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THE INS AND OUTS OF THE LABOUR
MARKET: EMPLOYMENT AND LABOUR
FORCE TRANSITIONS FOR INDIGENOUS
AND NON-INDIGENOUS AUSTRALIANS

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The ins and outs of the labour market: employment and labour force transitions for Indigenous and non-Indigenous Australians

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Abstract

This paper uses data from the Australian Census Longitudinal Dataset to conduct the first representative analysis of labour force transitions for Indigenous and non-Indigenous Australians. The main finding is that Indigenous females and males are more than 10 percentage points more likely than their non-Indigenous counterparts to move from employment in 2006 to non-employment in 2011. Indigenous females had relatively high employment instability, which was probably largely driven by the increased probability of part-time employed Indigenous women leaving employment between 2006 and 2011. For Indigenous males, the findings reflect the high rate of movement out of employment from both part-time and full-time employment. Younger Indigenous Australians and those living in remote areas have a substantially lower flow into employment and a higher flow out of employment than their non-Indigenous counterparts. This paper considers several possible explanations for these transitions, such as marginal attachment to the labour force, job search methods that rely on family and friends, labour market segmentation where Indigenous workers tend to secure less stable jobs (because of educational attainment, skills and, possibly, discrimination) and the relative scarcity of Indigenous-friendly workplaces.

Keywords: labour force dynamics, Indigenous employment, longitudinal data

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Acronyms

ABS	Australian Bureau of Statistics
ACLD	Australian Census Longitudinal Dataset
ANU	The Australian National University
CAEPR	Centre for Aboriginal Economic Policy Research
CDEP	Community Development Employment Program
IJSS	Indigenous Job Seeker Survey
NILF	not in the labour force

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Introduction

Information about the dynamics of paid employment and labour force participation of Indigenous Australians and how they compare with those of non-Indigenous Australians is crucial to understanding the reasons for labour market disadvantage experienced by many Indigenous Australians and where policy responses need to focus. A paucity of longitudinal data on Indigenous Australians' labour market experiences means that little is known about the labour market dynamics of this group.

For groups experiencing prolonged and entrenched disadvantage, finding sustainable employment can be an enormous challenge. Researchers and policy makers are interested in understanding the characteristics that are associated with finding employment, as well as those that are associated with retaining employment, and moving between part-time and full-time employment.

The existing Australian research is based on data from a single survey of Indigenous jobseekers conducted during the late 1990s – the Indigenous Job Seeker Survey (IJSS) (Gray & Hunter 2005a). Gray and Hunter (2005a) provided the first analysis of the labour market dynamics of Indigenous Australians, but the analysis was confined to jobseekers and is thus limited in its generalisability. The release of the Australian Census Longitudinal Dataset (ACL D) for the 2006 and 2011 censuses provides information on 5% of the Australian population enumerated in the 2006 Census and thus a substantial number of Indigenous people. This paper uses the ACL D, which has recently been made available to users via the Data Analyser software to provide the first analysis of the labour market dynamics for a representative sample of the *whole* working-age Indigenous population.¹ The ACL D also provides a relatively large Indigenous sample, and so it is possible to estimate labour market dynamics for population subgroups and in different areas of Australia.

The remainder of this paper is structured as follows. The next section provides an overview of the literature on the dynamics of Indigenous labour force status. This is followed by a short introduction to the data and method, and a descriptive analysis of labour force transitions by gender, age and remoteness status. The final section provides a discussion of the key findings, potential implications for policy and areas for further research, including those that could use the ACL D.

Labour supply meets labour demand in the Indigenous labour market: a brief literature review

Indigenous Australians have low employment rates relative to other Australians. The research evidence points to the significance of both supply and demand factors. Indigenous Australians, on average, face more significant constraints on their ability to supply their labour than non-Indigenous Australians. Reasons for this include complex kinship obligations, more caring responsibilities due to larger numbers of children, more disability (Hunter & Daly 2013, Biddle et al. 2014) and more interactions with the criminal justice system (Borland & Hunter 2000).

Although labour supply and demand are often discussed as if they are independent and distinct phenomena, in reality, labour market outcomes are determined by their interaction. For example, an individual's decision to supply labour is likely to be influenced by the demand for labour in the local, national and even international labour markets. If there are no available jobs because of poor employment prospects at either a macroeconomic or local level, then a person may give up looking for work, a phenomenon termed the 'discouraged worker effect' (Hunter & Gray 2001, 2012). The presence of significant discrimination in the labour market can have a particularly discouraging effect on labour supply (Goldsmith et al. 2004).

Conventionally in labour economics, the working-age population is categorised as being in the labour force – which comprises the employed and the unemployed – or not in the labour force (NILF). Sometimes the NILF group is split into those who want a job but are not actively looking for work, termed the 'marginally attached', and those who do not want a job, termed 'other NILF'. A further distinction is often made between the marginally attached who have given up looking for work because they believe they cannot find work (because of a lack of jobs or discrimination), generally called discouraged workers or the 'hidden unemployed', and those who are not looking for paid employment for other reasons (Blundell et al. 1998). The formal statistical category of marginal attachment is defined as the people who are not employed and want a job but are not actively looking for work, or are not available to start work within four weeks and are therefore classified as being NILF (ABS 2014).

