

NEW LEARNING

A Charter for Australian Education



Australian Council of Deans of Education

New Learning: A Charter for Australian Education
October 2001
Australian Council of Deans of Education
Canberra

The Australian Council of Deans of Education Incorporated (ACDE) is the national organisation of the deans of faculties of education and heads of schools of education in Australian universities.
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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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Executive Summary

Introduction

New Learning: A Charter for Australian Education has been prepared by the Australian Council of Deans of Education (ACDE). The 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 Charter is, above all, a charter for change. The Council argues that, despite rhetoric to the contrary, education is presently viewed as a cost rather than an investment by Australian politicians. Consistent overseas and longitudinal studies stress the economic benefits of investment in education to individuals and nations, yet our governments are increasingly abdicating financial responsibility for its provision. The first change required, then, is attitudinal.

The State of Education

The state of Australian education is examined in the first section of the Charter. Using comparative international data, and Australian data over time, the Charter shows that our education system is at best uncompetitive, and arguably in a state of crisis. Direct public investment in education as a proportion of GDP has been declining for some years, while at the same time our international competitors are gearing up for the knowledge economy. Australia's attitude to education as a cost to be minimised contrasts markedly with the current belief of leading nations that a highly skilled and educated workforce is essential to economic success.

The Council believes that education will become more important not only to economic success, but to the preservation of social cohesion and democracy. The new economy will demand highly trained workers, autonomous learners and citizens both well-connected and secure in their identity. Skills of collaboration will supersede the competitive skills required in the old industrial economy, and the focus will shift to interpersonal relations and communications. Our present education system is simply not prepared to meet these demands of the new economy, and requires substantial qualitative changes on top of greater public investment.

New Learning

The remainder of the Charter, then, is about new learning. Supported by over 60 graphs and tables, the Council contends that eight propositions will shape

the future environment of learning. Each proposition is supported by an action agenda, including a series of specific recommendations.

Proposition 1 is that *Education Has a Much Larger Role to Play in Creating Socially Productive Persons*. This contention anticipates trends and demands of the new knowledge economy, many of them already visible. A sharp increase in knowledge-intensive industries is occurring, but new learning recognises that traditional areas such as manufacturing will also be transformed by the rise of Information and Communication Technologies, greater collaboration, and the need for interpersonal and problem-solving skills. Put simply, nations in the new economy are judged not by the value of their fixed capital, but by the skills and knowledge of their workforce. Given this, Australia's current neglect of our education sectors is alarming, and a radical rethink of the role of education is required.

Proposition 2, that *Learning Will Be Lifelong and Lifewide*, acknowledges the greying of the population and the short shelflife of technological skills. In an era signified by rapid change, the need to promote autonomous learning is paramount – citizens must learn to learn, throughout and across their lives. Lifewide learning recognises the need for much greater flexibility and diversity of educational experiences: learning should occur in parks, in pool halls, and outside of traditional institutions. Lifelong learning means that education for most does not end at school or university, but that adult and community education, in particular, is of growing importance. Learning opportunities must be available to those from all backgrounds, of all ages, and at all stages of life. To this end, a national framework for Lifelong Learning is imperative.

Proposition 3 focusses on *Opportunity and Diversity: Education is One of the Main Ways to Deliver on the Promise of Democracy*. Education promises individuals greater social mobility: more access to material resources through better paid employment; a greater capacity to participate actively in the processes of government; and the personal dexterity that comes with knowing the world. It promises communities improved employment prospects, increased self-determination and extended access to the wider world. The key challenge, however, is to ensure that education fulfills its democratic mission, and the Charter argues that this challenge can only be met by dedicated programs which address inequality. Targeting groups disadvantaged and 'at risk' must be done, not on the basis of moral arguments alone, but also on the basis of the economic and social dangers of allowing individuals and groups to be excluded.

Proposition 4 contends that *A 'New Basics' is Emerging*. The old basics of the three RRRs must be reconceptualised, in order to reflect contemporary changes to learning. New learning will be *general in its focus*, rather than specialised on the particular needs-of-the-day. It will be about *creating a kind of person*, with kinds of dispositions and orientations to the world, rather than simply commanding a body of knowledge. These persons will be able to navigate change and diversity, learn-as-they-go, solve problems, collaborate, and be

flexible and creative. Finally, new learning will be increasingly *interdisciplinary*, requiring deeper engagement with knowledge in all its complexity and ambiguity. The new basics are about promoting capability sets, reflexive and autonomous learning, collaboration, communication, and broadly knowledgeable persons.

Proposition 5, that *Technology Will Become Central to All Learning*, is arguably more complex than it first appears. Technologies of digitisation have the potential to transform learning relationships for the better, but this potential needs to be harnessed. This proposition contends that we need to learn through, but also *about* technology. Technology is not just a tool for learning, in other words. It should be one of the main things that learning is about - a message as well as a medium.

Proposition 6 argues that *The Work of Educators Will Be Transformed*, and that the role of educators will broaden considerably. Individualised programs and customised learning will signify classrooms of the future, and this will require educators to be highly skilled, attenuated to individual needs, and more broadly knowledgeable than ever before. Already, of course, educators perform one of the most important roles in the economy, and salary and wage packages need to reflect this role better. Moreover, educators require more time for professional development and reskilling, for national and international exchanges, and for secondments to other community organisations as schools become better integrated with local communities.

Proposition 7 contends that *The Place of the 'Public' and the 'Private' in Education Will Be Redefined*. This proposition tackles the problematic relationship between federal and state governments which undermines schools, vocational education institutions and higher education in particular. It argues that education must be viewed as a public obligation, and that, notwithstanding a moral imperative, the new economy demands that all members of the community have access to quality learning. Demarcating clearer federal/state responsibilities is important, as is a clear commitment from all governments to provide quality education for all, not simply for those born into privilege or wealth.

Proposition 8 is that *The Focus of Education Policy Must Change from Public Cost to Public Investment*. This requires attitudinal change, which must come from greater awareness of the importance of education. The Charter cites several studies and numerous data which demonstrate the long-term benefits of investment in education to the nation. At an individual level, the data are also clear: educated individuals have higher employment rates, higher average weekly earnings, lower imprisonment rates, and greater opportunities for continued reskilling. That education is a public investment is a proposition we must accept if Australia is to embrace and thrive in the new economy.

A Call to Action

This Charter is directed at political leaders, educators, and all Australian citizens and voters. For political leaders, the message is clear: there is an urgent need to grasp this opportunity of new learning. Policy talk must be matched with significant investment and new collaborations to ensure our place in the world is not diminished.

For educators, the Charter urges that we continue to work towards change. Proactive decisions are needed to reconceptualise education systems, the nature of knowledge and the roles of educators. The agenda for new learning is too important to be left to politicians alone to shape.

For citizens and voters of Australia, the Charter underlines the importance of education not only to the national economy, but to the cohesion of local communities and to the security of individuals. Every Australian must possess the right to quality education, and educational opportunities can no longer be reserved for select groups. The fruits of the new economy must be available to all.

TALKING THE TALK

What Politicians Say About Education

“Education is the key to Australia’s future.”

Minister for Education Dr David Kemp, 2000

“Education and skills development is an essential prerequisite in any serious attempt to strengthen the long term research base of this country and encourage further collaboration with the world’s best.”

Prime Minister John Howard, 2001

“Australians are vitally concerned with education. They want a first-class public system. They want to end the brain drain. And they want a government that recognises these as top priorities.”

Opposition Leader Kim Beazley, 2000

“I place on the record once again the Democrats’ long-running concern about the level of funding for higher education in particular, for education generally and for research and development, in the hope that we will become a global new economy that others will respect.”

Australian Democrats’ Leader Natasha Stott-Despoja, 2000

“More than ever before, education underpins the success of nations and the hopes of individuals.”

Victorian Premier Steve Bracks, 2000

“Quality teaching is the single most important factor that influences a child’s learning.”

Victorian Minister for Education, Mary Delahunty, 2000

“Education, Education, Education”

British Prime Minister Tony Blair, 1997

“Quality education is a cornerstone of America’s future and my Administration, and the knowledge-based workplace of the 21st century requires that our students excel at the highest levels in math and science.”

U.S. President George W. Bush, 2001

“Education is a key priority of the Beattie government.”

Queensland Minister for Education Anna Bligh, 2001

“Ultimately, we want better educational outcomes for our children and much better support for our teachers.”

Western Australian Minister for Education Alan Carpenter, 2001

“We must inspire all Tasmanians with a passion for learning and with a desire to explore every learning possibility open to them.”

Tasmanian Minister for Education Paula Wriedt, 2000)

“Education is about moulding the future of our nation.”

Singapore Minister for Education Teo Chee Hean, 2001

... BUT ACTIONS SPEAK LOUDER THAN WORDS

Australian politicians seem to agree on the importance of education in the twenty-first century.

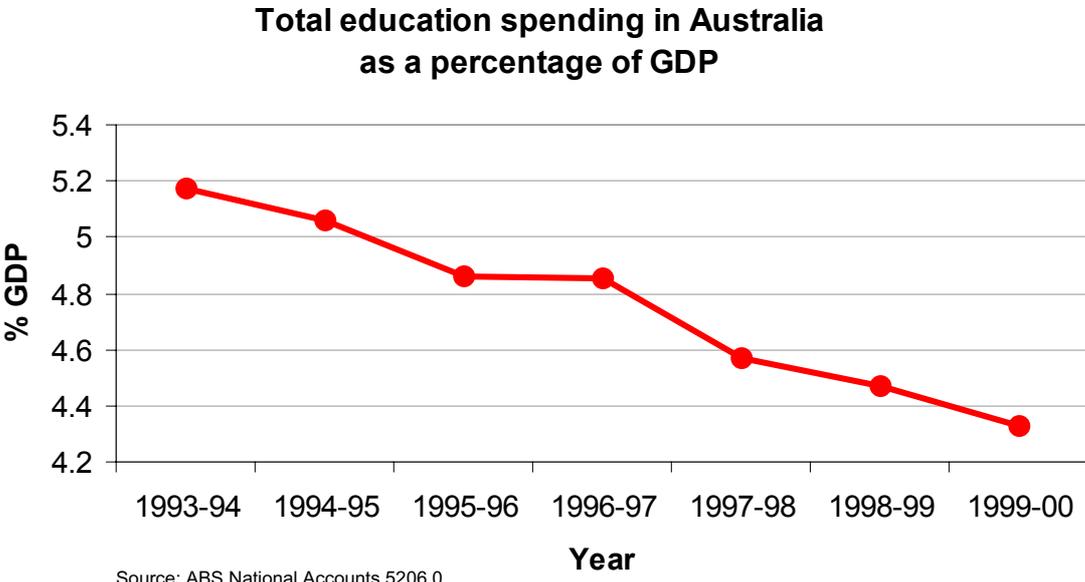
They are not alone. Leaders around the world are talking up education, and many are also backing up their rhetoric by putting more public resources into education. Not only is education a direct benefit to individuals in the new, knowledge economy, they say. It is also the key to a nation's competitiveness in the global economy.

So, there's no disagreement when it comes to political rhetoric, no lack of grand hopes for the future in the form of the 'new economy' and 'globalisation'. But in Australia for some time now, we have simply not been investing in education. Quite the reverse, governments have been stripping resources from education.

In Australian education, the politicians' words still speak louder than their actions.

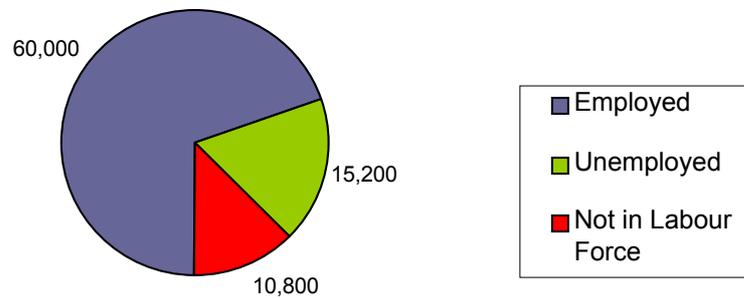
The following pages provide a snapshot of Australian education in recent years, and make some comparisons with other countries. The numbers tell a sorry tale.

Australian Investment in Education, Overall



Australia now spends 4.3% of GDP on education, well below the OECD mean of 5%. While other nations are rapidly increasing investment in education, we are faltering. The knowledge nation is uppermost in our rhetoric, but funding levels are not sufficient for a technologically advanced education system.

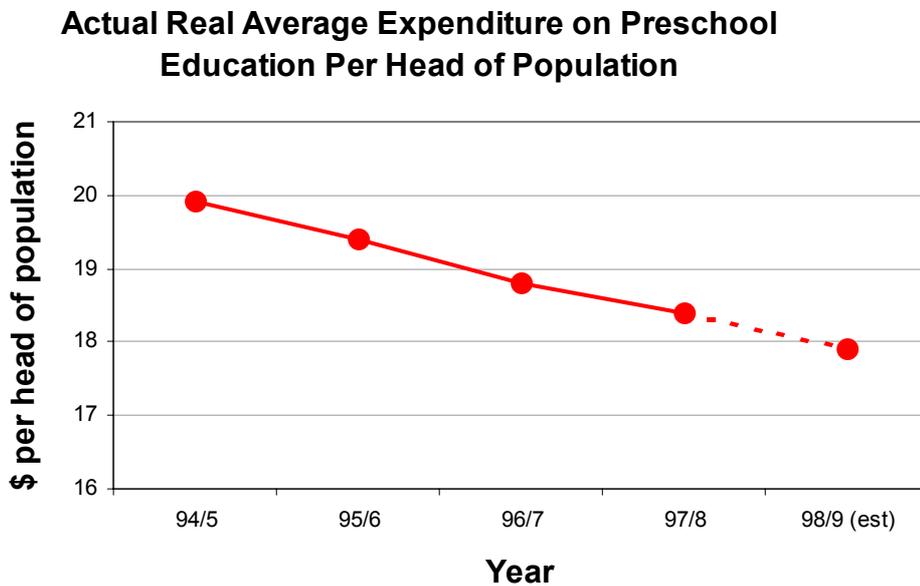
Unmet educational demand, all persons 2000



Source: ABS cat. 6227.0

86,000 Australians applied to enrol in an educational institution in 2000 but were unable to gain placement. Although demand for university places is being affected by prohibitive HECS rates, repayment thresholds, and lack of resources, demand for vocational education continues to rise rapidly. In both areas, supply is simply not able to meet demand levels. Higher education and vocational education institutions are both struggling to cope with present levels of community demand, at a time when Australia needs to be encouraging greater participation in education. The loss to education of nearly 100,000 willing applicants must be seen as a loss to the knowledge economy.

Early Childhood



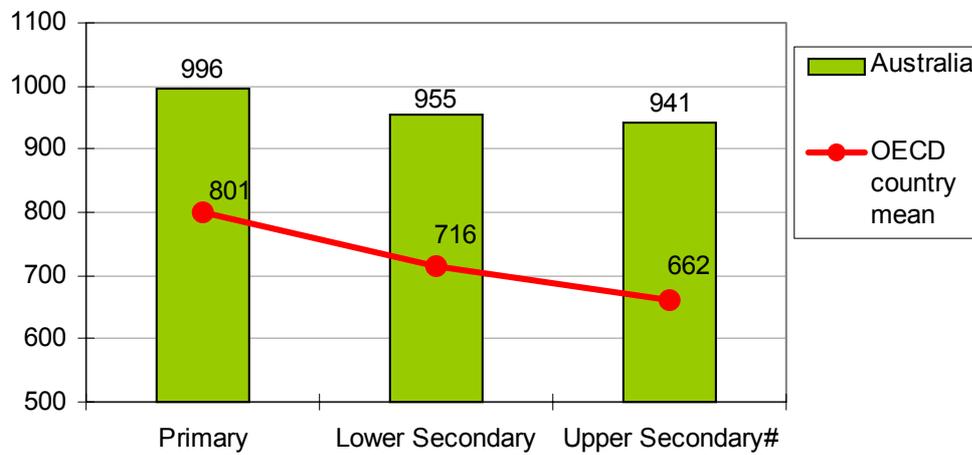
Source: CGC 2000 Update, ABS 1350.0

Investment in preschool education is falling. Australia is now near the bottom of the OECD league table, with only 25 per cent of 3-year-olds and 70 per cent of 4-year-olds attending preschool (Latham 2001: 39). The knowledge nation must be built from the ground up, and all children require adequate learning opportunities in their formative years.

US figures associated with the Headstart program indicate that every \$1 spent on preschool saves \$8 for adolescents.

Schools

Number of teaching hours per year*



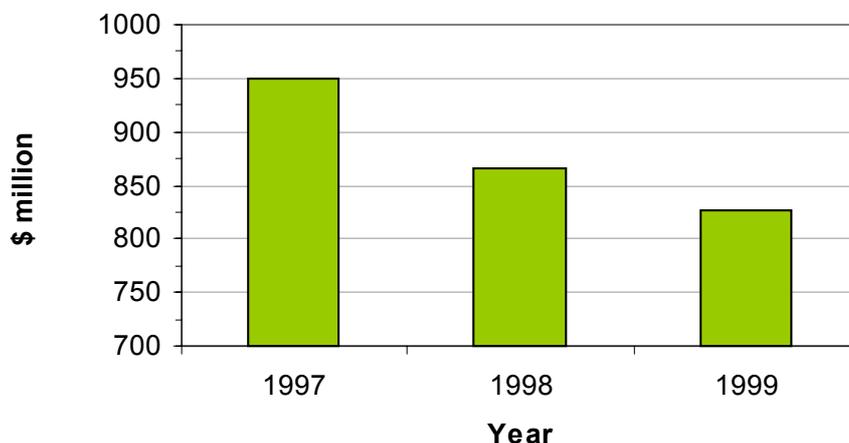
* calculated net contact time in hours per week in public institutions, by level of education

Upper Secondary is for general, not vocational programs

Australian teachers work more contact hours than those in almost every other OECD nation. At primary level, our teachers have more contact hours per year than any other of the 25 nations studied, while at secondary level, only the United States demands more contact hours from its teachers. The demands placed upon our teachers must be reflected in higher salaries, and greater provision must be made for teachers' work which occurs outside of contact hours.

Vocational Education and Training

Commonwealth Government Contribution to VET Revenue

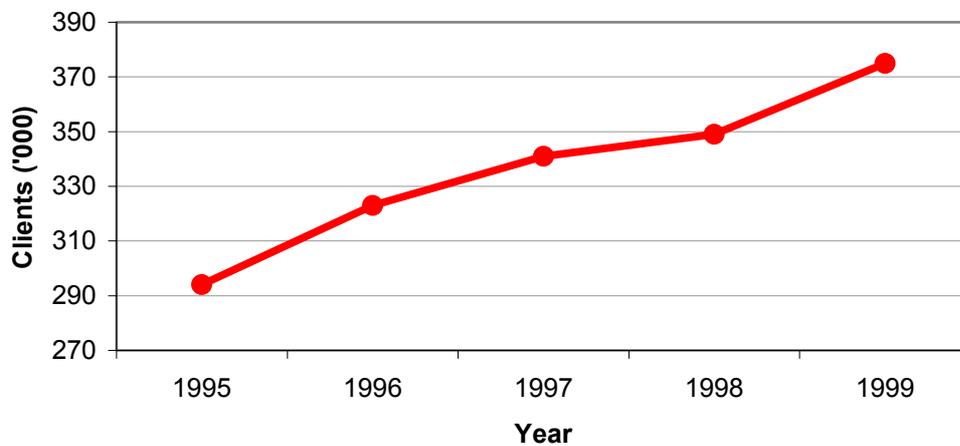


Source: NCVET Statistics, Financial Data, 2000 and 1999

Vocational Education and Training is in funding crisis. While the Commonwealth Government has provided only token support, TAFE enrolments are predicted to increase by 5.7% over the next three years (AEU 2000b). The result is even further pressure on a sector which enrolls more than twice the number of higher education students, many in rural and disadvantaged areas. 80% of wage and salary earners undertook some form of training in the past year, and VET is critical to the training and retraining required in the knowledge economy.

Adult and Community Education (ACE)

Increase in ACE clients, NSW, 1995-99

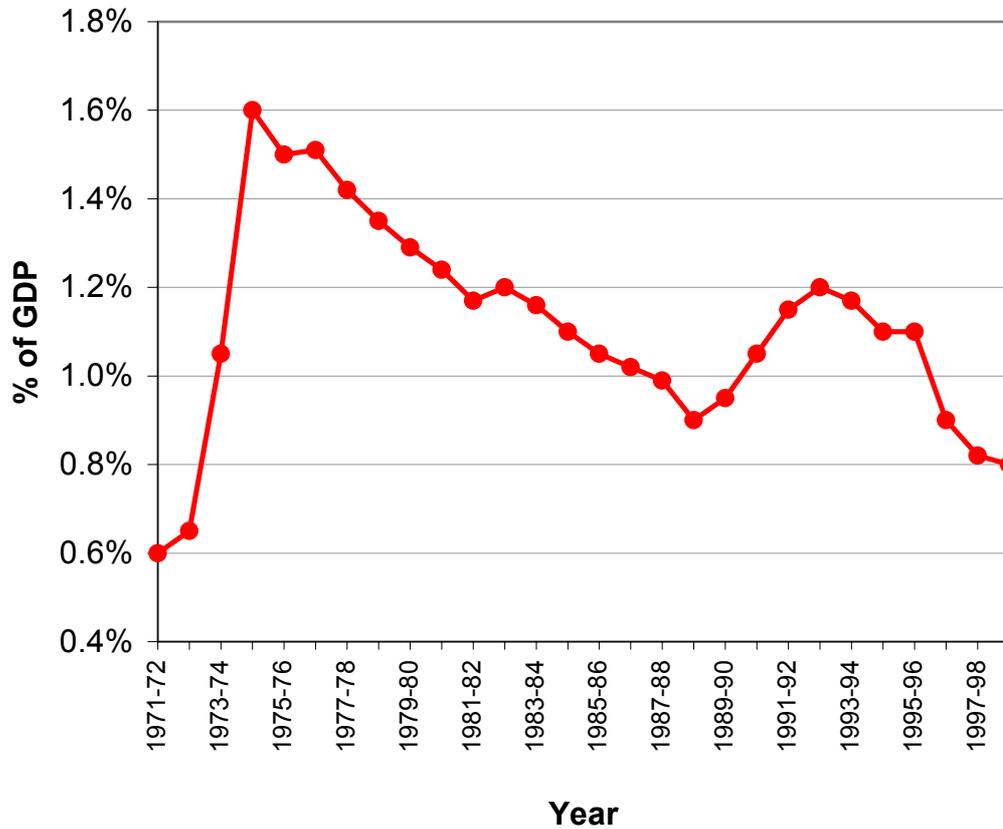


Source: NSW Board of Adult and Community Education 1996-2000

ACE is a burgeoning sector of education. Figures from NSW suggest that demand for ACE is rising rapidly, with an increase of 7.5% in student numbers from 1998 to 1999 alone. More and more, ACE is being seen as a vehicle for creating social capital: “for creating assets in the form of more organised, better networked, better communicating individuals, with greater know-how, greater self-confidence and greater capacity and energy” (Golding, Davies, Volkoff 2001: 11). Governments need to take the lead in supporting the expansion and funding of ACE. Above all, ACE needs to be coordinated nationally within a lifelong learning framework (Brown, T. 2000).

Higher Education

Total Commonwealth Outlays on Universities as a Percentage of GDP, 1971-2 to 1998-99

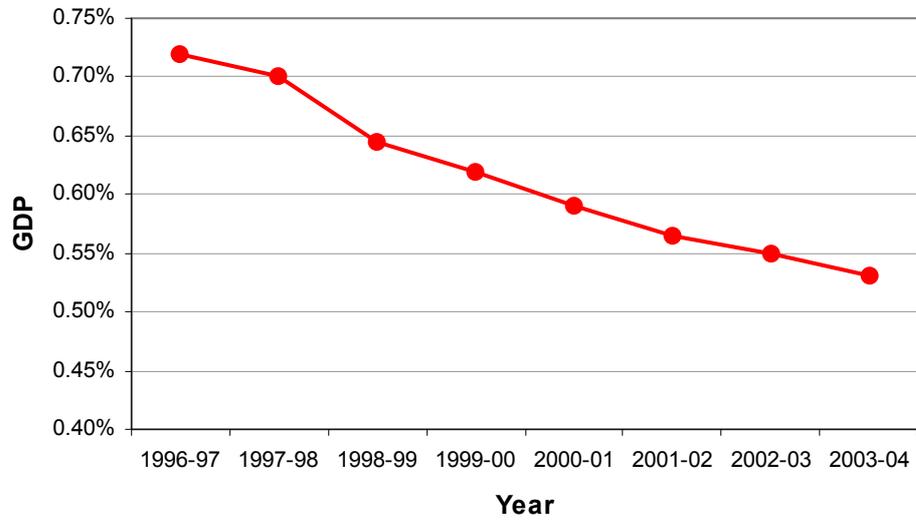


Sources: ABS 5510.0 & 5518.0.48.001

Commonwealth outlays on universities as a percentage of GDP have fallen steadily over the past 25 years. In fact, the Commonwealth now puts in only around half of the sum invested in 1974-75 as a percentage of GDP. This parsimony comes at the worst possible time. A knowledge nation can only be created with the assistance and commitment of governments, and higher education is in desperate need of greater Commonwealth support.

These figures are in fact worse than represented here because higher education funds are 'diverted' from teaching to overadministration. The ratio of administrative staff to academic is often 2:1 as a consequence of commercialization and new compliance regimes.

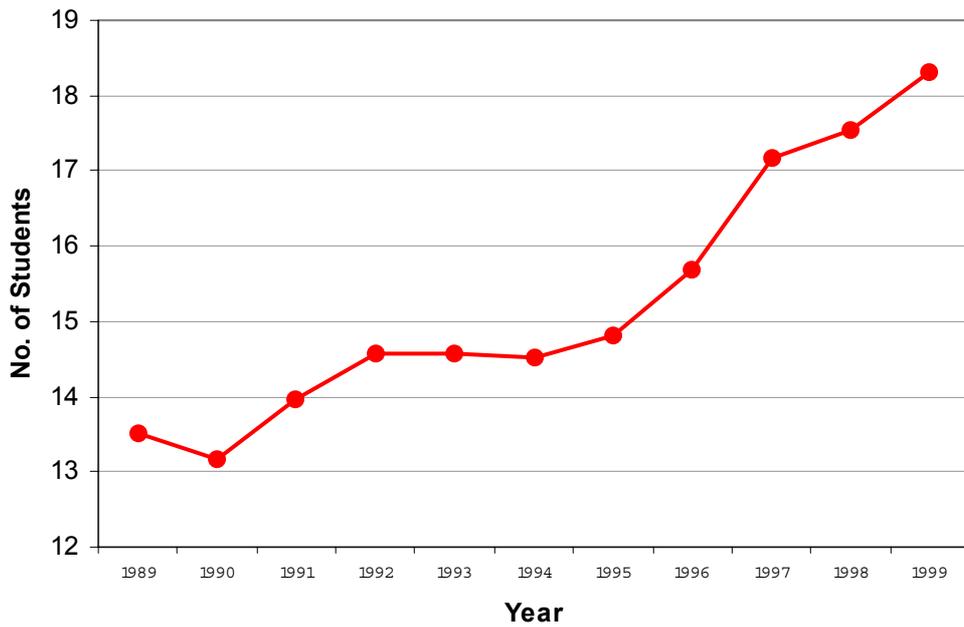
Federal Higher Education Expenditure as a Percentage of GDP



Source: DETYA 2000, Budget Paper No. 1, 1998-99 and 2000-01 as updated in November

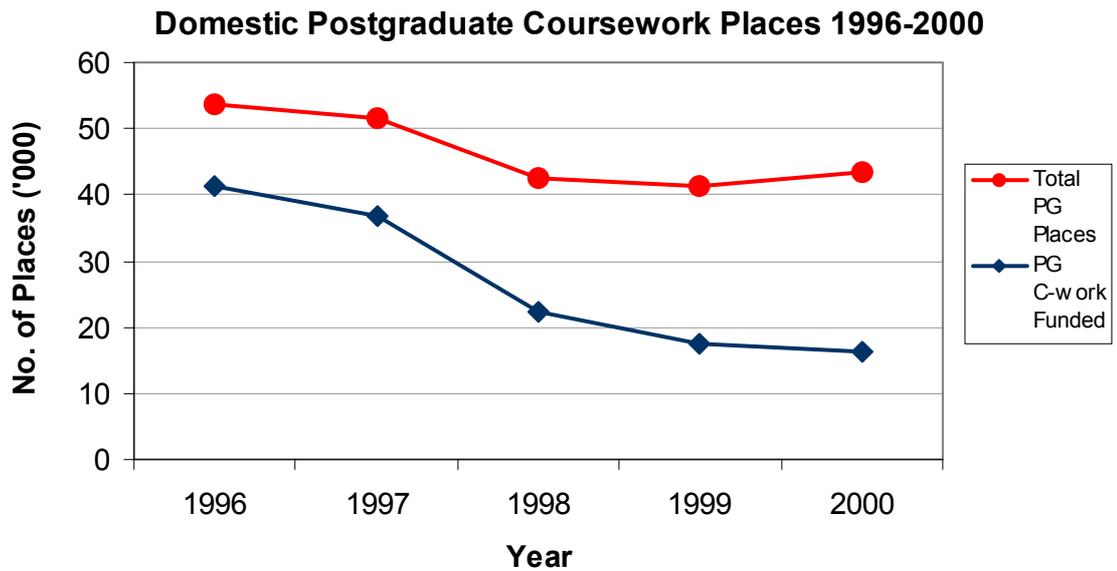
For a society which is touted to become a knowledge economy, the decline in Federal Government investment in Higher Education is dramatic.

Higher Education Student to Teaching Staff Ratio 1989-1999



Source: Australian Vice-Chancellors' Committee

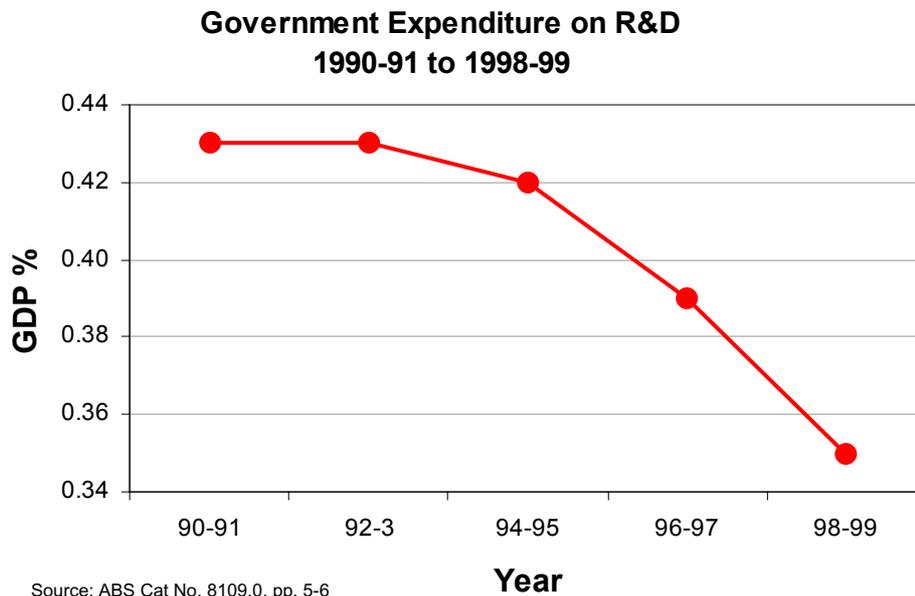
The Higher Education funding decline has had a direct impact on staff-student ratios, and thus the quality of teaching and learning.



Source: 1998 to 2000 figures are DETYA data corresponding to Figure V4, p.109 of the Higher Education Report for the 2000 to 2002 Triennium . Figures for 1997 are based on data supplied by DETYA on projected load reductions, the Higher Education Funding Report for the 97-99 Triennium and Selected Higher Education Student Statistics 1997. Figures for 1996 are based on data supplied by DETYA on projected load reductions, the Higher Education Funding Report for the 96-98 Triennium and Selected Higher Education Student Statistics 1996.

Postgraduate coursework places have declined in recent years. Postgraduate coursework-funded places have declined even more dramatically. Postgraduate education is becoming unaffordable to many, as upfront fees replace HECS. Further, even HECS courses are prohibitive to mature age and disadvantaged students, due largely to the lowering of the HECS repayment threshold. Working part-time and studying is no longer an option for many. In the teaching profession, the concept of life long learning is not accompanied by commensurate recognition in salary or promotion opportunities.

Research and Development



A knowledge nation requires research and development at its core. For a nation with a proud scientific history, the present levels of public investment are deplorable. A leading research nation like Sweden invested around 3.8% of Gross National Product in Research and Development in 1997 (Swedish Ministry of Education and Science 2001). An average OECD research nation invests around 1.97% of GNP on gross expenditure on R & D (GERD). Australia, however, invested just 1.49% of GDP in GERD in 1998-99 (ABS 2000, cat. 8112.0). We are lagging well behind the average nations, and a long way behind the leading research nations. Additionally, the OECD now ranks Australia just 20th of 29 countries in terms of business investment in R & D (see Stott Despoja 2000).

Although the Commonwealth government has promised to increase investment in 'Backing Australia's Ability', many of these measures remain insufficient, while others need to be brought forward. Prime Minister Howard has, for example, pledged to increase ARC competitive grants by \$276 million per annum, but only 14% of this total will be available in 2002 (Howard 2001; NTEU 2001). Additionally, the present Research Infrastructure Block (RIB) Grants Scheme does not meet the infrastructure needs of many researchers and remains well below the levels recommended by the West Review of Higher Education Funding and Policy (see, for example, NTEU 2001). Restoring Australia's standing internationally requires a greater commitment to research and development, and immediate action.

