff with a diverse range of skills and expertise to enhance the curriculum offered. Music and sport specialists are being employed at more primary schools.

The *Education (Specified Work and Registration) (England) Regulations 2003* specify circumstances in which certain kinds of school staff – such as support staff – may carry out 'specified work' relating to teaching and learning, including requirements for appropriate supervision by a teacher. Conditions which apply to support staff performing 'specified work' are:

- the specified work must assist or support the work of a teacher
- the principal must be satisfied that they have the skills, expertise and experience required to perform the 'specified work'
- they must be subject to the direction and supervision of a teacher in accordance with arrangements made by the school principal

The OECD report, *Teachers Matter*, lends further support to the idea of greater attention being paid to teachers' working conditions, roles and responsibilities, and the wider deployment of support staff. The report notes that studies of teacher job

satisfaction confirm the central importance of the intrinsic rewards of the job – in particular, working with young people and interest in the subject matter. The reasons teachers leave the profession (other than retirement) confirm the pivotal role of working conditions, including too heavy a workload, frequent changes arising from new government initiatives without the necessary resource and training supports, excessive administrative burdens and so on.³²

The research generally indicates that teachers leave the profession because the factors that attracted them to teaching were increasingly difficult to achieve in the day-to-day realities of the job. This suggests that a serious examination is called for of how schools and their workforces might be organised to allow teachers to do what they are professionally trained and personally drawn to do – that is, engage students in learning and work with interesting subject content. More diversified roles in schools seem warranted.

Thinking about alternate pathways and school workforce issues in Australia

The experience of overseas countries with alternate teacher preparation pathways and school workforce remodelling, and the research that has been conducted in relation to them, can be useful in stimulating and informing policy considerations in an Australian context. Elements of both are already apparent in the Australian education sector to some degree.

Considerations about alternate pathways for entry into the teaching profession are usefully embedded in the larger question of how the workforce in schools should be constituted. As educational expectations rise in response to the challenges of preparing young people to flourish in an increasingly complex world, schools are adapting their operations, structures and staffing models accordingly. The way that teachers are prepared, how the knowledge base of the profession is constructed, and the way these two elements interact, are important considerations.

There is no question that a high quality teaching profession is the cornerstone of student achievement. Because diversity, flexibility, networks and partnerships are the hallmarks of successful contemporary institutions and enterprises, teachers will increasingly find themselves in the role of ‘learning professionals’ who not only engage directly with students, but also collaborate with and lead teams of other professionals and support personnel to achieve student success.

Teacher preparation programs will need to address this evolving professional role of teachers, as will teacher recruitment strategies and selection processes. School workforce planners will need to provide for the diversification and specialisation of roles that seem inevitable given future educational challenges. Embedded in these activities is the need for standards - for teachers and others who work in schools - and accreditation standards for the programs that will enable them to fulfil their significant responsibilities.

Where to from here?

The issues canvassed in this paper suggest that multiple strategies are needed to address the long term issues associated with teacher supply and demand. Strategies need to address identified areas of need as well as new and evolving responsibilities and organisation of schools. The future educational environment suggests more concerted action is required if all Australian students are to have access to high quality education. A 'one size fits all' response is not appropriate to satisfy the diverse and specific needs of a complex modern society. For any set of strategies to be successful they must have at their core a strong focus on high quality teaching that is sustainable and meets particular student needs no matter where the schooling occurs.

Possible areas for action include:

- piloting alternate teacher preparation programs for targeted new entrants to teaching based on close university-school partnerships
- researching and piloting alternative approaches to school organisation, to make greater use of both expertise and support
- supporting initiatives to re-train qualified teachers
- implementing mandatory national accreditation standards for teacher preparation programs
- better aligning teacher supply with demand in specific areas
- capitalising on technologies to deliver teacher expertise to a wider range of locations, thereby reducing the educational equity divide.

Piloting alternate preparation programs for targeted new entrants

A useful strategy would be to further develop and evaluate the use of streamlined teacher preparation programs. These programs should be explicitly targeted at teacher shortages in specified discipline areas or to meet hard-to-fill vacancies identified in remote and rural schools. Potential participants must be carefully selected.

Such programs require careful design with the following elements as vital considerations:

- sound financial support for both candidates and the institutions involved
- close collaboration between schools and the institutional program providers
- pedagogical training, classroom management and student assessment techniques as a central element of the program

- the provision of an internship or professional experience
- appropriate resourcing for effective in-school supervision and ongoing mentoring.

This response may well be applied to addressing teacher shortages in Indigenous communities, for example. In addition to building on people's existing expertise, this approach would tap into the career mobility concept and ideal of making a social contribution - traditionally a strong motivator for teachers.

