

## 6. Employment

Alongside key education and health outcomes, the other main target that underpins COAG's Closing the Gap agenda is to 'halve the gap' in Indigenous employment outcomes within a decade (by 2018). Stable, well-paid employment remains one of the key protective factors against poverty and exclusion, so the focus on Indigenous employment in the government's Closing the Gap targets is therefore both necessary and prudent. Without substantial improvements in Indigenous labour force outcomes, none of the other targets are likely to be met.

Taking results from the 2006 Census as a proxy for the baseline, a halving of the gap between Indigenous and non-Indigenous Australians in employment would entail an increase in the percentage of the population aged 15 years and over and employed from 43.2 to 51.9 per cent (assuming the non-Indigenous rate stays constant). There are a number of factors that are likely to make meeting this target difficult, as outlined below. The biggest constraint on meeting COAG's employment Closing the Gap targets is the projected growth of the working-age population over the period. As shown in Fig. 1.1 earlier in this monograph, a much greater proportion of Indigenous Australians were aged under 25 at the time of the 2006 Census compared to the non-Indigenous population. Over the subsequent decade, many of these Indigenous youth will be entering the age at which they start to look for their first job, or a stable career. Biddle and Taylor (2009) project that the Indigenous population aged 15 years and over will grow from 322 780 in 2006 to 428 169 in 2016. According to Biddle, Taylor and Yap (2009), an additional 45 528 jobs will need to be found over the period simply to maintain the level of employment at its current low level.

Adding to the difficulty in finding jobs for new entrants into the labour market (not to mention reducing the employment gap) are proposed changes to the Community Development Employment Projects (CDEP) Program. Beginning in 1977, the CDEP Program allows Indigenous Australians to forego social security benefits and instead receive a form of wages for employment. According to the (former) ATSIC (2002), 'The scheme is designed to provide meaningful employment opportunities for Aboriginal and Torres Strait Islander peoples as well as enabling Aboriginal and Torres Strait Islander communities to manage their own affairs and to gain economic and social equity'.

At least up until the time of the 2006 Census, the CDEP Program made up a substantial component of the labour market of Indigenous people. According to estimates in Biddle, Taylor and Yap (2008), employment in the program made up nearly one-quarter (23.4%) of the total employed Indigenous labour force.

However, participation in the scheme was primarily in remote Australia, and there were 14 regions out of a total of 37 across Australia where individuals in CDEP jobs made up 50 per cent or more of the employed. In late 2008, the Australian Government announced a number of changes to the CDEP Program that has the potential to have substantial impacts on the labour market prospects of Indigenous Australians. While the removal of CDEP positions from non-remote locations mostly reflects previous trends, the changes in remote Australia are potentially more drastic. In particular, there will be no new participants in remote Australia; current participants will be removed from the scheme permanently if they take a break from the scheme for more than two weeks; and the scheme will be stopped entirely from 30 June 2011. Once the removal of the CDEP Program has been factored into their projections, Biddle, Taylor and Yap (2009) estimate that a total of around 80 000 additional jobs will be required to keep Indigenous employment at its current level and 117 000 additional jobs will be required in total to meet the target of halving the employment gap.

The two issues combined (population growth and changes to the CDEP Program) influence the number of additional jobs that will be required to meet COAG's Closing the Gap targets. However, to be able to obtain and maintain these jobs, Indigenous Australians will need to be able to compete with the non-Indigenous population. This has always been the case to a large extent in cities and large regional towns, where Indigenous-specific jobs are scarce relative to the size of the population. However, with the withdrawal of the CDEP Program – the largest existing Indigenous labour market program – this is going to be increasingly the case across Australia. As shown in the previous chapter, however, Indigenous Australians continue to have lower levels of education participation than non-Indigenous Australians, with incomplete catch-up across the lifecourse.

There is also evidence that, even with the same level of qualifications and skills, Indigenous Australians are less likely to be employed than an otherwise identical non-Indigenous Australian. Hunter (2004) showed the potential for this discrimination through a decomposition analysis of the 2001 Census. Going further, Booth, Leigh and Varganova (2009) showed that an otherwise identical resume submitted with an Indigenous name is significantly less likely to receive a positive response than a resume with an Anglo-Saxon name. Finally, unpublished analysis of the HILDA survey showed that Indigenous Australians were more likely to report that they were discriminated against both applying for a job and in their current job.

The final constraint on halving the gap in Indigenous and non-Indigenous employment outcomes are the labour supply preferences of Indigenous Australians themselves. It is clear from the respective unemployment figures at the time of the 2006 Census (15.6% for the Indigenous population compared to 5.1% for the non-Indigenous population) that there is a large percentage of

the Indigenous population who would like to work but are unable to find a job. However, there may also be a number of Indigenous Australians who have a preference for working outside the mainstream labour market (Altman 2009) or who are unable to work because of poor health or disability. This is captured by the 45.5 per cent of Indigenous adults that are not in the labour force according to the 2006 Census (that is, not working or not actively looking for work), compared to 35.0 per cent of non-Indigenous adults. These differences are greater still when the small proportion of Indigenous Australians of retirement age is taken into account.

Results presented in Chapter 3 of this monograph showed that Indigenous females are likely to have more children across the lifecycle, with the difference greatest amongst teenagers and females in their twenties. Childbirth and child-rearing are likely to substantially reduce the net benefits of working. This may be through direct economic costs of working (through having to pay childcare fees) or indirectly through the perceived effect on child development. There are, however, Indigenous-specific constraints on labour supply that will make it harder to bring the employment rate of Indigenous Australians closer into line with that of the non-Indigenous population. Whether it is because of 'passive welfare' (Pearson 2009: 159), the relatively high opportunity costs of working as opposed to remaining unemployed (Daly and Hunter 1999), or alternative activities in the 'hybrid economy' (Altman 2009: 9), a number of authors argue that, on average across the two populations, the incentive or inclination to undertake work in the wage economy is lower for Indigenous Australians than non-Indigenous Australians.

So, while employment remains a key avenue for poverty reduction, it is also important to keep in mind variation in Indigenous aspirations to participate in the mainstream labour market. Recognising these competing aims, the analysis presented in this chapter considers the distribution of various aspects of Indigenous employment across the lifecycle and the factors associated with them. The analysis begins with the simplest measure, the probability of an adult 15 years and over being employed. However, not all employment is equal and hence the second and third sections of the chapter consider the probability of being in part-time employment and employed as a Manager or Professional respectively. Both sets of analysis focus on the employed.

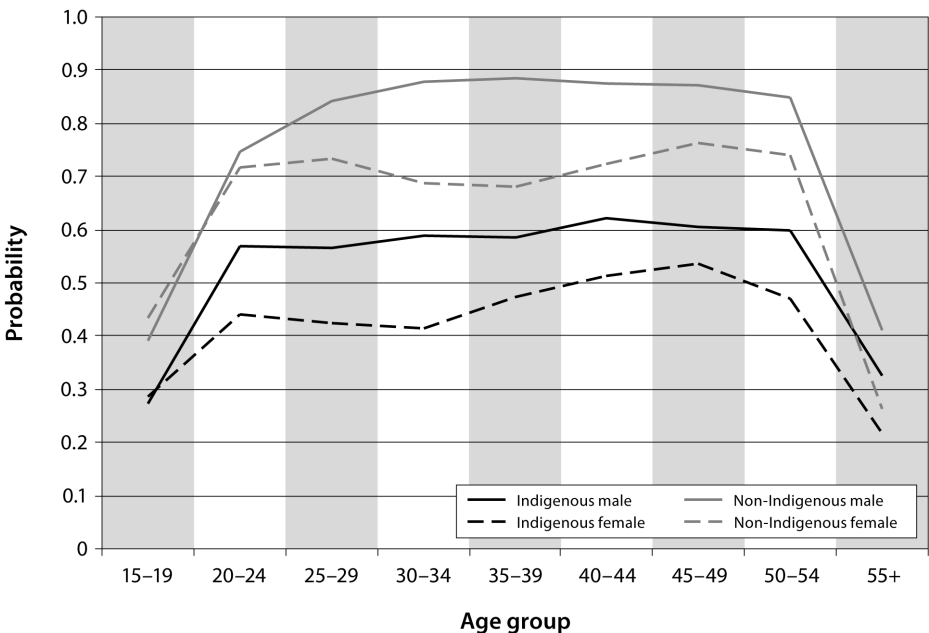
The final set of analysis in the chapter attempts to extend the discussion of employment across the lifecycle beyond the mainstream labour market. Unfortunately, there is very little information on non-mainstream employment in the census, especially as it relates to participation in the hybrid economy. However, a new question included in the 2006 Census is whether or not a person undertook volunteer work for an organisation or group during the 12 months that preceded the census. The analysis presented in the final section of results

in this section is the first to explicitly consider variation in the probability of undertaking volunteer work across the lifecourse and whether this varies by Indigenous status. In another first, we also consider the factors associated with undertaking unpaid domestic work.

