



Australian Social Trends March 2011

Education and Indigenous wellbeing

www.abs.gov.au/socialtrends

ABS catalogue no. 4102.0

ISSN 1321-1781

© Commonwealth of Australia 2011



This work is licensed under a Creative Commons [Attribution 2.5 Australia](#) licence.

In all cases the ABS must be acknowledged as the source when reproducing or quoting any part of an ABS publication or other product. Please see the [Australian Bureau of Statistics website copyright statement](#) for further details.

Produced by the Australian Bureau of Statistics

INQUIRIES

- For further information about these and related statistics contact the National Information and Referral Service on 1300 135 070, or refer to contacts listed at the back of this publication.

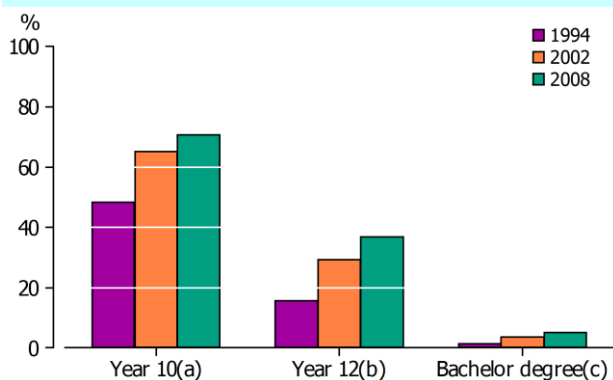
Education and Indigenous wellbeing

Educational attainment has long been recognised as being correlated with a range of indicators of social wellbeing. As a result of this, education has been a major focus in the strategy to ‘close the gap’ between the Australian Aboriginal and Torres Strait Islander and non-Indigenous populations.

Improving educational attainment, particularly at Year 12 or equivalent level is a priority across both the Council of Australian Governments’ (COAG) *National Education Agreement* and *National Indigenous Reform Agreement*.^{1,2} The *National Education Agreement* includes targets to increase to 90% the proportion of all young people with Year 12 or a Certificate level II by 2015, and by 2020, for 90% of young people to achieve Year 12 or a Certificate level III.² Both agreements include a performance target to halve the gap between Indigenous and non-Indigenous students in Year 12 or Certificate II level by 2020.^{1,2} There is an expectation that this will in turn lead to better employment and health outcomes for the Aboriginal and Torres Strait Islander population.

This article explores the relationship between education and aspects of Aboriginal and Torres Strait Islander wellbeing. It examines how educational attainment is associated with health, employment, housing and crime and justice, and explores differences between outcomes for Indigenous and non-Indigenous Australians across different levels of attainment.

Minimum educational attainment achieved, Indigenous persons 18 years and over – 1994, 2002 and 2008



(a) Includes Year 10/11 and basic vocational qualifications.

(b) Includes Year 12 and skilled vocational qualifications.

(c) 1994 estimate for Bachelor degree has a relative standard error of 25% to 50% and should be used with caution.

Sources: ABS 1994 National Aboriginal and Torres Strait Islander Survey and 2002 and 2008 National Aboriginal and Torres Strait Islander Social Surveys

Data sources and education measures

Information in this article relates to persons 18 years and over and is from the ABS 2002 and 2008 National Aboriginal and Torres Strait Islander Social Surveys (NATSISS), the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS), the 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS), the 2004–05 and 2007–08 National Health Surveys (NHS), and the 2008 Survey of Education and Work (SEW).

Educational attainment data presented in this article includes both primary and secondary school, and non-school qualifications. Two measures are used: *Minimum educational attainment*, which is a measure of all people achieving given levels of attainment; and *Highest educational attainment*, which groups people according to their highest level of attainment.

Minimum attainment is used in trends analysis to examine education attainment over time and across Indigenous and non-Indigenous populations. This approach aligns with the COAG education targets which aim to increase minimum levels of skills required for a 21st century labour market.³ *Highest attainment* is used to explore the association between different levels of attainment and aspects of wellbeing.

