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Abstract

Recent research has identified a substantial increase in Indigenous mainstream employment since the mid-1990s, but there has been relatively little regional analysis of such employment. The aim of this article is to build on this previous research using the 2006 and 2011 censuses to provide a more disaggregated descriptive analysis of changes in the character of labour market outcomes for Indigenous Australians aged 15–64 years. One of the new findings in the article is that the employment of Indigenous youth (i.e. those aged 15–24 years) in remote areas is different from that of Indigenous youth in non-remote areas, but older Indigenous residents of such areas are not very different in employment terms. Policy-makers thus need to pay particular attention to Indigenous youth employment in remote areas because the failure to address these differentials may lead to a foreclosure of future labour market options. Policy also needs to facilitate Indigenous engagement in the mainstream economy by assisting Indigenous people to be work-ready, especially in ensuring that Indigenous skills are matched with employer demands, and expediting employment by informing businesses on how to provide an Indigenous-friendly workplace.

JEL Codes: J15, J21, J68, R23

Keywords

Indigenous employment, labour force and employment, public policy, regional labour markets

Introduction and overview

The Australian Bureau of Statistics (ABS; 2013a) estimated the country's Indigenous population (people from Aboriginal and Torres Strait Islander backgrounds) in June 2011

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to be 669,900 or 3.0% of the national population. Approximately 35% of the Indigenous population were living in major cities, 44% in inner and outer regional centres, and 21% in remote or very remote areas (ABS, 2013b). Indigenous people have historically experienced significantly lower levels of employment and labour market participation than non-Indigenous people. Thus, while labour market programmes, most notably the Community Development Programme (CDEP; see Box 1) can be important, mainstream employment is a critical measure of Indigenous Australians' economic independence and well-being. This article documents patterns in non-CDEP employment in order to enhance the literature on the Indigenous labour market rather than focusing on the outcomes associated with a particular government programme. An overview of the latest empirical evidence on the economic and social outcomes associated with participation in CDEP is provided elsewhere by Hunter and Gray (2013).

Recent research has found that there have been substantial increases in the mainstream employment rate of the Indigenous population since the mid-1990s (Australian Government, 2013; Gray et al., 2013a; Gray et al., 2013b; Gray and Hunter, 2011). Between 1996 and 2011, the employment rate of Indigenous women increased from 26% to 39%, and for Indigenous men, it grew from 31% to 45%. If we focus on the most recent intercensal period, between 2006 and 2011, the employment rate of Indigenous women increased from 34% to 39% and for men it increased from 38% to 45% (Gray et al., 2013b).

Box 1. The CDEP scheme.

The Community Development Employment Programme (CDEP) is an Indigenous-specific scheme that began in 1977 after Indigenous people became eligible for unemployment benefits during the early 1970s. It was extended to non-remote areas in the 1980s (Sanders, 2012). The CDEP enables an Indigenous community or organisation to use a notional equivalent of the collective entitlement of income support payments to pay wages for those people who choose to participate in local employment in various community development or organisation programmes as an alternative to receiving individual income support payments (ABS, 2012b). At its peak in 2003, CDEP had around 35,000 participants. However, from 2007 the CDEP scheme was progressively withdrawn from non-remote areas and by mid-2011 there were around 10,000 participants. From July 2013, the CDEP programme was incorporated in the new Remote Jobs and Communities Programme.

While there is an ongoing debate about whether CDEP should be classified as paid employment (Altman, 2013; Gray et al., 2012; Altman, 2013), there has long been a recognition of the importance of understanding the trends in non-CDEP employment, particularly if the interest is in economic outcomes. For example, Daly (1991) writes,

The problem of Aboriginal unemployment may be defined away by the inclusion of CDEP participants among the employed. It is however questionable whether this can be considered as a true description of the position of Aborigines in the labour market. (p. 14)

Hunter and Taylor (1996) wrote in the context of rapid growth in the Indigenous population and a slowing of the rate of growth in the number of CDEP participants:

One certainty is that despite the effect of CDEP in buoying up Indigenous employment rates, there has been no concomitant improvement in individual income levels. (p. 9)

Hence, the long-term welfare of Indigenous people partially depends on the extent of their economic engagement with the mainstream economy and the independence that it engenders.

These are the national figures. There has, however, been relatively little analysis at the regional level of Indigenous employment in mainstream jobs, or of how the characteristic of such jobs may have changed during a period of substantial change in the Australian labour market overall. The 2013 release of data from the 2011 census makes it timely to examine the nature of any changes in the basic character of Indigenous labour market outcomes. This article thus provides a descriptive overview of the labour market outcomes of Indigenous Australians using recent census data and reflects on the implications of these observations for the government's Closing the Gap target, of halving the gap in employment outcomes between Indigenous and other Australians (Australian Government, 2013).

A significant change between the 2006 and 2011 censuses was the withdrawal of the CDEP scheme from non-remote areas and a reduction in the number of CDEP participants in remote areas (see Box 1). This is a further reason as to why having up-to-date information on Indigenous labour market outcomes is particularly important.

Given that the CDEP is essentially a government-funded labour market programme, in this article, wherever the available data allow, CDEP work is classified as non-employment. This reflects the underlying interest of this study in work that results from transactions in a labour market (Ehrenberg and Smith, 2003). Given that the CDEP was not generally available for non-Indigenous Australians, it is clearly not appropriate to have a closing-the-gap target that focuses on employment statistics that includes participation in that programme.

The labour market characteristics analysed in this article include employment and participation rates, hours of work, whether employment is in the private or public sector, self-employment, occupation and industry sector. Comparative data for non-Indigenous Australians are provided and changes between 2006 and 2011 are examined.

