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A critical survey of indigenous education outcomes, 1986–96

M. Gray, B. Hunter and R.G. Schwab

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Table of Contents

Tables

Summary

Indigenous education policy in Australia today has evolved alongside an awareness of the need to improve indigenous educational outcomes in order to secure the future prospects of the indigenous population. This paper provides a summary and overview of indigenous people within the education system. A cohort analysis of changes in educational participation and the level and type of educational qualification over the last three censuses for the indigenous and non-indigenous populations provides a basis for considering ways to improve educational and other indigenous economic outcomes.

Intercensal changes in Australian education, 1986–96

- While an increasing proportion of indigenous teenagers were staying at school longer, the absolute difference in the percentages at school between indigenous and non-indigenous teenagers increased for all age groups.
- The proportion of indigenous males of working age attending an educational institution increased from 17.6 per cent in 1986 to 19.2 per cent in 1996, in contrast to the non-indigenous male population who had a fall in the educational participation rate from 16.6 per cent to 15.5 per cent. The proportion of indigenous females of working age attending an educational institution increased from 19.2 per cent in 1986 to 20.3 per cent in 1996 in contrast to the non-indigenous female participation rate which remained almost constant at around 16.2 per cent.
- Indigenous males and females were more likely to be attending a Technical and Further Education (TAFE) institution than their non-indigenous counterparts. The participation rate of both indigenous males and females at TAFE increased over the period 1986 to 1996. For indigenous males the participation rate increased from 7.0 per cent in 1986 to 8.3 per cent in 1996 and for indigenous females the participation rate increased slightly from 8.5 per cent to 8.8 per cent. In contrast both non-indigenous male and female participation rates at TAFE fell.
- While the participation rates at universities increased for both indigenous and non-indigenous males and females, the indigenous populations remain at a severe disadvantage and over the period 1986 to 1996 there was negligible relative improvement.
- Cohort analysis reveals that, for younger age groups, the non-indigenous population has a higher participation rate in post-secondary education than the indigenous population. This situation is reversed for older age groups where the indigenous population are more likely to be attending post-secondary education than the non-indigenous population.
- While there have been absolute increases in the proportion of the indigenous population with a post-secondary qualification there have also been increases for the non-indigenous population. Both indigenous males

and females remain severely disadvantaged in terms of post-secondary educational qualifications. Relative to non-indigenous males, indigenous males just hold their position and indigenous females experience a small decline relative to non-indigenous females.

- The degree of inequality in educational attainment between indigenous and non-indigenous males and females increases with qualification level, although between 1991 and 1996 there has been a significant closing of the gap for several educational levels.

Constraints on educational participation, 1986–96

The need to raise literacy levels among indigenous Australians has been recognised for many years. While the census provides no direct data on literacy levels, it does provide a useful glimpse of spoken English proficiency among indigenous Australians which is clearly related to literacy.

- Over the ten years from 1986 to 1996, a slight improvement in the level of spoken English was observed among indigenous people, though the extent to which individuals expressed some difficulty in speaking English remained positively associated with age.
- For younger indigenous males and females the proportion of the population with some difficulty in speaking English is relatively low and appears to be converging with the levels in the non-indigenous population.

Reflections on indigenous education

- The implications for labour market success of an absolute improvement, but relative decline, in indigenous education outcomes depends upon the role increased educational attainment plays in improving labour market outcomes. However, it is clear that the indigenous population will fall further behind the non-indigenous population's labour market outcomes and there may well be an absolute worsening of the indigenous labour market position.
- Indigenous Australians in rural areas have very low levels of educational attainment, compared both to indigenous Australians in urban areas and compared to non-indigenous Australians in rural areas. On the other hand, very little difference is observed for the non-indigenous population, between education attainment levels in rural and urban areas.
- ABSTUDY, the Aboriginal Study Assistance Scheme, has provided greater program and administrative flexibility than has been possible under AUSTUDY or the Youth Allowance scheme to meet the special cultural needs of indigenous students. Incorporating ABSTUDY into the Youth Allowance scheme is likely to reduce that flexibility and there is serious concern that indigenous participation in education at every level may be impeded.

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Introduction

Indigenous education policy in Australia today has evolved alongside an awareness of the need to improve indigenous educational outcomes in order to secure the future prospects of the indigenous population. Over the course of nearly 25 years, a variety of policy reviews have been conducted and countless reports written dealing with indigenous education (Aboriginal Consultative Group 1975; Hughes 1988; Commonwealth of Australia 1995) and training and employment (Miller 1985; Commonwealth of Australia 1991; Aboriginal and Torres Strait Islander Commission 1994). In each review, report or policy recommendation over this period, access, participation and equity have remained primary themes (Schwab 1995).

A recent analysis of the determinants of educational attainment among young indigenous Australians revealed that a range of variables influence the probability of attending school (Hunter and Schwab 1998). For example, arrest was found to reduce the probability of attending school but was not found to be significantly related to having post-school qualifications. Place of residence affects school attendance only for teenagers in remote communities who are markedly less likely to be in school than their urban counterparts. A range of social environmental factors were found to affect the likelihood of a young person attending school. For example, both poor quality housing and residence in a household where others have been arrested decrease the probability that a young person will be attending school, while the presence of household members with qualifications or who are attending school significantly increases the likelihood of school attendance. The research also indicated that difficulty with English is a powerful predictor of whether or not an individual has educational qualifications.

A comparison of indigenous educational outcomes across developed countries indicates that Aboriginal and Torres Strait Islander people fare much worse than Canadian Indians and slightly worse than the Maori of New Zealand. (Hunter and Schwab 1998). For example, indigenous Australians were between 12 and 40 percentage points less likely to have completed high school than either Canadian Indians or Maori people. However, relative to their non-indigenous counterparts, there is not a substantial difference between indigenous outcomes in Australia, Canada or New Zealand; all are about 30 per cent less likely to hold a high school qualification than their non-indigenous counterparts. That is, while country-specific factors determine how much of the population finish high school, indigenous educational disadvantage is of a similar magnitude in the three countries examined.

While it is relatively easy to develop policy, it is often difficult to measure the impact of specific policies. From time to time, however, it is useful to take stock and measure changes in patterns of education outcomes. The Australian Bureau of Statistics (ABS) censuses provide a means to chart some important social indicators of education outcomes.

The general level of educational attainment in Australia has increased significantly over the period 1986 to 1996. While this is certainly good news, the aggregate numbers do not reveal important variations within the overall population. If minority groups fail to keep up with the rate of increase of other Australians, it is likely they will suffer increasing disadvantage and marginalisation in labour markets. In this context it is important to examine how indigenous Australians fare as the general level of educational attainment continues to rise. If they do not keep up with the increase in qualifications in the rest of the population, then it is likely that they will remain uncompetitive in the labour market and high rates of indigenous poverty will be perpetuated indefinitely.

