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# CAEPR Indigenous Population Project 2011 Census Papers

Paper 6  
**Disability**

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## The 2011 Census Paper Series

In July 2012, the Australian Bureau of Statistics (ABS) began releasing data from the 2011 Census of Population and Housing. One of the more important results contained in the release was the fact that the number of people who identified as being Aboriginal and/or Torres Strait Islander (Indigenous) had increased by 20.5 per cent since the 2006 Census. There were also significant changes in the characteristics of the Indigenous population across a number of key variables like language spoken at home, housing, education and other socioeconomic variables. In this series, authors from the Centre for Aboriginal Economic Policy Research (CAEPR) document the changing composition and distribution of a range of Indigenous outcomes. The analysis in the series was funded by the Commonwealth Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) through the Strategic Research Project as well as FaHCSIA and State/Territory governments through the Indigenous Populations Project.

The opinions expressed in the papers in this series are those of the authors alone and should not be attributed to CAEPR, FaHCSIA or any other government departments.

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## Abstract

With the impending trial of the National Disability Insurance Scheme and eventual national roll-out, it is important to know as much as possible about the geographic and demographic distribution of disability within the Indigenous population and how this compares to the non-Indigenous population. The aim of this paper is to use the 2006 and 2011 Censuses to provide some information on this issue. The main finding from the paper is that the rate of disability in the Indigenous population is substantially higher than the rate for the Australian population as a whole. In 2011, a higher proportion of Indigenous males (6.1%) and Indigenous females (5.4%) reported a profound or severe disability compared to non-Indigenous males (4.5%) and females (5.2%). However, when we take into account the age distribution of the two populations, differences between Indigenous and non-Indigenous Australians are even higher. The other main findings in the paper are that, after controlling for age, Indigenous Australians with a profound or severe disability are less likely to be employed but more likely to be providing unpaid care than their non-Indigenous counterparts. These and other results in the paper suggest an ongoing need for targeted support for Indigenous Australians with a disability.

## Acknowledgements

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## List of acronyms

AIGC	Australian Indigenous Geographic Classification
ANU	Australian National University
CAEPR	Centre for Aboriginal Economic Policy Research
CDEP	Community Development Employment Projects
ERP	Estimated resident population
FaHCSIA	Commonwealth Department of Families, Housing, Community Services and Indigenous Affairs
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
NDIS	National Disability Insurance Scheme

## 1. Introduction and overview

The rate of disability in the Indigenous population is substantially higher than the rate for the Australian population as a whole. Despite the relatively high rates of disability experienced by the Indigenous population there has been surprisingly little research in this area to date.

This paper addresses some of this knowledge gap by providing an overview of the extent of disability in the Indigenous population. We document the geographic and demographic distribution of Indigenous Australians who report a profound or severe disability and compare this to data for the non-Indigenous population. The paper is based upon data from the 2006 and 2011 Censuses of Population and Housing.

In order to plan and implement disability-related services, including those which will be delivered under the National Disability Insurance Scheme (NDIS), information is needed on the extent of disability, its geographic distribution and the demographic and socioeconomic characteristics of people with a disability. As the Indigenous population structurally ages, it will be important to understand how the rate of disability increases with age for the Indigenous population and whether this differs to the relationship between age and disability for the non-Indigenous population.

The International Classification of Functioning, Disability and Health defines disability as an umbrella term for impairments, activity limitation and participation restrictions (World Health Organization 2011). In the 2006 and 2011 Censuses, four questions are asked around an individual's need for assistance with one or more of the core activity areas of self-care, communication or mobility because of a disability, long-term health condition or the effects of old age. Those who report such a need for assistance are then defined by the Australian Bureau of Statistics as having a profound or severe disability.

One of the major advantages of the census for understanding Indigenous disability is that it allows us to examine the prevalence of disability for specific geographic areas. However, the census does not provide information on the type of disability, duration of disability or age of onset of disability. Furthermore, it does not include disabilities that do not require assistance, even though these disabilities may have a significant impact on a person's physical, emotional and social wellbeing, as well as their ability to participate in education and employment. For example, the 2008 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) reported a rate of 41.9 per cent for all disabilities amongst the Indigenous population, alongside a profound or severe activity limitation of 7.9 per cent.

A final limitation of the census is that the data is based on self-enumeration of four questions, as opposed to a comprehensive interviewer-administered module of questions, as in specially targeted sample surveys. Clearly, the census misses a number of people with a disability who are likely to be of interest to policymakers. Despite these limitations, the census can provide useful and relevant information on a subset of those with a disability, namely those with a profound or severe disability. Furthermore, there are no alternative datasets that allow one to make comparisons between the Indigenous and non-Indigenous population, even at the national or State/Territory level, a point we return to in the concluding section of the paper.

The literature on the social determinants of health and disability points to people with disabilities being amongst the most socially and economically disadvantaged groups in Australia, with disability being both a cause and consequence of this disadvantage (VicHealth 2012). On the one hand, having a disability may lower schooling attainment as well as the probability of engaging in the labour force, thereby affecting financial security. On the other hand, inequalities in socioeconomic circumstances also reinforce health risks and lower a person's health status. The Productivity Commission describes this relationship as a cyclical one, in which poor socioeconomic disadvantage greatly increases rates of disability, which further compounds exposure to greater socioeconomic constraints (Productivity Commission 2011).

People with disabilities have a higher likelihood of having many of the risk factors for poor health than those without a disability. They are more likely to be smokers, more likely to be overweight and also more likely to have exposure to chronic diseases. They also have poorer psychological health than those without a disability (VicHealth 2012). Analysis of the National Health Survey suggests that among all Australians, people with a disability are more likely to experience stressful life events and have lower perceptions of their own health.

After introducing the data and geography (in Section 2), Section 3 examines the demographic profile of the Indigenous and non-Indigenous population who report a profound or severe disability. Section 4 provides a breakdown of the employment characteristics of the Indigenous population with and without a profound or severe disability, as well as the participation of Indigenous individuals in unpaid activities. The final section of the paper provides some concluding comments and discussion.