Hunter and Gray (2012) analysed changes in the labour force status of Indigenous and other Australians since the mid-1990s, which was a period of relatively strong macroeconomic growth. The high levels of labour demand and increases in Indigenous education levels

were important factors in the substantial increases in Indigenous employment rates; however, Hunter and Gray (2012) concluded that future progress in increasing Indigenous employment is likely to require addressing the labour supply issues that discourage people from looking for work, including labour market discrimination, and the ongoing high level of Indigenous interaction with the criminal justice system (also see Biddle et al. 2013). The lack of representative longitudinal data for the Indigenous population has meant that analysis of Hunter and Gray (2012) and other studies of Indigenous labour force status is based on cross-sectional data. This has limited our understanding of how the labour supply of the Indigenous population adjusts to increases or decreases in labour demand that are associated with macroeconomic cycles.

Although understanding the behaviour, motivation and circumstances of people who are marginally attached to the labour market is important for an analysis of labour market dynamics, it is sometimes difficult to provide a truly longitudinal analysis. One reason is that discouraged workers are the hidden unemployed, and are usually a relatively small component of the overall population. Hence, few surveys include direct information on the marginally attached, because this requires that extra questions be asked. For example, in the Monthly Labour Force Survey, information on the marginally attached is collected in only one survey a year. However, while labour force transitions that distinguish the marginally attached are relatively rare, there is some evidence that transitions into employment are similar for the marginally attached and unemployed groups in the general Australian population (Gray et al. 2005). Ideally, the analysis of labour market transitions should distinguish between the marginally attached and other NILF groups; however, like most analyses of labour market dynamics, this paper focuses on transitions among three labour force states: employment, unemployment and NILF.

Using the IJSS, Gray and Hunter (2005a) showed that the Indigenous unemployed were around half as likely to move to employment during a 15-month period as the non-Indigenous unemployed. One explanation is that Indigenous Australians are more likely to be employed in casual jobs and seasonal work than other employees (Campbell & Burgess 2001). Another possible explanation is that some Indigenous workers leave jobs to meet cultural obligations (when the jobs do not provide the necessary flexibility) (Hunter & Gray 2013) or for other reasons, such as poor health or caring responsibilities.

Analysis of the IJSS provided evidence that Indigenous Australians' labour force status was relatively dynamic. However, the IJSS data have several limitations. First,

they are representative of jobseekers, but not the working-age population as a whole. Second, the IJSS collected data for only a 15-month period in 1996 and 1997, and thus only focused on short-term labour market dynamics. Third, the IJSS sample size was relatively small, and this limits the insights available from labour force transitions. Fourth, the IJSS was completed nearly two decades ago.

Data and method

An important development by the Australian Bureau of Statistics (ABS) was the creation of the ACLD, which links a 5% random sample of the 2006 Census with the 2011 Census using data linkage techniques.² The ACLD includes linked census data for 800 759 individuals – of whom 14 802 identified as being Indigenous in 2006.³ This number represents substantially less than 5% of the Indigenous population, but nonetheless forms the largest longitudinal dataset of Indigenous Australians currently available (ABS 2013a). There were substantial changes in Indigenous identification between 2006 and 2011 among the linked sample. Of those who were identified as being Indigenous in 2006, 9.2% were identified as being non-Indigenous in 2011 and 1.1% had not stated Indigenous status in 2011. Of those identified as being non-Indigenous in 2006, 0.2% identified as Indigenous in 2011 and 0.9% did not state a response (ABS 2013a). The instability in the identification of Indigenous status presents a challenge for analysis and interpretation of the data. In this paper, we have defined Indigenous status as measured by the 2006 Census.⁴

The analysis is restricted to the population aged less than 59 years in 2006 to ensure that all respondents were in the working-age population in both 2006 and 2011. The majority of the analysis is for the 20–59-year-old population, to allow a focus on the postsecondary school population. The penultimate section of this paper analyses labour force transitions for the population aged 15–19 years in 2006 according to whether they were full-time students in 2006.

The analysis in this paper is necessarily descriptive because the sample size was too small for more sophisticated empirical analysis. In the process of writing this paper, we attempted to disaggregate the data by other factors that a labour economist would normally control for in analysing labour force dynamics. However, when the analysis was conducted for people with postsecondary degrees, the sample size in the ACLD was too small in important categories (e.g. in the ACLD, there were only 10 and 33 Indigenous people

with a degree who were, respectively, unemployed or NILF in 2006). These sample sizes are generally too small to allow a multivariate analysis of labour market transitions for the Indigenous population. If the sample size was substantially increased, perhaps to 20% of the Indigenous population, then the ACLD would allow regression analysis of Indigenous labour force dynamics. Such an increase in the Indigenous sample would greatly increase the value of the ACLD for the analysis of Indigenous issues, including labour market dynamics.

One positive development since this paper was written is the inclusion of the ACLD as one of the datasets that can be accessed at the ABS Data Laboratory in Belconnen, Australian Capital Territory. In contrast to the remote-access ACLD facility used to derive the transitions in this paper, the ABS Data Laboratory provides the researcher with more analytical flexibility to provide a meaningful multivariate analysis, given the sample size constraints noted above.