This paper focuses on recent trends in indigenous and non-indigenous education and employment using the 1986, 1991 and 1996 Censuses.[1] The statistics presented summarise recent patterns and provide a basis for considering ways to improve educational outcomes and related indigenous economic status. The paper is intended to provide a summary and overview targeted to policy makers.

Intercensal changes in Australian education, 1986–96

Attendance at educational institutions

The relatively poor educational attainment among indigenous people is partly a function of leaving school at a younger age, on average, than the non-indigenous population (Hunter and Schwab 1998). Table 1 depicts the relative proportions of the working-age indigenous and non-indigenous populations who left school at different ages. At one extreme the indigenous population in 1996 was between three to five times more likely to have never attended school than the non-indigenous population. At the other extreme, indigenous people are about half as likely to have left school when aged 17 or more years than non-indigenous.

One factor underpinning poor secondary school completion rates for indigenous students is the relatively high rates of suspension and expulsion from schools. While indigenous children and young people comprise 3 per cent of the student population, they make up 12 per cent of school suspensions in New South Wales. Children as young as five years of age are being suspended, excluded and expelled from schools (Commonwealth of Australia 1997). Groome and Hamilton (1995: 3) find that 'Aboriginal students are likely to lose between two and four years of schooling through absenteeism. Rates for the total population are less than half these'.

Hunter and Schwab (1998) have shown that there has been some improvement in school retention of indigenous teenagers, with an increasing proportion staying at school longer between 1986 and 1996. While this has led to marginal relative improvement in the position of indigenous to non-indigenous Australians for all ages (except 18 year-old females), it is disconcerting to note

that the absolute difference between indigenous and non-indigenous teenagers in the percentages at school increased for all age groups over age 15. In this light, there is reason to be concerned that recent changes in the Federal Government Budget reducing the allowances that relate to indigenous specific circumstances which impede educational attainment, may result in a further deterioration in indigenous outcomes relative to non-indigenous outcomes.

Table 1. Age left school for the working-age population, 1986–96

	Indigenous			Non-indigenous		
	1986	1991	1996	1986	1991	1996
Males						
Still at school	6.4	6.2	6.9	5.0	5.1	5.2
No schooling	7.8	5.5	3.4	0.7	0.9	0.6
Left school at or before 14 years old	23.0	20.6	19.2	21.3	16.5	14.7
Left school at 15 years old	29.8	27.9	26.6	23.2	21.8	20.6
Left school at 16 years old	20.6	21.7	21.9	20.9	20.4	20.2
Left school at 17 years old	8.0	10.8	13.0	15.4	17.2	20.4
Left school at 18 years old	3.2	4.7	6.2	9.6	10.9	13.8
Left school at 19 years or older	1.2	2.7	2.8	3.9	7.2	4.5
Total 15 plus	100.0	100.0	100.0	100.0	100.0	100.0
Number (000s)	66	77	102	5,727	6,158	6,507
Females						
Still at school	6.5	5.8	6.7	4.8	4.9	5.0
No schooling	7.6	5.3	3.1	0.9	1.1	0.9
Left school at or before 14 years old	20.0	17.4	16.2	22.2	17.0	15.2
Left school at 15 years old	30.1	27.8	27.0	25.4	23.5	21.8
Left school at 16 years old	22.6	23.9	23.5	21.3	20.9	20.3
Left school at 17 years old	8.8	12.4	14.4	15.4	17.7	21.0
Left school at 18 years old	3.1	4.7	6.2	7.7	9.4	12.2
Left school at 19 years or older	1.1	2.7	2.8	2.3	5.5	3.6
Total 15 plus	100.0	100.0	100.0	100.0	100.0	100.0
Number (000s)	71	82	110	5,880	6,355	6,767

Note: The working-age population is defined as those aged 15 and over. Also see Appendix A.

Source: Unpublished data from the 1986, 1991 and 1996 Censuses.

An implication of these statistics is that indigenous people will continue to be under-represented in post-secondary education. Table 2 shows the proportion of the working-age population attending different categories of educational institutions.

Table 2. Proportion of the working-age population attending educational institutions, 1986–96

	Indigenous			Non-indigenous		
	1986	1991	1996	1986	1991	1996
Males						
Government secondary school	6.4	6.0	5.6	3.6	3.5	3.3
Non-government secondary school	0.9	1.1	1.2	1.6	1.6	1.8
TAFE	5.6	6.3	7.3	5.5	4.6	4.2
University or CAE	3.4	3.2	4.2	4.7	4.8	5.3
Other educational institution	1.4	1.5	1.0	1.3	1.2	0.9
Total	17.6	18.1	19.2	16.6	15.7	15.5
Females						
Government secondary school	6.3	5.6	5.2	3.4	3.3	3.2
Non-government secondary school	0.9	0.9	1.2	1.6	1.6	1.7
TAFE	7.1	6.3	7.8	4.9	3.8	4.0
University or CAE	3.5	4.3	5.1	4.7	5.3	5.9
Other educational institution	1.4	1.3	1.0	1.5	1.5	1.4
Total	19.2	18.5	20.3	16.1	15.5	16.2

Note: The working-age population is defined as those aged 15 and over. Also see Appendix A.

Source: Unpublished data from the 1986, 1991 and 1996 Censuses.

The proportion of indigenous males attending an educational institution increased by 1.6 percentage points from 17.6 to 19.2 per cent between 1986 and 1996. This is against a decrease of 1.1 percentage points to 15.5 per cent for non-indigenous males. Therefore, over the period 1986 to 1996 a higher proportion of indigenous males were attending an educational institution than non-indigenous males and the gap increased between 1986 and 1996. Similarly, a higher and increasing proportion of the indigenous female population were attending an educational institution than non-indigenous females over this period. Hunter and Schwab (1998) have shown that the apparent over-representation of the indigenous population attending educational institutions is merely an artefact of their relatively high fertility rates and the substantially higher mortality rates among older indigenous people. Notwithstanding this, it is useful to examine the compositional changes in post-secondary education.

Within the tertiary education sector there are several significant differences between the indigenous and non-indigenous populations. First, indigenous males and females in 1986, 1991 and 1996 were more likely to be attending a Technical and Further Education (TAFE) institution than their non-indigenous counterparts. For indigenous males the participation rate at TAFE increased in each intercensal period with an overall increase of 1.7 percentage points to 7.3 per cent between 1986 and 1996. Over the same period the participation rate of non-indigenous males fell from 5.5 per cent in 1986 to 4.2 per cent in 1996, a decrease of 1.3 percentage points.

Second, for indigenous females the participation rate at TAFE fell from 7.1 per cent in 1986 to 6.3 per cent in 1991, but then increased to 7.8 per cent in 1996 leading to an overall increase of 0.7 percentage points. For non-indigenous females the participation rate fell from 4.9 per cent in 1986 to 3.8 per cent in 1991 and then showed a small increase to 4.0 per cent in 1996, leading to an overall decrease of 0.9 percentage points.