## 2. Data and geography

Results presented in this paper are based on analysis of the 2006 and 2011 Censuses of Population and Housing. In 2006, the estimated resident population (ERP) of Indigenous Australians was around 517,000. By 2011, the preliminary ERP had increased to around 670,000. This population growth was much faster than suggested by the higher number of births of Indigenous children over deaths within the population, meaning that some of those people who were identified as being Indigenous in 2011 were either missed from the 2006 Census or were identified as being non-Indigenous. We recommend keeping this above-projected population growth in mind when making conclusions based on the analysis presented in this paper.

To undertake analysis at the regional and local level, the papers in this *Indigenous Population Project: 2011 Census Papers series*<sup>1</sup> use the Australian Indigenous Geographic Classification (AIGC).<sup>2</sup> The most aggregated level of geography in the AIGC is Indigenous Regions. There were 57 of these in the 2011 version of the AIGC. After excluding administrative regions and the Christmas–Cocos (Keeling) Island region (which has very few Indigenous Australians), this leaves 38 Indigenous Regions used in the analysis for this paper.

The 2011 Indigenous Regions are shown in Figure 1. The shading for the regions indicates the percentage of the population in the region who were estimated to be Indigenous, ranging from less than the national average in the dotted areas (3.0%) to more than half of the population (the darkest shading). The numbers that appear after an Indigenous Region name refer to the percentage of the total Indigenous ERP who identified that region as their place of usual residence on the night of the census.

There are two key points that emerge from Figure 1. First, it is in more remote regions that the share of the population who identify as being Indigenous is highest. There are 10 regions where more than half of the population counted in the 2011 Census identified as being Indigenous, with the Torres Strait (84.8%), Apatula (80.5%) and Jabiru–Tiwi (79.3%) all having more than three out of every four usual residents being Indigenous.

1. Other papers in the series can be downloaded from <http://caep.r.anu.edu.au/population/censuspapers.php>.

2. The AIGC is a four-level structure that builds up from the Statistical Area Level 1, which is common to both the AIGC and the Australian Statistical Geography Standard. The next level above the Statistical Area Level 1 in the AIGC is Indigenous Locations, of which there were 1,116. The next level above Indigenous Locations are Indigenous Areas, of which there were 429. This number lowers to 411 substantive areas after excluding administrative codes representing those in a particular State or Territory who did not give any additional detail on their place of usual residence, or who were migratory on the night of the census.

While it is remote regions in north, central and western parts of the country that have the highest percentage of the population being Indigenous, the regions with the greatest absolute number of Indigenous Australians are in the south and east of the country. The Brisbane, New South Wales Central and North Coast, and Sydney–Wollongong regions all have an Indigenous population estimate of 60,000 people or higher, whereas most of the remote regions have populations of around 10,000 Indigenous Australians or fewer. While a higher proportion of the Indigenous population lives in remote areas than the non-Indigenous population, the majority of the Indigenous population lives in urban areas.

## 3. Reported disability by demography and geography

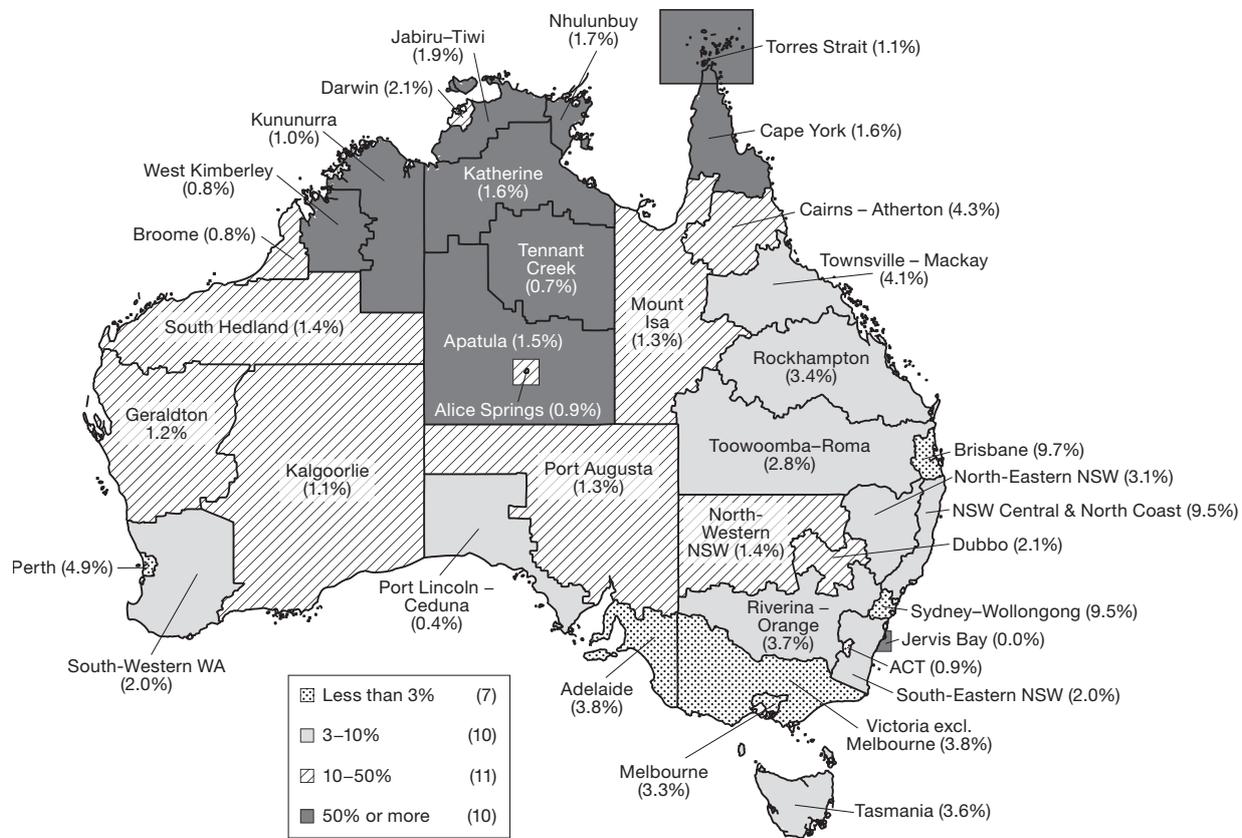
### DISABILITY ACROSS THE LIFECOURSE

Figure 2 shows the rate of profound or severe disability by age for Indigenous and non-Indigenous males and females. There is a clear association between age and the likelihood of reporting having a profound or severe disability. For both the Indigenous and non-Indigenous population, the rate is low and relatively stable for age groups covering the range from 0–34 years. For the Indigenous population, the proportion with a profound or severe disability starts to increase from age 35–39 years, with more than a quarter of the Indigenous population aged 65 years and over having such a disability. For the non-Indigenous population, while the rate of profound or severe disability does start to increase from the mid-thirties, the substantial increase in the proportion of the population with a profound or severe disability does not occur until the ages of 60–64 years.