Labour market transitions

Transitions between detailed labour force states

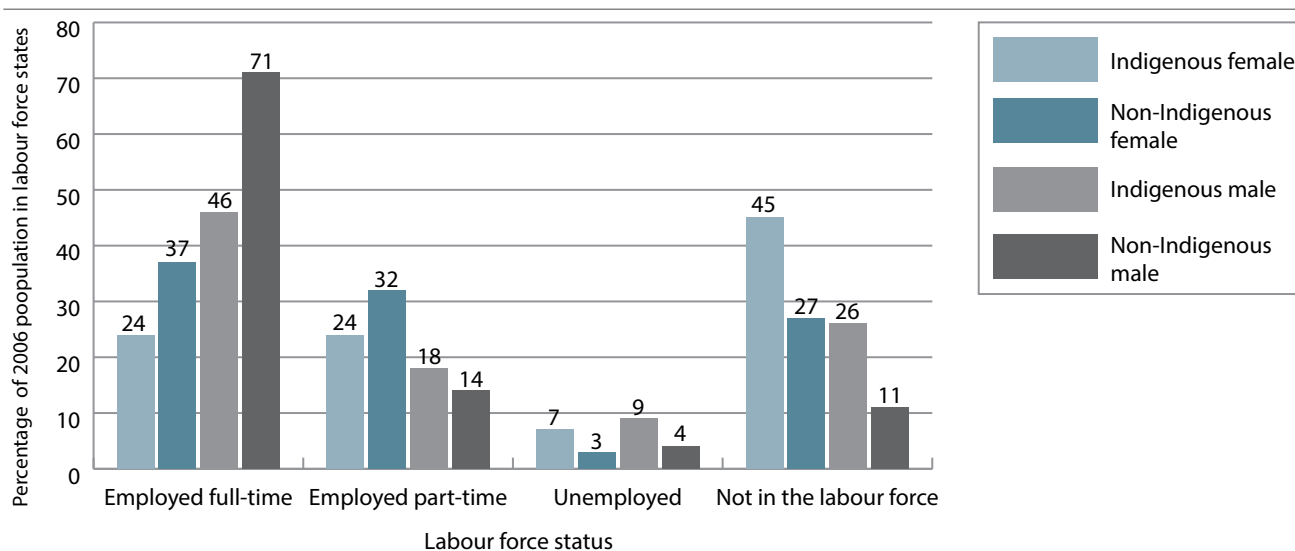
This section describes the transitions of disaggregated labour force states by Indigenous status and gender between 2006 and 2011. The labour force states examined are employed full-time (works 35 hours a week or more), employed part-time, unemployed and NILF.

To interpret the labour force dynamics between the 2006 and 2011 censuses, it is necessary to understand labour

force status in the starting year (2006) of the analysis. Fig. 1 shows labour force state by Indigenous status and gender using the ACLD longitudinal sample. Indigenous males and females were substantially less likely than their non-Indigenous counterparts to be employed full-time, and more likely to be unemployed and NILF. Indigenous females were also less likely to be employed part-time than non-Indigenous females, while Indigenous males were more likely to be employed part-time than non-Indigenous males. The biggest difference in labour force status in 2006 was that Indigenous males were 24 percentage points less likely to be employed full-time than their non-Indigenous counterparts. The labour force states for the ACLD longitudinal sample are broadly consistent with the 2006 estimates for the full population (e.g. Gray et al. 2013).

Table 1 shows the transitions between detailed labour force states. Indigenous men and women who were employed in 2006 were more likely to be not employed in 2011 than their non-Indigenous counterparts.⁵ The difference in exit rates from employment between the Indigenous and non-Indigenous populations was larger for the part-time employed than the full-time employed. For example, among Indigenous women who were employed full-time in 2006, 19% were not employed in 2011 compared with 14% of non-Indigenous women, whereas for Indigenous women who were employed part-time in 2006, 37% were not employed in 2011 compared with 19% of non-Indigenous women. Indigenous men were also substantially more likely to leave employment between 2006 and 2011 than were non-Indigenous men, with the difference being much larger for the part-time employed than for the full-time employed.

FIG. 1. Labour force status by Indigenous status and gender, 2006



Note: The data are from the ACLD linked longitudinal sample; population aged 20–59 years in 2006.
 Source: ACLD, 2006–11, Data Analyser

Indigenous females and males who were unemployed or outside of the labour force in 2006 were more likely to remain not employed in 2011 than their non-Indigenous counterparts. The instability in employment status of Indigenous females (relative to non-Indigenous females) is largely driven by the increased probability of Indigenous females leaving part-time employment between 2006 and 2011.

The analysis of transitions between labour force states suggests that the lower employment rates of Indigenous women are driven by a combination of higher exit rates from employment among Indigenous women (mainly for the part-time employed) and a much lower rate into employment from unemployment among Indigenous women. Indigenous women who were NILF in 2006 also had a lower rate of movement into employment than non-Indigenous women, but the difference was smaller than it was for the unemployed. This pattern of labour force transitions reinforces the disadvantages among Indigenous females. Long-term unemployment is also

likely to be a substantial problem, as Indigenous females were twice as likely to be unemployed in the past two censuses as other Australian females.

Both full-time and part-time employed Indigenous males were more likely to leave employment than non-Indigenous males. Nonetheless, if a male was employed full-time in 2006, he was more than likely still employed full-time in 2011 for both populations (71% and 80%, respectively). The other labour force status that was relatively stable was the NILF category, where around 60% were outside the labour force in both censuses, irrespective of Indigenous status. Regardless of the original labour force status in 2006, Indigenous males were more likely to be either unemployed or NILF than other Australian males. For example, in both categories of employed in 2006, Indigenous males were more than twice as likely as their non-Indigenous counterparts to be NILF at the time of the 2011 census (i.e. 12% versus 6% for transitions from full-time employment and 28% versus 13% from part-time employment).