Third, participation rates at universities/Colleges of Advanced Education (CAE) increased over the period 1986 to 1996 for both indigenous and non-indigenous males and females. For indigenous males, there was a fall from 3.4 per cent in 1986 to 3.2 per cent in 1991, and then an increase to 4.2 per cent in 1996, overall an increase of 0.8 percentage points. For non-indigenous males, while participation increased in both inter-censal periods, the slightly smaller overall increase of 0.6 percentage points meant that there was a small decrease in the difference between indigenous and non-indigenous participation rates.

Fourth, for indigenous females there was an increase in attendance rates at universities/CAE of 1.6 percentage points, from 3.5 per cent in 1986 to 5.1 per cent in 1996. For non-indigenous females there was an increase from 4.7 per cent in 1986 to 5.9 per cent in 1996, an overall increase of 1.2 percentage points.

In summary, while the participation rate of indigenous people remains below that of their non-indigenous counterparts, there has been some catch-up in the participation rates at tertiary institutions. For males the ratio of the indigenous to the non-indigenous participation rate increased from approximately 72 per cent to 79 per cent, and for females the ratio increased from 74 per cent to 86 per cent. However, the different demographic structure of the indigenous and non-indigenous populations mean that such conclusions are potentially misleading. The cohort analysis in the following section examines educational attendance for particular age groups so that demographic distortions of the interpretation are minimised.

Cohort analysis of educational attendance

The 1986, 1991 and 1996 censuses are cross-sectional data sets which, in principle, include the entire Australian population. However, they can be treated as panel data by grouping individuals into cohorts, and treating the averages within these cohorts as individual observations which vary over time. These

cohorts are defined such that each individual is a member of only one cohort, which is the same for all time periods. In this paper, cohorts are defined on the basis of year of birth and sex. We define cohorts by five-year age groups starting with those 5 to 9 years old in 1986.

Table 3 presents the results of disaggregating the proportion of the population attending university or CAE into age cohorts. Table 4 does the same for the proportion attending TAFE or other non-university/CAE educational institution.

Table 3. Cohort analysis of proportion of population attending university or CAE, 1986–96

Age at 1986 Census	Indigenous			Non-indigenous		
	1986	1991	1996	1986	1991	1996
Males						
Aged 5 to 9 years	-	-	2.3	-	-	9.2
Aged 10 to 14 years	-	2.1	6.0	-	9.0	17.3
Aged 15 to 19 years	1.3	4.8	5.4	6.4	15.0	7.7
Aged 20 to 24 years	3.8	3.5	4.9	10.8	6.1	5.5
Aged 25 to 29 years	4.4	4.2	5.0	5.5	4.8	4.5
Aged 30 to 34 years	4.0	3.4	4.1	4.9	4.0	3.5
Aged 35 to 39 years	4.4	3.4	3.2	4.1	2.8	2.5
Aged 40 to 44 years	3.7	2.7	3.5	3.2	1.9	1.7
Aged 45 to 49 years	3.6	2.0	3.2	2.5	1.2	1.2
Aged 50 to 54 years	6.0	3.3	1.2	2.0	0.9	0.9
Aged 55 to 59 years	2.1	0.0	0.0	1.9	0.8	1.1
Aged 60 to 64 years	0.0	0.0	2.0	2.0	1.2	1.6
Aged 65 years and over	3.9	2.6	4.0	3.3	1.6	2.0
Total 15 plus	3.4	3.2	4.2	4.7	4.8	5.3
Females						
Aged 5 to 9 years	-	-	3.5	-	-	13.0
Aged 10 to 14 years	-	3.4	6.8	-	12.1	19.4
Aged 15 to 19 years	2.5	5.9	5.7	7.8	15.7	7.6
Aged 20 to 24 years	3.7	4.5	5.5	9.7	5.7	5.3
Aged 25 to 29 years	3.7	4.8	6.0	4.6	4.6	4.7
Aged 30 to 34 years	5.0	5.6	5.9	4.4	4.4	4.2
Aged 35 to 39 years	4.8	4.7	4.9	4.4	3.8	3.3
Aged 40 to 44 years	5.0	4.2	5.3	3.9	2.8	2.2
Aged 45 to 49 years	3.9	3.8	3.3	3.1	1.8	1.4
Aged 50 to 54 years	4.3	2.3	2.0	2.5	1.2	1.1
Aged 55 to 59 years	1.2	0.9	0.0	2.3	1.0	1.1
Aged 60 to 64 years	0.0	0.0	1.5	2.5	1.3	1.7
Aged 65 years and over	1.9	2.2	2.4	3.5	1.9	2.3
Total 15 plus	3.5	4.3	5.1	4.7	5.3	5.9

Note: See Appendix A.

Source: Unpublished data from the 1986, 1991 and 1996 Censuses.

As an example of the interpretation of the cohort analysis in Table 3, consider indigenous males aged 25 to 29 in 1986. The proportion of this group attending a university or CAE was 4.4 per cent in 1986. By 1996, this group was aged 35 to 39 years and the proportion attending a university or CAE had increased to 5.0 per cent. This cohort can also be compared to people who were 25 to 29 years old in 1996. The relevant proportion of the group attending a university or CAE for such people, aged 15 to 19 years in 1986, was 5.4 per cent. That is, the proportion of this group attending a university or CAE increased by 1 per cent to 5.4 per cent between 1986 and 1996. In this way, the changing age structure of educational participation can be analysed.

A striking fact is that while there have been increases in the indigenous youth participation rate at universities and CAEs, the increases for non-indigenous youth have been much larger. For example, in 1986 the participation rate for indigenous females aged 20 to 24, was 3.7 per cent. By 1996, participation had increased to 6.8 per cent, an increase of 3.1 percentage points. This can be contrasted to non-indigenous females aged 20 to 24, whose participation rate was 9.7 per cent in 1986 and had increased to 19.4 per cent in 1996, an increase of 10.4 percentage points.

In 1996 the participation rate at universities and CAEs for indigenous males and females aged 30 years and older was generally higher than for non-indigenous males and females aged 30 and older. This is suggestive of some catch-up of educational attainment for older indigenous males and females. This may reflect better government funding for students, full pay scholarships, study leave with pay and perhaps positive changes in the attitudes, programs and entry procedures of universities and vocational education and training institutions and providers (Schwab 1996).

Table 4 presents a cohort analysis of participation rates at TAFE and the other non-university tertiary education institutions. For indigenous males and females aged 15 to 24 years in 1996, a lower proportion of the cohort were attending a TAFE or other post-secondary educational institution than non-indigenous males and females aged 15 to 24 years. However, there was a narrowing of the gap in participation rates in such institutions for indigenous compared to non-indigenous people.

