

DEPARTMENT OF EDUCATION, SCIENCE AND TRAINING

SUBMISSION TO

**THE JOINT STANDING COMMITTEE
ON MIGRATION
REVIEW OF**

Australia's skilled labour migration and temporary entry programs

August 2002

Executive Summary

The Joint Standing Committee on Migration's review of Australia's skilled labour migration and temporary entry programs is relevant to the Department of Education, Science and Training (DEST) activities in a number of ways. The supply of skills available to Australian industry arises from two main sources, from the national education and training system, and from skilled migration, noting that a considerable proportion of successful applicants under the Skilled Migration Program now have Australian qualifications.

Australia is estimated to derive substantial economic and broader benefits from its migration arrangements, particularly for skilled migration. With a considerable degree of selection and targeting in skilled migration arrangements, migrants readily find employment and quickly make an economic contribution. Still, the national education and training system is relied on to deliver the bulk of national and industry skill requirements. To rely too heavily on skill sources from overseas risks poor economic and social outcomes. In this context, migration arrangements need to be well integrated and consistent with national education and training objectives. A key objective of Commonwealth education and training policy is to ensure that the education and training system is efficient and responsive to national and industry requirements as well as the needs of individuals and of the community.

Skilled migration can contribute both to general growth in the stock of skills and in providing skills where domestic skill formation is not adequate to meet industry needs. For example, where an industry is expanding very rapidly, as was the case with the Information Communication and Technology (ICT) industries around the late 1990s, skill shortages can arise which can be addressed, in part, through skilled migration. On the other hand, very strong growth in ICT-related skilled migration also highlights the need for flexibility in policy settings where the need for skills declines due to changes in market conditions.

DEST notes the increasingly strong links between the Skilled Migration Program and Australia's education and training system. Immigration provisions have progressively facilitated migration by overseas students completing studies at Australian educational institutions. These initiatives have proved very successful. Of the Skilled Independent principal applicants who applied in 2000-01, about 50 per cent had obtained a qualification from an Australian educational institution.

There is a need for effective co-ordination of education and training, and Skilled Migration policies to ensure appropriate levels of skill supply in response to changing labour market conditions, particularly given the increasing importance of overseas students as a source of skilled migrants.

In a broader sense, immigration is also important to DEST because population growth from this source is an important factor in overall national population growth and hence demand for educational services at all levels. At the same time, Australia's education system is an important drawcard for prospective migrants, especially those migrants with young families or migrants considering forming a family.

Knowledge and skills are now universally accepted as being central to economic growth, competitiveness and improved living standards. This has underpinned the commitment by Government to ensuring that Australia possesses a highly skilled and innovative workforce, and a flexible and responsive education and training system to deliver these skills. The Skilled Migration and Temporary Entry Programs help augment gaps in the supply of specific skills to meet industry needs.

The Australian workforce has undergone a complete transformation over the past twenty years, from a situation where more than half the working age population had not even completed school to a situation where more than 15 per cent hold a degree and less than one-third has not completed school or a post-school qualification. These proportions will continue to improve as older, less well qualified workers are replaced by younger, more educated workers. Recent initiatives will assist in further strengthening the education and training system.

Nonetheless, while Australia has an education and training system that is flexible and responsive to industry needs, skilled migration is important in augmenting the general supply of skills for Australian industry as well in meeting those skill shortages which occur from time to time. Against this background DEST supports a strong skilled migration program which is focussed towards meeting industry skill needs.

At the same time, as highlighted in the case study on skill formation for the ICT presented in this submission, there is a need for flexibility in migration policy settings to take account of both under and oversupply of particular skills to the national labour market.

The submission also comments on the growing links between Australia's international education exports and the Skilled Migration Program. The Skilled Migration Program is now substantially resourced from overseas students who have completed a recognised Australian qualification, and it also appears that a substantial proportion of overseas student graduates seek to enter the Skilled Migration Program. Hence exports of education services, while having ongoing importance from the perspective of generating export income and the generation of broader cultural and economic links, are now also an important input to the Skilled Migration Program and supply of skills to Australian industry.

Against this background the submission has also canvassed the scope for growth of education exports. Overseas demand has been in strongest in the fields of *Business, Administration and Economics* and *Computer Science*. However, opportunities exist for expansion in other areas, especially science and technology based on our international reputation for scientific innovation. In addition, new opportunities now exist for capitalising on the development of Australia's competency-based training system for provision of vocational education and training.

1. Introduction

The Joint Standing Committee on Migration's review of Australia's skilled labour migration and temporary entry programs is relevant to the Department of Education, Science and Training (DEST) activities in a number of ways. The supply of skills available to Australian industry arises from two main sources, from the national education and training system, and from skilled migration, noting that a considerable proportion of successful applicants under the Skilled Migration Program now have Australian qualifications.

Australia is estimated to derive substantial economic and broader benefits from its migration arrangements, particularly for skilled migration. With a considerable degree of selection and targeting in skilled migration arrangements, migrants readily find employment and quickly make an economic contribution. Still, the national education and training system is relied on to deliver the bulk of national and industry skill requirements. To rely too heavily on skill sources from overseas risks poor economic and social outcomes. In this context, migration arrangements need to be well integrated and consistent with national education and training objectives. A key objective of Commonwealth education and training policy is to ensure that the education and training system is efficient and responsive to national and industry requirements as well as the needs of individuals and of the community.

Skilled migration can contribute both to general growth in the stock of skills and in providing skills where domestic skill formation is not adequate to meet industry needs. For example, where an industry is expanding very rapidly, as was the case with the Information Communication and Technology (ICT) industries around the late 1990s, skill shortages can arise which can be addressed, in part, through skilled migration. On the other hand, very strong growth in ICT-related skilled migration also highlights the need for flexibility in policy settings where the need for skills declines due to changes in market conditions.

DEST notes the increasingly strong links between the Skilled Migration Program and Australia's education and training system. Immigration provisions have progressively facilitated migration by overseas students completing studies at Australian educational institutions. These initiatives have proved very successful. Of the Skilled Independent principal applicants who applied in 2000-01, about 50 per cent had obtained a qualification from an Australian educational institution.

There is a need for effective co-ordination of education and training, and Skilled Migration policies to ensure appropriate levels of skill supply in response to changing labour market conditions, particularly given the increasing importance of overseas students as a source of skilled migrants.

In a broader sense, immigration is also important to DEST because population growth from this source is an important factor in overall national population growth and hence demand for educational services at all levels. At the same time, Australia's education system is an important drawcard for prospective migrants, especially those migrants with young families or migrants considering forming a family.

The Joint Standing Committee's terms of reference cover:

- International competition for skilled labour;
- The degree to which quality permanent migrants are being attracted to Australia and are settling well ;
- Whether there are any lessons to be learnt by Australia from the entry and program management policies of competing countries, including Canada, New Zealand, USA, Ireland, UK, Germany and Japan;
- The degree to which Australia's migration and temporary entry programs are competitive;
- Whether there are policy and/or procedural mechanisms that might be developed to improve competitiveness;
- Settlement patterns for new arrivals including the role played by State and local authorities.

The matters raised by the Joint Standing Committee cover activities for which responsibility is shared by a number of Commonwealth agencies, including the Department of Immigration, Multicultural and Indigenous Affairs, and the Department of Employment and Workplace Relations. In this Submission, following consultations with other agencies, DEST has focussed its comments on matters for which the Department has primary carriage, or where there are significant links between skilled migration programs and the national education and training system.