The graduate diploma education programs currently offered by many universities might be a useful starting point for more streamlined approaches to teacher preparation.

More timely organisation of these programs, more intensive coursework and better alignment of partnerships with schools, could see graduates complete the program and be teaching in the second half of the calendar year.

Researching and piloting alternative approaches to school organisation

Close examination of roles and responsibilities in schools is required to meet emerging students' needs and determine how they are being addressed by different schools and school systems. A comprehensive study of this kind would provide the basis for some serious re-thinking about the effectiveness of traditional staffing models. If accompanied by a range of pilot programs, it would provide a timely opportunity to consider the benefits of more flexible arrangements. The pilots would also inform and encourage debate about alternative approaches to organising and staffing schools.

A broader perspective on how schools adapt their structures and deploy teachers and other staff to meet students' needs has the potential to bring a wider range of expertise into schools. This is already happening, for example, in vocational areas, and with the associate teacher initiatives in the ASISTM program for areas such as maths and science. Such re-envisioning of how people are deployed in schools also has the potential to relieve teachers of some administrative and clerical tasks, as with the workforce remodelling introduced in England in 2003. It could also facilitate the re-engagement of early retirees through more flexible working arrangements as seen with some Victorian and Western Australian initiatives.

Supporting initiatives to re-train qualified teachers

Re-training provides a pathway for qualified teachers interested in teaching in high-need areas including regional communities, hard-to-staff schools, or specific subject areas. Re-training already qualified teachers is an efficient response given that essential professional experience and competencies are already in place and registration requirements are readily met.

The re-training can focus on:

- subject content eg maths, science or languages
- level of schooling eg primary to secondary teaching
- any specific pedagogical requirements related to the subject or student group eg Indigenous education.

Implementing mandatory national accreditation standards for teacher preparation programs

A continued focus on establishing rigorous national accreditation standards to apply to all teacher preparation programs is vital. National standards will provide a yardstick for assuring the quality and effectiveness of all teacher preparation programs, including those designated as alternate programs. The implementation of standards will also have a significant impact on the status of teaching and the longer term attractiveness of the teaching profession.

Better aligning teacher supply with demand in specific areas

In the longer term, addressing the mismatch which occurs in some areas between the allocation of university places and future demand for teachers in particular subject areas could go a long way towards meeting future specialist needs. This would be informed by more disaggregated data on future workforce needs. Exploring support and incentives for student teachers to gain professional experience in rural and remote areas and disadvantaged schools has the potential to increase the uptake of teaching positions in traditionally hard-to-staff locations. Equally important, beginning teachers with a better understanding of the requirements of such schools are more likely to stay.

Capitalising on technologies to deliver teacher expertise to a wider range of locations

Demographic and other data also suggests that Australia needs to increase use of alternative delivery mechanisms for educational services. Australia's education systems have been successful and innovative in the application of information and communication technologies to distance education. Greater focus on using the expertise of teachers more broadly by continuing to explore the pedagogical implications of technology will become increasingly important.

Technology has the potential to provide a cost-effective long-term approach to addressing the serious equity questions arising from the lack of qualified teachers in particular areas and subjects. Sophisticated online delivery of a broad range of curriculum content offers considerable benefits and will be attractive to future generations of students. The use of technology to enable expert teachers to advise and support isolated colleagues, or those with limited expertise in a particular subject area, has much to commend it.

Acronyms

ASISTM	-	Australian School Innovation in Science, Technology and Mathematics
ASPA	-	Australian Secondary Principals Association
ATTP	-	Accelerated Teacher Training Program
DfES	-	Department for Education and Skills
GTP	-	Graduate Teacher Programme
HECS	-	Higher Education Contribution Scheme
ICT	-	Information and Communications Technology
LOTE	-	Languages Other Than English
MCEETYA	-	Ministerial Council on Education, Employment, Training and Youth Affairs
NCAC	-	National Center for Alternative Certification
NCATE	-	National Council for Accreditation of Teacher Education
NCEI	-	National Center for Education Information
OECD	-	Organisation for Economic Co-operation and Development
Ofsted	-	Office for Standards in Education
QTS	-	Qualified Teacher Status
RCC	-	Recognition of Current Competency
RPL	-	Recognition of Prior Learning
RTP	-	Registered Teacher Programme
TFA	-	Teach for America
TDA	-	Training and Development Agency for Schools
VET	-	Vocational Education and Training

