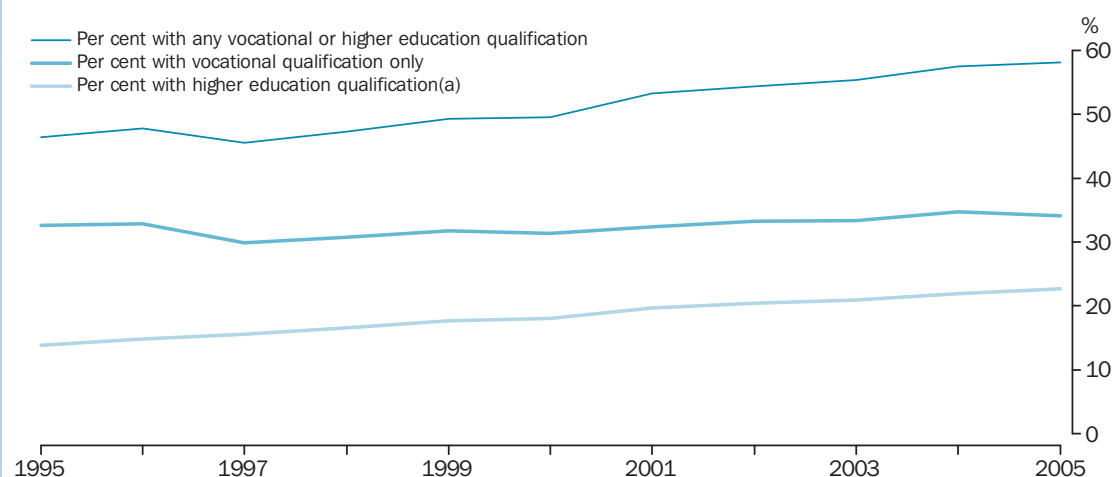


Education and training: key points

People aged 25–64 with a vocational or higher education qualification



(a) Some of these people may also have a vocational qualification. As the data are based on people's level of highest non-school qualification, it is not possible to give the proportions of people with both types of qualification.

Source: Survey of Education and Work Australia, cat. no. 6227.0.

For the past ten years there has been an upward trend in the proportion of people with vocational or higher education qualifications. Between 1995 and 2005, the proportion of those aged 25–64 with a qualification increased from 46% to 58%. This increase continues a trend seen for several decades.

The relationship of education to progress

Education and training help people to develop knowledge and skills that may be used to enhance their own living standards and those of the broader community. Having a skilled workforce is vital to supporting ongoing economic development and improvements in living conditions. For further discussion see the box on human capital in this chapter.

About the headline indicator and its limitations: People aged 25–64 with a vocational or higher education qualification

While an indicator that recognises the sum of all knowledge and skills held by people would be desirable, such an indicator is not available. The headline indicator used here is the proportion of the population aged 25–64 with a vocational or higher education qualification.

Education: Other indicators

Education participation rate for those aged 15–19; Year 7/8 to Year 12 apparent retention rate; Human capital stock; Education participation rates and attainment levels for those aged 15–64; OECD literacy rates, science, reading and mathematics; Indigenous to non-Indigenous education participation and attainment ratios; Female students as a proportion of all students

Some differences within Australia

Educational attainment and participation differ substantially among various population subgroups – age groups, men and women, migrants, Indigenous Australians and for states and territories.

Links to other dimensions

Improvements in education may assist progress in other areas and vice versa. See also the commentaries *National income*, *Work*, *Economic hardship*, *Crime*, *Health*, and *Productivity*.

Education and training

Progress and the headline indicator

Education and training help people to develop knowledge and skills that may be used to enhance their own living standards and those of the broader community. For an individual, educational attainment is widely seen as a key factor to a rewarding career. For the nation as a whole, having a skilled workforce is vital to supporting ongoing economic development and improvements in living conditions.

People can obtain knowledge and skills in many different fields, and in many different ways (both formally and informally). Schools, providers of vocational education and training, and universities, offer many courses. Much formal learning also takes place in the workplace (either on the job or in work-related training courses). In addition, people may gain knowledge and skills by simply pursuing their own interests. An indicator that recognised the sum of all knowledge and skills held by people would in some ways be desirable, but such an indicator is not available. The commentary which follows focusses mainly on education and training in relation to the development of skills for use in paid employment.

