
*Australian Council of Deans of Education Incorporated*

# Teaching Tomorrow's Teachers

## ACDE submission to the House of Representatives Inquiry into Teacher Education, 2005

*Authorised by:*
Terry Lovat, President

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Australian Council of Deans of Education Inc.
Canberra

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# Australian Council of Deans of Education

The Australian Council of Deans of Education Incorporated (ACDE) is the peak organisation representing the deans of faculties of education and heads of schools of education in Australian universities and other higher education institutions. It represents those responsible for initial and post-initial teacher education and much of the education research and scholarship throughout Australia.

The ACDE was established in 1991 and was incorporated as an association in the Australian Capital Territory in 2000. The governing Board of the ACDE includes representatives from each Australian State and Territory.

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## Overview

The following submission follows the preliminary ACDE submission to the Inquiry made in April 2005.

In *New Teaching; New Learning* (2004) the ACDE outlined a substantial shift in the conditions of commerce, culture and technology which define contemporary capitalism. The Council argued that these conditions require new thinking about the role and importance of teaching and education more broadly. Put simply, teaching is the central profession of the knowledge economy. It is within this context that reforms to teaching, and teacher education, can best be understood and contemplated.

Today's teachers must deal with rapidly changing discipline and pedagogical knowledge; with increasing student diversity; and with new information and communications technologies. These changes demand unprecedented professionalism, and a complex range of knowledge and skills. The traditional view of educators as carers and nurturers has never seemed so inadequate. High quality education must be delivered by professionals, and backed by research and evidence, if the promise of lifelong learning is to be fulfilled.

The ACDE welcomes the Inquiry into Teacher Education, and believes the Inquiry is well placed to address the challenges facing contemporary teacher education. The timing of this inquiry is propitious: recent reforms to Higher Education have altered the position of Education[1] within the university; international research and practice have highlighted the centrality of Education to economic prosperity and social cohesion, and; the emergence of the National Institute for Quality Teaching and School Learning (NIQTSL), and of a number of state accreditation and registration bodies, have altered the landscape of teacher education in Australia. As the Council has demonstrated elsewhere, teacher educators nationwide are responding to these challenges in diverse and innovative ways.

More and more is expected of teachers in contemporary Australia and internationally, and more and more is being delivered by teacher educators. While most members of the education profession would agree that Education graduates of today are far better prepared than in the past, the point is whether this already excellent level of teacher preparation is good enough for the demands of the future. As educational leaders who strive to prepare teachers to begin the challenging career of teaching, we welcome the

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[1] Education is often equated with teacher education, but faculties of Education address the full breadth of the discipline. The Council has argued elsewhere, for example, that Education faculties are central to managing organizational change (ACDE 2004). In promoting collaboration and communication skills, the discipline of Education is valuable to organizations seeking to effect change with the support of employees. Education acknowledges that pedagogical relationships are replacing hierarchical command chains, and that vertical structures of accountability are being overtaken by horizontal, peer relationships. These insights are increasingly of use to corporations, governments and other institutions outside of formal learning environments. The terms 'Education' and 'teacher education' should thus be seen as related, but not interchangeable.

opportunity afforded by the Inquiry to identify and support innovations and good practice that are being developed around the country in order to improve the capacities of future teachers. We trust that all education participants can make a contribution to the Inquiry and support the necessary continuous improvement of teacher education.

In responding to the issues identified under the terms of reference, this submission emphasises the following four key points:

1) There is an urgent need to recognise and value the complexity of teaching. Notions of 'teacher training' are antediluvian, and do not adequately reflect the science of education. Equally, analysis must move beyond a dichotomous approach to pedagogy and content knowledge, to a more sophisticated understanding of the knowledge required to teach in the twenty first century.

2) There is substantial variation among teacher education courses nationwide, and a variety of innovative teacher education models already exist. This diversity is valuable, and contributes to the vitality of the profession. It is important that schools and faculties maintain the capacity to remain relevant, connected and rigorous in a fast changing world.

3) Professional practice needs to be at the heart of teacher education. This is more complex than simply increasing the practicum component of courses, and involves relating professional experience to theoretical insight. The relationship between theory and practice needs to be seen as essentially intertwined.

4) A holistic approach is required. Increased provision of professional learning is necessary to promote a culture of lifelong learning among teachers, and teacher educators; greater educational research is required, particularly into new pedagogies; salaries and conditions need to be competitive; and career paths need to be visible and attractive. Teacher education needs to be seen as an integral part of the teaching process, but not considered in isolation.

Recommended actions are listed under each term of reference, and a full list of these actions is provided on p.60.

## Contents

## Term of Reference 11

*Examine the adequacy of the funding of teacher training courses by university administration.*

This is the most important issue to be understood if the Inquiry is to be effective. Although this term of reference is explicitly limited in scope, the question of the adequacy of university administration funding can only be assessed within a broader context. The Council believes that changes to the model of teacher education, including increased innovation and diversity, will in turn rely on a new model of funding, both within and outside the university. Moreover, the issue of university administration funding is intrinsically linked to the broader question of the autonomy of Education faculties. Improving and supporting the autonomy of these faculties is important if the innovation, creativity and diversity required of teacher education is to be maximised.

The following section begins by outlining the brief history of Education funding since the introduction of the DEET weightings of the late 1980s. An historical analysis highlights that Education today is essentially being asked to do more with less. It also underlines the inherent links between public funding and university administration funding. The Council believes that the current level of university administration funding of Education is inadequate. In many ways, however, the internal distribution of funds reflects the level of importance accorded to Education by the Commonwealth. This relationship confirms the need for a holistic, visionary approach in addressing this term of reference.

The Council then explicitly addresses the status of Education within the university. We argue the need for better resourced and more autonomous Education faculties, and present possible options for achieving these goals. Further to this end, the Council recommends the abolition of the variable HECS quarantine for Education, which has not served the purpose of furthering Education as a national priority. The question of state/territory contributions to funding is then raised, with the Council arguing for both tiers of government to work cohesively and systematically to support Education nationwide. The need for greater coordination is underlined by the new complexities facing teacher education, which include: the growth of lifelong learning and the consequent need for systematic and sustained professional learning; changing demographic bases; a demand for closer partnerships across and beyond education institutions, and; greater labour mobility. Responding to these challenges, the Council believes, requires a new and comprehensive funding model. Finally, we address the raft of international evidence which highlights links between investment in education and economic and social prosperity, and we call for a renewed national focus on education.

### 11.1) Historical overview

Changes since the imposition of the original DEET weightings of the late 1980s have been marked. As the following section underlines, teacher education continues to suffer under the inadequacy of these weightings, reflected in worsening student/staff ratios and other measures. However, as section 11.5 explores, teacher education today is a very different enterprise from that of over a decade ago. The complexity of the profession,

the development of ICTs, the increasingly diverse student base, the internationalisation of the university system, and the expansion of partnerships all suggest the need to reconceptualise Education and the way it is resourced. The Council is concerned not merely with addressing an historical imbalance, but with enabling Education to fulfil its promise as the central discipline of the knowledge economy.

The original DEET Weight imposed on teaching in the late 1980s (1.3) suggested that it was far cheaper to train a teacher than a nurse or indeed an artist, dramatist or language specialist. The inference was that it cost about the same to train a teacher as to train an anthropologist or sociologist. While most involved in teacher education at the time had the sense that this decision constituted a grave error on the part of the DEET decision-makers, very few would have been in a position to compare the various training regimes above at close quarters. In more recent times, many 'super-faculties' have been formed, having the effect of drawing teacher education into the one funding regime with the likes of the training of sociologists, dramatists, artists and language specialists. The training of teachers is now a far more expensive function than was envisaged in the late 1980s, yet it is this decision that has determined so much of the funding regimes in which teacher education has functioned since this time. Even without the National Award (1991) concerned with the payment of teachers for supervision of student teachers on placement, teacher education is a naturally resource-intensive enterprise in many of its components. When the effects of the National Award are added, teacher education becomes immensely more expensive than most of the disciplines with which its costing has been associated.

Some of the effects of this funding regime over time are easily measured. For example, teacher education student numbers have stayed roughly static over the past decade, yet staff figures have halved. Other impacts of the funding squeeze, however, are more difficult to measure. Nationwide, teacher education faculties are providing innovative and creative programs, some of which the ACDE has documented elsewhere (2002; 2003). Nevertheless, the extent of this innovation is limited by resources available. Furthering community and other partnerships, reconceptualising the practicum, and maximising the use of ICTs, for example, are resource-intensive pursuits currently hindered by preservation of the antiquated DEET weightings.

### 11.2) The status of Education within the university

There are two separate but related issues concerning the current status of Education. Within the university, Education is frequently invoked to cross-subsidise other disciplines, and is not assisted by internal criteria set for the redistribution of funding. An inadequacy of funding is most evident around elements such as the practicum, and further innovation in these areas relies on both greater investment and efficacy. Perhaps even more importantly, the autonomy of Education as a university discipline has declined over the past decade.

#### 11.2.1) Autonomy

In a number of cases, Education comprises 20% of a university's EFTSU. Yet, despite its size, the discipline of Education is frequently placed within larger faculties and

structures. As the Council noted in *New Teaching; New Learning* (2004), just fourteen dedicated faculties of education remain in Australian universities. Other schools of education are now located within larger units and faculties. The result of this change is that the discipline of Education has lost influence. It is difficult for those dedicated to teacher education to set strategic goals and priorities in this context. Budgetary and other major decisions are made outside the discipline. At the very time when the science of Education is of increasing importance within (and outside) the university, the place of Education is becoming marginalized within it.

Several possibilities exist for strengthening the autonomy of Education within the University. At the most radical level, the establishment of specific Education universities is worth investigating. Universities devoted to the discipline of Education are not new, and are typically reflected in the Normal universities found in nations such as China. Indeed, evidence suggests that this is a growing global trend. Such universities would not act as isolated institutions, but would remain deeply engaged with the other university disciplines. Education-specific universities could reflect the importance of Education to national prosperity and social cohesion, and provide the discipline with a level of autonomy hitherto unseen. The establishment of such universities is worth exploring.

Another possibility of which the Inquiry will doubtless be informed is the rationalisation of Education faculties. Though perhaps initially attractive, this option is problematic for a number of reasons. As the section below highlights, many universities depend on the size and strength of Education for their very survival. The Council also believes that the preservation of Education within regional universities is essential on the grounds of opportunity and diversity. Most importantly though, the Council maintains that the discipline of Education is central to the university, and disbanding Education faculties from some universities would not reflect this important precept. It is therefore difficult to see how such a rationalisation could serve the national interest in the long term.

Further options centre on proposals to increase the autonomy of Education across universities. Many current university structures are highly anomalous. That a discipline of such size is accorded such little autonomy in many institutions hinders the capacity of Education schools and faculties to lead, innovate and create. Measures to improve the current internal position of Education are worth investigating. Such measures would clearly require Commonwealth direction and/or support, and cooperation among governments, universities and faculties.

### 11.2.2) Funding

In terms of funding, it is true to say that teacher education has managed to survive in the unified national system of universities, and to survive extremely well. This is for a number of reasons:

a) For one thing, it was among the first to learn to manage an under-funded reality by increasing the workload of full-time staff, replacing the attrition of full-time staff with

sessional and casual staff, and making increased use of the support of professional partners in schools and early childhood centres through conjoint and adjunct arrangements. Because of the National Award, much of this latter work was deemed to be other than formal practicum, more often taking the form of school teachers being relieved from their schools in return for casual relief funding or taking student teachers in their schools for 'observations', etc. In broad terms, the entire profession has come to realize the plight of university-based teacher education and tried to meet its needs in ways that have been effective and cost-efficient. In most cases, the teacher unions have been very supportive of these efforts, realizing the difficulty of the situation and that any attempt to put further pressure on university payments for their teachers would only weaken further the fragile infrastructure on which teacher education rested.

b) Ironically, in spite of the demonstrable claims made for the costliness of teacher education, the huge demand for teacher education of the past few years has brought to it a relative cost-efficiency. This is especially the case when one considers the context of higher education generally, impacted on negatively by the combined effects of reduced government funding, a downturn in demand for some very expensive areas in the sciences and the blow-out in the costs of the most expensive training (as well as research) of the higher end areas of Medicine, Engineering and Science. Put together, it has not been uncommon to find the very large teacher education programs (having found ways of becoming relatively cost-efficient) being used to cross-subsidize the truly expensive end of higher education. The current industrial claims being made in Queensland to increase substantially the cost of teacher practicum (likely to be followed by similar claims at the national level), together with the gradual closing down by school employing authorities of some of the most cost-efficient means by which teacher education programs have been employing sector staff, constitute a response to a situation that has seen teacher education resources cross-subsidising the wider interests of universities. While these developments have ensured the general survival of Education faculties, they have not enabled the discipline to reach its potential, and limitations to output are reflected in data such as worsening staff/student ratios.