Against this background, this submission provides:

- Background information on the role of the national education and training system;
- A discussion of the role of skilled immigration in meeting industry's skill needs. The section includes a case study on the role of immigration in meeting the skills needs of the ICT industries, which experienced rapid expansion in the late 1990s. However, more recently, the demand for ICT skills has eased, highlighting the need for flexibility and responsiveness in migration policy settings to reflect changes in labour market conditions;
- An analysis of the contribution of international students to skill formation in Australia through immigration. Recent changes in immigration policy have facilitated immigration by overseas students completing Australian qualifications. This analysis also emphasises the broader role of international study in terms of promoting longer term links between Australia and students' country of origin, and growth of exports of education studies. This section also reviews current issues of concern in relation to the governance of skilled migration arrangements.

2. Skill formation through Australia's education and training system

As noted earlier, the main source of skilled labour in Australia is the nation's education and training system. Responsibility for provision of education and training in Australia is shared between the Commonwealth and State and Territory Governments. The Commonwealth Government aims to facilitate the efficient working of market forces that drive supply and demand without unnecessary intervention. In this section, we outline the Commonwealth Government's role, provide information on growth in the supply of skills from the national education and training system, and review recent policy initiatives intended to strengthen the national education and training system.

The Commonwealth Government is an enabler in providing funding for education, a facilitator in providing policy and operational frameworks for the effective delivery of education and training, and a partner with other levels of government, industry and the education and the training sector. Education and training is delivered through schools, the vocational education and training system, universities, private providers and by industry.

Commonwealth spending on government schools is at the highest levels ever. All States and Territories have received increased funding every year since 1996 for their government schools. Total funding for government schools in the 2003 Budget is estimated to be \$2.4 billion and over the 2001-04 quadrennium will total \$9.3 billion.

Australia's vocational education training system includes both public and private providers, while both the Commonwealth and State government have funding and policy development roles in respect to the publicly-funded vocational education and training system. The States and Territories also have responsibility for education service delivery through TAFE Institutes.

The higher education sector in Australia generally refers to institutions which award degrees, although they may also award sub-degree level qualifications. While formal responsibility for higher education rests with the Australian States and Territories, universities are generally autonomous self-accrediting institutions established by Federal, State or Territory legislation. The role of the Federal Government derives from its responsibility for funding public higher education. Total income for the higher education sector in 2002 is estimated to be over 10.4 billion dollars with funding of about 6.4 billion dollars (including Higher Education Contribution Scheme) from the Federal Government.

In the past twenty years, there has been a dramatic rise in *participation* in education and training in Australia. There has been a strong rise in completion of Year 12 and an equally impressive increase in post-school participation. This has led to a better qualified workforce.

School retention rates to the end of Year 12 increased from 34.5 per cent in 1980 to 73.4 per cent in 2001, after reaching a high point of 77.1 per cent at the height of the 1992 recession. Retention rates have been higher for females than for males for most of the 1980s and 1990s. This reflects in part the fact that many males leave school to undertake New Apprenticeships.

Some 60 per cent of all school leavers now proceed immediately to further education and training¹. In fact, the expansion of educational opportunities as a result of Government policy has been such that access to post-school education and training is now almost universal². This has particularly benefited young people preparing for the labour market. DEST has estimated that a young person today has almost a 90 per cent chance of undertaking post-secondary education at some point in their lifetime (DETYA 2000 a).

¹ ABS *Transition from Education to Work, Australia* (Cat No 6227.0) May 2001.

² DETYA Annual Report 1999-2000, p 15.

A number of indicators reflect this development:

- the proportion of 15-19 year olds attending full-time education increased from 56.3 per cent in 1990 to 69.6 per cent in June 2002. Similarly, the proportion of 20-24 year olds in full-time education increased from 11.7 per cent to 19.8 per cent over the same period;
- between 1989 and 1999, commencements by Australian students in bachelor level courses increased by 49 per cent and in post-graduate courses by 66 per cent.
- there has been a significant increase in participation in vocational education and training (VET). In 2001, publicly-funded VET providers delivered programmes to over 1.7 million students, or 13.1 per cent of Australia's 15-64 year old population, compared to 8 per cent in 1991.

Apprenticeships and traineeships are a major part of the VET system. Following the decline in apprenticeship and traineeship numbers during the recession of the early 1990s, since 1995 there has been a very strong recovery. Between 1995 and 1999 the number of apprentices and trainees in training grew by 31 per cent a year, in part reflecting the introduction of New Apprenticeships.

In March 2002, an estimated 334,370³ apprentices and trainees were in training, surpassing the record level reached at the end of 2000. Recent growth reflects broadening of the occupational base apprentice style training beyond the traditional skilled trades. Australia's apprenticeship and traineeship system, when compared to the size of the working age population, now ranks fourth in the world, behind Switzerland, Germany and Austria. In particular, Australia is a world leader in terms of its coverage of adult apprentices (NCVER 2001).

Reflecting increases in participation, the Australian workforce is now better educated than ever before. During the last twenty years there has been a significant increase in the proportion of the population with university degrees (from 5.8 per cent in 1982 to 15.7 per cent in 2000) and a considerable decrease in the proportion of those who did not complete Year 12 and did not attain any subsequent post-school qualifications (from 53.4 per cent in 1982 to 32.0 per cent in 2000)⁴.

The educational attainment of the younger cohorts is higher than the average. For instance, among 25-34 year olds, 18.6 per cent hold a degree or higher qualification and 26.5 per cent have not completed Year 12 or a post-school qualification. The higher educational attainment of younger workers combined with retirement of older workers with lesser educational attainment is gradually raising the educational attainment of the working age population⁵.

³ NCVER: Australian apprentice & trainee statistics March 2002 quarter.

⁴ DEST analysis of ABS data, especially *Labour Force Status and Educational Attainment* (Cat No 6235.0) and *Transition from Education to Work* (Cat No 6227.0).

⁵ Not all education and training is reflected in higher educational attainment, however. In the VET area in particular, large numbers of persons intentionally complete modules of courses but not the full course, which means that they do not get the recognition for their studies in surveys of educational attainment (which is based on qualifications achieved). In addition, education attainment does not aim to capture the extent of skill development that occurs after completion of a qualification through short courses and other forms of skill acquisition, generally within the workplace. In 1997 (latest available data), for instance, around 62 per cent of training courses completed in the previous 12 months were in-house courses and 34 per cent of employees had participated in structured training. This type of training is important in terms of deepening, upgrading and renewing the skills of the workforce, including those who already have qualifications.

Not only has the Australian workforce become more educated and skilled in the past decade, it has also become more productive. Australia's labour productivity rose by an average of 2.4 per cent a year during the 1990s. As noted by the Reserve Bank, this productivity growth was higher than in earlier expansions.⁶

Recent policy initiatives to further facilitate skill formation

A number of initiatives are being progressed to further improve the responsiveness of the education and training system in respect to schools, vocational education and training, and universities. In this section, we have provided a brief overview of these initiatives and later outlined these initiatives in more detail at **Attachment 1**.

Schools

The Commonwealth's priority for school education is to enhance the quality of teaching, learning and leadership to ensure that all young people are equipped with the knowledge, skills and values to fully participate in a democratic society and achieve their full potential.