The progress indicators used here measure the attainment of formal non-school qualifications, and the levels of participation in education and training. The headline indicator is the proportion of the population aged 25–64 with a vocational or higher education qualification (see box).

The indicator shows that there has been a rise in the proportion of people with non-school qualifications. Between 1995 and 2005, the proportion of 25–64 year olds with a vocational or higher education qualification rose from 46% to 58%, continuing a trend seen for several decades.^{1,2}

The increase over the last decade in the proportion of people with non-school qualifications was driven by the substantial increase in the proportion of people with a higher education qualification (i.e. a bachelor degree or above). Between 1995 and 2005, the proportion of people aged 25–64 with a higher education qualification increased from 14% to 23%. The proportion of people whose highest qualification was a vocational qualification was 34% in 2005, a similar level to a decade earlier.

Associated trends

Other indicators show that the increase in the overall levels of educational attainment is supported by continued high levels of participation in education and training. For example, the proportion of 15–19 year olds who were students (either in school or studying for a vocational or higher education qualification) increased steadily between 1985 and 1997, from 61% to 77%, and has remained steady since.

The apparent retention rate is one indicator of the degree to which young people are continuing their participation in secondary school education beyond the compulsory years. (Note that an

Measuring educational attainment

The educational attainment indicators refer to vocational and higher education qualifications (defined below) which are also called non-school qualifications.

Qualifications are defined as formal certifications, issued by a relevant approved body, in recognition that a person has achieved learning outcomes or competencies relevant to identified individual, professional, industry or community needs. Statements of attainment awarded for partial completion of a course of study at a particular level are excluded.

Vocational education qualifications include Advanced Diploma, Diploma, and Certificates I to IV.

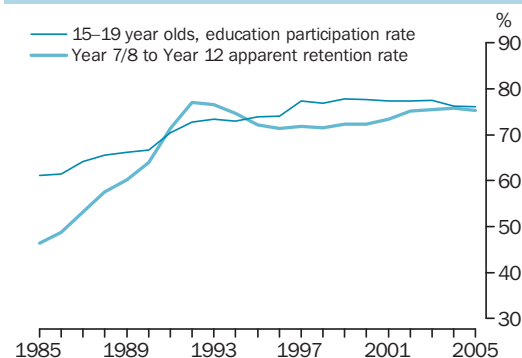
Higher education qualifications include Postgraduate Degree, Master Degree, Graduate Diploma, Graduate Certificate, and Bachelor Degree.

Non-school qualifications are awarded for educational attainments other than those of pre-primary, primary or secondary education. They include the higher education qualifications and vocational education qualifications listed above. Collectively, this group of qualifications is referred to as *non-school qualifications* instead of *post-school qualifications* because students can study for vocational qualifications, such as certificates and diplomas, while attending secondary school.

There have been some changes to the way in which information about qualifications has been collected and recorded.² While these changes involve relatively small numbers of people, they help to account for some of the changes seen in the time series.

international comparison of the proportion of young people completing at least upper secondary school across various OECD countries is included in the essay *Progress indicators in other countries*.) The increases in the level of retention of secondary school students through to Year 12, seen during the 1980s and early 1990s, have not continued at the same pace in recent years. The Year 7/8 to Year 12 apparent retention rate (see box on next page) stood at 75% in 2005, slightly higher than in 1995 (72%), and slightly below the

Education participation rate for persons aged 15–19 years and Year 7/8 to Year 12 apparent retention rate



Source: *Education and Work, Australia cat. no. 6227.0*; and *Schools, Australia cat. no. 4221.0*.

1992 peak of 77%. (The peak in 1992 occurred in a year of particularly high levels of unemployment – see the commentary *Work*.) Care should be taken in interpreting apparent retention rates as they do not account for influences on the Australian school student population.

Some differences in Australia

There are a range of differences throughout Australia in educational participation and attainment for different age groups, women and men, immigrants and Indigenous Australians.

Age group differences

In 2005, 57% of people aged 15–24 were attending an educational institution compared with 14% in the 25–34 year age group and lower proportions in older age groups. Overall, there is an ongoing increase in levels of participation in education among younger age groups. Consistent with this, the proportion of people with a vocational or higher education qualification was highest for those aged 25–34 (64%) in 2005.