Additional problems lie in the criteria often established for redistributing funds within the university. As a discipline, Education generally contributes a percentage (for example 50%) to a central university fund, but is rarely able to reclaim those funds through the criteria established. These central collective funds are redistributed according to criteria such as completions and fee-paying students, in which Education is relatively ill-equipped to compete. Addressing such inconsistencies is important in enabling Education to fulfil its potential within and beyond the university.

### 11.3) State/territory contributions

The ACDE has for some time advocated greater coordination between the Commonwealth and state/territory governments in Education (2001). State contributions to Education within the university have historically been sporadic, such as the Victorian government's funding of extra teacher education places in the 1990s. The Council advocates the greater involvement of state and territory governments, but supports that involvement on a more systematic basis. In some areas such as the practicum, where the involvement of specific local communities is most evident, it is

logical that states and territories contribute resources in mutually agreed ways. Moreover, in an era of growing labour mobility, it is important that teachers be supported to work freely across national and international borders. Within Australia, this heightens the need for improvement in Commonwealth/state relations, structures of mutual recognition, and course accreditation processes.

### 11.4) The national priority status

Quarantining Education from the variable HECS fees has not served the purpose for which it was designed. The Council has argued elsewhere that the awarding of national priority status has resulted in Education becoming a less attractive discipline within the university, due to its inability to raise extra funds. Moreover, this status ultimately works against the students for whom it was designed. Not only is Education unable to raise the resources required to support vanguard teaching and learning, but all students suffer if the status of Education is ultimately diminished within the university. The Council restates its opposition to the quarantining of Education from the variable HECS fees market.

### 11.5) New complexities

The new complexities of the knowledge economy demand new thinking, not only in the way teacher education is organised but in the way it is supported and resourced. Greater appreciation is required of: lifelong learning and the consequent need for systematic and sustained professional learning; diversity and new demographics; partnerships, and; labour mobility. Understanding the significance of these changes is important, not only in refuting the 'teacher-ready' notions found in the Victorian Inquiry's report and elsewhere, but in appreciating the need for a holistic approach, supported and resourced by both Commonwealth and state/territory governments.

As the ACDE has outlined elsewhere, the implications of the knowledge economy for educators are profound. Teaching is not alone in being substantially recast by the knowledge economy, but its particular relation to knowledge makes the profession pivotal to economic prosperity and social cohesion. The following section is taken from *New Teaching, New Learning* (ACDE 2004).

Today's teachers must deal with rapidly changing discipline and pedagogical knowledge; with increasing student diversity; and with new information and communications technologies. These changes demand unprecedented professionalism, and a complex range of knowledge and skills. The traditional view of educators as carers and nurturers has never seemed so inadequate. High quality education must be delivered by professionals, and backed by research and evidence, if the promise of lifelong and lifewide learning is to be fulfilled.

Lifelong learning means that education is no longer located at a discrete time on your life, your one chance to learn, a time when you learn things that are sufficient for life. Specific skills and knowledge learnt today may be obsolete in twenty years time or even

five years time, and we will increasingly need to retrain and relearn throughout life (ACDE 2001).

Lifewide learning is about learning across life, not just in formal educational settings. This requires a new perception of education. The distinction between 'knowing' and 'doing' needs to be broken down (Kalantzis, Cope & Harvey 2003; Arnold & Ryan 2003). The idea that education is something you learn in institutions, which then prepares you for life, is no longer relevant. The division between vocational and non-vocational learning is fading. Instead must come a recognition that learning occurs throughout life in all kinds of contexts, and that vocational advantages can be found in the most informal and unlikely of educational forms. Broadening access and participation means recognising that pool halls, libraries, shopping malls and parks are all viable educational forums.

This new frame of reference - lifewide and lifelong learning - also changes what formal educational institutions should be teaching. The new learning is less about imparting defined knowledge and skills and more about shaping a kind of person: somebody who knows what they don't know; knows how to learn what they need to know; knows how to create knowledge through problem solving; knows how to create knowledge by drawing on informational and human resources around them; knows how to make knowledge collaboratively; knows how to nurture, mentor, and teach others; and knows how to document and pass on personal knowledge. In sum, this kind of person is open to autonomous, assisted and collaborative learning.

Educators themselves must be aware of the contemporary skills and attributes required by good learners. To this end, one significant change to teacher education is likely to be a greater focus on the overall aim of reflective practice. Clearly, this does not simply mean spending more time in schools. The recent *Crossroads* Ministerial discussion paper emphasises that 'we need a system that produces graduates who can think critically and have adaptable skill sets as well as technical expertise' (DEST 2002: 14). However, as Alan Reid explains, the mere allocation of more time for initial teachers to be trained in schools 'simply reproduces the status quo and reinforces the idea that teachers are technicians' (2001). Instead, Reid advocates a model based on enquiry into educational practice, which would involve project work and greater collaborative learning between students, teachers and academics (2001).

This is not to refute the value of initial teachers taking classes in designated schools, but to suggest important, and often neglected, ways of adding to this experience. The development of mentoring, team teaching, and the allocation of time for collegial discussion and feedback, are all vital to the goals of collaborative and flexible learning. In future, not only will greater links be sought between schools and communities, universities, businesses and government, but the education institutions themselves will be reconceptualised as parts of a broader learning environment (Kirby 2000: 98). Rather than being added on to an existing scaffold, local and regional collaboration will in fact come to redefine the very nature of schools and their orientation to society. Educators will operate in an increasingly complex environment, and will need to be involved as mediators and collaborators with a number of broad and diverse groups throughout society.

Growing diversity is evident at individual school level, where the demographic pattern of the student cohort is changing as retention rates rise. In the ACDE discussion paper, *Blurring the Boundaries in Education:: towards a more seamless system of post-compulsory education* (2004: 5), Henry & Grundy highlight the dilemma:

> The rise in the secondary school retention rates has come to pass but the secondary school sector has been slow to respond to the learning needs of a much more diverse student population. Systematic advanced planning by the school sector for what was to come as a result of having young people, whose counterparts in previous times would have left school as soon as they were legally able, staying on into the post-compulsory years was limited at best. Schools have struggled to engage those young people whose learning needs are not readily accommodated by the bookish pedagogies and curricula of the academic and disciplines-based senior secondary school classrooms. The introduction of vocational learning programs has been the default response but the impact of these programs on the overall institutional form of senior school programs has been minimal to date (Dalton 2003) and suffered through the 1990s from the tendency of schools to shape VET in Schools courses as minimalist departures from the norms for senior school certificate subjects (Henry, Dalton, Wilde, Walsh & Wilde 2003).

Rethinking the role of schools is itself an urgent task. Future teacher education programs need to be linked to the needs of future schools, and the capacity to deal with diversity will be central to both. Of course, many of these changes are already occurring. In particular, teacher education programs in Australia are already engaged in a number of partnerships with schools and other community groups, many of them highly innovative. However, as these partnerships grow in response to the societal changes outlined above, it is important that the resourcing of teacher education is also remodelled to support further innovation.

Similarly, teacher education needs to be seen as an ongoing process. Just as students will need to continue learning long after they have left school, teachers will also need to refine their skills throughout their careers. To this end, the provision of continuing professional learning will be crucial, as Section 7 outlines in depth. While this important task remains largely neglected in Australia, there is some tentative progress being shown in England and other nations, where sabbaticals, secondments and international exchanges are already being promoted. The need for both greater creativity and resources here is pressing, and we are unlikely to keep the finest teachers in the profession without more commitment to programs of reskilling and professional learning.

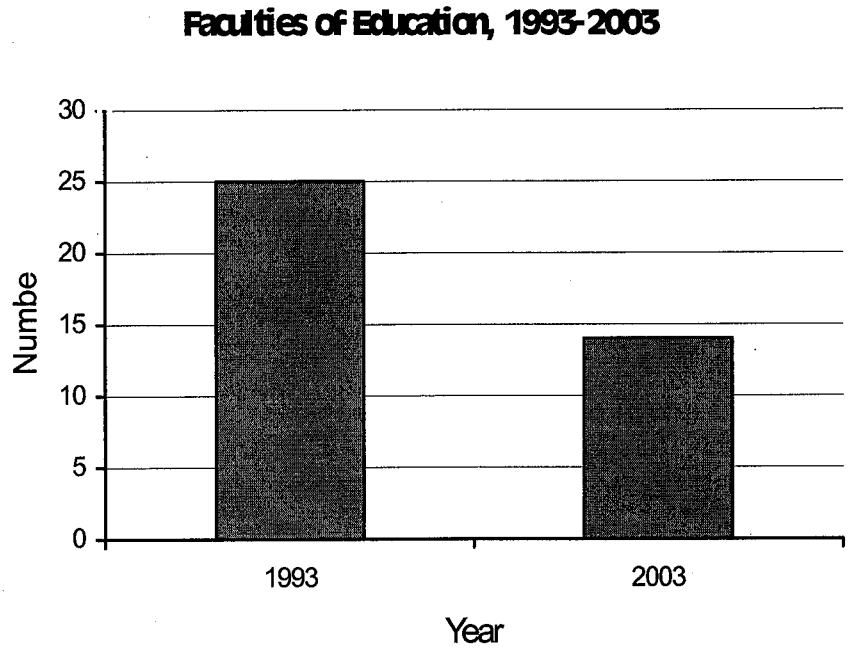
The need for systematic professional learning is not a priority that can be postponed. If, as we have argued, a new breed of educator will be required, then current leading teachers and principals will require upskilling and greater professional learning opportunities themselves. As a cohort of experienced teachers retires over the next few years, it is crucial that knowledge is not lost from the profession. Knowledge management will be pivotal to the success of the profession. However, it is not only the transfer of current skills and knowledge which is important, but that the profession itself is geared up for the knowledge economy. Existing leaders and principals require improved professional learning opportunities, both for their own sake and to ensure that the potential of early career teachers is fully realized.

The role of educators is central to the knowledge economy. For learners and for teachers, the message is clear. Flexibility, portability and broad knowledgeability must be sought; diversity must be harnessed as a resource; and both autonomous and collaborative learning will become increasingly important (ACDE 2001). Within teacher education programs, these priorities will most likely be reflected in substantial changes to curriculum content and delivery, an expansion of assessment practices, greater emphasis on promoting diverse learning styles, greater collaboration through mentoring and team teaching, and professional learning which is both creative and ongoing (Kalantzis & Harvey 2003). This is a substantially different model of teacher education from that envisaged by the Commonwealth in the late 1980s. As teacher education continues to remodel itself to embrace the demands of the knowledge economy, it is important that overall funding be increased to reflect the new environment. Ultimately, how the profession of teaching is recast will have profound implications for both individual prosperity and national well-being.

### 11.6) International evidence

Just as a broad national context is required in assessing the adequacy of university administration funding, it is also worth examining the international context of the Inquiry. International trends show that many governments and nations are increasing funding not only of teacher education, but of education more generally. In many nations, rhetoric of the importance of education is being followed by resources. In the UK, the US and Singapore, substantial public investment increases are being made in the education sector, and for good reason. The returns on investment in education are high, because societies are becoming defined by their relationships to knowledge.