Quality Teaching

Strengthening teacher quality remains a key mechanism for enhancing the quality of Australian school education. The Commonwealth's *Teachers for the 21st Century* initiative seeks to improve teacher quality and increase the number of highly effective schools to maximise student learning outcomes, and is largely being implemented through the Quality Teacher Programme (QTP).

Teachers for the 21st Century has four elements:

- Quality Teachers
- Quality Leaders
- Quality School Management
- Recognition of Quality

The Review of Teaching and Teacher Education

The Government's Innovation Action Plan, *Backing Australia's Ability*, announced a range of measures to pursue excellence in research, science and technology and to build an even more highly skilled workforce. Strategies include a review of teaching and teacher education with particular emphasis on maths, science and technology. The review will focus on teacher work force needs in these areas and the skills teachers need to build a culture of continuous innovation in Australia's schools.

Quality Schooling

The Commonwealth remains committed to ensuring all students in Australian schools receive a quality education and the opportunity to develop their full academic and social potential. This is achieved through initiatives promoting quality and continual improvement in our teachers, curricula, schools and broader learning environment.

A major initiative aimed at whole-of-school improvement is the National Quality Schooling Framework currently being established and underpinned with national awards scheme for excellence in teaching and school improvement.

⁶ Australian National Training Authority, *Annual National Report, 1999, Volume 3 – National Vocational Education and Training Performance*, p.59, quoting from the *Reserve Bank Bulletin*, November 1999

Vocational Education and Training Initiatives

In August 2001, the Commonwealth, State and Territory Ministers agreed on a new ANTA Agreement for 2001 to 2003. This Agreement made provision for extra Commonwealth funding over three years to support training places. It brings the Commonwealth funding to States and Territories for training to over \$1 billion a year for the first time. The extra funding includes \$230 million for growth. States and Territories have agreed to match the Commonwealth's growth funds on a dollar-for-dollar basis.

New Apprenticeships

The New Apprenticeships Incentives Programme (NAIP) has as a principal aim the development of a skilled workforce for Australia. The programme is currently being reviewed, a process that has included consultations in all capitals and several regional centres and a public call for submissions.

National Industry Skills Initiative

Since 1999 the Government, through the National Industry Skills Initiative, has been working with nine selected industries to identify and address their skills needs now, and into the future, through education and training, particularly through New Apprenticeships.

The industries currently being assisted are engineering, electrotechnology, automotive retail, rural, commercial cookery, building and construction, retail, road freight and emerging technologies.

Higher Education

The current *Higher Education Review* will help address the quality and global competitiveness of our higher education institutions. The Review aims to develop a set of reforms to improve our higher education system.

The *Backing Australia's Ability* initiative announced the funding of \$736 million over five years to double the funding of the Australian Research Council (ARC). This funding included the introduction of Federation Fellowships and doubling the funding for postdoctoral research fellowships. The funding improves the competitiveness of salaries for researchers in Australia.

Backing Australia's Ability provided \$151 million to create an additional 2000 university places each year. Additionally, over the next five years, the Government will loan an estimated \$95 million to postgraduate students through the Post Graduate Loans Scheme (PELS).

3. The role of skilled migration in meeting industry skill needs

As noted in the introduction to this Submission, the majority of skills supply for Australian industry arises from the domestic education and training system. As outlined in Section 2, the supply of skills from Australia's education and training system has increased markedly in the past twenty years. However, migration, especially through the Skilled Migration Program, also has a major role in supplying skills for industry.

The key findings of two recent reports show that Australia continues to gain skills in net terms from migration. *Skilled Labour: Gains and Losses*, prepared by Dr Bob Birrell and *Emigration from Australia – economic implications* prepared by Professor Graeme Hugo were released in July 2001. The Birrell report notes that although there was a substantial increase in emigration in the 1990s, Australia continues to gain skills in net terms through migration, as shown in Table 1.

Table 1: Settler arrivals and net movement of permanent residents and long term visitors, 1995-96 to 1999-00				
By broad occupation	(1)	(2)	(3)	(4)
			Net	
			Net long term	Net
	Settlers	Residents	Visitors	Total
		(losses)		
Managers and Administrators	26353	22781	36405	39977
Professionals	73773	47746	30957	57254
Associate professionals	18211	9413	4597	13754
Tradespersons	29692	6339	2101	21253
Other occupations	53685	26608	877	24200
Total	201714	112887	74937	156438
Note: Net total (4) = (1) + (3) - (2)				
Source: Birrell, B., Dobson, I.R., Rapson V and Smith, T.F., Centre of Population and Urban Research, Monash University <i>SKILLED LABOUR: Gains and Losses</i> ,				

Recent trends in skilled migration

In 2001-02, Australia's skilled migration program accounted for 53,520 persons within an overall non-humanitarian migration program of 93,080. The proportion of skilled migrants has steadily increased in recent years, as outlined in Table 2.

Table 2. Skilled migration as a proportion of Total Non-Humanitarian Migrant Intake.

Year	Skilled Stream	Percentage
1992-93	29,000	42.7
1993-94	27,700	44.1
1994-95	38,100	49.8
1995-96	32,100	38.9
1996-97	34,890	47.2
1997-98	34,670	51.7
1998-99	35,000	51.5
1999-00	35,330	50.3
2000-01	44,730	55.5
2001-02	53,520	57.5

Source: DIMIA

Australia's 2002-03 Migration Program will be the largest and the most highly skilled in over a decade, with a planning level set in the range of 100,000 to 110,000. At the mid-point, this is an increase of 12,000 on 2001-02. The Skilled Stream has been targeted to deliver 58 per cent, or 60,000 of the total migration program.

Table 3 provides data on skill supply from education and training, for use in comparisons with supply from skilled migration.

	1998	1999	2000	2001
Vocational Education & Training	354,388	297,722	376,721	442,308
Higher Education : Award Course Completions, Non-overseas Students (b)	134,160	136,423	136,160	136,101
<i>Total Completions</i>	<i>488,548</i>	<i>434,145</i>	<i>512,881</i>	<i>578,409</i>

(a) Source: NCVER, unpublished data, August 2002

(b) Source: DEST Higher Education Statistics, DEST

Comparing Birell's net skilled data (Table 1) to completions from higher education and vocational education and training (Table 3) suggests that skilled migration, at an average of 39,000 persons per year, represents around 9 per cent of total new skill supply to the Australian industry each year over 1995-96 to 1999-00.

Unpublished data from National Centre for Vocational Education Research (NCVER) indicates that between 1998 and 2001, an average of 367,785 qualifications were awarded by publicly funded vocational education and training providers. New Apprenticeship and traineeship completions published by NCVER indicate an average of 71,620 completions between 1998 and 2001. It should be noted, however, that domestic skill formation also reflects skill deepening and broadening, where some persons extend their qualifications in a given field or gain additional qualifications, as well as development of new skills by previously unskilled persons.

In a dynamic labour market environment, domestic skill sources may not always be able to meet skill demands. In this context, skilled migration is a valuable adjunct in helping to meet national skill requirements. However, DEST is also concerned that benefits from the skilled migration program be maximised. In DEST's view, the skilled migration program is most valuable when it is closely targeted to industry skill needs.