In 1986, 1991 and 1996, the proportion of indigenous people aged over 24 years attending a TAFE or other post-secondary educational institution was higher than that recorded for the non-indigenous population. The only exception to this observation was indigenous males aged 65 years and over in 1986.

An important point revealed by Tables 3 and 4 is that the life-cycle profile of participation in post-secondary education differs between the indigenous and the non-indigenous population. The non-indigenous population has a higher participation rate in post-secondary education at a younger age than does the indigenous population, which shows much higher participation rates later in the life-cycle.

Table 4. Cohort analysis of proportion of population attending TAFE or other non-university/CAE post-secondary educational institution, 1986–96

Age at 1986 Census	Indigenous			Non-indigenous		
	1986	1991	1996	1986	1991	1996
Males						
Aged 5 to 9 years	-	-	8.8	-	-	11.1
Aged 10 to 14 years	-	9.1	9.9	-	12.3	10.9
Aged 15 to 19 years	8.0	9.4	8.9	13.0	11.1	6.3
Aged 20 to 24 years	8.9	7.8	8.2	10.5	7.1	5.3
Aged 25 to 29 years	7.2	7.2	7.8	7.3	6.0	4.5
Aged 30 to 34 years	7.4	6.7	6.8	6.1	4.9	3.6
Aged 35 to 39 years	7.1	5.8	7.2	5.2	3.7	2.7
Aged 40 to 44 years	6.6	6.3	7.3	4.3	3.0	2.3
Aged 45 to 49 years	7.1	7.2	7.0	3.8	2.5	2.4
Aged 50 to 54 years	2.8	6.3	8.5	3.7	2.2	2.3
Aged 55 to 59 years	0.0	7.1	5.7	4.0	2.3	2.6
Aged 60 to 64 years	2.4	4.2	4.9	4.9	2.7	2.9
Aged 65 years and over	3.9	9.0	4.0	6.7	4.4	3.4
Total 15 plus	7.0	7.8	8.3	6.8	5.8	5.1
Females						
Aged 5 to 9 years	-	-	8.3	-	-	8.9
Aged 10 to 14 years	-	7.8	8.7	-	8.7	9.4
Aged 15 to 19 years	6.6	7.1	8.5	8.3	8.5	6.5
Aged 20 to 24 years	8.6	7.9	9.7	7.6	6.0	5.7
Aged 25 to 29 years	9.1	8.2	9.2	5.8	5.5	5.5
Aged 30 to 34 years	10.1	7.7	8.8	5.8	5.2	4.8
Aged 35 to 39 years	9.6	6.7	8.1	5.7	4.4	3.7
Aged 40 to 44 years	7.8	7.5	7.5	4.9	3.5	3.0
Aged 45 to 49 years	8.5	7.7	9.8	4.3	2.8	2.6
Aged 50 to 54 years	8.3	8.7	10.3	4.4	2.6	2.8
Aged 55 to 59 years	9.7	8.9	11.5	5.1	2.9	3.4
Aged 60 to 64 years	7.5	1.8	6.1	6.6	3.6	4.1
Aged 65 years and over	9.7	8.1	7.8	8.7	5.4	4.5
Total 15 plus	8.5	7.6	8.8	6.4	5.3	5.3

Note: See Appendix A.

Source: Unpublished data from the 1986, 1991 and 1996 Censuses.

A significant component of the *Working Nation* labour market program[2] of the early 1990s was the provision of formal training (typically at TAFE). This may provide an institutional explanation of the later indigenous starts in TAFE and other post-secondary courses. However, if training programs from *Working Nation* were heavily weighted towards indigenous youth, as were the labour market programs from that policy (Hunter and Gray 1998), then one should not place too much emphasis on this as an explanation of the substantial increases in post-secondary participation of older indigenous people.

The human capital investment model of education (Becker 1964) suggests that the level of education a person decides to attain is an investment decision, where the costs are incurred now and the returns accrue over the rest of the person's working life. The human capital model therefore predicts that investment in human capital is more likely to occur early in a person's life as this will leave the longest period for the returns to that investment to be realised. Thus the delayed educational participation pattern of indigenous Australians presents an apparent paradox to the human capital investment model. One possible explanation is that to indigenous communities the return from education is not the private gain of higher future earnings, but rather a gain which is realised by the entire community in the form of increased cultural capital (Schwab 1996). Family formation at a younger age may also limit participation in education at a younger age by indigenous Australians, particularly women (Daly and Smith 1996).

Recent trends in qualifications

Some comparisons between the 1986 and the 1991 Censuses are complicated by significant changes to the vocational education and training and the higher education sectors during that period. For example, in 1988 the Commonwealth eliminated the 'binary divide' that had separated universities and CAEs for 25 years; suddenly the number of Australian universities increased from 19 to over 50. Comparisons of qualifications during this period can be difficult as a result of these changes. Perhaps more significantly, changes in the system of classification of qualification field and level used by the ABS make comparison between the 1986 and 1991 Censuses highly problematic.[3] In this paper we therefore limit comparison of qualification field and type to the 1991 and 1996 Censuses.

While there have been absolute increases in the proportion of the indigenous population with a post-secondary qualification, there have also been increases for the non-indigenous population. Both indigenous males and females remain severely disadvantaged in terms of post-educational qualifications. Table 5 shows the qualification level of the working-age population. Because of the changes in the classification of courses and educational institutions the ratio of the proportion of the indigenous population with a particular qualification to the proportion of the non-indigenous population with a particular qualification is calculated. As this ratio gets closer to one the less inequality in educational attainment there is between the indigenous and non-indigenous populations.

For indigenous females, the proportion with any qualification increased from 18.6 per cent in 1991 to 21.9 per cent in 1996, an increase of 3.3 percentage points. For non-indigenous females the proportion with some post-secondary qualification increased by 3.3 percentage points to 35.1 per cent in 1996. For indigenous males the proportion with some qualification increased from 22.0 per cent in 1991 to 25.6 per cent in 1996, an increase of 3.6 percentage points.

Within the non-indigenous male population the proportion with some qualification increased by 2.7 percentage points to 46.9 per cent in 1996.

Table 5. Highest level of qualification in the working-age population, 1991–96

	Indigenous		Non-indigenous		Ratio of indigenous / non-indigenous	
	1991	1996	1991	1996	1991	1996
Male						
Higher degree	0.2	0.3	1.9	2.4	0.13	0.13
Post graduate diploma	0.2	0.4	1.0	1.3	0.24	0.31
Bachelors degree	1.2	2.6	8.4	10.1	0.14	0.26
Undergraduate diploma	1.1	1.3	3.0	3.1	0.36	0.42
Associate diploma	1.0	2.0	2.1	3.6	0.46	0.56
Skilled vocational	15.3	16.3	24.6	23.8	0.62	0.68
Basic vocational	3.0	2.7	3.3	2.6	0.91	1.04
Total qualification	22.0	25.6	44.2	46.9	0.50	0.55
Female						
Higher degree	0.1	0.4	0.9	1.4	0.14	0.29
Post graduate diploma	0.6	0.9	2.0	2.4	0.30	0.38
Bachelors degree	2.1	4.3	8.3	11.4	0.26	0.38
Undergraduate diploma	4.4	3.2	8.9	6.8	0.49	0.47
Associate diploma	1.6	3.6	1.7	3.5	0.95	1.03
Skilled vocational	2.7	3.3	3.5	4.1	0.78	0.81
Basic vocational	7.1	6.2	6.5	5.5	1.08	1.13
Total qualification	18.6	21.9	31.8	35.1	0.58	0.62

Note: The not stated and inadequately described categories are proportionately allocated to other cells. The working-age population is defined as those aged 15 and over. Also see Appendix A.

