

10. An Indigenous lifecourse? Implications and limitations

The overarching aim of this study is to consider whether there is something different about the Indigenous lifecourse compared to the non-Indigenous lifecourse as observed in the 5% Sample File from the 2006 Census. While it is not possible to track individual Indigenous Australians through time using this (or any other) dataset, the simple answer to this question would appear to be 'yes'. Of the 19 dependent variables for adults, there is a significant difference between Indigenous and non-Indigenous Australians for all of them, either before or after controlling for other characteristics. Furthermore, there is a significant difference between Indigenous and non-Indigenous children for all six of the estimations carried out on 0–14 year olds.

Not only are there differences between Indigenous and non-Indigenous Australians in terms of levels, there are also substantial differences in patterns across the lifecourse for a number of the dependent variables. While much of the analysis presented in this paper points to differences between the Indigenous and non-Indigenous populations, it also shows that in many cases there is as much variation within these two populations as there is between them. In a number of instances, the factors associated with the particular demographic or socioeconomic variable varies between the two populations. However, the relationship between demographic and socioeconomic variables is also shown to be vitally important.

In this final chapter, we summarise the main results from the analysis. We draw together results from all the dependent variables in order to determine what we can say about the Indigenous lifecourse and how it varies from that of the non-Indigenous population. The section that follows discusses some of the implications from the analysis in terms of policy planning. The final section of this chapter discusses the limitations of the data used in the analysis, as well as the potential scope for ongoing analysis of the Indigenous lifecourse.

An Indigenous lifecourse?

Is there a typical Indigenous lifecourse? If so, does it vary from the typical non-Indigenous lifecourse? In answer to the first question – no, probably not. There is substantial variation within the Indigenous population across the lifecourse in the incidence of the majority of the dependent variables. For example, a

significant minority of Indigenous children are estimated to be living in single-parent families where no-one in their household is employed or has completed Year 12. However, almost four out of five Indigenous children did not live in such families. Indeed, there are fewer Indigenous children who have this combination of family and household characteristics (21.4%) than Indigenous children who live in couple families and a household where at least one person is employed and at least one person has completed Year 12 (25.0%).

This diversity in experience continues into adulthood. Indigenous Australians who have completed Year 12 or a post-school qualification tend to have significantly different and generally better outcomes than Indigenous Australians who have not. Furthermore, childbirth and unpaid child care is associated with a number of the education, employment and housing variables. Geographic variables make up an important part of the story for many of the dependent variables, although a lower level of disaggregation for the remoteness variable would provide more insight into the differences between Indigenous people living in regional versus remote areas.

These differences within the Indigenous population should always be kept in mind when designing policy and trying to explain outcomes. With a population of over 500 000 there is substantial diversity in the outcomes and aspirations of Indigenous Australians. While there was no typical Indigenous lifecourse that was held in common by all, or in many cases most of the population, a consideration of the average Indigenous lifecourse or (in the case of this study) the average probability of having a particular characteristic at a given age can still be informative. What's more, it is also instructive to consider whether there are differences between Indigenous and non-Indigenous Australians in the probability of having that characteristic after controlling for variation across the lifecourse.

The predicted difference between Indigenous and non-Indigenous Australians in having a particular characteristic is summarised in Table 10.1. The differences reported take into account variations across lifecourse (model 1) as well as other characteristics (Model 2). As a reminder, a positive or negative value indicates Indigenous Australians are more or less likely to have that characteristic than non-Indigenous Australians, with the size of the marginal effect indicating the magnitude of that difference. To put these marginal effects into context, the predicted probability of the base case is also given, with the characteristics of the base case given in the tables of data throughout this volume.