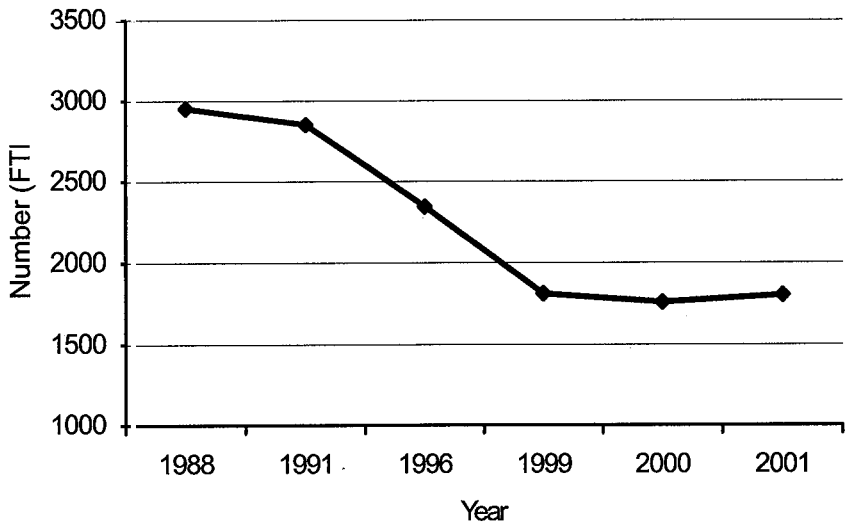
This argument is made in detail within *New Teaching; New Learning* (ACDE 2004). Here the Council simply notes that education is not only a private good. Education exports are now worth more to Australia's balance of payments than traditional earners such as wool. And unlike many traditional earners, education is growing rapidly. Most Australian universities now have an overseas presence, and education-related travel services have accounted for more than $4 billion in annual revenue since 2000 - a threefold increase over a decade (Doherty 2004). The net benefit of tertiary education alone to the Commonwealth Budget was estimated at about $9.6 billion in 2001-02. This was projected to rise to over $12 billion by 2010-11 (Johnson and Wilkins 2003). More broadly, the Organisation for Economic Co-operation and Development (OECD) estimates that each additional year of education across a country's population lifts gross domestic product (GDP) in the long term by between 4% and 7% (see Australian Government 2004). The return on investment is substantial and growing. Education is a profitable enterprise. The international evidence is compelling in supporting further public investment in education, and in particular teacher education.




Source: internal ACDE data

Just fourteen dedicated faculties of education remain in Australian universities. Other schools of education are now located within larger units and faculties. The result of this change is that the discipline of Education has lost influence. It is difficult for those dedicated to education to set strategic goals and priorities in this context. At the very time when the science of Education is of increasing importance within (and outside) the university, the place of Education is becoming marginalized within it.

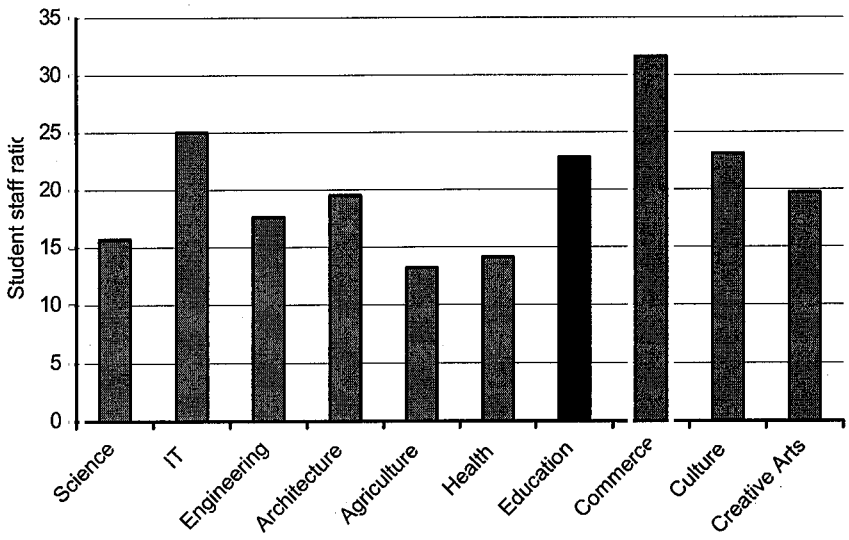
**Number (FTE) of Education academic staff, Australian higher education, 1988-2001**




source: Preston 2002

The number of academic staff within Education has declined over the past fifteen years. This is further evidence that while the discipline of Education is ascendant, the number of Education experts is in decline. It is important that those with professional qualifications and knowledge be at the centre of a culture lifelong learning, both on and off campus.

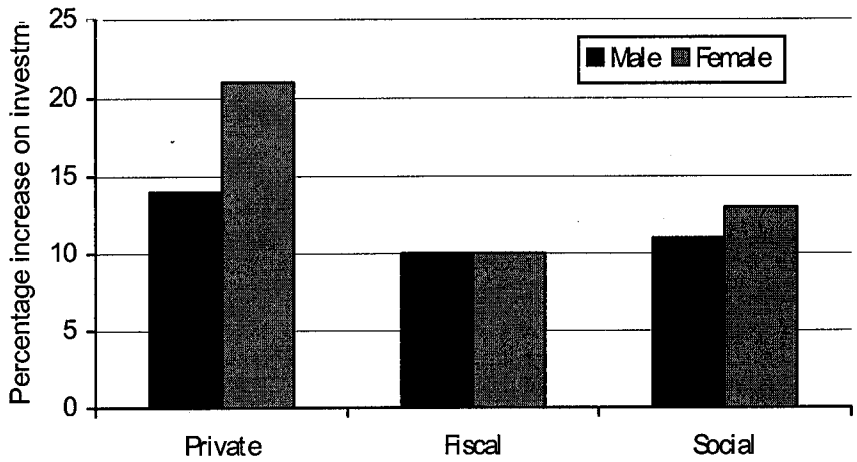
**Student staff ratios by Academic Organisational Unit ( AOU)**




source: AVCC 2003-04

The student: staff ratio for Education rose from 22.8 in 2003 to 23.5 in 2004, substantially higher than the university average of 21. As the research conducted by Education faculties shows, better student/staff ratios are important in improving learning outcomes. If teaching is the central profession of the knowledge economy, this proposition is not yet reflected in the resources devoted to Education students.

**Estimated rates of return on investment in education, Australia**



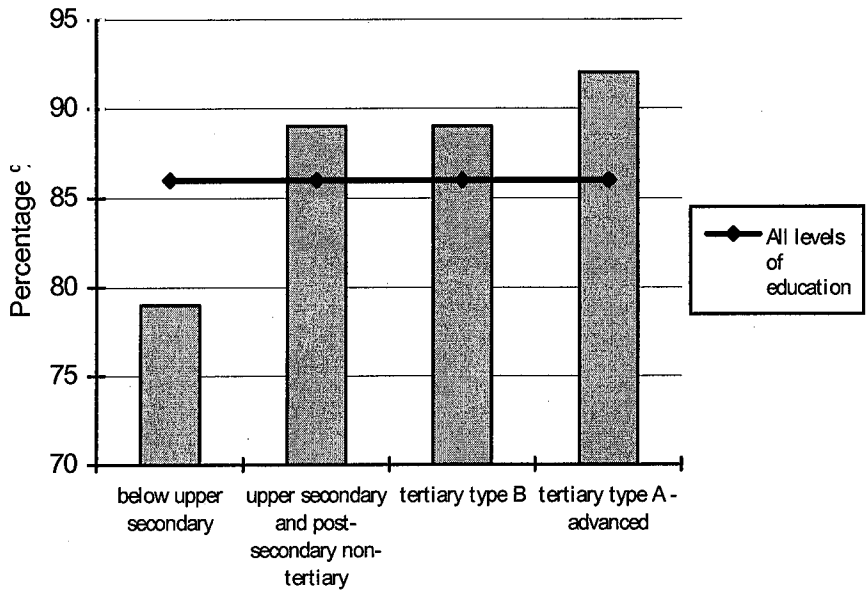

Source: OECD (1999) Table A4.3 page 112

The NTEU submission to the Senate Inquiry into Higher Education (2003: 8) notes that:

The **private rate of return** estimates the net benefit that graduates gain through higher earnings over their working life as result of having a university degree. Based on the data in Table 2, an Australian male graduate would earn 14% more over their life compared to a non-graduate, while a female would earn 21% more.
The **fiscal rate of return** measures the net benefit to the Government's budget bottom line for every dollar invested in higher education. For Australia, this means that for every dollar the government invests in higher education they will either receive additional taxes or pay lower welfare to the value of $1.10. A recent study by Johnson and Wilkins (2003) estimated that tertiary education provided a net benefit to the Commonwealth Budget of about $9.6b in 2001-02 and this was estimated to rise to over $12 billion by 2010-11.
The **social rate of return** measures the combined private and fiscal returns. It should be emphasised that the social rate of return in particular is considered to be a narrow estimate in that it does not attempt to estimate the broader macro-economic impacts of higher education in relation to improved productivity and higher economic growth rates that are likely to be a consequence of investing in higher education.

These figures clearly show that the returns on investment in education are high, not only for individuals, but for the society in which they work and learn.

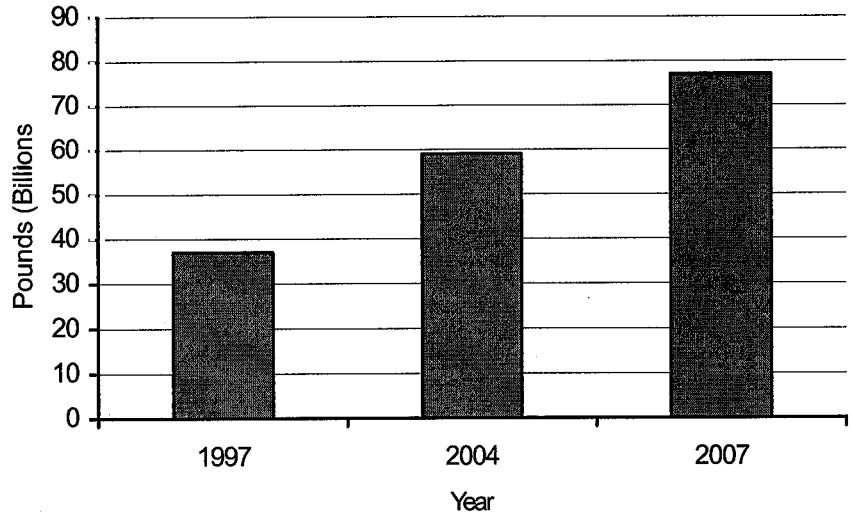
**Australian labour force participation rates: males (2001)**




source: OECD 2003 Table A12.1

Rates of participation in the labour force rise according to levels of education. The Dusseldorp Foundation has confirmed the high cost of early school leavers to the national economy. Indeed, the recent Business Council of Australia and Dusseldorp Skills Forum study found that 'boosting the proportion of young people completing school or an apprenticeship to 90 per cent by the end of the decade would increase workforce numbers by 65,000, boost economic productivity, and expand the economy by nearly $10 billion (in today's money) by 2040' (BCA & Dusseldorp 2004). Much of this cost arises because those without formal education are much less likely to find gainful employment than those who hold qualifications. The data suggest a renewed effort is required to boost school retention rates, and to increase participation in tertiary education.