People are most likely to obtain their initial vocational or higher education qualifications during their late teens and early 20s. However, between 1995 and 2005, the proportion of people with a vocational or higher education qualification increased for all age groups. This was partly because of increased educational participation across most age groups, but it also reflects the ongoing increase in education participation amongst young people. Over time, those older people who were less likely to have qualifications are moving out of the labour market and are being replaced by younger cohorts who are more likely to have obtained qualifications, usually when they were young.

Education participation and educational attainment for persons aged 15–64

Age group (years)	Education participation rate		Persons with a vocational or higher education qualification	
	1995	2005	1995	2005
	%	%	%	%
15-24	49.6	57.1	22.3	26.6
25-34	11.9	13.8	48.5	64.1
35-44	9.1	8.3	49.8	59.3
45-54	4.8	5.5	45.7	57.3
55-64	1.9	2.4	37.3	49.4
Total 25-64	7.8	7.9	46.4	58.1
Total 15-64	17.2	18.2	41.0	51.5

Source: ABS Survey of Education and Work, Australia, 2005 cat. no. 6227.0.

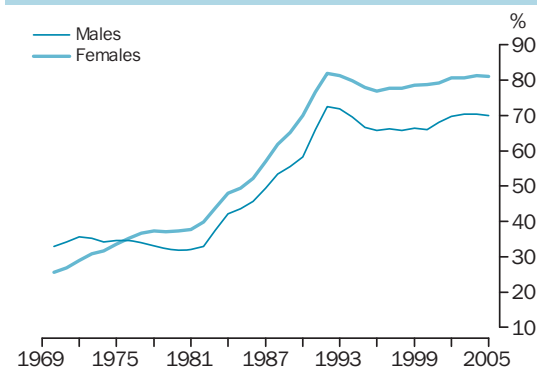
Apparent retention rates

Apparent retention rates in this chapter are calculated by dividing the number of full-time students in Year 12 by the number of full-time students in an earlier year of secondary school education (known as the base year), when the majority of that Year 12 cohort are assumed to have commenced. In this publication, the base year is Year 7 (five years earlier) in New South Wales, Victoria, Tasmania and the Australian Capital Territory and Year 8 (four years earlier) in Queensland, South Australia, Western Australia and the Northern Territory (since those years represent the commencement of secondary school in the respective state or territory). The figure is then converted to a percentage.

Over time, apparent retention rates have become less relevant and accurate as changes to the education system have broadened the range of pathways available to young people in post-compulsory education. Existing apparent retention rates do not take into account a range of factors, and readers are cautioned to exercise care in interpreting the measure. Students may repeat a year of education, or migrate between institutions, states/territories and in or out of Australia. An increasing number of students are considered to be part-time and there are also differing enrolment policies leading to different age/grade structures between states and territories. All these factors affect the number and composition of the student population when calculating apparent retention rates or alternative measures. The ABS is considering a range of adjustments which will better account for these factors. The ABS is also constructing a more comprehensive suite of measures to address issues of participation, pathways and outcomes of young people.⁵

There has been much interest in the educational attainment of older people with discussion focussing on life long learning and the need to develop and update knowledge and skills required to meet changes in the labour market. However, in the decade between 1995 and 2005 education participation rates for those aged 25–64 remained fairly constant.⁵

Year 7/8 to Year 12 apparent retention rate(a)



(a) Refers to full-time students only.

Source: Australian Bureau of Statistics, Schools, Australia cat. no. 4221.0

Education participation of persons aged 15–64

	Males %	Females %	Total %
1995	17.2	17.2	17.2
1996	17.2	18.2	17.7
1997	17.1	17.8	17.5
1998	16.9	17.8	17.4
1999	17.5	18.7	18.1
2000	17.0	18.6	17.8
2001	17.5	18.6	18.1
2002	17.8	19.2	18.5
2003	17.7	19.6	18.6
2004	16.9	18.5	17.7
2005	17.3	19.1	18.2

Source: ABS Survey of Education and Work

Male/female differences

Sometimes referred to as a social revolution, changes in social attitudes concerning the roles and responsibilities of men and women in the latter part of the last century have influenced the education participation and attainment levels of women.⁶ This has resulted in the differences between men and women in regard to educational attainment becoming less pronounced. In 2005, a higher proportion of women than men in the 15–24 age group had vocational or higher education qualifications (29% and 24% respectively).