Table 10.1 Summary of Indigenous marginal effects by dependent variable, 2006

Dependent variable – probability of ...	Model 1		Model 2	
	Prob. of base case	Marg. Effect	Prob. of base case	Marg. Effect
Adults aged 15 years and over				
Being in a registered or de facto marriage	0.454	-0.198	0.622	-0.107
Being in a registered as opposed to de facto marriage (those in any marriage)	0.709	-0.232	0.715	-0.200
Number of children ever born (females)	1.129	0.532	1.410	0.800
Providing unpaid child care	0.380	0.076	0.567	0.125
Changing place of usual residence between 2001 and 2006	0.696	-0.023	0.767	-0.034
Being away from place of usual residence	0.051	0.039	0.053	0.024
Participating in education (aged 15–24 years)	0.382	-0.219	0.293	-0.152
Participating in education (aged 25 years and over)	0.087	n.s.	0.047	0.016
Participating in university as opposed to another tertiary institute (tertiary students)	0.557	-0.189	0.467	n.s.
Being employed	0.878	-0.172	0.977	-0.032
Being employed part-time (those employed)	0.114	0.043	0.073	0.036
Being employed as a Manager or Professional (those employed)	0.633	-0.208	0.930	-0.045
Having undertaken voluntary work for an organisation or group in the previous 12 months	0.128	-0.031	0.253	-0.030
Having undertaken 5 hours or more of unpaid domestic work in the previous week	0.128	-0.056	0.253	-0.083
Living in a dwelling that is owned or being purchased	0.607	-0.379	0.872	-0.379
Living in a dwelling that is rented from a government or community organisation (those in a rented dwelling)	0.061	0.403	0.030	0.175
Living in a dwelling that has more than one person per bedroom	0.061	0.176	0.032	0.153
Reporting a 'core activity' need for assistance (aged 45 years and over)	0.023	0.041	0.006	0.007
Being a single parent	0.025	0.073	0.010	0.025
Children aged 0–14 years				
Changing place of usual residence between 2001 and 2006 (aged 5–14 years)	0.430	0.027	0.390	-0.062
Being away from place of usual residence	0.021	0.020	0.026	0.017
Attending a non-government school (school students)	0.333	-0.173	0.324	-0.087
Being in a single-parent family			0.208	0.284
Being in a household where no-one is employed			0.156	0.281
Being in a household where no-one has completed Year 12			0.473	0.272

To summarise Table 10.1, there is a significant difference for 18 out of the 19 dependent variables for adults, and for all of the dependent variables for children. The only variable for which there was not a significant difference between Indigenous and non-Indigenous Australians after controlling for age and sex was education participation for the 25 years and over age group. However, once other characteristics had been controlled for, Indigenous Australians in that age group were more likely to be participating in education than non-Indigenous Australians. On the other hand, despite there being a large difference in Model 1, after controlling for other characteristics, there was no significant difference between Indigenous and non-Indigenous tertiary students in terms of university attendance.

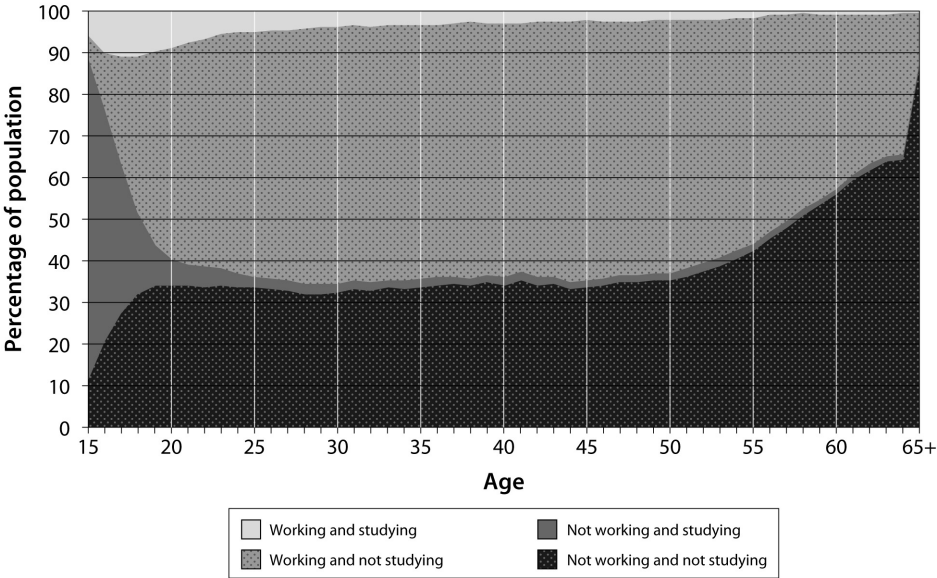
In many ways, it is not surprising that the differences between Indigenous and non-Indigenous Australians are generally significant. As mentioned in the data chapter, there were 1 002 793 respondents in the 5% CSE, of which 22 437 were identified as being Indigenous. Even after excluding observations because of non-response or age restrictions, the sample size for the majority of the estimates was large by most standards. In that sense, it is worth considering the size of the marginal effect in order to see whether the differences are qualitatively significant in addition to being statistically significant.