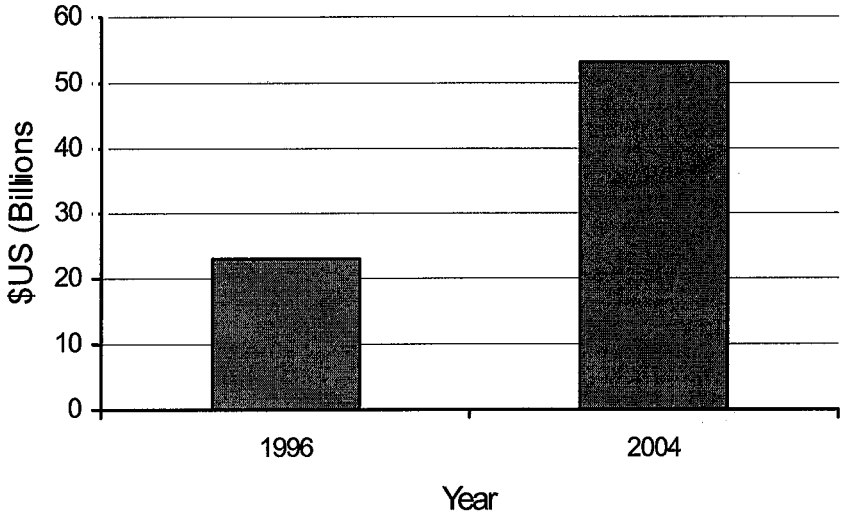
**Public investment in education, UK, 1997-2007**




Source: Clarke, C. 2004 (Budget details at http://www.hm-treasury.gov.uk/)

Across the UK, funding for education is to rise to £77bn by 2007-08, up from £37bn in 1997 and £59bn this year. A concerted effort has been made in the UK to boost public funding for education. Upon coming to office in 1997, Tony Blair proclaimed that his focus would be on 'Education, Education, Education'. Public funding will have more than doubled in the decade to 2007, as the UK gears up for the knowledge economy.

**Federal public investment in education, US, 1996-2004**




Source: US Dept of Education 2003

Federal public investment in US education has more than doubled in the eight years to 2004. The US government now clearly views education as a matter of national importance, and as the top domestic priority. As the US Department of Education notes, 'Despite the many priorities competing for tax dollars--protecting our homeland, fighting terrorism and recovering from recession--President Bush's budget request for 2004 provides $53.1 billion for the U.S. Department of Education, an increase of $2.8 billion or 5.6 percent above his 2003 spending plan and the largest dollar increase of any domestic agency.'

## *Actions*

- Increase base funding to Education to enable a reduction in student/staff ratios, a higher quality teaching and learning experience, and the realisation of teacher education as a national priority;
- Support an investigation into the practicum which addresses partnerships, the level of support for supervising teachers, the relevant awards, and avenues for improvement, involving all key stakeholders;
- Ensure that the Commonwealth's pledged $81.4 million increase in practicum funding is utilised for this purpose in its entirety;
- Facilitate the greater involvement of state and territory governments in teacher education on a systematic, agreed basis, possibly tied to specific areas such as practicum funding;
- Remove the quarantining of Education from the variable HECS fees market.

## Term of Reference 1

*Examine and assess the criteria for selecting students for teacher training courses.*

A range of selection criteria are currently employed by teacher education courses, though the primary criterion is now a very high University entry-score or its equivalent for mature-age entrants. It should be noted here that mature-age entrants constitute around 50% of entrants into Education courses, and these applicants are typically selected according to a range of indicators including prior experience. In most universities in the past three years, the cut-off for four-year undergraduate degrees in Teaching is ten or more points above the entry to Arts, Science or Accounting degrees (all once held in higher regard) and is roughly akin to the cut-off for Engineering. There is an increasing cohort that explicitly chooses Teaching over Law and in fewer cases over Medicine. There are similar trends for 'end-on' entry (MTeach or DipEd) where an increasingly competitive GPA is required to guarantee entry.

In addition to ENTER scores, a diversity of selection criteria can be found across teacher education. Some universities, such as UWS and Ballarat, adopt residency rankings either for all candidates or for a middle band of applicants. This criterion typically advantages those who live in regional or lower socio-economic areas. Applicants may also be re-ranked according to the possession of desired skills, such as maths qualifications, or according to a range of equity measures eg Indigenous status, SES rankings. In some cases, high levels of English language proficiency are required beyond that demonstrated in an ENTER score.

The Council condones diverse selection criteria which take account of workforce needs and equity concerns. Importantly, where criteria are added beyond the ENTER scores in teacher education, these criteria are generally based on objectively measurable criteria eg SES status, geography. The Council does not support more widespread interviewing of candidates, as recommended by the Victorian Inquiry. Apart from being a costly exercise, there is no firm evidence that suggests that those candidates who interview well make the best teachers. The ACDE does not therefore support the widespread introduction, or over-privileging, of subjective measures such as interviews.

## *Actions*

- □ Support diversity of selection criteria for teacher education courses, where those criteria are objectively measurable eg SES status, geography, maths and English qualifications.

## Term of Reference 2

*Examine the extent to which teacher training courses can attract high quality students, including students from diverse backgrounds and experiences.*

The ACDE believes that the teaching profession currently has the capacity to attract high quality students. Indeed, many high quality applicants are currently being excluded from teacher education courses, and there remains a high level of unmet demand, itself problematic in the context of teacher shortages. Attracting students from diverse backgrounds and experiences is more difficult, largely because of structural flaws in the higher education system generally. Addressing barriers to participation at a systemic level would assist not only teacher education, but higher education more generally, in providing educational opportunity to all Australians.

### 2.1) High quality applicants

The high quality academic candidate base is well in place in a way that would have been unimaginable just a few years ago. It is vital that this be recognized by all stakeholders and conveyed to the community in positive terms. The dramatic rise in required ENTER scores is itself evidence of a rise in the quality of applicants over the past decade.

There are many reasons for the growth in demand for Teaching, including well concerted campaigns run by employing and industrial bodies targeting Teaching as a good and noble enterprise with a reasonable starting salary and huge potential for overseas marketability. Many students in the past three years or so have pointed to the advertisements of offshore recruiting agencies (mainly UK and USA) as being instrumental in directing their attention to Teaching. Ironically, while exacerbating teacher shortage nationally, especially in areas like Mathematics and Science, the foreign 'poachers' have actually added to the perceived status of teaching by making it so explicit that teaching is a highly sought after skill internationally. While some may suggest that issues of status, wealth and globe-trotting potential may not constitute the purest of motives for going into Teaching, they nonetheless undoubtedly match many of the motives that impel entry to professions like Medicine, Law and Engineering, with which Teaching has traditionally been poorly compared.

In other words, Teaching as a higher education enterprise has in fact become more like the professional training of those professions with which it has been urged to benchmark since the Martin Report of 1965. Amidst the myriad of reports, inquiries and reviews that have filled especially the past 25 years, the most common theme has been around the fortification of teacher education as a true higher education enterprise, be it in terms of its discipline or pedagogical components. It is, then, the improved status of teacher education which has been largely responsible for a rise in high quality applicants in recent years.

Greater public promotion of teaching could be an important way of supporting and boosting the status of the profession. Given the link between the status of the profession and the quality of applicants, such promotion would be likely to result in a further improvement in applicant quality. The Victorian Inquiry's report, *Step Up, Step In, Step Out*, points to the role of the British Teacher Training Agency (TTA) in assisting potential applicants to pursue a teaching career, and in its extensive marketing and promotion campaign. The success of this campaign is well documented - the TTA helped to attract more than 40,000 people to start teacher training in England in 2004 – 50 per cent more than in 1999 (TTA press release 29 March 2004: Better training for school staff as TTA takes on bigger role). What the Victorian report fails to acknowledge, however, is that the TTA receives recurrent funding of over 500 million pounds annually (TTA annual report 2003-04, at www.tta.gov.uk). The ACDE has consistently advocated that the NIQTSL could fulfill a number of similar roles to those handled by the recently expanded TTA, but this would require a substantially increased funding commitment.

A further means of attracting high quality applicants is by improving the flexibility of salary structures. In particular, flexibility is required to enable those entering the profession from other careers to receive appropriate starting salaries, depending on prior experience and qualifications. Moreover, the current rigidity of employment contexts across many jurisdictions impedes the ability of Education faculties to employ certain high quality applicants. Highly qualified applicants with doctorates, for example, may have applications rejected because they lack a second area of teaching expertise, or because they fail to meet other specific criteria of the employing authorities. This problem is further compounded by the fact that not all Education applicants wish to teach in schools.

**2.2) Diverse backgrounds and experiences**

In terms of students from diverse backgrounds and experiences, some impressive results have been achieved in recent years, especially within the context of fast-tracking people with appropriate discipline knowledge and background as a way of addressing teacher shortages. Many employing systems have collaborated with universities in effecting alternative teacher education mechanisms, especially where this has been able to add to load without compromising or putting further pressure on the capped DEST load. These schemes have often been innovative and have had the effect of drawing highly skilled people into teaching. A DEST Study on *Site-based Teacher Education* from 1998 captured much of this important trend which has been built on in recent years.

Nevertheless, there clearly remain concerns. In truth, there is a serious issue across the whole of higher education in attracting students from diverse backgrounds and experiences. The Higher Education Report for the 2003 to 2005 Triennium shows that students from a non-English-speaking background comprise a smaller proportion of the university population than in the early 1990s. Their share has declined from 4.1 per cent in 1991 to 3.3 per cent.

The proportion of students from rural areas declined to 17.4 per cent in 2002 from 18.4 per cent in 1991. For isolated students, their percentage dropped from 1.6 in 1991 to just 1.3 in 2001. Those from low socio-economic backgrounds now make up 14.5 of the student population compared with 14.7 in 1991. The report admits that university access by these students ``remains relatively low".

Initiatives to attract students from a diverse range of backgrounds and experiences are important, but are required right across higher education. In many cases, Education is simply reflective of a trend across universities caused by factors such as the digital divide, the regional divide, and inequality of educational opportunity at school and lower levels. Addressing these broader issues, then, is an important first step, as the Council outlined at length in *New Teaching; New Learning* (2004).

More specifically, *Australia's Teachers: Australia's Future* notes that teacher education students "were more frequently from families of Australian born parents and less frequently from families whose parents came from a country where the main language was not English" (2003c Background data and analysis: 39). The report also found that students in initial teacher education were less likely than their peers in other courses to come from the highest achievement group at school (2003c: 40). However, the study on which these conclusions are based was of students commencing in 1995 who were followed through to the end of 2001. Given the changes to teacher education over the past decade (eg rising ENTER scores), it is likely that these trends are no longer as marked.

Nevertheless, the need to attract the best teachers from all walks of life remains paramount. If there are groups under-represented, this is not likely to be redressed simply through a change in the selection criteria of faculties. What it points to, rather, is the need for structural change.

At one level, the need for a public promotion of teaching as a career is manifest, in order to encourage the highest quality applicants across the nation. As noted above, the results of the Teacher Training Agency in the UK in this respect are salutary.

At another level, changes to the profession of teaching, and to the structure of educational institutions, are required. The ACDE has previously suggested a number of ways in which teaching may be made more attractive as a career. If, as we have argued, educators are at the heart of the knowledge economy, then teaching must be viewed as a profession in which career paths are visible, in which professional development is accessible, and in which teaching is enviable, valued in the same way that law and medicine are. Sabbaticals, secondments, exchanges, mentoring and team teaching are some of the proposals for expanding professional development recommended by ACDE in *New Learning* (2001) and in our submission to *Striving for Quality* (2001b). Additionally, in our submission to the *Commonwealth Review of Teaching and Teacher Education*, the Council highlighted some innovative teacher education programs and noted a need for closer links between faculties of education and the schools sector, including greater staff interchange.

On this issue, it is also worth noting that the level of public funding impacts upon the capacity of teacher education programs to innovate. Flexible delivery, for example, as reflected in initiatives such as summer schools, country practicums and the involvement of Indigenous communities, is contingent on a sufficient level of resources. Greater resourcing of Education would enable further innovation and more flexible delivery of programs, which in turn would impact upon the quality and diversity of applicants. A further specific measure to encourage diversity and quality would be the increased provision of targeted Commonwealth scholarships.

### 2.2.1) Males

Forging closer relationships with teacher education institutions is an important part of schools' transition from discrete centres of learning to centres of community. It is also in this reconceptualisation of school education that hope lies for attracting more male applicants. Males remain under-represented in teaching, particularly in the early childhood and primary sectors. One reason posited for this dearth of interest is that teaching does not appeal to males as a profession in the way that law and medicine do, and that the material rewards of a teaching career are not as easily visible. A second major reason is clearly the fear of accusation of child abuse.