Both measures distinguish between the following groups:

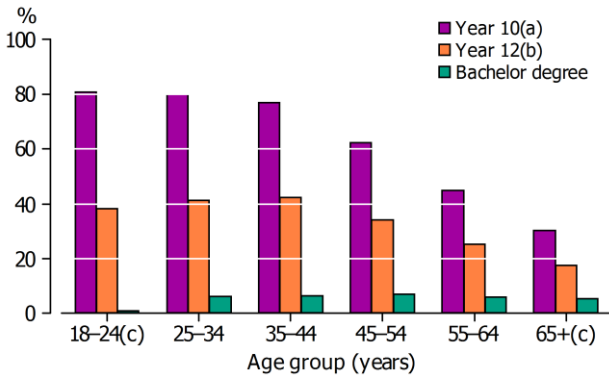
- *Bachelor degree or above* includes bachelor degrees, graduate diplomas, graduate certificates, and postgraduate degrees.
- *Year 12 or skilled vocational qualifications* includes Year 12, certificate III and IV, diplomas and advanced diplomas.
- *Year 10/11 or basic vocational qualifications* includes Year 10 and 11, certificates I and II, and certificate level not further defined.
- *Below Year 10* includes Year 9 and below.

For further information see the [Australian Qualification Framework, 2010](#).⁴

Trends in Indigenous educational attainment

Educational attainment for Aboriginal and Torres Strait Islander Australians has increased appreciably since the mid-1990s. In 2008, 37% of Aboriginal and Torres Strait Islander people aged 18 years and over (adults) had attained a minimum of Year 12 or a skilled vocational qualification, more than double the rate in 1994 (16%). Over the same time period, those completing a minimum of Year 10 or basic vocational qualifications increased from 48% to 71%. While relatively few Aboriginal and Torres Strait Islander adults continued on to complete

Minimum educational attainment achieved, Indigenous persons by age – 2008



(a) Includes Year 10/11 and basic vocational qualifications.
 (b) Includes Year 12 and skilled vocational qualifications.
 (c) Estimate for Bachelor degree has a relative standard error of 25% to 50% and should be used with caution.

Source: ABS 2008 National Aboriginal and Torres Strait Islander Social Survey

a Bachelor degree or above, the rate has increased to 5% in 2008.

In 2008, younger Aboriginal and Torres Strait Islander adults were more likely to have completed both Year 10 and Year 12 than older adults. However for higher levels of attainment there were similar rates across all age groups.

The proportion of adults completing at least Year 10 (or basic vocational qualifications) ranged from 81% for those aged 18–24 years, to 30% for those 65 years and over. Similarly, for those completing at least Year 12 (or skilled vocational qualifications), the rates ranged from around 40% for those aged 18–24 years, 25–34 years and 35–44 years to 17% for those 65 years and above.

While increases in educational attainment to at least Year 10 and Year 12 (and their vocational equivalent) appear to result from higher levels of participation in education among young people, attainment of Bachelor degrees and above is similar for all age groups except those aged 18–24 years. This may reflect a pattern to study and complete university qualifications at

Highest educational attainment, by remoteness, Indigenous persons 18 years and over – 2008

	Major Cities	Regional Areas	Remote Areas
	%	%	%
Bachelor degree or above	8.7	4.0	2.7
Year 12 or skilled vocational	39.8	32.0	21.2
Year 10/11 or basic vocational	30.4	33.7	38.3
Below Year 10	17.8	27.6	35.3
Total	100.0	100.0	100.0

Source: ABS 2008 National Aboriginal and Torres Strait Islander Social Survey

Remoteness Areas

Remoteness Area (RA) is a structure of the Australian Standard Geographical Classification (ASGC). It classifies areas sharing common characteristics of remoteness (including access to services) into six broad geographical regions (Remoteness Areas). The remoteness of a point is measured by its physical distance by road to the nearest urban centre. As remoteness is measured nationally, not all Remoteness Areas are represented in each state or territory. In this article the six Remoteness Areas have been collapsed into three levels:

- Major Cities (of Australia).
- Regional Areas (Inner Regional Australia plus Outer Regional Australia).
- Remote Areas (Remote Australia plus Very Remote Australia plus Migratory).