After controlling for observable characteristics (that is, in Model 2), there are six instances where Indigenous Australians have a predicted probability that is more than double that of the non-Indigenous population. Such a result is found for the last two of the housing variables as well as for reporting a 'core activity' need for assistance and for being a single parent. Indigenous children are also predicted to be more than twice as likely to live in a single-parent family or a household where no-one is employed. At the other extreme, non-Indigenous Australians aged 15–24 years are more than twice as likely as Indigenous Australians to be participating in education.

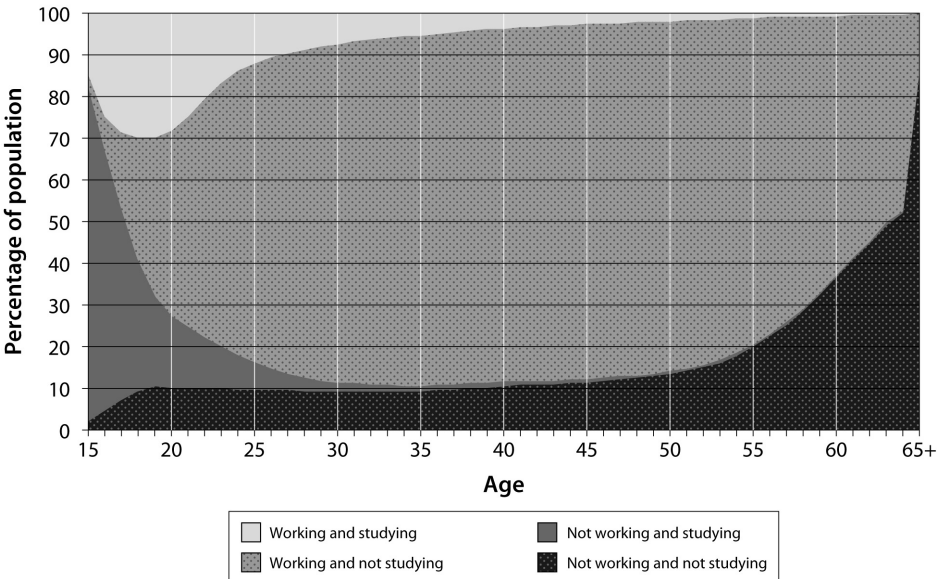
For the aforementioned variables especially, the difference in levels between Indigenous and non-Indigenous Australians are large, both qualitatively and statistically. However, it is not only in levels that the average Indigenous lifecourse is different to the non-Indigenous population – so too are the patterns. While it is not possible to summarise the patterns for all the variables in a single figure, the following two sets of figures highlight the differences across the lifecourse in average outcomes for two key economic variables (Fig. 10.1) and two key demographic variables (Fig. 10.2). The figures are constructed as the cumulative percentage of the adult population with each of the four possible combinations of outcomes – education and employment in Fig. 10.1, and marital status and unpaid child care in Fig. 10.2.¹

Fig. 10.1 Variation in education participation and work across the lifecourse, 2006