TABLE 1. Transitions in disaggregated labour force status between 2006 and 2011 by Indigenous status and gender

Labour force status in 2006	Labour force status in 2011 (%)					ACL D sample size
	Employed full-time	Employed part-time	Unemployed	NILF	Total	
Indigenous females						
Employed full-time	59	22	4	15	100	889
Employed part-time	24	39	6	31	100	846
Unemployed	16	24	19	41	100	236
NILF	11	15	8	67	100	1 425
Non-Indigenous females						
Employed full-time	60	26	2	12	100	83 152
Employed part-time	29	52	2	17	100	73 147
Unemployed	27	31	10	32	100	6 721
NILF	12	23	4	61	100	55 379
Indigenous males						
Employed full-time	71	12	5	12	100	1 222
Employed part-time	41	22	10	28	100	442
Unemployed	28	16	23	33	100	224
NILF	17	12	10	62	100	611
Non-Indigenous males						
Employed full-time	80	11	2	6	100	145 787
Employed part-time	56	27	4	13	100	27 745
Unemployed	45	17	15	23	100	7 026
NILF	27	11	5	57	100	20 977

ACL D = Australian Census Longitudinal Dataset; NILF = not in the labour force

Note: Linked longitudinal sample for people aged 20–59 years in 2006. Estimates based on data weighted to estimated residential populations.

Source: ACL D, 2006–11, Data Analyser

Transitions between employed and not employed, and in and out of the labour force

Table 2 re-presents the information provided in Table 1 to show the transitions from employed to not employed (i.e. full-time and part-time employed are combined into the single category of employed, and unemployed and NILF are combined into the single category of not employed). Indigenous males and females were more than 12 percentage points less likely to be employed in both of the past two censuses than their non-Indigenous counterparts. More disturbingly, non-employed Indigenous females and males were around 10 percentage points less likely to become employed between 2006 and 2011.

Between 2006 and 2011, there were two distinct periods with differing macroeconomic conditions. Between 2006 and 2009, the Australian economy was growing strongly (largely as a result of the investment phase of the mining boom). However, the onset of the global financial crisis meant that economic growth was slower between 2009 and 2011. Despite the economic slowdown following the global financial crisis, there was economic growth for most quarters during this period. In fact, 53 of the highest

monthly employment-to-population ratios ever recorded in the labour force survey fell in the past intercensal period (ABS 2015).

As noted previously, Indigenous people are much more likely to be discouraged workers than non-Indigenous people (Hunter & Gray 2012). During a period of historically high national employment rates, such as those experienced between 2006 and 2011, discouraged workers could be expected to be more likely to enter the labour force. Hence, the transitions into the labour force could be expected to be higher than they would have been during a period with slower economic growth.⁶

Table 3 shows the transitions in and out of the labour force between 2006 and 2011 (employed and unemployed have been combined into the category 'in the labour force'). This provides information on the stability of labour supply. Indigenous males and females in the labour force in 2006 were about 10 percentage points more likely to have left the labour force by 2011 than their non-Indigenous counterparts. However, the Indigenous who were NILF in 2006 were about 3 percentage points less likely to enter the labour force between 2006 and 2011 than were the non-Indigenous NILF.

TABLE 2. Transitions in employment status between 2006 and 2011 by Indigenous status and gender

Employment status in 2006	Employment status in 2011 (%)			
	Indigenous		Non-Indigenous	
	Employed	Not employed	Employed	Not employed
Female employed	72	28	84	16
Female not employed	28	72	38	62
Male employed	77	23	90	10
Male not employed	33	67	44	56

Note: Linked longitudinal sample for people aged 20–59 years in 2006. Estimates based on data weighted to estimated residential populations.
Source: ACLD, 2006–11, Data Analyser

TABLE 3. Transitions in labour force participation between 2006 and 2011 by Indigenous status and gender

Labour force participation in 2006	Labour force participation in 2011 (%)			
	Indigenous		Non-Indigenous	
	In the labour force	NILF	In the labour force	NILF
Females in the labour force	75	25	85	15
Females NILF	33	67	39	61
Males in the labour force	78	22	91	9
Males NILF	38	62	43	57

NILF = not in the labour force

Note: Linked longitudinal sample for people aged 20–59 years in 2006. Estimates based on data weighted to estimated residential populations.
Source: ACLD, 2006–11, Data Analyser

Transitions by geographic remoteness

This section considers the transitions between employment and non-employment by geographic remoteness. To have a sufficient sample in each geographic area, the estimates are for males and females combined.

Indigenous Australians living in remote areas who were not employed in 2006 were substantially less likely to be employed in 2011, and those who were employed in 2006 were substantially more likely to be not employed in 2011 than their non-Indigenous counterparts (Table 4). Between 2006 and 2011, there was a substantial decline in remote Indigenous employment, with the number of Community Development Employment Program (CDEP) participants falling by about 22 000, most of whom were living in remote areas (Hunter & Gray 2013).⁷ CDEP participants have largely been classified as being employed in ABS data collections. The ACLD does not include information about CDEP participants (in any case, the census data on CDEP is based on partial, and probably declining, identification of CDEP participants),⁸ so it is not possible to identify the impact of the decline in the number of CDEP participants on the labour market transitions. Given the reduction in the number of CDEP participants, the substantial outflow of Indigenous Australians from employment in remote areas between 2006 and 2011 is not unexpected (Gray et al. 2012).