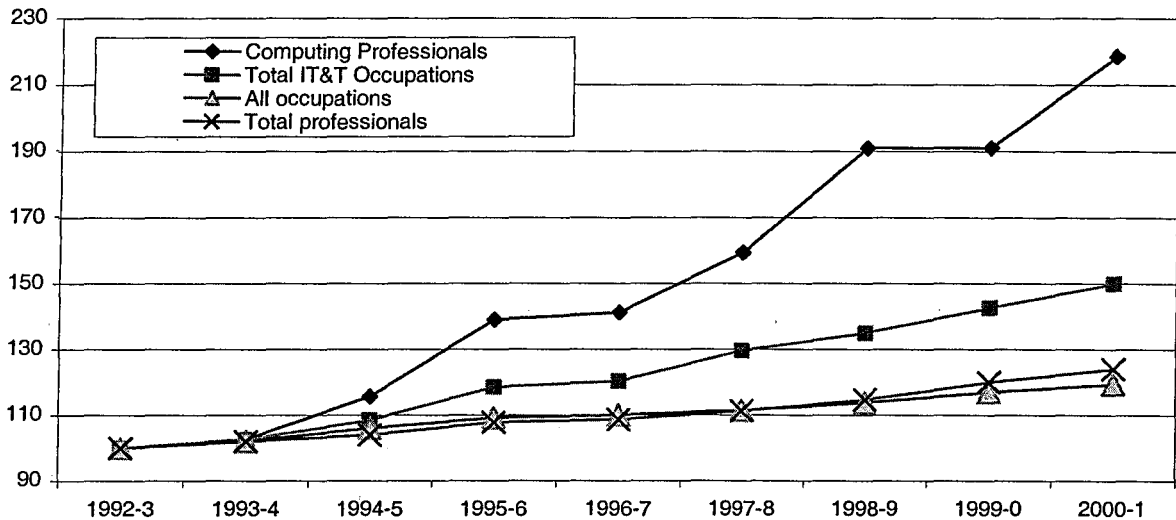
Available data indicate the recent performance of skilled migrants in the national labour market has been strong, in terms of participation in the labour force and comparatively low unemployment rates compared to the broader labour force. Nonetheless, it is important that the skills of persons migrating to Australia under the Skilled Migration Program continue to be closely aligned to industry's needs, to ensure that skilled migrants are readily absorbed into the labour force, and that industry skill needs are addressed as efficiently and effectively as possible. That said, employers also need to support the recruitment and training of the existing workforce to maximise economic and social outcomes, not rely on 'just in time' skilled migrant labour supply.

A related issue, in DEST's view, is a need for flexibility in migration policy settings, to take account of our dynamic economic environment. In the next section, we have provided a case study on Information Communications Technology (ICT) skill formation, which illustrates the responsiveness of both the national education and training system and the Skilled Migration Program in meeting industry's emerging skill needs. At the same time, the case study suggests the need for flexible policy settings which can facilitate adjustment to slower employment growth in a given occupation.

Case study in responding to skill shortages – Information Communications Technology (ICT) skills

In the late 1990s, in common with many other OECD countries, Australia experienced very rapid growth in demand for ICT skills. Between 1992-93 and 2000-01, employment in 'professional' computing occupations rose by 10.3 per cent a year compared to 2.7 per cent a year for all professional occupations. The extent of growth is highlighted in Chart 1 below.

Chart 1 : Employment Growth for Computing Professionals, Total ICT Industry All Occupations and All Professionals, Australia, 1992-93 to 2000-01



Source: Centre of Policy Studies, Monash University

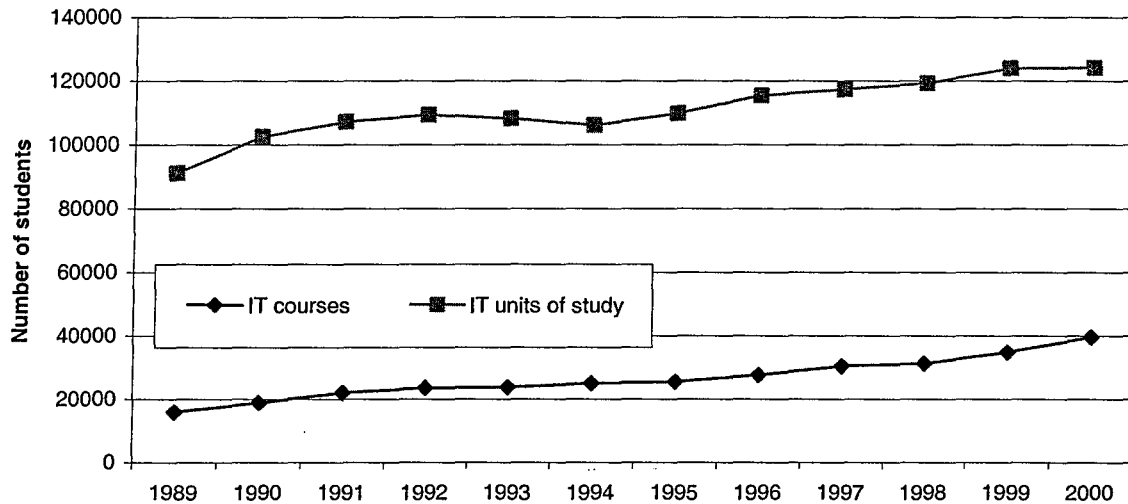
By the late 1990s, skill shortages emerged in a number of ICT occupations. The Government used a number of approaches to improve supply of ICT skills, including :

- fostering growth in domestic skill formation through universities and vocational education and training;
- facilitating increased migration by people with ICT skills the entry into Australia of suitably qualified migrants, especially those who have completed their qualifications in this country;
- ensuring through the development of the Information Technology Training which leads into New Apprenticeships in ICT, that New Apprentices contributed effectively to middle level ICT skills supply; and
- improving information about demand and supply of skills, encouraging upgrading and re-training, and promoting ICT training and careers.

The Government's strategy has achieved significant outcomes. The supply of ICT skills available to industry has expanded rapidly in a short time period, both from education and training and from skilled migration. In the past ten years, non-overseas commencements in university ICT courses increased by 92 per cent, with a 27 per cent increase in the last two years. In 2000 close to 40,000 domestic students were enrolled in ICT courses (Chart 2).

This strong response will be enhanced by Innovation Statement measures providing an additional 2,000 university places a year in priority areas like ICT, mathematics and science.

Chart 2 : Domestic enrolments in ICT courses and units of study, Australia, 1989 to 2000



Source: DEST Higher Education Group, University Statistics, 2002

There has also been substantial growth in participation in higher level vocational education and training (VET) courses relevant to ICT occupations. From 1994 to 2000, VET enrolments in semi-professional ICT⁷ courses increased by 124 per cent.

The Commonwealth is also providing the States and Territories growth funding of \$230m over three years under the *Australian National Training Authority (ANTA) Agreement for 2001 to 2003*. States and Territories will be required to provide additional VET places, including New Apprenticeships, and produce annual Innovation Strategies. The development of the ICT Training Packages will help to ensure that training programmes for New Apprenticeships and other VET qualifications are aligned to industry needs.