## Employment

More than most other variables, employment across the lifecourse follows a distinctly cyclical pattern. Employment generally starts in earnest for people aged 15 years and over, with individuals either leaving school or undertaking part-time work in conjunction with their studies. The probability of employment then increases substantially as individuals leave compulsory and then post-compulsory education, with the 25–54 year age group generally taken to be prime working age. The major exception to this is time taken out of the labour force to raise children (especially for females). Beyond the age of 55, individuals begin to retire, with the exact age of retirement depending on health, wealth, superannuation benefits and the type of job the person has access to. This employment profile is clearly reflected in Fig. 6.1. However, the question posed in the remainder of this section is the extent to which this lifecourse pattern varies for the Indigenous population.

**Fig. 6.1 Probability of being employed, Indigenous and non-Indigenous males and females aged 15 years and over, 2006**



The results presented in Fig. 6.1 show that the shape of the distribution of employment across the lifecourse is quite similar for Indigenous compared to non-Indigenous males and females. The one major difference is the much earlier divergence between Indigenous males and females in terms of employment probabilities, with Indigenous males aged 20–24 years being substantially more likely to work than Indigenous females of the same age. The relative difference for the non-Indigenous population of this age group is, in comparison, quite minor. The higher rates of fertility amongst relatively young Indigenous females (identified in Chapter 3) are clearly reflected in the above employment figures. Ultimately, the biggest difference between the Indigenous and non-Indigenous population is the actual probability of being employed. It is not the patterns across the lifecourse that are different, but the overall level of employment.

## Modelling Indigenous employment across the lifecourse

Results using the probability of a person being employed as the dependent variable of interest are given in Table 6.1. The marginal effects for the Indigenous population from Model 1 are quite large. After controlling for age and sex only, the results show that an Indigenous male aged 30–34 years has a probability of being employed that is 0.172 points lower than the probability of a non-Indigenous male of the same age. However, when one compares the results presented in Model 2 with results from Model 1, it is clear that much of the predicted difference between Indigenous and non-Indigenous Australians in terms of the probability of being employed is because of other observed characteristics. The magnitude of the marginal effect falls to  $-0.032$  after controlling for these characteristics.

**Table 6.1 Factors associated with the probability of being employed, population aged 15 years and over, 2006****Part A: Demographic and geographic variables**

Explanatory variables <sup>a</sup>	Total population		Indigenous population	
	Model 1	Model 2	Model 3	Model 4
Indigenous	-0.172	-0.032		
Female	-0.191	-0.032	n.s.	n.s.
Aged 15–19	-0.483	-0.038	-0.031	-0.048
Aged 20–24	-0.129	-0.010	n.s.	n.s.
Aged 25–29	-0.037	-0.003	n.s.	n.s.
Aged 35–39	0.005	n.s.	n.s.	n.s.
Aged 40–44	n.s.	-0.003	n.s.	n.s.
Aged 45–49	-0.008	-0.006	n.s.	n.s.
Aged 50–54	-0.030	-0.017	n.s.	n.s.
Aged 55 +	-0.464	-0.275	-0.119	-0.151
Aged 15–19, female	0.097	0.018	0.017	0.023*
Aged 20–24, female	0.081	0.014	n.s.	n.s.
Aged 25–29, female	0.051	0.006	n.s.	n.s.
Aged 35–39, female	-0.008	0.006	0.020	0.028
Aged 40–44, female	0.023	0.013	0.023	0.031
Aged 45–49, female	0.047	0.017	0.028	0.043
Aged 50–54, female	0.049	0.018	0.028	0.043
Aged 55 +, female	0.045	0.020	0.028	0.041
Victoria		0.002	n.s.	n.s.
Queensland		0.004	0.009	0.017
South Australia		0.001	n.s.	n.s.
Western Australia		0.005	n.s.	n.s.
Tasmania		-0.003	n.s.	n.s.
Northern Territory		0.012	n.s.	n.s.
Australian Capital Territory		0.009	n.s.	n.s.
Major city		n.s.	n.s.	n.s.
Probability of the base case <sup>b</sup>	0.878	0.977	0.960	0.934
Pseudo R-Squared	0.1668	0.2665	0.1893	0.1913
Number of observations	734 824	606 289	9 559	9 183

## Part B: Socioeconomic and other variables

Explanatory variables <sup>a</sup>	Total population			Indigenous population
	Model 1	Model 2	Model 3	Model 4
Changed usual residence in the last 5 years		-0.002	n.s.	-0.009*
Changed usual residence in the last year		-0.004	-0.015	-0.027
Secondary school student		-0.140	-0.139	-0.182
Tertiary student		-0.099	-0.085	-0.121
Part-time student		0.021	0.035	0.058
Completed Year 9 or less		-0.046	-0.107	-0.132
Completed Year 10 or 11		-0.009	-0.029	-0.038
Does not have any qualifications		-0.038	-0.109	-0.151
Has a Diploma or Certificate only		-0.010	-0.018	-0.029
Speaks another language and English well		-0.020	-0.012	n.s.
Speaks another language and English not well or not at all		-0.091	-0.055	-0.062
Never married		-0.025	-0.047	-0.046
Divorced, separated or widowed		-0.012	-0.021	-0.015
Has had at least one child (for females)		-0.070	-0.110	-0.145
Has a 'core activity' need for assistance		-0.304	-0.274	-0.341
Provides unpaid child care (all)		-0.009	n.s.	n.s.
Provides unpaid child care for children other than own		0.006	n.s.	n.s.
Provides unpaid assistance for someone with a disability		-0.012	-0.027	-0.043
Lives in a mixed Indigenous and non-Indigenous household				0.033
Probability of the base case <sup>b</sup>	0.878	0.977	0.960	0.934
Pseudo R-Squared	0.1668	0.2665	0.1893	0.1913
Number of observations	734 824	606 289	9 559	9 183

<sup>a</sup> n.s. = Those variables that were not significant at the 10% level of significance.

\* = Those variables that were significant at the 10% level of significance but not the 5% level

<sup>b</sup> The base case for the total population is non-Indigenous. For all estimates, the base case is aged 30–34 years and in addition, for Models 2–4 (for the total population and for the Indigenous estimates), the base case lives in New South Wales, outside a major city, did not change usual residence in the last five years, has completed Year 12, does not have any qualifications, is not studying, speaks English only, is currently married, has not had any children, and does not provide unpaid child care or assistance to someone with a disability. For Model 4, an additional characteristic of the base case is that they are living in an Indigenous-only household.

Source: Customised calculations using the 2006 5% CSE, ABS Census of Population and Housing

A number of the characteristics in the model have a strong association with the probability of being employed for the Indigenous population. Interestingly though, Indigenous Australians who live in a major city do not have a significantly different probability than Indigenous Australians who live in the rest of Australia. This supports to a certain extent the finding in Biddle (2009c) that, at least at the time of the 2006 Census when the CDEP Program was a large employer, there were plenty of jobs in the areas in which Indigenous Australians lived (relative to the usual resident population). It is simply that Indigenous Australians aren't being hired to fill them.