Source: Unpublished cross-tabulations from 1991 and 1996 Censuses.

For indigenous males and females, the degree of inequality in educational attainment as compared to non-indigenous males and females increases, with qualification level. Between 1991 and 1996 there was a significant narrowing of the gap for all educational levels. Indigenous males were more qualified than their non-indigenous counterparts only for basic vocational qualifications. For indigenous females there had been complete catch-up in basic vocational qualifications in 1991 and complete catch-up had also occurred in relation to associate diplomas by 1996.

The extent of catch-up in the proportion of the population with a bachelors degree is particular striking. For indigenous males, the ratio of the proportion of

the indigenous to non-indigenous population with a bachelors degree increased from 0.14 in 1991 to 0.26 in 1996. For indigenous females, the ratio increased from 0.26 to 0.38 between 1991 and 1996. While there was little relative improvement in overall level of qualification in the indigenous population between 1991 and 1996, there were substantial improvements for certain types of qualification.

Table 6. Field of highest qualification for the working-age population, 1991 and 1996

	Indigenous		Non-indigenous	
	1991	1996	1991	1996
Males				
Business and administration	1.2	2.7	4.5	5.8
Health	0.4	0.8	1.8	2.0
Education	0.9	1.2	2.0	2.2
Society and culture	1.8	2.5	3.5	4.1
Natural and physical sciences	0.4	0.9	2.3	2.9
Engineering	8.1	8.9	18.7	19.2
Architecture and building	4.2	4.4	6.1	6.2
Agriculture	2.2	1.3	2.4	1.5
Miscellaneous fields	2.8	2.9	2.9	2.9
Total qualified	22.0	25.6	44.2	46.9
Females				
Business and administration	5.3	6.1	8.0	9.1
Health	3.8	3.8	7.7	7.6
Education	2.5	3.2	5.7	6.0
Society and culture	3.3	4.9	4.6	6.0
Natural and physical sciences	0.3	0.7	1.3	1.8
Engineering	0.5	0.8	1.2	1.4
Architecture and building	0.1	0.1	0.2	0.3
Agriculture	1.2	0.3	0.9	0.3
Miscellaneous fields	1.5	2.0	2.2	2.6
Total qualified	18.6	21.9	31.8	35.1

Note: The not stated and inadequately described categories are proportionately allocated to other cells. The working-age population is defined as those aged 15 and over. Also see Appendix A.

Source: Unpublished cross-tabulations from 1991 and 1996 Censuses.

Table 6 reports the field of qualification for 1991 and 1996 Censuses. For each qualification field, indigenous people have a lower proportion of their population with a qualification than does the non-indigenous population (with the exception of males with a miscellaneous qualification). The pattern of increases in educational qualifications by field of qualification for indigenous males and females is very closely correlated with that in the non-indigenous population. For indigenous males, between 1991 and 1996, there was a faster rate of growth in the proportion of the population with qualifications in all fields except for the field

of natural and physical sciences where indigenous males grew by 0.5 percentage points compared to non-indigenous males who grew by 0.6 percentage points. For indigenous females, there was a faster rate of growth in the proportion of the population with qualifications in the fields of education, society and culture, engineering and miscellaneous fields.

Constraints on educational participation: English proficiency

The need to raise literacy levels among indigenous Australians has been recognised for some time. Literacy concerns were prominent in the National Review of Education for Aboriginal and Torres Strait Islander people (Commonwealth of Australia 1995) and emerged as one of eight priority areas in the Ministerial Council on Education, Employment, Training and Youth Affairs' National Strategy document (Ministerial Council on Education, Employment, Training and Youth Affairs 1996). More recently, in 1997, indigenous literacy was identified as an important issue within the Commonwealth's National Literacy Plan. The National Schools English Literacy Survey was carried out in 1996. The results of the survey showed indigenous students performing at lower levels than their non-indigenous classmates (Masters and Forster 1997). At the same time, a recent review of education research literature shows some small-scale successes in improving literacy outcomes within specific schools and clearly identifies the connection between English literacy and success in education (Batten et al. 1998). While the census provides no direct data on literacy levels, it provides some indications of spoken English proficiency among indigenous Australians which is clearly related to literacy.[4]

Clearly, the ability to communicate in the lingua franca is one of the major constraints on participation in the educational system and successful completion of qualifications.[5] Table 7 shows the English language proficiency for the working-age population from the 1986, 1991 and 1996 Censuses.

The decline in the use of indigenous languages by the population who identify as indigenous, is illustrated by the fact that the proportion of both male and female indigenous people who speak only English increased between 1986 and 1996. For indigenous males the proportion of the working-age population which speaks only English increased by 3 percentage points from 76.9 per cent to 79.9 per cent. Within the female indigenous population the proportion only speaking English increased by 3.3 percentage points from 77.5 per cent to 80.8 per cent.

In order to control for differences in the demographic structure of the indigenous and non-indigenous population, Table 8 shows the proportion of age cohorts who experience some difficulty in speaking English. For indigenous males, the percentage of the population with some difficulty in speaking English decreased from 5.7 per cent in 1986 to 3.9 per cent in 1996. Over the same period

the proportion of the non-indigenous population with some difficulty speaking English remained stable at about 2.8 to 2.9 per cent. For indigenous females, the proportion of the population with some difficulty in speaking English fell from 6.1 per cent to 3.8 per cent in 1996. For the non-indigenous population the proportion with some difficulty in speaking English increased slightly from 3.5 per cent to 3.8 per cent between 1986 and 1996.