The rate of profound or severe disability is higher for Indigenous men and women for all age groups, with the biggest differences in the disability rate being for men and women aged 40–44 years or older.

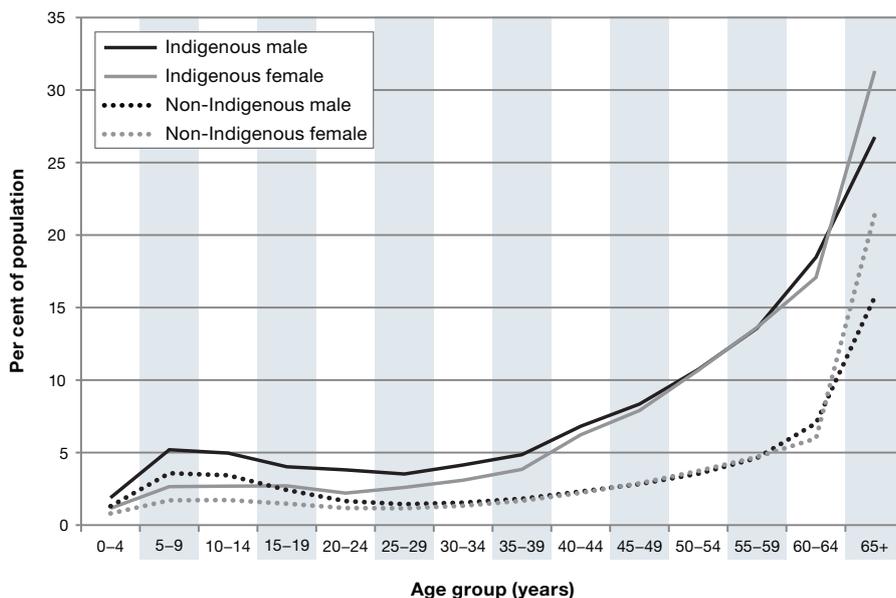
Whilst males are more likely to report a profound or severe disability than females in the younger age groups, by the time both the Indigenous and non-Indigenous population reaches 55 years and beyond, females have a higher probability. The difference is similar for the Indigenous and the non-Indigenous population, suggesting a common cause. Similar results have been found in other datasets—Murtagh and Hubert found that the 'greater prevalence of nonfatal disabling conditions, including fractures, osteoporosis, back problems, osteoarthritis and depression, contributes substantially to greater disability and diminished quality of life among ageing women compared with men' (Murtagh & Hubert 2004: 1406). This study also suggested that 'gender differences

**FIGURE 1. Proportion of population that is Indigenous (shading) by Indigenous Region and proportion of total Indigenous population in each region (text), 2011**



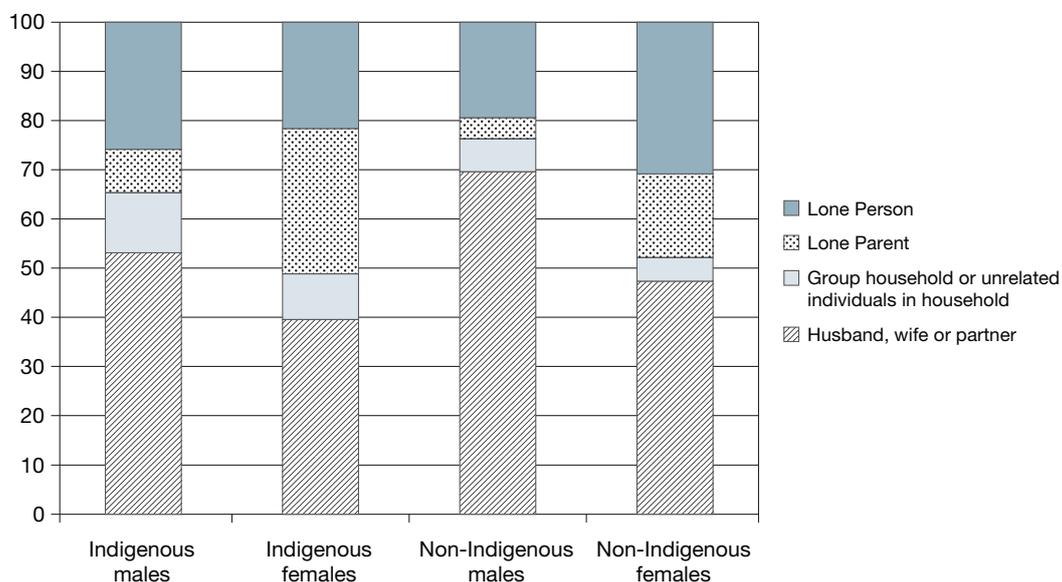
Source: Customised calculations using the 2011 Census.

**FIGURE 2. Percentage of Indigenous and non-Indigenous males and females who reported having a profound or severe disability, 2011 Census**



Source: Customised calculations using the 2011 Census.

**FIGURE 3. Distribution of Indigenous and non-Indigenous males and females with a profound or severe disability by relationship in household, 2011 Census**



Source: Customised calculations using the 2011 Census.

in disability also may have resulted from earlier mortality among men who had fatal disabling conditions' (Murtagh & Hubert 2004: 1410). This latter explanation is likely to be particularly relevant for Indigenous males, who have a very high rate of mortality.

The type of household in which one lives has implications for the type of support and care that might be readily available informally. According to Figure 3, Indigenous and non-Indigenous males with a disability are primarily living in a household with their partner. Indigenous females who report a disability, on the other hand, tend to be living in lone parent or lone person households.