However, in the 25–64 age group, a higher proportion of men have a vocational or higher education qualification, the difference increasing with age. Between 1995 and 2005 the proportion of women (aged 25–64 years) with a vocational or higher education qualification increased from 40% to 54%. For men, the proportion increased from 53% to 62%. These changes are more pronounced among younger age groups. In 2005, the proportion of women aged 25–34 years with a higher education qualification exceeded that of men (32% and 27% respectively), whereas a decade earlier the proportions for men and women aged 25–34 were both about 14%.

Not surprisingly, changes in attainment are consistent with changes in participation over this period. Between 1995 and 2005, education participation for women overall, increased slightly from 17% to 19%. In comparison, participation for men remained about the same at 17%. Since the mid-1970s, women have been more likely than men to continue through secondary school to the uppermost level of schooling, as indicated by Year 7/8 to Year 12 apparent retention rates,^{3,4} and this in turn has led to greater increases in participation in other programs of education and training. In 2005, the Year 12 apparent retention rate for women was 81% compared to 70% for men. The increasing difference in participation and

attainment levels of men and women in the younger age groups (particularly in the school system), has given rise to concerns about men’s success in education.⁷

Migrants

Immigration has helped to build the skill levels of the population. Migrant groups tend, on average, to have higher levels of educational attainment than the Australian-born population.⁸

Levels of educational attainment have also generally increased among successive waves of migrants. Data from the ABS 2004 Labour Force Status and Other Characteristics of Migrants Survey showed that 55% of those who arrived in the period 2002 to 2004, and were aged 15 and over at that time, had a vocational or higher education qualification on arrival, compared with 52% of those who arrived from 1995 to 2001 and 45% of those who arrived from 1986 to 1994. The increased focus on the skilled migration component of Australia’s migration program has contributed to this trend.⁹

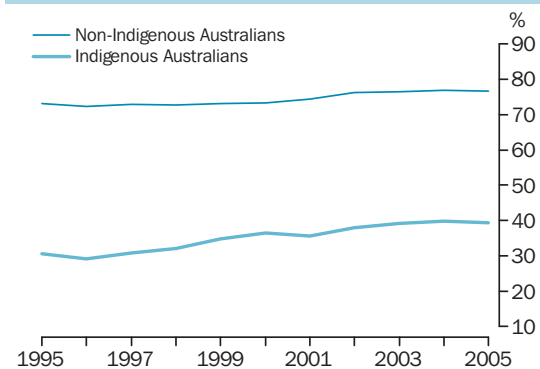
Aboriginal and Torres Strait Islander peoples

There has been significant progress in the levels of education participation and educational attainment among Indigenous Australians in recent years, and a narrowing of the gaps in both participation and attainment between Indigenous and non-Indigenous Australians over that period. However, both the levels of participation in education and training among Indigenous Australians and their levels of attainment remain well below those of non-Indigenous Australians.

Increases in the Year 7/8 to Year 12 apparent retention rate for Indigenous students, show an increasing proportion of Indigenous Australians progressing through to Year 12. Between 1995 and 2005 the Year 12 apparent retention rate for Indigenous students increased from 31% to 40%.

Between the 1994 National Aboriginal and Torres Strait Islander Survey and the 2002 National

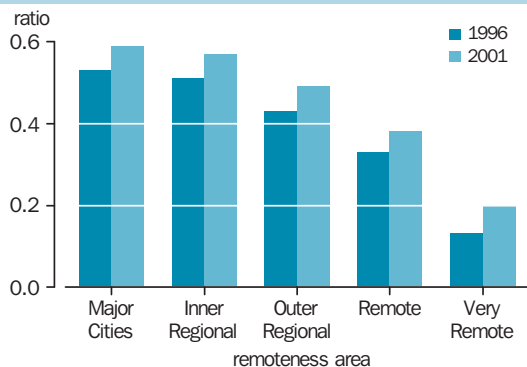
Year 7/8 to Year 12 apparent retention rate(a)



(a) Refers to full-time students only.

Source: Australian Bureau of Statistics, Schools, Australia, cat. no. 4221.0.

Indigenous to non-Indigenous attainment ratios(a)(b)



(a) The ratio of Indigenous to non-Indigenous attainment of a non-school qualification is calculated by dividing the Indigenous rate of attainment by the non-Indigenous rate of attainment. A ratio of less than one implies Indigenous disadvantage. (b) Attainment of non-school qualifications for persons aged 25–64. Source: Census of Population and Housing, 1996 & 2001.