The remainder of the article is structured as follows. The next section describes the derivation of the measures used and key data issues. The third section presents important labour market outcomes for 2011 at a national level. The fourth section focuses on regional differences in Indigenous labour market outcomes. The fifth section discusses occupation and industry of employment and how this changed between 2006 and 2011. The final section provides an overview of findings and draws out some implications.

Data issues

The estimates presented in this article are based primarily on data from the 2006 and 2011 Censuses of Population and Housing. Census data on CDEP participation is collected only on the Special Indigenous Personal Form, a form which is used in discrete Indigenous communities where language differences or other factors make use of the standard self-enumeration forms impractical (i.e. mostly in remote areas). This means that the census does not identify all CDEP participants. It is estimated that the 2011 census identifies around half of all CDEP participants (Gray et al., 2013a).

In estimating the non-CDEP employment rate, the article follows the approach developed by Gray et al. (2012). It involves the use of a combination of census and CDEP administrative data. The process of calculating non-CDEP employment rates is

as follows. First, census counts of employed are adjusted to population estimates using ABS' Estimated Residential Population (ERP). Second, the number of CDEP participants (obtained from administrative data) is deducted from the estimates of Indigenous employment to generate the number of non-CDEP employed, which is in turn divided by the relevant ERP to be expressed as a rate. Details of the full derivation of the non-CDEP employment rate using the 2011 census can be found in Gray et al., (2013a).

CDEP administrative data are available by gender, age group and remoteness, but not by other characteristics. Thus, tables with occupation and industry in this article include both CDEP and non-CDEP employment. Similarly, self-employment and private versus public sector employment estimates include CDEP scheme workers.

In estimating Indigenous labour market participation rates, definitional issues are resolved as follows. While the vast majority of CDEP participants are clearly not in mainstream employment, there is a debate as to whether they should be treated as being unemployed or as having a distinct Indigenous specific labour force status. The labour force participation rate is defined as the proportion of the working age population that is either employed or unemployed (ABS, 2013b).

Full-time and part-time non-CDEP employment rates are also estimated. Because CDEP programme data on the hours worked by CDEP participants are not available, it is not possible to directly adjust the census employment rates for the impact of CDEP. The approach used here is to estimate the proportion of CDEP participants identified in the census who worked full-time and then to apply this proportion to the CDEP programme data on the number of CDEP participants.¹ The assumption about the proportion of CDEP participants employed full-time is allowed to vary across all gender/Indigenous/state/remoteness combinations.

The 2006 census remoteness classification is used, providing consistent geographic boundaries for comparing data from the 2006 and 2011 censuses. There was relatively little change in the remoteness indicators between 2006 and 2011, and the boundaries can be matched with a high degree of accuracy.²

The level of geographic remoteness varies between states and territories. For example, the Northern Territory (NT) has around 80% of the Indigenous residents living in remote areas, whereas the Australian Capital Territory (ACT), Tasmania and Victoria do not have any remote areas. All else being equal, employment and labour force participation rates will be higher in states and territories where labour markets are, on average, less remote from major population centres and major economic activity. Conversely, labour force participation rates tend to be lower in areas where there is less access to labour markets. For example, we would expect employment and participation rates to be higher in the ACT than the NT.

Labour market indicators for Indigenous Australians

National overview

This section compares key labour market characteristics of Indigenous men and women to those of their non-Indigenous counterparts. The characteristics examined are non-CDEP employment, including whether employment is part-time or full-time, labour force participation rate, self-employment (a subset of employment) and whether

Table 1. Labour force status by Indigenous status and gender, 15–64 years, 2011.

	Indigenous			Non-Indigenous		
	Male	Female	Total	Male	Female	Total
Full-time employment to population ratio	35	21	28	61	34	48
Part-time employment to population ratio	11	20	15	16	33	25
Total employment to population ratio	46	41	44	78	67	72
Labour force participation	61	51	56	82	71	77
Self-employed: employer	2	1	1	9	4	6
Self-employed: other	2	1	2	6	4	5

Sources: 2011 Census; CDEP programme data, ABS (2012a).

CDEP: Community Development Employment Programme.

Population is aged 15–64 years. The employment measure excludes CDEP participants. A person is classified as part-time if they work less than 35 hours per week. The self-employed are most likely non-CDEP only, as it can be assumed no individual would think they owned a community scheme.

employment is in the private or public sector. Occupation and industry labour characteristics are discussed in the next section.

Consistent with other studies (e.g. Gray et al., 2012), the employment rate of the Indigenous population was found to be much lower than that of the non-Indigenous population (Table 1). In 2011, the employment rate for Indigenous men was 46% and for Indigenous women it was 41%. This compares to employment rates of 78% and 67% for non-Indigenous men and women, respectively.

While the proportion of Indigenous men and women who were employed full-time was much lower than the proportion of their non-Indigenous counterparts, this reflects the lower total employment rate for the Indigenous population. For both men and women, the proportion of the employed who were working full-time hours was similar for the Indigenous and non-Indigenous populations.

The Indigenous labour force participation rate in 2011 was very low. For Indigenous men, the labour force participation rate was 61% compared to 82% for the non-Indigenous men, and for Indigenous women, it was 51% compared to 71% for non-Indigenous women. This was due, in part, to a higher rate of discouraged workers among the Indigenous population (Hunter and Gray, 2012). Discouraged workers are formally defined as persons who want a job and are currently available for work but have given up actively searching for work because they believe they cannot find it.

Indigenous people were also less likely to be self-employed than the non-Indigenous population, and the gap in rates of self-employment was larger than the gap between Indigenous and non-Indigenous employment.

Geographic remoteness

Data on employment rates by remoteness reveal that while the Indigenous mainstream employment rate was much lower than the non-Indigenous rate across all areas, the gap was

Table 2. Employment characteristics by remoteness, gender and Indigenous status (%), 2011.