The higher propensity of Indigenous males and females with a profound or severe disability to be living in a group household or to have unrelated individuals in the household means that there may be informal sources of support available to them. But it could also mean that they may be called on to provide assistance or other caring responsibilities themselves as part of the more extensive kinship networks found in most Indigenous communities.

#### REPORTED DISABILITY BY GEOGRAPHY

Figure 4 examines the variation in the prevalence of profound or severe disability by State or Territory. Across all the jurisdictions, the proportion of the Indigenous population reporting a profound or severe disability is higher than the non-Indigenous population. The difference between the proportion of Indigenous and non-Indigenous population needing assistance is particularly large in the Northern Territory, Victoria, the Australian Capital Territory and New South Wales.

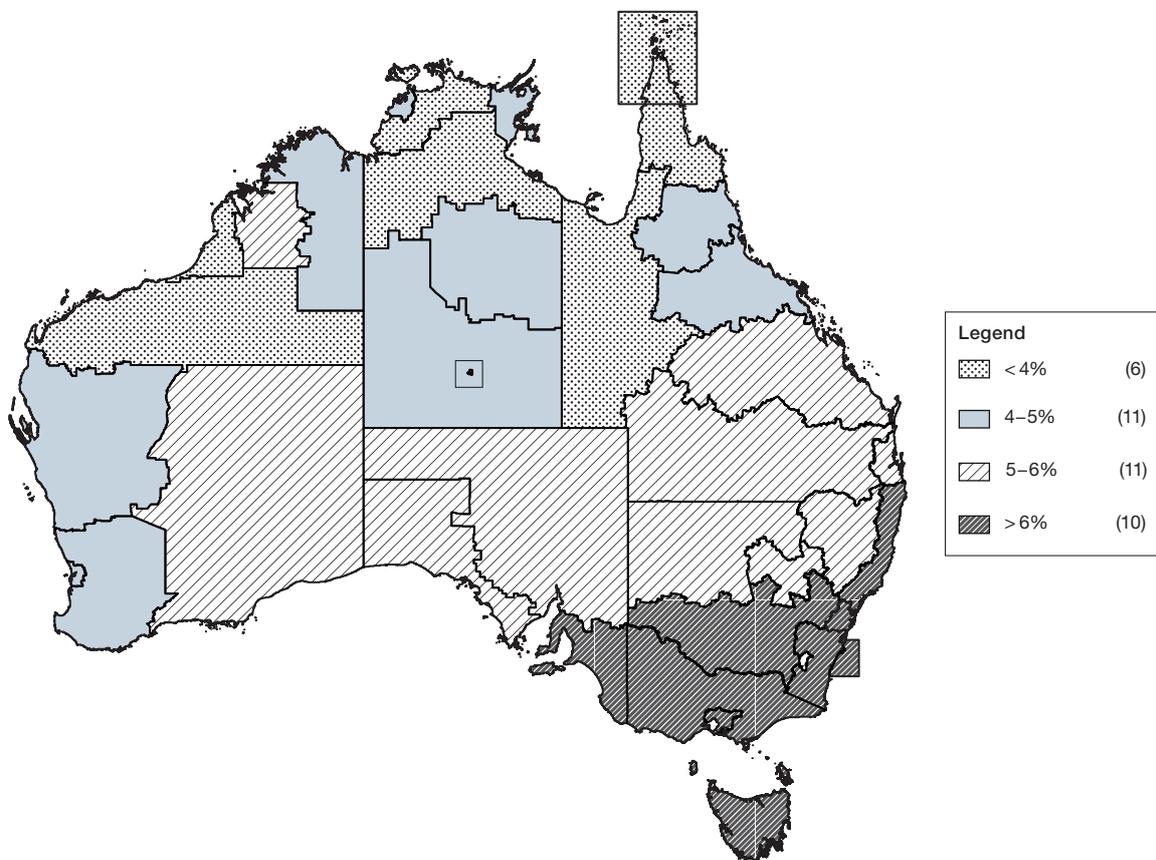
Figure 5 looks at the variation in profound or severe disability rates for the Indigenous population at a much more disaggregated level of geography—Indigenous Regions. Interestingly, the highest proportion of the Indigenous population with a need for assistance is mainly located in the New South Wales regions of Riverina–Orange, Central and North Coast, and South-Eastern New South Wales. The rates of profound or severe disability amongst the Indigenous population are also quite high in the capital cities of Sydney, Adelaide and Alice Springs.

**FIGURE 4.** Distribution of Indigenous and non-Indigenous Australians by State or Territory and profound or severe disability status, 2011 Census



Source: Customised calculations using the 2011 Census.

**FIGURE 5.** Profound or severe disability rates for Indigenous population by Indigenous Region, 2011



Source: Customised calculations using the 2011 Census.

## CHANGE IN REPORTED DISABILITY THROUGH TIME

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In 2006, there were 19,615 Indigenous individuals who reported a profound or severe disability—10,147 males and 9,468 females. This represented 4.9 and 4.3 per cent of the respective populations. The corresponding figures for the non-Indigenous population were lower for males (4.0%) but higher for females (4.7%).

By 2011 the number of Indigenous people counted in the census who reported a profound or severe disability had increased by 50.7 per cent to 29,560 individuals (15,323 males and 14,237 females). As the total Indigenous count also increased dramatically over the last intercensal period, the rise in the percentage of the population reporting a profound or severe disability was not as fast as the rise in the absolute number. Nonetheless, there was a much higher percentage of Indigenous males (6.1%) and Indigenous females (5.4%) who reported a profound or severe disability in 2011 compared to 2006. The increase for the non-Indigenous population was not nearly as fast, meaning that the difference between Indigenous and non-Indigenous males (4.5%) had increased over the last intercensal period, and that Indigenous females now had a higher percentage reporting a profound or severe disability than non-Indigenous females (5.2%).

There are a number of possible explanations for this increase in reported profound or severe disability over the period. First, the ageing of the Indigenous population reported in Biddle (2012) is likely to have led to a greater proportion of the 2011 Indigenous population being in those age groups with high rates of profound or severe disability than the 2006 population. Secondly, Biddle (2012) also reports that the Indigenous population in 2011 was more likely (on average) than in 2006 to live in those areas reported in Figure 5 to have high rates of disability.