Aboriginal and Torres Strait Islander Social Survey, the proportion of Indigenous adults aged 25–64 with a vocational or higher education qualification increased from 20% to 32%. Over this period, for those who reported their level of qualification, the proportion of Indigenous Australians with a certificate or diploma increased from 13% to 24%. Those reporting a bachelor degree or above increased from 1% in 1994 to 5% in 2002.¹⁰

Censuses of Population and Housing also show gains in Indigenous attainment between 1996 and 2001. While these gains were observed across geographic areas and in all age groups, the gap between the Indigenous and non-Indigenous populations increased with increasing geographic remoteness.

Level of highest non-school qualification for persons aged 25–64 – 2005

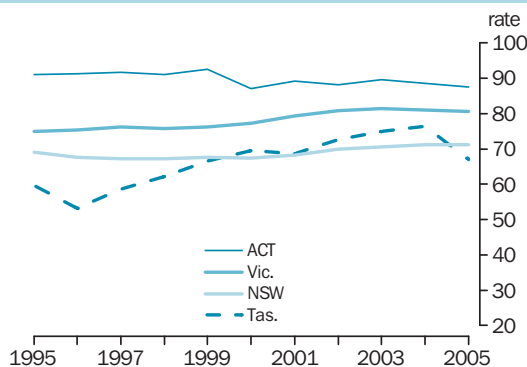
	Vocational qualification %	Higher education qualification %	Total(a) %
NSW	35.1	24.5	61.1
Vic.	32.0	24.3	57.5
Qld	35.1	19.0	55.3
SA	33.1	18.2	53.3
WA	36.1	21.2	58.7
Tas.	31.2	18.3	51.1
NT	37.0	22.7	60.7
ACT	27.0	39.5	68.7
Aust.	34.1	22.7	58.1

(a) The total is not the sum of the other two columns because it includes people whose level of non-school qualification was undetermined. Also, people with a higher education qualification may also have a vocational qualification. Source: Survey of Education and Work, cat. no. 6227.0.

State/territory differences

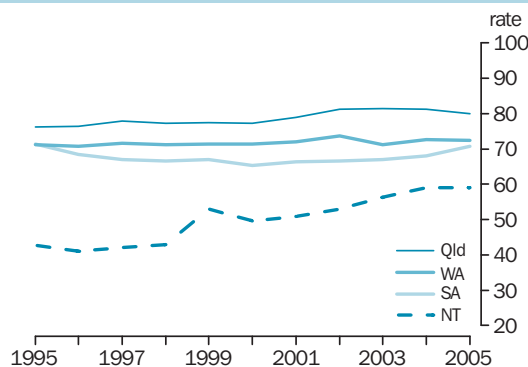
The differences across the states and territories in the proportion of people aged 25–64 whose level of highest non-school qualification was a vocational qualification ranged between 27% for the Australian Capital Territory and 37% for the Northern Territory in 2005. However, the proportions of persons with higher education qualifications differed more substantially, ranging from 40% in the Australian Capital Territory to 18% in South Australia. These differences may be related to a number of factors including: differences in the demand for highly skilled persons; differences in the age distribution of the individual state or territory populations; and the extent to which a particular state or territory may

Year 7 to Year 12 apparent retention rate, states/territories in which secondary school commences in Year 7(a)(b)



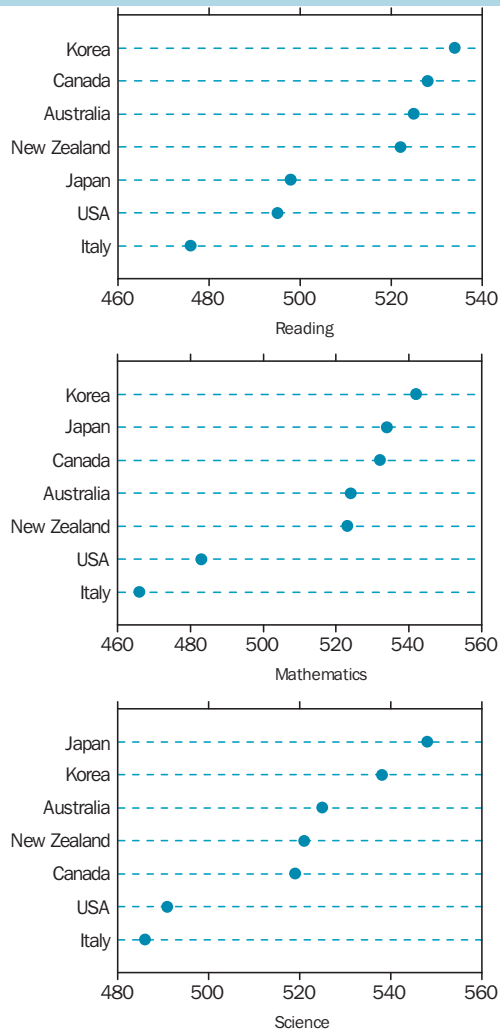
(a) Refers to full-time students only. (b) Relatively small changes in student numbers in smaller jurisdictions can create apparently significant movements in retention rates. Source: National Schools Statistics Collection; and Schools, Australia cat. no. 4221.0.