Industry has acknowledged recent rapid growth in ICT skill formation through the education and training system. The Australian Information Industry Association (AIIA), a peak national body representing suppliers of ICT goods and services, in its submission to the Higher Education Review in July 2002, noted that :

“The past decade has seen strong growth in tertiary participation rates in Australia and around the world. In Australia, the growth in enrolments in ICT has been even more dramatic, both in ICT courses and ICT units of study. Student enrolments in ICT courses have risen 8.5 per cent per annum over the past decade, and enrolments in ICT units of study have risen almost 5 per cent each year over the period.”⁸

The Government also changed immigration rules to enable overseas students studying in Australia to work here immediately after completing their qualifications. Under these arrangements, overseas students graduating from an Australian university who apply for migration within six months of completing their qualification are exempt from the three-year work experience requirement, which is a threshold requirement for all other applicants.

⁷ These courses are at the Australian Qualifications Framework (AQF) Certificate IV and above.

⁸ Australian Information Industry Association (AIIA) July 2002 submission : *Higher Education At The Crossroads, A Review of Australian Higher Education*

As from July 2001 overseas students have been able to apply on-shore. In addition, applicants who have qualifications in an occupation or skill specialisations that are in demand, such as some ICT specialisations which are on the Migration Occupations in Demand List (MODL), gain extra points.

These arrangements have facilitated the retention of overseas students with ICT qualifications in Australia. The number of overseas students has grown strongly from a low base 10 years ago, so that currently they represent around 42 per cent of all ICT course commencements.

However, since peaking in 2000, demand for ICT skills, as measured through job vacancies, has fallen significantly. The latest DEWR ICT vacancy index data indicate that ICT vacancies are now 83.2 per cent down on the peak recorded in September 2000.

Hence, in broad terms, skill shortages in ICT occupations have been substantially reduced. As a result, the Government has recently announced measures to no longer favour immigration by persons with ICT skills. Initiatives have included no longer giving priority processing of applications by persons with ICT skills under the Skilled Migration Program, and reducing the number of ICT specialisations on the Migration Occupations in Demand List (MODL) from twenty-six in April/May 2001 to twelve in April 2002. A review is underway further recommending the reduction of number of preferred ICT specialisations.

The Government's strategy for dealing with ICT skill shortages has therefore been very successful. The supply of skills through the education and training system and immigration has grown strongly over the last couple of years. Indeed, strong growth in the supply of skills from the education and training system and from skilled migration, coupled with a marked downturn in demand for ICT skills, has caused concern about the potential for an oversupply of ICT skills, at least in the short term.

This rapid change in circumstances highlights the need for flexibility and careful targeting in migration policy settings to best meet the needs of industry and the community. The case study also highlights another issue - the need to ensure that supply from skilled migration does not damage the labour market prospects of domestic students. In this case, and possibly more generally, growth in domestic supply of skills needs to continue to be monitored and considered when arriving at policy settings for Skilled Migration.

4. The contribution of international students to domestic skill formation via immigration programs

Introduction

There are now strong links between Australian education provision for overseas students and the Skilled Migration Program. About 50 per cent of the 17,000 successful Skilled Independent principal applicants in 2000-01 and 2001-02 had obtained a qualification from an Australian educational institution, i.e. around 8,500 applicants per year.

The table below presents information on award completions at Australian universities by overseas fee paying students by broad field of study between 1989 and 2000 (latest data available on completions by overseas students). The data indicate that in the four years to 2000 an average of 27,370 overseas students completed awards at Australian universities. The data also highlight substantial growth in the number of overseas students completing awards, with award completions by overseas students rising by 65.7 per cent in the four years to 2000.

Year	Agriculture, Animal Husbandry	Architecture Building	Arts, Humanities, and Social Sciences	Business, Admin., Economics	Education	Engineering, Surveying	Health	Law, Legal Studies	Science	Veterinary Science	TOTAL
	Overseas Students										
1989	72	81	212	1,079	134	428	261	55	428	18	2,768
1990	126	251	415	1,832	191	674	435	381	716	23	5,044
1991	114	228	592	2,769	299	656	521	64	1,048	13	6,304
1992	231	256	916	3,393	356	696	860	98	1,256	23	8,085
1993	235	247	968	4,427	474	820	1,047	98	1,543	29	9,888
1994	206	282	1,306	5,541	604	988	1,187	148	1,830	35	12,127
1995	232	338	1,306	6,342	822	1,114	1,270	180	2,286	32	13,922
1996	177	458	1,765	8,547	807	1,320	1,347	277	2,510	43	17,251
1997 (a)	193	487	2,015	11,067	861	1,528	2,021	219	2,757	26	21,115
1998	163	647	2,391	13,497	836	1,729	2,471	231	3,233	27	25,133
1999	188	757	2,689	15,191	951	1,973	2,651	270	3,630	28	28,263
2000	163	898	3,388	19,267	1,111	2,279	3,113	349	4,579	19	34,988

(a) Data from 1997 onwards were compiled in a different way to data for prior years to take into account the coding of Combined Courses to two fields of study. As a consequence, the total for some broad fields of study show larger increases than would be the case if data for only one field were to be counted. Counting both fields of study for Combined Courses means that the total for that year may be less than the sum of all Broad Fields of Study.

Comparing this data to data on the Skilled Migration Program provides interesting insights into the links between study by overseas students in Australia and Skilled Migration. However, there are a number of issues in attempting to make comparisons between the two data sources. The two data collections vary in scope and boundary, making direct comparison difficult.

While the data on award completions by overseas students is somewhat dated, it suggests that a substantial proportion of overseas students who complete Australian university awards do make successful applications to the Skilled Migration Program.

Hence, considered from the perspective of overseas students, the 1999 and subsequent changes to immigration arrangements have had a powerful impact. More broadly, these changes also change the face of Australia's international education activities. International education has a number of important roles, including generation of export income and the development of cultural and economic links. Now this role has a new dimension, supply of skills to the Australian labour market, and Australia's successes in attracting overseas students now has a very direct link to the success of Australia's immigration program. This emphasises the need for Australia to

attract high quality overseas students to ensure a good supply of highly skilled migrants with relevant qualifications.

Australia's education export industry

International education is Australia's third largest service export industry. Overseas students contributed \$3.1 billion to the Australian economy in 1999, and approximately \$3.7 billion in 2000. More than 188,000 overseas students studied with an Australian education provider in 2000, continuing the growth experienced in the industry since 1994, when approximately 102,000 overseas students were enrolled with our education providers. Overseas student numbers from Australia's top ten source countries for the period 1998-2000 are shown in Table 1. In 2000, there was very strong growth in overseas student numbers from China, and strong growth in Thailand and Malaysia. South Korea has rebounded following the Asian economic downturn. However, Indonesia, our largest provider of students in 1999, contracted by approximately 7 per cent in 2000.

Growth is being driven largely by the higher education sector where participation increased by 19 per cent (for both offshore and onshore delivery) in 2000. The English Language Intensive Course for Overseas Students (ELICOS) sector is estimated to have grown by 26 per cent in 2000, while international students in the vocational education and schools sectors are stable (up 4 per cent and down 4 per cent respectively).

Table 4. Student Numbers, from Top 10 Source Countries, 1998 to 2000

Country	1998	1999	2000	% Change 1998 to 1999	% Change 1999 to 2000
China	5,273	8,859	14,948	68.0	68.7
Hong Kong	18,161	18,833	20,739	3.7	10.1
India	8,073	9,581	10,572	18.7	10.3
Indonesia	17,715	19,172	17,868	8.2	-6.8
Japan	10,739	9,828	10,220	-8.5	4.0
Korea (South)	11,150	9,633	11,485	-13.6	19.2
Malaysia	16,485	16,544	19,602	0.4	18.5
Singapore	16,509	19,207	20,866	16.3	8.6
Taiwan	6,403	5,912	6,104	-7.7	3.2
Thailand	6,299	6,709	8,179	6.5	21.9

Source : *Overseas Student Statistics, 2000*

Note: Data in the table above relates only to students who were studying on a student visa or studying at an Australian institution offshore. It does not include overseas visitors who undertook a short course of study while travelling on visitor visas.