One of the reasons that Indigenous Australians have a lower probability of being employed would appear to be their lower levels of school completion and qualifications. The base case Indigenous male in Model 3 (who has completed Year 12 and has a degree) has a predicted probability of being employed of 0.960. This is not very different to the predicted probability of a non-Indigenous male with identical observed characteristics in Model 2 (0.977). However, if all other characteristics are held constant with the exception of the Indigenous male having completed Year 9 or less and not having any qualifications, the predicted probability falls to 0.744. This predicted probability is substantially different to that of an otherwise identical non-Indigenous male (0.893). It is not only that Indigenous Australians have lower levels of education than non-Indigenous Australians – it would appear that being unskilled has a bigger association with poor employment prospects for Indigenous Australians. Another variable for which the association in Model 3 is much larger than the association in Model 2, is having had at least one child (for females). Once again, it would appear that not only do Indigenous females have higher fertility rates, the association with having had children is also larger.

## Part-time employment

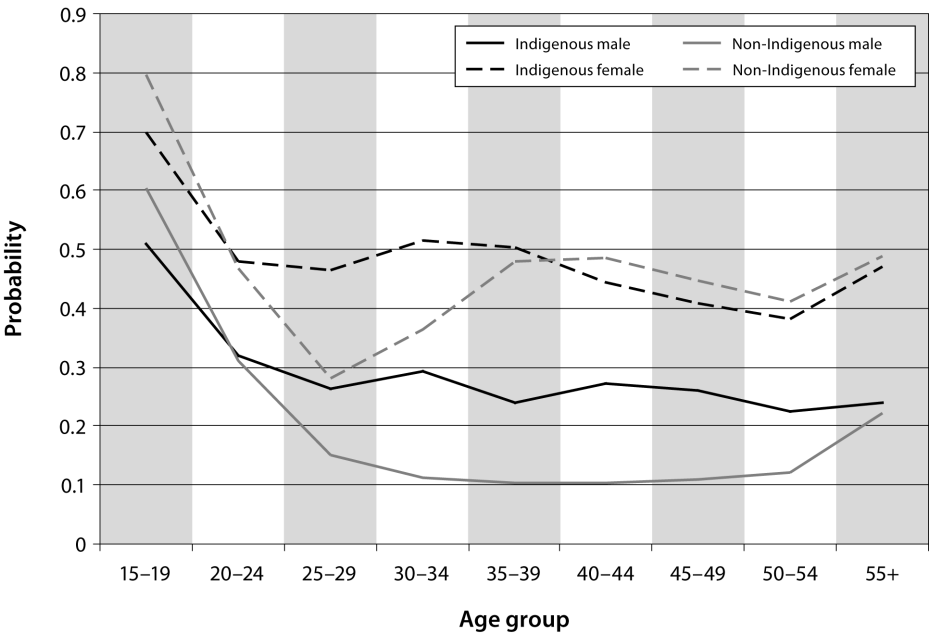
While there are some benefits of employment that are present regardless of the type of job, others are more conditional. From a purely mechanical point of view, people who work part-time are likely to receive lower weekly wages or salaries, purely because they work fewer hours. In addition though, many part-time jobs at the time of the census were likely to be part of the CDEP Program, where wages per hour are also lower. On the other hand, the flexibility inherent in part-time employment can be quite desirable for people in a variety of situations. In particular, people who are studying, people who have caring responsibility for young children or other family members, people who are close to, or beyond retirement age, and people (especially Indigenous Australians) with commitments to, or a desire to participate in the non-market sector.



The percentage of the employed population whose main job was part-time as opposed to full-time is shown in Fig. 6.2. Not surprisingly, the age group with the highest probability of being employed part-time (conditional on being employed at all) is the 15–19 years group. Even in this age group, females have a substantially higher probability than males. It is, however, the only age group where the non-Indigenous population has a substantially higher probability than the Indigenous population. This more than likely reflects the greater level of education participation amongst this age group for the former (non-Indigenous population) relative to the latter (Indigenous population).

Beyond the 15–19 year age group, there are significantly different patterns for Indigenous compared to non-Indigenous Australians. For the former, the probability declines substantially over the next five years but is then relatively stable across the next six age groups. There is only a small gradual decline in the probability for Indigenous males over this age range, with a small increase for 30–34 years age group for Indigenous females and a gradual decline beyond that age group. The decrease in probability is much greater for non-Indigenous males, reaching a low of around 10 per cent of the employed population for the 30–54 age group. For non-Indigenous females, the probability declines substantially into the 25–29 year age group, then increases over the next two age groups (when child care responsibilities are highest). For non-Indigenous males and females as well as Indigenous females, there is a significant increase in the probability of working part-time in the 55–plus age group compared to the 50–54 year age group. For Indigenous males on the other hand, the increase is more modest. This may reflect a relative lack of part-time jobs for Indigenous males or, perhaps in addition, a necessity to continue working full-time given a lack of retirement savings.

**Fig. 6.2 Probability of being employed part-time, employed population aged 15 years and over, 2006**



Source: Customised calculations using the 2006 5% CSF, ABS Census of Population and Housing

## Modelling part-time work across the lifecycle

A very complicated set of lifecycle patterns for part-time work, with distinct peaks and troughs for all four groups is indicated in Fig. 6.2. The modelling presented in Table 6.2 considers the extent to which these patterns and differences can be explained by other observable characteristics. In addition to the explanatory variables used in the previous section, we also controlled for whether or not the person is employed in the government as opposed to private sector.

**Table 6.2 Factors associated with the probability of being employed part-time, employed population aged 15 years and over, 2006****Part A: Demographic and geographic variables**

Explanatory variables <sup>a</sup>	Total population		Indigenous population	
	Model 1	Model 2	Model 3	Model 4
Indigenous	0.043	0.036		
Female	0.253	0.103	0.105	0.113
Aged 15–19	0.485	0.127	n.s.	n.s.
Aged 20–24	0.197	0.068	n.s.	n.s.
Aged 25–29	0.037	0.015	n.s.	n.s.
Aged 35–39	–0.008	–0.006	–0.048	–0.068
Aged 40–44	–0.008	–0.004 *	n.s.	n.s.
Aged 45–49	n.s.	0.005	–0.039 *	–0.054 *
Aged 50–54	0.007	0.021	–0.063	–0.081
Aged 55 +	0.109	0.114	–0.066	–0.089
Aged 15–19, female	–0.048	–0.018	n.s.	n.s.
Aged 20–24, female	–0.065	–0.024	n.s.	n.s.
Aged 25–29, female	–0.061	–0.022	n.s.	n.s.
Aged 35–39, female	0.076	0.022	n.s.	n.s.
Aged 40–44, female	0.080	0.012	n.s.	n.s.
Aged 45–49, female	0.049	–0.008	n.s.	n.s.
Aged 50–54, female	0.015	–0.028	n.s.	n.s.
Aged 55 +, female	–0.024	–0.046	n.s.	n.s.
Victoria		0.004	n.s.	n.s.
Queensland		–0.003	n.s.	n.s.
South Australia		0.010	n.s.	n.s.
Western Australia		0.002 *	0.044	0.047
Tasmania		0.012	n.s.	n.s.
Northern Territory		–0.020	0.061	0.059
Australian Capital Territory		–0.011	–0.069	–0.093
Major city		n.s.	n.s.	n.s.
Probability of the base case <sup>b</sup>	0.114	0.073	0.136	0.185
Pseudo R-Squared	0.1209	0.2067	0.1405	0.1448
Number of observations	438 950	383 906	4 633	4 475

## Part B: Socioeconomic and other variables

Explanatory variables <sup>a</sup>	Total population			Indigenous population
	Model 1	Model 2	Model 3	Model 4
Changed usual residence in the last 5 years		-0.006	-0.046	-0.053
Changed usual residence in the last year		-0.006	-0.020 *	-0.029
Secondary school student		0.607	0.586	0.609
Tertiary student		0.542	0.209	0.236
Part-time student		-0.072	-0.100	-0.130
Completed Year 9 or less		0.015	0.120	0.131
Completed Year 10 or 11		n.s.	0.029	0.032
Does not have any qualifications		0.022	0.139	0.155
Has a Diploma or Certificate only		0.008	0.039 *	0.045 *
Speaks another language and English well		-0.004	0.099	0.101
Speaks another language and English not well or not at all		0.017	0.157	0.140 *
Never married		0.015	0.021 *	n.s.
Divorced, separated or widowed		-0.010	n.s.	n.s.
Has had at least one child (for females)		0.174	0.064	0.073
Has a 'core activity' need for assistance		0.185	0.096	0.118
Provides unpaid child care (all)		0.035	0.031	0.039
Provides unpaid child care for children other than own		n.s.	n.s.	n.s.
Provides unpaid assistance for someone with a disability		0.022	n.s.	n.s.
Employed in the government sector		-0.024	n.s.	n.s.
Lives in a mixed Indigenous and non-Indigenous household				-0.053
Probability of the base case <sup>b</sup>	0.114	0.073	0.136	0.185
Pseudo R-Squared	0.1209	0.2067	0.1405	0.1448
Number of observations	438 950	383 906	4 633	4 475

<sup>a</sup> n.s. = Those variables that were not significant at the 10% level of significance.