Year 8 to Year 12 apparent retention rate, states/territories in which secondary school commences in Year 8(a)(b)



(a) Refers to full-time students only. (b) Relatively small changes in student numbers in smaller jurisdictions can create apparently significant movements in retention rates. Source: National Schools Statistics Collection; and Schools, Australia cat. no. 4221.0.

Average literacy scores for 15 year olds in selected OECD countries – 2003



Source: OECD Education at a glance, 2005, table A4.3 (for Maths) and OECD Learning for Tomorrow's World – First Results from PISA 2003, 2004 figures 6.3 (for reading) and 6.10 (for science).

The Organisation for Economic Co-operation and Development (OECD) periodically publishes average scientific, mathematical and reading literacy scores under its Programme for International Student Assessment (PISA). PISA aims to assess whether students, approaching the end of compulsory education, have acquired some of the knowledge and skills that are necessary for full participation in society. In 2003, the survey was carried out with a minimum sample size of 4,500 15 year old students from at least 150 schools in each participating country. The OECD scales were constructed to have a mean of 500 and a standard deviation of 100, so that almost two-thirds of students across the OECD obtained scores between 400 and 600 points.

The average literacy scores show that Australia, Canada and New Zealand have similar scores, with average scores between 522–528 on the reading scale, 523–532 on the mathematics scale and 519–525 on the science scale. Japan and Korea scored highly in both science and mathematics literacy assessments. Of all 30 surveyed countries (a selection of which are included in the graphs), Australia was ranked 4th for reading and science and 8th for mathematics.¹²

attract migrants (both interstate and international) with high levels of educational attainment.

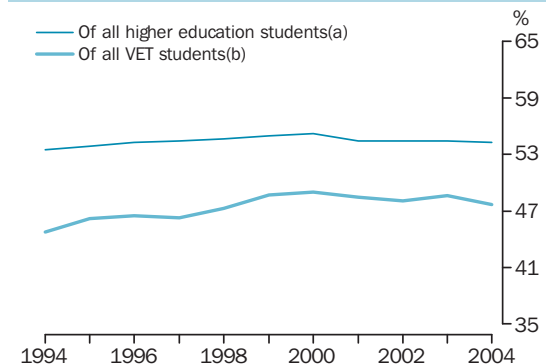
There have been substantial differences in Year 7/8 to Year 12 apparent retention rates among the states and territories. The Australian Capital Territory had the highest apparent retention rate in 2005 (88%) while the Northern Territory had the lowest (59%). The general pattern of change in Year 12 apparent retention rates over the last decade has been similar in most of the states and territories, i.e. generally falling from a peak in the early 1990s and remaining fairly stable since the mid-1990s. The drop-off from the early 1990s peak was more pronounced in South Australia and the Northern Territory. Contrary to the general pattern, Year 12 apparent retention rates increased substantially in Tasmania between 1995 and 2003 but have declined more recently. Nevertheless, in the decade 1995 to 2005, they showed an overall increase, from 60% to 67%.

The greater fall in apparent retention rates seen in some states earlier in the decade, particularly South Australia, is partly related to increasing numbers of students opting to complete upper levels of secondary school on a part-time basis.¹¹ Part-time students are excluded from the calculation of the Year 7/8 to Year 12 apparent retention rates.

Factors influencing change

The pace at which knowledge and skills are developed within the population is influenced by many factors. Increasing requirements for high level skills and qualifications in the work force due to the changing nature of work (including technological change within industries and their changing structure) are important drivers of change.¹³ The policies of governments and industry groups in providing opportunities for people (especially young people) to develop their knowledge and skills also play an important role in

Female students as a proportion of all students



(a) The scope of the data in 2002 is different to that used in previous series. From 2001 DEST has recalculated the data to align with this change. (b) Private providers are included from 1996, and VET in schools was included from 1997 to 2001.