GETTING SMARTER: RE-INVESTING IN EDUCATION

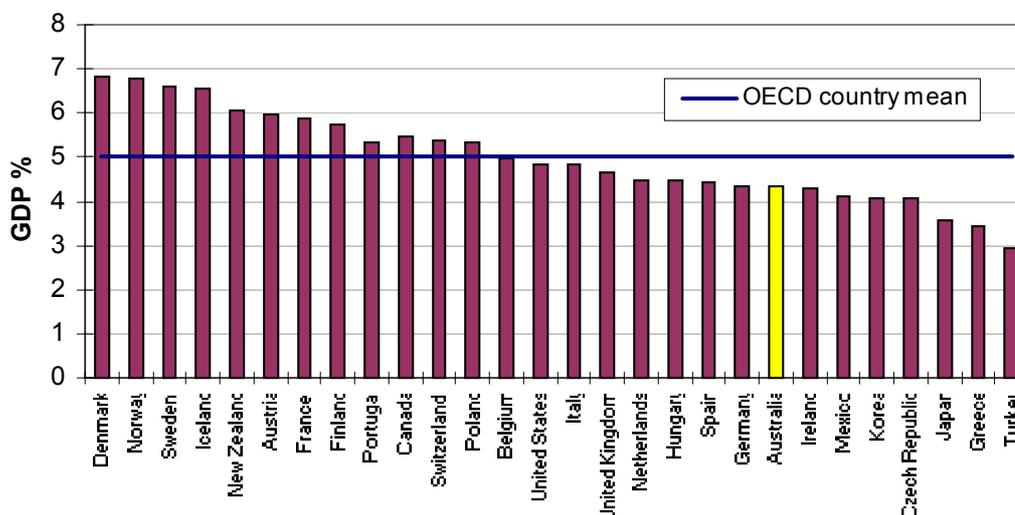
Political leaders around the world have acknowledged that a person's success in the 'new economy' is more dependent than ever upon education. The same applies to a nation's success in the 'global economy'. Competitive advantage today is built on the knowledge of a nation's workforce more than upon the old foundations of success—natural resources and fixed capital.

And the resources have been following the rhetoric—in Singapore, in the United States, and in the United Kingdom. The turnaround is remarkable, and may be just the beginning of a larger trend. We are eagerly awaiting the same kind of turnaround in Australia.

If it doesn't come, we risk slipping down the same slide as our currency. We could become a medium skill, medium labour cost economy, sitting at an uneasy halfway place between the first world and the third world. Whilst other countries in our region climb from third world to first world status, we may be one of the few countries which is dropping out of first world status. One certain sign of the comparative decline is this: now that we are trying to attract skilled migrants again (itself an indictment, in part, of the failure of our education system), we can't find enough people to come—not for the lifestyle, not for the safe streets, not for the natural environment. Australia is becoming a place that is good enough for a holiday, but not good enough to live in.

Education Funding: International Comparisons

Direct public expenditure on educational institutions
as a percentage of GDP

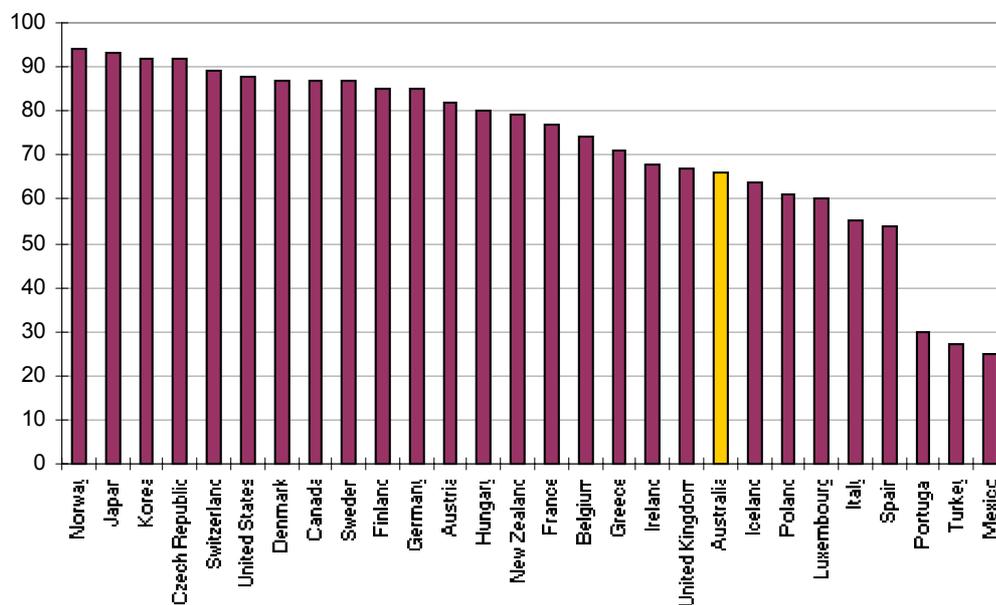


Source: OECD 2001: Table B2.1a

Australia spends less on education than other OECD nations. Our direct public investment in education is just 4.3% of GDP, while the OECD country mean is 5%. Even when private investment is taken into account, Australia's expenditure on education is lower than the OECD mean (OECD 2001: Table B2.1a). To be competitive, Australia must aim not just to be average, but to be among the leading developed nations of the world. This certainly requires improved efficiency and productivity, but mostly it requires an attitudinal change. Governments must view education as an investment rather than a cost.

As the president of the Australian Vice-Chancellors' Committee has argued, 'Enrolling an average number of students into universities of average quality, supported by government at average levels, would be an appalling outcome. Being in the middle of the OECD expenditure tables on education, on research and on development, on information and communications output, is simply to fail' (Chubb 2001).

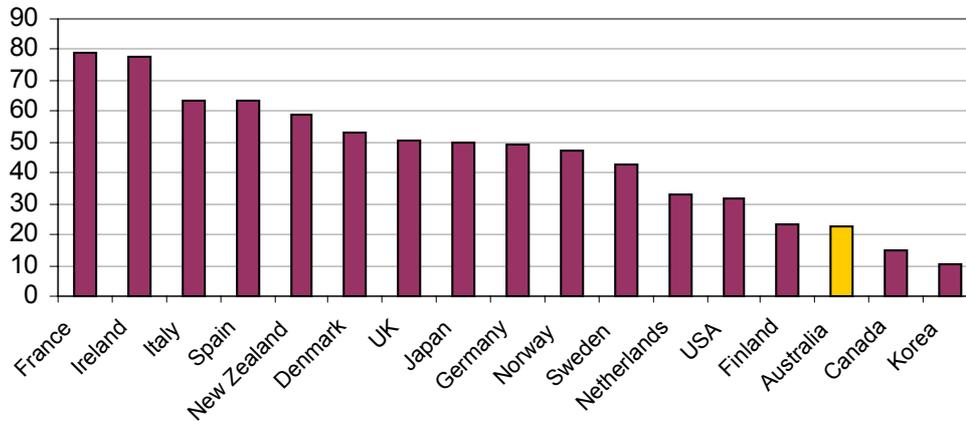
Percentage of the population aged 25 to 34 that have attained at least upper secondary education



Source: OECD 2000, Table A2.2a

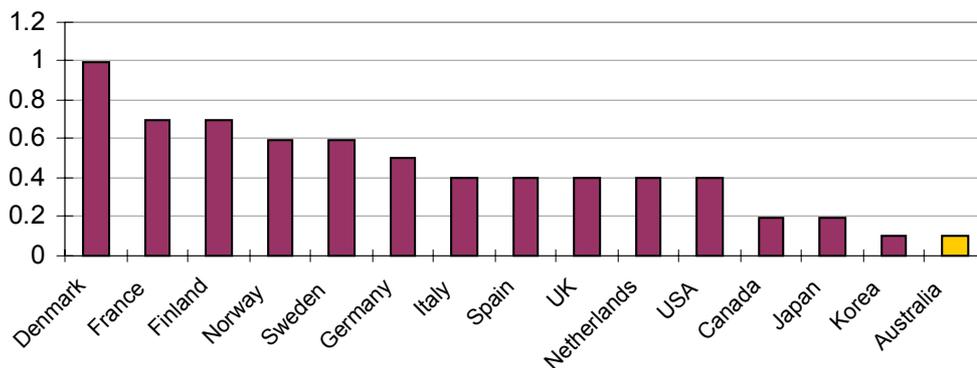
Australia ranks 20th of 28 OECD countries in terms of the educational attainment levels of those aged 25 to 34. We are a long way behind even the average nations of the OECD in promoting the benefits of education, and we need much higher participation levels to catch the leading nations of Europe, Asia and North America.

Students aged 4 years and under as a proportion of population aged 3-4 years



Source: OECD 2000, Education at a Glance

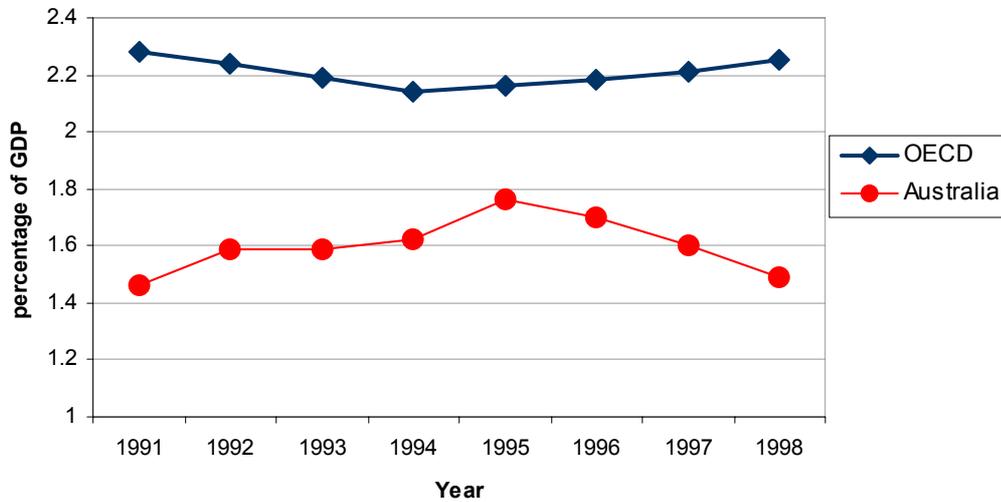
Spending on pre-primary education, all sources, as a proportion of GDP



Source: OECD 2000, Education at a Glance

The extent of the crisis in pre-school education is evidenced by comparisons with other OECD nations. Australia spends just 0.1% of GDP on pre-primary education, while the OECD average is 0.4% of GDP. Many nations in Europe spend close to 1% of GDP on pre-primary education, but Australia continues to lag behind despite the clear importance of pre-primary education to the knowledge nation. Our failure is further evidenced by participation rates. Pre-school participation in Australia actually declined between 1996 and 1998 (Considine, Marginson & Sheehan 2001: 14), and currently rests on 22.4%. Meanwhile, the OECD average pre-school participation rate is nearly 40%. Investment must be directed towards ensuring that education is available, and encouraged, to all from an early age.

Investment in R & D as a percentage of GDP, Australia and OECD countries, 1992-1998

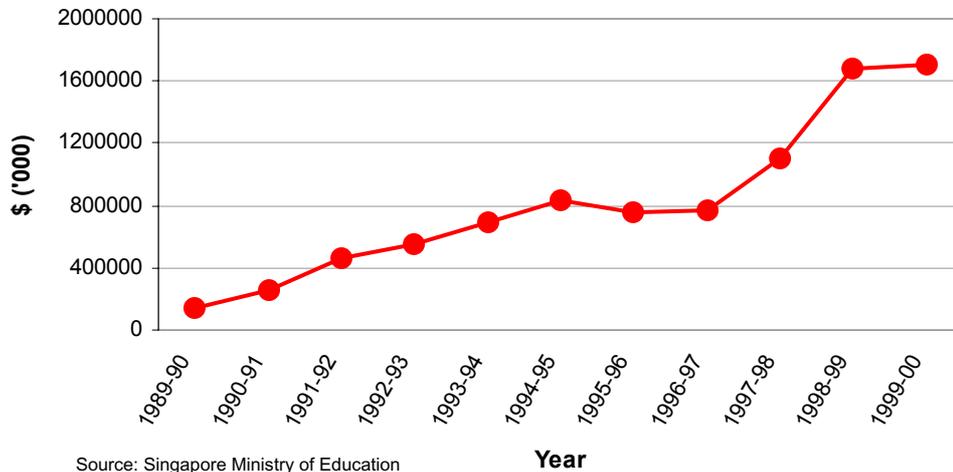


Source: OECD 2000b and Considine, Marginson & Sheehan 2001: 34

Research and Development spending is significantly less in Australia than in most OECD nations. While several OECD nations spend well over 2% of GDP on R & D, Australia spent just 1.49% of GDP on R & D in 1998. Although both major parties have promised to increase R & D spending if elected, Australia requires an investment both substantial and immediate. Long-term planning is important, but to become a leading knowledge nation requires firm financial commitment. Simply, a knowledge nation cannot be founded on the current low levels of R & D spending.

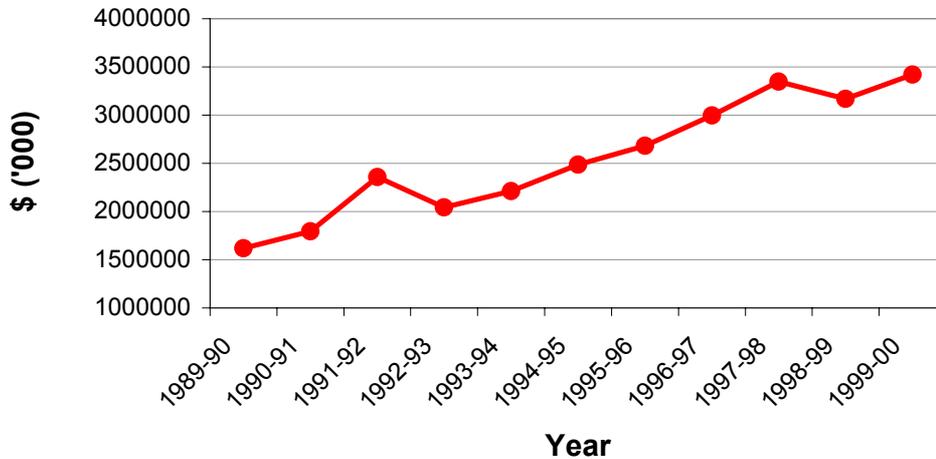
Singapore: Education Spending

Singapore government development expenditure on education (all levels)



Source: Singapore Ministry of Education

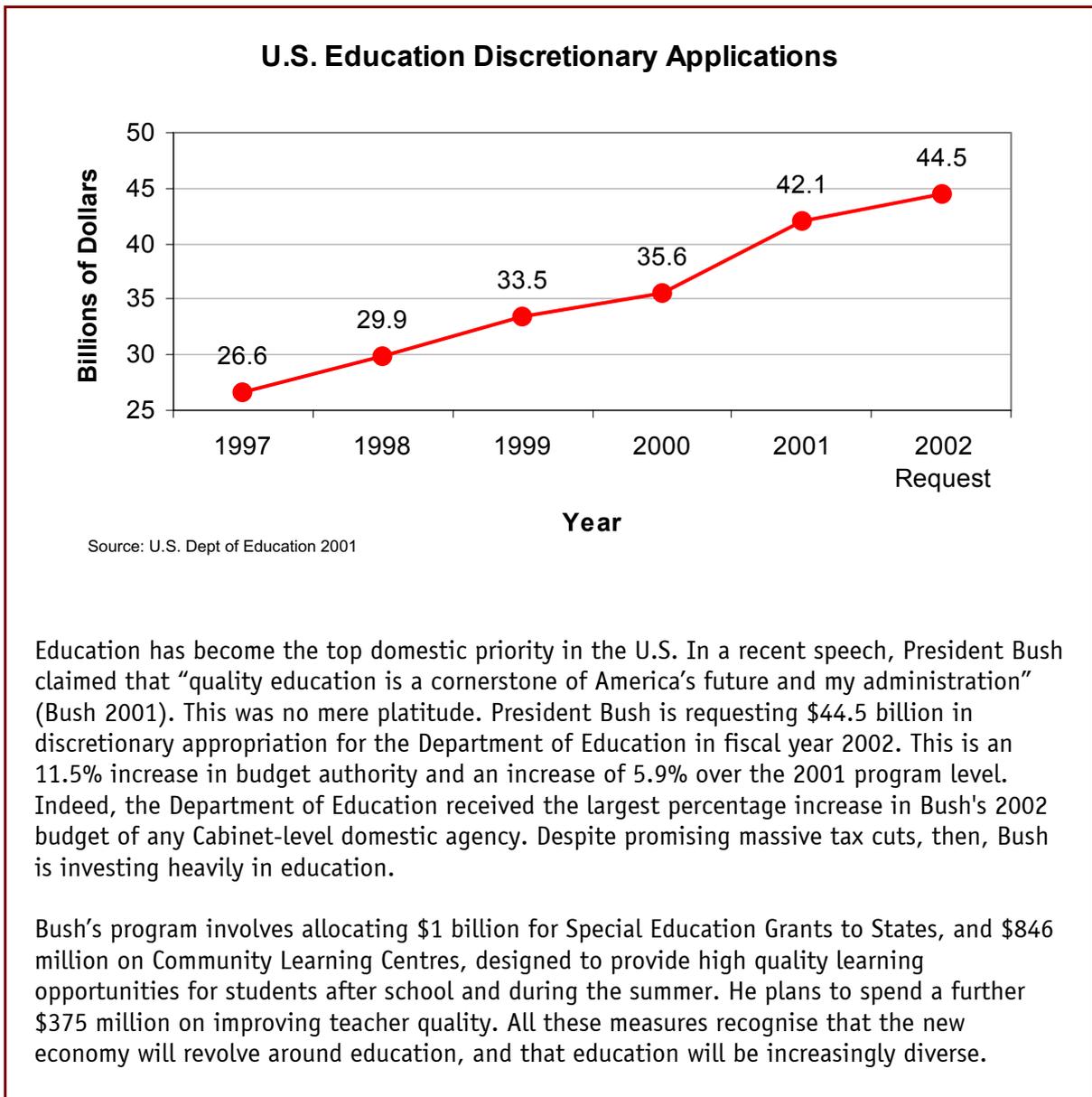
Singapore government recurrent expenditure on education (all levels)



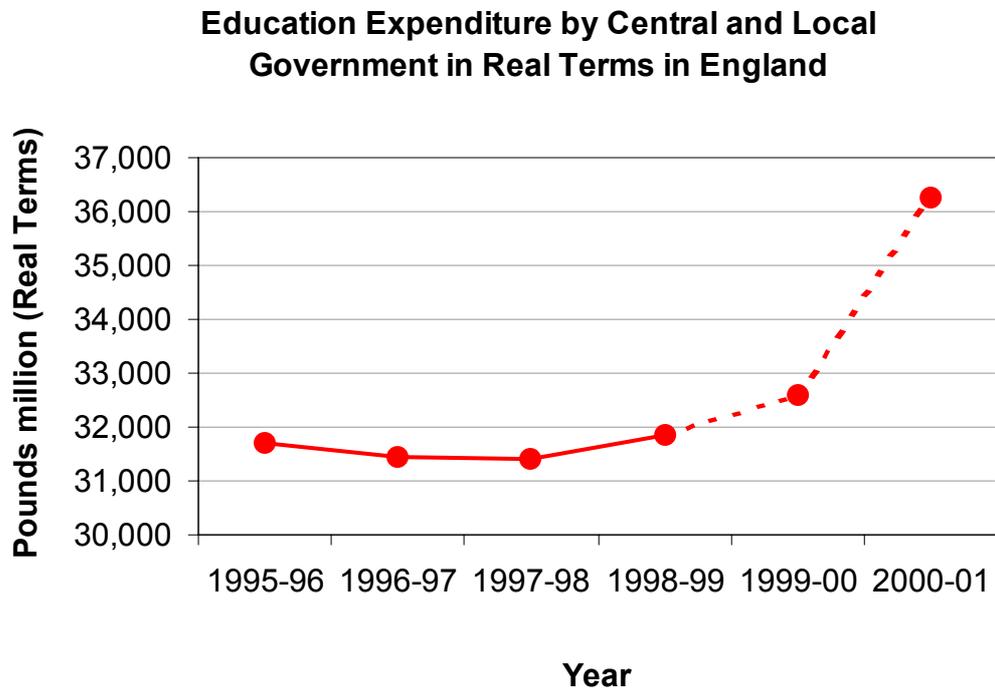
Source: Singapore Ministry of Education 2001

Singapore is not waiting for a knowledge nation to arrive. The government plans to increase education spending from 3.6% to 4.5% of GDP over the next few years. To this end, a \$4.5 billion Programme for Rebuilding and Improving Existing Schools (PRIME) is already in place, through which 46% of schools will have undergone redevelopment by the end of next year. Such measures are justified in seeking 'effective new combinations of people and technology to raise standards and extend learning opportunities' (Singapore Ministry of Education 2001). The education policies of nations in our region such as Singapore suggest that, despite our rhetoric, Australia is now swimming against the knowledge tide.

United States: New Education Spending



United Kingdom: New Spending on Education



Source: DFEE report 2001

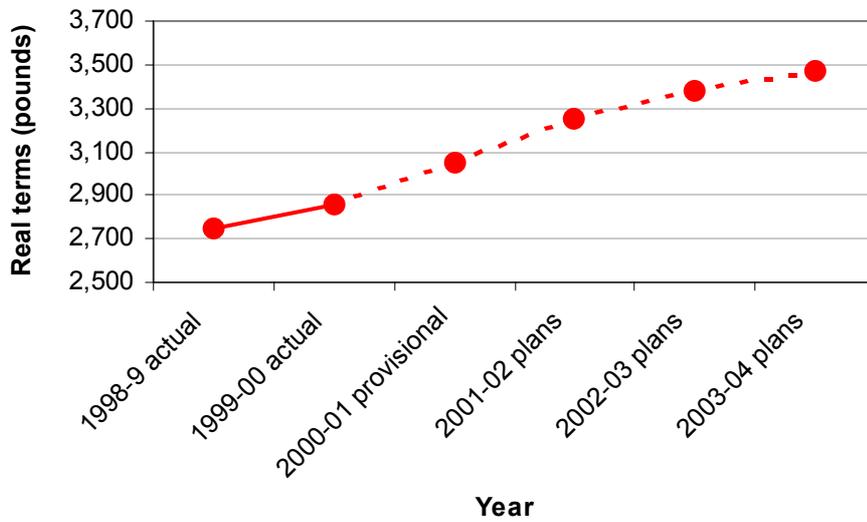
1 Figures for 1999-00 and 2000-01 are estimates
2 All figures have been converted to 1999-00 price levels using the 7 March 2001 GDP deflators

The United Kingdom is committed to investing in education. Prime Minister Blair emphatically declaimed 'Education, Education, Education' in 1997 and, as in the U.S., the promise has been reflected in policy. Education spending in the U.K. as a proportion of GDP will rise from its 1996-97 level of 4.7 per cent to a projected 5.3 per cent by 2003-04 (DFEE 2001). The U.K. is not aiming merely to be average, but to be a leading knowledge nation.

Blair's first priorities were pre-school and primary education. In 1995, more than half of 11-year-olds were failing to reach the expected standard for their age in English and maths. In 2001, three quarters are already there in English and 70 per cent in maths (Guardian 14 Feb. 2001). This turnaround is due to carefully tailored daily lessons, and more broadly to a government commitment to improve the level of formative education.

The Labour government is also investing heavily in higher education and training. Capital expenditure on education and training is now rising by an average of 18 per cent a year in real terms, and overall spending on education and training in England will rise by over 35 per cent in real terms between 1997-98 and 2003-04. But perhaps the most obvious sign of British intentions lies in spending levels per pupil. Education funding will have increased by over £500 per pupil in real terms between 1997-98 and 2001-02 (DFEE 2001).

U.K. Revenue Funding per Pupil



1 Calculations are based on full-time equivalent pupils aged 4 to 19 in maintained schools in England.
2 The real-terms index has been calculated using 7 March 2001 GDP deflators and shows the % increase in real-terms spending compared with the base year 1995-96

Source: DFEE report 2001

These figures show the extent to which education is now a British priority. Between 1997-98 and 2001-02, real-terms funding will have increased by over £500 per pupil. The U.K. is staking its economic future on a rapid, mass development of knowledge and skills.

NEW ECONOMY, NEW SOCIETY, NEW LEARNING — SO WHAT'S NEW?

It is one thing to talk up education, even to spend more money on it. Yet it is quite another to work out what this 'new economy' is, what the money should be spent on, and even whether an economic focus is sufficient for education. The only thing which is clear, is that spending money on old-style education or narrowly focused skills-for-work education is a mistake, perhaps even a waste of time and money.

More broadly, the purpose of education is not just to serve the needs of the economy by creating useful workers. The economic rationale behind much of today's talk of educational change is itself too narrow. To speak in boldly simple terms, making useful workers is only one of the three fundamental roles of education. The other roles are to create fully participating citizens, and to shape persons at home in their identity. But one of the paradoxical things which is new about the new economy is that, increasingly, it needs people who are both of these other things. To be useful and successful in today's work, you need to be able to participate, to be a good 'corporate citizen'; and you need to be a certain kind of person, comfortable with who you are and able to give something of yourself in your work.

Here, we will talk about the expectations of education today, or what we call 'the new learning', from three perspectives—first from the perspective of changes in the economy and work; second from the perspective of changing citizenship; and thirdly from the perspective of changing identities.

Old Economy, Past Work

'Now, what I want is, Facts. Teach these girls and boys nothing but Facts. Facts alone are wanted in life...Stick to Facts, Sir!'

(Dickens, *Hard Times* 1999 (1854): 1)

The new economy and the requirements of new learning are best understood by way of historical contrast with the old economy, and the nature of old learning. And in analysing the changing shape of work, we will consider three fundamental 'conditions'—the conditions of technology, the conditions of commerce, and the conditions of culture. By 'conditions', we mean the things that pervasively surround us, the things that shape our lives.

Technological Conditions of Work. The imagery of the old technology is clear—the factories with smokestacks piercing the horizon which we used to see as signs of progress. Behind the factory walls was the heavy plant which added up to the fixed assets of industrial capitalism. Geared for long run mass production of manufactured things, human beings became mere appendages to the machine. Indeed, the logic of the production line

minimised human skill requirements, as tasks were divided into smaller and smaller functions—screwing this particular bolt onto the manufactured object as it went past on the conveyor belt. This was the human degradation of the modern factory. It was also its genius, to arrange technology in such a way as to be able to manufacture items of unprecedented technological sophistication (the radio set, or the motor car), using an unskilled workforce.

Commercial Conditions of Work. So how did this business in the old economy work? From a management point of view, it was strictly hierarchical. Lines of communication followed vertical chains of command—formal memos from top management to middle management, and the supervisor's spoken orders to people on the factory floor. But there was no communication across the organisation of any official importance. The business focus was on productivity and bottom lines at the expense of all else—environmental effects, or human effects.

Cultural Conditions of Work. And where did culture fit into the old economy? The answer is that it didn't. Workplaces were driven by system and structure. 'Culture' was something that happened at home and at the weekend. Work was just a place where you earned an income. It wasn't important that you felt a part of the workplace, and if you didn't like the pay and you could find another job, you could always leave. But, if you were willing to stay, there was a stable job for you, and even perhaps a long and slow career based on seniority. Spend sufficient years on the production line, and show enough promise, and you might be lucky enough to end your career as a supervisor. As for what the workplace produced, 'any colour you like so long as it is black', said that cantankerous but very modern man, Henry Ford. Mass production, mass consumption, mass culture—all this added up to the idea of cultural uniformity, based on the convenient assumption that the interests and desires of human beings are all basically the same. Henry Ford and his like had an image of the generic customer, and they knew what was best for them.

The old education fitted very neatly into this old world of work. The state determined the syllabus, the textbooks followed the syllabus, the teachers followed the textbooks, and the students followed the textbooks, hopefully, in order to pass the tests. Henry Ford knew what was best for his customers, and the state knew what was best for young children. And, in a way, teachers became a bit like production line workers, slaves to the syllabus, the textbooks and the examination system. The curriculum was packed with information in the form of quite definite facts—'facts' about the First Fleet and the peaceful settlement of Australia, facts about science, facts in the form of 'proper grammar'. Together, this was supposed to add up to useful-knowledge-for-life. Many of these facts have proven to be less durable than the curriculum of that time seemed to have been promising. Nevertheless, there was one important lesson which 'good' students took into the old workplace. From all the sitting

up straight and listening to the teacher, from all the rigid classroom discipline, from all the knowledge imparted to them and uncritically accepted, they learnt to accept received authority and to do exactly as they were told. This was a good thing for the old economy, to be sure.

New Economy, Future Work

Workers of the future will require skills and sensibilities that are significantly different from those of the past. This is because the conditions of technology, the conditions of commerce, and the conditions of culture in the new economy are all undergoing processes of radical transformation.

Technological Conditions of Work. If the predominant image of the old economy was the factory and the smokestack, the image of the new economy is the worker sitting in front of a computer screen. Information and communications technologies dominate the so-called 'knowledge economy'. Actually, despite the hype, we don't just live on knowledge, as if the economy has suddenly abandoned making things for trading in information and symbols. We cannot live on symbols alone. But symbols are nevertheless everywhere. They are at the heart of new technologies, and especially the technologies of digital convergence—communications, automated manufacturing, e-commerce, the media. Even in the manufacturing sector where people still energetically make things, people now make them using screen-based technologies, and these are linguistically, visually and symbolically driven. The production line is still there, but now robots are screwing on the bolts. These technologies, moreover, are constantly shifting.

The new technologies are software rather than hardware intensive, as well as flexible and open to multiple uses. Software replacements are made far more frequently than was the case for plant replacement in the old economy. This means that technical knowledge has a shorter and shorter shelflife. Up-skilling needs to occur continuously. Indeed, contrary to the old economy process of de-skilling, you need to be multiskilled, to be more flexible, more able to undertake a range of tasks, and able to shift from one task to another as needs be. The key competitive advantage for an organisation, even the value of that organisation, is no longer grounded in the value of its fixed assets and plant, or at least not in that alone, but in the skills and knowledge of its workforce. Indeed, technology is now very much a relationship between tools and the knowledge of these tools in people's heads. Wealth increasingly has a human-skills, rather than a fixed-capital basis.

Commercial Conditions of Work. And how do companies in the new economy work? How do they go about their business? The hierarchy has been flattened somewhat and there is less middle management. People work in teams and increasingly workers are expected to participate in the process of management. Self-managing teams, these structures are often called, in

which the 'team leader' is no more than the first amongst equals. 'Responsibility', 'empowerment', 'commitment' and 'motivation' are the qualities of a good team member. And, to achieve this, the vertical lines of communication that characterised the old command management are replaced by horizontal communication with peers—in team meetings, maintaining quality standards, problem-solving, and generally performing the function of self-management as well as doing the actual task. Meanwhile, the business focus for the organisation also broadens beyond the old bottom line. One version of this broadening is the 'triple bottom line' where, as well as concentrating on money, the organisation also focuses on people and the environment.

Cultural Conditions of Work. Now workplaces have cultures. Workers are supposed to buy into the vision and mission of the organisation, to take on corporate culture, to be the corporate person. Culture, in fact, has become a powerful new management technique, the glue that holds the new organisation together, replacing the glue of highly structured system and order which held together the old workplace. It's all about winning employee commitment by setting up systems of belonging, and a framework of corporate believability in which the organisation hopes to win the faith of the employees. At the same time the nature of 'the job' changes. Gone is the stable career path, based on seniority. Jobs don't last so long; people swap employer, or even industry more regularly. Careers will head off on unheard-of tangents, and one's credentials made up of accumulations of experience which might previously have been regarded as bizarre. What a worker takes with them from one job to the next is a 'portfolio' of experiences, and the more varied and broadly focused this portfolio, the more rounded and valuable they will appear to a new employer.

Meanwhile, diversity is everywhere in the new economy organisation, and working with culture in fact means working with diversity. Instead of Henry Ford's assertion about customers, organisations now want to be close to them, to find out what they really want, and to service their needs in a way which works for them. Taking customer service seriously inevitably means discovering that people are different, according to various combinations of age, ethnic background, geographical location, sexual orientation, interest, fashion, fad or fetish. Serving niche markets this is called, and systems of 'mass customisation' are created at the point where 'high tech' meets 'soft touch'—the e-commerce systems or hotel registration procedures which build up the profile of a customer, and their precise needs and interests. Then, there's diversity within the organisation.

Teams work with high levels of interpersonal contact, and work best, not when the members are forced to share the same values, but when differences—of interest, association, network, knowledge, experience, lifestyle—are respected and used as a source of creativity, or as a link into

the myriad of niches in the world in which the organisation has to operate. This world of diversity exists both at the local level of increasingly multicultural societies, and at the global level where distant and different markets, products and organisations become, in a practical sense, closer and closer.

These three shifts, in the conditions of technology, the conditions of commerce and the conditions of culture, are large indeed. In fact, they are signs of a quite fundamental systemic shift. Even the value of an organisation is no longer based on fixed capital. Indeed, the market capitalisation of today's organisations built on a mix of these three things: technology (e.g. as direct means of production, as an internal systems filter and communications medium, as an information conduit to markets etc.); commercial processes (e.g. business systems, winning employee buy-in at the level of work teams and corporate culture, customer relationship management etc.); and culture (e.g. branding, customer relationships, commodity-aesthetics, the integrity of the product and the ability to tailor or customise products to meet the needs of diverse niche markets etc.).

These are all knowledge things, relationship things, things of human rather than fixed capital. Most importantly, they are all things that are made by learning. Learning has become pivotal to the whole economy.

And, for the learning which is now required, the old education simply won't do. The new economy requires new persons: persons who can work flexibly with changing technologies; persons who can work effectively in the new relationship-focused commercial environment; and people who are able to work within an open organisational culture and across diverse cultural settings.