Overseas students in Australia study mainly in the field of *Business, Administration and Economics*, (comprising 50 per cent of higher education enrolments and 58 per cent of vocational education and training enrolments in 2000) and *Computer Science*, (11 per cent of higher education enrolments and 21 per cent of vocational education and training enrolments in 2000).

Growth in demand for Australia's education exports is expected to continue for the foreseeable future due to demographic pressures within our region, student demand for courses in the English speaking world, and the desire of regional governments to develop a skilled workforce quickly, despite constraints on their own provision of education services. Strong growth is expected to continue in China, and significant growth is expected for many other countries in our region. Growth is also expected in emerging markets in Europe, the Middle East and South America.

Quality Assurance

Australia is a major provider of international education and training. Exporters of education benefit from the Government's quality assurance mechanisms, which help raise international confidence in our education.

The *Education Services for Overseas Students (ESOS) Act 2000* was enacted to protect and enhance Australia's international reputation for education and training and to ensure that overseas students receive the tuition for which they have paid. It complements existing quality frameworks and State and Territory requirements and supports Australian migration laws.

Migration regulations relating to skilled migration allow additional points for applicants who have obtained a specified qualification from an Australian institution. The qualification must have required study of at least 12 months full time (one academic year) in Australia. By definition, such an applicant must have previously been in Australia on a student visa and be covered by the ESOS Act, unless exempt under an exchange student or scholarship arrangement prescribed in the Act's regulations. The National Code of Practice for Registration Authorities and Providers of Education and Training to Overseas Students, part of the ESOS Act, prescribes an academic year of not less than 36 weeks.

Arguments have been made that the migration regulations are encouraging Australian institutions to alter their course requirements and/or duration to assist eventual applications for skilled migration. The ESOS Act and its National Code ensure that all courses offered to students from overseas are approved by State and Territory authorities. State and Territory authorities will only approve courses which comply with existing national quality assurance frameworks, including those regulating registered training organisations in the vocational education and training sector and the National Protocols for Higher Education Approval Processes for higher education courses.

Skills recognition issues

The successful settlement of migrants is, to a significant degree, dependent on their ability to move into gainful employment at a level reflecting the overseas qualifications, skill and expectations they bring with them. The National Office of Overseas Skills Recognition (NOOSR) located within DEST, is the body responsible for approving assessing authorities for those occupations on the Skilled Occupations List, from which skilled migrants nominate an occupation and seek an assessment as a threshold requirement for skilled migration to Australia.

Given the "general" nature of the General Skilled Migration Program the skills assessment component of the migration points test is intended to ensure an overseas-trained professional granted Australian permanent residence status meets Australian professional entry level requirements and can readily move into skilled employment on being granted permanent residence.

To this end, NOOSR has in place mechanisms designed to assist overseas trained professionals to have a smooth transition to professional employment in Australia. These mechanisms are also aimed at supporting the Australian professional bodies, which, in undertaking this assessing role and assessing skilled migrants in line with current skilled migration programme requirements on behalf of the Government, play a crucial role in the selection of skilled migrants.

NOOSR's role in approval of assessing authorities for the General Skilled Migration Program

Under the *Migration Act* NOOSR is responsible for the approval of assessing authorities for the General Skilled Migration Programme. In 2001-2002, these assessing authorities undertook some 27,000 assessments for prospective skilled migration applicants. NOOSR monitors the recognition pathways of 39 relevant assessing authorities (27 professional occupations) to ensure fair, equitable, transparent and accessible systems for assessing professional overseas qualifications in Australia.

NOOSR approval is provided in writing to the Minister for Immigration, Multicultural and Indigenous Affairs for subsequent gazettal of the bodies and is given on the basis that the professional body provide a fair, equitable, transparent and accessible system for assessing the specified occupations, in accordance with the *Guiding Principles for the Assessment and Recognition of Overseas Skills and Qualifications*.

The Guide assists professional bodies in critical examination of their current assessment procedures and existing information, as well as in identifying gaps and making improvements. The Guide focuses on processes for recognition of professional qualifications, but it is also relevant to the recognition of overseas skills generally. It is not profession specific and provides guidance on those elements and aspects of assessment and appeal procedures which are essential from a sound practice and service delivery perspective and on the development of information for overseas trained applicants.

The assessing authorities are integral players in the success of the Skilled Migration Program. The specific skills assessments provide a quality control mechanism for the selection of skilled migrants. It is suggested that the Review consider approaching these bodies for a submission, particularly in light of experiences they may have regarding potential conflict between skill level requirements for the temporary entry and the Skilled Migration Program.

The Skilled Occupations List

From the perspective of skills assessments there are several existing tools which could be tightened to improve the selection of skilled migrants. One of these is the Skilled Occupations List (SOL). The Department, in consultation with the Department of Employment and Workplace Relations is currently considering issues related to the SOL and the appropriate inclusion of some of the occupations on this list.

One of these issues is the proposal to disaggregate the points for ICT professionals to target those holding qualifications of a higher standard with the aim of ensuring higher skill levels and better employment outcomes in a labour market with increasing competition for fewer ICT vacancies.

Summary and Conclusions

Knowledge and skills are now universally accepted as being central to economic growth, competitiveness and improved living standards. This has underpinned the commitment by Government to ensuring that Australia possesses a highly skilled and innovative workforce, and a flexible and responsive education and training system to deliver these skills. The Skilled Migration and Temporary Entry Programs help augment gaps in the supply of specific skills to meet industry needs.

The Australian workforce has undergone a complete transformation over the last twenty years, from a situation where more than half the working age population had not even completed school to a situation where more than 15 per cent hold a degree and less than one third has not completed school or a post-school qualification. These proportions will continue to improve as older, less well qualified workers are replaced by younger more educated workers. Recent initiatives will assist in further strengthening the education and training system.

Nonetheless, while Australia has an education and training system that is flexible and responsive to industry needs, skilled migration is important in augmenting the general supply of skills for Australian industry as well in meeting those skill shortages which occur from time to time. Against this background DEST supports a strong skilled migration program which is focussed towards meeting industry skill needs.

At the same time, as highlighted in the case study on skill formation for the ICT presented earlier in this submission, there is a need for flexibility in migration policy settings to take account of both under and oversupply of particular skills to the national labour market.

The submission also comments on the growing links between Australia's international education exports and the Skilled Migration Program. The Skilled Migration Program is now substantially resourced from overseas students who have completed a recognised Australian qualification, and it also appears that the majority of overseas student graduates seek to enter the Skilled Migration Program. Hence exports of education services, while having ongoing importance from the perspective of generating export income and the generation of broader cultural and economic links, are now also an important input to the Skilled Migration Program and supply of skills to Australian industry.

Against this background the submission has also canvassed the scope for growth of education exports. Overseas demand has been in strongest in the fields of *Business, Administration and Economics* and *Computer Science*. However, opportunities exist for expansion in other areas, especially science and technology based on our international reputation for scientific innovation. In addition, new opportunities now exist for capitalising on the development of Australia's competency-based training system for provision of vocational education and training.