Source: DEST 2003 and 2000, Students, Selected Higher Education Statistics. VET data is from NCVER, Students and Courses 2005: Summary, Higher Ed. data from DEST Higher Education Statistics 2004

Human capital

In 2004, the ABS released its first experimental estimates of the value of an aspect of Australia's human capital stock. The estimates were calculated using a 'lifetime labour income' approach which quantified the total income a person could expect to receive over the course of their working life, and also considered the effect on people's income of taking additional educational qualifications.

Australia's stock of this aspect of human capital was valued at \$5,600 billion in 2001, a real increase of 75% since 1981. The study found that growth in human capital has been quicker among women than men, with the value of women's human capital rising by 84% over the period (compared to 69% for men). The increase was driven, in part, by a rise in the number of people with higher education qualifications.¹⁴

Australia's human capital stock(a) by educational qualification

	1981	2001
	\$ billion	\$ billion
Male		
Higher degree	40.6	160.3
Degree	208.3	659.3
Skilled labour(b)	672.1	1,104.2
Unqualified	1,015.5	1,352.0
Total	1,936.4	3,275.7
Female		
Higher degree	8.9	88.7
Degree	84.2	570.2
Skilled labour(b)	268.7	464.0
Unqualified	887.3	1,177.1
Total	1,249.2	2,300.0
Total	3,185.6	5,575.7

(a) Figures are adjusted to 2001 dollars. (b) The study period for a skilled labour qualification is 2 years.

Source: Working papers in econometrics and applied statistics: no. 2004/1 Measuring the Stock of Human Capital for Australia – Experimental Estimates, September 2001. cat. no. 1351.0.55.001.

educational participation and attainment. Australia's continued interest in attracting skilled migrants from other countries may also help to increase the attainment levels of Australia's population.⁹

Throughout the past decade, women have outnumbered men in higher education. The proportion of higher education students who are women has remained at around 54%. The representation of women in the VET sector however is below that of men, although the proportion increased over the decade to 2004 (45% in 1994 and 48% in 2004).

Links to other dimensions of progress

The ongoing development of people's knowledge and skills influences many dimensions of progress. Increased education and training may support economic development by providing people with specialised skills capable of increasing levels of

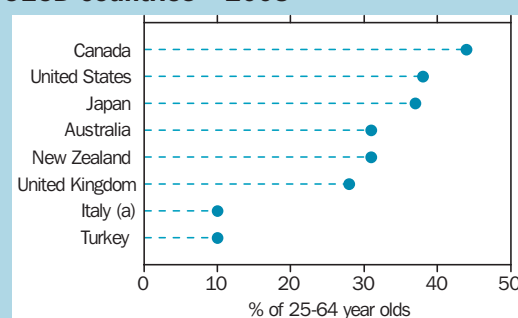
International comparisons of education

Due to differences in the way qualifications are classified in Australia and internationally, there is no OECD indicator that can be directly compared to the headline indicator. One important OECD indicator is the proportion of the adult population that has attained tertiary level education, a measure of attainment which attempts to bridge the variability in education programs across countries. The OECD defines a tertiary education and training program as having a content which: is either theoretically-based or focused on occupationally-specific skills; generally has pre-requisite studies; and is of at least two years duration. In the Australian context, these programs include Diploma, Advanced Diploma, Graduate Diploma, Graduate Certificate and Bachelor Degree and above.

In 2003, there was a wide variation in the proportion of 25–64 year olds with at least one such tertiary qualification among OECD member countries, ranging from 10% in Italy and Turkey to 44% in Canada.

The OECD reported that 31% of Australians aged 25–64 had attained a tertiary qualification, the seventh highest proportion among the 30 OECD member countries. Similar to most member countries, those in the younger age groups were more likely to have completed such qualifications than those who were older.

Persons aged 25–64 with a vocational or higher education qualification: selected OECD countries – 2003



(a) 2002 data.

Source: OECD Education at a Glance 2005

productivity and of extending the range and quality of goods and services produced. Education and training may also serve to improve our capability to address a wide range of public health and welfare issues, as well as various environmental problems. From an individual's perspective, educational participation and attainment can help to improve outcomes in areas such as employment, income and health.