	Remote			Non-remote		
	Male	Female	Total	Male	Female	Total
Indigenous						
Full-time employment to population ratio	21	17	19	40	23	31
Part-time employment to population ratio	8	10	9	12	22	17
Total employment to population ratio	29	27	28	51	45	48
Labour force participation	56	45	50	62	53	57
Self-employed: employer	1	0	1	2	1	2
Self-employed: other	1	0	1	3	1	2
Non-Indigenous						
Full-time employment to population ratio	74	45	62	61	34	47
Part-time employment to population ratio	12	30	20	16	33	25
Total employment to population ratio	86	76	82	77	67	72
Labour force participation	88	78	84	82	71	76
Self-employed: employer	9	6	7	9	4	6
Self-employed: other	9	7	8	6	4	5

Sources: 2011 Census; CDEP programme data, ABS (2012a).

CDEP: Community Development Employment Programme.

Population is aged 15–64 years. The employment measure excludes CDEP participants. A person is classified as part-time if they work less than 35 hours per week. Estimates reported as '0' are not exactly zero, but have been rounded to the nearest whole number.

largest in remote areas (Table 2). In 2011, the employment rate for non-Indigenous males in remote areas was around 57 percentage points higher than that for Indigenous males (86% vs 29%). For females in remote areas, the employment gap was 49 percentage points.

For the Indigenous population, non-CDEP employment rates were much lower in remote areas than in non-remote areas. For example, in 2011 for Indigenous men in non-remote areas, the employment rate was 51% compared to 29% in remote areas. The pattern was reversed for the non-Indigenous population, for whom the employment rate was actually higher in remote areas than in non-remote.

The overall tendency for Indigenous males to have higher rates of part-time employment than non-Indigenous males was even stronger in remote areas, where the ratio of

full-time to part-time workers in 2011 was about 3:1 for Indigenous males and 6:1 for non-Indigenous males. The full-time/part-time split was similar for both Indigenous and non-Indigenous females, with both groups having roughly similar proportions of full-time and part-time workers in non-remote areas and slightly higher proportions of full-time workers in remote areas.

Indigenous participation in the labour force was also lower than that for non-Indigenous Australians in both remote and non-remote areas in 2011. Differences in labour force participation rates were, however, smaller than the differences in employment rates. The lower Indigenous labour force participation rate in remote areas was probably, at least in part, a consequence of a greater number of discouraged workers due to a lower demand for labour in these areas.

The rate of Indigenous self-employment in remote areas in 2011 was particularly low compared to that in non-remote areas. In contrast, the non-Indigenous population in remote areas are actually more likely to be both employers and other self-employed. Indigenous people in remote areas on average have different characteristics from those in non-remote areas as they are likely to have less education, limited access to credit and banking services, and lower levels of social capital in terms of having strong social networks outside the local community (Foley, 2006). Another possible explanation is that the particular areas where remote Indigenous people live are less developed economically and accordingly have fewer business opportunities than those available to the remote non-Indigenous population.

Employment by age

It is important to understand the extent to which the age–employment profile of the Indigenous population differs from that of the non-Indigenous population and the extent to which age profiles vary according to geographic remoteness.

For non-Indigenous men, employment rates increase during the late teen years and early 20s and then remain high from the mid-20s to the mid-50s, from which age the employment rate starts to decrease (Figure 1). There is a similar pattern for women, although employment rates are reduced slightly during the main child-bearing years (Figure 2). This pattern has been well documented in many studies of employment over the lifecycle and verified for a range of countries (Ehrenberg and Smith, 2003).

There are several points to take from the age–employment profiles for Indigenous Australians. First, as seen in the 2011 figures, the employment rate of Indigenous Australians was lower than that of non-Indigenous Australians for all age groups in both remote and non-remote areas. Second, the shape of the age–employment profile of the Indigenous population in non-remote areas was similar to that for the non-Indigenous population. Third, the age–employment profile for Indigenous men in remote areas was markedly different from that of Indigenous men living in non-remote areas. In remote areas, the employment rate did not reach a peak until the age of 45–54 years and the gap in the employment rate between Indigenous men living in remote areas and non-Indigenous population narrowed with age. However, the age–employment profile for Indigenous women in remote areas was fairly similar to that for non-Indigenous women.

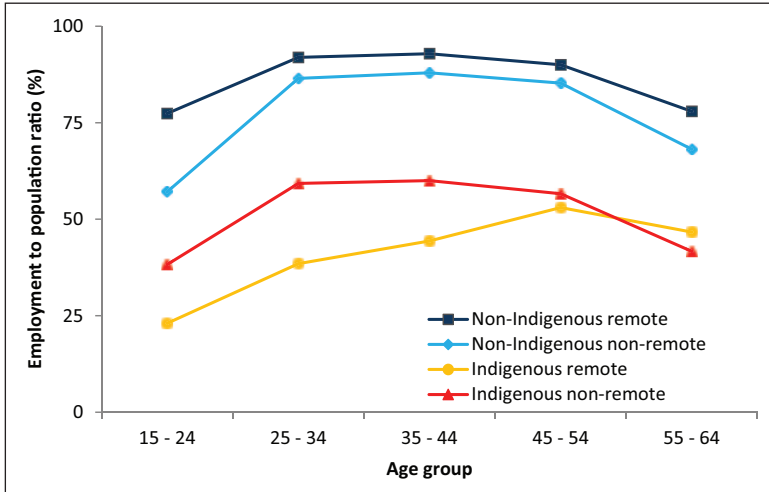


Figure 1. Non-CDEP employment to population ratio by age group and Indigenous status, men, 2011. The employment measure excludes CDEP participants.
Sources: 2011 census; CDEP programme data, ABS (2012a).
CDEP: Community Development Employment Programme.