The decline in the number of CDEP participants would have had a very minimal impact on the labour market transitions in regional areas and major cities, as there were few CDEPs in those areas by 2006. A remarkable feature of the employment transitions is that, in major

cities, the likelihood of the employed in 2006 still being employed in 2011 is similar for the Indigenous (84%) and non-Indigenous (87%) populations.

In major cities, and regional and remote areas, the likelihood of changing labour force status from not employed to employed between 2006 and 2011 was about 10 percentage points lower for Indigenous people than for non-Indigenous people. Even though the Indigenous capacity to hold a job in major cities and regional areas is reasonably high, the ability to move into the labour market appears to be constrained. When labour force transitions by remoteness are expressed in terms of labour force participation (see Table A1 in Appendix A), it is clear that Indigenous people in major cities, and regional and remote areas were between 5 and 8 percentage points less likely to have moved from NILF into the labour force than their non-Indigenous counterparts. The employment transitions for Indigenous residents are the major drivers in the changes in labour force participation described in Table 3; hence, they are likely to be factors in the differential labour supply outcomes between Indigenous and non-Indigenous Australians. To the extent that low employment transitions reflect the level of demand for particular groups, the correlation of this demand with labour supply transitions is suggestive of a role for the discouraged worker effect in explaining the observed labour market outcomes. The discouraged worker phenomenon for Indigenous Australians needs to be understood in terms of the overall state of the macroeconomic labour market, but also with reference to the state of the local labour markets and the employment options for this group of potential workers.

TABLE 4. Transitions in employment status between 2006 and 2011 by Indigenous status and geographic remoteness

Employment status in 2006	Employment status in 2011 (%)			
	Indigenous		Non-Indigenous	
	Employed	Not employed	Employed	Not employed
Major city – employed	84	16	87	13
Major city – not employed	30	70	41	59
Regional – employed	76	24	85	15
Regional – not employed	28	72	38	62
Remote – employed	62	38	87	13
Remote – not employed	33	67	44	56

Note: Linked longitudinal sample for people aged 20–59 years in 2006. Estimates based on data weighted to estimated residential populations.

Source: ACLD, 2006–11, Data Analyser

The major difference for transitions in labour force participation between Indigenous and non-Indigenous people was observed in remote areas, with Indigenous people being 22 percentage points less likely to be in the labour force in both 2006 and 2011 (Appendix A, Table A1). The flows out of the labour force were correspondingly higher for Indigenous residents of remote areas compared with non-Indigenous residents. Arguably, the remote populations were very different in terms of attachment to the (mainstream) labour force, which may reflect labour supply preferences or more opportunities for productive nonlabour market activities such as hunting and gathering, and customary practices. However, for the remote residents who started off NILF in 2006, Indigenous people were only slightly less likely to move into the labour force by 2011 than non-Indigenous people (40% and 47%, respectively). It is likely that constraints on the ability to find jobs in remote Australia will reduce the extent to which the skills of average workers are matched to the jobs they secure (i.e. because jobseekers have to accept the first job they find). Of course, the migration of a substantial number of non-Indigenous people into remote areas to take up work keeps the non-Indigenous participation rates high relative to both Indigenous Australians and non-Indigenous residents in nonremote areas. However, data

limitations resulting from the relatively small Indigenous sample mean that the effects of internal migration are not considered in this paper.

Transitions by age

Table 5 looks at transitions by age group for females and males. Younger Indigenous females (aged 20–29 years) have a substantially lower flow into employment and a higher flow out of employment than their non-Indigenous counterparts. For older age groups, there is some measure of convergence among the Indigenous and non-Indigenous populations, especially for those who were not employed in 2006. Perhaps one should not overstate the level of convergence, because there are still substantial differences in the transitions of most age groups for the Indigenous and non-Indigenous populations. However, the employment transitions are particularly high out of employment and particularly low into employment for Indigenous females in their 20s (i.e. about two and half times the respective rates for their non-Indigenous counterparts). For females in their 50s, the transitions are similar or identical. For the other age groups, the differential in transitions is about 10 percentage points.

TABLE 5. Transitions in employment status between 2006 and 2011 by Indigenous status, gender and age group

Age group	Employment status in 2006	Employment status in 2011 (%)			
		Indigenous		Non-Indigenous	
		Employed	Not employed	Employed	Not employed
Females 20–29 years	Employed	66	34	82	18
	Not employed	26	74	53	47
Females 30–39 years	Employed	74	26	86	14
	Not employed	35	65	49	51
Females 40–49 years	Employed	77	23	89	11
	Not employed	26	74	39	61
Females 50–59 years	Employed	71	29	75	25
	Not employed	15	85	15	85
Males 20–29 years	Employed	78	22	92	8
	Not employed	45	55	71	29
Males 30–39 years	Employed	80	20	94	6
	Not employed	40	60	53	47
Males 40–49 years	Employed	78	22	93	7
	Not employed	23	77	40	60
Males 50–59 years	Employed	69	31	81	19
	Not employed	17	83	21	79

Note: Linked longitudinal sample for people aged 20–59 years in 2006. Estimates based on data weighted to estimated residential populations.
Source: ACLD, 2006–11, Data Analyser

The broad labour force dynamics by age and Indigenous status are similar for males. However, Indigenous males were more than 10 percentage points more likely to leave employment between census collections in all age groups. The differentials are smallest for the transitions from non-employment to employment for males in their 50s. However, this is likely because non-Indigenous men in their 50s who did not have a job in 2006 were less likely to find and retain employment up to 2011. That is, the lack of a differential is not much of an achievement for Indigenous males per se, but a reflection of the difficulty of finding and keeping work at that stage of the life course due to a range of factors, including employer behaviour and personal poor health. It may be important to recognise the role of choice in these transitions – many people choose to retire in their late 50s. However, it is unlikely that more Indigenous workers would choose to retire (for reasons other than poor health or disability) earlier than non-Indigenous workers when shorter careers have a negative effect on superannuation entitlements (Hunter et al. 2014).