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Recent policy education and training initiatives

This Attachment provides a detailed look at some recent initiatives aimed at improving the Australian education and training system. An overview of these initiatives was included in Section 2. Skill formation through Australia's Education and Training System in the main submission.

Schools

The Commonwealth's priority for school education is to enhance the quality of teaching, learning and leadership to ensure that all young people are equipped with the knowledge, skills and values to fully participate in a democratic society and achieve their full potential.

Quality Teaching

Strengthening teacher quality remains a key mechanism for enhancing the quality of Australian school education. The Commonwealth's *Teachers for the 21st Century* initiative seeks to improve teacher quality and increase the number of highly effective schools to maximise student learning outcomes, and is largely being implemented through the Quality Teacher Programme (QTP).

Teachers for the 21st Century has four elements:

- Quality Teachers
 - funding for teacher professional development in the priority areas of literacy, numeracy, science, mathematics, information technology and vocational education is by far the largest element of the initiative;
 - this element has also supported forums on professional teaching standards and the sharing of information about best practice in teacher professional development;
- Quality Leaders
 - support for professional development for educational leaders is provided through the Australian Principals Associations Professional Development Council;
- Quality School Management
 - two research projects are underway in this area, one to clarify the links between teacher professional development and student learning outcomes, the other to develop a National Quality Schooling Framework (NQSF);
- Recognition of Quality
 - a new Commonwealth awards scheme for schools, school leaders, teachers and teaching teams is being developed in the context of the NQSF.

The May 2002 Budget announcements included \$82.4 million for the continuation of the QTP until June 2005. Combined with the \$77 million already invested in the programme over the three years to 2002-03, the continued funding brings the Government's commitment to quality teaching to \$159.2 million.

The Review of Teaching and Teacher Education

The Government's Innovation Action Plan, *Backing Australia's Ability*, announced a range of measures to pursue excellence in research, science and technology and to build an even more highly skilled workforce. Strategies include a review of teaching and teacher education with particular emphasis on maths, science and technology. The review will focus on teacher work force needs in these areas and the skills teachers need to build a culture of continuous innovation in Australia's schools.

The short-term aim of the review is to ensure that talented young people are attracted to teaching careers in the fields of science, maths and technology, with the long-term outcome being the development of a culture of innovation in Australian schools.

The review is to be conducted by an independent committee of eminent persons from the education and science fields and representatives of industry. The committee will also conduct a comprehensive programme of consultation with the States and Territories, relevant stakeholders, special interest groups and the public.

The review will produce an interim report on Strategies to attract and retain science, technology and mathematics teachers in December 2002 with an Innovation Plan for the School Sector in July 2003.

Quality Schooling

The Commonwealth remains committed to ensuring all students in Australian schools receive a quality education and the opportunity to develop their full academic and social potential. This is achieved through initiatives promoting quality and continual improvement in our teachers, curricula, schools and broader learning environment.

A major initiative aimed at whole-of-school improvement is the National Quality Schooling Framework currently being established and underpinned with national awards scheme for excellence in teaching and school improvement.

The Commonwealth continues to support the provision of high quality, relevant and engaging education, especially in the priority areas of science, mathematics and technology. These areas are particularly important in enabling students to participate purposefully in the knowledge economy. A range of initiatives unique to each learning area is being implemented, including:

- A National School Science Project to support a package of initiatives that will raise the awareness of science education and improve the resources available to teachers in providing interesting and high quality science programmes to all students.
- Working in cooperation with representatives of school jurisdictions and technology educators to develop an action plan that will support the learning by young people of higher cognitive skills, such as problem solving skills, creativity, innovation and enterprise through Technology education.
- An investigation into the factors affecting student learning outcomes in mathematics across the compulsory years of secondary schooling. This project, part of a broader range of research the Commonwealth is actively pursuing to improve student numeracy outcomes, will identify the key factors that contribute to effective teaching in mathematics.

The Commonwealth is taking a leadership role in promoting the development and adoption of best practice approaches to establishing and maintaining safe school environments. This has led to all State and Territory Education Ministers agreeing to the development by January 2003, of a

national safe schools framework. This Commonwealth initiative, endorsed at the meeting of the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) on 18 - 19 July 2002, demonstrates that Australian governments are determined to work together in partnership with schools, parents, and local communities to take action to guarantee the physical and emotional safety of all students, and is being supported by additional initiatives promoting stronger school-family relationships.

The Commonwealth has also contributed to the development and resourcing of a new national anti-bullying website, *Bullying. No way!* (www.bullyingnoway.com.au), which follows on from the success of the *Racism. No way!* site (www.racismnoway.com.au). Both websites were developed jointly by the Commonwealth, State and Territory government education authorities and non-government school sectors, and bring together in one place information about what schools are doing and what exists to help schools counter bullying, harassment, violence and racism.

School Drug Education

Schools are critical places to educate young people about the harm of drug misuse. They can do much to promote the health and well-being of their students and to provide a school environment where young people feel safe, valued, engaged and purposeful which can in turn contribute to positive learning outcomes for students.

The *National School Drug Education Strategy* (the Strategy) and the Council of Australian Governments (COAG) 'Tough on drugs in schools' Measures support school drug education. Funding of \$27.3 million over four years to 2002-03 has been provided towards both the enhancement of school drug education programmes and the management of drug related issues and incidents in schools.

A range of activities are taking place under the Strategy. State and Territory education jurisdictions are undertaking collaborative projects to enhance existing activities or develop new initiatives. In addition, a number of nationally strategic research projects are investigating innovative and effective practice in school drug education.

Key activities taking place under the COAG Agreed Measures have a strong focus on resilience and connectedness. Australian and international research is showing that young people who have strong relationships and connections - with their friends, family, school and within their community - are more resilient than other young people.

In response, the commonwealth is producing the REDI (Resilience Education and Drug Information) suite of resources that support effective drug education and management in Australian schools. The REDI resources are the first school drug education materials which focus on preventing and reducing harm from drug use by building more resilient young people and by helping schools to build a whole of school approach to tackling drug issues. The REDI resources include materials for upper primary, lower secondary and upper secondary classrooms, as well as professional development resources and a website for teachers and school staff.

Local School-Community Drug Summits aim to bring school staff, students, parents and key community members together to encourage stronger, broader and more integrated community engagement and support in addressing illicit and unsanctioned drug use by young people. They also provide a vehicle to disseminate the national approach agreed by COAG to managing drug use in schools.

The whole of school approach recognises that everyone in the school community (including teachers, students, parents, principals, counsellors, police as well as youth and health workers) has an important role to play in preventing drug use. The whole of school approach brings representatives from the entire school community together to work on improving the school's outcomes on drug issues.

National History Project

The National History Project which began in October 2000 is helping to revitalise history in Australian schools. The National Centre for History Education (NCHE) has been established at Monash University and a centre website is being prepared for a public launch in the second half of 2002. Universities in each state and territory have developed pilot professional development programmes to support teachers of history. A post-graduate programme to provide additional qualifications for teachers of history has been established and is commencing in the second university semester of 2002. Two national seminars brought together academic and professional historians and teachers to discuss major issues in the teaching of history in Australian schools.