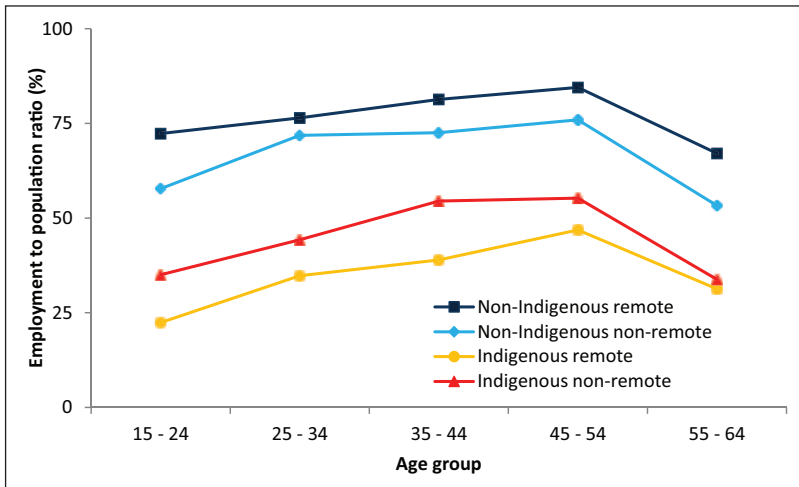


Figure 2. Non-CDEP employment to population ratio by age group and Indigenous status, women, 2011. The employment measure excludes CDEP participants.
Sources: 2011 census; CDEP programme data, ABS (2012a).
CDEP: Community Development Employment Programme.

For Indigenous persons, the gap between remote and non-remote employment lessened with age and actually became positive for Indigenous males aged 55–64. This means that in a statistical sense, the lower employment rate of Indigenous people in

remote areas was due to the much lower employment rate of younger people in remote areas, compared to their counterparts living in non-remote areas.

There are a number of possible explanations for this pattern. First, younger Indigenous people living in remote areas have lower employment rates now than those of older cohorts when they were the same age some years ago. Second, the younger Indigenous people in remote areas have experienced a slower growth in employment than those in non-remote areas – possibly owing to structural limitations on labour demand in such areas. Third, there may have been selective migration related to educational and labour market opportunities (i.e. the vast majority of tertiary studies institutions and jobs are physically located in urban areas). Finally, the influence of alcohol and other substance abuse in some remote areas, and the high rate of contact with the justice system, have potential negative impacts on young people's employability and participation in the labour market (Hunter and Daly, 2013).

Regional and sectoral differences in Indigenous labour market outcomes

Employment patterns

The 2011 census showed substantial differences among the states and territories in Indigenous mainstream employment rates. For Indigenous men, the employment rate was highest in the ACT, closely followed by Victoria and then Tasmania. Indigenous employment rates were the lowest in the Northern Territory (NT), followed by South Australia and Western Australia (Figure 3).

The patterns in employment rates across the states/territories were similar for Indigenous women, the non-CDEP employment rate being highest in the ACT, followed by Tasmania and employment rates being lowest in the NT, South Australian and Western Australia (Figure 4).

While there were also differences in the employment rates for non-Indigenous men and women across the states/territories, the variations were smaller than those observed for the Indigenous population. For non-Indigenous men, the employment rate was relatively high in all states and territories, with little variation across states/territories from a high of 86% in the NT to a low of 73% in Tasmania. In contrast, for Indigenous men, the employment rate varied from 71% in ACT to 26% in the NT. The general pattern was similar for non-Indigenous women. One reason for the compressed relativities for non-Indigenous employment is a stronger tendency to move to areas with employment opportunities. In contrast, Indigenous mobility is more likely to be driven by family circumstances than by employment-related factors (Biddle and Hunter, 2006).

While there were differences between the states and territories in the labour force participation rate of Indigenous and non-Indigenous Australians (Figures 5 and 6), these differences were much smaller than the differences in employment rates (Figures 3 and 4). This reflects the fact that states and territories with a lower employment rate have a higher rate of CDEP employment plus higher unemployment. Nevertheless, comparison with the previous two figures illustrates that areas with a lower employment rate also had a lower labour force participation rate – a finding consistent with a discouraged worker

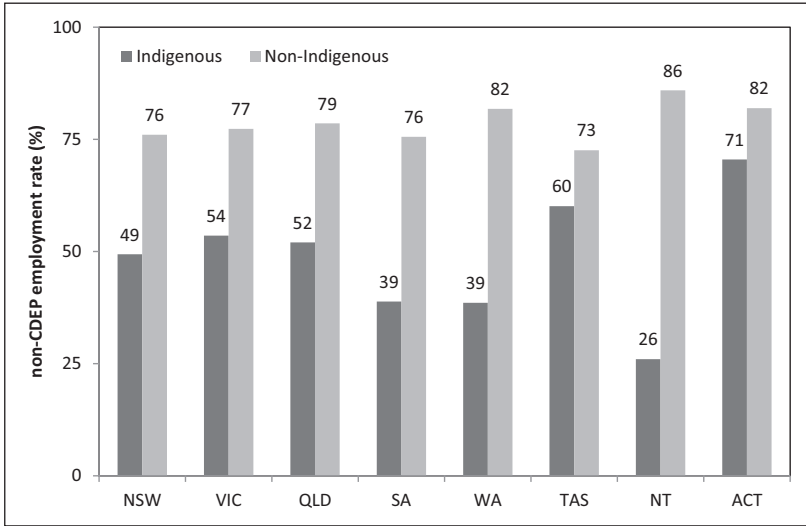


Figure 3. Non-CDEP employment to population ratio by state/territory and Indigenous status, men, 2011. Population aged 15–64 years. The employment measure excludes CDEP participants.

Sources: 2011 census; CDEP programme data, ABS (2012a).
 CDEP: Community Development Employment Programme.