Transitions among 15–19-year-olds

Young Indigenous people have low rates of both educational participation and paid employment (Biddle 2013, Gray et al. 2014, Crawford & Biddle 2015). Understanding the labour market dynamics of this group is thus particularly important for developing labour market and educational policies relating to this group. This section describes the labour market dynamics of teenagers aged 15–19 years in 2006. Given the relatively high rates of educational participation (secondary and postsecondary) of this group, we analyse labour market dynamics according to whether the individual was studying in 2006. In principle, it would be desirable to consider separately those in part-time and full-time education, but in practice there are only a small number of Indigenous students employed full-time, so we combine part-time and full-time students into a single group.

Table 6 presents information on the labour force transitions for nonstudents aged 15–19 years by Indigenous status, and Table 7 presents the same information for students. Indigenous teenagers who were not students in 2006 and who were employed in 2006 were more than twice as likely to leave the labour force or be unemployed by 2011 as non-Indigenous teenagers. There are not enough data to disaggregate the results by gender, but the likely explanations for these observations involve relatively high fertility and arrest rates for females and males, respectively. Similar factors are also likely to be true for the unemployed and NILF in 2006, with Indigenous people much more likely to remain unemployed or NILF in 2011. Although the reported results do not distinguish between full-time and part-time employment because of the sample size issues for the Indigenous student population, it is possible to estimate those transitions for nonstudents.

The differences between Indigenous and non-Indigenous labour force transitions for students employed, unemployed or NILF in 2006 are arguably small (Table 7). Getting an education is, in the long term, associated with better employment prospects, and lower rates of fertility or arrest. All else being equal, we should expect former students to eventually become more attached to the labour force once they complete their studies (i.e. greater transitions into the labour force for both Indigenous and non-Indigenous students than the nonstudent cohorts). Nonetheless, if an Indigenous student was NILF in 2006, then they were about twice as likely as their non-Indigenous counterparts to also be NILF in 2011 (40% and 21%, respectively). The probability of securing a job between the censuses is much smaller for Indigenous students who were NILF in 2006 than for the analogous non-Indigenous students (45% and 71%, respectively). Clearly, just knowing the experience of educational participation is not everything; we also need to know what skills were attained through their studies. Of course, educational attainment will almost certainly lead to improved employment prospects for many former students in the long run, but there is no necessary reason why recent educational participation will be manifest in the short-run labour force transitions.

TABLE 6. Transitions in disaggregated labour force status between 2006 and 2011 by Indigenous status, nonstudents aged 15 to 19 years in 2006

Labour force status in 2006	Labour force status in 2011 (%)				Size of ACLD sample
	Employed	Unemployed	NILF	Total	
Indigenous – employed	63	11	26	100	204
Indigenous – unemployed	39	25	36	100	75
Indigenous – NILF	28	14	57	100	180
Non-Indigenous – employed	84	5	11	100	7547
Non-Indigenous – unemployed	64	14	21	100	2676
Non-Indigenous – NILF	51	11	38	100	1294

ACLID = Australian Census Longitudinal Dataset; NILF = not in the labour force
 Note: Estimates based on data weighted to estimated residential populations.
 Source: ACLD, 2006–11, Data Analyser

TABLE 7. Transitions in disaggregated labour force status between 2006 and 2011 by Indigenous status, students aged 15 to 19 years in 2006

Labour force status in 2006	Labour force status in 2011 (%)				Size of ACLD sample
	Employed	Unemployed	NILF	Total	
Indigenous – employed	79	5	16	100	140
Indigenous – unemployed	74	14	12	100	43
Indigenous – NILF	45	15	40	100	468
Non-Indigenous – employed	86	4	10	100	14 342
Non-Indigenous – unemployed	76	9	15	100	1 755
Non-Indigenous – NILF	71	8	21	100	19 685

ACLID = Australian Census Longitudinal Dataset; NILF = not in the labour force
 Note: Estimates based on data weighted to estimated residential populations.
 Source: ACLD, 2006–11, Data Analyser

Discussion

This paper has analysed the labour market transitions over a five-year period of the working-age Indigenous and non-Indigenous populations. There are substantial differences in the labour market dynamics of the Indigenous and non-Indigenous populations, and these differences provide important insights into the reasons for the relatively low Indigenous employment rates.

Indigenous Australians are much more likely to move out of employment than their non-Indigenous counterparts, and Indigenous Australians who are not employed are less likely to be employed five years later than their non-Indigenous counterparts. The transitions into and out of the labour force are broadly consistent with transitions into and out of employment. Indigenous people are more likely to leave the labour force than are their non-Indigenous counterparts, and are less likely to move into the labour force.

Both Indigenous and non-Indigenous women employed full-time in 2006 were more likely to be employed in 2011 (full-time or part-time) than those who were employed part-time in 2011. For both Indigenous men and women, the 2006 part-time employed were much less likely to be employed in 2011 than their part-time employed non-Indigenous counterparts.