Civics and Citizenship and Values Education

The Government's civics and citizenship education programme, *Discovering Democracy*, helps young people understand Australia's democratic heritage, the operation of our political and legal system and the principles that support Australian democracy and civic life.

As well as the goal that students, when they leave school, should "be active and informed citizens with an understanding and appreciation of Australia's system of government and civic life", the ***National Goals for Schooling in the Twenty-first Century*** state that students at this stage should:

- *have qualities of self-confidence, optimism, high self-esteem, and a commitment to personal excellence as a basis for their potential life roles as family, community and workforce members*
- *have the capacity to exercise judgement and responsibility in matters of morality, ethics and social justice, and the capacity to make sense of their world, to think about how things got to be the way they are, to make rational and informed decisions about their own lives, and to accept responsibility for their own action.*

Civics and citizenship education (which most often occurs within the key learning area of studies of society and the environment) provides a particularly useful context for the exploration of values in the classroom. Students can explore rights and responsibilities in a range of historical and contemporary civic contexts. The *Discovering Democracy* programme helps students to learn about the values underpinning Australian democracy, including equality, liberty, fairness, trust, mutual respect and social co-operation. Values education includes these civic values and a citizenship orientation but looks at the social development of young people in a broader and more personal context. It intersects with what is referred to as the 'social objectives of schooling', objectives which, many see, become particularly pertinent at a time of rapid social, economic and technological change. The Commonwealth is now funding a national study into best practice in values education.

Languages and culture education

Languages education is vital in equipping young Australians with the skills and attitudes necessary to fully participate in the life of a tolerant, harmonious and outward looking multicultural Australia. Not only do successful Languages other than English (LOTE) programs teach young people to communicate in the target language but they also give them insights into a

culture and a way of thinking that is different from their own. The recognition that there are many different ways of thinking and viewing the world is a first step towards cross-cultural understanding. Once young people have the capability to communicate in a second language they have opportunities to engage in cross-cultural interaction, reducing cultural differences and leading to genuine communication. This promotes broad social cohesion throughout the Australian and international community.

LOTE is one of the key learning areas in the National Goals for Schooling. The Commonwealth Government supports the study of LOTE and makes a substantial investment to languages education in Australian schools. In 2002 this amounts to approximately \$50 million under the National Asian Languages and Studies in Australian Schools (NALSAS) Strategy and the LOTE element of the School Languages Programme. In 2001, 785,355 students (or over 24% of all students) were studying a NALSAS language at some level of schooling and 4,635 schools were offering a NALSAS language programme.

The Commonwealth also provides a core grant of \$1.2 million annually to the Asia Education Foundation (AEF). The AEF was established to work with schools, education authorities, teacher education institutions, professional associations, philanthropic foundations and corporate/private sector throughout Australia to promote and support studies of Asia across all curriculum areas.

Vocational Education and Training Initiatives

In August 2001, the Commonwealth, State and Territory Ministers agreed on a new ANTA Agreement for 2001 to 2003. This Agreement made provision for up to an extra \$370 million in Commonwealth funding over three years to support training places. It brings the Commonwealth funding to States and Territories for training to over \$1 billion a year for the first time. The extra funding includes \$230 million for growth. This is on top of real terms maintenance of base funding, providing indexation worth around \$120 million cumulatively over three years. The extra funding also includes \$15 million under the Australians Working Together - Helping People Move Forward package and an initial \$4.5 million under the Recognising and Improving the Capacity of People with a Disability initiative.

States and Territories have agreed to match the Commonwealth's growth funds on a dollar-for-dollar basis. This reflects that the funding for vocational education and training is a shared national responsibility, not an exclusively Commonwealth responsibility."

New Apprenticeships

The New Apprenticeships Incentives Programme (NAIP) has as a principal aim the development of a skilled workforce for Australia. The programme is currently being reviewed, a process that has included consultations in all capitals and several regional centres and a public call for submissions. The Review is due to report in late September 2002 with any changes to be implemented from 1 July 2003.

In addition to the Review, three new incentives will be introduced from 1 January 2003. Two relate to School Based New Apprenticeships, while the third relates to innovation and emerging technologies. The actual mechanism for targeting the latter incentive is currently being developed.

Any changes resulting from the Review, and the introduction of the new incentives, will be based on improving the level of skills in the Australian workforce.

National Industry Skills Initiative

Since 1999 the Government, through the National Industry Skills Initiative, has been working with nine selected industries to identify and address their skills needs now, and into the future, through education and training, particularly through New Apprenticeships.

The industries currently being assisted are engineering, electrotechnology, automotive retail, service and repairs, rural, commercial cookery, building and construction, retail, road freight and emerging technologies.

The initiative is an excellent example of what a partnership of industry and government can achieve by addressing skills needs and gaps in practical ways. The industries have taken an approach of encouraging young people into careers, while ensuring that current skills and expertise are not lost through the exiting of existing workers. There is also an emphasis on ensuring that skill levels remain current to technology.

Higher Education

The current *Higher Education Review* will address the quality and global competitiveness of our higher education institutions. The Review aims to develop a set of reforms that will allow our higher education sector to:

- deliver high-class teaching and enable excellence in research;
- add value to and enrich Australian society, culture and the economy;
- be responsive to the needs of students and the demands of other stakeholders including business and industry;
- ensure that students acquire and develop knowledge and skills that are relevant to the individual, employers, labour market and society;
- provide for the needs of students from varying backgrounds, including international students;
- engage with industry, research institutions and other education providers, including agreements with overseas organisations;
- accommodate unforeseen changes in demand; and be publicly accountable and socially responsible.

Australia has to compete with the larger economies for scarce skills. One way in which this has been addressed is through an initiative of *Backing Australia's Ability* that announced \$736 million over five years to double the funding of the Australian Research Council (ARC). This funding included the introduction of Federation Fellowships and doubling the funding for postdoctoral research fellowships. The funding improves the competitiveness of salaries for researchers in Australia.

The Federation Fellowships are designed to attract and retain leading researchers in Australia, and outstanding international researchers, in key positions to lead world-class research teams in work that benefits Australia – economically, environmentally and socially. 25 Fellowships have been allocated for 2002 and applications are now open for a further 25 Fellowships for take-up in 2003. The round of Fellowships for 2002 brought home 8 Australian researchers currently holding some of the world's most prestigious research posts in the USA, Europe and Asia. It retains in Australia a further 16 of our best researchers already working here. It also brings to Australia a top researcher from Sweden.

The expanded funding for research fellowships meant that 163 research fellowships were offered in 2002 and 15 of these brought home leading Australian researchers who were working overseas.

Additional places in science and technology

To address likely shortages in key innovation areas, *Backing Australia's Ability* provided \$151 million to create an additional 2000 university places each year – with priority given to ICT, Mathematics and Science. This will rise to 5470 additional per year by 2005. This initiative strengthens our national skills base while meeting employers' needs for high-calibre graduates in these fields.

Postgraduate Education Loan Scheme (PELS)

Over the next five years, the Government will loan an estimated \$995 million to postgraduate students through the Postgraduate Education Loan Scheme (PELS). This scheme is designed to encourage life-long learning and to help Australians update and acquire new skills. It will enhance the flexibility of our workplace, further improving our responsiveness to change by targeting postgraduate training in fee-paying non-research courses. PELS will operate in a similar way to the existing Higher Education Contribution Scheme for undergraduate students.