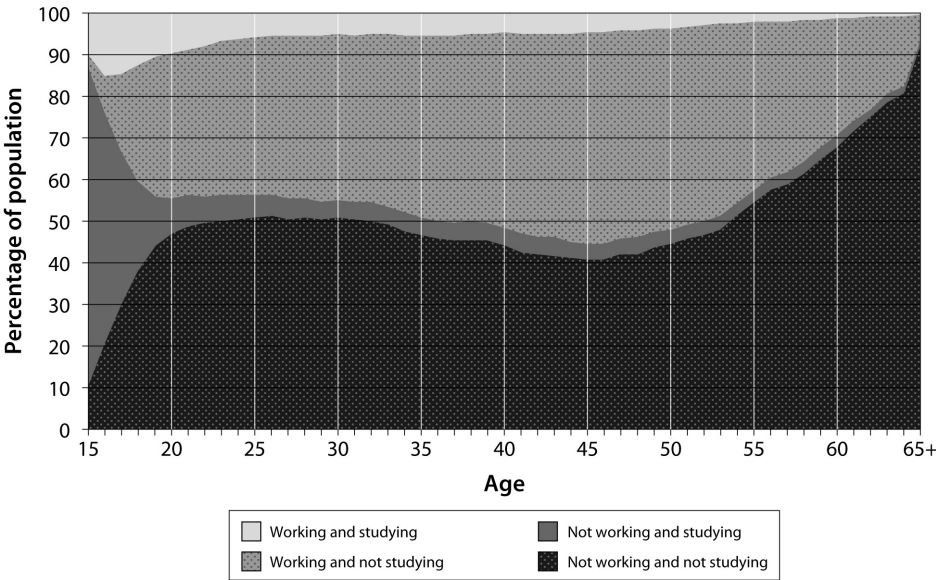
Indigenous males



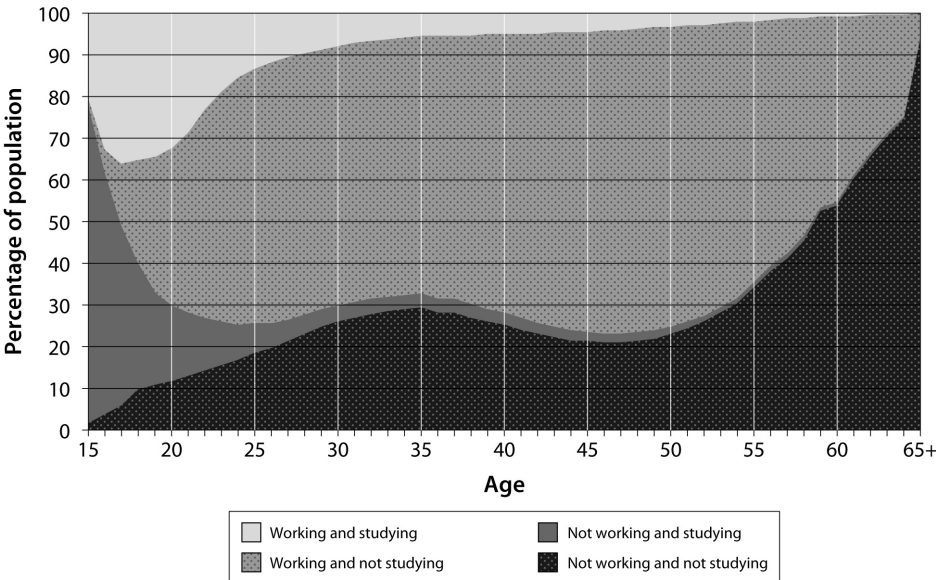
Non-Indigenous males



Indigenous females



Non-Indigenous females



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

The results presented in Fig. 10.1 point to a number of key differences between Indigenous and non-Indigenous Australians in the patterns of education participation and employment across the lifecourse. Firstly, and most obviously, Indigenous Australians spend a much higher proportion of their life both not studying and not working. For males between the ages of 18 and 49, this percentage is reasonably flat, averaging around 30–35 per cent for Indigenous males compared to 10–12 per cent for non-Indigenous males. For females, there is a localised peak during the main childbearing years. However, this peak is much higher and occurs earlier for Indigenous compared to non-Indigenous females.

The second major difference between Indigenous and non-Indigenous Australians is the flatter profile by age in terms of education participation. The percentage of the non-Indigenous population who were participating in education either without working or whilst working starts off very high and then declines dramatically. Education participation is also concentrated amongst the relatively young for the Indigenous population. However, participation rates do not fall as dramatically and are even higher than the rates for the non-Indigenous population.