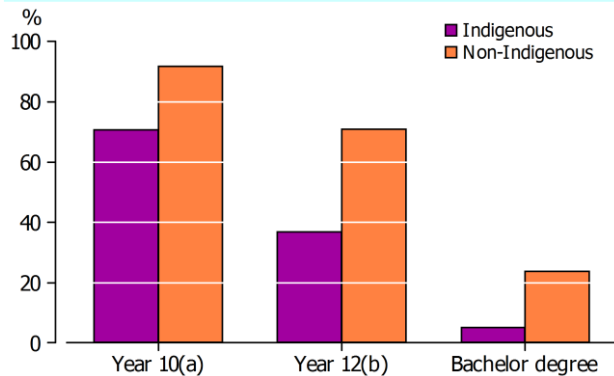
For further information about Remoteness Areas see Chapter 8 of ABS [Australian Standard Geographical Classification \(ASGS\), July 2010](#) (cat. no. 1216.0).

older ages, rather than immediately following completion of Year 12.⁵

Attainment of higher levels of education was more common among adults living in Major Cities than those living in Regional and Remote Areas. In 2008, for example, adults living in Major Cities were three times as likely to have attained a Bachelor degree or above (9%) as those living in Remote Areas (3%). This may be due to lack of access to higher education in Remote Areas, as well as movement away from Remote Areas for greater education and work opportunities.

Despite gains in Aboriginal and Torres Strait Islander education over recent years, a large gap remains between Indigenous and non-Indigenous outcomes, particularly at higher levels of attainment. In 2008, non-Indigenous adults were more likely to have attained at least

Minimum educational attainment achieved, persons 18 years and over by Indigenous status – 2008

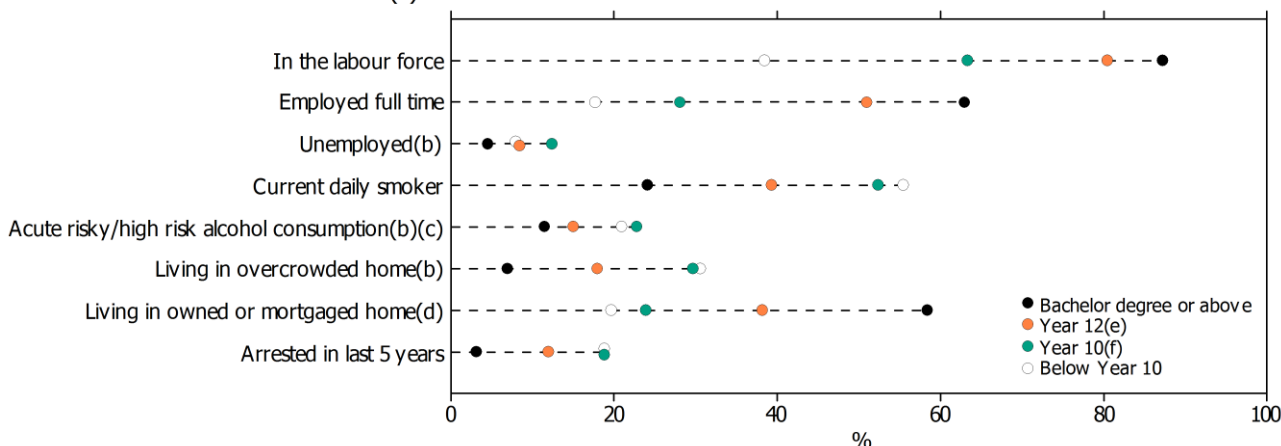


(a) Includes Year 10/11 and basic vocational qualifications.
 (b) Includes Year 12 and skilled vocational qualifications.