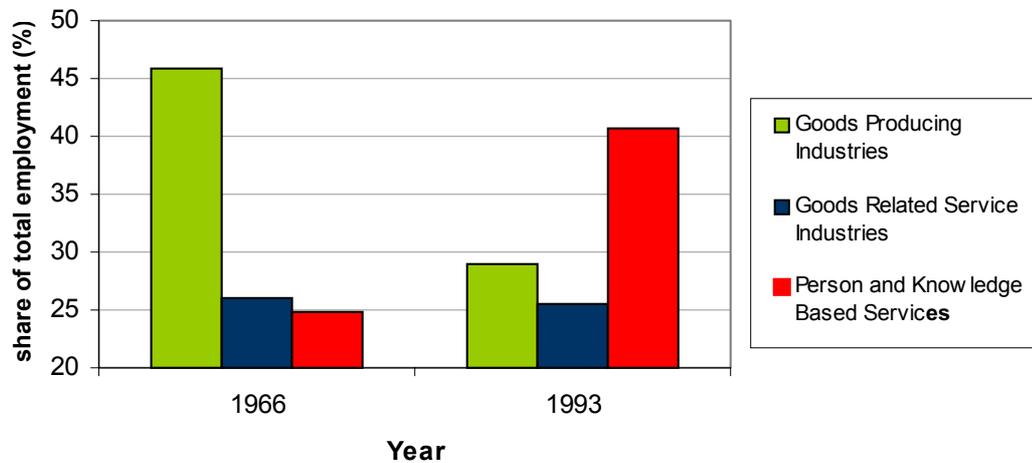
Our description of the trends which bear the name 'new economy' may appear to be painting an overly rosy picture of the shift from the old to the new. Or the shift as complete and uncomplicated. The shift also produces dire human difficulties, and the new learning will need to focus as much on these as it does on creating the kind of person who will be able to accommodate the changes. For all the talk of commitment and workplace culture, there's less job security than ever. Portfolio workers have to be ready to leave at any time. They are expendable. And for all the talk of belonging to a corporate culture, there is still a lot of fear in the system—fear of losing one's job, fear of stepping out of line. In fact, it also creates powerful and sometimes intolerable pressures to conformity, as well as glass ceilings where certain kinds of people just don't seem to fit into the corporate ideal. And the old explicit, authoritarian hierarchies are replaced by implicit hierarchies—pretending things are equal and inclusive, when often not-so-subtle practice they are not.

At the same time, there is ever-increasing pressure to perform. More responsible and committed workers will do more for less, and they do—they stay back at work late; they take work home on their laptops at night; they log-in from home. And none of this is for extra pay. There are none of the overtime

payments of the old economy. The result of making work a matter of 'culture' is that you never get away from it. You are driven to overwork at the expense of having a social life or a full family life. Finally, there's the illusion that the new economy has replaced the old economy, when, in fact, the logic of the old economy kicks back in whenever and wherever it's convenient—in the third world, in older industry sectors, and even within certain areas and work practices within even the fanciest of the 'new economy' organisations. Indeed the old and the new coexist. And despite the tendencies and pressures to change the old organisations do not break down easily and the new ones are not always created in their place, despite the 'new economy' rhetoric. This makes flexible learning and discernment skills all the more critical.

Employment Growth in Australia: Towards a 'New Economy'

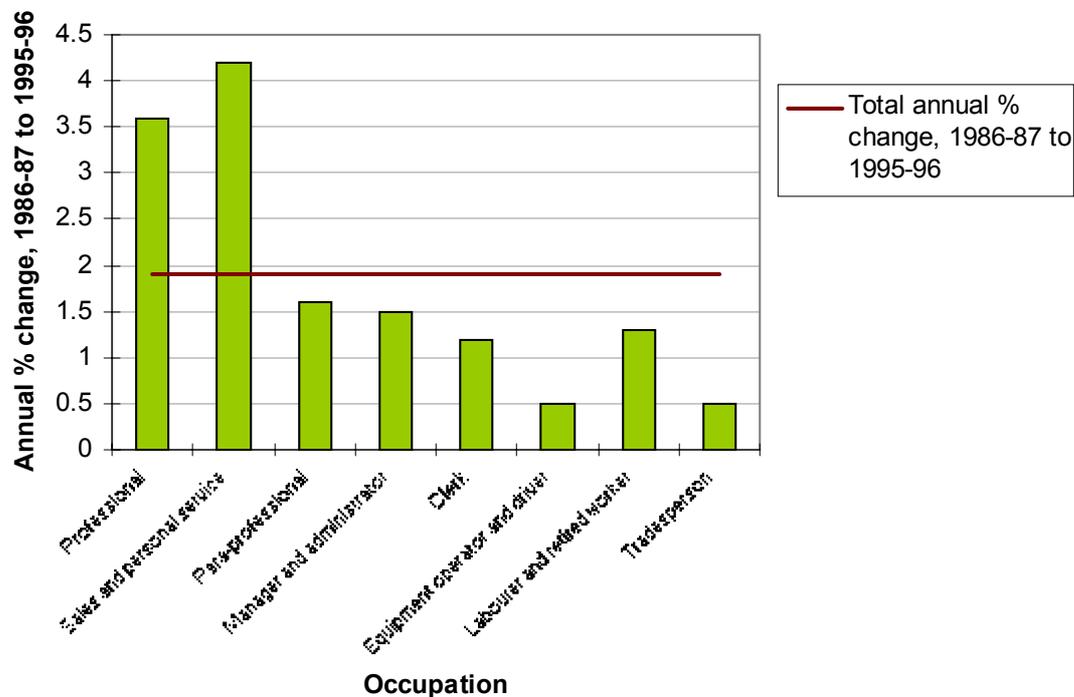
Broad employment shares, Australia 1966-1993



Source: Dunlop & Sheehan 1998: 206

Using figures from the OECD International Sectoral Database from 1997, Dunlop and Sheehan have traced the changing patterns of employment in Australia over time. The figures demonstrate that the trend to a 'knowledge economy' is a modern day reality, and that the employment share of knowledge based services is growing exponentially. Person and knowledge based services include education, business services, health, accommodation, and culture and recreation. These industries all share a reliance on new technologies and interpersonal skills, the linchpins of the new economy. Long-term employment growth and economic prosperity in Australia depends upon these person and knowledge based services, and a highly educated workforce is vital for success in these areas.

Total Employment by Occupation, Australia, 1986-87 to 1995-96



Source: ABS, The Labour Force, Cat. No. 6203.0

The new economy is not a distant dream. Data for the decade to 1995-96 in Australia clearly show high growth of professionals and sales and personal service staff, and much lower growth of tradespeople, clerks, and managers and administrators. Simply, the skills base of our workforce must be lifted dramatically. Work of the future will increasingly require proficiency in new technologies and skills, and providing these skills must be a priority.

Old Society, Past Citizenship

Creating a productively useful worker is only one of the important things that education does. Another is shaping citizens. But, here again, the old world of citizenship is rapidly changing.

Technological Conditions of Participation. For the old society, literacy—reading and writing—was the primary technology of public participation, the capacity to read newspapers and books, and to make a mark on the ballot paper on the basis of an informed decision. Voting was the main means of participation.

Economic Conditions of Participation. The old nation-state guaranteed the economic conditions of participation, through highly regulated markets—particularly the labour market. And, when the market failed, the old citizenship provided an increasingly elaborate, and expensive, social security safety net.

Cultural Conditions of Participation. The cultural terms of participation were on the basis of becoming loyal members of the nation, so loyal in fact that (if you were a man at least) you would be willing to lay down your life in war. These terms were also based on the idea that nations were strongest when all their citizens shared a more or less identical set of racial and cultural characteristics. One nation meant one folk. The state was defined by neatly delineated borders, and within these borders there was supposed to be just one people with a singular history. The benefits provided by that state for its citizens were designed for the universal, always-identical individual. If you were not part of the ‘mainstream’ culture, you were either to be excluded or simply forgotten by default. And if you were different but lucky—an eager immigrant, for instance—you might be able to assimilate, to join the people of the nation by making yourself the same.

Schools were the most significant of all places in the making of these old citizens. Children saluted the flag and sang the national anthem every morning, they read and passed tests about the national history, they learnt the official or standard form of the national language, and they learnt to obey and to respect authority.

New Society, Future Citizenship

In almost every respect, citizenship—the conditions of civic participation—are in a state of profound flux.

Technological Conditions of Participation. To be a citizen today, you need to be able to do a lot more than to read and to write. To be informed and to participate, we need to be capable in many of the new information and

communication technologies. Also, citizenship can no longer be interpreted as the act of voting, of choosing government. As the old nation-state declines in strength and relevance, there are many more realms of participation, of self-governing citizenship in a much broader sense: in local communities, in workplaces, in cultural groups.

Economic Conditions of Participation. Meanwhile, the relevance and power of the nation-state has progressively been shrinking. With economic globalisation and deregulation, the state is less able to influence economic conditions. In fact, the state is itself getting smaller and smaller—with the privatisation of traditional publicly-owned industries (airlines, telecommunications, banks), as well as with large cutbacks to the welfare state's safety net. Aggressive philosophies of the market shift the burden of responsibility for poverty and inequality from society to individuals. The user should pay, so the argument goes, whether it is for superior education, or private health cover. In the world of the unregulated market and heightened competition, it is the fittest who survive and the unsuccessful are only able to blame themselves for their fate. The rich become much richer, and the poor, comparatively, become poorer, and the state is less willing and less able to do anything about it.

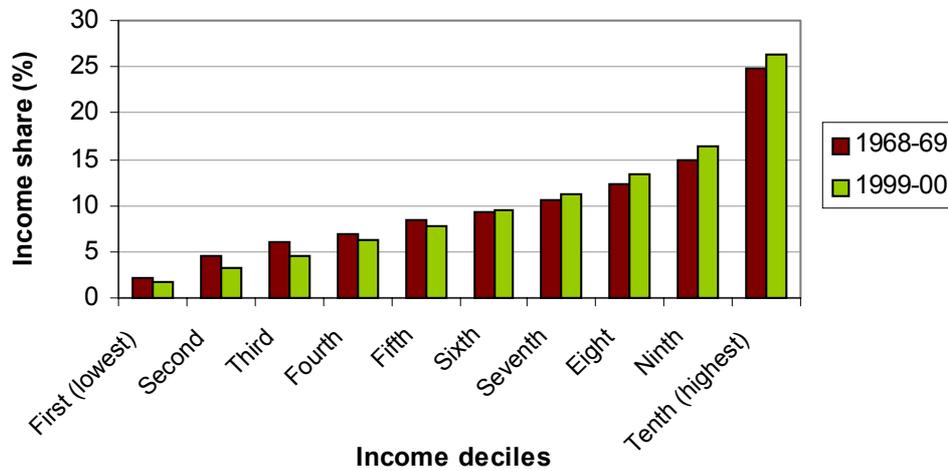
Cultural Conditions of Participation. With this decline of the old civic, power and cultural influence are also in some respects being spread around more—to locally diverse communities, as well as to transnational forms of government such as the European Union, and to global webs of global influence (business, trade, the media). People increasingly find that they are multiple citizens, sharing the responsibilities of governance in many different ways in different parts of their lives. This process occurs in self-regulating professions, or sporting associations, or in ethnic diasporas in which you can vote in elections for places where you do not live as well as the place where you do live, or in Indigenous groups which will sooner or later enjoy a unique kind of sovereignty in their native lands. As a consequence, nations are arguably becoming less relevant as a focal point for cultural identity.

As citizens, we now simultaneously belong to many more kinds of community at the local, the regional and the global level. Singular citizenship in which a person is exclusively a citizen of the nation state, and the electoral process is the sum total of their participation, is being replaced by multiple citizenship, in which there are many, overlapping forms of self government, many levels of self-government in a larger sense, and many places where you belong. In each case, participation is much more than a matter of voting. Indeed, the way you participate in each of these places, and the way you belong, is distinctively different, special to that place. This is the likely shape of a truly multicultural future, a kind of 'civic pluralism' in which, quite contrary to the logic of sameness which drove the old citizenship, the key to civic harmony is respecting and valuing diversity. In fact, the most fundamental right of all is the right

to be different, the right to be true to yourself. Even the meaning of entitlement and fairness changes—to have equivalent access does not mean you will be provided with the same services; and you don't have to be the same to be equal. Government supports groups providing services for themselves, in which they are given a considerable degree of autonomy in creating what works best for them—be that schools, or aged care, or the arts, or media.

If the educational basics of the old citizenship were literacy and teaching which set out to forge national strength by creating cultural homogeneity, the new learning is going to have to shape a new person, with a very different set of skills of participation, as well as a very different values orientation. It will, in short, be a very different kind of learning.

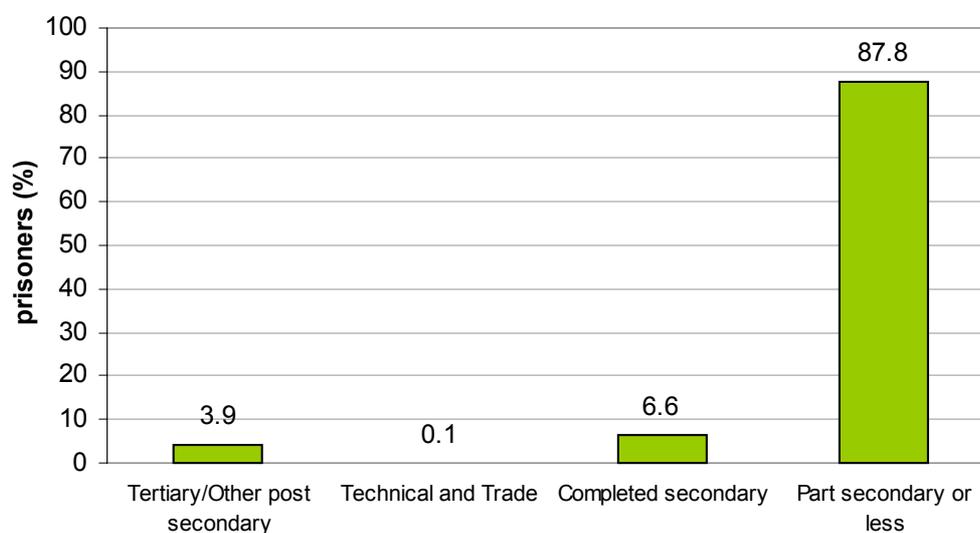
Changes in gross income distribution among families, 1968-69 to 1999-00



Source: ABS cat. 1350.0

The poverty gap in Australian society has increased over the past thirty years. These ABS figures show that the lowest decile (the poorest 10% of the population) in 1999-00 accounted for just 1.8 per cent of the total national wealth, down from 2.2 per cent in 1968-69. Meanwhile, the most affluent decile enjoyed 26.3 per cent of total wealth, up from 24.8 per cent in 1968-69. The data also shows that income and wealth levels are directly related to levels of educational attainment. Education is the best chance of social and income mobility for people who have not inherited wealth. Redressing this growing inequality is integral to Australia's success as a knowledge nation, and addressing structural inequality in education is paramount. Necessary measures include reinvesting in the public schools system, ensuring that all students have adequate access to ICTs, and creating institutions at primary, secondary and tertiary levels which are affordable to all.

All prisoners, by level of education, Victoria, 2000



Source: OCSC 2001

NB: 1.6% unknown

The importance of education is underlined by prison statistics. In 2000, the vast majority (nearly 90%) of Victorian prisoners had not completed secondary education. Those with little formal education are at much higher risk of being unemployed and even incarcerated than those with higher levels of education. Simply, education increases opportunities and improves outcomes.

Old Identities, Past Persons

Taking now the third main role of education —shaping persons—even our personal identities are changing. And, once again, our persons are changing under the influence of the changing conditions of technology, of domestic economy, and of culture.

In the past, roughly speaking, this is the way we were:

Conditions of Personal Technology. Older modern technologies shaped our identities in a quite particular way. Mass produced consumer items progressively filled our lives and, from one household to the next, made our lives broadly similar: listening to the radio, watching the television, using the same household gadgets. Most importantly, the media technologies (radio, television, printed newspapers and books) tended to be mass produced, for a mass market. The electronic media also immediately became the stuff of broadcasting—the half a dozen radio stations and the several major television networks. These created a large collective audience and, to a large degree, a shared, common culture. These technologies shaped our persons in the direction of sameness. They were also technologies of transmission, technologies which reinforced the habit of being spoken to more by cultural authority than the habit of speaking.

Conditions of Domestic Economy. In the realm of the domestic economy, there was one accepted model: the nuclear family. It was a time when men were destined to be husbands and women wives, with all the clear role demarcations this involved. Most men worked in the outside world of formal, paid employment, while many women worked at home unpaid looking after families. And, although the realms of the public (paid work) and the private (domestic work) were clearly demarcated, the domestic relationship was nevertheless an essential part of the larger economy. Indeed, private (domestic) work was of enormous value, and integral to the larger economy no less than the work which happened to be assigned monetary value.

Conditions of Identity and Recognition. With this framework of personhood came a singular idea of normality, and the image of a kind of person generally recognised to be the ideal. Against these standards the other-than-normal was measured to be a kind of deviant—homosexuals, or unassimilated migrants, or still-‘primitive’ native peoples who had not yet managed to raise themselves to the normal standard of living, or the ‘handicapped’ person.

Education played an important role in creating this old kind of identity. The curriculum led students inexorably in the direction of a common national

culture. Boys did woodwork while girls did domestic science. And the whole enterprise was geared to the normal child, from the normal family.

New Identities, Future Persons

Just as remarkable as the changes in work and the changes in civics, are the changes which are occurring in the very nature of our persons—changes influenced once again by the shifting conditions of technology, commerce and culture.

Conditions of Personal Technology. We are in the midst of a technology revolution, which not only changes the way we work and the way we participate as citizens. It even changes our persons. From the old world of broadcasting to the new world of ‘narrowcasting’, consider what has happened to one of the media, television. Instead of the pressures to conformity, pressures to shape your person in the image of the mass media when everybody watched the old ‘national networks’, we now have cable television—fifty channels at first and hundreds to come. The channels cater, not to the ‘general public’, but to ever-more finely defined communities: the services in different languages, the particular sporting interests, the genres of movie. Not to mention video and DVD extending choice by genre and by language to tens of thousands of titles.

Soon there will be on-demand TV streamed though the internet. And to take the internet of today, the millions of sites reflect any interest or style you want to name, nurturing a myriad of ever-more finely differentiated communities. Then there’s the phenomenon of ‘pointcasting’, where the user customises the information feed they want—requesting information to be streamed to them only about a particular sporting team, a particular business sector, a particular country of origin. As a part of this process, the viewer becomes a user; transmission is replaced by user-selectivity; and instead of being passive receptors of mass culture we become active creators of information and sensibilities which precisely suit the nuances of who we are and the image in which we want to fashion ourselves.

In fact, digital convergence turns the whole media relationship around the other way—the digital image of a baby which can be broadcast to the world through the internet, or the digital movie which you can edit on your computer, burn on a CD or broadcast from your home page. There is simply more scope to be yourself in this technology environment, and to be yourself in a way which is different. The technology convergence comes with cultural divergence, and who knows which is the greater influence in the development of the other? The only thing which is clear is that technology is one of the keys to these new kinds of self expression and community building. It is part of a process of creating new persons—persons of self-made identity instead of received identity, and diverse identities rather than a singular national identity. In this context, senses of

belonging will arise from a common commitment to openness and inclusivity.

Conditions of Domestic Economy. In the area of domestic life, family forms and gender identities are in the middle of a long and sometimes painful process of transformation. Women are increasingly found in the public workforce, and the traditional domestic division of labour, as well as the identity-frameworks supporting it, have fallen into a state of uneasy uncertainty. For emerging adult identities, if we are to take suicide and certain areas of education performance as just two measures amongst many, the changes in nature of masculine identity and roles have thrown up as many difficulties as the changes in feminine. At the same time, a plethora of family alternatives is emerging, each based on their own domestic economy, their own mixes of unpaid homework and paid external work—extended ‘ethnic’ families, nuclear families, single parent families, indigenous groups in which family coincides with community, singles, gay couples.

Not only do these present different practical life alternatives; they also present different identity alternatives, lifestyles whose designs are such that they can only be lived by radically different ‘kinds of person’. At the same time, the neat separation between the two economies, domestic and public, becomes blurred, not just in terms of the gender locations as men and women now have to perform in both places, but also in terms of the old institutional separations—the ‘family friendly’ working conditions which encourage the lifestyle choices of ‘new men’ and ‘new women’, and the possibility of working at home or telecommuting in which family and work are not physically separated.

Conditions of Identity and Recognition. These changes suggest social chaos, fragmentation and uncertainty. They feel like an emotional roller-coaster in which we are often ill-prepared to deal with the changes going in our lives, the diversity so close to us, the personal choices now available to us, and a world of identity and lifestyle alternatives in which, it seems, there are no clear models of normality. Yet how can these changes enhance rather than undermine our sense of ourselves, our humanity? In fact, despite the seeming descent into social fragmentation, we end up more connected than ever. Today we live in more and more narrowly defined communities, but also in many more of them—workplace, ethnic, sporting, sexual-preference, religious, hobby-interest—and the sum-total extent of these many communities for any one person is often enormous. In each of these communities, you are a different kind of person, interacting in a different kind of way. Your own identity becomes multilayered; your personality multiple.

And how can our new persons be better persons, rather than debilitated by these changes? The answers lie in shifting the focus from the personal to the interpersonal. The personal is about shaping oneself in the image of

others, recognising oneself in one's similarity with other models of gender or national identity, and making oneself into one person. The interpersonal is about negotiating differences, and in a world of growing difference this is about strategies for finding common ground, collaborating with strangers and the morality of compromise. You don't have to agree with a person, or even like them, to get on with them as co-workers or customers, or in neighbourhoods. In fact, who they are, what they can do and who they know may even be useful. Diversity may well be highly productive. Prejudice, arrogant self-certainty and intolerance are now socially destructive parts of the old personality, confident in their own normality. With new freedoms, in which the freedom to be yourself is central, come new social responsibilities—to respect and if possible work productively with people whose personal choices and aspirations are different.

These changes have thrown down an enormous challenge to education. One response is to try to do everything but to succeed at nothing—the crowded curriculum or the shopping mall curriculum. Another is the 'anything goes' approach, in which inequality ends up being rationalised as diversity. And still another response is to butt out—education can't deal with issues of identity and personality because they've simply become too big and too hard; it should just stick to its core business.

None of these responses is adequate. So, what is to be done?

NEW LEARNING: EIGHT PROPOSITIONS

Proposition Number 1

EDUCATION HAS A MUCH LARGER ROLE TO PLAY IN CREATING SOCIALLY PRODUCTIVE PERSONS

Old Learning

In the past, education was mostly of, at best, indirect value to the economy. Education of direct productive value was limited to narrowly focused areas of vocational and professional teaching.

New Learning

Education today has a bigger role than ever to play in the economy. For the moment, we will just consider the emerging economic fundamentals of this role.

- First, in leading economies around the world, *the education sector* is quite simply getting bigger. It is itself a ‘lead industry’ in the new economy. Because it is more important today and more needed, there is simply more demand for education. The education sector’s relatively small, and in recent years declining slice of gross domestic product in Australia is an ominous sign.
- Second, the *sectors of most significant economic growth* are knowledge heavy—heavily dependent, in other words, on human skills in the areas of technology, commerce and culture. Once Australia was a country which was lucky enough (to apply Donald Horne’s ironical use of the word ‘lucky’) to have become rich by shipping boatloads of dirt north to Asia, or bales of unprocessed wool to the world. Our resource base meant that, as a country, we did not have to be technologically smart, or commercially astute, or culturally sensitive. In the new and rapidly growing export sectors, Australia now has to be all of these things: in tourism, finance, international education, information technology, health and business services. These are all industry sectors built on human-skills advantages, not the easy natural resource advantages of the past.
- Third, *the old economy*—the economy of manufactured things—is being transformed. Even here, economic futures, right down to the success of an individual enterprise, no longer rest on the accumulation of fixed assets as was the case in the era of industrial capitalism. Rather, the value and even the market price of today’s capital is built on a mix of three key capacities: technological (e.g. as direct means of production, as an internal

systems filter and communications medium, as an information conduit to markets etc.); commercial (e.g. systemic processes, winning employee buy-in at the level of work teams and corporate culture, customer relationship management etc.); and cultural (e.g. branding, customer relationships, commodity-aesthetics, the integrity of the product and the ability to tailor or customise products to meet the needs of diverse niche markets etc.). These, in fact, are the three biggest 'products' that education can offer the 'knowledge economy'. In this new capitalism, the processes of knowledge creation in the collective sense (research, corporate memory), and knowledge creation in the individual sense (student learning), have become pivotal even to what might be characterised as old economy sectors.

Holistic approaches to education are required, and the individual sense of knowledge creation (student learning) must be fostered from an early age. In fact, preschool education, despite receiving little attention, must surely be at the forefront of new learning. If we want to get ahead as a nation in the new economy, and if we want to capitalise on the increasing importance of the education sector, we cannot continue to neglect the preschool sector.

Pre-school education

Surprisingly, pre-school education is probably the sector most in need of help in Australia. While declines in the school and university sectors are frequently remarked (though less frequently acted) upon, the pre-school sector remains seriously underfunded. Australia spends just 0.1% of GDP on pre-school education compared with the OECD country average of 0.4%, and our pre-school participation rate is around half that of the OECD average, and falling.

Why do these figures matter, and why should we be concerned? The importance of pre-school education needs restating, and its centrality to the new economy needs to be understood.

That quality pre-school learning is critical to social and economic success in later life is borne out by numerous international and longitudinal studies. Australian studies by the Council of Education Systems Chief Executive Officers (CESCEO) in 2000, and by Hill and Russell (1994); the Canadian study, *Reversing the Real Brain Drain* (McCain & Mustard 1999); the British study by Pascal and Bertram (2000); the Swedish longitudinal study by Andersson (1992); and countless US studies all point to the advantages of early childhood learning. They have all been drawn upon by the 1996 Inquiry into Early Childhood Education by the Senate Employment, Education and Training Reference Committee (1996) and by the more recent Kirby report into preschool education in Victoria (2001).

These studies have found that early learning is a key determinant of educational achievement (Hill and Russell 1994), that children who attend any

form of organised group preschool program when three or four years old have superior cognitive development to those who do not (Osburn and Mibank 1987), and that participation in preschool programs has a marked impact on later school achievements and on individual economic success (CESCEO 2000; Kirby 2001).

Many of these studies have even attempted to quantify the importance of pre-school education. The CESCEO report (2000) highlights one finding that for every \$US 1,000 invested in education, a return of \$US 7,160 was posted, while a similar analysis in the UK found that for every £1 spent on early childhood development, around £8 was saved in later life (Pascal and Bertram 2000, cited in Kirby 2001). Similar studies suggest that for every dollar invested in preschool programs for disadvantaged children, society receives a return of \$7.16 by the time those children are 27 years old (cited in Senate Employment, Education and Training Reference Committee 1996: 137). Clear advantages in academic and employment outcomes, and clear savings in terms of special education, income support and crime, all follow from investing wisely in preschool education.

Above all, the figures confirm that spending on pre-school education can, and indeed must, be seen as an investment. A more long-term view must replace the more narrow concern with market forces if Australia is truly to become a knowledge nation.

ACTION AGENDA

Growing the Education Sector in Australia

By 2003, the size of the education sector in Australia as a proportion of the whole economy should be equal to the OECD average.

Action: Simply to reach the OECD country mean, Australia would have to increase education outlays by 0.7 per cent of GDP. This would amount to nearly \$5 billion.

By 2008, the size of the education sector in Australia as a proportion of the whole economy should reach the bottom of the top quarter of OECD countries.

Universal Access to Early Childhood Education

The changing structures of the workforce and family life require full and easy access to early childhood education. For parents earning below the average weekly earnings, early childhood education should be fully supported by government. A sliding scale of fees should be charged to a point of full cost recovery for parents earning twice the average weekly earnings.

Action: Increase funding for pre-school education from 0.1% of GDP to 0.4% of GDP. This would see Australia reach the OECD average, and help our

declining pre-school participation rate, which is well behind the advanced OECD nations.

Action: Governments commit to funding the salaries of pre-school teachers and assistants.

Pre-school education is complicated by the fact that responsibility for pre-school funding has rested entirely with the states since 1983, and each state varies in terms of its funding levels. In Victoria, for example, pre-school funding suffered with the introduction of per capita funding under the Kennett government, and significant costs were shifted from government to parents. As a consequence, pre-school centres are often required to be frugal, and simply cannot afford to employ some highly qualified teachers. In the Northern Territory meanwhile, children from remote and rural areas are under-represented.

The AEU has argued that Australia suffers from a blurring of the distinctions between education and childcare, a lack of consistency amongst the states and territories about whether responsibility for preschool education resides with Departments of Education or Community Services, and a lack of coherent national policy on preschool education (2000c).

This charter concurs that preschool education requires some level of national coordination and the financial involvement of the Commonwealth government. In addition, a commitment by all state governments to the funding of preschool centres and the salaries of their educators is essential.

Action: Increase wages and salaries of preschool educators and assistants.

This increase is only possible if governments are unified in their commitment to funding preschool education (see previous action point). The increase is needed for several reasons. First, the sheer importance of early childhood education has been demonstrated at length, and has been codified in the previous section here. Pre-school educators have perhaps the most influence on our children of any formal teachers, and their work significantly affects the future prospects of our nation's children.

There is not only an ethical argument, but a practical case as to why preschool educators should be paid more. The financial inequality between primary school and preschool educators is a clear disincentive to studying and teaching in preschools, reflected in a high attrition rate (Kirby 2001). Australia must encourage its brightest potential educators into the preschool sector, and this can only be done by making wages and salaries more attractive.

Increased salaries would also better reflect the work of preschool educators. A submission to the Kirby report (2001) stressed that "In kindergartens, the teacher must often act as the first aid trained teacher, the special education/integration teacher, the English as a second language teacher, the

parent educator, the child/parent counsellor, the staff/volunteer/maintenance supervisor to name a few roles.” The role of preschool educators is becoming increasingly complex and demanding, and pay structures need to better reflect this reality.

In Western Australia, for example, recent changes have involved full time teachers of kindergarten and/or pre-primary receiving DOTT (release for duties other than teaching) of 320 minutes per week, compared with 180 minutes for primary teachers of years 1-7 (Kronemann 2001).

This allowance acknowledges that preschool educators have a wide range of non-teaching duties, including liaising with parents, assistants and agencies. However, this remains an exception rather than a rule. A nationally coordinated approach would ensure that successful reforms in individual states could be reproduced at a national level, and that preschool education policy was both consistent and visionary.

Action: Attract more children into pre-school education.

There are still around 30,000 eligible children missing out on pre-school education every year. Particularly, though not exclusively, attention should be focussed on attracting NESB students, Indigenous students, and students with a disability into early childhood education. In some states, over 20 per cent of families speak a language other than English at home, and these children are least likely to have attended kindergarten in the year before school (Greenblat, E. & Ochiltree, G. 1993).

In the case of Indigenous students, Aboriginal organisations have made clear their desire to prioritise early childhood education, and attention should be focussed on attracting greater numbers of students, but also on attracting greater numbers of highly qualified Indigenous educators. Research further indicates that students with disabilities are distinctly advantaged if they are able to attend high quality preschool education centres.

Action: Reduce class sizes.

The Tasmanian Department of Education recently conducted a review of pre-school education which drew on a wide variety of literature and research. One of the report’s key findings was that small classes have a positive short and long term effect on the development of young children, especially in the area of academic development. Children were more responsive in smaller classes and, most importantly, the report argued that “children identified as ‘at-risk’ or disadvantaged or from an ethnic minority consistently showed strong short and long-term benefits from participating in smaller classes” (Davis, K. & MacNaughton, G. 1999).

These findings illustrate the need for reduced student/staff ratios nationwide, and for greater numbers of teaching assistants and aides to support pre-school teachers.

Action: Increase long day care centres and further integrate preschool education into childcare centres. Address changes to the new economy.

In the new economy, the role of pre-school education needs to be reconceptualised in light of contemporary lifestyle changes. Mothers with children under four years of age are now highly likely to be in paid employment (at present nearly 50% are), and women are likely to account for around two thirds of the growth in the labour force in the coming years (Kirby 2001). These changes require new thinking about pre-school education, and new ways of accommodating the social and educational needs of children before the onset of school life.

An increase in long day care centres, which are open longer hours than traditional day care centres, is one sign of adjusting to these changes. However, these centres are driven by the private sector (currently around 70 per cent of these centres across Australia are private- Kirby 2001), and there is often poor integration of preschool teaching within the centres. Governments here need to take the lead in not only supporting long day care centres, but in integrating preschool education programs into child care facilities.

Additionally, almost 70 per cent of preschool teachers now work part-time (Kirby 2001). This again reduces the financial attractiveness of preschool education for some, but it also reflects a high labour mobility, as many teachers work in multiple centres. The fluidity of the workforce needs to be addressed through measures which make working in a number of centres easier, and which codify employment conditions across centres and even across states.

Further, greater emphasis needs to be placed on professional development. The new economy demands high and multiple skill levels, and preschool educators face this reality more than many. Teachers in preschools often need help in dealing with children with medical or learning problems, but they also need advice and consultation with their peers about new teaching methods and practices. Governments must ensure that preschool educators are allocated greater time for professional development, to encourage and enhance skills, to keep abreast of contemporary educational changes, and to improve collegiate networks.