In the first respect, comparisons between education and other professions are instructive. Under term of reference 3 the Council examines relative salaries and the likely effect of these on teacher retention rates. Financially, education is clearly not regarded as equivalent to law and medicine, despite its importance.

The predominantly male fear of being accused of child abuse relates to a complex social issue beyond the remit of education departments. However, male concerns are clearly exacerbated by the cloistered environment which remains the dominant school model. Where a single teacher presides over a discrete group of students in an enclosed classroom, this fear of accusation is always likely to be prevalent. Ultimately, fear may best be assuaged by encouraging learning to occur at multiple sites, by promoting mentoring and team teaching, and by opening up the school as a focal point for the broader community.

### 2.2.2) Diversity

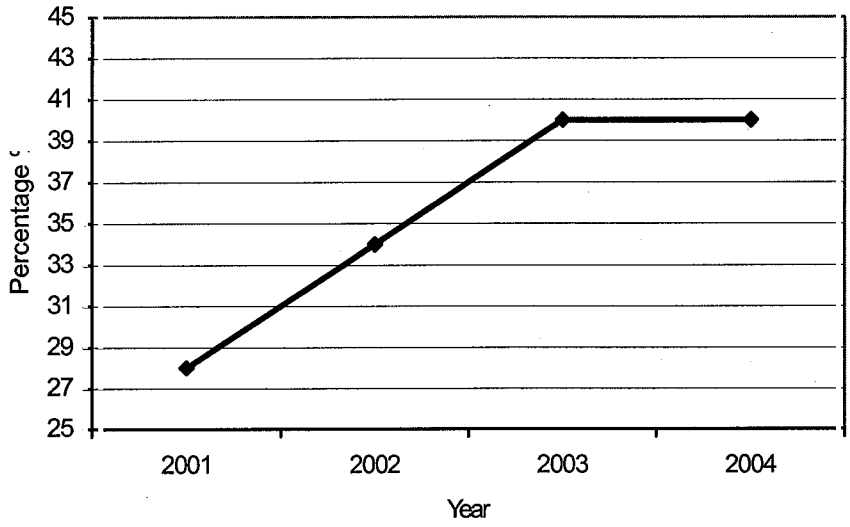
As with most disciplines, many groups remain under-represented in teaching, including those from Indigenous, NESB and rural backgrounds. The Council has argued in particular that the alarming recent decline in Indigenous commencements in Education must be addressed as a matter of urgency. In the short-term, this involves improving financial support to students, particularly by reversing the deleterious changes to Abstudy of 2000.

Moreover, the Council holds that much of the problem arises from continued levels of prejudice and misunderstanding at the broader social level that seeps into educational settings. Any resolution must therefore rest in addressing historical injustice and the understanding and education of so called mainstream students as well as in greater educational provision and support for Indigenous people. The Council reiterates its support for the expansion of Indigenous studies programs in both schools and Higher

Education, the provision of greater financial assistance to Indigenous students, and the preservation of faculties of education in regional and remote areas.

Research projects focused on the concerns, views and aspirations of male teachers, and/or on the concerns of males currently enrolled in teacher education courses, may also be effective in identifying prevalent disincentives for males to teach.

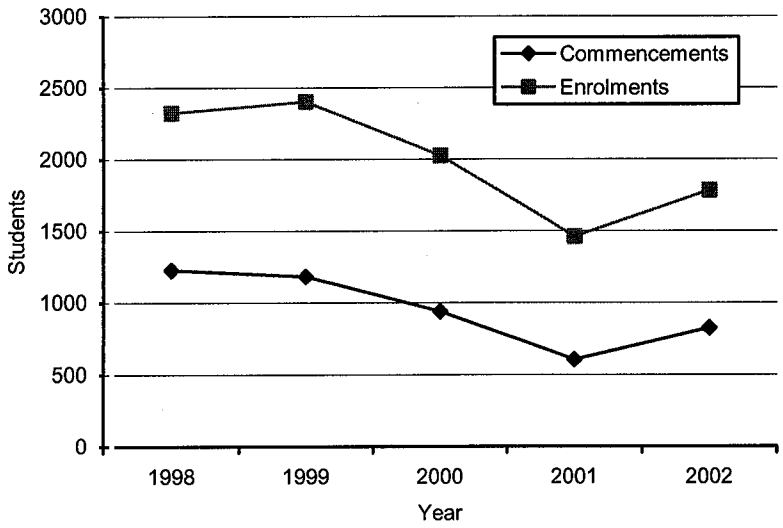
**Unmet demand: Percentage of eligible applicants in Education not receiving a university offer**




source: AVCC statistics

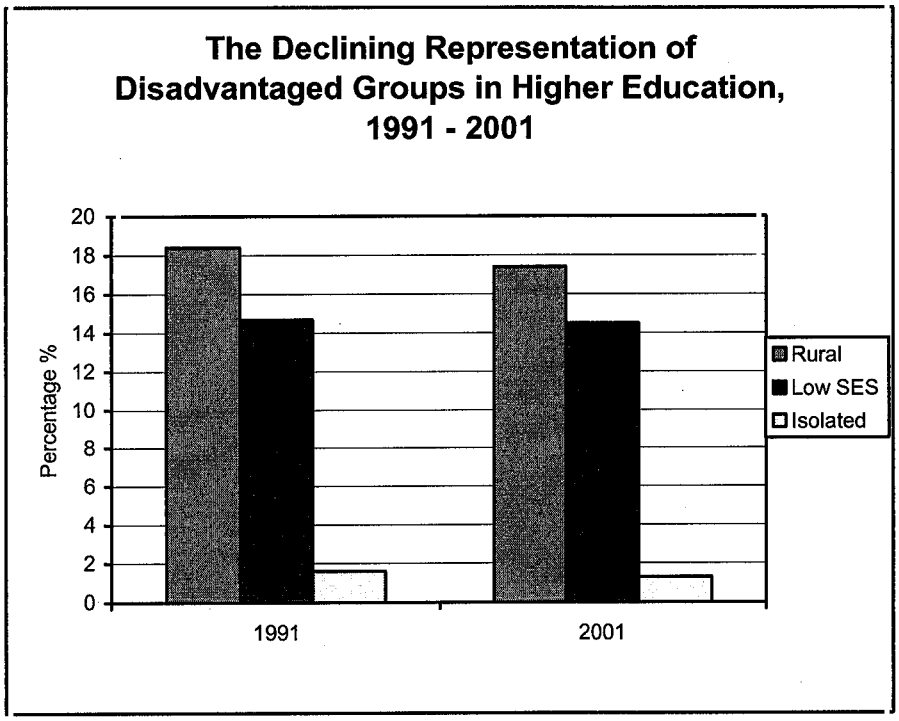
Within Education, unmet demand has risen alarmingly since 2001. At a time of teacher shortages, and when the portability of Education degrees is in high demand, there has not been enough supply within the Higher Education system. 40% of eligible applicants missed out in 2004, up from 28% in 2001. This represents nearly 10,000 eligible applicants who are now not offered a place in the field of Education. This high number is particularly concerning given the centrality of Education to universities and to the nation's future prosperity.

## Indigenous commencements and enrolments, Education, 1998-2002




Source: DEST statistics: students

Indigenous enrolments in the discipline of Education have declined since 1998. This is due largely to changes to Abstudy funding, which left a majority of Indigenous students financially worse off. Bridging the inequality of learning outcomes between Indigenous and non-Indigenous students in schools and beyond involves increasing the number of Indigenous educators.




Source: Higher Education Report for the 2003 to 2005 Triennium

The Higher Education Report for the 2003 to 2005 Triennium shows that students from a non-English-speaking background comprise a smaller proportion of the university population than in the early 1990s. Their share has declined from 4.1 per cent in 1991 to 3.3 per cent.

The proportion of students from rural areas declined to 17.4 per cent in 2002 from 18.4 per cent in 1991. For isolated students, their percentage dropped from 1.6 in 1991 to just 1.3 in 2001.

Those from low socio-economic backgrounds now make up 14.5 of the student population compared with 14.7 in 1991. The report admits that university access by these students ``remains relatively low".

## *Actions*

- Introduce a number of targeted Commonwealth scholarships to boost the diversity and quality of teacher education candidates;
- Preserve faculties of education in regional and remote areas;
- Adopt a firmer direction in allocating places to universities via the DEST profiles exercise, to ensure that Education is treated as a national priority;
- Establish a firm means of dialogue between states/territories and the Commonwealth directed at strategic planning for the provision of teachers over a five to ten year period;
- Address the rigidity of employment contexts across jurisdictions to enable greater flexibility in the selection of teacher education applicants;
- Introduce greater flexibility to salary structures, in particular to enable entrants from other professions to begin their teaching careers at levels of remuneration appropriate to their experience and background;
- Develop initiatives, in cooperation with states/territories, to improve access, progression and graduation rates of Indigenous teachers, and provide structured support for early career development for these graduates;
- Find mechanisms to ensure regular places in university programs for teacher education in areas of most serious supply deficiency. Currently, these would be in mathematics, science and technology education in all states and territories, with English, LOTE and Primary areas of concern in some parts of Australia;
- Conduct a national public campaign to promote teaching, possibly through the NIQTSL, along the lines of the TTA campaign in the UK;
- Address barriers to participation, including the regional and digital divide, across Higher Education;
- Raise the level of Indigenous support to encourage greater Indigenous participation in teacher education and Higher Education generally;
- Provide specific resources to encourage the effective preparation of all teacher education students in Indigenous contexts.

## Term of Reference 3

*Examine attrition rates from teaching courses and reasons for that attrition.*

As documented in Section 2, attrition rates from Education courses are not high in comparison with other programs. The DEST survey, Higher Education Attrition Rates 1994-2002: A Brief Overview (March 2004), did not break down rates by AOU, but found that overall attrition rates in higher education were relatively low, and declining. Evidence suggests that the attrition 'problem' in teaching comes four to five years after graduation when an inordinately high percentage of teachers leave the profession, many never to return (*Australia's Teachers: Australia's Future*).

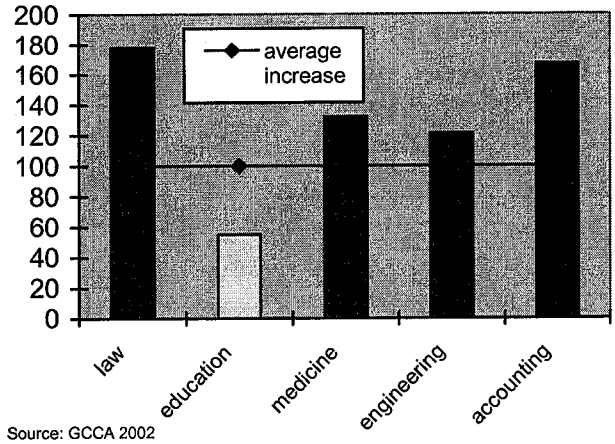
It should be stated from the outset that Education courses are broader than teacher education, and that Education itself is a broad field. As the following section argues, this context is important in understanding why large numbers of Education graduates find gainful employment without ever teaching in schools, as well as why many graduates leave teaching to pursue (successfully) other interests and careers.

The claim is often made that too many qualified teachers leave or do not take up the profession. The *Commonwealth Review of Teaching and Teacher Education* (DEST 2003) claims that, 'An important issue arising from the MCEETYA study was the number of teachers leaving the profession after less than five years working as a teacher. This is possibly as high as 25 % within the first five years of teaching.' (p.87, Main Report). The Review also found that that only 60% of graduates who have been trained as teachers are actually working in schools the year after they graduate (p.51, Background Data and Analysis), and that an estimated 117,000 qualified teachers have left teaching and are working in other occupations. (p.17, Agenda for Action).