Table 7. English proficiency for the working-age population, 1986–96

	Indigenous			Non-indigenous		
	1986	1991	1996	1986	1991	1996
Male						
English only	76.9	78.5	79.9	85.0	83.6	83.5
Speaks English very well	8.1	7.2	7.7	7.3	8.2	8.5
Speaks English well	9.3	9.5	8.5	4.8	5.2	5.1
Does not speak English very well	4.8	4.1	3.3	2.5	2.6	2.4
Speaks no English	0.9	0.6	0.6	0.4	0.4	0.4
Total 15 plus	100.0	100.0	100.0	100.0	100.0	100.0
Female						
English only	77.5	79.4	80.8	85.7	84.0	83.6
Speaks English very well	7.7	6.9	7.6	6.8	7.8	8.0
Speaks English well	8.7	8.8	7.8	4.0	4.5	4.6
Does not speak English very well	4.9	4.0	3.1	2.8	3.0	3.0
Speaks no English	1.2	0.9	0.7	0.7	0.8	0.8
Total 15 plus	100.0	100.0	100.0	100.0	100.0	100.0

Note: The not stated and inadequately described categories are proportionately allocated to other cells. The language question in the census is about languages other than English spoken at home and therefore excludes students who learn a language but do not use it in the home. The working-age population is defined as those aged 15 and over. Also see Appendix A.

Source: Unpublished data from the 1986, 1991 and 1996 Censuses.

The variation in the proportion of the age cohorts with some difficulty in speaking English reveals several interesting patterns (Table 8). First, over the period 1986 to 1996, for all indigenous male cohorts, a higher proportion had some difficulty in speaking English than the corresponding non-indigenous cohort. However the gap between the indigenous and non-indigenous males increased markedly with age.

For the years 1986 and 1991, a higher proportion of indigenous females experienced some difficulty in speaking English. However, by 1996 the gap between the indigenous and non-indigenous population had narrowed significantly for all cohorts. In fact a lower proportion of indigenous females aged

30 to 44 experienced some difficulty in speaking English than non-indigenous females in the same age group.

Table 8. Cohort analysis of the proportion of the population with some difficulty in speaking English, 1986–96

Age at 1986 Census	Indigenous			Non-indigenous		
	1986	1991	1996	1986	1991	1996
Male						
Aged 5 to 9 years	-	-	3.1	-	-	1.0
Aged 10 to 14 years	-	4.2	3.4	-	1.1	1.4
Aged 15 to 19 years	4.4	4.0	3.3	0.8	1.7	1.8
Aged 20 to 24 years	3.9	3.4	2.9	1.4	2.4	2.2
Aged 25 to 29 years	3.6	3.0	2.9	2.0	2.6	2.5
Aged 30 to 34 years	4.0	3.5	3.1	2.2	2.7	2.6
Aged 35 to 39 years	5.0	3.7	3.6	2.4	2.6	2.6
Aged 40 to 44 years	6.1	5.2	5.0	3.0	3.1	3.1
Aged 45 to 49 years	6.8	7.1	6.5	4.1	4.3	4.4
Aged 50 to 54 years	9.7	8.0	8.9	4.7	5.1	5.5
Aged 55 to 59 years	10.3	11.6	11.3	4.5	5.1	5.5
Aged 60 to 64 years	15.3	13.8	11.5	4.1	4.6	5.2
Aged 65 years and over	19.6	17.3	19.3	4.4	5.0	5.6
Total 15 plus	5.7	4.8	3.9	2.8	3.0	2.9
Female						
Aged 5 to 9 years	-	-	2.6	-	-	0.9
Aged 10 to 14 years	-	3.2	2.8	-	1.2	1.9
Aged 15 to 19 years	3.8	3.2	2.7	0.8	1.8	2.3
Aged 20 to 24 years	3.7	2.9	2.5	1.5	2.5	2.8
Aged 25 to 29 years	3.7	3.0	2.4	2.2	3.0	3.3
Aged 30 to 34 years	4.0	3.7	2.8	2.8	3.4	3.6
Aged 35 to 39 years	5.3	5.2	4.1	3.1	3.5	3.5
Aged 40 to 44 years	7.5	7.0	5.8	3.7	4.0	4.1
Aged 45 to 49 years	8.1	8.2	7.5	5.2	5.6	5.9
Aged 50 to 54 years	11.8	10.3	11.3	6.1	6.9	7.5
Aged 55 to 59 years	12.0	13.5	11.3	5.5	6.4	7.0
Aged 60 to 64 years	17.9	15.4	13.9	5.3	6.0	6.5
Aged 65 years and over	19.4	16.2	14.8	4.9	5.5	5.8
Total 15 plus	6.1	4.9	3.8	3.5	3.8	3.8

Note: Some difficulty in speaking English is defined as either not speaking English at all or not speaking it well. Also see Appendix A.

Source: Unpublished data from the 1986, 1991 and 1996 Censuses.

Table 8 also allows the comparison of other age groups at a particular point in time. For example in 1986, 4.4 per cent of indigenous males aged 15 to 19 experienced some difficulty in speaking English. By 1996, the proportion of indigenous males aged 15 to 19 who experienced some difficulty in speaking English had fallen by 1.3 percentage points to 3.1 per cent of the population. A similar pattern exists for all age cohorts for both males and females. That is, for

any particular age group, the proportion who experienced some difficulty in speaking English decreased between 1986 and 1996.

This general reduction in the proportion of the indigenous population who experiences some difficulty in speaking English, indicates that this impediment to successful participation in education is diminishing. For indigenous males aged under 44 and indigenous females aged under 49 years there is very little difference between the indigenous and non-indigenous populations. Therefore, the relatively low participation rates of younger indigenous Australians participating in post-secondary education must be largely due to factors other than difficulties with speaking English. The census question asks about a person's ability to speak English rather than the writing of English. This means that it is possible that a higher proportion of indigenous Australians have some difficulty in writing English than in speaking English. However, to the extent that difficulties in speaking English are closely correlated with difficulties in writing English, it is likely that difficulties in writing English are not a major explanation of the lower participation rates of younger indigenous Australians.

Reflections on indigenous education

The survey of findings presented above provides some insight into patterns of various educational indicators and outcomes. In this section, we would like to reflect on some of those patterns and explore some of the issues that the empirical data raise for policy makers. Some of the issues are concrete, others more speculative, but all are relevant to the formulation of future education policy.

The problem for changing relative education levels

The implications for labour market success of an absolute improvement but a relative decline in indigenous educational outcomes are shaped by the role that increased educational attainment plays in improving labour market outcomes. If education in itself leads to increases in productivity and employability, then we would expect this to translate into absolute improvements in the labour market outcomes (in terms of employment rates and wage level) of indigenous Australians. Notwithstanding these absolute improvements, we would also expect a decline in employment and wage rates relative to the non-indigenous population.

If there is aggregate excess labour supply (unemployment), as is the case in the Australian labour market, and education improves the productivity of workers, then it is more likely that there may be an absolute, as well as relative, decline in indigenous employment outcomes. However we would still expect absolute improvements in the wage outcomes of indigenous Australians.

While conventionally it is argued that increased education leads to improved labour market outcomes by increasing individual productivity, an alternative view

is that education leads to improved labour market outcomes by providing a signal to employers of a person's innate productivity. Stated in a different way, when an employer is deciding who to employ for a job, they cannot determine precisely what each applicant's actual productivity will be. They therefore have to make some assessment or educated guess as to the probable productivity of each applicant. If people who have a higher level of educational attainment have higher innate productivity, then employers may use the person's highest level of education as an indicator of their potential productivity. In this case employers are not looking at a person's absolute level of educational attainment, but rather that person's relative attainment.