In order to control for these potential demographic and geographic drivers of change, we look at how profound or severe disability patterns have changed over the last intercensal period at the jurisdictional level, controlling for the different age distributions of the Indigenous population both compared to the non-Indigenous population and by State or Territory. The age-standardised rates show what the rate of profound or severe disability would be for a particular jurisdiction (and Australia as a whole) if the Indigenous population had the same age distribution as the total Australian population in 2006. Focusing on those aged 15 years and over, age-standardised rates are given in separate figures for males and females in 2006 and 2011, with raw unadjusted rates also reported for comparison.

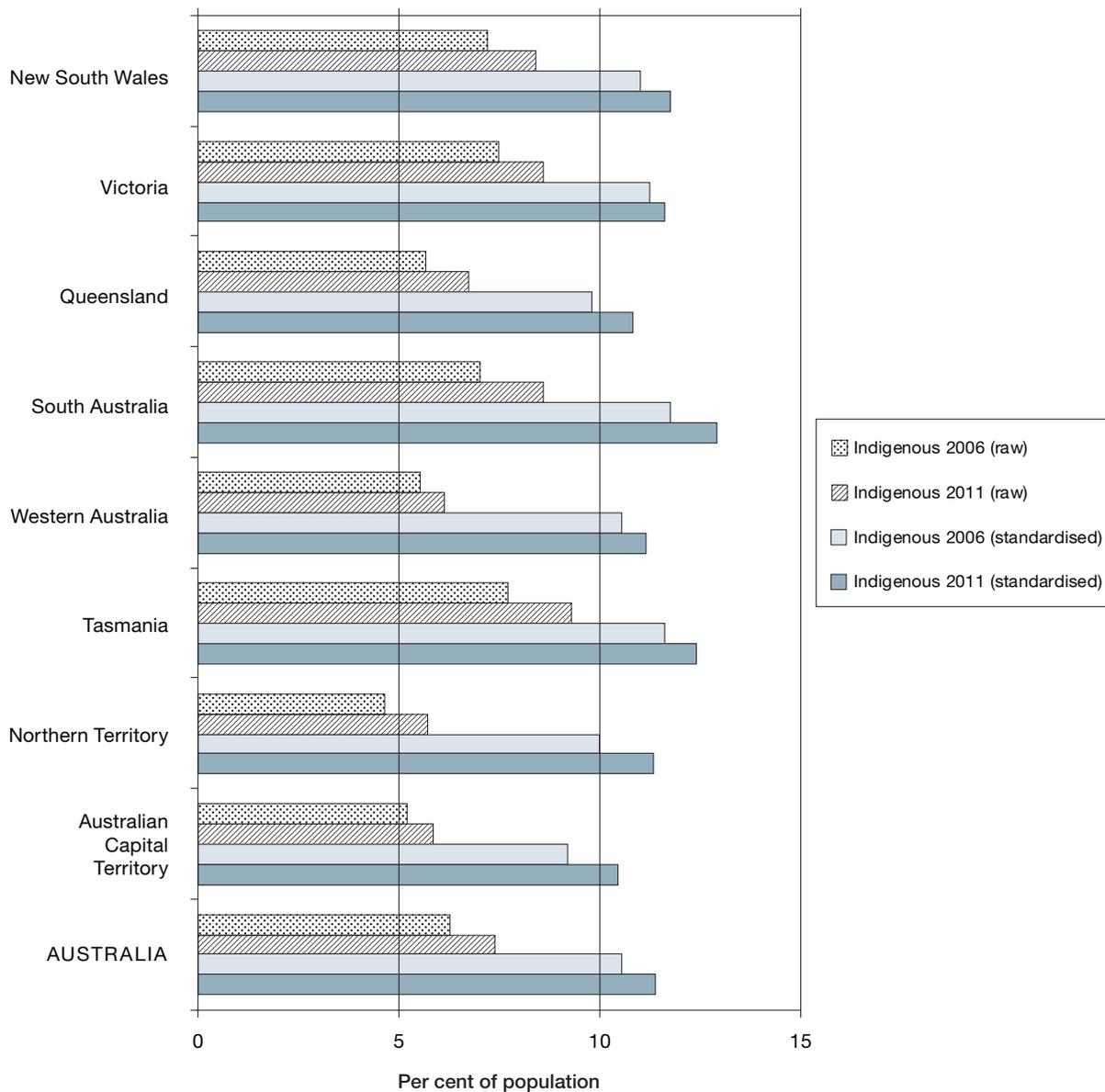
There is quite a difference in the raw and age-standardised rates of profound or severe disability for the Indigenous population. This is a reflection of the more youthful Indigenous population. For Indigenous males and females, the difference between rates of profound or severe disability in 2006 and 2011 reduces once age is standardised. However, even with standardised rates, as a whole, there has been an increase in the percentage of the Indigenous male and female population who reported a profound or severe disability.

In summary, for both Indigenous males and females, there was an increase in the age-standardised rate of profound or severe disability for all jurisdictions, as well as for Australia as a whole. It is true that this increase is less than what is suggested by the raw change, showing that the changing age and geographic distribution is likely to be causing some of the increase in reporting. Nonetheless, demography and geography don't explain all of the change.

It is quite possible that the figure for 2006 was severely understated, because it was a new question in 2006 and because of the probable reluctance of Indigenous Australians with a disability to identify as such. This assumption is bolstered by the finding from the 2008 NATSISS that around 26,000 Indigenous Australians aged 15 years and over (7.9%) had a severe or profound core activity limitation. While the questions on the census and the NATSISS were different, the fact that the 2011 estimate is much closer to the 2008 NATSISS would suggest that it is closer to the true incidence in the population.