\* = Those variables that were significant at the 10% level of significance but not the 5% level

<sup>b</sup> The base case for the total population is non-Indigenous. For all estimates, the base case is aged 30–34 years and in addition, for Models 2–4 (for the total population and for the Indigenous estimates), the base case lives in New South Wales, outside a major city, did not change usual residence in the last five years, has completed Year 12, does not have any qualifications, is not studying, speaks English only, is currently married, has not had any children, and does not provide unpaid child care or assistance to someone with a disability. In addition, the base case person is employed in the private as opposed to government sector. For Model 4, an additional characteristic of the base case is that they are living in an Indigenous-only household.

Source: Customised calculations using the 2006 5% CSF, ABS Census of Population and Housing

Model 1 shows that, on average, employed Indigenous Australians are more likely to be working part-time than non-Indigenous Australians of the same age and sex. The marginal effects for whether or not a person is female and whether or not they are aged 15–19 years (compared to 30–34 years) clearly dominate the model. However, relative to the probability of the base case (0.114), a marginal effect of 0.043 is still reasonably large. Unlike the marginal effect for females and the young, the marginal effect for Indigenous Australians does not decline substantially once other characteristics are controlled for (in Model 2).

Not surprisingly, students – and in particular secondary school students – were significantly more likely to be working part-time than individuals who were not studying at all. The other variable in the model that indicates potentially large time constraints, females who have had at least one child, was also positive and significant. However, it is interesting to note that the size of the marginal effect was much larger for the total population (Model 2) than it was for the Indigenous population only (Models 3 and 4). This may be an indication that Indigenous females with children who were working had greater resource requirements than otherwise identical non-Indigenous females, because of single parenthood or because their partners had relatively low incomes.

The above two variables, as well as the variables for having a ‘core activity’ need for assistance and for providing unpaid child care were all likely to be related to labour supply. Greater time constraints imply a relative preference for part-time as opposed to full-time work. However, there are a number of other variables with large, positive marginal effects that probably indicate difficulties in finding full-time as opposed to part-time work. In particular, Indigenous Australians who have not completed Year 12 are much more likely to be working part-time as opposed to full-time, as are those without qualifications. Importantly, the marginal effects for these variables are much larger for Indigenous compared to non-Indigenous Australians, showing that low-skilled Indigenous Australians are much more likely to be working part-time than low-skilled non-Indigenous Australians.

## Managerial and professional employment

The previous section focused on part-time employment and showed that both before and after controlling for other characteristics, working Indigenous Australians were more likely to be in a part-time job (as opposed to a full-time job) compared to working non-Indigenous Australians. The number of hours that a person works clearly influences their level of remuneration. However, so too does a person’s occupational status. According to the Australian and New Zealand Standard Classification of Occupations (ANZSCO) in the 2006 Census,

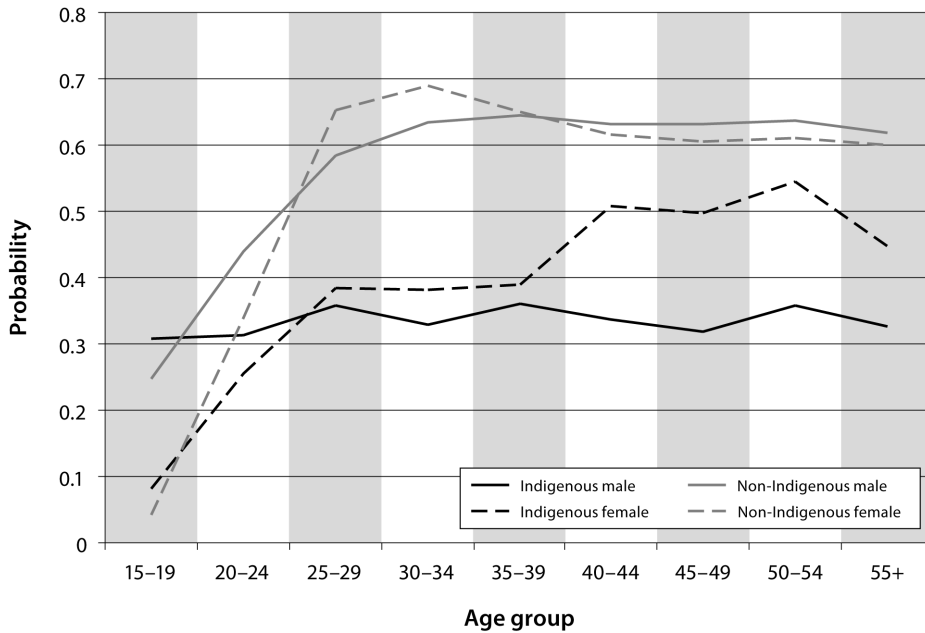
median income for Managers who were employed full-time was \$1 087 per week, whereas for employed Professionals it was \$1 207 per week. The former category includes: Chief Executives; General Managers; Farmers and Farm Managers; Specialist Managers; as well as Hospitality, Retail and Service Managers. Professional occupations are found across a diverse range of industries in the government and private sector, but are generally occupations that require a bachelor degree or higher (ABS 2006b). Examples include teachers, doctors, lawyers as well as information and communication technology professionals.

Not only do Managers and Professionals have higher income on average than other occupation groupings (the next highest group in the ANZSCO, Technicians and Trades Workers, had a median income of \$801), they also hold a level of prestige within the community that other occupations do not. Furthermore, the working conditions in these occupations are likely to be more pleasant on average than the conditions in other occupations, including the level of autonomy held by workers. These more favourable working conditions can result in an ability and desire to remain productive for a much longer period of time, extending the potential number of years that a person can work across the lifecourse.

Managers and Professionals have been one of the fastest growing groups of occupations over recent years (Birrell and Rapson 2006). In order for Indigenous Australians to take advantage of continued growth in demand for highly skilled labour, it is important to understand the factors that are associated with their current rate of employment. The percentage of Indigenous and non-Indigenous Australians identified as being employed as a Manager or Professional according to the 2006 Census is presented in Fig 6.3. Once again, the focus is on individuals who were employed only.

Of the four demographic groupings in the 15–19 year age group, Indigenous males have the highest probability of being a Manager or Professional. At 30.8 per cent, this is slightly higher than the probability for non-Indigenous males (24.9%), but substantially higher than the probability for Indigenous and non-Indigenous females (8.1% and 4.3% respectively). This higher probability is likely to reflect the lower age at which males in general and Indigenous males in particular leave school. Unlike the three other age groups, there is no substantial increase in the probability of being employed as a Manager or Professional across the lifecourse for Indigenous males (conditional on being employed at all). The probability for an Indigenous male worker aged 35–39 years when the probability peaks (36.1%) is only slightly higher than the probability at the start of working life. This flat age profile means that non-Indigenous males and females overtake Indigenous males by the 20–24 year age group, with Indigenous females having a higher probability by the 25–29 year age group.

**Fig. 6.3 Probability of being employed as a Manager or Professional, employed population, 2006**



Source: Customised calculations using the 2006 5% CSE, ABS Census of Population and Housing

## Modelling managerial and professional employment across the lifecycle

The previous figure showed distinct lifecycle patterns for all four demographic groupings. Table 6.3 uses the probability of being employed as a Manager or Professional (conditional on being employed) as the dependent variable to test the extent to which these patterns and differences are explained by other characteristics. The results presented in Model 1 in Table 6.3 confirm that, after controlling for age and sex only, employed Indigenous Australians are less likely to be employed as a Manager or Professional compared to their employed non-Indigenous counterparts. While the Indigenous status variable is negative and significant in Model 2 as well, the size of the estimated marginal effect declines substantially (from  $-0.208$  to  $-0.045$ ). It would appear that the main reason why Indigenous workers have a lower probability than non-Indigenous workers is to be found in other characteristics.