The interpretation of these statistics is often negative. That is, teaching is now perceived as hard to enter but easy to leave: an attractive profession to enter, but not to remain in. Certainly, retaining more teachers requires better salaries, better career paths, and better working conditions. As the Graduate Careers Council of Australia notes, graduate salaries five years after graduation are 100 per cent greater than starting salaries overall (2002). For Education graduates, however, salaries five years after graduation are only 55 per cent greater than starting salaries. This is despite the fact that Education commencement salaries are around the same level as the all graduates' average (2002). As *Australia's Teachers: Australia's Future* (2003, Background data and analysis, p.59) notes, five years after graduation law graduates are earning 178% more than their commencement salaries, accounting 167%, medicine 132% and engineering 121%. While many believe that remuneration is not a significant factor in the decision to take up teaching, overseas evidence suggests that, at the least, salary is an important factor in decisions about remaining in, or returning to, teaching (*Australia's Teachers: Australia's Future* 2003, Background data and analysis, p.76). Increasing teachers' salaries to better reflect the importance of their role could help to address attrition rates.

There are, moreover, many positive reasons why teachers leave the profession. As we have noted, Education is increasingly being viewed as a generalist degree, whose skills are transferable across a range of occupations and sectors. Programs such as the Teacher Release to Industry Program (TRIP) in Victoria have for some time highlighted the portability of a teaching degree. In the knowledge economy, communication, collaboration, interpersonal and problem-solving skills are the key attributes required. These skills are emphasized within Education courses, and it is partly for this reason that teaching graduates face impressive employment prospects outside the classroom. Increasing the supply of teaching graduates, then, goes even further than the issue of workforce planning. While it is imperative that every school student be taught by a qualified professional, it is also necessary to acknowledge the value of Education as a generalist degree, and to respond to the surge in demand.

**Percentage increase in graduate salaries over five years**




Source: GCCA 2002

Although education graduates commence at the average graduate starting salary, their salaries rise just 55% over the first five years. Increases over the same period in accounting and law are around three times that rate.

## *Actions*

- □ Support induction responsibilities for employers in the early years to reduce attrition;
- □ Increase teaching salaries to enable greater career progression, ensuring greater parity with other similar professions.

## Term of Reference 4

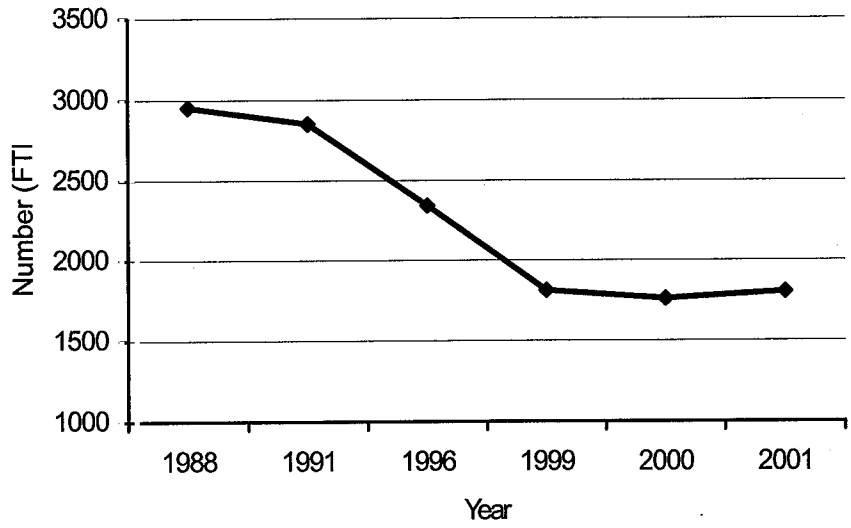
*Examine and assess the criteria for selecting and rewarding Education faculty members.*

The criteria for selecting and rewarding Education faculty members are broadly comparable to those of other disciplines, with a PhD or equivalent the preferred entry point. Nevertheless, there are specific issues which require addressing. The ageing of the academic workforce is well documented, yet in Education this is a particularly salient issue. As AARE has noted, 70% of males in Education are over the age of 50, compared with 49% of academics overall. In addition, the salaries of Education academics are uncompetitive compared with school-based teaching salaries (Preston 2002). The need for indexation across the universities is underscored by this dilemma. Beyond general indexation, specific support by way of study leave, industry placements and funding for research and conference participation would assist Education faculties in attracting and retaining the highest quality academics.

This support is particularly crucial given the staff/student ratios of Education, which are more than 10% worse than the university average. While the AVCC figures from 2005 document a slight improvement in student/staff ratios across Higher Education in general, the ratio in Education faculties actually worsened. Such figures affect not only the quality of teaching able to be delivered, but the quantity of research output able to be produced. Improving student/staff ratios is in fact central to enabling Education faculty members to produce quality research and teaching outcomes.

Finally, it should be noted that the number of Education academics has declined in recent years. Reversing this decline is important given the centrality of the Education discipline to national prosperity.

**Number (FTE) of Education academic staff, Australian higher education, 1988-2001**




source: Preston 2002

The number of academic staff within Education has declined over the past fifteen years. This is further evidence that while the discipline of Education is ascendant, the number of Education experts is in decline. It is important that those with professional qualifications and knowledge be at the centre of a culture lifelong learning, both on and off campus.

## *Actions*

- □ Introduce annual indexation of Commonwealth university grants;
- □ Increase academic salaries to make them attractive internationally, and more comparative with school-based salaries;
- □ Increase support for study leave, conference participation, research and industry placements.

## Term of Reference 5

*Examine the educational philosophy underpinning the teacher training courses (including the teaching methods used, course structure and materials, and methods for assessment and evaluation) and the extent to which it is informed by research.*

As outlined in Section 11.5 and elsewhere, the current teacher education environment is characterized by complexity and diversity. It is arguably more appropriate to refer to philosophies of education rather than any one underpinning philosophy, and the Council does not believe there is any one right way to educate a teacher. Indeed, in the current Australian environment the need to preserve diversity of delivery is paramount, as is the need for context-specific approaches to teacher education.

Nonetheless, it is possible to speak of a discipline of Education, centred around pedagogical content knowledge and Quality Teaching, which guides teacher education courses in Australia. The development of this discipline knowledge is outlined below, followed by a discussion of the ways in which teacher education is at the vanguard of changing knowledge. Section 5.1 then examines the extent to which research currently informs teacher education philosophy and practice, and the need for greater research to further both the Education faculties and the teaching profession overall.

The following discussion of pedagogical content knowledge is based on the ACDE discussion paper, *The role of the 'Teacher': Coming of Age?* (Lovat 2003). The concept of pedagogical content knowledge was first expounded by Lee Shulman (1987) who defined the concept as 'that special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understanding' (1987: 8). As Shulman outlines, it is essentially an attempt to conjoin the strands of effective teaching, namely, mastery of a body of content and mastery of effective pedagogy. It suggests that effective teaching can emanate neither from sheer knowledge of a subject nor from sheer teaching craft. Moreover, the concept dispels two of the unhelpful myths that have plagued the teaching profession's development: first, that good teaching follows naturally from subject mastery, and; second, that a good teacher can teach anything at all.

Pedagogical content knowledge asserts that knowing what and knowing how are inseparable in the business of effective teaching. The earlier social science research, especially of educational psychology and sociology of education, provided important insights about the contexts of teaching. With the notion of pedagogical content knowledge, however, we come to see that the scope of educational research has broadened to deal with the very nature of teaching itself. This is not just educational research but more properly termed 'teaching research', and it is to be found most sharply in what is broadly referred to as the 'new pedagogies research' of the past decade or so. With this research, the theory base of teaching has undergone arguably its most elaborate period of development with extensive longitudinal work on the effects of teachers and teaching on student achievement and success. In many ways, this research represents the synthesis of earlier psychosocial and sociocultural work, with a particularly penetrating focus on the notion of pedagogy, both in terms of

principle and practice. Newmann and associates' (1996) work developed the concept of 'authentic pedagogy', Darling Hammond's (1997) work the notion of 'quality pedagogy' and Education Queensland's School Reform Longitudinal Study (QSRLS 1999) the notion of 'productive pedagogies', all in their own way identifying the essential blend of knowledge and skills required for effective teaching. A more extensive discussion of this research, and of the significance of pedagogical content knowledge, can be found in *The Role of the 'Teacher': Coming of Age?* (Lovat 2003).

Pedagogical content knowledge is also integral to the notion of Quality Teaching. Based mainly on US research impelled by a 1994 Carnegie Corporation study of the effects of quality teaching on student achievement, Quality Teaching has illustrated the overwhelming impact on student achievement of high quality pedagogical knowledge and skills on the part of the teacher. Research into Quality Teaching has also underlined the vast array of knowledge, skills and capacities necessary to effective teaching. This array includes the vital role of teacher understanding, of teachers seeing their role as encompassing student learning around issues of communicative competence, empathy, self-reflection, social conscience and personal morality, as well as intellectual development. Above all, recent research has uncovered the crucial part to be played by the teacher's clear and obvious personal commitment and relationship with students. Educating this kind of teacher clearly defies the apprenticeship notion of training implicit in the 'teacher ready' concept of the Victorian Report.

If notions such as pedagogical content knowledge and Quality Teaching form a guiding philosophy for teacher education courses, this philosophy is reflected in a wide range of diversity in the course structure and materials, and methods for assessment and evaluation. This diversity of content and delivery reflects the engagement of teacher education with the exigencies of the knowledge economy, outlined in Section 11.5. Teacher education courses are frequently at the forefront of thinking around the new basics, ICTs, and changing discipline demands. The plethora of new subject areas around literacy, numeracy and ICTs which now characterise prior to school education, reflects the ability of teacher education courses to lead the agenda in this sector. Similarly, new emphases on mental health and wellbeing in middle years education reflect the ability of teacher education not only to adapt to changing priorities, but to innovate in these areas. The Council welcomes any opportunity to expound further on these developments.

**5.1) Research**

As the previous section has outlined, teaching is an inherently dynamic and innovative profession. Teachers need to be seen as developers and creators of knowledge, and as researchers in their own right. Within teacher education courses, this reality is reflected in an emphasis on inquiry-based learning, action research and problem-based learning. However, the current paucity of longitudinal and qualitative research into teacher education, and within the field of Education generally, serves as an obstacle to further innovation.

The question of educational research is a central one. Of the successful 2005 Australian Research Council (ARC) discovery grants, just 21 of 1051 were in the field of Education (DEST

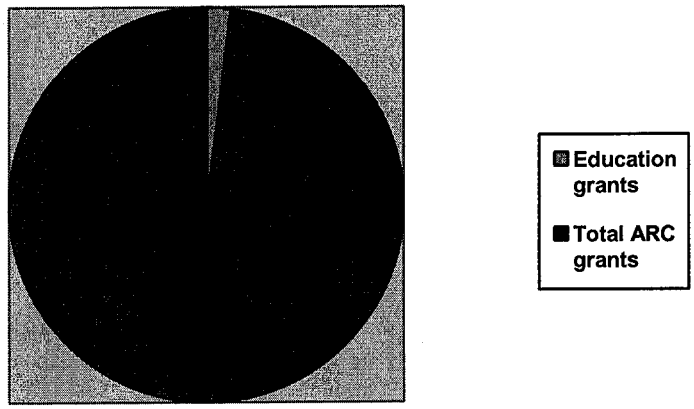
http://www.arc.gov.au/funded_grants/selection_discovery_projects.htm.). This represents less than two per cent of successful grants. The Council believes that this low return primarily reflects the unsuitability of educational research to the criteria of the ARC. Despite clear evidence of the quality and the effective impact of educational research on practice, such research typically lacks immediate commercial application or industry support. In the absence of an alternative stream of revenue, the result is that nearly all research within the field of Education is conducted by universities.