For the Indigenous population, the rate of movement out of employment between 2006 and 2011 increased with geographic remoteness (from 16% in major cities to 24% in regional areas to 38% in remote areas). For the non-Indigenous population, there is no relationship apparent between geographic remoteness and movements out of employment. Interestingly, for the Indigenous population, the rate of movement into employment is highest in remote areas, followed by major cities; it is lowest in regional areas. The same pattern is evident for the non-Indigenous population, although the rates of movement

into employment are higher for non-Indigenous people than they are for Indigenous people in all areas.

Indigenous people are more likely to leave employment and less likely to move into employment than are non-Indigenous people for all the age groups, but the difference is greatest for those aged 20–29 years. For women, the difference in transition rates between Indigenous and non-Indigenous is smallest for the 50–59 age group. This is also the case for men, but the convergence in labour force transition rates with age is smaller for men than for women. The gap in employment in later working life is higher for Indigenous men than for Indigenous women.

This analysis of longitudinal census data suggests that increasing employment rates of Indigenous Australians will require a focus on both assisting those who are not employed to find employment, and reducing the rates of transition out of employment. That is, policies need to operate on both the demand and supply side, of the labour market.

The higher rates of movement out of employment among employed Indigenous people are likely to have several explanations, including:

- the types of jobs that Indigenous people tend to be employed in
- the differences in average characteristics between the Indigenous and non-Indigenous populations, which mean that, if Indigenous people lose a job, they are, on average, less likely to find another job quickly
- Indigenous people being more likely to voluntarily leave employment because of conflicts between paid employment and family and community responsibilities, or because of workplaces not always being as Indigenous friendly as they could be.

Dual labour market theory describes a labour market phenomenon in which there are two segments or sectors that have limited movement between them. The primary sector has ‘high wages, good working conditions, employment stability, chances of advancement, equity, and due process in work rules’, whereas the secondary sector is characterised by ‘low wages and fringe benefits, poor working conditions, high labour turnover, and little chance of advancement’ (Doeringer & Piore 1971, p. 165). In this theory, the high turnover is associated with the characteristics of the job, not the worker.

Hunter and Hawke (2002) provide evidence from the Australian Workplace Relations Survey that internal labour markets do not feature in workplaces with

Indigenous employees. Furthermore, Hunter and Hawke (2001) show that workplaces with Indigenous employees are more likely to have casuals and contractors than other workplaces, especially in the private, noncommercial sector. They argue that the relatively short tenure of Indigenous workers in jobs is probably a reflection of a greater prevalence of casual and nonpermanent work, and the historical concentration of Indigenous workers in the secondary labour market. That is, the relatively high rates of Indigenous transitions into and out of employment are at least partially explained by the types of jobs provided by firms (i.e. the demand side).

Even in the dual labour market theory, the extent of promotion into better jobs in the primary sector is probably limited for people with relatively low levels of educational attainment – which may effectively confine Indigenous workers to the secondary sector. Some theories of discrimination may also play a role in explaining the apparent concentration of Indigenous workers in low-paid and insecure work. For example, Bergmann’s (1974) model of discrimination shows how it could be in the interests of certain employers to confine identifiable groups in particular jobs or occupations to drive down wages.

Enhancing educational attainment is one policy option, but another consideration is to facilitate Indigenous access to recruitment processes within larger firms that tend to provide stable employment and career paths. Diversification of Indigenous job search methods is important so that Indigenous people can find information about these ‘good’ jobs and enhance the transitions into employment. Indigenous job searching relies excessively on families and friends for information about jobs (Gray & Hunter 2005b).

There are a range of policies (public policy and employer) that may be effective in increasing Indigenous retention in employment (discussed in detail in Gray et al. 2012), including:

- introducing multiple and complementary support mechanisms such as mentoring and support, and flexible work arrangements that allow employees to meet their work and their family/community responsibilities
- providing family support
- reducing racism in the workplace
- increasing human capital via the provision of formal education and training programs to increase the chances of finding more secure employment and of finding a new job in case a job is lost

- using pre-employment assessment and customised training
- using nonstandard recruitment strategies to increase the likelihood of Indigenous people finding employment
- using wage subsidy and other labour market programs.

The relatively low rates of movement into employment for Indigenous people are likely to be explained – at least in part – by the high rates of marginal attachment to the labour force among Indigenous Australians (i.e. labour supply decisions interacting negatively with a relatively low demand for Indigenous labour). Marginal attachment can be driven by a low chance of finding employment (the discouraged worker is a subset of the marginally attached) or by labour supply preferences. For example, alternative uses of time, including customary practices such as hunting and gathering, could lead to some Indigenous people placing lower priority on participating in the mainstream labour market (Altman & Biddle 2015). Such factors are likely to be particularly pronounced in remote areas where the attachment to customary practices, and opportunities for hunting and gathering are likely to be important for Indigenous wellbeing.

An area of current policy focus is Indigenous businesses and the potential for growth in the number of Indigenous-owned businesses. Hunter (2014a) demonstrates that Indigenous workers are disproportionately employed in Indigenous businesses – indeed, such businesses are around 100 times more likely to employ Indigenous workers than non-Indigenous businesses. Whereas small non-Indigenous businesses are less likely to employ Indigenous people, even large non-Indigenous businesses have a relatively poor record of employing Indigenous workers. This observation is important, because larger businesses are more likely to be prominent employers in the primary labour market, with enhanced career options and lower turnover of relevant workers.