**Table 6.3 Factors associated with the probability of being employed as a Manager or Professional, employed population, 2006****Part A: Demographic and geographic variables**

Explanatory variables <sup>a</sup>	Total population		Indigenous population	
	Model 1	Model 2	Model 3	Model 4
Indigenous	-0.208	-0.045		
Female	0.056	n.s.	n.s.	n.s.
Aged 15–19	-0.378	0.009	0.066	0.068
Aged 20–24	-0.191	-0.009	0.045	0.040*
Aged 25–29	-0.050	-0.006	n.s.	n.s.
Aged 35–39	0.012	0.008	n.s.	n.s.
Aged 40–44	n.s.	0.010	0.044*	n.s.
Aged 45–49	n.s.	0.010	n.s.	n.s.
Aged 50–54	n.s.	0.012	0.061	0.065
Aged 55+	-0.015	0.016	0.058	0.061
Aged 15–19, female	-0.435	-0.216	-0.262	-0.302
Aged 20–24, female	-0.163	-0.076	n.s.	n.s.
Aged 25–29, female	n.s.	-0.015	n.s.	n.s.
Aged 35–39, female	-0.053	n.s.	n.s.	n.s.
Aged 40–44, female	-0.072	n.s.	n.s.	n.s.
Aged 45–49, female	-0.084	0.006*	n.s.	n.s.
Aged 50–54, female	-0.084	0.011	n.s.	n.s.
Aged 55+, female	-0.076	0.018	n.s.	n.s.
Victoria		n.s.	n.s.	n.s.
Queensland		-0.010	-0.060	-0.059
South Australia		-0.003	-0.086	-0.078
Western Australia		n.s.	-0.036*	n.s.
Tasmania		-0.005*	n.s.	n.s.
Northern Territory		n.s.	n.s.	n.s.
Australian Capital Territory		0.027	n.s.	n.s.
Major city		-0.002	0.021*	n.s.
Probability of the base case <sup>b</sup>	0.633	0.930	0.880	0.872
Pseudo R-Squared	0.0496	0.2415	0.2259	0.2274
Number of observations	322 637	281 932	3 196	3 084



## Part B: Socioeconomic and other variables

Explanatory variables <sup>a</sup>	Total population		Indigenous population	
	Model 1	Model 2	Model 3	Model 4
Changed usual residence in the last 5 years		n.s.	n.s.	n.s.
Changed usual residence in the last year		n.s.	n.s.	n.s.
Secondary school student		-0.248	n.s.	n.s.
Tertiary student		-0.093	n.s.	n.s.
Part-time student		0.062	0.054 *	n.s.
Completed Year 9 or less		-0.093	-0.186	-0.186
Completed Year 10 or 11		-0.044	-0.055	-0.054
Does not have any qualifications		-0.433	-0.628	-0.637
Has a Diploma or Certificate only		-0.176	-0.315	-0.326
Speaks another language and English well		-0.050	-0.061	-0.076
Speaks another language and English not well or not at all		-0.125	n.s.	n.s.
Never married		-0.032	n.s.	n.s.
Divorced, separated or widowed		-0.029	n.s.	n.s.
Has had at least one child (for females)		-0.035	0.037	n.s.
Has a 'core activity' need for assistance		-0.065	n.s.	n.s.
Provides unpaid child care (all)		0.005	n.s.	n.s.
Provides unpaid child care for children other than own		-0.006	n.s.	n.s.
Provides unpaid assistance for someone with a disability		n.s.	n.s.	n.s.
Employed in the government sector		0.027	0.029	0.033
Lives in a mixed Indigenous and non-Indigenous household				n.s.
Probability of the base case <sup>b</sup>	0.633	0.930	0.880	0.872
Pseudo R-Squared	0.0496	0.2415	0.2259	0.2274
Number of observations	322 637	281 932	3 196	3 084

<sup>a</sup> n.s. = Those variables that were not significant at the 10% level of significance.

\* = Those variables that were significant at the 10% level of significance but not the 5% level

<sup>b</sup> The base case for the total population is non-Indigenous. For all estimates, the base case is aged 30–34 years and in addition, for Models 2–4 (for the total population and for the Indigenous estimates), the base case lives in New South Wales, outside a major city, did not change usual residence in the last five years, has completed Year 12, does not have any qualifications, is not studying, speaks English only, is currently married, has not had any children, and does not provide unpaid child care or assistance to someone with a disability. In addition, the base case person is employed in the private as opposed to government sector. For Model 4, an additional characteristic of the base case is that they are living in an Indigenous-only household.

Source: Customised calculations using the 2006 5% CSE, ABS Census of Population and Housing

As seen in Table 6.1, education explained most of the difference between the Indigenous and non-Indigenous population (in Model 2 in employment as a Manager or Professional), as well as differences within the Indigenous population (in Models 3 and 4). To put the magnitude of the differences by education in perspective, an Indigenous male who has completed Year 12 and has a degree (and has all the other characteristics of the base case) has a predicted probability of being a Manager or Professional equal to 0.880. A non-Indigenous male with similar characteristics has a predicted probability of 0.930 – not too much higher. On the other hand, an Indigenous male who has completed Year 9 or less only and does not have any qualifications (but otherwise identical characteristics) has a probability of 0.066, compared to a non-Indigenous male with the same characteristics with a probability of 0.404. Once again, not only do Indigenous Australians have lower levels of education, it would seem that a lack of skills has a bigger effect as well.

## Voluntary and unpaid domestic work

Not all productive work that takes place in an economy is in the form of paid employment. Volunteer work and unpaid domestic work both contribute to output of goods and services, even if they are not reflected in labour market statistics or a country's gross domestic product. Individuals who undertake volunteer work provide a number of services that may otherwise need to be provided by government. These services benefit disproportionately the most vulnerable members of society. Unpaid domestic work provides benefits to the household (for example cleaning, cooking, or general maintenance) that would otherwise need to be paid for from the income of those in paid employment. Using the National Aboriginal and Torres Strait Islander Survey (NATSIS 1994), Smith and Roach (1996) analysed the extent of Indigenous involvement in voluntary work. The authors found that Indigenous volunteers were generally younger with differing peak involvement for males and females, were likely to be in the participating in the mainstream labour force and lived outside capital cities.. The most common type of Indigenous voluntary work after discounting subsistence work was working within community organisations. However, the NATSIS does not have a non-Indigenous comparison.

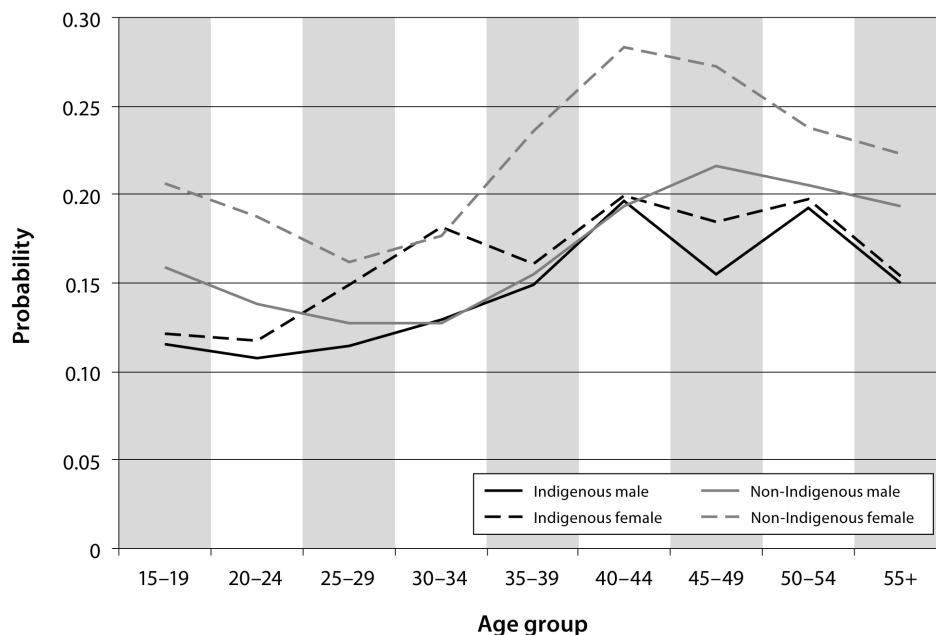
For the first time, the 2006 Census included separate questions on whether or not a person undertook voluntary work for an organisation or group in the preceding 12 months, as well as whether they undertook unpaid domestic work. For the latter, individuals were also asked to estimate the number of hours in the previous week with the options being: less than 5 hours; 5–14 hours; 15–29 hours; and 30 hours or more. The next part of this section considers the probability and factors associated with voluntary work across the lifecourse,

while the final part of the section repeats this analysis for unpaid domestic work. This is the first time such analysis comparing voluntary and unpaid domestic work by the Indigenous and non-Indigenous Australian population has been undertaken.