Schools

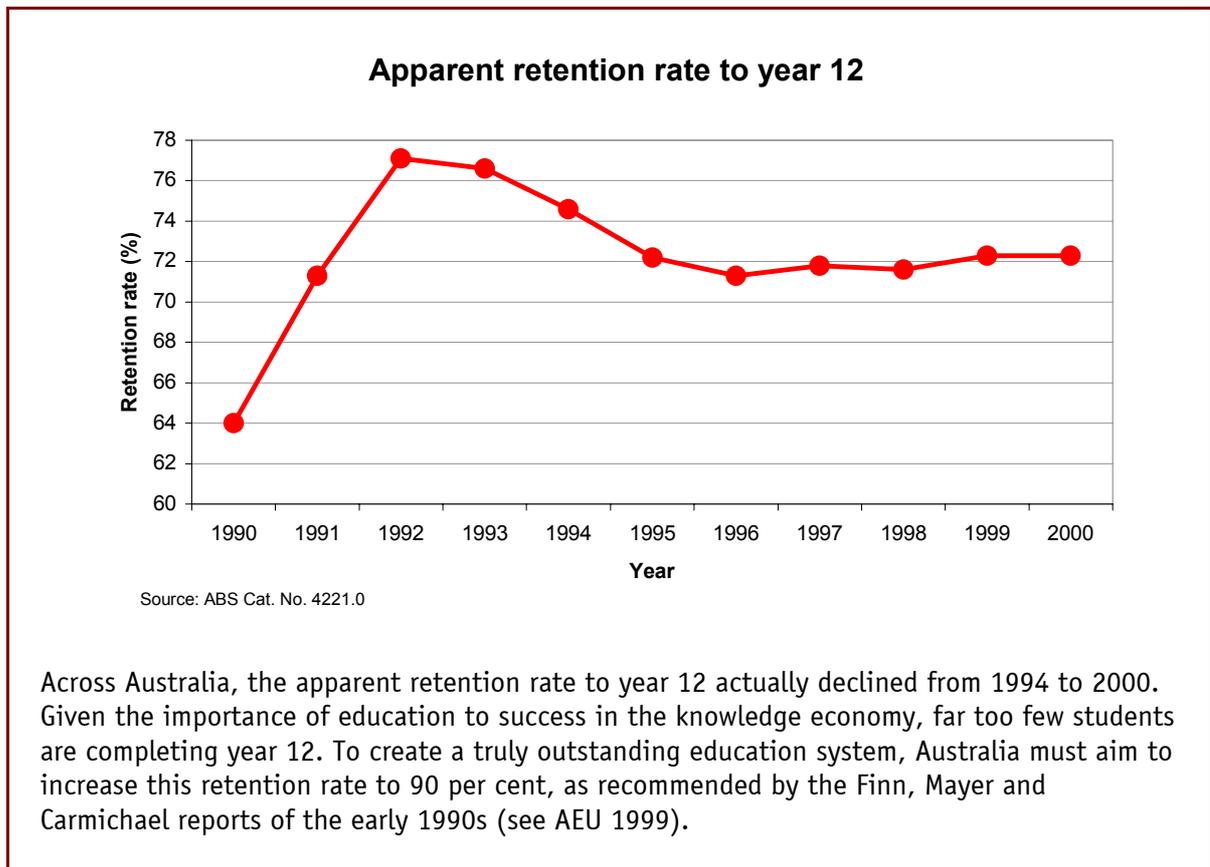
Schools desperately need new support if they are to fulfill their mission in the emerging knowledge society.

Action: Increase government spending on schools to approximately \$30 billion by 2008. This represents a serious increase on the \$16 billion or so

presently invested, but is needed if we are to reach the top quartile of OECD nations. To reach this quartile, Australia would need to increase its total public expenditure to approximately 5.2% of GDP on education. Assuming schools continue to receive around two thirds of this expenditure, and assuming Australia's GDP increase is around 4% per annum, this would mean increasing schools funding to approximately 3.5% of GDP (c. \$30 billion). This funding increase is the joint responsibility of State and Federal Governments.

Action: Improve retention rates to the point where at least 90 per cent of students stay at school to the end of Year 12.

The school retention rate is presently too low, and of great concern is the disparity between public and private school retention rates, and Indigenous and non-Indigenous retention rates. This question of equity is addressed further under propositions 3 and 7.



Vocational Education and Training

The Commonwealth government had frozen TAFE funding to the states for three years before recently striking a new deal for the triennium from 2001-3. After originally offering the states a mere \$20m per annum extra for growth funding, Education Minister David Kemp finally increased the offer to \$50m, a figure reluctantly accepted by state and territory ministers.

The states themselves estimate that at least \$150m per annum is required to match enrolment growth in TAFE, while the AEU estimates that an additional minimum \$310m per annum is needed to address unmet student demand, provide for professional development, and restore quality to some teaching and learning programs (Hewett 2001).

The Commonwealth government is simply not committed to the growth of TAFE. 86,000 students missed out on places in educational institutions in 2000, and nearly half of them sought a place in the TAFE sector (ABS cat. 6227.0; Hewett 2001). TAFE serves around twice as many students as the university sector, and its success is essential to building the skills of the nation.

Action: Increase Commonwealth funding by \$310m per annum to cater for unmet educational demand, encourage further growth, enable greater professional development, and ensure that every TAFE student receives quality vocational education.

Higher Education

Levels of Government support for Higher Education need to be restored, and increased as a percentage of GDP by 2008.

Action: Overall funding to Higher Education in Australia should be increased. To re-establish our position within even OECD terms, we would now need an injection of around \$13-14 billion for research funding alone. However, according to the AVCC, re-investing in the base of our universities is also critical, and around a 20% increase in base grant funding over six years is both necessary and sustainable (Chubb 2001).

Government spending on research and development has fallen dramatically over the past five years. Funding needs to be restored, to its former levels, and then extended. For a small country like Australia, being average is not good enough. We must be exceptional in funding research and development and in funding education at all levels if we are to become a thriving knowledge nation. We must not only catch up, but overtake our competitors in this critical field.

LEARNING WILL BE LIFELONG AND LIFEWIDE

Old Learning

Learning was something which happened primarily in school and formal institutional settings. And the lessons learnt as a young person in these settings were sufficient to prepare you for life.

New Learning

Learning today must be both lifelong and lifewide.

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.

Adult and Community Learning

The Adult and Community Education (ACE) sector is the hardest education sector to define, but also one of the most important. ACE is distinguished by breadth: it is the sector best able to combine vocational learning with the learning of broader life skills and learning for enjoyment and personal enrichment. ACE is also distinguished by its community focus. The sector is committed to, and owned by the community, and it “connects people to each other and to communities in ways that no other sector does” (Golding, Davies & Volkoff 2001: 56).

The number of people participating in ACE is difficult to define, but NCVET estimates suggest that over 3 per cent of Australians (600,000) participate in ACE, while NSW and Victorian sources suggest the figure is probably well over a million (Golding, Davies & Volkoff 2001: 8; NSW Board of Adult and Continuing Education 2000; ACFEB 1999). A significant proportion of ACE clients is involved in VET courses, and accredited VET in ACE is growing rapidly (Golding, Davies & Volkoff 2001: 12). However, ACE also involves broad courses which are designed primarily to improve quality of life rather than being explicitly vocational. In this focus, ACE is unique among the educational sectors.

Indeed, it is this distinctive strength of ACE which needs to be harnessed. The Victorian Adult, Community and Further Education Board (ACFEB) notes that ACE is learner-centred; promotes and values diversity; is community-owned and driven; and has education at its core (ACFEB 1998-99). The fact that ACE is

less concerned than other sectors with graded, formal systems and progressions means that it is focussed upon the learner. Some have even claimed that ACE “has been the only sector which has consistently embraced an educational philosophy focussed on the longer term needs and interests of the individual” (Watson 1999: 14).

The need to focus on, and invest in, ACE is greater than ever before. Numerous authors have stressed the role of ACE in building social capital, and in creating a more inclusive and participatory society (Candy, P. 2000; Golding, Davies & Volkoff 2001). International studies have also stressed the positive impact of learning on self-confidence and individual well-being (Hillage, J. et al 2000). Adult education can provide personal confidence and enrichment, and its benefits to society are both direct and indirect.

Adult education provides individuals with a sense of confidence and coherence which better prepares them for a world of globalisation and rapid change. These individuals, networked, organised, and with high interpersonal skills, then form an important collective asset to society. As Golding, Davies and Volkoff argue, recent ACE research has merely “confirmed what participants have experienced long before social capital theory: that ACE builds communities as well as individuals” (2001: 26).

The informal approach of ACE also places it in a good position to reach disaffected learners. The evidence, however, suggests that specific work needs to be done to attract marginalised groups to the sector (Hillage, J. et al 2000). Despite its potential, ACE is arguably still not performing a significant equity role, and the sector remains marginal to policy (McIntyre 1998).

Learning Communities

The idea of Learning Communities is to transform cities and towns into places of integrated learning. By focussing on learning, specific cities and towns aim to ensure that different levels, kinds, and sectors of education are all complementary, and are all working towards the same goals for their citizens.

The City of Wodonga declared itself Australia’s first Learning City in 1998, and was joined five months later by Albury. The Victorian government has since sponsored nine Victorian communities to become Learning Towns, and all are designed to ‘link ACE organisations, TAFE and other educational institutions, industry and local government in the common purpose of economic and social development’ (Victorian government, cited in Adult Learning Australia 2000).

The Albury-Wodonga Learning Town has an overarching committee which comprises the Wodonga and Albury Secondary and Primary Schools Cluster; Charles Sturt and La Trobe Universities; Wodonga and Riverina Institutes of TAFE; the local councils of both Albury and Wodonga; the Continuing Education Centre; and, importantly, Investment Albury Wodonga (IAW),

which is responsible for attracting major events and economic development to the area (Adult Learning Australia 2000).

The involvement of IAW means that learning is now a key issue in terms of economic development, tourism and decisions on major events in the area (Adult Learning Australia 2000). This idea of focussing communities around learning has been tried to a limited extent, then, across some Australian regions, but the concept needs to be further developed and supported by all state, territory and Commonwealth governments.

Broadening the learning environment

Education must also be de-institutionalised. ACE is perhaps the sector best placed to explore new learning forums, and to refocus education on the learner. The Further Education Funding Council (FEFC) of the UK released a report on widening participation in 1997. One of its fundamental tenets was to bring 'learning to learners wherever they are' (FEFC 1997: 8), and this is an idea equally relevant to Australia.

Two principles underpin the need to diversify learning environments. First, broader kinds of learning must be seen as valuable – numerous reports have in fact argued that all learning is valuable (FEFC 1997; Golding, Davies & Volkoff 2001). This argument suggests that ACE needs much greater recognition as a sector, and that courses which may seem marginal to formal educational progression should still be encouraged. Broadening access and participation means recognising that pool halls, libraries, shopping malls and parks are all viable educational forums.

This is connected with a second principle, namely that perceptions of education need to change. The distinction between 'knowing' and 'doing' needs to be broken down. 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.

Addressing equity

Although ACE is well-placed to provide for disaffected and marginalised learners, it is currently not fulfilling the equity role of which it is capable (McIntyre 1998). In particular, many ACE providers have inadequate provision for people with a disability because of financial restrictions (Golding, Davies & Volkoff 2001: 71). ACE has the potential to provide a valuable service for NESB students, but its current capacity to do so remains limited (Golding, Davies & Volkoff 2001: 70). Indigenous community organisations which are community-owned and operated have often been very successful, but research suggests that these community-controlled Indigenous ACE programs need expansion and greater support (see Golding, Davies & Volkoff, 2001: 72-5).

Individual Learning Accounts

Individual Learning Accounts (ILAs) have now been taken up by around 500,000 people in the UK (target: 1 million by 2002). They are government backed, and supported by colleges, other learning providers and trade unions (DfES 2001). By contributing £25 to their account, many learners qualify for a contribution of £150 to their account from their local Training and Enterprise Councils (TECs) or Chambers of Commerce, Training and Enterprise (CCTEs).

ILAs are available to anyone aged 19 or over. The contribution of at least £25 then entitles learners to 80% off the fees of courses such as computer literacy skills and introductory maths, up to a maximum discount of £200 in any one year (DfES 2001). Learners are further entitled to 20% off other courses such as continual Professional Development, book-keeping and business admin. skills, and so on, up to a maximum discount of £100 in any one year (DfES 2001).

ILAs are designed primarily for those in full or part-time work, and employees are generally not subject to tax or National Insurance contributions on an employer's contribution to a learning account. Employers are encouraged to contribute to the accounts, and their contributions to learning accounts are tax deductible.

The UK has also experimented with a Small Firms Training Loans Scheme, which acknowledges that small firms may be unwilling to contribute to Individual Learning Accounts (Hillage et al 2000). For small firms in particular, tangible employer benefits are important, and many prefer to invest in employee skills which are more job specific. Recognising this, the British government has embarked on this scheme to provide low-interest loans to firms to cover the costs of a major upskilling (Hillage et al 2000).

In addition, the UK has developed a University for Industry (UFI) scheme. This program operates chiefly through Learndirect, which was established as an e-learning network (National Training Organisation (UK) 2001). One aspect of this program is the provision of flexibly delivered learning to employees. Several British universities now offer qualifications through online learning with Learndirect, and each university is responsible for helping with the design, approval, and quality assurance of individually tailored learning programs (Learndirect 2001). Online guidance, university tutors and employers all provide support for the undertaking of courses, but the essence of these programs is self-managed learning.

Learndirect has been regarded as very successful, particularly in attracting non-traditional learners, such as those from lower socio-economic backgrounds (Hillage et al 2000; DFEE 2001b).

Portfolios

It is important to recognise that adult learning includes a plethora of formally accredited and semiformal and informal programs and activities, such as:

- Workplace training.
- Short courses.
- General knowledge, arts and community building courses.
- Educational tourism.
- Conferences.
- Degrees-by-project.
- Learning through help menus, instruction manuals and task-enabling and task-located instructional frameworks.

Instead of the old, 'equipped for life' models in which formal educational institutions provided the sum total of learning which was generally recognised as 'education', the new learning is 'out there' and everywhere. In the society of constant change, it needs to be just-in-time and just enough. The challenge is to document those learnings into a 'portfolio of lifewide learning'. Some of that portfolio may involve formal recognition of accreditation of learning which has occurred informally, turning learning experiences into qualifications. Other parts of it might involve less formal documentation.

Blurring the Institutional Boundaries

Formal educational institutions will not become less important in this new learning environment, but their role will change dramatically. No longer will they be so self-contained, so neatly separated as an institution.

Educational institutions, for instance, must become more open and more closely connected with wider communities.

- *12 by 7.* Educational institutions, including schools, should themselves offer learnings outside the formal curriculum, and outside their narrowly confined hours. They might be open 12 hours a day, from 7.00am to 7.00pm, and seven days a week, offering 'edutainment' activities which go well beyond the confines of the conventional curriculum—theatre programs, computer games, internet access, music, excursions, video production, sports. Increasingly, children are learning 'out of school', and this is most strikingly illustrated in their capacities to use the new technologies, for which their 'education' begins with Nintendo. It would also provide working parents with options for their children which were more structured and more educationally purposeful than 'child minding'.
- *Home Learning.* Schools should also recognise the value of learning at home, and just how much is now learnt at home. Some of this may be a matter of formally helping parents with their children's learning, and providing structured support for the development of parenting skills. This help may even go so far as providing support for the growing numbers of families who opt for home schooling. Home schooling is a

currently small but growing phenomenon, and these parents need assistance with their children's learning. This support may even involve part-time schooling plus part-time home schooling options.

- *Socially Responsible Work.* Childhood is a time of dependence which has been radically extended in recent decades by increased retention rates in post-compulsory schooling. For adolescents, this has produced many problems of identity and behaviour, particularly for those for whom the school curriculum does not seem to have meaning and relevance and who, outside of conventional school hours, have a lot of time on their hands. Part of the blurring of institutional boundaries needs to involve breaking down the institutional and life separations of education from responsible, socially useful work. Why not place a twelve year old for several hours every other day as a helper in a pre-school or a nursing home? For a sixteen year old, why not create accredited community or work options, supervised by a mentor, and leave regular school subjects to be picked up in the evening or at the weekend? Some of this may be a matter of filling spare time. But in another respect, it could create a sense of contribution, responsibility and belonging denied young people by the now painfully attenuated dependencies of childhood. These strategies need not detract from the notion of the teacher as a professional with deep knowledge and broad skills.
- *Cross-Institutional Links.* Schools should increasingly make links with other educational institutions. Students might also take subjects offered by universities, TAFEs, workplace trainers and adult education providers. Some of this is already occurring, particularly through the VET-in Schools program, and through Learning Communities such as Albury-Wodonga, but these programs need much greater expansion and exploration.
- *Transitions.* Schools should also manage what are sometimes difficult and traumatic learning transitions: from home to school; from early to middle to later years of schooling; and from school to vocational and higher education. These learning transitions need to be recognised and planned for in a more collaborative way.
- *Involving Retired People.* Retired people should get more involved in schooling. Perhaps this might be voluntary. Or perhaps it might involve nominal payment, blurring another of the old distinctions between working and non-working life. Not only would this relieve the stresses and strains of a sector which is rapidly growing in significance and social responsibility. It would also make schools a site of learning for retired people, learning collaboratively with young people many of the things they themselves will need to know for the last thirty, perhaps forty years of their lives. Involving retired people in schools would very much be a matter of establishing a two-way learning relationship.

- *Schools as Focal Points for Social Action.* Instead of being a relatively closed, institutionally isolated system, schools should assume a fluid and more broadly encompassing role of social responsibility. For instance, substance abuse is best tackled through a series of intertwining relationships involving schools, police, health providers, community organisations and families.
- *Deinstitutionalisation.* Schools need to be deinstitutionalised. This does not mean deinstitutionalisation in the sense of privatisation—losing your school in the same way that you have lost your post office and your bank. It means that, instead of being institutions with rigid and formal boundaries, they need to be re-energised as centres of community. Instead of being places which mainly impart knowledge and set tests, schools will be centres at the heart of powerful networks of community service, which take on community problem solving, and which are safe havens, meeting places for diverse groups, and places of community trust. In an organisational sense, this will involve establishing close and lasting relationships with other service providers and community groups.

Future schooling will involve new locations, new relationships and new accountability measures. Work must be done not only on improving the ‘basics’—reducing staff/student ratios and improving school infrastructure. It must also extend to reconceptualising the school as a place of community building and sociability.

New Kinds of Knowledge

The new frame of reference for learning—lifelong and lifewide—also changes what formal educational institutions should be teaching.

The old learning focused on fixed content knowledge: undeniable facts and theories-to-be-applied, vocational skills and technical information, and these were supposed to last for life. Applied today, this kind of education becomes instantly redundant. In fact, it fosters a rigid way of thinking which will be counterproductive for the workers, citizens and persons of the near future.

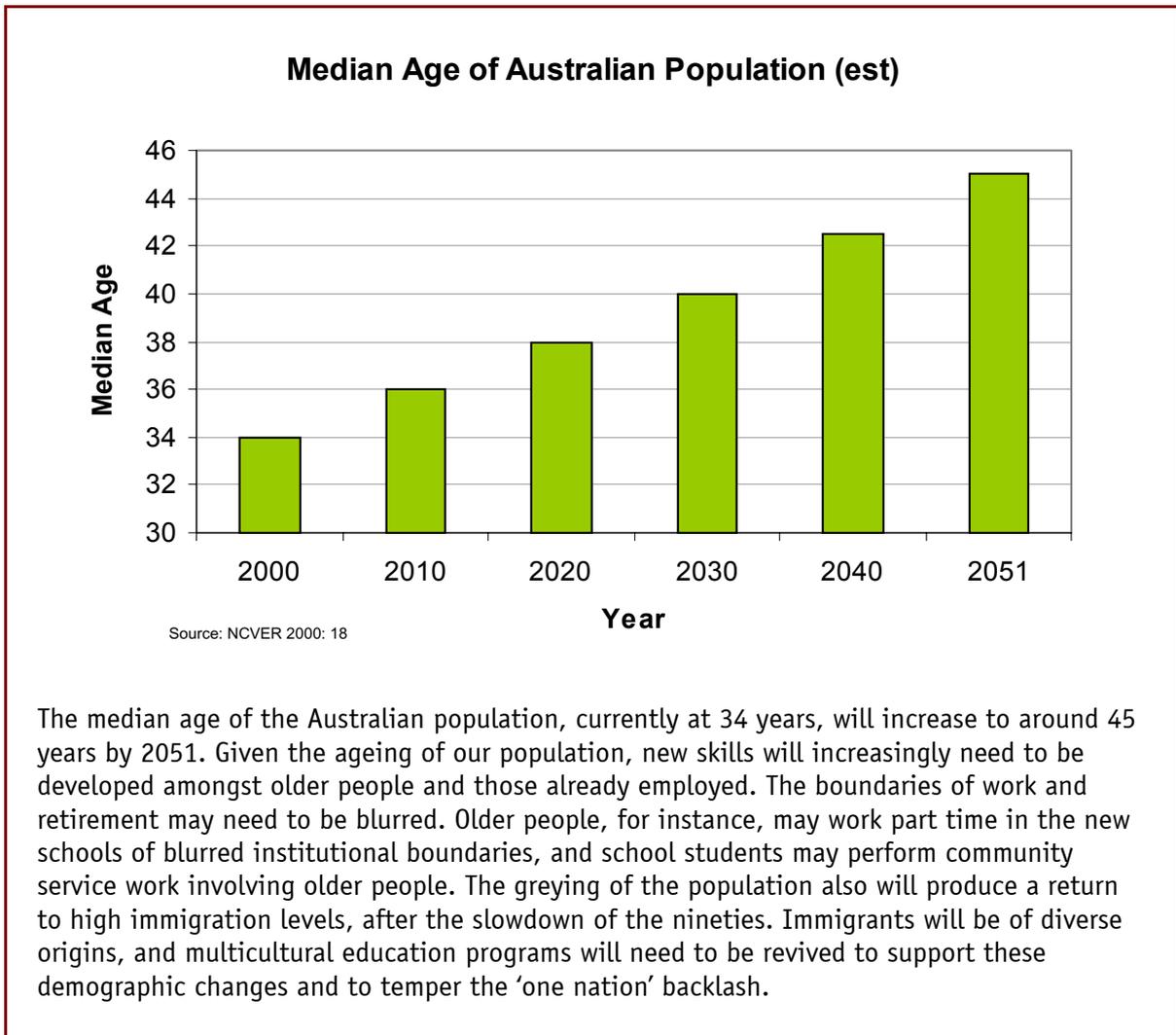
The new learning is less about imparting defined knowledge and skills and more about shaping a kind of person: somebody who knows what they don’t know; knows how to learn what they need to know; knows how to create knowledge through problem solving; knows how to create knowledge by drawing on informational 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.

These kinds of capacities are at a much higher level than what was measurable by old-style tests of fact and theory. And, despite the increasing pressure to

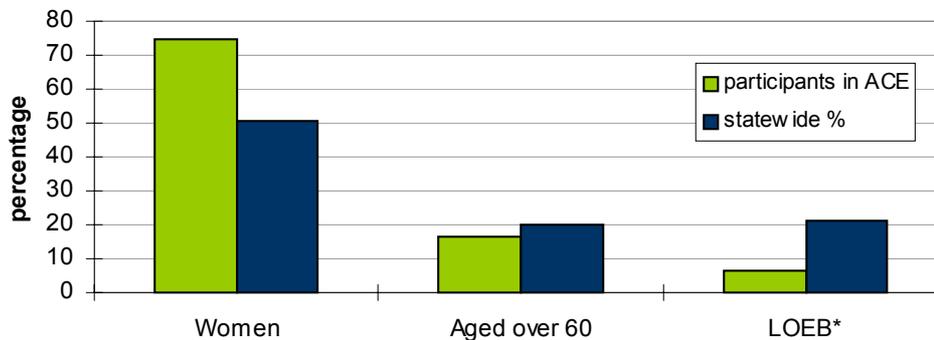
specialise, the focus of all education should be on underlying and transferable capacities, not only the specifics of an area of specialisation. In fact, in formal education settings there is an increasing need to move towards more general and more comprehensive education, around technology (science, mathematics, applied sciences), commerce (working together sociably), and the humanities (cultural understandings, capacities for intercultural interaction and boundary-crossing).

When it comes to lifelong and lifewide learning, it's not enough to be learning in new settings, such as work- integrated learning, nor to be blurring the boundaries which once separated formal institutionalised education from the rest of life. The transformation also needs to be in the very way knowledge itself is constructed, the content of curriculum, even the purposes of learning. Even within the old institutions of learning, the focus must be on preparing students for lifewide learning, and developing the capacity to learn in other settings.

An Ageing Population



Participation rates in ACE by sex and background, Victoria, 1999



Source: ACFEB 1999

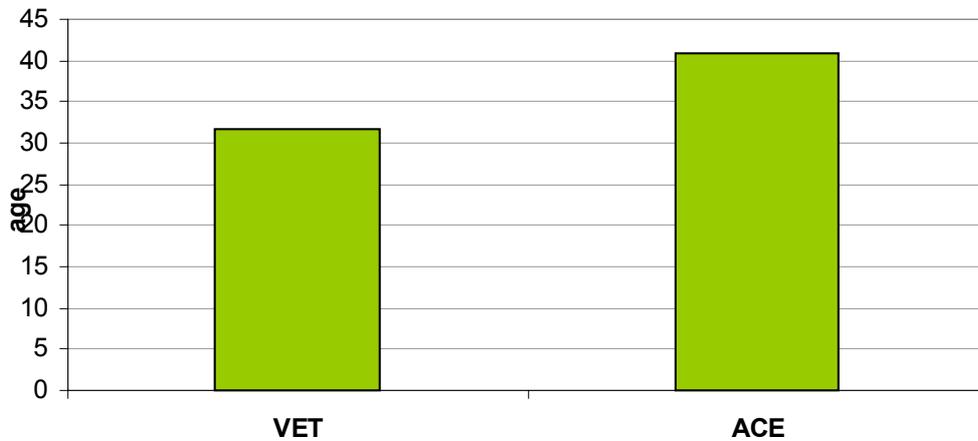
*Language other than English background

The vast majority of ACE clients are women – despite constituting 49 per cent of the Victorian population, for example, men constitute just 25 per cent of ACE clients in the state. This numerical dominance of women in ACE is typical across Australia (NSW Board of Adult and Community Education 2000; Watson et al 2000), but does not suggest that efforts should focus solely on attracting men into ACE. Indeed, many women are themselves prevented from learning through financial and time constraints, and uppermost here is the provision of childcare.

International evidence shows that lack of good and affordable childcare is still one of the most common reasons cited by women for not participating in ACE (Hillage et al 2000: 58). Improving childcare, and particularly integrating preschool education better into long day care centres, is important not only for the children but for their parents. Both male and female sole parents remain under-represented in ACE (Golding, Davies, Volkoff 2001: 9). The need for better coordination across educational sectors, and for a national policy on lifelong learning, is manifest.

The question of equity is also particularly apposite to ACE. Despite constituting 21 per cent of the Victorian population, those with a language-other-than-English background comprise just 6 per cent of ACE clients in the state. At a national level, research also indicates that those with limited schooling, the unemployed, older-age adults, and those in rural and regional areas are under-represented in ACE (NSW Board of Adult and Community Education 2000; Golding, Davies, Volkoff 2001: 9). This is despite the fact that ACE is often regarded as best serving the educational needs of these groups (Golding, Davies, Volkoff 2001: 9). A knowledge nation must develop the expansion of ACE and seek to broaden participation in the sector.

Average age of students, VET and ACE



Source: Watson et al 2000

Adult and Community Education (ACE) is burgeoning, and it is the education sector perhaps most geared to a greying population. In 1997, 379 700 clients or 3.1 per cent of the 15-64 year old population undertook personal enrichment programs, and this is arguably a conservative figure (Watson et al 2000). Although data are notoriously difficult to collect in the ACE sector, some evidence is certainly clear. Participation in personal enrichment programs (aka ACE) is high for those between the ages of 30 and 50 years, and the average ACE client is older than the average VET client. In fact, people over 45 years represent almost 40 per cent of the total enrolled in ACE courses (Andy Smith 1999). The adult education sector represents a prime opportunity to address inequality and to educate older Australians, but these possibilities need to be actively grasped and encouraged by governments. ACE is still perceived as an outpost dominated by educated, urban women, and the sector needs greater government commitment to foster diversity and to provide educational options for those from disadvantaged backgrounds.

ACTION AGENDA

Lifelong Learning, Adult Education and Training

Adult education and training is the most rapidly growing part of the education sector. They are essential components of lifelong learning and the knowledge economy. However, the responsibility for funding these areas of learning to a large degree devolves to employers and individual learners. This produces unevenness of access, and patterns of access which do not always meet the needs of individual learners or the economy as a whole.

Action: The Commonwealth government to convene a national lifelong learning summit that brings together relevant industry, education, government agencies and community organisations.

From this summit, generate a national policy framework, to be overseen by a Minister for Lifelong Learning.

Australian education is still typified by a fragmentation of responsibility (Candy 2000). State and Commonwealth governments still quarrel over VET growth funding and over the funding of private schools. Perhaps even more critically, the Commonwealth government has no coherent national policy in either preschool or ACE. This means that states and territories follow qualitatively different paths in these areas- ACE, for example, is state-supported and co-ordinated in Victoria and NSW, but essentially unrecognised in the Northern Territory (Golding, Davies & Volkoff 2001: 39-40). Quite simply, to be a knowledge nation requires the development of national policies and frameworks. This also involves creating a cabinet post for a Minister of Lifelong Learning, as already exists in nations such as the UK.

Australia also needs to develop more learning communities, where education institutions which are geographically proximate work together with councils and business. Education can then become integral to major investment decisions of the community, and education pathways can be developed.

Action: Develop Learning Communities

We need to diversify and broaden learning environments. Given that all learning is valuable (FEFC 1997; Golding, Davies & Volkoff 2001), ACE needs much greater recognition as a sector, and courses which may seem marginal to formal educational progression should still be encouraged. Governments need to broaden access and participation, and this means acknowledging that that pool halls, libraries, shopping malls and parks are all viable educational forums.

Action: Diversify and broaden learning environments

As with VET, Indigenous ACE programs have been highly successful when they have been community-controlled, and governments need to encourage the expansion and development of these programs.

Action: Expand community-controlled Indigenous ACE programs

The experience of the UK, in particular, shows a number of possibilities for boosting training schemes and for broadening educational participation.

Action: Explore the possibilities of Individual Learning Accounts and Training assistance schemes.

Informal, life-located learning is becoming an important part of a person's profile. To have public credibility and credibility to employers requires processes which recognise prior learning and 'portfolio' documentation.

Action: Make recognition or prior learning and portfolio documentation a service available to all, at no charge for people with lower income levels and on a cost recovery basis for people with higher income levels.

TAFE

Estimates suggest a likely 5.7% increase in TAFE enrolments over the next three years. Despite an increase in state funding to VET, federal funding has declined substantially over the past three years (AEU 2000b).

This is important because all levels of education need to be accessible across the age barriers. TAFE was originally established as 'second chance' education, but the reality is that more than two chances are needed. Workers in future will change their job up to eight times on average, which requires our education system to promote much greater flexibility.

The public education system must be accessible and open: it must be open to a retrenched adult wishing to return to school and complete a new unit; it must be open to a university student who wishes to transfer to a TAFE course; and it must be open to regional and disadvantaged students. In short, we must reflect and foster lifelong, lifewide learning in our education system.

Action: Provide a comprehensive review of arrangements for the public funding of VET by all governments. This will help achieve consistent and coherent funding arrangements across the two levels of government.

Blurring the Institutional Boundaries

To develop the new school, serious effort needs to be put into experimenting with alternative structures and learning arrangements. For each of the following areas of experimentation, five pilot schools should be funded, representing different locations and community demographics. Each of these pilot projects should have two components: a planning, action and implementation

component; and a research and reflection component which draws conclusions about the generalisability of the models and approaches developed in the pilot.

Action: Five pilot schools develop experimental approaches in each of the following areas (a total of forty schools):

1. The 12 by 7 School.
2. Home Learning and Parenting Skills.
3. Socially Responsible Work.
4. Developing Cross-Institutional Links.
5. Transitions: Bridging the Gaps Between Levels of Learning.
6. Involving Retired People.
7. The School as a Focal Point for Social Action.
8. De-institutionalising the School.

OPPORTUNITY AND DIVERSITY: EDUCATION IS ONE OF THE MAIN WAYS TO DELIVER ON THE PROMISE OF DEMOCRACY

Old Learning

The old learning rationalised inequality—if you didn't do so well in life, this had in part been determined by your school test results, and for these you only had yourself to blame. An education of radically unequal outcomes seemed to work well for a society which required a mostly unskilled workforce for its factories, farms and mines. If education could inculcate respect for authority and if this could be mixed with a measure of personal responsibility for one's lot in life, the system was doing its job well—for this kind of society, at least.

New Learning

In three important respects, the old, radically unequal education is now counter-productive, even dysfunctional: it does not meet today's most basic social and economic objectives; it does not satisfy contemporary democratic definitions of opportunity; and it does not work effectively with diversity. New learning must do all of these things.

Today's Social and Economic Objectives

To be a productive worker, a participating citizen and a full person these days requires a much broader set of skills and capacities than in an earlier era. Quite simply, you won't get a job even at lower levels today if you can't demonstrate that you have the social skills to be a good team player, that you have some facility with the tools of a digital world (cash registers, computers, menu-driven gadgets), and that you have some understanding of how business works and how to play your role responsibly. And, beyond entry level jobs, there is an increasing expectation of mobility—with additional experience and the availability of training, there will be a better job available for you. These are the relatively straightforward requirements—and promises—of the 'new economy'.

In several important ways, however, the new economy fails to deliver. The first way is *in material terms*. The gap between the rich and the poor is growing. The new economy delivers its promise unevenly, to the already well-endowed and successful before those groups who have been historically at the bottom end of an unequal society. Even from the most conservative of points of view, this trend is unsustainable and eventually counterproductive. Whether it is the cost of imprisonment, or the cost of crime, or the cost of a sense of public safety when homelessness is growing, or the financial and moral cost of gated

communities and the security industry, there will come a time when the gap between the well-off and the poor will become intolerable. It may be difficult to predict when this breaking-point will occur, but the current trend cannot continue indefinitely. And any program of social re-inclusion, any reversal which will impact on social indicators such as homelessness and crime, must include at its heart programs which provide everybody with the social opportunities for productive and well paid participation in employment. These require a more broadly based education than the past, even when the initial point of re-inclusion is an entry level job.