According to the Australian Bureau of Statistics (cat 8112.0), around 78% of Education research funding comes through universities, compared to around 30% for all disciplines overall. Most other disciplines attract substantial levels of private investment in research, but educational research is typically less commercially attractive. However, such research is overwhelmingly in the national interest. In *The Impact of Educational Research* (DETYA 2000), Tom Phelan gathered results from five distinct though related studies on educational research. His report found 'compelling evidence that Australian educational research is respected internationally and makes a difference in the worlds of schools, and policy development' (DETYA 2000: 4). Phelan also found, however, that research 'accounts for less than one per cent of the total personnel resources devoted to education and training in Australia' (DETYA 2000: 5). Research into education depends on proactive government policies, and the impact of public investment on this research is both measurable and substantial.

The concentration of educational research within higher education increases the need for a specific allocation of public research funds for the discipline. The ACDE has previously argued that the NIQTSL could be an important national body in promoting educational research. Presently, research productivity is held to be very uneven between institutions, and research activities are seen to be distributed poorly (DETYA 2000: 10-13). These problems could be addressed by the Institute allocating research funds on a distributed model, similar to the ARC and the National Health and Medical Research Centre (NHMRC).

In addition, it is important that Education is recognised within the establishment of the proposed Research Quality Framework (RQF). The development of the RQF is an opportunity to acknowledge the reality of diversity in the higher education sector, a diversity characterized by different kinds of institutions and different disciplines, the latter each with their own traditions, contexts and challenges. As the framework considers discipline-specific panels, the ACDE supports the establishment of a specific Education panel. The RQF has the potential to reinforce the nexus between teaching and research, and to consider a broad and new range of indicators. In particular, a specific Education panel could develop indicators for applied research, which the Council believes is pivotal to the success of the discipline.

## Education grants as a percentage of ARC grants, 2005




Source: DEST 2005

Education grants represent less than two per cent of total ARC discovery grants awarded in the 2005 round. For a field reliant on universities to conduct the majority of its research, Education receives very little public research funding. This is a consequence of the nature of the research, which frequently lacks the immediate commercial application or industry support necessary for ARC success. Educational research is immanently linked to good practice, and the NIQTSL could play an important role in boosting research to ensure improvements in teaching methodology, pedagogy, technology, discipline knowledge and evaluation across the nation.

## *Actions*

- □ Support flexible and diverse delivery and content of teacher education;
- □ Create a dedicated Education research fund, similar to the ARC and NHMRC models;
- □ Support the establishment of a specific Education panel in the development of the Research Quality Framework (RQF).

## Term of Reference 6

*Examine the interaction and relationships between teacher training courses and other university faculty disciplines.*

Education generally has a close relationship with other faculty disciplines. As the following section explains, these relationships have partly arisen through need, as Education faculties are no longer responsible for the majority of program provision in many cases. This fact in turn relates to the embedding of teacher education courses within higher education, and a growing acknowledgement of the need to move beyond and between traditional discipline boundaries. As recognition of the importance of Quality Teaching and pedagogical content knowledge grows throughout the university, still further cooperation will likely eventuate. Furthering links among the university disciplines depends on greater coordination in areas such as the practicum, and on refinements to current internal university funding structures which at times act as a disincentive to greater cooperation.

It is worth noting at the outset that Education staff tend now to have less purchase on teacher education programs than would have been typically the case in the 1980s. While Education staff would be responsible on average (for Secondary in particular) for only 0.5 of the total course of training, in some programs the figure would be even lower (around 0.25). Even many Primary and Early Childhood courses now see qualified Education staff playing a smaller part while staff of other faculties have become more involved. This shift in delivery has created a need for close relationships between Education and other disciplines. Broader, though related, changes such as an increasing concern with interdisciplinarity, the new basics, and the blurring of discipline boundaries, have further contributed to these closer relationships. As teacher education has become embedded within higher education, it has been able to take advantage of discipline knowledge university-wide.

While the involvement of other faculties has had the effect of strengthening the discipline base of many teacher education programs, it may conversely have contributed to a weakening of some of the practical training dimensions expressed as a concern by the Victorian Report's 'teacher ready' statement. Involvement of other faculties has been important in strengthening the status of teaching and its general place in the higher education world. It needs to be said that it has also been an important means of maintaining the viability of some areas of the arts and sciences that would have been far more vulnerable during this period of time without the substantial enrolments brought to them by teacher education involvement. As above, the need now would seem to be to fortify the involvement by drawing these staff into the practical components of teacher education as well. This would be a structural way of effecting the essential link between knowledge of a discipline and the skills necessary to convey and deal with that knowledge within the constrained environment of formal education. This is the link, well supported by research, that makes for effective teaching.

The above is all background for making the point that, while the practical component of the average teacher education course is now staffed with a far higher level of conjoint appointees and practising teachers on secondment from systems, the portion of the average program given over to the practical component remains limited by a number of factors. In the USA, the same issue is being dealt with constructively by national accreditation bodies requiring that involvement in the practical and applied components of a teacher education program by all faculty, Education and the various disciplines, is essential for accreditation. In other words, members of the discipline faculties are required to provide mentoring and support for students when they venture into schools, just as are the staff of Education faculties. In the Teaching Commission Report of 2004, this principle was endorsed by the US Office of Education and University Presidents were asked to ensure that such involvement was conditional on the discipline faculties being involved at all in teacher education.

It is part and parcel of those professional training regimes with which teaching is now being benchmarked that the pre-service training program is seen as providing foundational knowledge and skills, while it is the task of the profession itself to build on these foundations in bringing a candidate to the point of full and complete practitioner-readiness.

## *Actions*

- □ Investigate models of successful partnerships across faculties/disciplines in professional preparation of teachers.

## Term of Reference 7

*Examine the preparation of primary and secondary teaching graduates to:*

- *Teach literacy and numeracy;*
- *Teach vocational education courses;*
- *Effectively manage classrooms;*
- *Successfully use information technology;*
- *Deal with bullying and disruptive students and dysfunctional families;*
- *Deal with children with special needs and/or disabilities;*
- *Achieve accreditation; and,*
- *Deal with senior staff, fellow teachers, school boards, education authorities, parents, community groups and other related departments.*

A critical component of the Inquiry's investigation must be around the connections between initial teacher education and ongoing professional learning. The comprehensive list entailed in this term of reference is itself representative of the impossibility of providing effective grounding in all the attached knowledge and skills in pre-service training. As in Medicine, Law and Engineering, the role of the pre-service program is to instil foundational knowledge which the profession then builds on through in-service in order to bring the graduate to 'practitioner-readiness'. The worst thing that could happen would be for teacher education to attempt to deal with all of the above in intensive fashion. Because there would clearly be no time for doing so, together with all the other mandatory components, teacher education would inevitably slip back to providing perfunctory coverage of everything and no substance in anything. Graduates from such programs may arrive at their first appointment 'teacher ready' at some level, however updated research into the complexities of the teacher role would convince us that such teachers would have little impact on student achievement.

Teachers need to be lifelong learners. Along with school leaders and other stakeholders, teachers want more opportunities for professional development (DEET 2000: 45; see also Ramsey 2000: 85). This desire is not surprising – professional development clearly works. Evidence of the effectiveness of professional learning in improving teaching and learning outcomes is now widespread. Enhancing the professionalism of teachers typically contributes to heightened teacher confidence and knowledge, and translates to heightened enthusiasm among students. The forthcoming joint report by the Australian Council of Deans of Education and the Australian Council of Deans of Science, *Professional Learning for Enhancing Teaching and Learning within Science, Mathematics and Technology in Australia*, finds considerable improvement in outcomes where professional learning is instituted and sustained. Where programs have been continuous and subject to rigorous evaluation, the Report finds that student outcomes, and teacher knowledge and

confidence, have demonstrably improved. Qualitative evidence also suggests that most extant programs are highly valued by teachers and school leaders.

Despite this evidence, scarce opportunities are provided. The Senate Report, *A Class Act*, found that despite the rhetoric of the importance of professional development, 'the reality is quite different' (1998, ch. 7). Professional development is under-resourced, under-researched and desultory in its provision (ACDE & ACDS forthcoming). The Senate Committee discovered that the type, quality and availability of professional development in Australia varied enormously between jurisdictions, systems and schools and that many programs were ad hoc, piecemeal in nature and lacking in intellectual rigour.

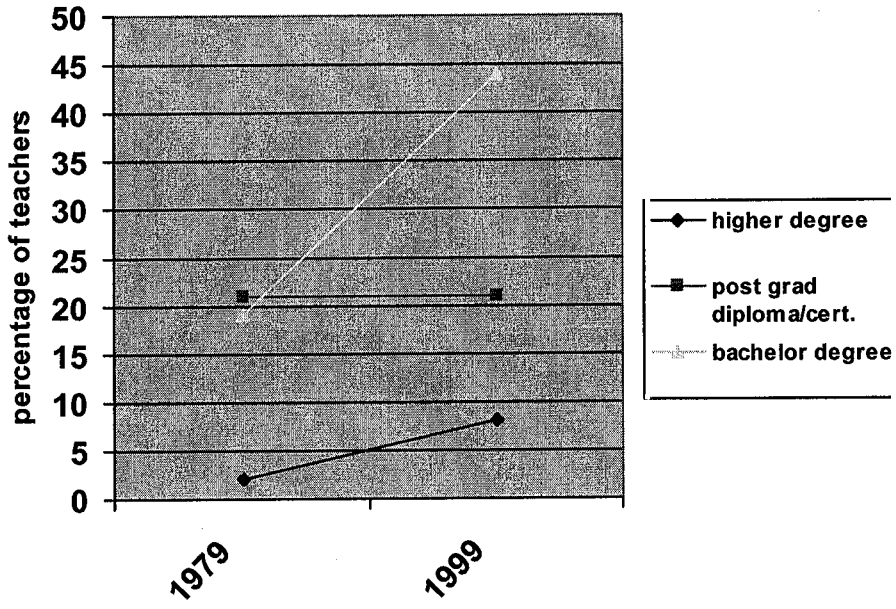
Teachers and school leaders need support to enhance their professionalism at different stages of their working lives. Requirements differ for early career teachers, transitional career teachers, mature age teachers, and principals, but professional learning opportunities must be accessible to all. Beyond accessibility, professional learning needs to be linked to career paths, and clearer relationships are required between school-based activities and tertiary programs and awards. Changes in discipline and pedagogical knowledge 'require the continual renewal by teachers of their own knowledge and understanding' (DEST 2003, Agenda for action, p.38).

Building learning opportunities into career and salary structures remains a key challenge for all Australian governments. International evidence is clear on this point. It is not enough simply to provide opportunities. Those opportunities must be attractive, and incentives must be given for participation and completion.

This same argument applies to postgraduate study. Postgraduate enrolments in education have fallen, at a time when they need to be rising. Despite the need for teachers with graduate-level competencies, the evidence is that education systems as employers neither provide an adequate system of incentives (such as paid time off to do courses – part time or full time) nor encourage teachers to undertake graduate studies (see ACDE 2001; DETYA 2000: 197-98; Ramsey 2000: 82). *Australia's Teachers, Australia's Future* notes, moreover, that 8% of teachers in 1999 held higher degrees (Doctoral or Masters), up from 2% of the 1979 cohort (2003, Background data and analysis, p.57). While this represents an improvement, it is still a relatively low figure, largely because there are few incentives to continue studying while teaching. Thus, whereas the perception of teaching has risen to a point where high quality applicants are entering teacher training courses, these same applicants are not being encouraged to further their skills once in the profession.

In contrast to the above scenario, in Pennsylvania, teachers beyond the top of the normal scale can move to new salary levels by undertaking a range of professional development options, including further university training. A relevant Masters attainment, for instance, can be worth an extra $15,000 and a doctorate that much again. The result is that a teacher who never leaves the classroom for administration can elevate salary by approximately 60%, so enhancing their personal wealth, lifestyle and early retirement options. In a country that has the worst teacher shortage in history, there are no shortages in Pennsylvania (Lovat 2003: 17).