## Summarising voluntary work across the lifecycle

The probability of undertaking voluntary work starts off highest for non-Indigenous females at around 20.7 per cent of the population, with Indigenous males and females both having substantially lower probabilities (11.5% and 12.2% respectively). The probability for non-Indigenous males (15.9%) falls somewhere in between. These probabilities then decline for non-Indigenous males and females such that Indigenous and non-Indigenous males, as well as Indigenous and non-Indigenous females, have roughly the same probabilities in the 30–34 year age group. The probabilities for non-Indigenous females diverge once more such that at the peak age for this group (40–44 years), the probability for this demographic group is 8 to 9 percentage points above that of the other three groups.

**Fig. 6.4 Probability of undertaking volunteer work, 2006**



Source: Customised calculations using the 2006 5% CSE, ABS Census of Population and Housing

## Modelling voluntary work across the lifecourse

While the levels are different, Fig. 6.4 shows that the patterns of voluntary work across the lifecourse are similar for non-Indigenous males and females, with Indigenous males and females also having a similar shape, apart from during the late-twenties and early-thirties. The results presented in Table 6.4 consider whether other characteristics of the individual are associated with voluntary work and, if so, the extent to which the differences presented in Fig. 6.4 remain, after controlling for these characteristics.

Reflecting the fact that there is a trade-off in many ways between undertaking voluntary work and undertaking paid work, Models 2–4 include a variable for the person not being employed, whether or not they are employed part-time, whether or not they are employed in the public sector, and whether or not they are an owner or manager of a business or a contributing family worker. The base case for the analysis is therefore a person who is employed full-time in the private sector as an employee who does not own the business.

**Table 6.4 Factors associated with the probability of having undertaken voluntary work for an organisation or group in the previous 12 months, population aged 15 years and over, 2006**

**Part A: Demographic and geographic variables**

Explanatory variables <sup>a</sup>	Total population		Indigenous population	
	Model 1	Model 2	Model 3	Model 4
Indigenous	-0.031	-0.030		
Female	0.050	0.037	n.s.	n.s.
Aged 15–19	0.031	0.028	n.s.	n.s.
Aged 20–24	0.010	0.036	n.s.	n.s.
Aged 25–29	n.s.	0.023	n.s.	n.s.
Aged 35–39	0.027	0.025	n.s.	n.s.
Aged 40–44	0.067	0.086	0.109	0.113
Aged 45–49	0.088	0.114	0.075	0.084
Aged 50–54	0.078	0.107	0.133	0.136
Aged 55 +	0.066	0.107	0.100	0.104
Aged 15–19, female	-0.007*	n.s.	n.s.	n.s.
Aged 20–24, female	n.s.	n.s.	-0.074*	n.s.
Aged 25–29, female	-0.012	-0.022	n.s.	n.s.
Aged 35–39, female	0.018	0.045	-0.069*	n.s.
Aged 40–44, female	0.016	0.055	-0.075*	-0.075
Aged 45–49, female	-0.007	0.033	n.s.	n.s.
Aged 50–54, female	-0.020	0.016	n.s.	n.s.
Aged 55 +, female	-0.022	0.041	n.s.	n.s.
Victoria		n.s.	n.s.	n.s.
Queensland		0.008	n.s.	n.s.
South Australia		0.034	n.s.	n.s.
Western Australia		-0.008	n.s.	n.s.
Tasmania		-0.037	n.s.	n.s.
Northern Territory		-0.016	-0.091	-0.088
Australian Capital Territory		0.041	n.s.	n.s.
Major city		-0.080	-0.020*	-0.019*
Probability of the base case <sup>b</sup>	0.128	0.253	0.240	0.222
Pseudo R-Squared	0.0107	0.0783	0.0867	0.0868
Number of observations	712 317	590 457	9 189	8 820

## Part B: Socioeconomic and other variables

Explanatory variables <sup>a</sup>	Total population		Indigenous population	
	Model 1	Model 2	Model 3	Model 4
Changed usual residence in the last 5 years		-0.024	n.s.	n.s.
Changed usual residence in the last year		-0.009	n.s.	n.s.
Secondary school student		0.177	0.129	0.109
Tertiary student		0.147	0.143	0.146
Part-time student		-0.035	n.s.	n.s.
Completed Year 9 or less		-0.098	-0.108	-0.102
Completed Year 10 or 11		-0.050	-0.088	-0.081
Does not have any qualifications		-0.120	-0.115	-0.109
Has a Diploma or Certificate only		-0.070	-0.041*	-0.040*
Speaks another language and English well		-0.101	n.s.	n.s.
Speaks another language and English not well or not at all		-0.168	-0.133	-0.113
Never married		-0.039	-0.049	-0.041
Divorced, separated or widowed		-0.041	-0.036	-0.032*
Has had at least one child (for females)		-0.033	n.s.	n.s.
Has a 'core activity' need for assistance		-0.099	n.s.	n.s.
Provides unpaid child care (all)		0.067	0.081	0.078
Provides unpaid child care for children other than own		0.055	0.056	0.055
Provides unpaid assistance for someone with a disability		0.100	0.132	0.125
Not employed		0.077	n.s.	n.s.
Owner or manager of a business or contributing family worker		0.052	0.058	0.056*
Employed in the government sector		0.031	0.037	0.039
Employed part-time		0.056	n.s.	0.028*
Lives in a mixed Indigenous and non-Indigenous household				n.s.
Probability of the base case <sup>b</sup>	0.128	0.253	0.240	0.222
Pseudo R-Squared	0.0107	0.0783	0.0867	0.0868
Number of observations	712 317	590 457	9 189	8 820

<sup>a</sup> n.s. = Those variables that were not significant at the 10% level of significance.

\* = Those variables that were significant at the 10% level of significance but not the 5% level

<sup>b</sup> The base case for the total population is non-Indigenous. For all estimates, the base case is aged 30–34 years and in addition, for Models 2–4 (for the total population and for the Indigenous estimates), the base case lives in New South Wales, outside a major city, did not change usual residence in the last five years, has completed Year 12, does not have any qualifications, is not studying, speaks English only, is currently married, has not had any children, and does not provide unpaid child care or assistance to someone with a

disability. In addition, the base case person is employed full-time in the private sector as an employee who does not own the business. For Model 4, an additional characteristic of the base case is that they are living in an Indigenous-only household.

Source: Customised calculations using the 2006 5% CSE, ABS Census of Population and Housing

The results presented in Table 6.4 confirm that Indigenous Australians are less likely to report that they undertook voluntary work in the 12 months preceding the census than non-Indigenous Australians. This was true after controlling for age and sex only (in Model 1), as well as a range of other observable characteristics (in Model 2). It may be the case that the type of voluntary work undertaken by Indigenous Australians is underreported in the census. In particular, the voluntary work that Indigenous Australians undertake may not be for an organisation or group, but as an individual or through informal networks. However, taking the question on the census at face value, the results presented in Table 6.4 are an indication that voluntary work may be less common for Indigenous Australians compared to non-Indigenous Australians across the lifecycle. This lower probability is potentially problematic for two reasons. Firstly, given the spatial concentration of Indigenous Australians by suburb and neighbourhood (Biddle 2009c) and the likelihood that a large proportion of voluntary work that is undertaken takes place in one's local area, these results may be an indication that less voluntary work is being undertaken in the areas in which Indigenous Australians live. The second reason to be concerned about the results for Models 1 and 2 in Table 6.4 regards the benefits that voluntary work can bring to the individual undertaking it. This includes the development of one's skills as well as the social and community interaction that voluntary work can bring (Thoits and Hewitt 2001).