The second way in which the new economy fails to deliver, even where there is material improvement, is in the area of *cultural meanings*. For all its focus on the market and bottom lines and for all its promise of personal material wellbeing for the virtuously hardworking, many young people still experience a profound sense of cultural anomie. This may be the case for young people in Indigenous communities, or the children of migrants who don't connect with the values of their parents, or children from successful middle class families, or children who have been through family breakdown. The result is increasing rates of suicide, anorexia, depression, drug taking. Whatever the future promised by education today and employment tomorrow, it doesn't seem to resonate with these young people. The driving social ethic of our times, economic rationalism—in which competition, consumerism and choice are considered to be the fundamental human motivators—does not supply cultural meanings sufficient to sustain people. Many parents are concerned and fearful for the lives of their teenage children, not for material reasons, but for reasons of cultural meaning. At root are issues of identity and belonging, and education must be renewed as a focal point for personal development and community wellbeing.

The Promise of Opportunity Today

For all the talk of democracy and equality, opportunity is inherited—in the form of the wealth you are born into, the place you are born, or the colour of your skin or ethnic background. Education, however, is the main thing which differentiates democracy from the world of kings and subjects, lords and serfs, masters and slaves, men and women. If you are born into poverty, or on the wrong side of town, or of the wrong racial or ethnic group, you still have a chance and this chance comes from doing well at school. Education is at the heart of the promise of democracy. This is what right-wing commentators choose to call equality, or more precisely, equality of educational opportunity. In fact, when you look at the results of the educational institution you attend and compare them with results at the ends of the educational scale, you may discover that the opportunity is not equal at all.

Yet education does promise individuals a chance in the game of social mobility: more access to material resources through better paid employment; a greater capacity to participate actively in the processes of government; and the personal dexterity that comes with knowing the world. It promises communities improved employment prospects, increased self-determination and extended

access to the wider world. The key question is how to make sure education fulfills its democratic mission.

As learning plays an increasing role in social enablement (work, citizenship, identity), so it might also play a greater role in returning credibility to the promise of democracy. What do we make of a society which provides least learning resources to children most at risk of failure? How do we genuinely provide opportunities for all? The answer has to be in dedicated programs addressing inequality, not on the basis of moral arguments alone, but also on the basis of the economic and social dangers of allowing individuals and groups to be excluded.

Diversity Today

Much of the time, the problem for education in realising the democratic promise of opportunity, is that students bring with them to school different life experiences. What they know, who they feel themselves to be, and how they orient themselves to education varies because the communities in which they live and the shape of their life experiences vary. Different people experience education differently, and as a consequence their learning as well as social outcomes are different.

As students with different life experiences engage with education, one thing is certain: the process is one of more or less intended transformation. This process of transformation is either narrowly conceived as 'to learn to...', or a more broadly conceived as 'improving my prospects' or 'giving my child the best chance.' The problem is that the transformation by and large works better for some groups of people than it does for others. Undeniably, you get a better education if you are wealthier; if you speak the national language as your mother tongue; if you belong to the most powerful ethnic group; or if you live in the right neighbourhood. There is something deep in the structures and culture of institutionalised education which means that it generally works better for some groups of people than for others. As an idea and as a life project, education seems to 'gel' better for some groups than for others.

We know that some groups of students clearly and habitually do better in their education than other groups. Acknowledging that opportunities are not evenly distributed, we discover combinations of the following group and location-related factors influencing outcomes:

- Aboriginal and Torres Strait Islander students.
- Students from non-English speaking backgrounds.
- Students in poverty, or from low socio-economic status families and localities.
- Girls, and sometimes also on some measures, boys.

- Students with disabilities.
- Students in rural and/or isolated communities.

These patterns give lie to any claim that opportunities are equal. The problem much of the time is the distance between these worlds of community experience and the world of institutionalised education and valued knowledge.

To use the concept more broadly than usual, diversity requires a pervasive multicultural education, and here we use this idea to mean something as broad and as simple as the idea that a one-size curriculum cannot be expected to fit all. Rather, a curriculum of many sizes would perform the following functions:

- Learning would be designed in such a way that it gels with the needs and interests of particular students or group of students. It would be customised in order to engage every student and every group of students.
- Learning would actively affirm diversity, recognising and honouring different life experiences. This requires classroom and curriculum flexibility which builds on the cultural capital of communities and individual students.
- Education would aim at measurable outcomes. These outcomes must be similar or comparable (each as rewarding as any other, as fulfilling, as socially engaged and as useful) but not necessarily the same. Education does not promise a single cultural and life destination, but it does promise expanding horizons of opportunity.

Future education will be the key to equality of opportunity, the recognition and celebration of diversity, the building of communities, and the combating of social exclusion.

Two specific areas of diversity also need to be mentioned: Indigenous education and education for a society of immigrant and ethnic diversity.

Indigenous education in Australia is characterised by serious shortcomings—measured both in terms of educational outcomes, as well as in terms of the social indicators of wellbeing of young people in Indigenous communities. Instead of honouring diversity and community, in recent years, we have seen measures such as the abolition of bilingual education in Indigenous Schools in the Northern Territory. Not only does this involve the denial of a quite fundamental human right—the right to be educated in your own language when it is the language of the land of your birth. It also involves a return to old racist and assimilationist assumptions that mainstream English-only education is best in terms of students' futures. Finally, the path to reconciliation between Indigenous

peoples and settlers in Australia is a thorough understanding of Indigenous cultures and the history of interaction with settlers. Aboriginal studies should be a core aspect of all learning in Australia.

Multicultural and Multilingual Education has also languished in recent years, as ethnic groups have become less politically vocal. For a world in which globalisation proceeds apace, we have failed to maintain the imported language resources of immigrant communities, or even to extend the study of languages in schools. We might feel we can rest on our laurels as speakers of English, the global language. Ironically, our apparent advantage may mean we are swamped by competition in a world of one billion English speakers—the IT specialists in India, the higher education providers in Canada, the call centres in Ireland, the US culture industry. Our real advantage may lie with immigrants from Asia and learning thoroughly the languages of our region.

Education needs to recognise and harness cultural and linguistic diversity in the interests of all. Equal outcomes cannot be achieved without taking into account gender, culture, languages and life experience differences that students bring with them to the learning experience.

More than ever, education needs to juggle multiple identities and to cater for Indigenous, immigrant, regional, national and global identities. Culture, language, religion and socio-economic differences should not be barriers to access and full participation in education.

Indeed, these social factors are dynamics which need to be negotiated in the classroom. Many classrooms will inevitably be themselves microcosms of the world of global differences which is now so critical our future. To be relevant to this future, learning processes need to recruit, rather than attempt to ignore and erase, the different identities students bring to learning. Curriculum now needs to mesh with different identities, and use these as a resource for learning.

Opportunity and diversity are closely linked. Diversity is not simply an equity issue, but rather lies at the heart of Australia's cultural capital. The multilingual, multicultural heritage of our children must be seen as one of our most important resources, and educational institutions must stress the importance of learning diverse languages and cultures for all students.

Retention and Non-Completion: Within schools themselves, the low retention rate needs to be addressed. The effects of non-completion in terms of employment and financial outcomes are deleterious and manifest (see charts). The Dusseldorp Skills Forum (1999) estimated that the aggregate cost to the nation of a year of early school leavers is \$2.6 billion. This figure is based on the direct monetary cost to each individual early school leaver, and the social costs associated with provision of health care, crime prevention resources, welfare provision, and decline in social cohesion.

One way of addressing stagnant retention rates is to prepare students better for their final school years. This involves broadening the curriculum to take account of, and develop, alternative individual learning styles. Similar changes are required through teacher support and professional development to ensure that students at risk of dropping out are encouraged and motivated to stay on at school. Some of these changes can be addressed within schools themselves, while others, such as the narrow curriculum emphasis on university entrance, require changes across a number of educational sectors.

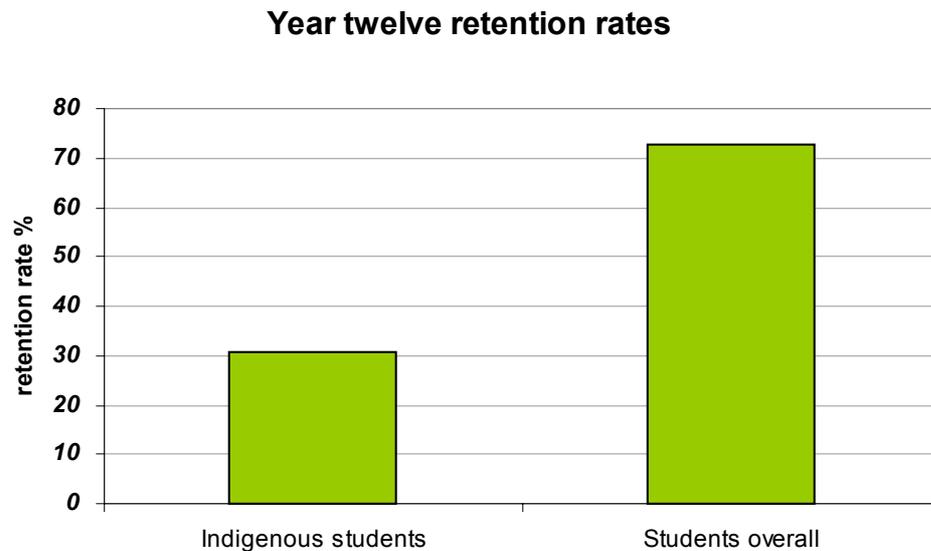
The Dusseldorp Forum acknowledged that schools must broaden and diversify, and that the present division between centres of knowledge and action must be broken down:

Services like municipal libraries, TAFE institutes, apprenticeship centres, Job Network providers, skill centres and neighbourhood houses [should] be either physically co-located or virtually networked into the community learning hub (Dusseldorp Skills Forum 1999).

Equally important is targeting those groups least likely to complete. Recent surveys suggest that the profile of non-completers did not change significantly from the early 1980s to the mid-1990s. According to ACER (2000a), non-completers remain over-represented by young people from lower socioeconomic status backgrounds, rural areas, government schools, and males (viii). Additionally, Indigenous non-completion rates remain unacceptably high (see chart). Perhaps most alarmingly, non-completers were more likely to come from rural areas by the mid-1990s than in the early 1980s (ACER 2000a: viii). Numerous actions are required to lift retention rates in rural areas, such as addressing the digital divide (see chart), and making rural education more attractive to potential high quality teachers.

This latter point is particularly important given the increasing dissatisfaction of non-completers with school. Although most non-completers still leave school primarily to obtain work, apprenticeships, or greater income, an increasing proportion of non-completers cite dissatisfaction with school as their reason for leaving (ACER 2000a: ix). This alarming trend means that efforts to improve pedagogical practices in schools need to be redoubled, and new approaches need to be trialled.

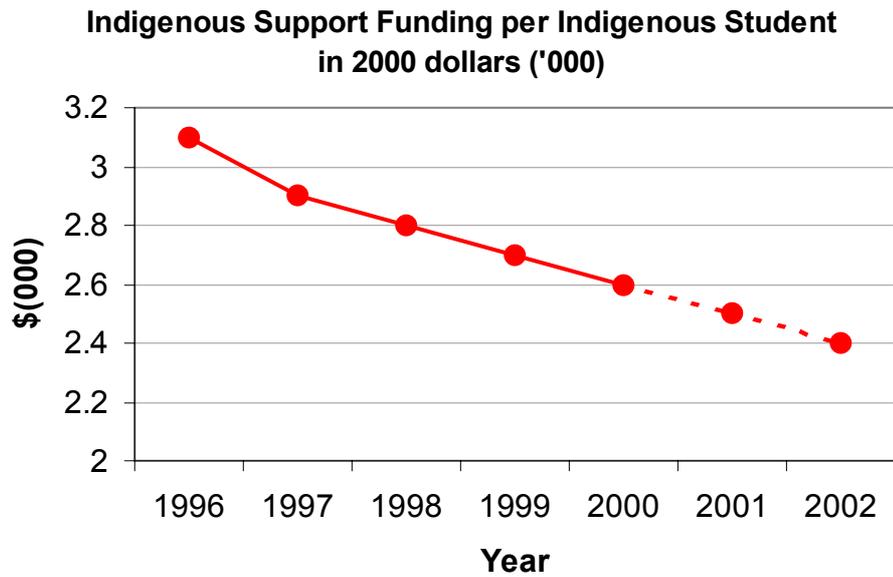
Indigenous Retention Rates to Year 12



Source: National Report on Schooling 1996

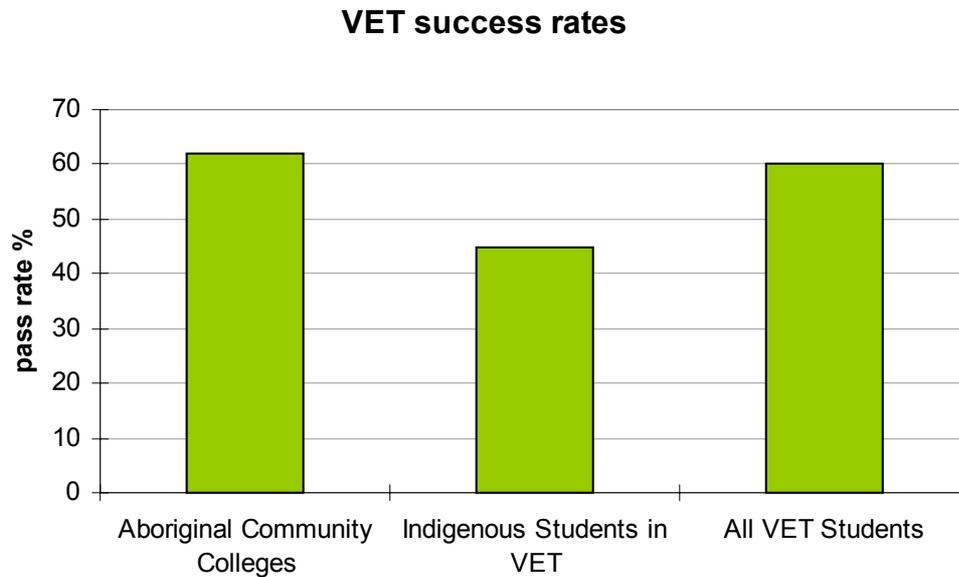
The year twelve retention rate for Indigenous students is less than half the rate for students overall. This shocking inequality in educational outcomes must be addressed as a matter of national urgency. The success of Aboriginal community-controlled colleges in the VET sector suggests that tailored investment can result in demonstrable and rapid improvements. No Australian government can afford to ignore the serious educational inequalities which pervade Australian society.

Indigenous Education Expenditure



Source: DETYA Higher Education
Triennium Reports

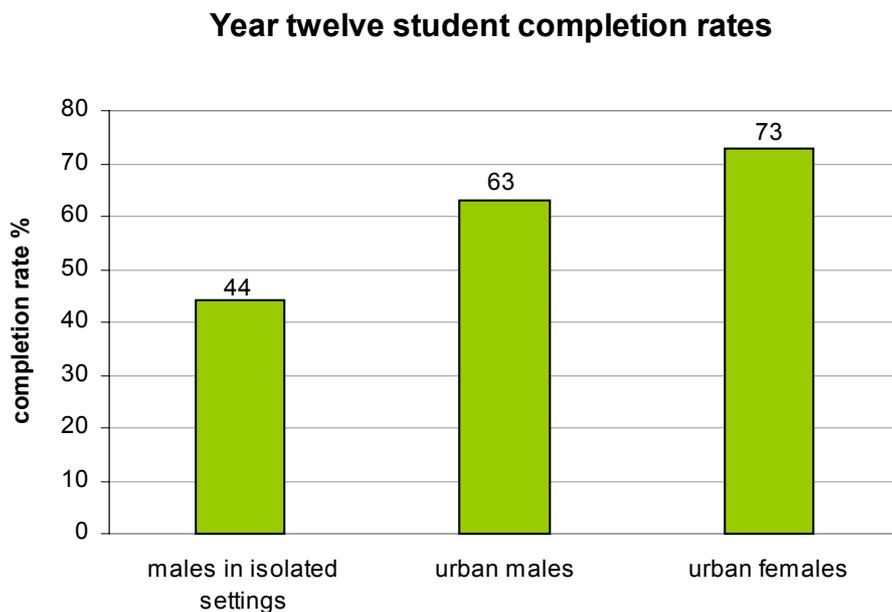
The decline in Indigenous Support Funding should concern all Australians who desire an equitable education system which provides opportunities for all. Governments need not only to restore funding levels, but also to promote the establishment of an Indigenous University on a distributed model.



Source: Durnan and Boughton, NCVET 1999

The pass rate achieved for Aboriginal community-controlled adult education colleges (ACC) is significantly higher than the pass rate for Indigenous students in VET. However, the figures also reveal that ACC's achieve a pass rate 2 per cent higher than the pass rates for all students / trainees in VET nationally. The importance of these figures cannot be underestimated. Indigenous students at the ACC's generally come from communities with high levels of unemployment and ill-health, and 46 per cent of those examined in the NCVET report (Durnan & Boughton 1999) had not completed year 10 schooling. Yet, despite these obstacles, Aboriginal community-controlled colleges achieved superior pass rates, largely because of the "additional support and more accommodating environment" provided for by these educational organisations (Durnan & Boughton 1999). These figures underline the relationship between educational outcomes and levels of investment. The establishment of an Indigenous University would represent a similarly bold step in the education of Indigenous Australians.

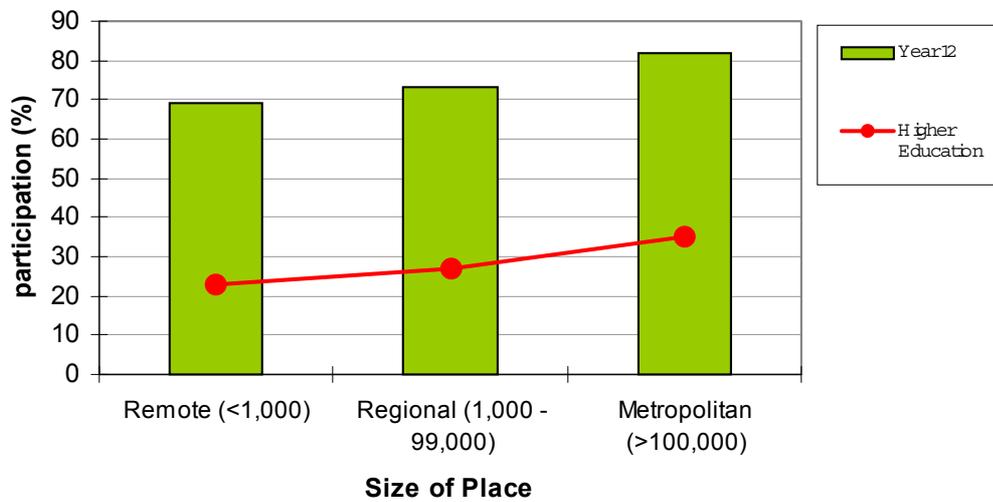
Educational Inequality in Regional Australia



Source: National Report on Schooling 1996

Educational and economic outcomes for rural and remote Australians must be improved. Retention rates decline as the degree of isolation increases, and completion rates are similarly disproportionate between urban and rural students. Year twelve males in isolated settings have a completion rate of only 44 per cent, compared with a 73 per cent success rate of females undertaking year twelve in urban areas. Social indicators follow this pattern, such as significantly higher rates of suicide amongst males, and particularly males in regional Australia. Research suggests that the overall cost to Australia of one year's early school leavers is estimated at \$2.6 billion per year (Dusseldorp Skills Forum 1999). Education, then, must be seen as both an economic and a social investment. To counter social dislocation, and to succeed in the new economy, education must be accessible to all, and retention and completion rates must reach high levels across the board. Improving education in regional Australia is vital to creating a fairer and more prosperous nation.

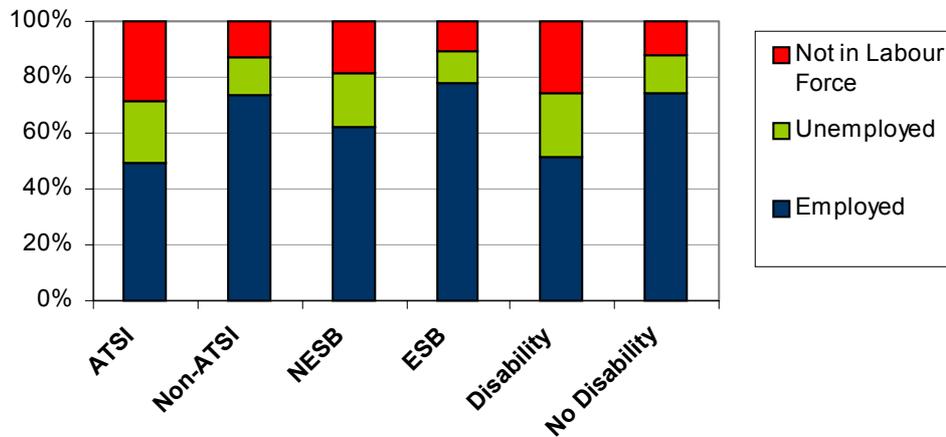
Participation in Year 12 (1998) and Higher Education (1999), by Year 9 Cohort of 1995



Source: Acer 2000b

There now exists an approximately 10 per cent difference in participation (in either year 12 or higher education) between urban and rural areas. In remote areas (defined here as comprising less than 1,000 people), students are 13 per cent less likely to participate in year 12, and 12 per cent less likely to participate in higher education, than their urban counterparts. The knowledge economy must ensure that regional and remote areas are not left behind, and this involves significantly improving educational and ICT services to these areas.

Labour force status as at 29 May 1998 of TAFE graduates by social group (ATSI, NESB and disability)



Source: NCVET 1999b: 10

This chart illustrates inequity in vocational education, by breaking down recent TAFE graduates into social groups. Of the Aboriginal and Torres Strait Island graduates (ATSI), only 48 per cent were employed, compared with 73.1 per cent of non-ATSI graduates. ATSI graduates were also nearly twice as likely to be unemployed or not in the labour force as non-ATSI graduates.

The results for graduates from a non-English speaking background (NESB) are also poor. NESB graduates are much more likely to be unemployed or not in the labour force than graduates from an English-speaking background (ESB). Only 62 per cent of NESB graduates were employed either part-time or full-time, compared with 78 per cent of ESB graduates.

Graduates with a disability face employment prospects similar to ATSI graduates. In May 1998, only 51 per cent of TAFE graduates with a disability were employed, while those without a disability enjoyed an employment rate of 74 per cent. Graduates with a disability were nearly twice as likely to be unemployed or out of the labour force than those without a disability.

What these figures show is that serious inequality of outcomes characterises Australian vocational education. TAFE graduates with a disability, or from ATSI or NESB backgrounds, are nearly twice as likely to be unemployed or not even in the labour force. Lifelong learning must be developed for all Australians, and the knowledge nation must address not only equality of participation, but equality of outcomes also.

ACTION AGENDA

Benchmarking Educational Opportunity

A democratic society cannot afford to make empty promises about equality of opportunity without risking its own credibility. It must demonstrate its seriousness about making real the main path to opportunity: education. This is especially the case at a moment when so much turns on education, for the individual as well as the society as a whole.

Genuine opportunity is created by investment inputs. And the results of improvements in opportunity are incremental reductions in the disparities in educational outcomes between different social groups.

Benchmarking educational inputs and outputs is a means of making governments accountable in terms of the most fundamental objective of a democracy—equity or equality of opportunity. At the school level, benchmarks which mirror the national benchmarking framework should be initiated, so that investment and outcome levels can be set in a national context. Every parent and every community has a right to this information.

Action: Create an annual benchmarking report card on educational investment, comparing inputs by: 1) location, defined both by region but also down to the level of individual schools; 2) type of school: private, public or community; 3) Indigenous/non-Indigenous status; 4) socio-economic and ethnicity demographics.

Action: Create an annual benchmarking report card on educational outcomes, measured in terms of length and level of education, employment destinations, tertiary enter and other test scores, indicators of social wellbeing etc. The educational outputs report card would aim to measure any improvements or deterioration in outcomes for different groups of learners, depending on their 1) location; 2) Indigenous/non-Indigenous status; 3) socio-economic context; 4) ethnic background and recency of immigration; 5) gender; 6) type of school.

Equity and Diversity Programs

Educational inequities require dedicated programs, as well as system-wide approaches.

Actions: Indigenous Education.

1. Restore and extend bilingual and language revival programs.
2. Develop dedicated and specialised programs and curricula for Indigenous communities.
3. Make Indigenous Studies compulsory for all Australian students.

4. Restore support program funding for Indigenous higher education students.
5. Establish an Indigenous university on a distributed model.

Actions: Languages and Multicultural Education

1. Establish language teaching and learning targets.
2. Establish a 'global communities' curriculum for all students, addressing globalisation, cross-cultural communication and issues of diversity.
3. In addition, the Charter recommends the adoption of the following five recommendations by the Australian Alliance for Language Policy (Lo Bianco 2001):

-Restore funding to the National Languages and Literacy Institute of Australia so that it may re-establish a national network of collaborative research centres to work in all areas of language and literacy research and support services with Indigenous, immigrant and professional communities;

-Institute a national enquiry into the teaching of English as a Second Language to immigrant children. One key aim of such an inquiry will be to examine the effects on ESL children of the push for English literacy standards since the adoption of the Commonwealth Literacy Policy in 1997;

-Replace the National Asian Languages and Studies in Schools Strategy with a comprehensive national languages funding mechanism which extends funding presently available to Asian languages to incorporate all languages, including Asian languages beyond the presently designated four priority languages;

-Commission a national training initiative for professional interpreting and translating with the express aim of ensuring that professional language services can be instituted in all areas of need. This is to make special provision for Auslan and Indigenous languages as well as other community languages;

-Consider ways of increasing access to community languages in Australia by creating public access television devoted to community language broadcasting.

Action: Regional Australia—Ensuring access to quality education by Indigenous and non-Indigenous people in rural and remote locations must become a priority, as must increasing the telecommunications infrastructure to ensure all parts of the country have adequate access to education.

Action: Tertiary entry is one of the key 'sorting points' at which structures of inequality are created. Two ways of blunting the inequitable edge of this

sorting process are to increase 'portfolio' rather than score-based entry; and to allocate tertiary places to disadvantaged schools and regions.

A 'NEW BASICS' IS EMERGING

Old Learning

The 'basics' of old learning were encapsulated in the 'three Rs'—reading, writing and arithmetic. The process was learning by rote and knowing the 'correct answers'. 'Discipline' was demonstrated in tests as the successful acquisition of received facts and the regurgitation of rigidly defined truths.

This kind of education certainly produced people who had learnt things, but things which were too often narrow, decontextualised, abstract and fragmented into subject areas artificially created by the education system. More than anything, it produced compliant learners, people who would accept what was presented to them as correct, and who passively learnt off by heart knowledge which could not easily be applied in different and new contexts. They may have been superficially knowledgeable (Latin declensions, or the grammar of adverbial clauses, or the rivers of national geography, or the dates of European history), but they did not have knowledge of sufficient depth for a life of change and diversity. It was a knowledge that was appropriate for a time that imagined itself as ordered and controllable.

New Learning

Discipline in the senses inculcated by the old learning may well have been adequate, even appropriate, to its times. But it is certainly not adequate to today's economic, civic and cultural circumstances. Knowledge today is:

Highly situated, or very specifically linked into an area of specialist professional knowledge, or a particular technology, or a particular subcultural interest, or a particular community group. These areas of life experience are becoming more peculiar to themselves—based on ever more elaborate knowledge bases and distinctive ways of seeing and speaking about the world. There is no way that a curriculum based on factual content or straightforwardly right and wrong answers can anticipate the range of life alternatives any one student is likely to encounter across a lifetime and across the lifewide range of settings they are likely to encounter.

Rapidly changing, and changing at such a rapid rate that any facts or truths learnt in school today (in the fashion of the old learning) are likely to be redundant or contested tomorrow, no matter how immediately relevant they may seem to be. The key question for today is what kinds of

learning will be durable?

Diverse, and very much determined by the peculiarities of a particular social and cultural context. Specific knowledge which works in one context will not necessarily work in another. Communicating in one way in one context (the doctor's professional development session, or amongst a gang in the street, or between same-gender members of a sports team) will not work in another (speaking to a patient, or going for a job interview, or doing a sports report for a newsletter). The key to learning today is not doing something the one right way, but doing things in different ways for different contexts—in ways which work not because they are rigidly and universally right, but because they are right for a particular context.

So, the focus of learning needs to expand:

Knowledge Sets and Capability Sets. It's not just the things you know which matter but also the things you can do. Insofar as knowledge is one element of capability, it has to be relevant to the doing, rather than knowing for its own sake. Capability is also a matter of selecting relevant knowledge. The condition of 'data smog', which highlights the sheer proliferation of information now available, means that selectivity or relevance to purpose, is as important as the knowledge itself.

Located Learnings and Transferable Learnings. Learning is not just about the way in which knowledge works in a particular setting. It is also about the ways more general understandings acquired in one setting can be transferred to another setting—from the classroom to the workplace, from one workplace to another, from one cultural or country setting to another.

Disciplined Learning and Reflexive Learning. Learning is not only about 'disciplines'—received bodies of knowledge and fixed skill sets. It is also about self-awareness, problem solving and intercultural skills—strategies, in other words, for dealing with diverse settings and rapid change.

Good Learners, Excellent Learning Outcomes

Good learners in the new educational environment will be:

Assisted and Self-directed. Good students will have learnt to move from assisted learning to autonomous and self-directed learning. In any new life context, they will be able to work out what they need to learn and how best to learn it. They will then learn it and apply what they have learnt effectively. The key to self directed learning is not to create learners who have already learnt things (and who come into a new situation over-confidently thinking they 'know'), but to foster learners who will be

designers of their own learning experiences, in collaboration with others as well as by themselves.

Flexible. Good learners will not come to any situation with pre-ordained, known answers. Rather, they will come equipped with problem solving skills, multiple strategies for tackling a task, and a flexible solutions-orientation to knowledge. They will be active and sceptical inquirers, capable of analysing the system and structure behind everyday experience, as well as being aware of the alternative perspectives and approaches (cultural, technical) which may apply in a particular context.

Collaborative. Knowledge is not individual—something which was very much the case in the old learning, where knowledge was considered to be the sum of what was in a person's head (and that's what the examinations which measured the old learning outcomes exclusively tested). Rather, knowledge is acquired through social activity, and itself represents a person's relationship to the world which surrounds them and accumulated human experience. In fact, in the so-called knowledge economy more than at any time in the past, knowledge is created collaboratively—in work teams, in scientific research laboratories, through community development. Knowledge is located in organisations and communities; it is a thing of corporate and cultural memory. As a consequence, an individual's learning capability is very much located in their capacity to collaborate. Learners are not people who can demonstrate what they, as individuals, know (what tests have traditionally measured); rather, good learners can demonstrate that they can work knowledgeably in groups. Drawing on the resources of knowledge around them, good learners are able to find knowledge which is actually more powerful than anything they could think through, or simply know, 'in their heads'.

Good teachers. Good learners do not only learn for themselves—they are able to teach others—as team leaders, as mentors, as community workers, as officials in voluntary organisations. For a society in which more and more will be learnt outside of formal educational settings, one of the most important roles of formal education will be to create people who are more educators than educated.

Good communicators. They will also be good communicators, and this means much more than correct grammar and spelling. Rather, every communication is soaked with peculiarity to its setting, in which the specifics of the medium are markers which indicate the location and purpose of message, and the nature of the relationships created by the message—a doctor compared with a patient, a wife compared with a husband, Aboriginal English compared with bureaucratic English.

Of open sensibility. Learning is as much about shaping dispositions as it is about creating specific capacities. Good learners are open to diversity, and open

to change. They are able to work productively with the cultural and linguistic diversity around them in work teams or in neighbourhoods. They are good at communicating with, thinking together with, learning from, and doing things together with, people whose life experiences and sensibilities are very different from their own. And their sensibilities are such that they are able to use the differences around them to best effect, by creating synergies, by using networks and by forming alliances. They are able to negotiate and compromise. And they are able to be different people in different contexts, whilst still being true to themselves.

Intelligent in more than one way. Good learners are able to learn in more than one way, to think in more than one way, to be intelligent in more than one way. Their intelligence may, in turn, be communicative, numerate, technical or process-oriented. It may be factual, or theoretical, or applied. Or it may be emotional, analytical, creative or critical. Good learners will also be able to live and work productively alongside, as well as learn from and with, people whose ways of thinking, being and learning are different from their own.

Broadly knowledgeable. Good learners are able to take the many different kinds of raw material in the world (culturally and location-specific information), and to work out the different interpretative frameworks within which that information sits (different worldviews, theories, belief systems—professional, cultural, technical). They are then able to use these understandings to do something that works in the world (transfer of understandings, transformation of their immediate world, being a change agent, crossing a cultural boundary). Integral to this broad and operational kind of knowledge are, of course, many of the things which the education systems of the 'old learning' do in fact (though often inadequately) teach: working with bodies of factual knowledge; working with discipline or interpretative frameworks; and applying knowledge in the real world. But the old learning focused on only a narrow slice of learning, and shaped a narrow orientation to knowledge and the world.

New Basics

The essence of old basics was encapsulated simply in the subject areas of the 'three Rs': reading, writing and arithmetic. Actually, the very idea of the basics indicated something about the nature of knowledge: it was a kind of shopping list of things-to-be-known—through drilling the 'times tables', memorising spelling lists, learning the parts of speech and correct grammar. This is not to say that multiplication or understanding the processes of written communication are without educational worth. The real problem was with the orientation to knowledge: first, the assumption that this kind of knowledge was a sufficient foundation; second, that knowledge involved clearly right and wrong answers (and if you were in any doubt about this, the test results would set you straight); and third, that knowledge was about being told by authority and passively accepting that authority as correct. If the underlying lesson of the

old basics was about the nature of knowledge, then it is a lesson which is now less appropriate in a world which puts a premium on creativity, problem solving and the active contribution of every person in a workplace or community setting.

The fancier contemporary words for these old 'basics' are literacy and numeracy. And of course, mathematics, reading and writing are today as important as ever, perhaps even more important. However, literacy and numeracy can either stand as substitute words for the old basics, or they can mean something new, something appropriate to the new learning. When they are merely substitute words for the old basics, they are mostly no more than statements of nostalgic regret for a world which is disappearing, or else they reflect our incapacity as adults to imagine anything different from, or better than, our own experiences as children at school. 'Let's get back to the basics', people say, and the operative words are 'get back'.