Indigenous businesses appear to be most likely to provide Indigenous-friendly workplaces (Hunter & Gray 2013, Hunter 2014a), but the number of such businesses is still low (Hunter 2014b). The Australian Government's new Indigenous procurement policy – which requires that, by 2020, 3% of new Australian Government contracts are to be awarded to Indigenous businesses – has the potential to increase employment in Indigenous businesses (also see Forrest 2014). The policy will be introduced progressively from 1 July 2015, and will increase the demand for services provided by Indigenous businesses and should increase the number

of Indigenous businesses. One possible constraint on this trend is the supply of Indigenous people who are suitably qualified to run and manage a business. Hunter et al. (2015) discuss some options for enhancing Indigenous participation in a field of study where Indigenous people are notably underrepresented – management and commerce.

The number of Indigenous businesses has grown in recent decades (Hunter 2014b), but it is important to acknowledge heterogeneity among those businesses (Foley & Hunter 2013). Some Indigenous businesses are involved in the 'Indigenous sector' and hence produce goods and services associated with Indigenous culture and customary practices. Other Indigenous businesses compete directly with non-Indigenous businesses and may be constrained in their ability to invest in providing Indigenous-friendly workplaces. Businesses that are closely identified with the Indigenous community are likely to have noncommercial as well as commercial objectives, which may complicate their ability to maximise profits in the long run, which may increase the turnover of such businesses. The targets in the new procurement policy are likely to increase demand for goods and services of Indigenous businesses relative to non-Indigenous businesses, which will enhance the ability to negotiate any fiscal trade-offs that arise from the need to balance commercial and noncommercial objectives.

Notes

1. The dataset of choice for analysing labour market dynamics in Australia is the Household, Income and Labour Dynamics in Australia (HILDA) survey. Until recently, the HILDA survey contained only a small Indigenous sample, and analysis of the Indigenous population using the HILDA data was very limited. In 2011 (wave 11), the HILDA sample was augmented, and this has increased the number of Indigenous sample members; in wave 11, there were 460 Indigenous respondents and 14 200 non-Indigenous respondents. With the increased Indigenous sample, the HILDA survey may provide some opportunities for analysis of Indigenous labour market dynamics, although the still-small sample size and the lack of representativeness of the sample for Indigenous populations in remote Australia limit the scope of possible analysis (see Howlett et al. 2015).
2. Linked records in the ACLD identified through probabilistic matching.
3. Although the ACLD is a 5% sample of the Australian population, the Indigenous sample is less than 5% of the Indigenous population. The underrepresentation of the Indigenous sample in the ACLD is because of a lower rate of successful linkage for the Indigenous sample.
4. An important question relates to the impact that the changes in reported Indigenous status between the 2006 and 2011 censuses have on the estimated transitions. This is a complex question to address, and is beyond the scope of this paper and is left for future research.
5. The higher rates of movement out of employment during a five-year period may be related to the nature of jobs Indigenous people hold. Indigenous Australians are more likely to be in low-skilled jobs than non-Indigenous Australians, and the evidence from the HILDA survey is that Indigenous Australians have shorter tenure in their jobs than non-Indigenous Australians (five versus seven years with current employer; one versus four years with previous employer) and are more likely to have changed jobs in the past 12 months (16% versus 13%). These estimates are for the employed population aged 15 and over from wave 11 (2011) of the HILDA survey. HILDA is not representative of populations in remote areas. Differences between Indigenous and non-Indigenous people reported in this paper are statistically significant at the 5% confidence level.
6. Economic theory also predicts that, during periods of strong economic growth, rising household incomes may mean that some workers leave the labour force as a result of an income effect – the so-called added worker effect. Although the economic growth in the Australian economy was particularly strong to 2009, the rate of growth slowed after the global financial crisis. Notwithstanding, the probability of employment was extraordinarily high in this intercensal period. From 2006 to 2011, one of the adjustments made by the Australian labour market to the variations in macroeconomic growth was for employers to employ workers for fewer hours rather than reduce the overall number of jobs. So, while the economy may have continued to grow, albeit a bit more slowly, the scope for an income effect reducing the number of added workers in the economy is limited.
7. CDEP is an example of an Indigenous-specific program that combines community development and labour market program elements. The scheme involves participants working for a notional equivalent of their income support payment. Labour force comparisons between the 2006 and 2011 censuses may also be affected by the recent changes to CDEP (ABS 2013b).
8. The total number of people employed as part of CDEP identified in the census is much lower than the number of participants recorded in administrative data (e.g. 14 497 in the 2006 Census compared with more than 32 000 participants recorded at the time). Even though CDEP information for 2011 is collected and processed by the ABS in the same way as for the 2006 Census, the ABS (2013b) recommends that care should be taken when comparing 2006 and 2011 Census CDEP counts because the recent reforms ‘may have an impact on the numbers of people reporting that they are CDEP participants’.

Appendix A Supplementary transition table

TABLE A1. Transitions in labour force participation between 2006 and 2011 by Indigenous status and remoteness, people aged 20–59 in 2006

Location	Labour force participation in 2006	Labour force participation in 2011 (%)			
		Indigenous		Non-Indigenous	
		In labour force	NILF	In labour force	NILF
Major city	In labour force	84	16	89	11
	NILF	33	67	41	59
Regional	In labour force	80	20	85	15
	NILF	33	67	38	62
Remote	In labour force	67	33	89	11
	NILF	40	60	47	53

NILF = not in the labour force

Note: Linked longitudinal sample for people aged 20–59 years in 2006. Estimates based on data weighted to estimated residential populations.

Source: ACLD, 2006–11, Data Analyser

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