If education levels of a given population double this will have no effect on the probability of any particular individual being employed vis-á-vis any other individual. In addition it should have no effect on wages. However, if the education level of indigenous Australians increased in absolute terms, but fell relative to the education attainment of non-indigenous Australians, then employers may assume, on the basis of relative educational attainment, that indigenous workers have lower potential productivity. The outcome could well be that indigenous employment rates and wages would fall relative to that of non-indigenous workers and may, in fact, worsen in absolute terms (particularly if there is surplus labour supply). Indeed, Hunter and Gray (1998) point to an absolute and relative decline in employment between 1986 and 1996.

The effect of geography

Indigenous Australians in rural areas have very low levels of educational attainment compared both to indigenous Australians in urban areas and to non-indigenous Australians in rural areas (ABS 1995a). For example, in 1991, 42 per cent of persons in rural areas, aged 15 and over, had left school before they were 16, as compared to only 36 per cent of persons living in urban areas in the same category ABS (1995b). The proportion of men in rural areas with post-school qualifications (27 per cent) was less than that of men in urban areas (32 per cent). For females, there was little difference between women in rural and urban areas with similar proportions having post-school qualifications. This suggests that given the overall level of labour demand and the level of demand for different qualifications, increases in the educational attainment of indigenous Australians in rural areas should lead to improved chances of finding employment.

Another way to think about this is that in regional areas there is surplus labour and the jobs which are available have to be rationed in some way. If increases in educational qualification either lead to a bigger pool of jobs from which a person could potentially be employed, or even if this just gives them a better chance of getting a rationed job, then this may lead to improvements in indigenous labour market outcomes. However, if, as seems to be the case, regional economies are declining in importance, then indigenous workers in rural areas are competing in a better educated workforce for a declining pool of jobs.

That is, the relative educational deficit of the rural indigenous population, vis-á-vis other rural residents, is even more important than it once was.

The role of targeted assistance

ABSTUDY, the Aboriginal Study Assistance Scheme, has been one of the most contentious special programs in indigenous affairs. It is poorly understood by many in the community and is sometimes cited as a program that provides an unfair advantage to indigenous students and their families. The Howard Government voiced concern over the degree to which ABSTUDY is meeting the needs of the disadvantaged and in May 1997 announced a number of changes to ABSTUDY, including substantial reductions in funding by the fiscal year 2000-01. Subsequently, the Government announced its intention to conduct a review of the program in the context of its plan to introduce an all-encompassing Youth Allowance which will replace ABSTUDY (Schwab and Campbell 1997). At the time of the preparation of this paper, the review has been completed but the findings are yet to be released.

ABSTUDY, and its predecessor, have been in place for nearly three decades and ABSTUDY has come to symbolise the Government's recognition of the special educational disadvantage of indigenous Australians. As a support program earmarked for Aboriginal and Torres Strait Islander people, ABSTUDY is seen by indigenous people to be a 'tried and true' means of enabling access and participation where it would otherwise be difficult (Stanley and Hansen 1998). The program is thus a symbolically important one. At the same time, it has long been clear that indigenous students have had and continue to have unique needs as a result of cultural differences and a history of disadvantage and dispossession. ABSTUDY has provided greater programmatic and administrative flexibility than has been possible under AUSTUDY or the new Youth Allowance scheme to meet the special cultural needs of indigenous students (for example, travel for cultural activities, increased options for bridging and preparatory courses). Folding ABSTUDY into the Youth Allowance scheme is likely to reduce that flexibility and there is serious concern that indigenous participation in education at every level could well be impeded.

Where there have been achievements in indigenous access, participation, and outcomes in education, there has often been a corresponding recognition of cultural difference which has assisted these advances (Bourke, Burden and Moore 1996). Programs which encourage indigenous participation in education while simultaneously being responsive to family, community and cultural commitments have been powerful tools for bringing indigenous students into educational settings. The variety of course delivery modes have been instrumental in allowing individuals to choose the level of engagement, study environment, and method of study most suitable to them at particular stages of their lives. That some of these options are now under threat has led many educators to predict decreases in participation in higher education by Aboriginal and Torres Strait Islander students (Schwab and Campbell 1997).

Low levels of indigenous employment remain one of the most intractable of contemporary social issues and it is likely that current reforms in industrial relations and labour market programs will, if anything, exacerbate this problem (Hunter 1997; Taylor and Altman 1997). Policies aimed at reducing or eliminating targeted educational support programs for indigenous people in favour of mainstream programs risk undermining existing gains in educational participation and, ultimately employment.

Ongoing impediments to increasing indigenous education

There are several reasons for low indigenous attendance at educational institutions. These include disaffection with school, difficulties of attending school arising from poverty, high mobility, indigenous inter-group tensions, family pressures particularly in single parent families, high levels of sickness and high death rates among adults and the consequent social obligations (Groome and Hamilton 1995: 4; Schwab 1998).

Though clear empirical data on this issue are scarce, racism and cultural miscommunication appear to be important factors influencing decisions by some indigenous students to abandon school. A significant number of indigenous students, when asked to reflect on why they had left schools, said that they had felt depersonalised and had lost self-esteem under the pressure of racial harassment and 'put downs' from both teachers and students (Groome and Hamilton 1995: 45).

Racism from teachers is a more difficult experience to deal with than racism from other students. The types of racism experienced include racial abuse and vilification, negative comments about families and behaviour on the basis of race, prejudicial treatment, negative personal comments about 'extra money' and 'special benefits' (Groome and Hamilton 1995: 37).

The above factors are clearly a result of a prolonged history of cultural conflict and policies that failed to meet the needs of indigenous students. Indeed, a number of submissions to the Inquiry into the 'Stolen Generation' drew attention to the relationship between past racist policies and practices in education which excluded or marginalised indigenous children and contemporary low secondary school retention rates and low participation rates in tertiary education (Commonwealth of Australia 1997).

Policy reviews over the past 25 years have identified a range of important areas where attention should be concentrated in attempts to improve outcomes in indigenous education. Prominent among these are: promotion of increased involvement of indigenous families, educators and communities in educational decision making at the local, regional and national levels; increases in the number of indigenous people employed in education and training; ensuring equitable access and participation to education and training; promotion, maintenance and support of the teaching of indigenous studies, cultures and languages; and the provision of community development and training including

English literacy and numeracy for indigenous adults. It will continue to be important to track and assess the outcomes of policies aimed at assisting indigenous people as they attempt to overcome the many impediments to their educational success.