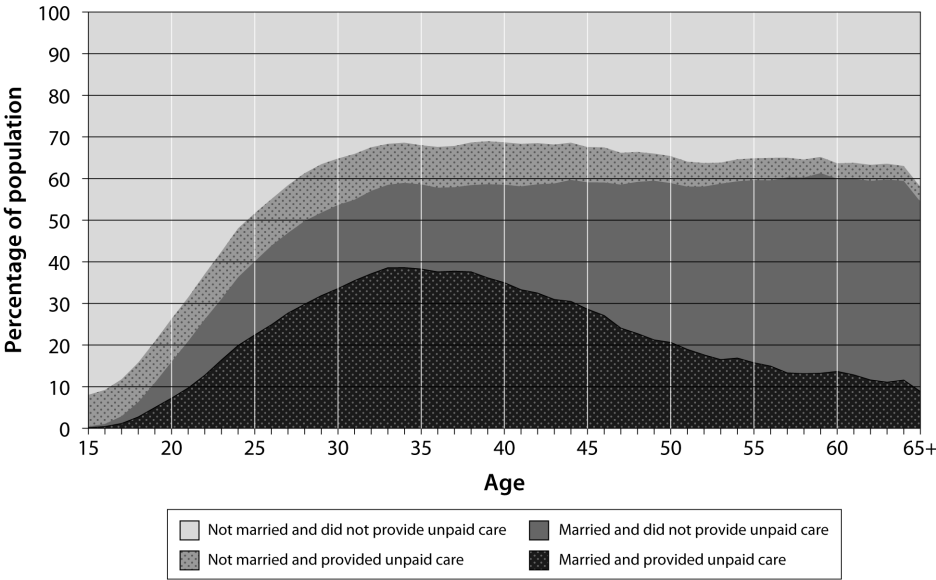
The analysis is repeated in Fig. 10.2 using two key demographic variables from the census – marital status and providing unpaid child care.²

The most noticeable difference between Indigenous and non-Indigenous Australians in general, and Indigenous and non-Indigenous females in particular, is the much higher percentage of the population who are not married but are providing unpaid child care. This is most noticeable from the age of 25 years and onwards, and is likely to explain the lower rates of employment during the prime working years and be explained by the lower rates of education participation during youth (both shown in Fig. 10.1).

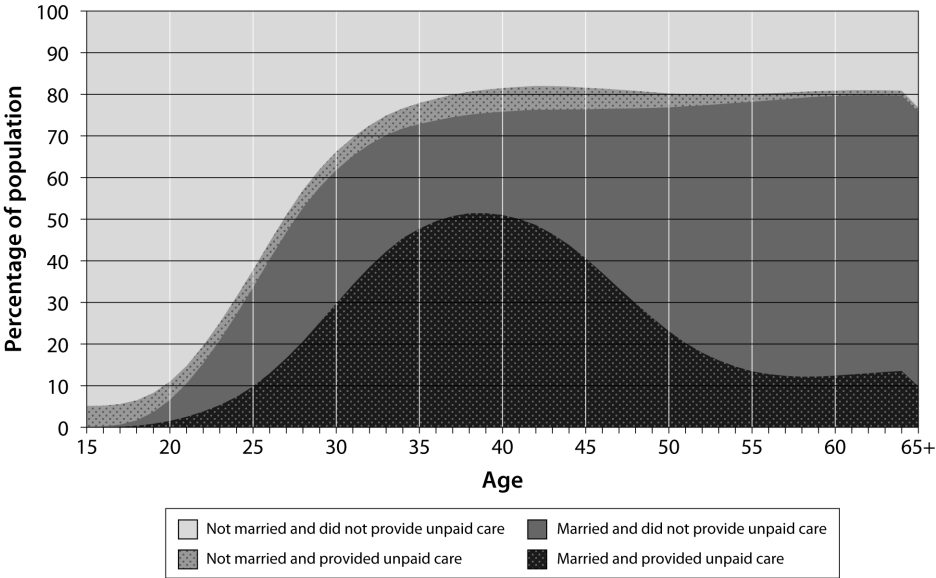
² The variable for the number of children ever born is more often used as a measure of fertility than provision of unpaid child care. However, it is not available for males, does not capture whether the child is still alive or under the primary care of the individual, and does not take into account the age of the child. Hence the number of children ever born does not adequately capture the extent to which the children that a female has had are currently playing a role in her time constraints.