When we use the term 'new basics' we are indicating a very different approach to knowledge. Mathematics is not a set of correct answers but a method of reasoning, a way of figuring out a certain kind of system and structure in the world. Nor is literacy a matter of correct usage (the word and sentence-bound rules of spelling and grammar). Rather, it is a way of communicating. Indeed, the new communications environment is one in which the old rules of literacy need to be supplemented. Although spelling remains important, it is now something for spell-checking programs, and email messages do not have to be grammatical in a formal sense (although they have new and quirky conventions where we have learn-as-we-go—abbreviations, friendly informalities and cryptic 'in' expressions). And many texts involve complex relationships between visuals, space and text: the tens of thousands of words in a supermarket; the written text around the screen on the news, sports or business program on the television; the text of an ATM; websites built on visual icons and active hypertext links; the subtle relationships of images and text in glossy magazines. Texts are now designed in a highly visual sense, and meaning is carried as much visually as it is by words and sentences. This means that the old basics which teach adverbial clauses of time or the cases around the verb 'to be', need to be supplemented by learning about the visual design of texts (such as fonts and point sizes—concepts which only typesetters knew in the past). It also means that the old subject division between language and art is not as relevant as it once was. Nor is literacy any longer only about learning so called 'proper usage'. Rather, it is also about the myriad of different uses in different contexts: this particular email (personal, to a friend), as against that (applying for a job); this particular kind of desktop publishing presentation (a newsletter for your sports group), as against that (a page of advertising); and different uses of English as a global language (in different English speaking countries, by non-native speakers, by different subcultural groups). The capabilities of literacy involve not only knowledge of grammatical conventions but also effective communication in diverse settings, and using tools of text design which may include word processing, desktop publishing and image manipulation.

More than new contents like these, however, the new basics are also about new kinds of learning. Literacy, for instance, is not only about rules and their correct application. It is about being faced with an unfamiliar kind of text and search for clues about its meaning without immediately feeling alienated and excluded from it. It is also about understanding how this text works in order to participate in its meanings (its own particular 'rules'), and about working out the particular context and purposes of the text (for herein you will find more clues to its meaning to the communicator and to you). Finally, literacy is about actively communicating in an unfamiliar context and learning from your successes and mistakes.

Education always creates 'kinds of persons'. The old basics were about that: people who learnt rules and obeyed them; people who would take answers to the world rather than regard the world as many problems-to-be-solved; and people who carried correct things in their heads rather than flexible and collaborative learners. The new basics are clearly things which set out to shape new 'kinds of persons', persons better adapted to the kind of world we live in now and the world of the near future.

The new learning will be:

General in its focus, rather than specialised on the particular needs-of-the-day.

Today's relevance is tomorrow's anachronism. Besides, to be truly relevant in an immediate sense, there are simply too many areas to cover. This produces the phenomenon of the 'crowded curriculum' in which formal education institutions are now simply expected to cover too much ground. Or, it produces the 'shopping mall curriculum' in which students are provided too much choice and each choice is too particular. The paradox of this moment of particularity, change and diversity in all areas of knowledge and human experience is that formal education needs to become more centred, and more focused on a few core areas of learning. Each of these core areas must be studied at a higher level of generality than the traditional subject areas, must be relevant to a broad range of students with quite different life destinations, and must be applicable in very different contexts. The specifics are more likely to be learnt in professional training programs, from help menus, from whatever experiences life turns up—in informal learning settings, in other words. Even professional courses (in vocational education and higher education) are going to need to increase the level of generality at which they operate to stay relevant to a more rapidly changing technological, business and community context.

About creating a kind of person, with kinds of dispositions and orientations to the world, and not just persons who are in command of a body of knowledge. These persons will be able to navigate change and diversity, learn-as-they-go, solve problems, collaborate and be flexible and creative.

Interdisciplinary in its nature, breaking down the old subject or academic discipline boundaries. In fact, the number of subjects or core learning areas may be reducible to as few as five or even three. These will involve deeper engagement with knowledge in all its complexity and ambiguity.

The following table is one possible map of the new learning. Down the left hand column are three possible learning areas. The terms *techne*, *oeconomia* and *humanitas* are used to mean something broader more than the English equivalents 'technology', 'commerce' and 'culture'. Traditionally, *techne* would have been what was taught in a range of areas from science and mathematics to vocational and technical subjects; *oeconomia* would have been taught in business, economics and domestic science; and *humanitas* in the humanities—English, languages, history.

Across the top are three domains of social action which define the new person, the worlds of work, citizenship and their personal identities. And the very general words in the table indicate some relevant capacities required in the application of areas of learning to the world of everyday social activity.

New Basics

New Worker, New Citizen, New Person

	Work	Civics	Identity
<p>Techne</p> <p><i>Technology, and more—the capacity to use various tools and instruments to get things done, technique, method, practical reasoning, science, human impacts on the environment.</i></p>	Scanning Discovery Innovation	Agency Selection Advocacy	Navigation Discernment Appropriation
<p>Oeconomia</p> <p><i>Commerce, business, economics, and more—frameworks for getting things done in the social world, for being productive and effective, including work in the home and community as well as paid work.</i></p>	Calculation Entrepreneurship Innovation	Complexity Motivation Mediation	Negotiation Reflexivity Application
<p>Humanitas</p> <p><i>Understanding one's own culture and the cultures of others, acting sociably, boundary crossing and working with diversity.</i></p>	Investigation Co-operation Reflection	Communication Ambiguity Compromise	Multiplicity Recognition Transformation

New Basics, Old Subjects

New Basics	Old Subjects
Techne	Science Mathematics Technology Media Studies Environmental Studies
Oeconomia	Business Studies Economics Accounting Domestic Science/Family Studies Gender Studies
Humanitas	Philosophy History English Cultural/Multicultural Studies Aboriginal Studies Health and Sport

New Assessment

Old assessment was the end point of the knowledge production line which characterised the old learning. The government authorities listed the contents-to-be-covered in the syllabus; the text books followed the syllabus; the teachers in the classroom did their chalk and talk in a way which was faithful to the syllabus and the textbook; and finally the students did the tests, and demonstrated (with their right or wrong answers to a content-focused questions) what they had learnt or not. More than just the end point of the learning process, however, the tests drove the system, for all value was measured by tests in the old learning—the value of individual students, the value of their teachers and the valuable knowledge which the tests judged to be known or not known.

The back-to-basics people have for some time wanted us to return to old style testing, and their political pressure has substantially succeeded. Regular, universal, standardised testing puts accountability back into the system, they say. It gives parents and learners clear information about how the learner is going. It makes teachers and educational institutions perform.

Actually, the new-old tests measure exactly the wrong things for the kind of society and knowledge economy we are moving into. They take education back to the days when it was a test-driven sausage machine, where the whole effort is focused on exam technique and the kinds of ‘correct’ answers which (after spending a lot of mental energy divining the intentions of the examiners) seem to produce the ‘best’ results. They are individualised (measuring what’s in a single person’s head) when real-world learning is increasingly collaborative and knowledge is seen to be possessed by groups and organisations (relying on the information and recording systems which constitute corporate memory, instead of relying on what’s in individuals’ heads). They rely on memory when knowledge is increasingly supported by ever-present props (books to look up, people to ask, help menus and help desks). And they measure certain limited kinds of intelligence, and to be precise, these are just those kinds of intelligence which thrive on what tests measure. Tests are an excellent measure of a person’s ability to do tests, and not much else.

The terrible irony of this moment is that precisely when old style tests are least relevant, we are nevertheless relentlessly coming back, and this is partly because our political leaders do not have the imagination to create tools which go beyond their own experiences of schooling. Much of today’s emphasis on testing is a tragic waste of time and money, using old solutions in an attempt to solve new problems.

New learning certainly requires assessment, in order to tell students, parents and prospective employers what a person has learnt. But new assessment must:

- measure the *new basics*, and not the old;

- revalue the *professional judgment* of teachers (which has been devalued by taking assessment out of their hands, and giving it to a bureaucratic and centralised standardised testing machine);
- be about developing *kinds of person* who relate to learning and to others in particular ways (rather than have particular things crammed in their heads);
- measure, not what you know, but *how you work with not knowing*. It is a cliché that the know-alls who do well in tests are often not very smart at all. They prove to be know-nothings when they have to figure something out for which there are no obvious, pre-packaged information, or in situations when the facts fixed in their head don't seem to work;
- be about how you learn, not from what's in your head as an individual, but *collaboratively in groups*, and using the social supports around you (looking things up in the right place, asking the right questions of the right person, making an emotional as well as a cognitive connection);
- focus not on regurgitating the 'right answers' but on *dealing with change, diversity and unpredictability*.

The new assessment means redefining what is meant by terms such as competence, ability, capacity and intelligence. Indeed, it even involves changing the measure, from the replicated sameness of outcome anticipated by standardised testing, to similar or comparable outcomes amongst learners whose life experiences, interests and thinking styles are invariably very different. Standardised testing measures whether its one-size content knowledge has fitted all (which it never can, and in fact measures the similarity of some students to the single set of assumptions about knowledge and thinking). New learning, by contrast, is taking students in the direction of comparable levels of personal autonomy, self determination and access to social resources in the worlds of work, citizenship and personal life.

Here are some kinds of assessment which will provide excellent measures of the new basics:

Project assessment, based on indepth tasks which involve task plan, complex collation of material and presentation;

Performance assessment, based on the planning, doing and completion of a task;

Group assessment, of the collective work of a whole learning group, or of the collaborative capacities of individual group members;

Portfolio assessment, through documenting the body of works undertaken, unique life experiences and other learning achievements.

Change within Schools

The Australian secondary schools system is in urgent need of change to help deliver the 'new basics' and to confront twenty-first century challenges. Some of the problems in schools are easily revealed in graphs: the national retention rate is low overall, and the retention rate for Indigenous students in particular is lamentable; public schools are receiving insufficient funds both relative to non-government schools and overall; and teachers are overworked and underpaid.

However, other issues are perhaps even more pressing, though they are not as easily quantifiable. In general, Australian schools remain based on an 'industrial' mode of thinking. The focus is on preparing for the next step of education (preferably the university sector), before beginning a working life.

Yet, this Charter has argued that conditions of culture today are significantly different from those of the nineteenth and even twentieth centuries, when the schools system was being developed and expanded. Greater fluidity is perhaps the signature of contemporary times. Learning now cannot be seen to end with school or even university, and education is no longer viewed as a process isolated from work. The realities of lifelong learning, and the changing nature of work, suggest a need for schools to adjust and adapt. Australian schools must not only better reflect the post-industrial age, but must actively promote broad and diverse learning.

This is not to say that the schools system has remained oblivious to change. This charter acknowledges that several projects have addressed changing conditions, and many of them have been highly successful. The introduction of the VET in Schools program (VETIS), for example, has brought encouraging results in states such as Victoria, with large numbers of graduates finding work, and a high percentage of graduates adjusting well to tertiary education upon completion of their secondary degree (Polesel, Teese, O'Brien 1999a). Attempts to expand this program to the adult VCE have also been noteworthy.

The Education Network Australia (EdNA) Schools Pilot Program Facilitating Community Access to IT (CAITS) has also been instructive. This program aimed to "provide community access to online technologies, through schools, in rural areas and areas of socioeconomic disadvantage within Australia" (Centre for International Research on Communication and Information Technologies 1999). By making IT equipment and assistance available outside school hours, and by encouraging the use of the internet in lifelong learning, this program aimed both to improve learning opportunities for those disadvantaged or at-risk, and also to change the role of schools.

This type of program is necessary on a much broader scale- schools must be reconceptualised as community and learning centres, and they must become more flexible and responsive. An important part of the CAITS program was the enhancement of relationships between schools and local communities,

facilitated through greater interaction and through recasting the traditional role of the school.

Similarly, the involvement of some ACE and VET providers at secondary level has been meritorious. The informal environment of ACE, in particular, is clearly advantageous to many adults wishing to re-enter secondary education, but also to many young students (Kirby 2000: 108). Other programs, such as the Advocacy Program in Victoria, have followed European examples by introducing a mentoring element within formal educational settings. Teachers here are encouraged to build relationships beyond conveying information, and although inchoate, this approach has already shown demonstrable benefits (Kirby 2000: 130).

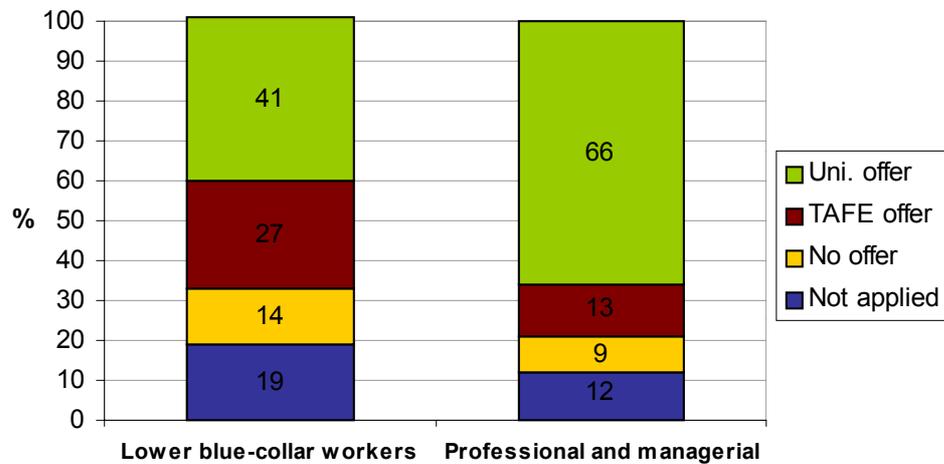
However, all these examples affect proportionately few students. The typical Australian secondary school still follows rigid hours of education, is tied inextricably to university entrance demands, and does not maximise different learning potentials. According to a recent OECD review of fourteen nations, Australia is one of only two nations which maintains a predominant model of 7-12 secondary schools (OECD 1999), suggesting that the old 'industrial' structure of schools is largely intact. This is the result of a lack of vision, and an unwillingness to embrace global changes at the school level.

Increase regional collaborations

New learning requires fluidity, flexibility and diversity. It also requires greater collaboration and co-ordination. The recent Kirby report in Victoria (2000) contends that regional collaborations are of urgent need. Collaboration between schools and universities, between schools and VET providers, between schools and businesses, and between schools and local councils, will become increasingly important. Some progress is already being made here, particularly through VETIS programs, however most present links are minor. The university sector, in particular, needs to become more closely involved with schools.

Other nations are working hard to provide post-industrial schooling alternatives. In the US, for example, career academies are now prominent. These career academies involve students who maintain the same group of teachers for 2-4 years, partnerships with employers which enable integrated work-based learning opportunities, and curriculum centred on a career theme. Trials of similar programs in Australia need to be developed and explored in much greater depth. Alternatives to old learning and the old basics are not just desirable projects of the future- they are needed today if we are to compete as a nation in the knowledge economy.

Not applying, not receiving, and receiving TAFE and university offers - socioeconomic extremes



Source: Kirby 2000

TAFE is constrained by its being viewed as a second-choice organisation. Young people are twice as likely to reject TAFE offers as they are to reject university offers (Kirby 2000: 70). Young people from lower blue-collar workers' families are less likely to apply for a tertiary offer than those from professional or managerial families (19 per cent compared to 12 per cent). When they do apply, those from lower socio-economic backgrounds are twice as likely to receive a TAFE offer (27 per cent to 13 per cent), but this is due largely to poorer achievement levels and consequently fewer academic expectations (Kirby 2000: 72). Those from professional or managerial families are much more likely to receive a university offer (66 per cent to 41 per cent).

TAFE remains undervalued, and this inevitably shapes the school curriculum. Schools become overly focussed on university, and the curriculum is designed to privilege university entrance above other options. The teleology of schools is still too narrow, and this has a homogenising effect. Although there may appear to be a great diversity of school subjects, each subject is designed with the university sector in mind. To become a knowledge nation, the importance of TAFE will need to be recognised more, and schools will need to broaden and diversify their curriculum.

ACTION AGENDA

Curriculum

Serious and imaginative forward thinking is required on the nature of the 'new basics', and the shape of the future curriculum.

Action: Undertake research into capacities needed by employers and communities, and the relevance of today's learning to their needs.

Action: Curriculum development—exemplary program development and development of curriculum materials focusing on the new basics.

Action: Increase career education and orientation in the school curriculum.

Action: Develop 'Lighthouse' institutions. Lighthouse centres are essentially Information and Communication Technology (ICT) centres, and the idea is to utilise ICT and also transcend government and non-government sectoral boundaries. These centres could accommodate a wide range of young people and represent another alternative to the industrial school model. The Kirby report (2000: 98) recommends Victoria adopt a small number of these institutions, and this charter argues that such institutions should be developed in all Australian states and territories.

Assessment

New assessment frameworks and processes need to be developed as a matter of urgency, to stop the haemorrhaging of resources into a testing regime which is often a waste of money at best, and at worst irrelevant to the needs of the 'knowledge society' and damaging to individuals.

Action: Research into useful capacities which the current testing regime fails to test.

Action: Development of experimental new testing frameworks focused on the new basics, portfolio assessment, assessment of collaborative or group competence, project assessment and performance assessment.

TECHNOLOGY WILL BECOME CENTRAL TO ALL LEARNING

Old Learning

In the classrooms of the old learning, teachers started and ended their lessons at regimented times, stood at the front of the class, and used chalk and talk as their main instructional technology. Meanwhile, for the students, the primary technologies of learning were textbooks, pens and pencils, and exercise books. These technologies were both creatures of the old learning and, to a significant extent, shaped the nature of the learning relationship.

New Learning

Technologies of digitisation, mainly centred around the personal computer, have the capacity to transform learning relationships, possibly but not necessarily for the better.

Learning through technology. Quite simply, more sophisticated learning will happen using computers, as well as ancillary content capture devices (digital cameras, sound recording devices) and networking processes (file sharing, the internet). Some of this learning will occur in conventional classrooms as the computer-to-student ratios drop and more students gain additional access to computers in class time. Much of it will happen in new ways—learning at home or at work using structured learning experiences, or learning simply by playing games or using the internet. A large proportion of what users know about the new digital technologies today, from the computer in the home to engineers working at the highest levels in technology companies, has been self-taught. This learning has occurred more through technology than through education in its old institutional sense, and that is partly because educational institutions have lagged behind in introducing computers as a tool through which their students can learn. However, educational institutions need to catch up. Indeed, online or e-learning is now widely predicted to become one of the most significant boom industries within the knowledge economy. But for this new learning to materialise new pedagogies and curricula will need to be designed. This will also require the professional development of teachers in understanding and using the new technologies in ways that genuinely enhance learning.

Learning about technology. Technology, however, is not something which is simply accessed by gaining a technical understanding of its internal workings. If technology is to be a central part of learning, it should itself

be humanised, and based on a critical and balanced view of its use to humans rather than a decontextualised 'how it works' view. What can technology do for us, or, when denied access, do for just some of us and thus create new inequalities? In a broad view, technology is a series of relationships, amongst humans and between humans and the natural world. This broader view is encapsulated in the idea of *techne* discussed earlier as one of the 'new basics'— the capacity to use various tools and instruments to get things done, technique, method, practical reasoning, science, human impacts on the environment. All learning today should include technology in this sense as one of the key areas of learning. Technology is not just a tool for learning, in other words. It should be one of the main things that learning is about. It should be a message as well as a medium. This is equally true of learners and teachers, given the rapidity with which technology changes.

New ways of learning using technology. When used as a learning device and tool, the new technologies can produce enhanced learning experiences. Equally, however, and despite all their flashy appearances, they can produce a reduced learning experience. The challenge is to figure out possible new ways of learning using technology and to develop them. To examine the possible negatives first, computer-aided instruction is all too often just another way of cramming old style content or a matter of handing the job of skill-and-drill over to a machine, and a machine which tells you whether you are right or wrong in an even more inflexible way than the old teacher-examiner. The syllabus, textbooks and examination system of the old learning made the teacher a mere cog in the knowledge transmission machine. E-learning goes one step further and sets out at least in part to eliminate the teacher. When the media moguls who control the e-learning portals become the providers of content, the learners will become captives to whatever they provide. Computer-based learning can also make learning an individualised experience. The focus is often on what's in your head rather than what you can do and how you communicate, relate and learn with others, just as it was with old learning. It becomes something between you and the machine, rather than a tool that helps you relate to others.

All this adds up to a situation which is undoubtedly worse than learning even in the most draconian of old classrooms, where the teacher at least was there to answer questions and to relate to students as persons. It is a kind of accidental reversion to the very worst of the old learning, and this in part because the educational learning systems are designed not by educators but by computer engineers whose knowledge of education mainly comes from their own childhood experiences. On the other hand, the new technologies could enhance learning, but only if the focus is on learning as a set of human relationships and tools (*techne*); only if the technologies are a means to human ends rather than ends in themselves.

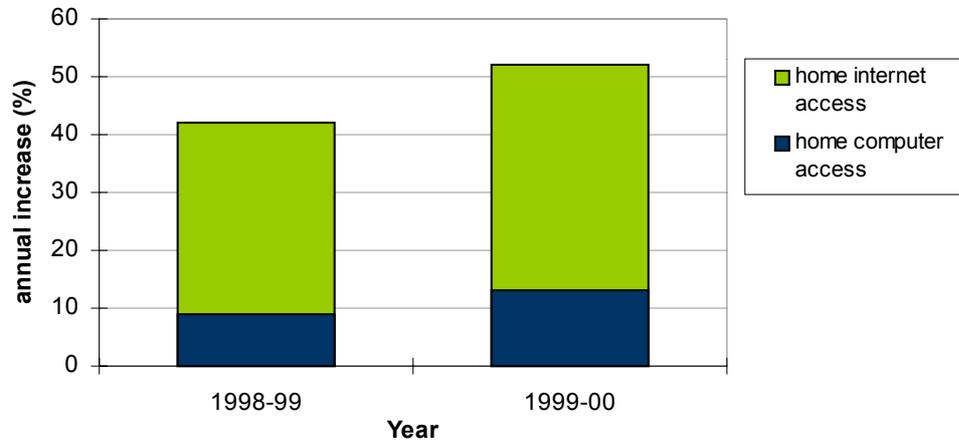
Here are some of the possible advantages of computer aided instruction: Whereas the chalk-and-talk classroom worked for the typical child somewhere near the middle of the class, computers can cater for classroom diversity by providing customised learning experiences which meet the needs and interests of individual students. Whereas the information resources and perspectives available in a textbook were limited and required no selection on the part of the learner, the information available on the internet is virtually unlimited and requires the development of skills of navigation and discernment. Whereas students in traditional classrooms were highly dependent on instructions ('pick up your pens and write ...'), computer aided instruction can develop the autonomous, active and interactive learner. Whereas everybody in the traditional classroom, the learners and the teacher, had to be on the same page at the same time (rigidly synchronous learning), learning through computers can be asynchronous and thus correctly paced to meet each student's needs. Whereas group work was not so easy in conventional classrooms, students can easily work collaboratively in online groups, and these groups do not have to be bounded by the walls of the classroom—they can be as wide as the world. And whereas the traditional boundaries of learning (and barriers to entry, progression and opportunity) were geographically defined (the classroom walls, the university campus), now learning can happen anywhere and at any time—at home, at work and in community settings.

And, indeed, some examples of the use of this new technology in higher education are already notable. In chemistry, software now allows students to analyse samples or change parameters during virtual experiments. In meteorology- software now lets students alter variables, such as the ocean temperature, to see the effects on weather patterns. In speech pathology, students can now manipulate a virtual skull to see how the jaws and tongue move in response to certain muscles. Even in classics, students can read classical texts, primary and secondary sources in Latin, Greek and English, with online dictionaries. They can also immediately link sites mentioned in the texts to a map of the Mediterranean, and view related photographs etc. online (these examples are further discussed in Newman & Scurry 2001). Interestingly, too, the University of WA has collaborated with the Cerebral Palsy Association of WA to develop an online science project. Students with disabilities are frequently discouraged from science courses because of inability to participate in practicums but new technology now enables them to join in interactive virtual experiments (Malatesta 2001). Overall, though, these examples highlight what could be done, and what should be done on a much greater level than the piecemeal approach currently operating.

Learning out of educational institutions. Technologies are changing where and when learning occurs. This changes education to its very core, including what might most usefully be taught in learning institutions. If every

learner had a portable computer, they would be able to learn more at home, and maybe play/ socialise more at educational institutions. They would learn more of what they need to know informally, by playing computer games, or surfing the internet for interest and fun, or joining their internet communities of choice. Our experience of technological change over the past few decades tells us that much of what we now need to know is not learnt in formal educational institutions, and perhaps even, is better not learnt there. For most competent users of technologies, learning has been never more formal or didactic than using a help menu or asking questions of an online community. Educational institutions should provide more of an enabling role than a teaching role, and should more usefully be focused on shaping kinds of person (open, flexible, able to teach themselves what they need, able to create knowledge collaboratively) than on knowledge about technology.

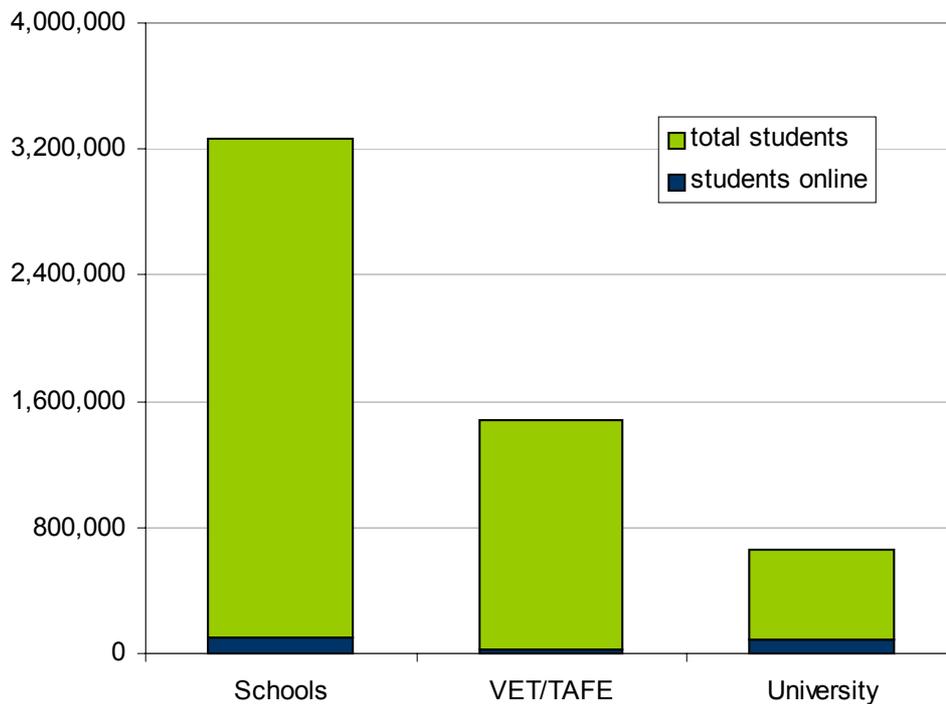
Annual growth in home computer and internet access



Source: ABS cat. 8146

Australia is witnessing a rapid increase in the number of households with both computer and internet access. By 2000, over half (53%) of Australian households had access to a computer at home and one third (33%) had home internet access (ABS cat. 8146). Between 1999 and 2000 alone, the number of households with internet access increased by 52%, or almost 800,000. This embrace of technology is encouraging in itself, but it also means that we need to explore ways of learning which harness this technology. Clearly, the talk and chalk method of teaching has little relevance in a computer age. New modes of teaching need to be developed, and Australia must also ensure that this new technology does not lead to a deep digital divide.

proportion of students online, 1999



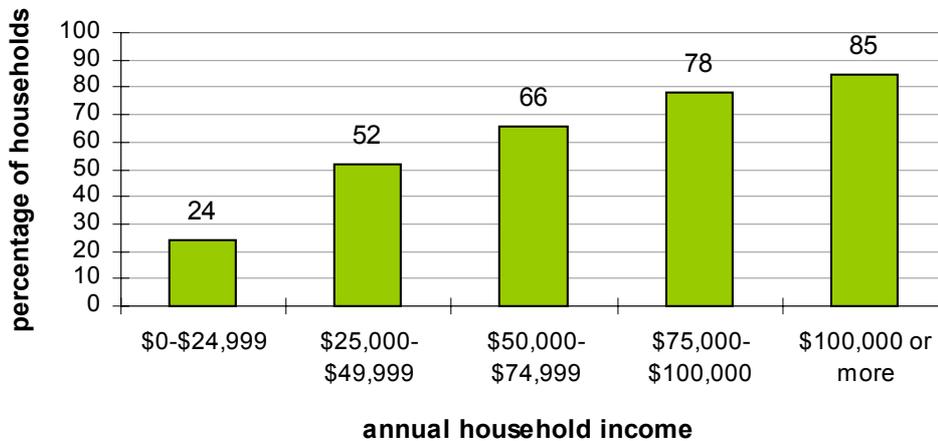
Source: White 1999 (orig. www.consult pty ltd)

The number of students with regular access to the internet is still proportionally low. Only 100,000 of the nation's 3 million schoolchildren, 88,000 of 600,000 university students, and just 25,000 of 1.5 million VET students are regular internet users. Within these figures, school users between the ages of 15 and 19 are three times more likely to access the internet than students less than 15 years of age, according to the Student Internet user report: First-half 1999 (cited in White 1999). Internet access for students in the lower years of secondary school is still too low, and students need to be encouraged to take up online resources before their final years of school. Research has shown that student alienation and declining performance in years 7-9 strongly influences attitudes and student choices later in life (Arthurson 2000).

Additionally, the number of TAFE students accessing the Internet is particularly low, and there was no net increase from February 1998 to February 1999 (White 1999). At each level of education, there is insufficient use and development of online resources, and the problem is clearly worst in the vocational learning sector. Improving the standing of VET requires significant development of infrastructure and technological resources.

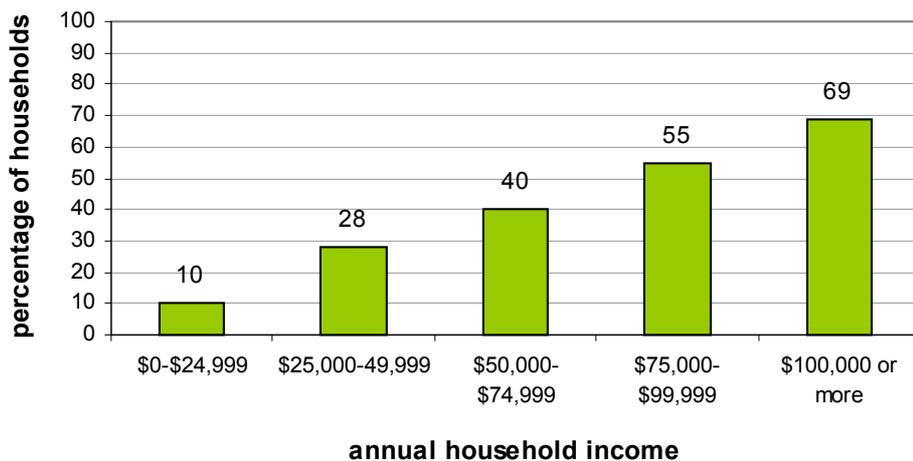
Bridging the 'Digital Divide'

Households with home computer access



Source: ABS cat. 8146.0

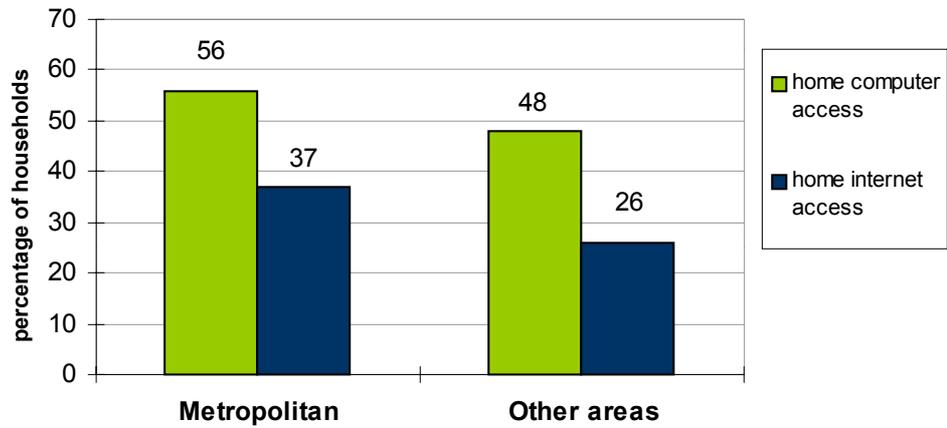
Households with home internet access



Source: ABS cat. 8146.0

The digital divide is now clear. Households earning \$100,000 or more are three times more likely to have access to a computer at home than those in the lowest income bracket, and nearly seven times as likely to have home internet access. As learning increasingly revolves around new technologies, access to computers and the internet is critical. One way in which the digital divide can be tackled is through the education system. Every student should have access to a computer and to the internet, in class and at home. The knowledge nation must be inclusive, and must provide opportunities for those from all backgrounds.

The regional digital divide



Source: ABS cat. 8146.0

The digital divide also affects Australians outside of metropolitan areas. Those who live in a metropolitan area are nearly 50 per cent more likely to have access to the internet than those in rural and regional areas. This divide must be addressed through improvements in bandwidth and telecommunications services, and by ensuring that educational institutions outside of metropolitan areas provide sufficient access to computers and the internet for their students.

ACTION AGENDA

Infrastructure

Clearly, some students have more access to the digital world than others—the ones who already have at home personal computers, internet connections, DVDs, digital cameras, digital video cameras or Play Station 2s. If the opportunity gap is not to widen, education must ensure all students have access to critical components of digital technologies.