Sources: ABS 2008 National Aboriginal and Torres Strait Islander Social Survey and 2008 Survey of Education and Work

Highest educational attainment achieved, Indigenous persons 18 years and over – 2008

SELECTED INDICATORS OF WELLBEING(a)



(a) For definitions of 'In the labour force', 'Employed full time', 'Unemployed', 'Current daily smoker', 'Living in overcrowded home', 'Living in owned or mortgaged home', and 'Arrested in last 5 years' see ABS [National Aboriginal and Torres Strait Islander Social Survey: Users' Guide, 2008](#) (cat. no. 4720.0). For Acute risky/high risk alcohol consumption see ABS [National Aboriginal and Torres Strait Islander Health Survey: Users' Guide, 2004-05](#) (cat. no. 4715.0.55.004).

(b) Estimate for Bachelor degree has a relative standard error of 25% to 50% and should be used with caution.

(c) Acute risky/high risk alcohol consumption data is based on National Health and Medical Research Council guidelines for risk of harm in the short-term for 2004-05.

(d) Includes persons living in homes that are owned with or without a mortgage, or via a rent/buy scheme, by someone in the household.

(e) Includes Year 12 and skilled vocational qualifications.

(f) Includes Year 10/11 and basic vocational qualifications.

Sources: ABS 2008 National Aboriginal and Torres Strait Islander Social Survey and 2004-05 National Aboriginal and Torres Strait Islander Health Survey

Year 10 or basic vocational qualifications (92%) than Aboriginal and Torres Strait Islander adults (71%), and were over four times as likely to have attained a Bachelor degree or higher (24% compared with 5%).

Why does education matter?

Education has been shown as being correlated with numerous measures of wellbeing including economic participation, income, health outcomes and determinants such as health risk behaviours and preventative service use, as well as other aspects of wellbeing including social participation and crime and justice.⁶⁻¹¹

The following analysis examines the association between education and selected indicators of wellbeing. Areas of wellbeing examined include employment, health risk behaviours and housing.

Those with higher levels of educational attainment were more likely to be in the labour force and employed full time than those with lower levels of educational attainment. For example, full-time employment rates increased from 18% for Aboriginal and Torres Strait Islander adults with below Year 10 attainment, to 51% for those with Year 12 or a skilled vocational qualification, and 63% for those with a Bachelor degree or higher.

The likelihood of engaging in selected health risk behaviours, including smoking and acute risky/high risk alcohol consumption (binge

Examining the links between education and wellbeing

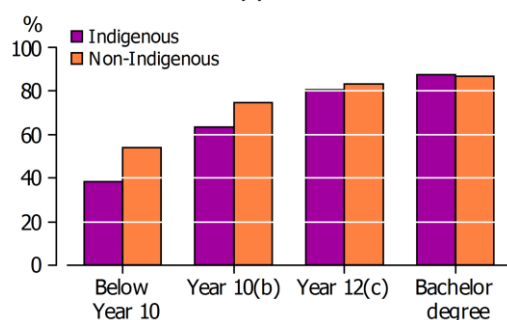
In examining the link between education and socio-economic and health outcomes, it is important to note that the relationships can be complex and it is difficult to infer causal associations from household surveys. For example, a correlation between higher levels of education and better health outcomes could point to any of the following:

- There may be an indirect causal relationship between the two factors, e.g. higher education may lead to improved employment and higher levels of income, which in turn leads to better access to health services.
- The causal relationship may run in both directions, e.g. higher education may lead to improved health outcomes as described above, but poor health may also contribute to poor educational outcomes, further reinforcing health risks.
- Both factors may be caused by a third factor, e.g. people may live in areas with limited access to both high quality educational and health facilities. Equally, age may be a confounding factor, with younger people more likely to have higher levels of educational attainment, and to be in good health.
- The relationship may be the result of a complex interaction of many factors such as housing, income and access to services, making it difficult to disentangle direct causal relationships.