While the results from Models 1 and 2 provide strong evidence for Indigenous Australians being less likely to undertake voluntary work than non-Indigenous Australians, the results from Models 3 and 4 show that there is also significant variation within the Indigenous population. There appears to be a strong association with education. In terms of education participation, secondary and tertiary students are more likely to undertake voluntary work than those who are not studying. In terms of education completion, people with lower levels of education are generally less likely to undertake voluntary work than people who have completed Year 12 or who have a degree. It is interesting to note that for the total population (Model 2), individuals who were not in paid employment are more likely to undertake voluntary work than individuals who are employed. This is the expected situation given the additional hours available to individuals who are not working. However, for the Indigenous population there is no significant difference between those who are employed and those not employed, nor a significant difference between people working part-time

and full-time (at least at the 5% level of significance). For the non-Indigenous population, voluntary work and paid employment appear to be substitutes. For the Indigenous population, on the other hand, they appear to be unrelated.

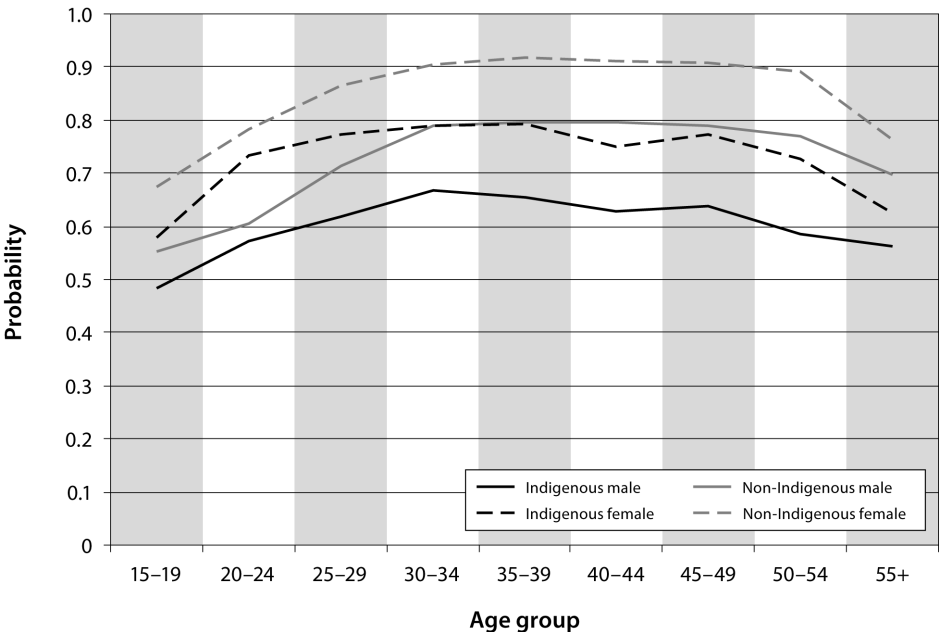
## Unpaid domestic work across the lifecourse

The final type of work considered in this chapter is unpaid domestic work. Fig. 6.5 gives the percentage of the Indigenous and non-Indigenous male and female population aged 15 years and over who undertook one hour or more of unpaid domestic work in the week preceding the census. It shows that females were more likely to report that they undertook at least one hour or more of unpaid domestic work per week than males and, for both sexes and for all ages, non-Indigenous Australians had a higher probability than Indigenous Australians. For all four age groups the probability increases up until a person's early thirties, levels off for the next 15–20 years, and then declines for the 55–plus population.

Undertaking one hour or more per week of domestic work is a reasonably low threshold. Indeed, apart from Indigenous males aged 15–19 years, all other age and demographic group combinations had a probability greater than 0.5. For non-Indigenous females aged 30–49, more than 90 per cent of the population reported working at least one hour. Undertaking relatively low numbers of hours is unlikely to impact significantly on other leisure or work activities, and hence Fig. 6.6 replicates the above analysis using the more stringent cut-off of undertaking five hours or more per week of domestic work.

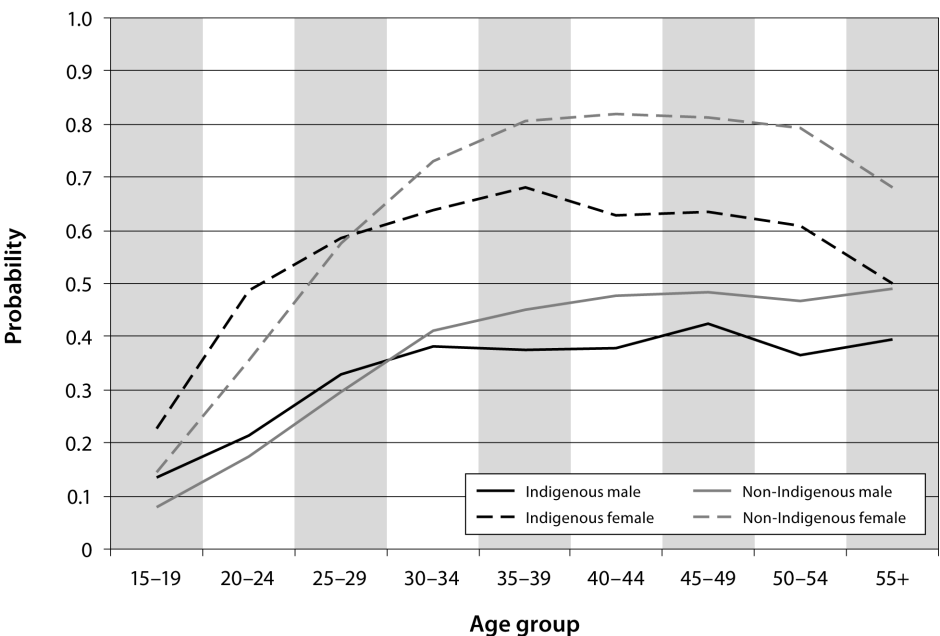


**Fig. 6.5 Probability of undertaking unpaid domestic work, 2006**



Source: Customised calculations using the 2006 5% CSE, ABS Census of Population and Housing

**Fig. 6.6 Probability of undertaking five hours or more of unpaid domestic work, 2006**



Source: Customised calculations using the 2006 5% CSE, ABS Census of Population and Housing

By restricting the threshold to five hours or more per week, Fig. 6.6 shows a much greater degree of variation across the lifecourse than was found in Fig. 6.5. The main stylised fact remains that females are more likely to report doing unpaid work than males, and non-Indigenous Australians are more likely to report doing unpaid work than Indigenous Australians. However, the differences between males and females are much greater when the higher threshold is used, whereas the differences between Indigenous and non-Indigenous Australians reduce. Indeed, up to and including the 25–29 year age group, the probability for Indigenous males and females is higher than non-Indigenous males and females respectively. This last finding may be related to the greater level of child care responsibility for Indigenous Australians of this age, as shown earlier in this volume.

## Modelling unpaid domestic work across the lifecourse

The final model in this section looks at the factors associated with undertaking unpaid domestic work. Given the greater variation across the lifecourse found when using the stricter threshold and the relatively small impact on leisure or paid work from undertaking unpaid domestic work for 1–4 hours only, the dependent variable for the following analysis is undertaking unpaid work for five hours or more per week (compared to zero hours or 1–4 hours).