Fig. 10.2 Variation in marital status and unpaid child care across the lifecourse, 2006

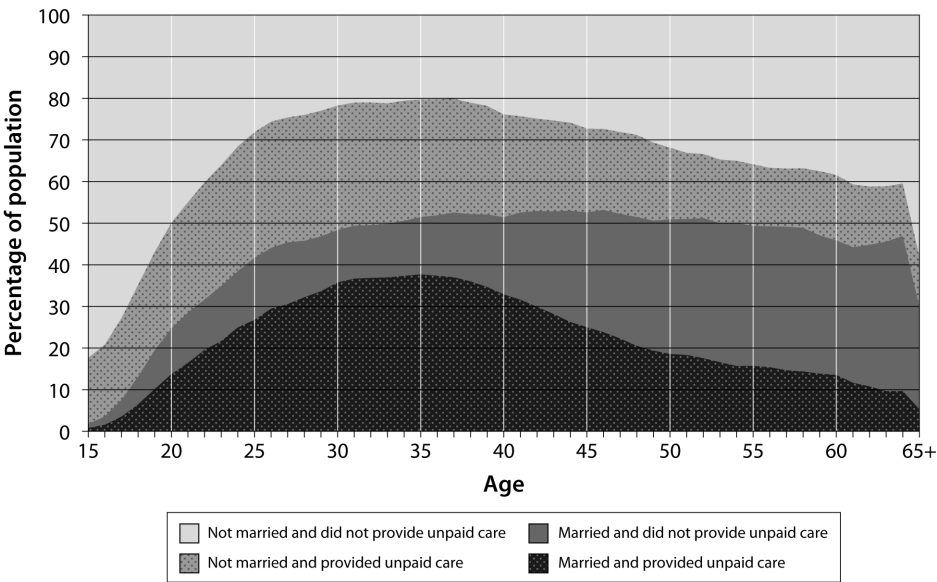
Indigenous males



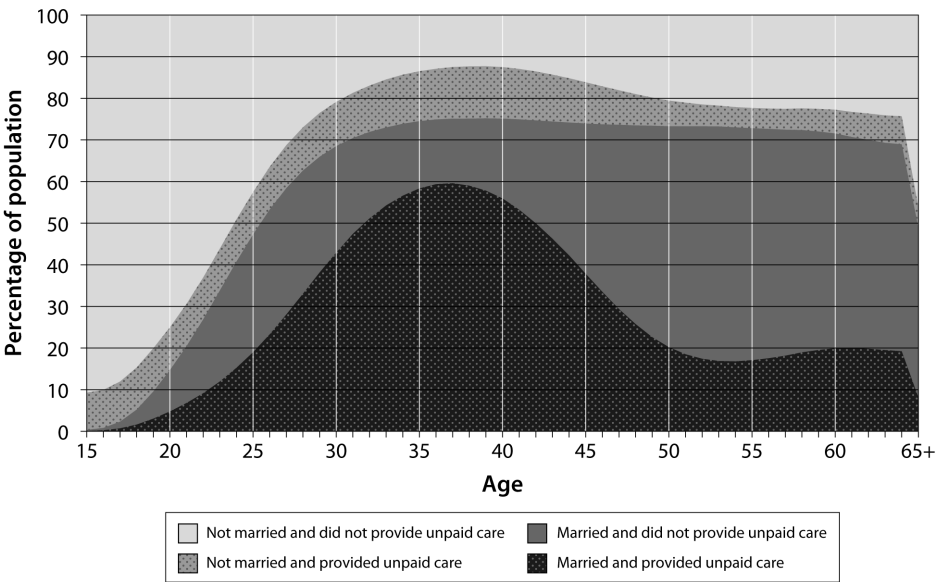
Non-Indigenous males



Indigenous females



Non-Indigenous females



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

Implications for policy and planning

The differences across the lifecourse summarised in Figures 10.1 and 10.2 are just a few examples of the many variables summarised in this paper. While specific to the individual variables, the research and policy implications of these specific results are reasonably clear and covered in the individual sections. Less clear are the overarching policy implications. What makes it difficult to provide specific policy recommendations are the two major data limitations. As covered in the following section (and in more detail in Chapter 2), it is not possible to track individuals through time, to identify individual life events, or establish causal relationships between the variables.

Despite these limitations, there are a number of points raised by this study that can be used to shape Indigenous policy more generally. Firstly, by bringing together so many demographic and socioeconomic variables, it is clear how significant an influence education attainment has on such a range of outcomes. For example, it was shown that Indigenous Australians with reasonably high levels of education attainment have similar levels of employment to similarly qualified non-Indigenous Australians. It was those with relatively low skills where the difference was greatest.