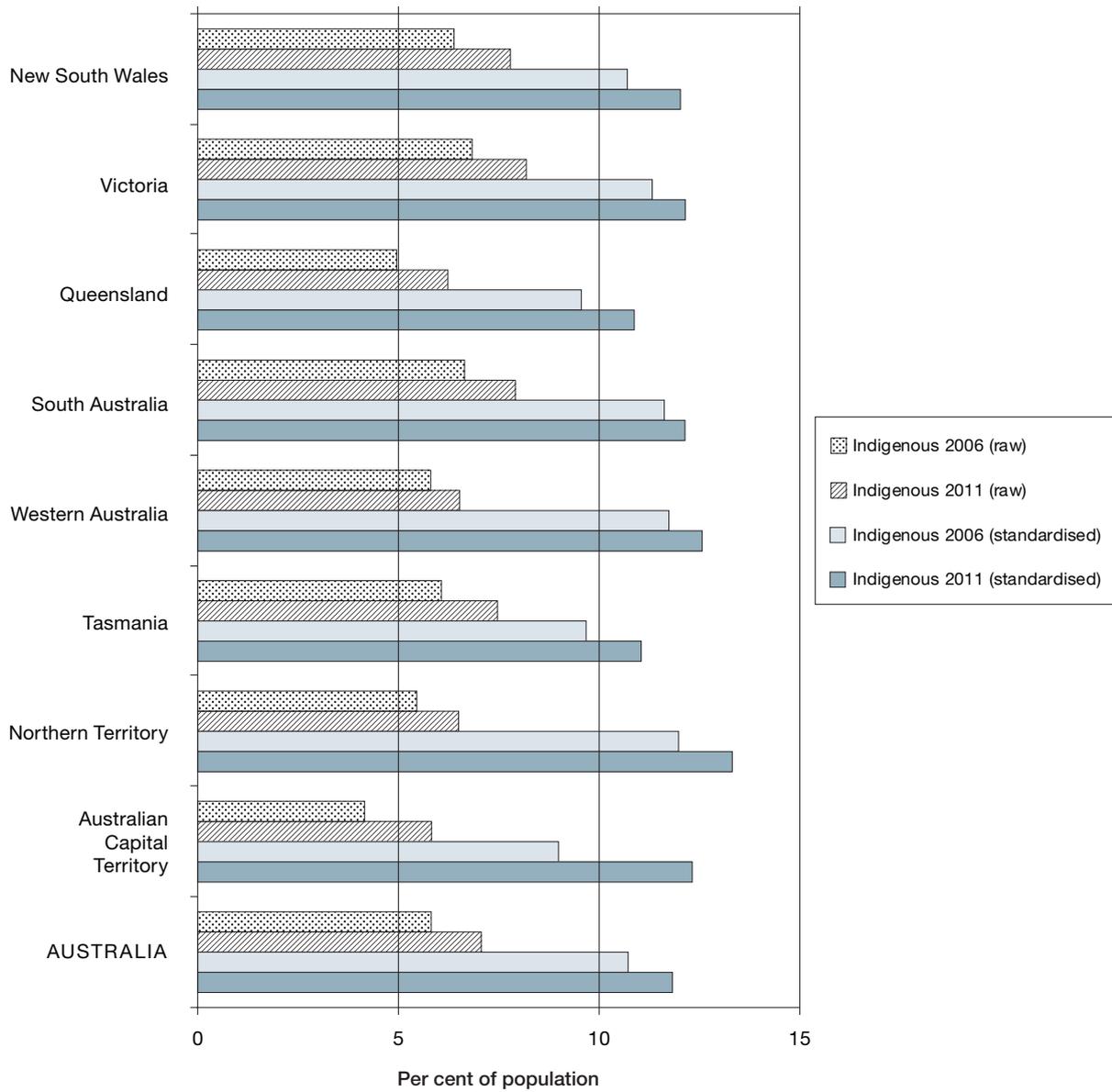
It is possible, though not likely, that Indigenous health has deteriorated over the last intercensal period, thereby causing a rise in reported disability. This would need to be tested when life expectancy data is released in late 2013 and when data from the National Aboriginal and Torres Strait Islander Health Survey that is currently in the field become available. However, it is more likely that Indigenous Australians with a disability are losing some of the reluctance to identify as such—a potentially positive change if it means that they are more willing to access the types of disability services that would enable them to manage their condition.

**FIGURE 6.** Age-standardised and raw profound or severe disability rates for Indigenous males 15 years and over by State or Territory, 2006 and 2011



Source: Customised calculations using the 2006 and 2011 Censuses.

**FIGURE 7. Age-standardised and raw profound or severe disability rates for Indigenous females 15 years and over by State or Territory, 2006 and 2011**



Source: Customised calculations using the 2006 and 2011 Censuses.

#### 4. Economic participation of people with a profound or severe disability

There are a number of potential barriers for a person with a disability to gaining and maintaining employment (Baldwin & Johnson 1994; Dempsey & Ford 2009; Jones 2008; Wilkins 2004). For some, their condition is severe enough to preclude any formal engagement with the labour market. Many others, however, are willing and able to work but are not able to find an employer who is sufficiently supportive. Discrimination (or at the very least the fear of discrimination) is also likely to impact heavily on some who have a disability. It is very hard to separately identify the effects of discrimination, unobserved productivity and preferences. This is especially the case for the Indigenous population, for whom longitudinal data and natural experiments that can be used to identify causality are currently non-existent. Whatever the reasons, nationally those who report a need for assistance tend to have significantly lower employment outcomes compared to those without a need for assistance. This is true for both Indigenous and non-Indigenous populations, as demonstrated in Table 1.

The main finding from Table 1 is that those who reported a need for assistance in the census were less likely to be employed or unemployed than the rest of the population, and much more likely to not be in the labour force. There are, however, differences by year, sex and Indigenous status. In 2011, Indigenous males with a need for assistance were significantly more likely to be employed than Indigenous females who also reported a disability. They were also more likely to be unemployed as opposed to not in the labour force.

**TABLE 1. Labour force status by need for assistance, Indigenous and non-Indigenous males and females aged 15 years and over, 2011**

	Indigenous		Non-Indigenous	
	Need for Assistance	No need for assistance	Need for Assistance	No need for assistance
<b>Males</b>				
Employed (non-CDEP + CDEP)	10.6	53.5	9.5	71.0
Unemployed	3.4	11.7	1.6	4.0
Not in the labour force	85.9	34.8	88.9	25.0
<b>Females</b>				
Employed (non-CDEP + CDEP)	8.3	43.8	6.2	59.0
Unemployed	1.8	8.3	0.8	3.4
Not in the labour force	89.9	47.9	93.0	37.0

Note: CDEP = Community Development Employment Projects

Source: Customised calculations using the 2006 and 2011 Censuses.