**Table 6.5 Factors associated with the probability of undertaking unpaid domestic work, 2006****Part A: Demographic and geographic variables**

Explanatory variables <sup>a</sup>	Total population		Indigenous population	
	Model 1	Model 2	Model 3	Model 4
Indigenous	-0.056	-0.083		
Female	0.318	0.199	0.124	0.131
Aged 15–19	-0.330	-0.234	-0.146	-0.144
Aged 20–24	-0.237	-0.161	-0.110	-0.112
Aged 25–29	-0.113	-0.057	n.s.	n.s.
Aged 35–39	0.040	n.s.	n.s.	n.s.
Aged 40–44	0.065	0.018	n.s.	n.s.
Aged 45–49	0.070	0.040	0.076	0.075
Aged 50–54	0.054	0.053	n.s.	n.s.
Aged 55 +	0.079	0.086	0.084	0.089
Aged 15–19, female	-0.174	-0.072	n.s.	n.s.
Aged 20–24, female	-0.094	-0.024	0.086*	0.077*
Aged 25–29, female	-0.042	n.s.	n.s.	n.s.
Aged 35–39, female	0.055	0.033	0.087*	n.s.
Aged 40–44, female	0.049	0.037	n.s.	n.s.
Aged 45–49, female	0.035	0.041	n.s.	n.s.
Aged 50–54, female	0.024	0.021	n.s.	n.s.
Aged 55 +, female	-0.127	-0.099	-0.073*	-0.074*
Victoria		0.007	n.s.	n.s.
Queensland		0.017	-0.031	-0.026*
South Australia		0.039	n.s.	n.s.
Western Australia		0.016	-0.073	-0.063
Tasmania		0.011	n.s.	n.s.
Northern Territory		n.s.	-0.098	-0.087
Australian Capital Territory		0.050	n.s.	n.s.
Major city		-0.034	n.s.	n.s.
Probability of the base case <sup>b</sup>	0.412	0.407	0.404	0.389
Pseudo R-Squared	0.1304	0.2167	0.1822	0.1779
Number of observations	707 583	584 939	9 076	8 710

## Part B: Socioeconomic and other variables

Explanatory variables <sup>a</sup>	Total population			Indigenous population
	Model 1	Model 2	Model 3	Model 4
Changed usual residence in the last 5 years		0.023	0.033	0.037
Changed usual residence in the last year		0.005	n.s.	n.s.
Secondary school student		-0.175	-0.151	-0.140
Tertiary student		-0.080	n.s.	n.s.
Part-time student		0.086	n.s.	n.s.
Completed Year 9 or less		-0.046	-0.059	-0.052
Completed Year 10 or 11		n.s.	n.s.	n.s.
Does not have any qualifications		-0.065	-0.099	-0.099
Has a Diploma or Certificate only		-0.008	n.s.	n.s.
Speaks another language and English well		-0.087	n.s.	n.s.
Speaks another language and English not well or not at all		-0.141	-0.217	-0.202
Never married		-0.097	-0.102	-0.094
Divorced, separated or widowed		-0.097	-0.076	-0.069
Has had at least one child (for females)		0.157	0.095	0.096
Has a 'core activity' need for assistance		-0.256	-0.122	-0.105
Provides unpaid child care (all)		0.180	0.228	0.228
Provides unpaid child care for children other than own		0.006*	n.s.	n.s.
Provides unpaid assistance for someone with a disability		0.170	0.175	0.168
Not employed		0.130	0.064	0.061
Owner or manager of a business or contributing family worker		-0.036	0.066	0.060*
Employed in the government sector		0.069	0.066	0.063
Employed part-time		0.089	0.069	0.068
Undertook voluntary work in the preceding 12 months		0.101	0.111	0.113
Lives in a mixed Indigenous and non-Indigenous household				0.025
Probability of the base case <sup>b</sup>	0.412	0.407	0.404	0.389
Pseudo R-Squared	0.1304	0.2167	0.1822	0.1779
Number of observations	707 583	584 939	9 076	8 710

<sup>a</sup> n.s. = Those variables that were not significant at the 10% level of significance.

\* = Those variables that were significant at the 10% level of significance but not the 5% level

<sup>b</sup> The base case for the total population is non-Indigenous. For all estimates, the base case is aged 30–34 years and in addition, for Models 2–4 (for the total population and for the Indigenous estimates), the base case lives in New South Wales, outside a major city, did not change usual residence in the last five years, has completed Year 12, does not have any qualifications, is not studying, speaks English only, is currently married, has not had any children, and does not provide unpaid child care or assistance to someone with

a disability. In addition, the base case person is employed full-time in the private sector as an employee who does not own the business and did not undertake voluntary work in the preceding 12 months. For Model 4, an additional characteristic of the base case is that they are living in an Indigenous-only household.

Source: Customised calculations using the 2006 5% CSE, ABS Census of Population and Housing

While Model 1 shows that Indigenous Australians were less likely to report undertaking five or more hours of unpaid work than non-Indigenous Australians after controlling for age and sex, it is interesting to note that the difference actually increases after controlling for other characteristics. For example, Indigenous females were more likely to have had children than non-Indigenous Australians and more likely to not be employed. If employed, they were more likely to be in the government sector or employed part-time. All these characteristics were shown in Model 2 to be positively associated with undertaking unpaid work and hence, once they are controlled for, the predicted difference between Indigenous and non-Indigenous Australians increases.

## Employment across the Indigenous lifecourse

The analysis presented in this chapter was motivated to a certain extent by the target set by COAG to halve the gap in employment percentages between Indigenous and non-Indigenous Australians by 2018. As mentioned above, this focus on employment is sensible given the link between employment and other socioeconomic outcomes. While the results presented in this chapter confirmed that Indigenous males and females were significantly less likely to be employed at all points across the lifecourse than their non-Indigenous counterparts, it was also shown that once observable characteristics had been controlled for, the differences declined substantially.

The policy implications of this finding are clear. To reduce the employment disparity between Indigenous and non-Indigenous Australians, the main focus should be on the characteristics they bring to the labour market. This includes the obvious need to improve education and skills. However, less obvious factors like child-rearing, and the poor health of the individual and those they are taking care of, cannot be ignored. Importantly, there was no significant difference between Indigenous Australians who lived in major cities compared to Indigenous Australians who live in the rest of the country. That is, there is no evidence from this analysis that encouraging Indigenous Australians to change location will lead to significant change in employment outcomes. Rather, the focus should be on making sure Indigenous Australians have the skills and training to compete for the jobs that are available in the areas in which they currently live.

In many ways, reducing the gap between Indigenous and non-Indigenous Australians in terms of the percentage of the population employed is just the first step in reducing labour market disadvantage. Even after focusing on the employed only, Indigenous Australians were shown to be less likely to be employed full-time and less likely to be employed as a Manager or Professional. Both of these employment types are associated with better conditions and higher pay. For both types of employment, the gap between Indigenous and non-Indigenous Australians decreased substantially after controlling for other factors. Once again, it would seem that observable factors explain much of the difference between Indigenous and non-Indigenous Australians in terms of hours worked and occupation.

It is not clear whether the decision by COAG to focus on halving as opposed to fully closing the gap between Indigenous and non-Indigenous Australians in terms of employment was due to a realistic assessment of the chances of achieving the latter, or because of a recognition that not all Indigenous Australians desire to maintain a full-time job in the mainstream labour market. Results presented in previous chapters have clearly shown the large gaps between some of the determinants of employment, including education and fertility, highlighting the need for a realistic assessment of what can be achieved. However, it is unfortunate that many of the alternative activities in arts, craft, hunting, gathering and fishing (what Altman (2009) refers to as the hybrid economy) that Indigenous Australians are disproportionately engaged in are not well captured by large-scale, nationally representative surveys.

Two non-market activities that are captured in the census are working as a volunteer and unpaid domestic work. The results presented in this chapter are the first detailed comparative analysis of the variation in these two activities between Indigenous and non-Indigenous Australians and across the lifecourse. For both of these activities (but particularly for unpaid domestic work), females are more likely to participate than males. Furthermore, after controlling for age and sex, Indigenous Australians are less likely to participate than the non-Indigenous population.

It is difficult to identify clear policy implications from the analysis of volunteering and unpaid domestic work presented in this chapter. In terms of unpaid domestic work, the differences between Indigenous and non-Indigenous Australians may reflect the larger household size of the former and the greater sharing of domestic work. Perhaps the most relevant finding from the analysis was that for the Indigenous population, volunteering and paid work appear to act as complements, whereas for the non-Indigenous population they appear to be substitutes. This may be an indication of a lack of access to formal volunteering opportunities for Indigenous Australians who are not employed, and an indication of volunteer organisations and services not being available

in the areas in which Indigenous Australians live. On the other hand though, it may simply be the case that the type of volunteer and community work that Indigenous Australians are engaged in is not well captured by the census, as demonstrated by the slightly higher percentage of people who reported that they participated in voluntary work according to the 2002 NATSISS (ABS 2004).