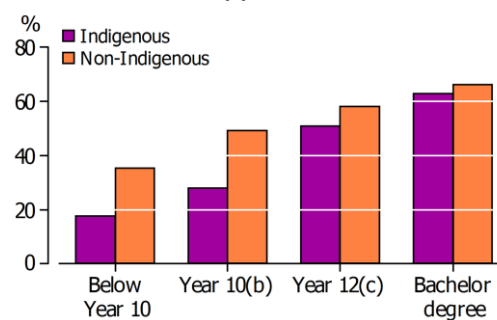
So while the analysis presented in this article can provide some insights into the associations between education and other aspects of wellbeing, it cannot determine the causal pathways between them.

Selected employment outcomes by highest educational attainment, persons 18 years and over – 2008

IN THE LABOUR FORCE(a)



EMPLOYED FULL TIME(a)



(a) For definitions of 'In the labour force' and 'Employed full time' see ABS [National Aboriginal and Torres Strait Islander Social Survey: Users' Guide, 2008](#) (cat. no. 4720.0).

(b) Includes Year 10/11 and basic vocational qualifications.

(c) Includes Year 12 and skilled vocational qualifications.

Sources: ABS 2008 National Aboriginal and Torres Strait Islander Social Survey and 2008 Survey of Education and Work

drinking) decreased with higher levels of attainment. For example, those with Bachelor degrees or above were nearly half as likely to be current daily smokers (24%) as those with Year 9 or below (55%).

People with higher levels of education were less likely to live in overcrowded dwellings, and more likely to live in a dwelling owned (with or without a mortgage) by someone in the household, than those with lower levels of education.

Education is also associated with crime and justice outcomes. People with higher levels of educational attainment are less likely to have been arrested in the last five years than those with lower levels of educational attainment.

While the association between educational attainment and wellbeing was observed across Remoteness Areas for all indicators examined, there appeared to be a stronger association between educational attainment and wellbeing for people living in Major Cities and Regional Areas than for those living in Remote Areas. The observed differences between people living in Major Cities and those outside Major Cities may be influenced by factors associated with remoteness, such as service provision and access.

Closing gaps through education?

Health, employment and housing outcomes are associated with educational outcomes for both Aboriginal and Torres Strait Islander and non-Indigenous populations. The following analysis explores the relative association between educational attainment and Indigenous and non-Indigenous outcomes across health, employment and housing, and examines how differences in outcomes might be associated with differences in education. While the analysis provides insight into these

associations, due to the complexity of the relationship between education and socioeconomic and health outcomes, it cannot determine causal pathways between them.

...in employment

The rate of full-time employment more than tripled for Indigenous adults, from 18% for those with below Year 10 attainment, to 63% for those with Bachelor degree or above.

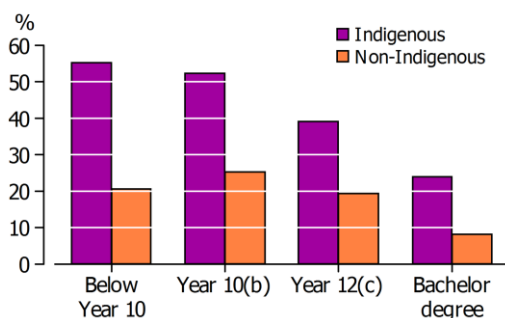
While a similar association was observed between educational attainment and full-time employment for the non-Indigenous population it was not as strong. For example, the full-time employment rate for non-Indigenous adults with a Bachelor degree or above (66%) was nearly twice as high as the rate for those with below Year 10 attainment (35%).