Action: Provide every learner with a laptop computer, to be replaced every three years. These should be backed by: a) wireless networking in the classroom; b) free internet connections for households with children studying. Costs of software and hardware could be minimised by mass purchase and IT company sponsorship of educational editions of their products. If the cost of this initiative is \$1500 per student per year, the funding needs to be covered by essential increases in overall education expenditure, insofar as more learning will occur autonomously.

Content

The days of lugging bags of textbooks (themselves a limited learning medium, a remnant of the old learning), may soon be over. Most content—text, images, sound—can now go online. Content will be more comprehensive, more diverse and more demanding of skills of navigation, discernment and selection than was ever possible with the use of textbooks, which tended to create course content which was synoptic, apparently ‘correct’ and test-oriented. Screen-based reading will not be the only option, as downloaded text can also be printed out on printers located in every classroom, so long as content is also created in page-facsimile formats.

However, much work needs to be done in the area of content development before the online learning becomes adequate to the demands of the new learning.

Action: Online infrastructure is not itself sufficient. Large investment is needed to create effective learning relationships in and through the new technologies. This should include:

- *Learning filters:* tools for navigating, critically assessing and selecting relevant content; digital literacy—online content as a matter of critical selection rather than information download.
- *Collaborative learning environments:* frameworks for group construction of knowledge in an online environment, networked learning, peer-to-peer learning rather than individualised learning.

- *Autonomous learning*, including fun ways to replace teachers having to deal with memory work, and in ways which are more sensitive to student diversity than the conventional classroom. Skill and drill becomes fun and games, with constant formative assessment which continually evaluates which learning processes are relevant and appropriate to the needs of an individual student. At every point, students would be guided on paths to further learning as well as being able to take relevant learning tangents.
- *Transactional learning*: online learning is a matter of communication and sharing (content upload) as much as reception (content download). Instead of student work being created for the traditional audience of one (the teacher or the examiner), online learning involves constant publishing, or making work available to an audience of fellow students, parents and the community. The community of learners becomes the creator of their own learning environment, and the teacher's guiding and filtering role is now more like that of a publisher than the traditional didact standing at the front of the room.
- *Teacher facilitated learning*, rather than teacher led learning, involves teachers working at online help desks, as managers of 12 by 7 study centres, as moderators of home and community based learning.
- *Portfolio assessment*, in which every student is constantly publishing to their personal website, thereby building a portfolio of the work they have done, and more broadly of their life experiences. This may be reviewed and annotated with teacher judgments, peer judgments and community expert judgments.

These developments are possible with today's technology. Most online learning, however, is a travesty of what is possible. It has to date been dominated by the textbook publishers, media conglomerates and get-rich-quick dotcom companies who know that e-learning will be a big market in the future but who have little real interest in education other than as a market. The problem with each of these players is their cynical relationship to the testing regimes and their lowest common denominator notion of 'demand'. The track record of the commercial textbook publishers does not bode well for significant online innovation on their part. They are the ones who have catered to parents' understanding of learning with anachronistic 'basics' books. They are also the ones who have catered to highly pressured teachers with curriculum-covering and curriculum-filling, but pedagogically worthless, textbooks.

If genuine change and improvement in learning is to occur, it must be research-based and supported by the massive investment in innovation which only educational systems can afford. This is a turning point in education as fundamental as the beginning of mass compulsory education in the nineteenth

century. It involves an initial investment which will be as great today as was, in its time, the construction of enough schools to take every child. It is by no means enough to see computers on desks. The investment has to be big enough to transform the way students learn, and the very relationships of teacher-to-student and peer-to-peer learning.

THE WORK OF EDUCATORS WILL BE TRANSFORMED

Old Teaching

Teaching has never been a career which was chosen for mainly monetary reasons. It was a vocation, and primarily women's work, taken up by the brightest young women who, had they been men, might have become doctors and lawyers. Often these women left teaching to raise families, and sometimes they returned when their families had grown up. Further up the hierarchy, school principals and university academics were predominantly men, again selecting education not for its level of remuneration so much as for its job and career security.

New Teaching

As gender roles have changed, and the relative status of teaching as a profession has declined, it has become harder to attract highly capable people to education.

Teaching has also become an unattractive job, hardly the 'vocational' or lifestyle choice it used to be. Schools have become self managing, which has added the burden of running the business of the institution as well as doing the teaching. Accountability and responsibility have been transferred from the system level to the school level as if the school were an independent enterprise. And in all areas, particularly in higher education, a growing part of the educational process has literally been turned into a business as government reduces its overall contribution—having to 'sell' the 'product' to full fee paying overseas students, and now, domestic students too. At the same time, there has been a growth of partially self-funded private and community-based schools, and in some countries, the establishment even of for-profit schools built on private investment. Workloads have been transferred onto teachers as the old highly scaffolded syllabus and textbook infrastructure has been replaced by school-based and teacher-designed curriculum. Productivity has been 'improved', particularly in higher education, by increasing the staff-student ratio.

This, in fact, is nothing more than a draconian public resource squeeze, more designed to force the educational institution to try to find other sources of funding than to find new and more effective ways of teaching. Teachers have also increasingly found that their work is driven by back-to-the-future testing regimes. They face new pressures to deal with social crisis points, such as drugs, suicide and the consequences of family break-down. Then there is the host of new curriculum areas in which teachers have to train themselves before they can bring their teaching up to date, from drug education to driver

education, and perhaps the most pervasive and challenging of these is the area of information and communication technologies.

These pressures have made teaching a less attractive job. The new world in which learning is so central and so economically valuable has not yet turned teaching into an attractive profession. In fact, it has done some of the reverse. Today, teaching is a profession which represents the worst of both worlds, the old and the new.

The new teaching profession should:

Be better paid. Teachers and academics earn significantly less than professionals who require similar levels of training, such as doctors and lawyers, yet their job is just as professionally challenging, and every bit as important in social and economic terms. If education is to deliver even a fraction of what is promised of it for the 'knowledge economy', teachers have to be paid much higher salaries and the gap at least reduced between their profession and the others.

Receive non-monetary rewards. Although the salary gap between teaching and the other professions needs to be reduced, it may never be closed. The education profession should also offer non-monetary rewards related to the peculiarly demanding professional and personal development needs of teachers. This may include sabbaticals, paid time off to do courses (part time, full time) and teacher exchange with other countries in the world in which travel and other expenses are supported. Education should become a lifestyle choice, a choice not to be in the competitive world of business but in the nurturing and intellectual world of learning. A career in education thus becomes a decision, even if at some financial cost, to commit oneself to the world of ideas and human growth. But if you are to make this choice, you can't be expected to work in a place which has to run just like a business with all its attendant stresses and strains.

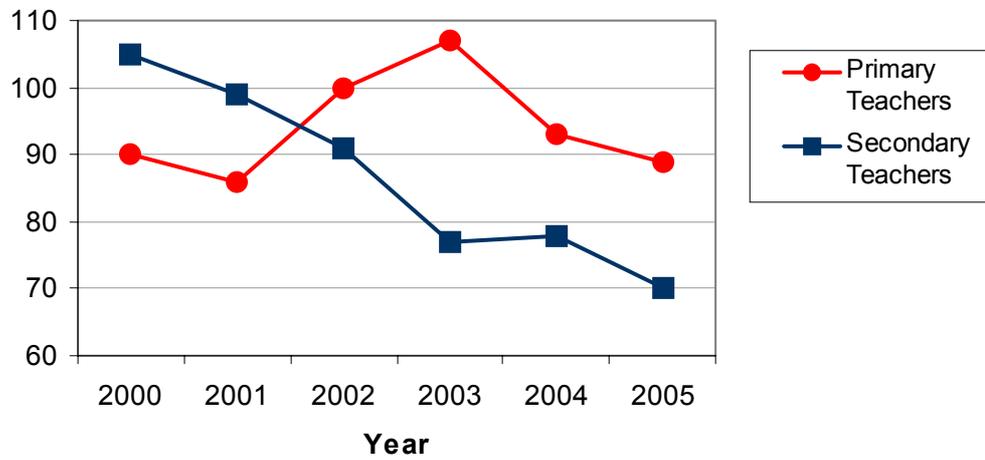
Offer career path alternatives. One in seven workers has a teaching qualification. In New South Wales, sixty per cent of people with a teaching qualification do not teach and the average length of a teaching career is seven years. The bleak construction one can put on this is that people are leaving teaching in droves. More positively, it may mean that teacher training already has a high level of portability. Perhaps it should become more portable, and teacher training should be designed for what it is—a highly flexible and in-demand set of human attributes transferable right across the 'knowledge economy'. An education qualification might take you into the private sector as a trainer, a team leader, a mentor or a mediator. It could easily take you for a stint overseas. It could take you into a job which is better paid than teaching, albeit perhaps with some lifestyle sacrifices. Rather than lament the fact that teachers leave for greener pastures, they need to be encouraged, even actively supported,

to undertake further training and professional development, to change careers but also to return to teaching after they have worked elsewhere and to contribute to teaching the new knowledge and experience which they have acquired elsewhere. Explicitly designing teacher education programs for this kind of flexibility will enhance the status of those programs, and the profession.

Become an entirely new kind of job. Working conditions for teachers may change dramatically, away from the old model of a single teacher facing thirty students in a classroom, where your productivity is measured by just that ratio, one to thirty. As the new learning will happen in many places—at home, in autonomous and self-directed learning, through informal learning, with the help of ancillary workers (retired people, parents, older and more knowledgeable students mentoring younger students), the teacher-student ratio may become a meaningless measure. Nominally, it may even go up. In fact, from a productivity point of view, the one teacher standing at the front of the class and trying to capture the interest of the average student, may well be quite unproductive in terms of outcomes for every student. One-to-thirty never means that there are thirty equivalent outcomes; it is just a body count. With a complex mix of teachers and paraprofessionals, paid and voluntary community support, the use of sophisticated learning technologies (every child has a computer, for school and at home), and institutional boundaries that have been blurred, the role of the teacher will inevitably change. Indeed, there may well be fewer and much highly paid teachers in future places of learning—now perhaps more appropriately named ‘learning coordinators’—than were required in the inefficient mass-production classrooms of old teaching and old learning.

Teacher Supply

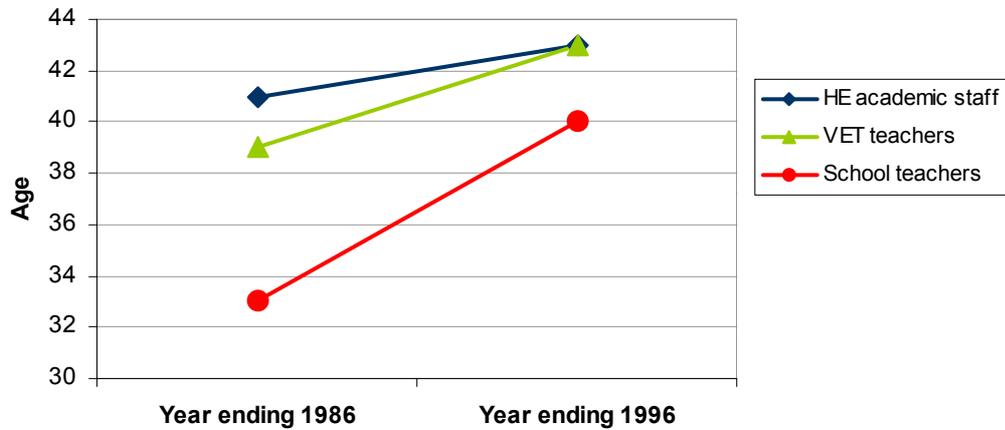
Projected Teacher Supply as a Percentage of Projected Demand



Source: Preston 2000

Teacher supply is projected to reach critical levels over the next five years. Though shortages are also expected at primary level, secondary supply of new teachers is projected to meet just 70 per cent of demand by 2005. The need to provide and train more teachers is an urgent one.

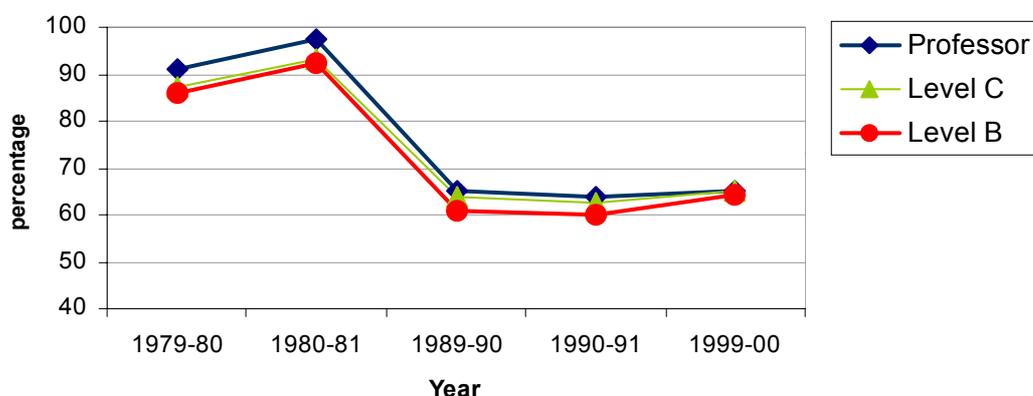
Median age of educators



Source: ABS cat. 4224.0

Teacher shortages are a pressing concern across all levels of education. The median age of school teachers, for example, rose from 33 to 40 in the decade ending 1996. In the next ten to twenty years, a large number of experienced teachers will retire from schools, universities and vocational education institutions. Australia needs to ensure that a vast body of knowledge and experience is not lost to the next generation of students, and that a sufficient number of qualified teachers is trained to replace those retiring.

Australian academic salary as a proportion of US salary and part of compensation (both expressed in \$US)

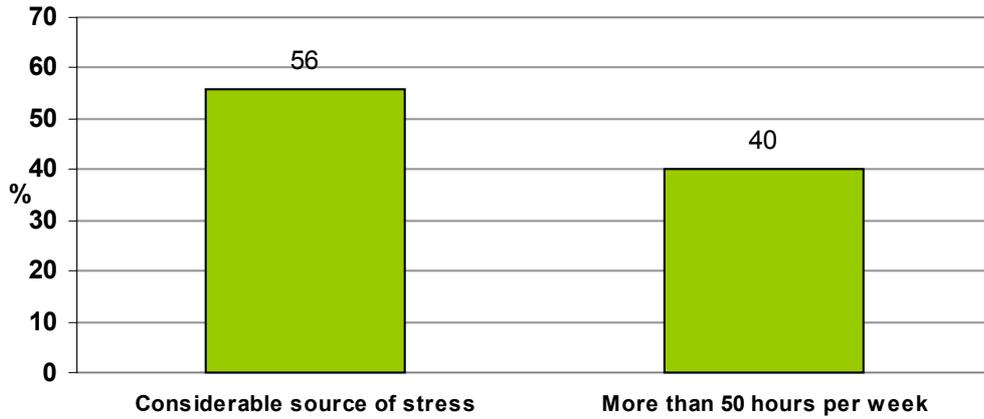


Sources: Annual Survey of Faculty Remuneration in Academe, American Association of University Professors; NTEU

NB: The following data were compiled by Considine, Marginson and Sheehan (2001). The authors suggest that, if anything, the data over-estimate Australian remuneration relative to American. OECD purchasing power parity ratios.

There are clear reasons for the brain drain presently affecting Australia. In 1979-80, remuneration for Australian academics was around 90 per cent of the American level, but since then the financial position of Australian academics has fallen in relative terms. In 1999-00, Australian academics were only earning around 65 per cent of the level of American academics. In this context, Australian academics have many reasons to leave and often few reasons to return, which helps account for the serious brain drain of both new and experienced researchers. The Federation of Australian Scientific and Technological Societies recently argued that the brain drain in mathematics is particularly pronounced, with staff losses of around 25% between 1995 and 2000, a decline in applications for research grants, few new appointments and a decline in university courses offering mathematics majors (Thomas 2000). Education investment must address the financial discrepancy between Australian and international academics, and focus on retaining qualified teachers, as well as attracting talent from overseas.

Percentage of academics overstressed or overworked



Source: Centre for the Study of Higher Education 2001

At present, Australian universities are beset by a lack of resources, with many academics stressed and overworked. In this frugal climate of stretched resources, students are suffering the consequences. A recent survey of 2609 academics by the University of Melbourne's Centre for the Study of Higher Education found that 56 per cent described work as a considerable source of stress, while 40 per cent worked more than fifty hours per week. These figures correlate with another recent study of almost 1000 academics conducted by the Australia Institute, which found that many believed the pressure to take in full-fee paying students had undermined teaching standards, and that academic freedom had deteriorated in the past four years (see Cooks 2001: 2). In higher education, the picture is clear. Academic and support staff are being forced to meet greater demands with less time and fewer resources. There is not enough time to teach, and there is not enough time to learn. Clearly, resources and funds must be returned to the higher education sector if new learning is to be more than an empty phrase.

ACTION AGENDA

Teacher Payment

Teachers perform a role as important as lawyers, doctors, or IT professionals, yet do not receive anywhere near the remuneration. The pivotal role of our nation's educators must be recognised, and their vocation accorded the salary levels it deserves. Quite simply, the salary gap between teachers and professionals requiring similar levels of qualification, should be reduced.

Action: Adopt a national strategy to ensure co-ordination of teachers' salaries across states. Increase graduate starting salaries for teachers and provide greater opportunity for earning increases with experience. Teachers currently earn less than the average salary of doctors, lawyers and IT professionals. By 2010, teacher salaries should be increased so that they are comparable with these professionals.

Teaching Conditions

Even with the substantial improvements which are required in teacher salaries to improve the standing of the profession and to reward teachers for their level of skill and training, teaching is likely to remain less well paid than other professions. Compensation needs to be in the form of lifestyle benefits.

Action: Grant teachers paid sabbaticals (full-time or part-time). This may include study tours, structured community-based learning, or intensive time to complete a postgraduate course.

Action: Encourage every teacher to undertake at least two or three international exchanges (six months, twelve months each) in a career, by setting up exchange structures and supporting ancillary expenses such as travel costs. At a relatively small cost, this will expand the global horizons of education, bringing many international teachers to work on exchange in Australian schools, as well as providing invaluable international experiences for Australian teachers.

Action: Facilitate secondments of teachers into community organisations, businesses and government in order to broaden their experience base and to expand the school's networks. This would also break down the arbitrary boundaries separating education and various other social institutions.

Teacher Education

Given the likely teacher shortages in the next five years, the training of teachers at university is critically important. There must be an increase in student numbers, as well as a focus on more internships.

Additionally, postgraduate teaching courses should be made more affordable, and teachers need to be encouraged and supported to retrain and further develop their skills.

Action: Raise the HECS threshold level to average male earnings. At current wage levels, this would mean that teachers would only ever make relatively small HECS repayments.

Action: Education postgraduate courses should be free, with university costs funded by the education system.

Action: Practicum (work placement for teachers-in-training) needs to be more closely integrated in the learning process and the education system. School authorities should share a greater responsibility, and this may take the form of part-time paid teaching work from the commencement of the degree. Teachers should take on the mentor role as part of their professional responsibilities.

Action: The Commonwealth government should initiate a coordinated federal program of TAFE teacher training, recognising the significance of an industry in which over 1.5 million people are studying.

THE PLACE OF THE 'PUBLIC' AND THE 'PRIVATE' IN EDUCATION WILL BE REDEFINED

Old Systems

Old education systems were unashamedly two-tiered: one tier of expensive, private schools for a small elite (plus a few elite 'selective' public schools for the deserving among the poor and the general population); and a second tier of locally based public schools and religion-based schools. And within this second tier there was also some differentiation depending on geographic location—you had more chance of doing well from schooling, or going further with your education, if your public or religion-based school was in an affluent locality than if it was in a poorer locality. In the main, however, education was another gift for those already born into affluence. Otherwise it was only granted to the very few who could escape their class by winning scholarships to private schools or passing the entry tests to selective state schools. This worked well for a society which required mostly unskilled workers, compliant citizens, and people who were to fit straightforwardly into the one national identity and pattern of gender relations.

New Systems

In the 'knowledge society', education cannot be just another gift for those already born into privilege. Leaving aside the question of equality of access to economic resources, every useful person in the new society (the worker, the citizen and the person at home), will require a complex and rich repertoire of learning, and the desire as well as the capacity to continue to learn for the whole of their life.

In response to these changes, a number of trends have emerged in education, not all of which will serve the needs of the new society:

A drift to private education. The importance of education today and the generous set of government-funded incentives to the private sector has resulted in a progressive drift away from public to private education. There has been a steady loss of enrolment share of 0.4% per annum from public to private education over the past twenty five years. In the Anglophone world, we have even seen the emergence of 'charter schools', for-profit schools set up and owned by private investors. Where these schools have been set up in poor neighbourhoods, the source of funding for these schools is vouchers or the equivalent of vouchers—IOWs or education credits handed to parents by the government and by means of which 'parental choice' directs funding to the private charter school which

would otherwise have gone to public schooling. In the United States, some of the strongest support for charter schools comes from parents who live in poor neighbourhoods, angered by the chronic failure of their students in public schools. Whether the charter schools do a better job is a matter of considerable dispute.

A decline in investment in public education. The disparity in resourcing and facilities between elite private schools and public schools in poorer areas is growing. This reflects simply in the much-publicised university entrance scores. Some claim that the quality of teaching is declining in public schools, although despite the air of certainty of the literacy and numeracy tests, this is hard to measure. One thing for certain is that, whether real or not, there is a public perception of decline. This public perception may well be more a measure of the public's increased expectations of education than of actual decline. The reason for the drift to private education is not because public schools are by nature inefficient (and that is what the proponents of economic rationalism tell us), but because private schools have more resources and because governments, in the name of 'choice', have widened this disparity.

A tendency to reform public education by forcing it to emulate private education and to take on private enterprise models of organisation and management. The 'moral pull', even in public education, is towards the ethos and logic of private education. Locality-based public schooling has been replaced by competition between schools as they 'market' their special qualities and student success rates. Parents are seen to constitute a market which can make choices. And so, fierce competition emerges amongst schools as they clamour for scarce resources (as well as use these resources on marketing—yet another new cost, and another pressure on teachers, in this case to be salespeople as well as educators).

Public and private schools are also supposed to compete against each other. This is often a very unequal match, in which the primary determinant of 'choice' is usually not the quality of the schooling (some private schools undoubtedly produce the 'results'), but the level of the fees. Every parent is faced with the stark question, 'can I afford my child's education?', and in answer to this question, more and more seem to be making the choice to pay higher fees, sometimes at great personal cost. Meanwhile, public schools increasingly have to supplement their incomes with commercial sponsorship, fund-raising pushes and charges to parents. This is privatisation by stealth. Parents find themselves paying more and doing more in their local public school because government is providing less of the support which is required.

None of these trends will serve 'knowledge society' well. A knowledge economy needs its whole workforce to be well educated, not just a small elite. Moreover, private enterprise models are not well suited to education. Market forces reinforce and extend inequalities. After all, it is aspiration in the context

of inequality ('I want that BMW, too.') which is supposed to drive people to compete, and competition drives the system. Without inequality, there would be nothing to strive for, so the free enterprise argument goes. Competition means that the best succeed and the rest can only blame themselves for their own relative lack of success. Applying this logic to education, parents are supposed to play the game of competition amongst the various schools available on the market, and make market-informed choices for their children by means of which their students might achieve outcomes unequal to most other students.

The problem for a logic premised on unequal outcomes and the struggle for survival, is that (unlike in the past), we need everybody in the society to have the capacities created by the new learning. The inevitable practical effect of the drift to privatisation may work for old economy structures and where we still need a large number of 'educational failures' to work in unskilled jobs. However, it is worse than counterproductive for the new economy and society. Education is not a matter of competition and choice, in which a few succeed by virtue of their capacity to compete with, and to beat, most of the others. Even if this is what drives the private sector, it certainly won't work for education. And there remains the all-important issue of underlying values. Education is a time and a place for nurturing, and of thinking. Applying the logic of competition to education is about as unproductive and destructive as it would be to set up a regime of competition and motivation based on the expectation of unequal outcomes amongst siblings within a family.

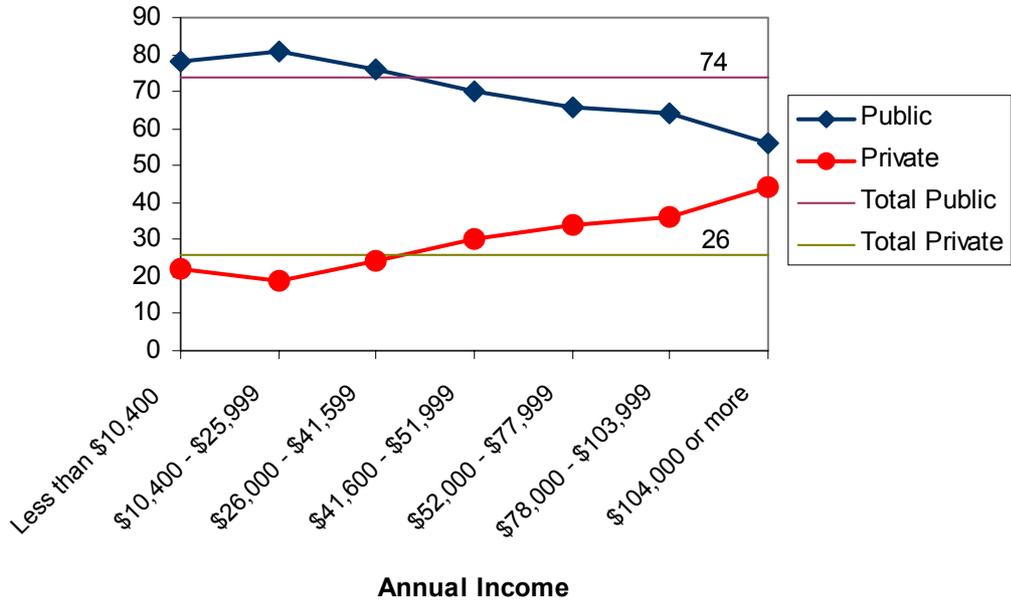
So, what is to be done? There are two areas for urgent action:

We must build a vibrant public education system. Public education has a unique responsibility which only it can meet, and that is to create a whole society in which every person is able to navigate the new worlds of work, citizenship and identity. To achieve this, we will have to make investments which, in the usual short term market framework, are not economically rational. We will have to invest in students who are economically disadvantaged, Indigenous students, immigrant students, students with disabilities, and students who are disadvantaged by their geographical location. And this education will measure its performance by equity targets, or its capacity to reduce disparities in results between different social groups. Public schools must be welcoming places, not the institutionalised mass production machines they were in the past, but places of diversity and pluralism, where the outcomes of learning for different individuals and groups are comparable but not necessarily the same. Reviving public schools must not mean returning to the past; rather it must be to create something entirely new, teaching a 'new basics', deconstructing the old institutional boundaries and using the latest information and communication technologies as a central means of instruction. Not all public schools have to be the same, but their differences should be a reason to share their knowledge, resources and

skills- to collaborate in other words, rather than to compete. But none of this can be achieved without equitable funding arrangements.

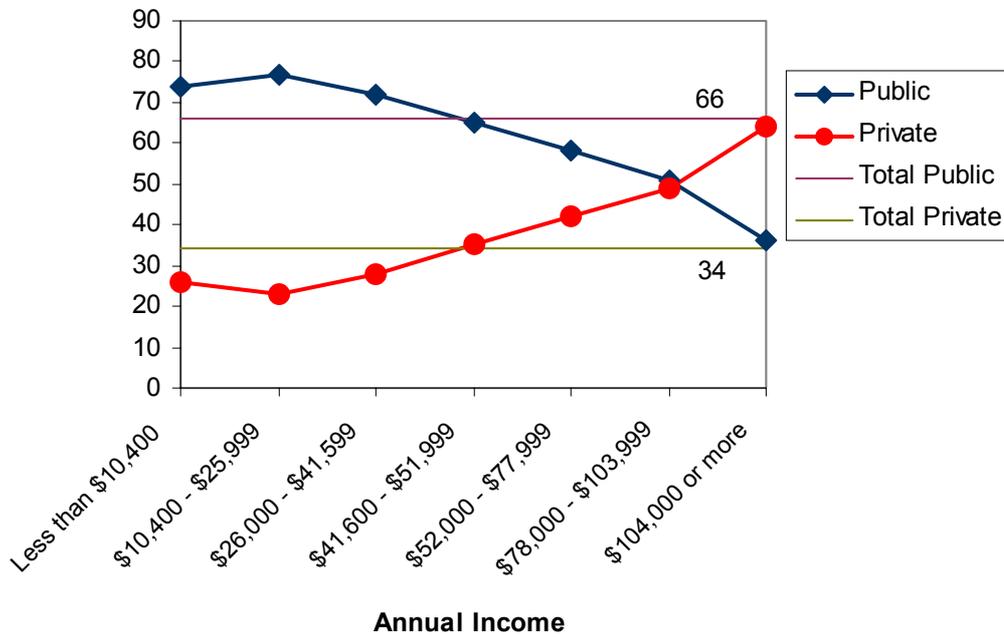
We must redefine the role of non-government schools. Elite private schools are as unlikely to go away as inequality itself. However, when there is so much educational disadvantage and until education fully serves the needs of the knowledge economy, they do not need government support. There is nevertheless an important role for non-government education which receives government support, the levels of which can be determined by school and community capacities to pay fees. They need to be held accountable, however, for that government funding and expected to deliver on the values of diversity and inclusivity that mark public schooling. In a democracy, communities do have the right to design options which fit their needs and aspirations—Aboriginal schools, ethnic schools, religious schools and schools which espouse a particular educational philosophy such as Montessori and Steiner schools. Here the operative concepts are not around market choice, but around community autonomy, responsibility, self-government and diversity. A truly pluralistic society has to allow such options, although for the sake of equity these need to be measured against the broader expectations of the new learning. Perhaps, even, with an approach to learning which stresses collaboration over competition, it may be possible to mix and match resources and even programs between public and community-based schools.

Percentage of Children Attending Public and Private Primary Schools By Income Bracket of Parents



Dr Kemp has argued that “the socio-economic profile of non-government school parents is today very similar to that of government school parents” (Kemp 2000). These figures clearly refute any such notion. Inequality in the schools system is entrenched, and must be addressed if Australia is to provide quality education for all.

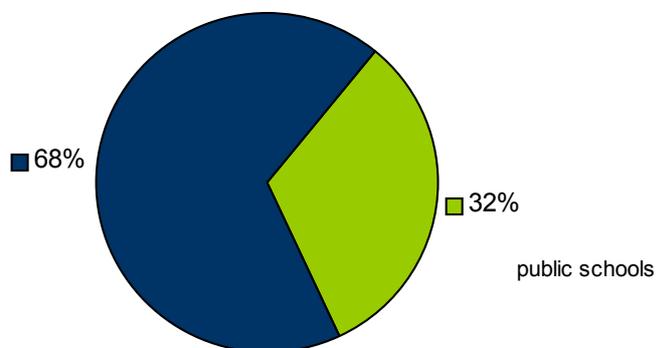
Percentage of Children Attending Public and Private Secondary Schools By Income Bracket of Parents



Source: Preston 2000

At the secondary level, the trend is even more pronounced. The wealthier the family, the more likely it is that the children will attend private school. Indeed, it is approximately 2.5 times more likely that the children of the highest income bracket will attend private schools than those in the lowest.

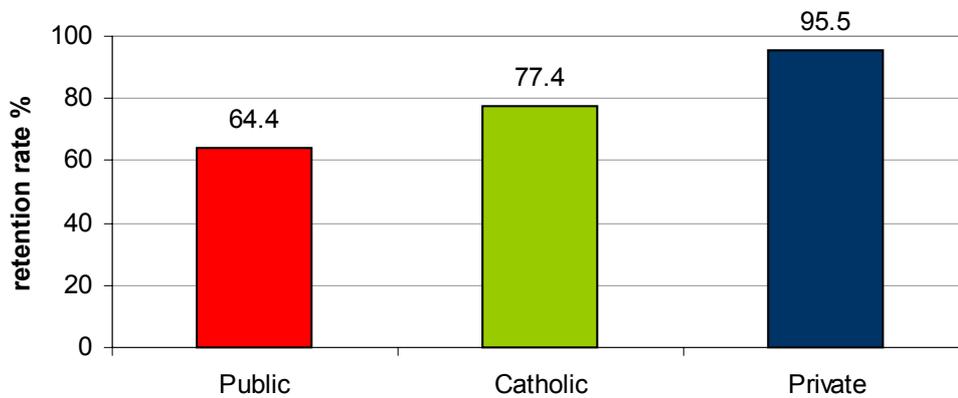
Proportion of federal funding going to public schools 2003 (est)



Source: DETYA 2000

Although public schools contain around 70% of students, the federal government invests only a third of its funding in the public schools system. Accessible, equitable education is critical to the flourishing of the knowledge nation, and the public schools system must receive a greater proportion of federal resources.

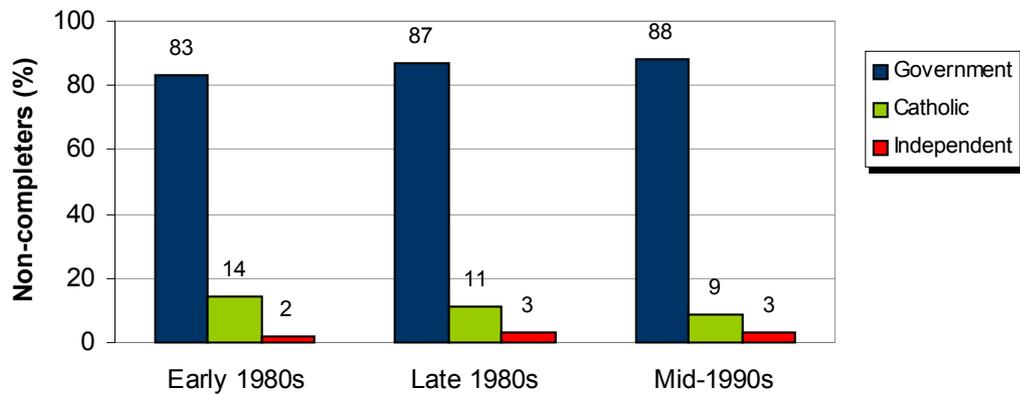
Year twelve retention rates by school type- Australia (1999)



Source: ABS 2001: 445

The level of inequality in the schools system is alarming. For the first time, expenditure per child in non-government schools is higher than it is in public schools. The teacher-student ratio is significantly better, because of funding. Most worrying of all, the education retention rate is substantially higher. According to the Australian Bureau of Statistics, school retention to year 12 in Catholic schools was 77.4 per cent in 1999, while in other private schools it was 95.5 per cent. In public schools it was only 64.4 per cent. This is an irreplaceable loss for the future of the students who leave - and for Australia, a nation that must be a "clever country" or sink economically.