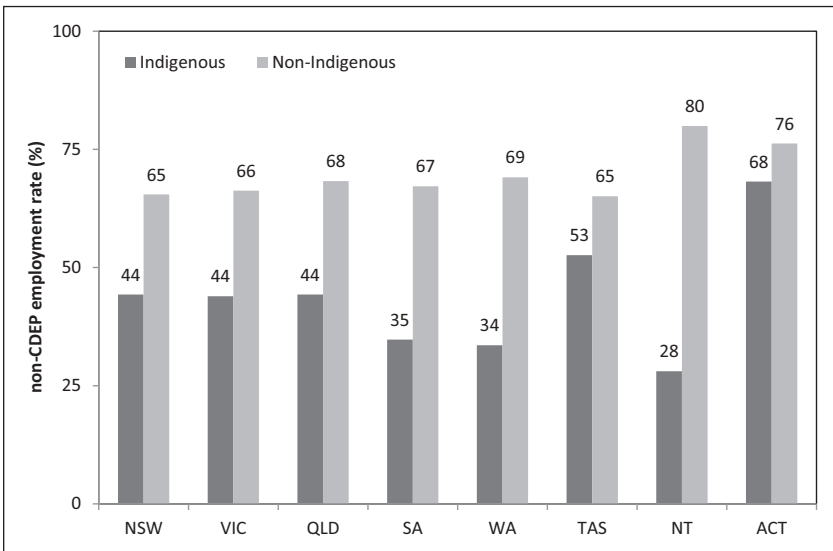


Figure 4. Non-CDEP employment to population ratio by state/territory and Indigenous status, women, 2011. Population aged 15–64 years. The employment measure excludes CDEP participants.

Sources: 2011 census; CDEP programme data, ABS (2012a).
 CDEP: Community Development Employment Programme.

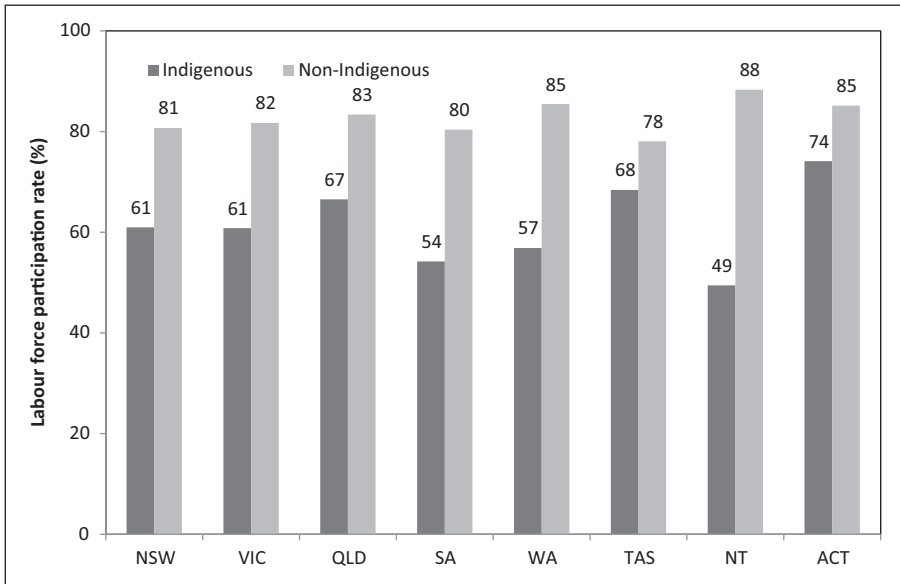


Figure 5. Labour force participation rate by state/territory and Indigenous status, men, 2011. Estimates are for population aged 15–64 years. Labour force consists of non-CDEP employed, CDEP participants and the unemployed.

Sources: 2011 census.

CDEP: Community Development Employment Programme.

phenomenon manifesting itself in regional differences. As expected, the labour force participation rate was higher for men than for women in all states/territories and degrees of geographic remoteness with the exception of non-remote areas in the Northern Territory (effectively Darwin).

Private sector

Much of the growth in Indigenous employment has been in the private sector (Gray et al., 2013a). Figures 7 and 8 show private sector employment by state/territory for men and women, respectively.

As noted above, the non-Indigenous population showed less variation across the states and territories in rates of participation in private sector employment than did Indigenous Australians. The exception is the ACT, where, public sector employment is a large part of the local labour market.

In 2011, Indigenous men were more likely to be employed in the private sector than were Indigenous women. Indigenous employment in the private sector was generally higher in the states that do not have remote areas – Tasmania, Victoria and even the ACT for Indigenous men. In states and territories where there are more remote Indigenous residents, private sector employment tended to be lower. For example, the lowest rate of Indigenous involvement in the private sector was in the Northern Territory, with 22% of