Endnotes

- ¹ Based on figures supplied in ABS Catalogue 6105.0 Table 4 (August 1996-2005)
- ² Source: MCEETYA *National Report on Schooling 2005* Appendix D, p17
- ³ MCEETYA *Demand and Supply of Primary and Secondary School Teachers in Australia 2004*, p110
- ⁴ MCEETYA *Demand and Supply of Primary and Secondary School Teachers in Australia 2004*, p109
- ⁵ DEST Submission No.59 to House of Representatives Inquiry into Teacher Education (*Top of the Class*), p26
- ⁶ Because this survey is based on self-selection its results may well not reflect the broader picture.
- ⁷ Information supplied in PhillipsKPA Report, *Research into Career Change Pathways into Teaching*, Oct 2006
- ⁸ DEST figures cited in PhillipsKPA Report, *Research into Career Change Pathways into Teaching*, Oct 2006
- ⁹ OECD *Teachers Matter: Attracting, Developing and retaining Effective teachers 2005*, p7-14
- ¹⁰ Feistritzer, *CE Profile of Alternate Route Teachers*, National Center for Education Information, Washington DC, 2005, p3
- ¹¹ Boyd D, Goldhaber D, Lankford H and Wyckoff J, *The Effect of Certification and Preparation on Teacher Quality The Future of Children*, Vol 17, No.1, Spring 2007, p46
- ¹² Boyd D, Goldhaber D, Lankford H and Wyckoff J, *The Effect of Certification and Preparation on Teacher Quality The Future of Children*, Vol 17, No.1, Spring 2007, p47-48
- ¹³ National Council for Accreditation of Teacher Education (NCATE), *Teach, Earn and Learn: Alternate Routes to Teaching that Pay* Accessible at: <http://216.139.214.92/public/AlternateRouteList.asp?ch=41>
- ¹⁴ From the Overview section of the National Center for Alternative Certification (NCAC) website, <http://www.teach-now.org/overview.html>
- ¹⁵ Boyd D, Goldhaber D, Lankford H and Wyckoff J *The Effect of Certification and Preparation on Teacher Quality The Future of Children*, Vol 17, No.1, Spring 2007, p51
- ¹⁶ From the Overview section of the NCAC website, <http://www.teach-now.org/overview.html>
- ¹⁷ Feistritzer, *CE Profile of Alternate Route Teachers* National Center for Education Information, Washington, 2005, p3
- ¹⁸ Feistritzer, *CE Profile of Alternate Route Teachers* National Center for Education Information, Washington, 2005, p18
- ¹⁹ The 'teacher or record' is the teacher who plans and delivers instruction, assesses student comprehension, and assigns grades or reports student content mastery to parents.
- ²⁰ Information summarised here is drawn from the *Teach First* website at <http://www.teachfirst.org.uk>
- ²¹ Boyd D, Goldhaber D, Lankford H and Wyckoff J *The Effect of Certification and Preparation on Teacher Quality The Future of Children*, Vol 17, No.1, Spring 2007, p45
- ²² Johnson SM, Birkeland SE, Peske HG *Life in the Fast Track: How States Seek to Balance Incentives and Quality in Alternative Teacher Certification Programs* Educational Policy (2005) Vol19 No 63, p65 available at <http://epx.sagepub.com/cgi/content/abstract/19/1/63>
- ²³ Johnson SM, Birkeland SE, Peske HG *Life in the Fast Track: How States Seek to Balance Incentives and Quality in Alternative Teacher Certification Programs* Educational Policy (2005) Vol19 No 63, p65 available at <http://epx.sagepub.com/cgi/content/abstract/19/1/63>
- ²⁴ National Council for the Accreditation of Teacher Education *What makes a teacher effective*, p3. See: http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/28/00/b3.pdf
- ²⁵ National Council for Accreditation of Teacher Education (NCATE) *Teach, Earn and Learn: Alternate Routes to Teaching that Pay* Accessible at: <http://216.139.214.92/public/AlternateRouteList.asp?ch=41> p(ix)-(x)
- ²⁶ Wilson SM, Floden RE, Ferrini-Mundy J *Teacher Preparation Research: Current knowledge, gaps and recommendations* US Dept of Education, February 2001. Sourced from <http://depts.washington.edu/ctpmail/PDFs/TeacherPrep-WFFM-02-2001.pdf>
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- ²⁹ Johnson SM, Birkeland SE, Peske HG *A Difficult Balance: Incentives and Quality Control in Alternative Certification Programs* Project on the Next Generation of Teachers, Harvard Graduate School of Education, September 2005, p(vi)
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- ³¹ Walsh, K (National Council on Teacher Quality) *Country Background Report – USA* for OECD Report 'Teachers Matter', p18
- ³² OECD *Teachers Matter: Attracting, Developing and retaining Effective teachers 2005*, pp177-178