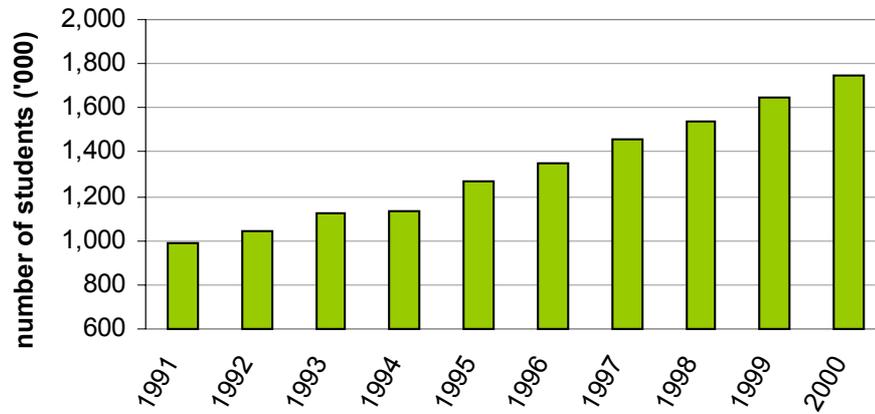
Male non-completion of Year 12 by type of school attended



Source: ACER 2000a

Despite constituting less than 70 per cent of secondary students, government schools still account for nearly 90 per cent of male non-completers. For females, the situation is even worse, and some 92 per cent of female non-completers came from government schools by the mid-1990s. Despite improved retention rates over the previous two decades (though not over the previous six years), the composition of non-completers as a group has remained similar. Those in government schools, those from poorer backgrounds, those from rural areas, and males, are all over-represented in non-completion levels. Serious structural inequalities continue to pervade the education system.

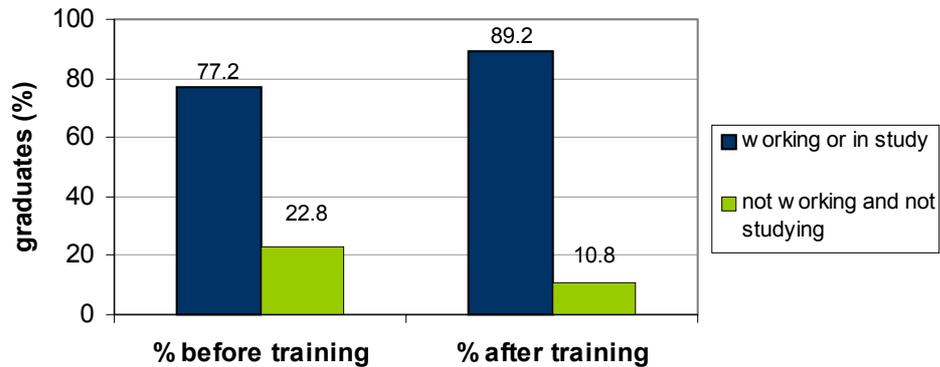
Growth in VET student numbers, 1991-2000



Source: NCVET 2001

By 2000, around 1.75 million students participated in Australian publicly funded VET. Student numbers increased by 77.4% since 1991, and coping with this increased demand is a major challenge for Australia. VET no longer provides simply a second chance. The knowledge economy requires specific skills to be learnt and relearnt throughout life, and VET provides a forum of formal learning where students of all ages, and in all forms of employment, can acquire new skills. The growth in VET demand, then, needs to be seen as an opportunity, not as a burden upon governments. By adequately funding the growth of the vocational training sector, governments can ensure that all who wish to improve their skills are given the opportunity to do so.

TAFE 1999 graduates in work or study

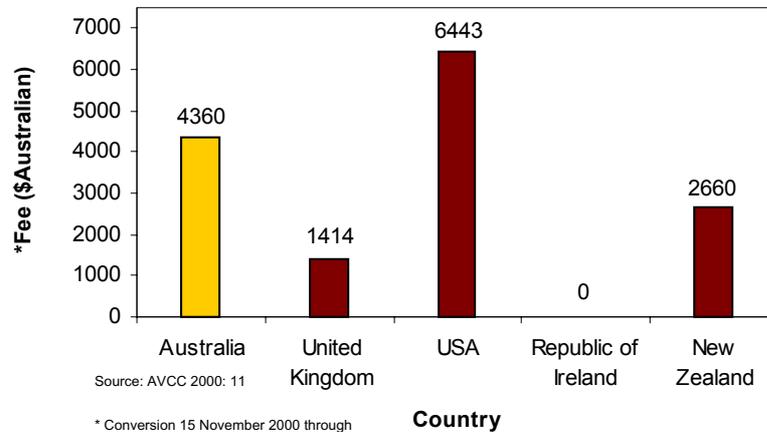


Source: NCVET 1999

One of the reasons why investment must be channeled towards VET is because vocational education clearly works. The success of VET is acknowledged by both employers and employees in frequent surveys (NCVER 1999), and the results of training speak for themselves. The above table highlights the improvement in employment prospects for TAFE graduates of 1999. After completing a TAFE course, the odds of being in either gainful employment or further study improved from 77 per cent to 89 per cent, while the chances of being neither employed nor studying virtually halved. These figures further demonstrate that education is an investment, not a cost, and it should be seen as such by governments, employers, and all others concerned with the knowledge economy.

Universities

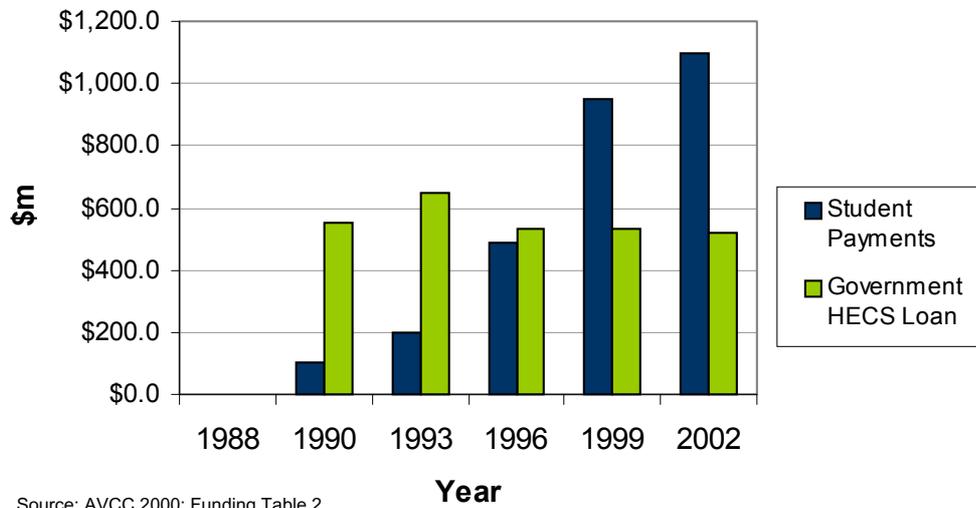
Average Annual Fees for Domestic Undergraduate Students 1999-2000



Australian figures are for average HECS
UK figures are for all courses (excluding Scotland)
USA figures are for public 4-year institutions
Irish figures are for tuition fee
New Zealand figures are for most courses

Australian domestic undergraduate fees are high by comparison with our competitors. Even in the U.S., the average annual fee for domestic undergraduates is only \$3356 U.S. In Australia, the HECS repayment levels have recently increased, while the repayment threshold has been lowered substantially. Such measures act as strong disincentives to enroll in further education, particularly to those on low to middle incomes.

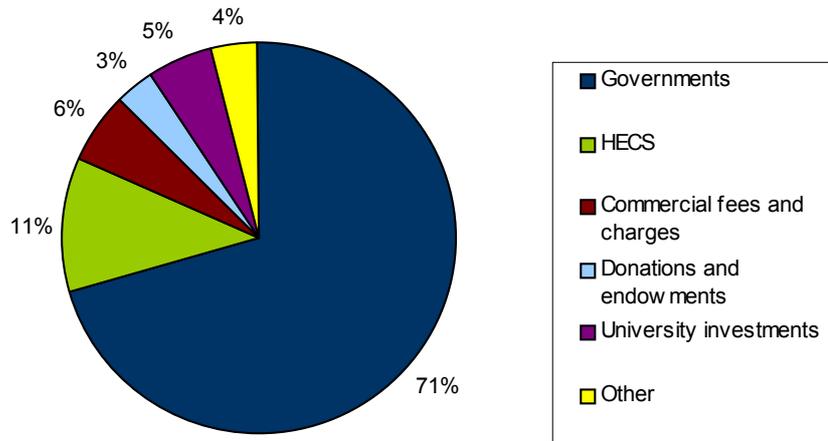
HECS Contributions - Government and Student Payments 1988-2002



Source: AVCC 2000: Funding Table 2

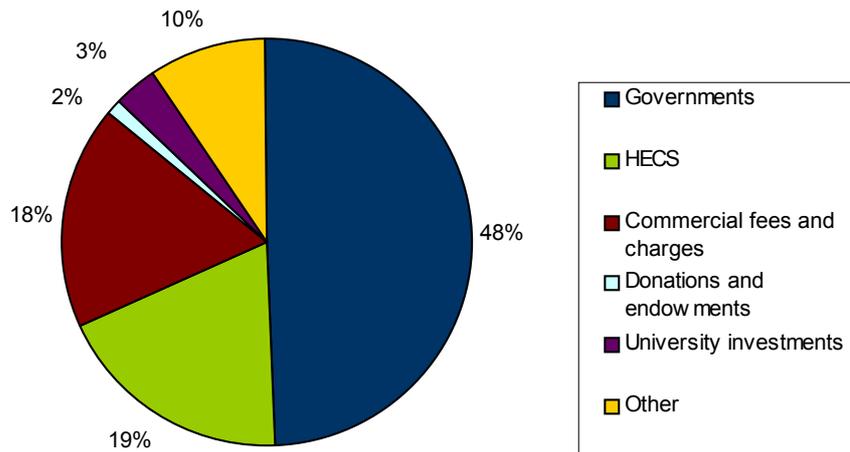
The decline in federal higher education expenditure comes at the worst possible time. Training the knowledge workers of tomorrow requires strong public investment, and commitment to an expanding sector. However, the Australian higher education system is increasingly maintained by student payments, and the resources of most universities are being stretched.

Proportion of total funding of higher education institutions, 1989



Source: DETYA 2001

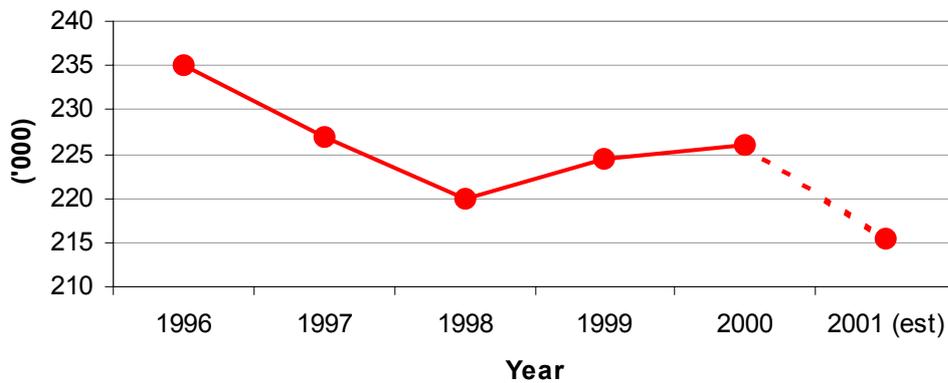
Proportion of total funding of higher education institutions, 1999



Source: DETYA 2001

Governments are contributing proportionally less to the higher education sector than ever before. Less than half of university revenue now derives from direct public investment. Universities are relying on increased student fees and charges to cover the shortfall, as university costs are being transferred from governments to students. Needless to say, many students can no longer afford university study, as reflected in the decline of 25,000 postgraduate places since 1996. A knowledge nation must reclaim universities as public assets, and invest in them accordingly.

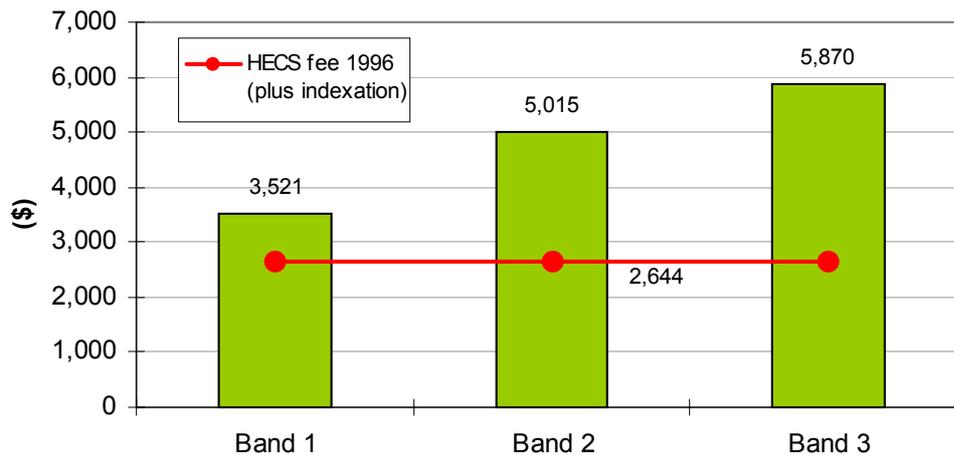
Undergraduate applications for 1996-2001 academic years



Source: Senate Estimates answer E506, May 2000

Figures for 2001 are for 'on-time' applications

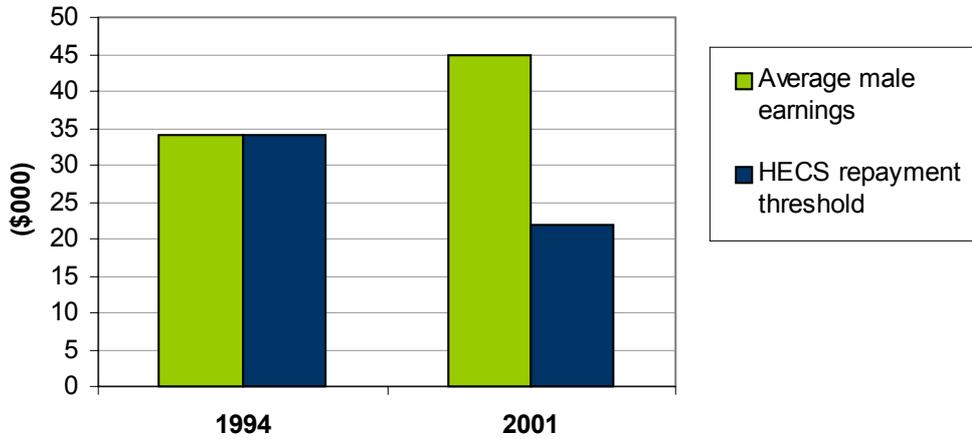
HECS Fee levels (1997-)



Source: NTEU 2001

Undergraduate applications have plummeted since 1996. This decline in Australians wanting to undertake university degrees has occurred after changes to HECS were introduced in 1997. From that date, HECS levels were separated into three bands, all of which were higher than the standard HECS level of 1996. HECS fees have been increased, and the HECS repayment threshold has been lowered to just \$22,346 for the 2000-2001 year. That these changes to HECS act as a disincentive to prospective students is evident from the figures. At a time when we should be encouraging more students to participate in higher education, government measures are in fact discouraging further study. This shift towards student support of the system, at the expense of public investment, is damaging to prospective students, to actual students, and to the idea of a knowledge nation. Greater participation in higher education is essential to success in the new economy, and Australian governments must reinvest in the system.

Decrease in HECS repayment threshold, 1994-2001



Sources: ABS cat. 6302.0; NTEU 2001

The HECS repayment threshold for 2000-01 is \$22,346, approximately half of average male earnings. This reduced threshold is a significant disincentive to study. Before 1997, deferred HECS was not paid until students were earning the equivalent of average male earnings. By drastically lowering the repayment threshold, and by increasing the levels of HECS fees, the Howard government has effectively passed the costs of higher education on from government to students. Needless to say, many students cannot afford to pay.

ACTION AGENDA

Schools

It is a primary role of governments to promote an educated citizenry and lifelong learning for all. This role must be publicly acknowledged, and its responsibilities accepted, with a particular commitment to reinvesting in public schools.

Action: Review arrangements for the public funding of all schools by all governments—Commonwealth and State/Territory. This would ensure consistent and coherent funding arrangements across the two levels of government. The review should be undertaken by the Ministerial Council of Education, Employment and Youth Affairs ministers (MCEEYTA), and cover:

- *the respective roles of the States and the Commonwealth in the provision of schooling;*
- *the effect on schools of the interaction between Commonwealth and State funding;*
- *the need for advisory and consultative mechanisms to improve openness in decision-making*

Action: Establish funding targets which reduce resourcing inequities between schools.

Vocational Education and Training

Expansion of competitive tendering processes and the so-called 'user choice' system has put pressure on resources and led to higher non-completion rates (NTEU 1999: 11-14). According to the NSW Department of Education and Training, 'Competitive tendering means that providers compete on price and there is less emphasis on quality and services as the basis of competition... Around Australia, these policies have forced the reduction of services and rationalisation of facilities upon public providers.' (NSW 1999 submission, cited at AEU 2000b: 6) Governments must reaffirm that the provision of VET is a public obligation, and ensure sufficient funds to public providers to avoid compromising service and quality.

Action: Review the effectiveness of competitive tendering and 'user choice' processes in Vocational Education and Training.

Universities

The reliance of Higher Education on non-government funding sources, such as international students, full-fee paying Australian students, and commercial research needs to be reduced. It is not that these supplementary revenue sources are without value in themselves. In fact, they reflect a healthy expansion in higher education and university research as a domestic and an

export industry. The problem is that success in these areas has become an alibi for governments to reduce their levels of investment, and these commercially marketable areas are being forced to cross-subsidise other areas. In the longer term, this trend is unsustainable. The education 'products' for sale have been created by past investment, and new and continued public investment is needed even in order to continue to have excellent products to sell.

Action: Increase Commonwealth funding for Higher Education as a proportion of total higher education revenues.

THE FOCUS OF EDUCATION POLICY MUST CHANGE FROM PUBLIC COST TO PUBLIC INVESTMENT

Old Education

Using market-accounting logic, education is a cost to taxpayers. Education appears each year as a line item of expenditure in the budgets of governments. In the past, this spending on education was a matter of pride for governments as they expanded the welfare state. This was certainly the case during the long cold war of the twentieth century, when capitalist countries tried to match the social promises of communism and created 'mixed' economies in which the public sector and public enterprises took a leading role. Since the end of the cold war, the economic rationalists have turned government expenditure into a vice, and made a virtue of tax cuts and shrinking the size of government. In both cases, however, the focus is on expenditure rather than investment, and nowhere are the returns on that investment calculated. Both models for funding education—the welfare state and the economic rationalist—are at root flawed in the same way.

New Education

Market logic operates by financial year, annual profits and losses, surpluses and deficits. It focuses narrowly on micro-efficiencies which can show up immediately in productivity improvements and cost reductions. It has a 'bottom line' focus which is so short term that it is rarely able to measure any results beyond financial years, and is unable to consider investments unless they can show a return almost straight away. The only measures of capital investment are asset value and realisable sale price.

None of this works for the economics of education. Education is a long term investment, with no immediate returns. For the individual, such as a child starting school, it is perhaps twenty years before there is any return, and a full return on the initial learning investment may take another forty years to realise. Besides, the whole notion of market choice is a nonsense, when the return does not come back to the investor (the parents, in the case of school fees). Parents make choices about education which are not motivated by market logic, but by processes which are entirely human and entirely non-rational in an economic sense. However useful the market might be in some spheres of social life, education is a social and a human responsibility which defies the short term narrowness of market logic.

Learners are Citizens, not Customers

In fact, the relationship of learners to education systems is nothing like the relationship of customers to the market. Rather, it is a relationship of citizens to government. The economic rationalists have tried to downsize and outsource government by privatising as many of its traditional functions as they can. However much they attempt to transpose into the public sector the market logic of customers, user-pays and supply and demand, there remains a powerful logic of citizenship rights. And citizens are nothing like customers. In their relationship to educational institutions, learners and their families are definitely citizens, and definitely not customers.

Citizens are Not (Just) Customers

Citizens <i>To learn is a right.</i>	Customers <i>To purchase is a matter of supply and demand, a matter of consumer choice.</i>
<i>Entitlement and eligibility</i> - every person is entitled to learn at any point in their lives; it is a right which links back to the democratic promise of opportunity for all. Failure to meet a citizen's entitlement is very different from, and of much more enduring importance than, the non-coincidence of supply and demand.	Market <i>choice</i> - if the supply is there, and you choose to purchase (demand), a sale is made.
Community <i>participation</i> - this is the fundamental aim of education as a service to the community.	Maximisation of <i>sales</i> - the aim of customer service (as opposed to community service) is the maximisation of sales.
<i>Public information</i> - a process of informing people of their rights and assisting them to access and make the most of their entitlements. The measure of effectiveness here is qualitative—human impacts.	<i>Marketing</i> - the aim of which is to maximise sales. The measure of effectiveness here is quantitative—total dollars in.
Accountability for resource use and expenditure is to <i>society through the democratic process of government</i> . The user does not directly pay for services which only governments can adequately provide. The whole society does, through the taxation system.	The market notion of <i>value for money</i> - the user pays and the supplier is directly accountable through a contractual relationship.
Aim to optimise effectiveness and thus to <i>maximise outcomes relative to resource input</i> and to minimise the expense to the public purse.	Aim to maximise customer expenditure
Productivity measures: efficiency and effectiveness.	Productivity outcomes: price and profitability.

The Business of Education: True Economic Rationalism

To say that the focus of education is on citizens is not to deny that education has an important economic role. But we need to think of economics beyond the narrowness of market logic.

Even in private enterprise, market logic is an increasingly a poor measure of the true source of value. In the knowledge economy, value is based not on capital accumulation in the form of fixed assets, but on knowledge intangibles such as intellectual property, brand value and customer loyalty won through a slow process of relationship building. These are all things which are hard to quantify, and impossible to create or evaluate by bottom lines within a financial year. Supporters of the market will tell you that this value will show up in the sale price of a whole business or its share price on the stock market.

In fact, the market prices realised at these points, prices which are supposed to be the ultimate measure of value, tell you more about the casino mentality of the

people who play the market than the qualities which are the bases of real value. In fact, our experience repeatedly tells us that market signs are often downright misleading. The new economy, particularly, is much bigger than the market. The important thing for education is that in this particular moment, the stuff which is now of greatest value in the 'knowledge economy', is exclusively created through learning. It is the sum of the knowledge and understanding of all the individuals in the organisation, plus the collective knowledge and relationships, which is greater than the sum of the individual parts. If we take education beyond a narrow market logic, it is now the basis for all value in the system, and the market is a very poor measure of that value.

Furthermore, if we had the will to develop economic tools which measured long term value, we would in all probability discover that most investment in education is money well spent. Indeed, this Charter has highlighted numerous studies which have stressed exactly this point: that investment in education brings long-term financial rewards, and that failure to do so results in serious financial losses to the community over time. Educational returns to the community may well be better than any other investment, so great in terms of future economic value that it is worth the additional taxation, deficit budgets, or national borrowing. But this is not an investment that any venture capitalist would make because the returns take too long to start coming in and the timeframe is too long for the investment to be realised fully. Governments of late, however, have not even had the limited courage of a venture capitalist. They have not even dared to risk short term expense or borrowing for longer term reward. Despite all their economic rationalist rectitude, governments which reduce their income in the form of their tax-take, maintain balanced budgets, and aim to reduce their borrowings to zero, don't even behave like businesses. A private enterprise firm is simply not doing its job if it does not borrow in order to invest in the future.

It may be a good idea, then, to become economic rationalists about education, but with a bigger picture view. Social investment in education is what drives the whole of the new economy, and outlays should be made on the basis of anticipated returns which are as long as a lifetime, not as short term as a financial year and this year's budget expenditure.

Investment Sources

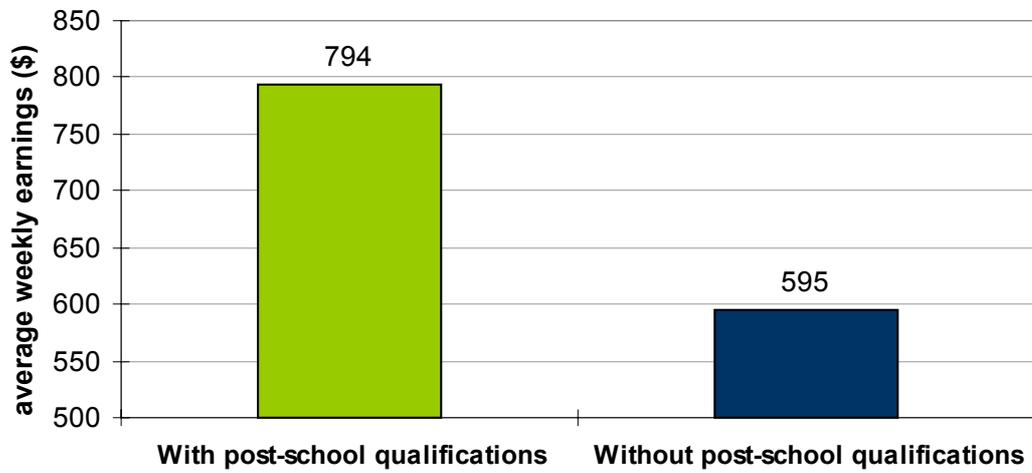
Increased investment, and investment which matches the significance of education in the new economy, needs to come from two sources:

From governments: Nothing matters more than the medium and long term economic future of our society—neither taxation levels nor budget deficits can be allowed to be more important. Governments must spend more on education, but most importantly must justify this expenditure by quantifying expected returns (to the whole economy, to business, to individuals in the form of personal incomes, and to government through future taxation).

From beneficiaries: The shift to user pays in recent years has reinforced old structures of privilege which universal, free education aimed to flatten out. Once again, those who can afford to pay are advantaged over those who cannot. On the other hand, the practical effect of free education is a kind of middle class welfare, in which every wage and salary earner pays for an education system. In its nature, this is a system which gets more expensive the further you go in tertiary education, and the more education you receive. The smaller the number at a higher level of education, the greater the per capita and per annum cost. The results are inequitable—workers with lower levels of education and whose children do not go on to vocational or higher education pay proportionately more for education than wealthier taxpayers, taken as a ratio of tax-take to what they have themselves received and what their children receive.

Since education directly contributes to higher than average earnings, the recipient of above average benefits should pay if and when they receive those benefits. And at a certain point, perhaps at twice the average earnings, they should pay on a full cost-recovery basis. This payment may take a lifetime, but it may never be made—in the case of highly educated professions which remain at or below the average earnings (such as social work or teaching), and there should be no expectation that it ever be paid unless and until a person reaps above average material benefits. Where the personal benefits of education are undoubtedly great—as is the case, for instance, for some professions—there is no reason why they should not, in the long term and through the taxation system, fund the full cost of their replacement in the labour market.

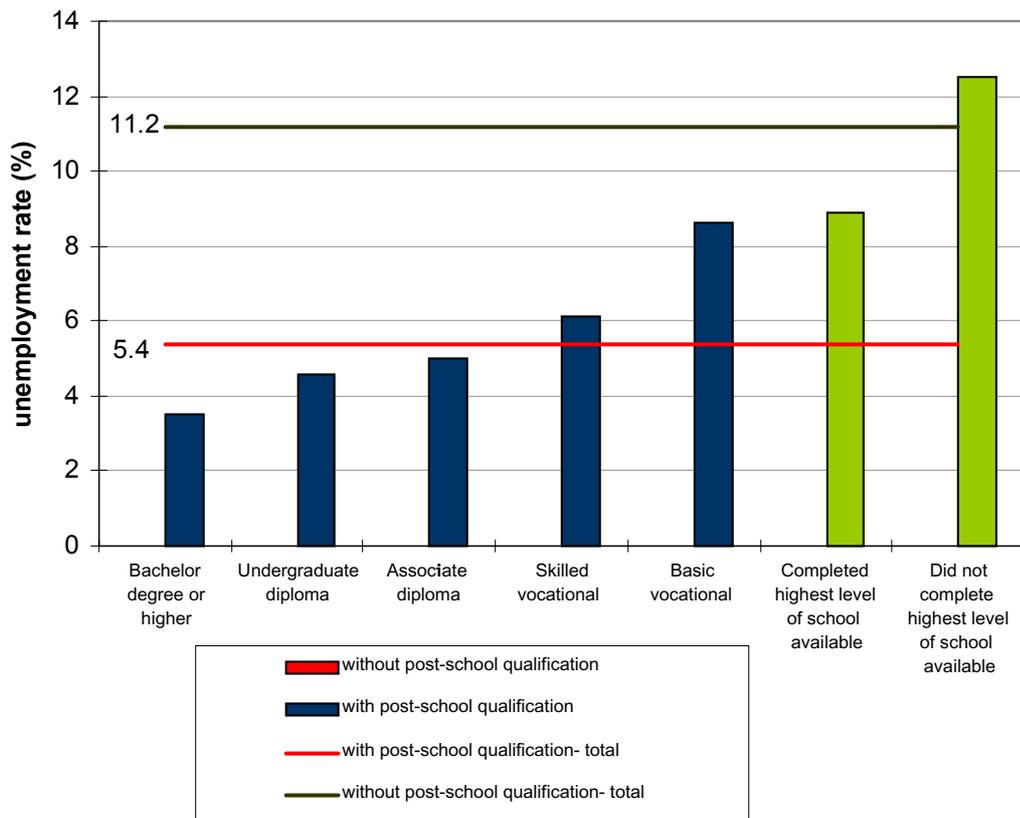
Average weekly earnings, Australia 1997



Source: ABS cat. 4224.0

Investing in education pays, both for the individual and for the society. There is a 33 per cent difference in average weekly earnings between those with post-school qualifications and those without. Post-compulsory education leads to significant improvements in individual earnings, but it is also of great benefit to the knowledge nation. Greater labour mobility, lower unemployment rates, and greater job satisfaction are all directly attributable to education, and the more Australia invests in its education system, the greater the returns to the nation.

Educational attainment and unemployment rates, Australia 1997



Source: ABS cat. 4224.0

Education is an investment. The link between educational qualifications and employment is manifest—those without post-school qualifications are more than twice as likely to be unemployed than those who have undertaken further study. At the extreme ends of the spectrum, those with a bachelor degree or higher have an unemployment rate of only 3.5%, while those who did not complete the highest level of secondary school available face an unemployment rate of 12.5%. The figures suggest that Australia must improve its school retention rate, but also that we must invest in all forms of post-compulsory education. Education will increasingly be recognised as the key to employment and economic prosperity.

ACTION AGENDA

Knowledge Investment

Governments must be made accountable for the levels of investment they choose to make in education.

Action: Establish a Charter of Budget Honesty in Educational Investment, in which governments relate their levels of investment to projected long term returns—to individuals, to businesses, in terms of improved social indicators, and in terms of their own tax-take.

Investment Sources

Massive new investment is needed in education, coming both from governments and beneficiaries.

Action: Increase government investment, along the lines suggested in Proposition 1, earlier in this Charter.

Action: Restructure beneficiary funding of tertiary education based on the taxation system (the HECS model) with no charges to be made before a beneficiary reaches average male earnings and charging to the point of full cost recovery for beneficiaries earning more than twice the average male earnings. The rationale here is not 'user pays' but funding the replacement cost to society of their education once they retire.

Action: Develop lifelong learning accounts to fund training and ancillary learning experiences, supported by a mix of personal, employer and government funding.

A CALL TO OUR POLITICAL LEADERS

Policy talk must be matched with significant investment and new collaborations to ensure that our place in the world is not further diminished.

The role of government is to expand and to facilitate an increasingly broad range of possibilities and collaborations for all Australians. The anger and confusion, however, that many Australians are experiencing today comes from their sense of exclusion from a future that seems unattainable to them. *New Learning: A Charter for Australian Education* is about the well-being of the nation. Education needs to be seen as the bedrock of the new economy and the framework for productive citizenship and positively engaged individuals.

Australia may well have only one chance to grasp this opportunity. Other countries are already reinvesting in education capital, and in the future. Australia—an economically and socially vulnerable nation of just nineteen million people located at the end of the earth and not part of any regional economic blocs—cannot afford to settle for becoming average.

A CALL TO EDUCATORS

What is required today is a very dramatic rethinking of education systems, the nature of knowledge and the role that educators need to play.

Rather than being led by political processes, we need to take the lead. What we do is more critical, socially and economically, than it ever has been in the past. We have leverage now to improve the conditions in which we work and the outcomes for learners. This is an opportunity to influence, and to transform, education and society which we must grasp.

A CALL TO AUSTRALIAN CITIZENS AND VOTERS

Politicians believe there are no votes in education. They can thus talk the talk but not deliver to children, parents, workers and grandparents on their aspirations to participate equally in the fruits of the new economy. The tax breaks received by families, single people and grandparents cannot hope to buy the education required for equal participation in wealth-creating jobs. Everyone is deprived when a nation wastes its educational heritage and when it ignores what needs to be done to build educational opportunities. There is an urgent need to stem the flow of young people and workers out of country towns, the regions and out of Australia itself. We need to repair the damage that has led to teacher shortages in schools, the brain drain in our universities, and the lack of research to underpin our industries.

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