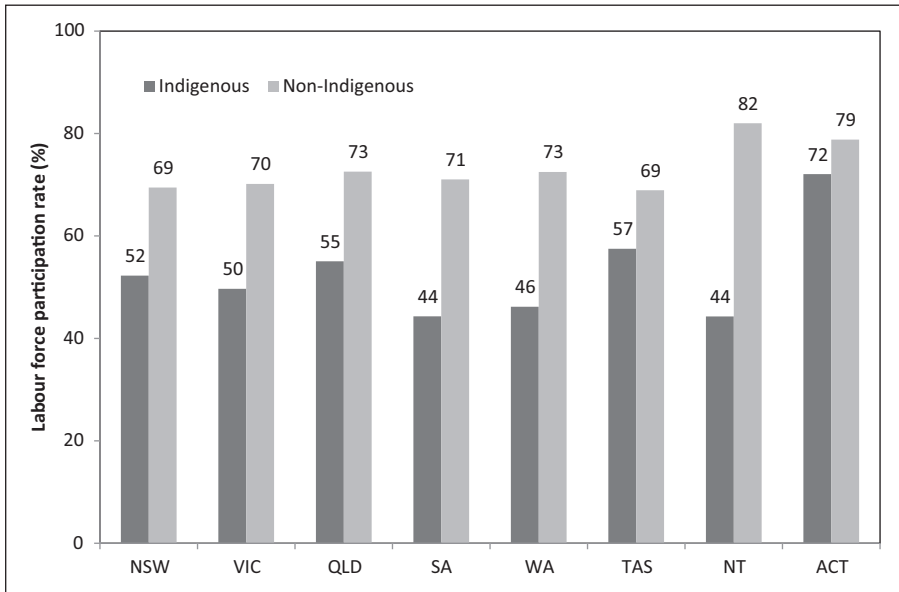


Figure 6. Labour force participation rate by state/territory and Indigenous status, women, 2011. Estimates are for population aged 15–64 years. Labour force consists of non-CDEP employed, CDEP participants and the unemployed.

Sources: 2011 census.

CDEP: Community Development Employment Programme.

Indigenous men and 18% of Indigenous women employed in such jobs. However, it is not simply that there were fewer of those jobs, as well over 50% of non-Indigenous territorians were employed in the private sector. These observations are likely to be a result of a combination of factors: disproportionate numbers of Indigenous people living in areas with few private sector jobs, and a mismatch of the skills of Indigenous population with those demanded by employers.

Occupational and industrial composition of Indigenous employment

Occupational distribution

The ABS classifies jobs into occupations on the basis of a combination of skill level and skill specialisation. For example, to work as a professional or in a trade requires a suitable qualification. This section provides an overview of the occupations in which Indigenous and other Australians were employed in 2011 and the extent to which this had changed since 2006.

Because recent censuses identify only about half of all CDEP participants (and the non-identification is systematically related to whether the Indigenous special enumeration strategy was used – see ABS, 2011), it is not possible to exclude CDEP participants



Figure 7. Private sector employment to population ratio by state/territory and Indigenous status, men, 2011. Estimates are for population aged 15–64 years. Private sector includes CDEP participants who claim to be in the private sector.

Sources: 2011 census.

CDEP: Community Development Employment Programme.

from the analysis of occupation. CDEP jobs are clustered in particular occupations (Hunter, 2004), and thus, the inability to excluded CDEP means that changes in occupation distribution between 2006 and 2011 will reflect, in part, the decrease in the number of CDEP participants of 22,100 over this period.

The occupational structure of employed Indigenous people in 2006 and 2011 is presented in Table 3. In 2011, the occupations in which Indigenous men were most commonly employed were labourers in remote and non-remote areas, technicians and trades works and machinery operators. Indigenous women were most commonly employed as community and personal services workers, professionals and clerical and administrative workers.

Between 2006 and 2011, in remote areas, the proportion of the Indigenous employed working in managerial and professional roles increased. For example, for Indigenous men in remote areas, the proportion who were either managers or professionals increased from 10% to 23%, and for women in remote areas, it increased from 17% to 26%. There was no change in the proportion of those employed as managers or professionals for Indigenous people in non-remote areas. Increases in these higher-status occupations equate to jobs for approximately 4800 more males and 6400 more females employed in these professions in remote areas.

Between 2006 and 2011, the proportion of Indigenous males in remote areas employed as machinery operators and drivers increased from 12% to 15%. While there is no attempt

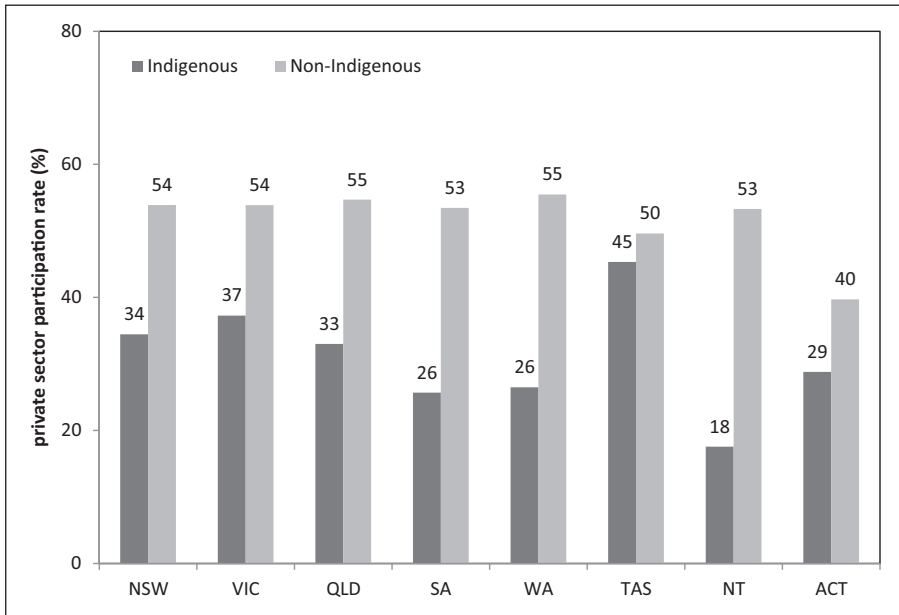


Figure 8. Private sector employment to population ratio by state/territory and Indigenous status, women, 2011. Estimates are for population aged 15–64 years. Private sector includes CDEP participants who claim to be in the private sector.

Sources: 2011 census.

CDEP: Community Development Employment Programme.

here to estimate the underlying reasons for the compositional change in the workforce, it is likely to be due at least in part to the impact of mining and associated infrastructure development.