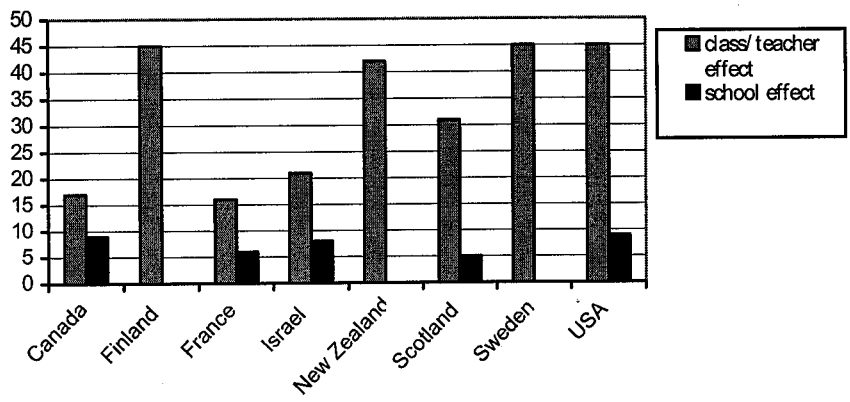
**Highest qualification of teachers, 1979-1999**




Source: Dempster et al (2000); Bassett (1980), cited in Australia's Teachers; Australia's Future, Background Data and Analysis, p.57

*Australia's Teachers, Australia's Future* notes that 8% of teachers in 1999 held higher degrees (Doctoral or Masters), up from 2% of the 1979 cohort (2003, Background data and analysis, p.57). While this represents an improvement, it is still a relatively low figure, largely because there are few incentives to continue studying while teaching. Thus, whereas the perception of teaching has risen to a point where high quality applicants are entering teacher training courses, these same applicants are not being encouraged to further their skills once in the profession.

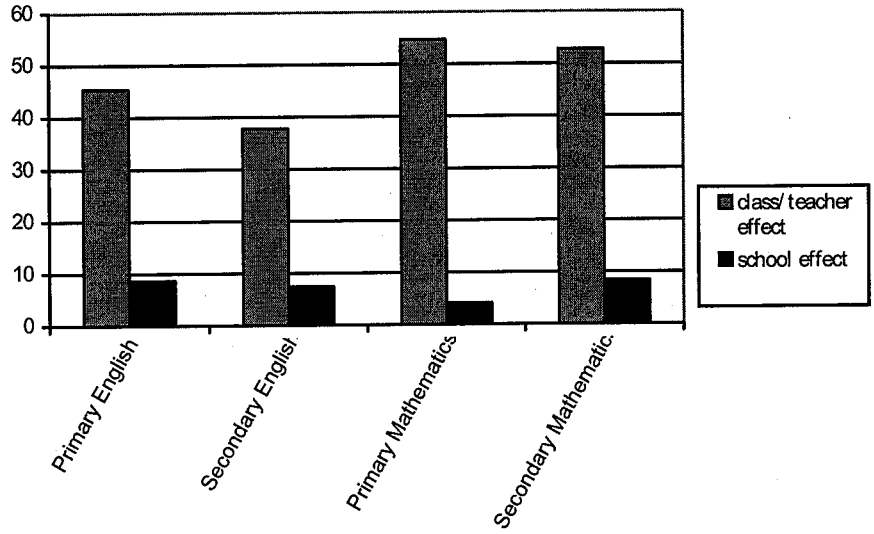
**Comparison of class/teacher and school level effects in eight countries**




Source: Scheerens et al. 1989, p. 794, cited in Rowe, K.J. & Rowe, K.S. 2002

Across the OECD, evidence clearly shows that the impact of teachers is high. Across eight selected countries, research highlighted that the effect of individual teachers was much greater than the effect of particular schools in affecting educational outcomes. Irrespective of the resources and quality of schools, the role of educators is profound. This finding underlines the need to provide systematic and sustained professional learning to enable educators to improve and update their skills and capabilities.

**Proportional class/teacher and school effects for Victorian schools: achievement adjusted for prior achievement**




Source: Rowe, K.J. & Rowe, K.S. 2002

Research in Victoria replicated the results of the OECD study. While the effect of individual schools was deemed as negligible to student outcomes, much depended on the impact of teachers. Teachers appear to be the single largest influence on student outcomes within the classroom. Again, such evidence points to a clear need to focus on human resources, and to provide greater professional learning opportunities to maximise teaching impact.

## *Actions*

- □ Provide generous scholarships for postgraduate education courses related to professional development;
- □ Sponsor further research into effective professional learning, through bodies such as the NIQTSL and the Carrick Institute.

## Term of Reference 8

*Examine the role and input of schools and their staff to the preparation of trainee teachers.*

In most teacher education programs, there is a higher level of involvement of school staff than has ever been the case. This is partly the result of necessity, granted there are similar numbers of students but only half the full-time staff of ten years ago. However, it is also the result of concerted attempts to increase the professional partnership dimension of teacher education which has been the result of much innovation and commitment on the part of systems, universities and industrial bodies. Indeed, it is worth noting that most states have a body that organizes practicum partnerships, and every course program redevelopment already has a committee with principals, state groups and other key stakeholders represented. What is required is the capacity and support for further innovation.

Carpenter et al (2003) have argued that recent research suggests that 'the enhancement of school students' learning is the most powerful stimulus for committed practice'. They maintain the centrality of the social practices of classrooms and the outcomes of these practices to teacher learning, and claim that 'this knowledge demands that teacher education reforms to respond to the learning needs of schools students as its primary concern' (2003). None of these findings refute the value of initial teachers taking classes in designated schools, but they do suggest a need to reconceptualise the practicum and teacher education more broadly. Professional practice must be at the heart of teacher education, and theory and practice must be seen as essentially intertwined.

Enriching professional practice must be further facilitated by the expansion of mentoring and team teaching and the allocation of time for collegial discussion and feedback. All are vital to the goals of collaborative and flexible learning. Project orientated tasks, which both reflect and promote the importance of teamwork and collaborative scholarship, also need greater recognition in teacher education programs. Collaborative projects also need to be seen in the context of changing school and university environments. In the knowledge economy, schools and universities themselves will be much better integrated as the exigencies of lifelong and lifewide learning are better understood (Dusseldorp Skills Forum, 1999). Not only will greater links be sought between schools and communities, universities, businesses and government, but the education institutions themselves will be reconceptualised as parts of a broader learning environment (Kirby, 2000:98). Rather than being added on to an existing scaffold, local and regional collaboration will in fact come to redefine the very nature of schools and their orientation to society. Further discussion on this item can be found under Section 11.5.

## *Actions*

- □ Ensure support for innovative programs such as country practicums, summer schools, and the involvement of Indigenous communities;
- □ Encourage interchange between schools and teacher education units through national arrangements devised by NIQTSL and facilitated by MCEETYA.

## Term of Reference 9

*Investigate the appropriateness of the current split between primary and secondary education training.*

The division between primary and secondary education is one of a range of divisions which also involves, for example, vocational education and early childhood education. Such divisions are often tendentious and the Council welcomes the incorporation of the vast literature on this issue into the Inquiry. Again, care is required to ensure that a quest for homogeneity does not replace diverse, context-specific approaches to teacher education where appropriate.

## *Actions*

- □ Examine current sectoral divisions within teacher education provision. In doing this, ensure that the diversity of teacher education delivery is preserved.

## Term of Reference 10

*Examine the construction, delivery and resourcing of ongoing professional learning for teachers already in the workplace.*

This issue is addressed under Term of Reference 7.

## Conclusion

Teacher education is an increasingly complex profession. Research clearly indicates that the teacher is the single most important factor in student learning within the classroom. Evidence also shows that a sophisticated range of skills and sensibilities are required for effective teaching. Pedagogy, and pedagogical content knowledge, are essential to maximise learning for an increasingly diverse student body. Teachers must stay abreast of rapidly changing discipline knowledge. And in the absence of support staff, the role of teachers in ensuring the wellbeing of students frequently extends well beyond its official remit. The demands on today's teachers are unprecedented in number and complexity.

Teacher education programs play a crucial role in preparing teachers, and must be tailored to the exigencies of teaching in the twenty first century. Nevertheless, teacher education programs are, and will continue to be, only one aspect of promoting quality teaching. The Inquiry into Teacher Education cannot exist in isolation: the working conditions and salaries of teachers, the nature of learning environments, the provision of professional learning, and the level of support and resources available are all inter-linked. Building an attractive teaching profession requires attention to each of these factors.

## List of Actions

### Funding

1) Increase base funding to Education to enable a reduction in student/staff ratios, a higher quality teaching and learning experience, and the realisation of teacher education as a national priority (ToR 11);
2) Support an investigation into the practicum which addresses partnerships, the level of support for supervising teachers, the relevant awards, and avenues for improvement, involving all key stakeholders (ToR 11);
3) Ensure that the Commonwealth's pledged $81.4 million increase in practicum funding is utilised for this purpose in its entirety (ToR 11);
4) Facilitate the greater involvement of state and territory governments in teacher education on a systematic, agreed basis, possibly tied to specific areas such as practicum funding (ToR 11);
5) Remove the quarantining of Education from the variable HECS fees market (ToR 11);
6) Introduce annual indexation of Commonwealth university grants (ToR 4);

### Programs

7) Support diversity of selection criteria for teacher education courses, where those criteria are objectively measurable eg SES status, geography, maths and English qualifications (ToR 1);
8) Introduce a number of targeted Commonwealth scholarships to boost the diversity and quality of teacher education candidates (ToR 2);
9) Preserve faculties of education in regional and remote areas (ToR 2);
10) Support flexible and diverse delivery and content of teacher education (ToR 5);
11) Investigate models of successful partnerships across faculties/disciplines in professional preparation of teachers (ToR 6);
12) Ensure support for innovative programs such as country practicums, summer schools, and the involvement of Indigenous communities (ToR 8);
13) Examine current sectoral divisions within teacher education provision. In doing this, ensure that the diversity of teacher education delivery is preserved (ToR 9).
14) Adopt a firmer direction in allocating places to universities via the DEST profiles exercise, to ensure that Education is treated as a national priority (ToR 2);

### Commonwealth/State relations

15) Establish a firm means of dialogue between states/territories and the Commonwealth directed at strategic planning for the provision of teachers over a five to ten year period (ToR 2);
16) Address the rigidity of employment contexts across jurisdictions to enable greater flexibility in the selection of teacher education applicants (ToR 2);

17) Introduce greater flexibility to salary structures, in particular to enable entrants from other professions to begin their teaching careers at levels of remuneration appropriate to their experience and background (ToR 2);
18) Develop initiatives, in cooperation with states/territories, to improve access, progression and graduation rates of Indigenous teachers, and provide structured support for early career development for these graduates (ToR 2);
19) Find mechanisms to ensure regular places in university programs for teacher education in areas of most serious supply deficiency. Currently, these would be in mathematics, science and technology education in all states and territories, with English, LOTE and Primary areas of concern in some parts of Australia (ToR 2);
20) Encourage interchange between schools and teacher education units through national arrangements devised by NIQTSL and facilitated by MCEETYA (ToR 8);
21) Support induction responsibilities for employers in the early years to reduce attrition (ToR 3);

**The Profession**

22) Conduct a national public campaign to promote teaching, possibly through the NIQTSL, along the lines of the TTA campaign in the UK (ToR 2);
23) Address barriers to participation, including the regional and digital divide, across Higher Education (ToR 2);
24) Raise the level of Indigenous support to encourage greater Indigenous participation in teacher education and Higher Education generally (ToR 2);
25) Provide specific resources to encourage the effective preparation of all teacher education students in Indigenous contexts (ToR 2);
26) Increase teaching salaries to enable greater career progression, ensuring greater parity with other similar professions (ToR 3);
27) Increase academic salaries to make them attractive internationally, and more comparative with school-based salaries (ToR 4);
28) Increase support for study leave, conference participation, research and industry placements (ToR 4);
29) Provide generous scholarships for postgraduate education courses related to professional development (ToR 7);
30) Sponsor further research into effective professional learning, through bodies such as the NIQTSL and the Carrick Insitute (ToR 7);

**Research**

31) Create a dedicated Education research fund, similar to the ARC and NHMRC models (ToR 5);
32) Support the establishment of a specific Education panel in the development of the Research Quality Framework (RQF) (ToR 5).

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