Reflecting these results, differences in labour market outcomes across the two populations reduce with higher levels of educational attainment. While nationally, Indigenous adults are around half as likely to be in full-time employment as non-Indigenous adults, as educational attainment increases, the difference between the employment outcomes reduces. Indigenous adults with a Bachelor degree or above are equally likely as non-Indigenous adults with the same attainment to be working full time and to be participating in the labour force.

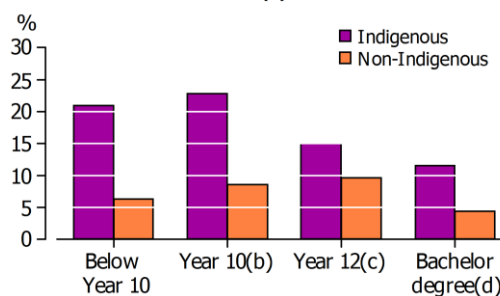
When outcomes for unemployment were examined, the relative improvement was not observed to the same extent across levels of educational attainment. Nationally, Indigenous adults experienced an unemployment rate (15.1%) that was four times as high as non-Indigenous adults (3.8%) in 2008. However, among adults with Year 12 or equivalent attainment, the unemployment rate for Indigenous adults (10.4%) was still more than

Selected health risk behaviours by highest educational attainment, persons 18 years and over

CURRENT DAILY SMOKER(a)—2008



ACUTE RISKY/HIGH RISK ALCOHOL CONSUMPTION(a)—2004-05



(a) For the definitions of 'Current daily smoker' see ABS [National Aboriginal and Torres Strait Islander Social Survey: Users' Guide, 2008](#) (cat. no. 4720.0). For Acute risky/high risk alcohol consumption see ABS [National Aboriginal and Torres Strait Islander Health Survey: Users' Guide, 2004-05](#) (cat. no. 4715.0.55.004).

(b) Includes Year 10/11 and basic vocational qualifications.

(c) Includes Year 12 and skilled vocational qualifications.

(d) Estimate for Bachelor degree has a relative standard error of 25% to 50% and should be used with caution.

Sources: ABS 2004-05 National Aboriginal and Torres Strait Islander Health Survey, 2004-05 and 2007-08 National Health Survey, and 2008 National Aboriginal and Torres Strait Islander Social Survey

two and a half times that of non-Indigenous adults (3.6%).

These results indicate that while education may be associated with improved labour market outcomes, it does not entirely bridge gaps in labour market outcomes between Indigenous and non-Indigenous Australians. In addition to the influence of education, the availability of job and work opportunities by location is also likely to be influencing differences. In particular, there are fewer job opportunities in Remote Areas, where many Indigenous people live, compared with those available in Regional Areas and Major Cities.

...in health risk behaviours

While health risk behaviours are associated with educational outcomes for both the Aboriginal and Torres Strait Islander and non-Indigenous populations, differences in rates of smoking and binge drinking between the two populations do not vary greatly across educational attainment.

Health data definitions

Acute risky/high risk alcohol consumption (binge drinking) — based on the frequency of consuming five or more (for females) or seven or more (for males) standard drinks on any one occasion in the 12 months prior to interview. These risks were based on NHMRC guidelines for risk of harm in the short term that were in place at the time of the 2004-05 NATSIHS and NHS surveys. For more information see ABS [National Aboriginal and Torres Strait Islander Health Survey: Users' Guide, 2004-05](#) (cat. no. 4715.0.55.004).

Current daily smokers — people smoking one or more cigarettes (or cigars or pipes) per day, on average at the time of the interview.

For both Indigenous and non-Indigenous adults, lower rates of current daily smoking are associated with higher rates of educational attainment. However, the rates of smoking remain approximately twice as high among Indigenous adults as non-Indigenous adults across all levels of education.

For Indigenous adults, lower rates of acute risky/high risk alcohol consumption (binge drinking) are associated with higher rates of educational attainment. For non-Indigenous adults the pattern appears largely reversed with higher rates of binge drinking associated with higher levels of attainment through to Year 12, and then reduced rates associated with Bachelor degrees and above. Despite the different patterns of association between education and binge drinking across the two populations, the rates of binge drinking for Indigenous adults remain well above those for non-Indigenous adults across all levels of educational attainment.