One of the more interesting findings from Table 1 was that Indigenous Australians who had a need for assistance were more likely to be employed than their non-Indigenous counterparts. This was true for males, but particularly the case for females. However, as shown in Figure 8, this is mainly driven by the relatively young age profile of Indigenous Australians with a profound or severe disability.

Figure 8 demonstrates that for each five-year age cohort, non-Indigenous males and females with a profound or severe disability were more likely to be employed than their Indigenous counterparts. This difference was not consistent across the lifecycle, with a particularly large gap for those aged 20–34. So although Indigenous people with a profound or severe disability were more likely to be employed than a non-Indigenous person with a profound or severe disability, this is mainly driven by the fact that those Indigenous people who reported a need for assistance were much more likely to be in the age groups where employment is more likely.

There are also significant differences in the proportion of the respective Indigenous and non-Indigenous populations in the jurisdictions with a need for assistance who are employed. This reflects in part the different demographic and employment profiles of the Indigenous populations across the eight states and territories and can be seen in Figure 9. Separate figures are given for the Indigenous and non-Indigenous populations, with both also age-standardised to the Australian, non-Indigenous population with a disability.

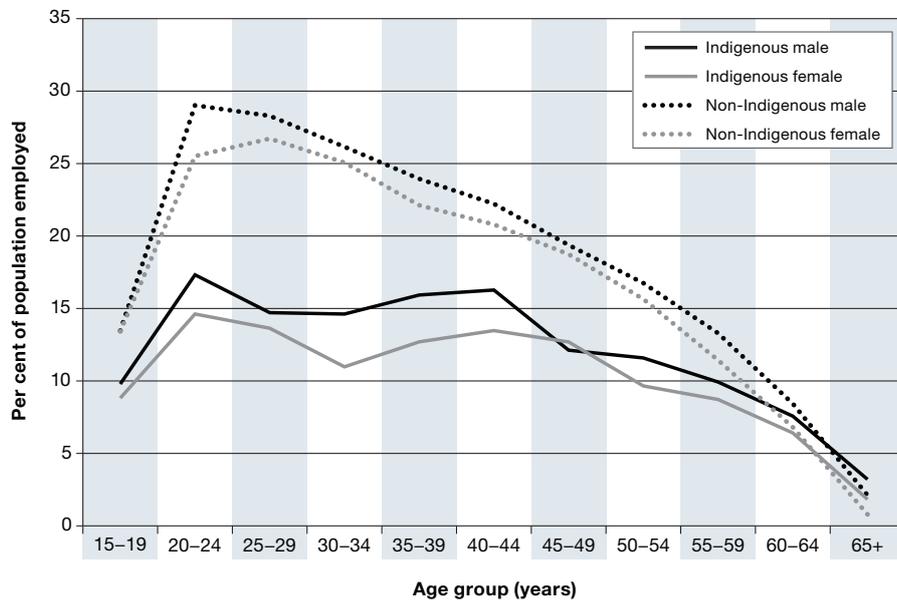
Looking first at the raw figures, out of all the jurisdictions, Indigenous people with a need for assistance who were living in the Australian Capital Territory had the highest share of the population employed. Almost a quarter of Indigenous individuals living in the Australian Capital Territory with a profound or severe disability were employed—more than double the other states and territories and almost double that of the non-Indigenous population in the Australian Capital Territory with a disability. The Northern Territory and Western Australia were the only two jurisdictions where non-Indigenous individuals with a profound or severe disability were more likely to be employed than their Indigenous counterparts.

Once again though, the results vary considerably when we age-standardise the Indigenous population. After doing so, the employment share of the non-Indigenous population with a profound or severe disability was higher than the Indigenous share across all jurisdictions, with the largest differences now occurring in the Northern Territory and Western Australia. The younger age profile of Indigenous persons with a profound or severe disability is the reason for the higher percentage employed. Once this is controlled for, Indigenous Australians identified as having a disability in the census were less likely to be employed than their non-Indigenous counterparts.

It is important to note that even after age standardising, there were still considerable differences in employment outcomes across the Indigenous population. These reflect, in part, employment differences for the total Indigenous population in these states. For example, 62.2 per cent of the Indigenous population 15 years and over were employed in the Australian Capital Territory compared to 36.0 per cent in the Northern Territory. We will return to this employment distribution in a later paper in this series.

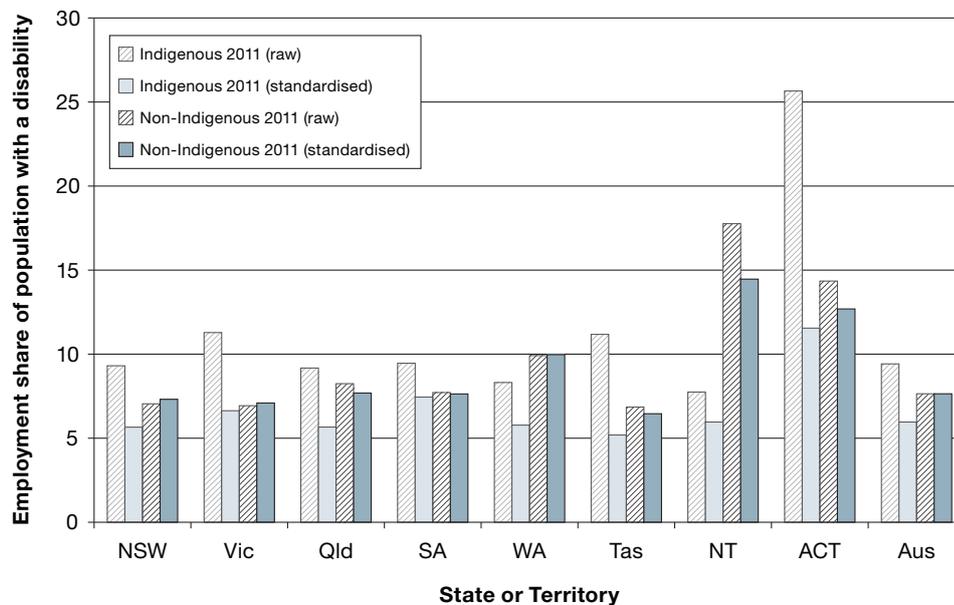
Having a disability also has implications for the type of occupation that a person might be able to obtain. For Indigenous males with a profound or severe disability, the majority of those employed were labourers (37%). This is about 13 percentage points higher than Indigenous males without such a disability. On the other hand, Indigenous females with a profound or severe disability tended to be employed as professionals and community and personal service workers.