The relationship between education and employment has been shown in previous research cited in this monograph. However, what this research has shown is that there is a strong association between education and a number of other variables that have not previously been analysed in such a way. This includes volunteer work, marital status and residential mobility. Furthermore, the relationship between completion of high school and education participation when older (especially at university), and the education participation of children in the household, is also highlighted. A proportion of this association is likely to be due to selection effects or unobserved characteristics of the individual, with longitudinal data required to better establish the direction of the relationship.

Another finding from the analysis that has clear policy implications is the relationship between high rates of fertility and high levels of child care provision for young Indigenous females. Much of the difference between Indigenous and non-Indigenous females in terms of education participation and employment is explained by higher fertility rates. Once again, the causal relationship is complex, with individuals who are less likely to work or undertake education for other reasons having lower opportunity costs of having children. Nonetheless, if it were feasible to reduce the high rates of Indigenous fertility amongst the relatively young, the results presented in this paper suggest that this might have flow-on effects throughout the remainder of the lifecourse.

Although variables that are significant and have large marginal effects tend to stand out from analysis such as this, there are often important policy implications from variables that were not significant. One such example is the general lack of significance or small marginal effect for the 'major city' variable in a number of the sets of analysis. For example, there is no significant difference between Indigenous Australians who live in a major city and Indigenous Australians who live in the rest of Australia once other characteristics had been controlled for in terms of residential mobility, education participation for the 25 years and over age group, and employment. While the geographic variable on the 2006 5% CSF is not ideal for undertaking analysis of the Indigenous population, it would appear that at least some of the variation by geography found for these and other variables is caused by other characteristics of the individual. In other words, for some outcomes, it is not that living outside a major city has a direct effect, but rather that the characteristics of Indigenous Australians who do live outside a major city are different.

Although the issue of multiple disadvantage has not been explicitly examined here – with the exception of child outcomes – it is important to keep in mind the multidimensional experience of disadvantage and how the variables are interlinked. Policies aimed at improving the outcomes of one will inevitably have spillover effects. Similarly, the lack of one factor may also lead to experiences of another disadvantage.

Ultimately, the general conclusion that there is significant variation within the Indigenous population across most outcomes is perhaps the most important finding from the analysis. National analysis and even analysis by jurisdiction or region tends to overlook systematic variation across individuals. By looking at averages, one can easily forget that there are many Indigenous Australians who have quite good employment or housing prospects. However, it is clear from this analysis that it is Indigenous Australians with relatively high levels of human capital that are doing well in the contemporary labour market.

Data gaps and future analysis

The title of this monograph highlights one of the main limitations of the analysis, namely the reliance on a single cross-section (the 2006 Census). So, while we are able to show the difference between a 30–34 year old and a 50–54 year old in 2006 (for example), we are not able to show how the characteristics of an individual Indigenous Australian has changed over a 20-year period. This was not an oversight or a poor choice of dataset. Rather, there is no dataset currently available that tracks a sufficient number of Indigenous Australians to

make sensible comparisons, either within the population or between Indigenous and non-Indigenous Australians. Nor are there randomized controlled trials available to properly test for causal relationships (Leigh 2010).

There are some datasets that have the potential to be used for limited longitudinal lifecourse analysis. The HILDA survey has a small Indigenous sample (and identifier) and can be used to do crude Indigenous versus non-Indigenous comparisons. However, comparisons within the Indigenous population are limited. The Longitudinal Study of Indigenous Children has the potential to be used to track the outcomes of children through time. However, at the time of publication, only Wave 1 of the data had been released and no assessment had been done of the quality of the longitudinal information or sample attrition. Furthermore, there is no non-Indigenous comparison available.

An alternative data source is administrative data that tracks individuals through time, either with a unique identifier or by matching people based on their name and/or address. Possible examples include schools, hospitals and payments databases. While these datasets give some longitudinal information and are able to identify certain events and transitions, they are limited to the particular population of interest to the data collection and usually only cover a limited period of people's lives. Furthermore, they rarely contain detailed socioeconomic information and the quality of the data is highly contingent on the quality of the Indigenous identifier and the way in which individuals are tracked through time.

A final alternative for obtaining lifecourse information on the Indigenous population is through qualitative surveys. While limited in terms of sample, these surveys or interviews can provide a rich source of data on a range of topics. The major limitation is the lack of ability to make generalisations, and statistical power.