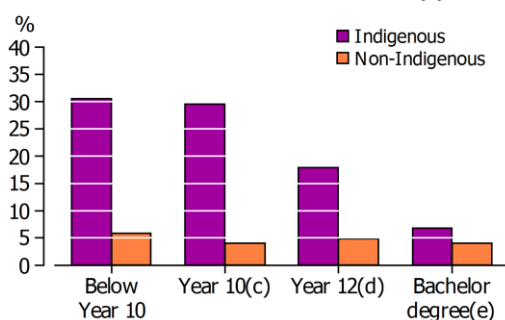
These results indicate that while there is an association between education and health risk behaviours, higher rates of risky health behaviours among Indigenous adults may also be attributable to a range of other factors, rather than directly with education.

...in housing

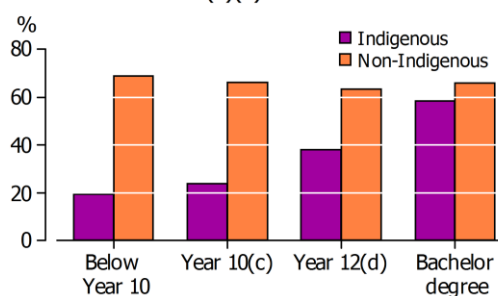
Housing outcomes are also associated with education for both the Aboriginal and Torres Strait Islander and non-Indigenous populations. Higher levels of Indigenous household ownership and lower levels of overcrowding appear to be strongly associated with higher levels of education for the Indigenous population. However, this

Selected housing outcomes by highest educational attainment, persons 18 years and over – 2008

LIVING IN AN OVER-CROWDED DWELLING(a)



LIVING IN HOME OWNED BY SOMEONE IN THE HOUSEHOLD(a)(b)



- (a) For definitions of 'living in an overcrowded dwelling' and 'living in home owned by someone in the dwelling' see ABS *National Aboriginal and Torres Strait Islander Social Survey: Users' Guide, 2008* (cat. no. 4720.0).
- (b) Includes persons living in homes that are owned with or without a mortgage, or via a rent/buy scheme, by someone in the household.
- (c) Includes Year 10/11 and basic vocational qualifications.
- (d) Includes Year 12 and skilled vocational qualifications.
- (e) Estimate for Bachelor degree has a relative standard error of 25% to 50% and should be used with caution.

Sources: ABS 2008 National Aboriginal and Torres Strait Islander Social Survey and 2008 National Health Survey

association is not as strong for the non-Indigenous population, where rates improve only slightly with higher levels of education.

Reflecting this, the difference between Indigenous and non-Indigenous housing outcomes reduces considerably with higher levels of education. Nationally, Indigenous adults were over five times as likely to be living in an over-crowded dwelling as non-Indigenous adults, and less than half as likely to be living in an owned home (with or without a mortgage). At higher levels of attainment, these differences reduced. For example, Indigenous and non-Indigenous adults with a Bachelor degree were nearly equally as likely to be living in an owned home.

The association between education and housing outcomes for Indigenous people appears stronger in non-Remote Areas than in Remote, where rates of overcrowding and home ownership did not change as greatly across educational attainment. This result indicates that while education may be associated with better housing outcomes, housing markets and the availability of quality and appropriate housing by location are also likely to influence housing outcomes.

Looking ahead

Improving outcomes in schooling and educational attainment have been incorporated as performance targets in the *National Indigenous Reform Agreement* and the *National Education Agreement*.^{1,2} The performance targets set out in the agreements for Aboriginal and Torres Strait Australians are based on a 'Building Blocks' approach which recognises

that improving outcomes for Indigenous people requires a multi-faceted approach including several areas of social wellbeing, with improvements in one area also reliant on improvements in others.¹² In relation to education, improvements in schooling and attainment should underpin improvements in a range of other areas, such as economic participation, health and housing outcomes for Aboriginal and Torres Strait Islander Australians. However, improvements in education are also dependent on improvements across a range of other areas including early childhood, safe communities, and schooling.