In 2006, between 55% and 61% of Indigenous workers in remote areas were employed as either labourers or as community and personal service workers. Between 2006 and 2011, the large fall in the proportion of Indigenous men in remote areas working as labourers, and for women a smaller (but still substantial) decline in community and personal service work, is most likely a consequence of the reduction in the number of CDEP participants. Nonetheless, CDEP participants still account for a significant proportion of the workforce in remote areas. Labourers and community and service workers still accounted for around 39% of the Indigenous female remote workforce and almost 40% of the Indigenous male workforce in 2011.

The relative prominence of occupations in which many CDEP participants were employed is one reason for the Indigenous workforce being different from the non-Indigenous workforce in remote areas. In these areas, non-Indigenous males are more likely than Indigenous males to be employed as managers and technician and trade workers. Particularly in the mining industry, whereas Indigenous males are more likely to be employed in relatively low-skilled occupations like labourers, non-Indigenous males are more likely to be employed as technician and trade workers and machinery operators and drivers.

Table 3. Occupation by Indigenous status, gender and remoteness, 2006–2011 (%).

	Indigenous				Non-Indigenous			
	Male		Female		Male		Female	
	Remote	Non-remote	Remote	Non-remote	Remote	Non-remote	Remote	Non-remote
2006	%							
Managers	4	7	4	6	26	16	18	10
Professionals	6	9	13	16	9	18	19	24
Technicians and trades workers	12	23	3	4	24	24	6	5
Community and personal service workers	10	9	27	23	4	5	14	13
Clerical and administrative workers	3	6	17	23	3	7	20	26
Sales workers	2	5	7	12	3	7	10	14
Machinery operators and drivers	12	16	2	2	16	11	2	2
Labourers	52	26	28	14	15	12	12	8
Total number employed ("000)	19	61	15	52	109	5219	79	4393
2011	%							
Managers	9	6	8	5	22	16	16	10
Professionals	14	9	18	17	10	19	20	25
Technicians and trades workers	12	26	6	4	27	23	5	5
Community and personal service workers	12	10	23	26	4	6	14	15
Clerical and administrative workers	6	5	17	24	3	7	22	25
Sales workers	4	4	7	13	3	7	9	13
Machinery operators and drivers	15	18	4	1	19	11	3	1
Labourers	28	23	16	11	14	11	11	7
Total number employed ("000)	20	81	16	72	122	5624	84	4867

Sources: 2006 and 2011 censuses.
 The total number of employed person in each category is derived from census counts which have been adjusted to be the Estimated Residential Population (using ABS 2012a).

The occupational distribution of Indigenous workers in non-remote areas remained relatively stable between 2006 and 2011, with modest shifts away from labourers and towards community and personal service workers for females and technical and technicians and trades workers for males. The occupational distribution of non-Indigenous workers also remained relatively constant between 2006 and 2011, with the exception of a shift away from managerial positions in remote areas, perhaps reflecting the weakening of the agricultural sector.

Industry of employment

Given the potentially important contribution of certain industries to the overall employment trend (such as the growth of mining), employment changes by industry between 2006 and 2011 are also examined. The large increases in the Indigenous population between 2006 and 2011 need to be kept in mind when interpreting the recent trends and hence the following analysis focuses on both the numbers employed in each industry and the percentage change in persons employed in each industry for the respective populations. To the extent that these estimates differ, more weight should be given to change in numbers as the estimates expressed in percentages are sensitive to low levels of participation in 2006. Another reason for this focus is that we are particularly interested in the number of jobs created for Indigenous Australians in the various sectors of the economy.

As with the analysis of occupations, data limitations mean that it is not possible to exclude the CDEP-employed; thus, the influence of CDEP needs to be taken into account in analysing the industrial distribution of Indigenous employment. More detailed estimates of employment by industry by geographic remoteness in 2006 and 2011 are provided in Gray et al. (2013a: Tables 4 and 5).

The effects of the reduction in the number of CDEP participants are reflected in the declines in employment in Public Administrative and Safety, and Health Care and Social Assistance jobs, the industries to which over 80% of CDEP workers reported as belonging in the 2006 census. By the time of the 2011 census, only just over 40% of CDEP workers report being employed in these industries. Almost one-third of the CDEP-employed who were identified in the 2011 census identified themselves as working in the Other Services sector.³

For Indigenous men in remote areas, the industries with the largest increases in employment were Other Services, Mining, Education/Training and Arts/Recreation Services.⁴ The pattern of employment change for women in remote areas was almost identical, with the exception that slightly more jobs were created in arts/recreation services than in education/training.

In non-remote areas, the biggest increases for Indigenous men were in construction, manufacturing, transport, postal and warehousing and retail trade. For Indigenous women in these areas, the biggest increases in employment were in health care and social assistance, retail trade, accommodation and food services, education and training and public administration and services.

The overall proportion of Indigenous persons employed in mining increased substantially in remote areas, by 4.2 and 4.5 percentage points for males and females, respectively. The proportion of Indigenous persons employed in mining also increased in

non-remote areas. Although mining still only represents a small proportion of the Indigenous workforce, the increases over the 5-year period were substantial, equating to an extra 3800 jobs. This was a higher percentage increase than for non-Indigenous persons. The growth in mining jobs may also explain the increased employment in construction, particularly in remote areas.

While remote employment has been affected by the mining boom and changes in the CDEP scheme, there has been little change in industry composition of Indigenous workers in non-remote areas. This is also true for non-Indigenous persons, with the exception that the mining boom, which has coincided with a long-run decline in the number of jobs in agriculture, linked to a long-term growth in large-scale capital-intensive agribusiness (Productivity Commission, 2005).

In contrast to remote areas, in non-remote areas, industries such as manufacturing and construction for men, and retail and hospitality for women, play a more important role than mining in the Indigenous labour market. This observation has implications when considered in conjunction with the current 'two-speed' economy in Australia. Although the mining boom appears to be benefiting some of the Indigenous population in remote areas, those living in non-remote areas, like their non-Indigenous counterparts, still depend on industries such as manufacturing and tourism for employment.