Notes

1. The validity of intercensal comparisons of indigenous labour force status depends, in part, upon who identified as indigenous in the 1996 Census, but did not in previous censuses. Hunter (1998) has shown that it is possible to dismiss bogus identification or 'census vandals' as a major factor underlying the large non-biological increases in the indigenous population. The apparent lack of compositional change in the indigenous population also means that census data can probably be taken at face value and that inter-censal comparisons of educational attainment and participation rates are basically valid.

   Nonetheless, the education levels reported do not tell us what happened to the educational attainment of the original population. In order to motivate the inter-censal comparisons, we need to assume that the experience of people who identified as indigenous for the first time in the last census is the same, at least in terms of education, as those who identified in 1986 and 1991.

2. In May 1994, the Federal Government introduced a set of labour market programs targeted at the long-term unemployed. The main features included the provision of formal training (typically at TAFE), a big expansion in labour market programs, case management of the unemployed, a Youth Training Initiative, training wages for all trainees, and direct job creation. In addition, any person who had been on unemployment allowances for over 18 months was offered a full-time job (for at least 12 months) mainly in the private sector. The program ended in March 1996 with the change of Federal Government.

3. The ABS classification system of the field of qualification changed between 1986 and 1991 to the ABS Classification of Qualifications (ABSCQ). According to the ABS the ABSCQ maintained some degree of comparability with the 1986 Census classification. However, differences in the classification structure coding process used in 1986 Census may pose practical difficulties when attempting detailed comparison.

4. Hearing loss, which is endemic in indigenous children, and consequent problems with language skills are likely to be an important factor underlying low levels of educational participation. The incidence varies between areas, but an estimated minimum of 20 per cent of indigenous pupils in urban areas are affected by marked hearing loss resulting from otitis media. Problems with hearing are one of the major causes of low performance in language skills among Aboriginal children and can also be related to behavioural issues (Groome and Hamilton 1995: 25). Numerous reports have drawn attention to the connections between hearing loss, behavioural problems and intervention by juvenile justice or welfare agencies (Commonwealth of Australia 1991: 364–8). Given the importance of social factors in determining whether indigenous youth

attend school, the high levels of hearing loss in the indigenous community need to be addressed.

5. Wood and Patrinos's (1994) study of indigenous people in Latin America illustrates the importance of speaking the language of the dominant culture for successful completion of school. Language communication problems are almost a defining feature of difficulties for indigenous education in urban Bolivia, with not one monolingual indigenous person in their study completing primary education. Indeed, indigenous people who could not speak Spanish had about 16 times less schooling than other indigenous people and about 24 times less schooling than the non-indigenous population in urban Bolivia.

Appendix A. Comparison of education data in 1986, 1991 and 1996 Censuses

Table A1. Age left school, 1986–96

1986	1991	1996
Categories		
• Still at school	• Still at school	• Still at school
• Did not go to school	• Did not go to school	• Never attended school
• 12 or younger	• 14 or younger	• 14 years and under
• 13 years	• 15 years	• 15 years
• 14 years	• 16 years	• 16 years
• 15 years	• 17 years	• 17 years
• 16 years	• 18 years	• 18 years
• 17 years	• 19 years or older	• 19 years and over
• 18 years	• Not stated	• Not stated
• 19 years	• Not applicable	• Not applicable
• 20 years	• Total	• Total
• 21 or older		
• Not stated		
• Not applicable		
• Total		

Note: Applicable to all persons over 15 years old. Between 1991 and 1996 the census question changed by specifying that for persons who returned after a break to complete their schooling, the school leaving age is the age at which they last left school.

Table A2. Qualification level, 1986–96

1986	1991	1996
Categories		
• Higher degree	• Higher degree	• Higher degree
• Graduate diploma	• Post graduate diploma	• Postgraduate diploma
• Bachelor degree	• Bachelor degree	• Bachelor degree
• Diploma	• Undergraduate diploma	• Undergraduate diploma
• Certificate – trade	• Associate diploma	• Associate diploma
• Certificate – other	• Skilled vocational	• Skilled vocational qualification
• Not classifiable	• Basic vocational	• Basic vocational
• Inadequately described	• Level of attainment inadequately described	• Level of attainment inadequately described
• No qualifications	• Level of attainment not stated	• Level of attainment not stated
• Not stated	• Not applicable	• Not applicable
• Not applicable	• Total	• Total
• Total		
Changes to census questions and coding		
• Significant changes in qualification categories arose from the change to the ABS Classification of Qualifications (ABSCQ) between the 1986 and 1991 Censuses.		
• In 1986, not applicable only included those aged less than 15 years. For the latter two censuses not applicable also includes those without qualifications or people whose qualification is outside the scope of the ABSCQ classification.		
• The expansion of the higher education system lead to qualification 'inflation' in the late 1980s/early 1990s.		

Source: ABS (1993).

Table A3. Qualification type, 1986–96

1986	1991	1996
Categories		
• Management, administration and related fields	• Business and administration	• Business and administration
• Natural and mathematical sciences	• Health	• Health
• Engineering and technology	• Education	• Education
• Architecture and building	• Society and culture	• Society and culture
• Humanities	• Natural and physical sciences	• Natural and physical sciences
• Religion and theology	• Engineering	• Engineering
• Social sciences	• Architecture	• Architecture and building
• Education	• Agriculture	• Agriculture and related fields
• Medicine and health	• Miscellaneous fields	• Miscellaneous fields
• Artistic, literary and performing arts	• Field of study not stated	• Field of study not stated
• Veterinary science	• Not applicable	• Field of study inadequately described
• Agriculture and forestry services	• Total	• Not applicable
• Military and defence		• Total
• Manufacturing and construction		
• Field of study not elsewhere classified		
• Field of study not specified		
• Inadequately described		
• No qualifications		
• Not stated		
• Not applicable		
• Total		

Changes to census questions and coding

- Major changes in field of study categories arose from the change to the ABS Classification of Qualifications (ABSCQ) between the 1986 and 1991 Censuses.
- In 1986, not applicable only included those aged less than 15 years. For the latter two censuses not applicable also includes those without qualifications or people whose qualification is outside the scope of the ABSCQ classification.
- The 1996 data excludes overseas visitors.

Source: ABS (1993).

Table A4. English language proficiency, 1986–96

1986	1991	1996
Categories		
• English only • Speaks English very well • Speaks English well • Does not speak English well • Speaks no English • Proficiency not stated • Not stated • Total	• Speaks English very well • Speaks English well • Does not speak English well • Speaks no English • Proficiency not stated • Language and English proficiency not stated • Not applicable • Total	• Speaks English very well • Speaks English well • Does not speak English well • Speaks no English • Language stated, but English proficiency not stated • Language and English proficiency not stated • Not applicable • Total
Changes to census questions and coding		
• Proficiency in English is only applicable to people who speak a language other than English. • For the 1986 data, English language proficiency not stated is allocated uniformly across categories of very well, well, not well and not at all. For the 1996 data, language stated, but English proficiency not stated is allocated uniformly across categories of very well, well, not well and not at all.		

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