Endnotes

- 1 Council of Australian Governments' (COAG), 2009, *National Indigenous Reform Agreement*, COAG, Canberra, <www.federalfinancialrelations.gov.au>.
- 2 Council of Australian Governments' (COAG), 2009 *National Education Agreement*, COAG, Canberra, <www.federalfinancialrelations.gov.au>.
- 3 COAG Reform Council, 2010, *National Education Agreement: Performance report for 2009*, COAG Reform Council, Sydney, <www.coagreformcouncil.gov.au>.
- 4 The *Australian Qualification Framework*, 2010, <www.aqf.edu.au>.
- 5 Biddle, N., 2010, *A Human Capital Approach to the Educational Marginalisation of Indigenous Australians*, Centre for Aboriginal Economic Policy Research, CAEPR Working Paper No. 67/2010, Canberra, <<http://caepr.anu.edu.au>>.
- 6 Boughton, B., 2000, *What is the connection between Aboriginal education and Aboriginal Health?*, Cooperative Research Centre for Aboriginal and Tropical Health, Occasional Papers Series No. 2, 2000, <www.lowitja.org.au>.
- 7 Caldwell, J., and Caldwell, P., 'What have we learnt about the cultural, social and behavioural determinants of health?', *Health Transition Review*, Vol. 1, no. 1, p8, <<http://htc.anu.edu.au>>.

- 8 Ewald, D., and Boughton, B., 2001, *Maternal Education and child health: An exploratory investigation into a central Australian Aboriginal Community*, Cooperative Research Centre for Aboriginal and Tropical Health, occasional paper January 2001, Darwin, <www.lowitja.org.au>.
- 9 Gray, A., and Boughton, B., 2001 *Education and health behaviours of Indigenous Australians: Evidence from the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS)* Cooperative Research Centre for Aboriginal and Tropical Health, occasional papers series, no. 3, 2000, Darwin, <www.lowitja.org.au>.
- 10 Hunter, B., 1996 *The determinants of Indigenous employment outcomes: the importance of education and training*, Centre for Aboriginal Economic Policy Research, CAEPR Discussion Paper no. 115/1996, Canberra, <<http://caepr.anu.edu.au>>.
- 11 Junankar, P., 2003 'Estimating the social rate of return to education for Indigenous Australians', *Education Economics*, vol. 11, no. 2, pp. 169–192.
- 12 Council of Australian Governments' (COAG), 2009 *National Integrated Strategy for Closing the Gap in Indigenous Disadvantage*, COAG, Canberra, <www.coag.gov.au>.

FOR MORE INFORMATION . . .

<i>INTERNET</i>	www.abs.gov.au the ABS website is the best place for data from our publications and information about the ABS.
<i>LIBRARY</i>	A range of ABS publications are available from public and tertiary libraries Australia wide. Contact your nearest library to determine whether it has the ABS statistics you require, or visit our website for a list of libraries.

INFORMATION AND REFERRAL SERVICE

Our consultants can help you access the full range of information published by the ABS that is available free of charge from our website, or purchase a hard copy publication. Information tailored to your needs can also be requested as a 'user pays' service. Specialists are on hand to help you with analytical or methodological advice.

<i>PHONE</i>	1300 135 070
<i>EMAIL</i>	client.services@abs.gov.au
<i>FAX</i>	1300 135 211
<i>POST</i>	Client Services, ABS, GPO Box 796, Sydney NSW 2001

FREE ACCESS TO STATISTICS

All statistics on the ABS website can be downloaded free of charge.

<i>WEB ADDRESS</i>	www.abs.gov.au
--------------------	----------------