Unfortunately, for now and for many years to come, our view of the Indigenous lifecourse is likely to remain limited by the available data. In terms of large-scale surveys, there are three main sources of data for the Indigenous population: the 2006 5% CSF that was used in this paper; the National Aboriginal and Torres Strait Islander Social Survey (NATSISS); and the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS). The NATSISS was most recently carried out in 2008, with data becoming available for analysis in early 2010. The most recent NATSIHS was carried out in 2004–05, with the next survey scheduled for 2010–11.

In addition to the Labour Force Survey (which is analysed by the ABS but not made available to outside researchers and major administrative collections), the above three surveys will provide the majority of the data that governments use

to track progress in meeting the Closing the Gap targets. Because of this, it is important that they are kept as nationally representative as possible. Replacing them with a longitudinal survey that is likely to suffer from significant sample attrition is not a viable alternative. However, the Indigenous population is also one of the most surveyed populations in Australia; adding an additional large-scale survey to the congested schedule may place too onerous a burden on the Indigenous community.

One alternative would be to implement a rolling-panel approach to the collection of national statistical datasets. This would be a similar approach to the Labour Force Survey, where households are retained in the sample for a fixed number of surveys but are eventually dropped out and replaced to keep the data representative of the nation as a whole. A hypothetical structure of a six-year collection cycle beginning with a NATSISS in 2012 (two years ahead of schedule) and 2018 as well as a NATSIHS in 2016 (six years after the next survey) and 2021 is given in Table 10.2. In the intervening years, we propose that a reduced module of questions be asked that allow key lifecourse events to be tracked and COAG's Closing the Gap targets to be analysed. This survey is referred to as the National Closing the Gap Survey (NCGS) in Table 10.2 and, depending on costs, could be carried out on a subset of the original cohort only.

Table 10.2 Proposal for rolling panel to collect longitudinal Indigenous information

Year	Cohort 1	Cohort 2	Cohort 3	Cohort 4
2012	NATSISS			
2013	NCGS			
2014	NCGS			
2015	NATSIHS	NATSIHS		
2016		NCGS		
2017		NCGS		
2018		NATSISS	NATSISS	
2019			NCGS	
2020			NCGS	
2021			NATSIHS	NATSIHS
...				...

In essence, Cohort 1 is given the NATSISS questionnaire in 2012, the NCGS in 2013 and 2014 and the NATSIHS questionnaire in 2015. Cohort 2 would include the NATSIHS questionnaire in 2015, the NCGS in 2016 and 2017 and the NATSISS questionnaire in 2018. National estimates for the 2012 NATSISS would use Cohort 1, while national estimates from the 2015 NATSIHS would use Cohort 2. This would then be repeated using Cohort 3 and Cohort 4.

The benefits of the above structure are threefold. Firstly, it will be possible for the first time to undertake robust longitudinal analysis of a core set of Indigenous outcomes. This would be restricted the questions that are available on the NATSISS, the NATSIHS and the new NCGS. However, this would include the major aspects of the Closing the Gap agenda like employment, education and health, as well as some of their determinants like housing, crime and mobility. Nonetheless, research on these surveys would likely yield vital policy relevant findings.

The second benefit of the above structure (as opposed to a single longitudinal study) would be that the sample for the major surveys would still be nationally representative. That is, Cohort 1 for the 2012 NATSISS, Cohort 2 for the 2015 NATSIHS and so on. The third major benefit is that, by overlapping the cohorts, the representativeness of the longitudinal aspects of the cohorts could be tested against the new cohorts that replace them. For example, the characteristics of Cohort 1 in 2015 could be tested against the characteristics of Cohort 2 in the same year. It may not be possible to maintain a sufficient sample to undertake-robust-through time analysis for all jurisdictions. However, the Closing the Gap targets are set at the national level, and hence it is vital that they be evaluated in these broad terms.

The above structure would clearly require a significant investment from all levels of government. It would not be possible for the ABS to follow such an approach within their existing budget. However, compared to the investment governments have made, and will need to make – in order to substantially reduce Indigenous disadvantage, the investment in adequate data collection is inconsequential.

In addition to properly conducted randomised controlled trials, longitudinal information is the only way to truly analyse the Indigenous lifecourse, the determinants of Indigenous socioeconomic disadvantage and the types of social and economic policies that are likely to result in COAG's Closing the Gap targets being met. Until such datasets are available, robust analysis of individual trajectories and the timing of key events remains elusive.