In analysing industry of employment by state/territory, (Gray et al., 2013a) highlight the differential impact of the mining boom. In particular, in Western Australia, mining accounted for the largest proportion of male Indigenous employment (almost 20% of the workforce) and a substantial proportion (7%) of female Indigenous employment. These proportions were higher than that in the non-Indigenous labour market in Western Australia. Similarly, mining accounted for a larger proportion of male Indigenous jobs than non-Indigenous jobs in Queensland and South Australia. The industry composition of Indigenous employment was also distinct from that of non-Indigenous employment in the Northern Territory – a result of the prominence of the CDEP scheme and of the relatively large proportion of Indigenous workers employed in Public Administration and Safety and Other Services in that jurisdiction.

Overview of findings and some policy implications

The key message of this article is that non-CDEP employment has increased substantially since the mid-1990s (at least until 2011). One of the primary drivers of the increase in employment has been the private sector. Between 2006 and 2011, there were increases in Indigenous employment in most industries, although some sectors played a more important role than others. While mining saw substantial and important increases in Indigenous employment, the changes were small relative to the challenge of closing the large ongoing gap in non-CDEP employment rates between Indigenous and non-Indigenous Australians. Similarly, despite recent increases in self-employment, in 2011, it was still a relatively minor portion of overall Indigenous employment.

While there have been substantial increases in Indigenous employment and some narrowing of the gap in employment between the Indigenous and non-Indigenous population, Indigenous employment rates remain much lower. Biddle (2013) documents substantial improvements in educational attainment for Indigenous youth relative to

other Australian youth, and hence, some of the improvement in employment may be attributable to the closing of the gap in education.

One of the new findings in this article is that the Indigenous youth employment rates in remote areas are different from those of Indigenous youth in non-remote areas, whereas older Indigenous residents of such areas are not very different from those in non-remote areas in employment terms. One explanation is likely to involve the differential access to educational institutions for such areas. If this supposition is correct, then policymakers need to pay particular attention to the situation facing Indigenous youth in remote areas. Failure to address this differential may lead to a foreclosure of future labour market options, as future employment prospects are highly correlated with historical outcomes in employment and education. In stark contrast, all non-Indigenous age groups in remote areas tend to do relatively well in the labour market, especially non-Indigenous youth.

An increase in mining activity in Australia over the last decade has created some job opportunities for Indigenous Australians, especially in Western Australia and to some extent Queensland. This is seen not only through the direct increase in the mining industry, but also through increases in jobs in construction and machinery operators, as well as relatively high private sector participation. Increases in mining employment for Indigenous persons are in line with non-Indigenous increases, and in remote Western Australia and Queensland the mining sector accounts for a higher proportion of Indigenous jobs than non-Indigenous.

While the mining boom has had a positive impact on some Indigenous people, in national terms the vast majority of Indigenous employment, and the vast majority of the increases in Indigenous employment between 2006 and 2011, have been in other industries.

The Northern Territory was observed to have the labour market that was most different from that of other states, with very low employment rates in remote areas, little participation in the private sector and high rates of part-time employment. Non-remote areas in the Northern Territory, however, did have high rates of employment (especially for females), and a relatively high proportion of self-employed Indigenous people, especially those employing other workers.

There is no magic bullet in closing the employment gap between Indigenous and other Australians. Mining has provided some jobs in parts of Australia, but policy needs to facilitate Indigenous engagement in the mainstream economy more broadly. Further work is needed in assisting Indigenous people to be work-ready, especially in ensuring that Indigenous skills are matched with employer demands. The engagement and retention of Indigenous workers by businesses need to be expedited, for example, through information on how to provide an Indigenous-friendly workplace.

One of the Council of Australian Government (COAG) Closing the Gap targets is to halve the gap in employment outcomes between Indigenous and other Australians by 2018 (Australian Government, 2013). The benchmark employment rates used in setting the original COAG targets include CDEP participants as employed. Whether CDEP participants are classified as employed or not-employed has important implications for the measurement of Indigenous employment rates and assessments of whether the employment is being achieved. It is possible to recast the closing the gap target in terms of

non-CDEP employment but assessing whether progress has been made in achieving this target is dependent on the ability to estimate employment rates (or any other target) in a consistent fashion over time.

A related issue is that the ABS recently clarified the labour force definitions so that CDEP scheme participants are only classified as employed if they receive wages and can therefore be thought to have an employer/employee relationship with the organisation (ABS, 2013b). However, CDEP participants (and participants in the Remote Jobs and Community Programme) who receive income support payments are classified as unemployed or not in the labour force, depending on whether or not they are looking for work. This article has demonstrated that it is difficult to construct a consistent and comparable measure of employment over time, and it is likely to remain the case so long as there is uncertainty among survey respondents as to whether the income received was wages or income support.

The central argument has been that it is crucial to focus on mainstream employment as that allows a more refined understanding of the economics of Indigenous disadvantage and is a more meaningful target for policy. Indigenous employment policy is more likely to be effective by focusing on what actually happens in the labour market rather than being distracted by debates over variations in government programmes.

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Notes

1. People who did not state how many hours worked have been allocated to full-time and part-time employment based on the full-time/part-time split for each gender/Indigenous/state/remoteness combination.
2. Unless otherwise stated, 2011 data were transformed to 2006 remoteness categories using the ABS-defined 2011 SA1 to 2006 remoteness concordance.
3. Industry of employment is coded by the ABS (2011) on basis of respondents answers to a series of questions that identify the name of the business, the employed person's occupation and main tasks and duties.
4. The use of standard industry classification used in this article does not separately identify community work and jobs producing activity outside the standard (GDP) framework. For example, the Working on Country programme employs 660 Indigenous rangers in mainly tourism, agriculture and natural resource management.

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