The opportunity to participate in education and training in turn depends on a broad range of social, economic, and individual factors including health, economic circumstances, established support mechanisms, and access to education and training. See also the commentaries *National income, Work, Economic hardship, Crime, Health, and Productivity*.

Endnotes

- 1 Data for 1969 and 1982 show that the proportion of people aged 20–64 years (a slightly larger age group than that used as the main indicator in this report) who had a non-school qualification increased from 20% to 42%. See Australian Bureau of Statistics 1984, *Social Indicators, Australia, No. 4*, cat. no. 4101.0, ABS, Canberra.
- 2 There have been four major breaks in the series between 1990 and 2003. The breaks listed below are considered to have impacted on the comparability of data relating to qualifications.
 - (a) In 1993, the ABS introduced the Australian Bureau of Statistics *Classification of Qualifications (ABSCQ)*, 1993 (cat. no. 1262.0).
 - (b) In 1994, qualifications of nurses were treated separately, which resulted in some movement of data relating to level of qualifications.
 - (c) In 1997, prompt cards were no longer used and computer assisted coding methodology was adopted, resulting in changes in the relative distribution within vocational education qualifications.
 - (d) In 2001, the ABSCQ was replaced by the *Australian Standard Classification of Education (ASCED)* cat. no. 1272.0. The ASCED is a national standard classification, which can be applied to all sectors of the Australian education system including schools, vocational education and training and higher education.
- 3 Australian Bureau of Statistics, 'Review of ABS Apparent Retention Rates Series' in *Schools, Australia 2004*, cat. no. 4221.0, ABS, Canberra.
- 4 Australian Bureau of Statistics, 'Update of the Review of ABS Apparent Retention Rates Series' in *Schools, Australia 2005*, cat. no. 4221.0, ABS, Canberra.
- 5 Australian Bureau of Statistics, *Schools, Australia, 2005* cat. no. 4221.0, ABS, Canberra.
- 6 Mackay, H. 1993, *Reinventing Australia. The mind and mood of Australia in the 90s*, Angus and Robertson, Sydney.
- 7 Buckingham, J. 2000, *Boy Troubles: Understanding rising suicide, rising crime and educational failure*, The Centre for Independent Studies, St. Leonards.
- 8 For example, in 2001, 54% of persons aged 15–64 years in the survey population (see note below) born outside Australia had a non-school qualification, compared to 50% among Australian-born. Among those born outside Australia, those who spoke English as their first language were more likely to hold a non-school qualification (58%) than those who first spoke another language (51%). See Australian Bureau of Statistics, *Education and Training Experience*, 2001, cat. no. 6278.0, ABS, Canberra.
For details of analysis of other data about migrants, see Australian Bureau of Statistics *Labour Force Status and Other Characteristics of Migrants, Australia, Nov. 2004*, cat. no. 6250.0., ABS, Canberra.
- 9 Australian Bureau of Statistics 2004, *Labour force Status and other characteristics of migrants, Australia, Nov 2004*, cat. no. 6250.0, ABS, Canberra.
- 10 Australian Bureau of Statistics and Australian Institute of Health and Welfare, *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples*, 2005 cat. no. 4704.0, ABS and AIHW, Canberra.
- 11 For example, in 2004, 88% of all students in South Australia, including those attending on a part-time basis, had continued from Year 10 to Year 12, compared with 72% for full time students only. See Steering Committee for the Review of Commonwealth/State Service Provision (SCRCSPP) 2006, *Report on Government Services 2006, Vol. 1*. Ausinfo, Canberra.
- 12 The OECD definition of at least upper secondary level education corresponds to the final stages of secondary education and above. In the Australian context, this includes completion of Years 11 or 12 of secondary school, Certificate III or IV, Diploma, Advanced Diploma, Bachelor Degree or above. Refer to The International Standard Classification of Education: ISCED 97, UNESCO, Paris, 1997 for more details.
- 13 Economic Planning Advisory Council (EPAC) 1996, *The changing Australian Labour Market*, AGPS, Canberra
- 14 There is a wealth of research on the link between education and economic growth. For recent Australian research see Chou, Y. K. 'The Australian growth experience, 1960–2000: Human capital, R&D or steady-state growth', in *The Australian Economic Review*, Vol 36, Melbourne, 2003.