**FIGURE 8.** Percentage of population with a profound or severe disability who are employed, by age, sex and Indigenous status, 2011



Source: Customised calculations using the 2011 Census.

**FIGURE 9.** Percentage of population with a need for assistance who are employed, by Indigenous status, with and without age standardisation, 2011



Source: Customised calculations using the 2011 Census.

**TABLE 2. Provision of unpaid child care and unpaid assistance to a person with a profound or severe disability, a long-term illness, or problems related to old age by Indigenous status, sex and whether or not the individual had a need for assistance, 2011**

	Indigenous		Non-Indigenous	
	Disability (per cent)	No disability (per cent)	Disability (per cent)	No disability (per cent)
<b>Males</b>				
Did not provide unpaid assistance, but provided unpaid child care	11.1	24.3	7.1	23.0
Provided unpaid assistance and unpaid child care	4.4	5.9	2.4	3.7
Provided unpaid assistance, but did not provide unpaid child care	7.7	5.5	7.6	5.7
Did not provide unpaid assistance or unpaid child care	76.7	64.3	82.9	67.7
<b>Females</b>				
Did not provide unpaid assistance, but provided unpaid child care	14.7	33.8	7.1	28.6
Provided unpaid assistance and unpaid child care	8.7	11.3	3.5	7.0
Provided unpaid assistance, but did not provide unpaid child care	8.3	5.8	7.2	7.3
Did not provide unpaid assistance or unpaid child care	68.2	49.1	82.2	57.1

Source: Customised calculations using the 2011 Census.

The lower participation in the labour force (documented in Table 1) and type of occupation held by those who need assistance is reflected in the average weekly individual income as reported in the census. Indigenous males and females with need for assistance had the lowest average weekly individual incomes across the different groups (\$356 and \$354). In comparison, the figures for non-Indigenous males and females with a need for assistance were \$420 and \$384 respectively (Figure 11).

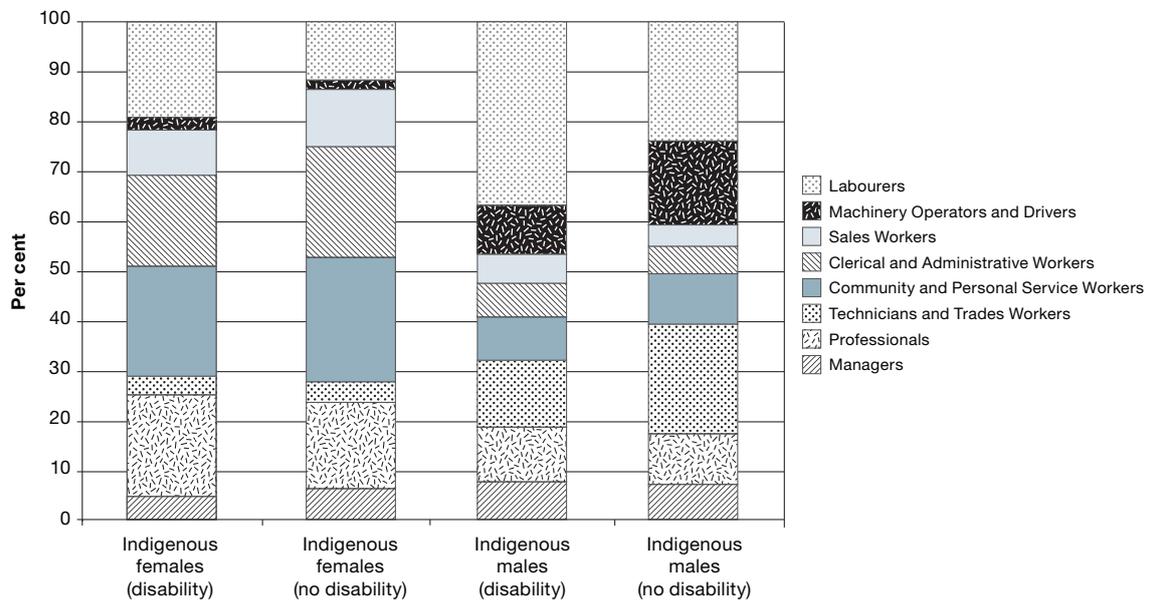
Looking more broadly at the Indigenous population with a profound or severe disability, we find that despite their lower labour force participation (demonstrated in Figure 8), Indigenous males and females participated in the community by providing unpaid care, volunteering and providing child care. Indigenous males and females with a profound or severe disability were more likely than their non-Indigenous counterparts to also be providing care for someone with a profound or severe disability a long-term illness, or problems related to old age. By combining the second and third row in each section of the table, we can see that amongst those with a disability themselves, Indigenous females were the most likely to be providing such care across all the different population subgroups (17%). Indigenous males and females with a profound or severe disability also provided unpaid child care for their own children and/or other children. Almost a quarter of Indigenous females with a disability in the census were providing unpaid child care. This is substantially more than the corresponding non-Indigenous females.

Despite the differences between the respective Indigenous and non-Indigenous populations, reporting a profound or severe disability was still associated with a lower probability of providing unpaid child care and/or unpaid assistance to someone else with a disability, a long-term illness, or problems related to old age. Looking at the last row of each section of the table, 76.7 per cent of Indigenous males with a profound or severe disability did not provide assistance or child care compared to 64.3 per cent of those without a profound or severe disability. There was a slightly larger difference for Indigenous females (68.2% compared to 49.1%).

The differences in not providing any care between those with and without a profound or severe disability were not as large as the difference in paid employment. This may be because there are fewer barriers, a greater need or a relative preference for those with a profound or severe disability to provide care as opposed to undertaking paid employment.

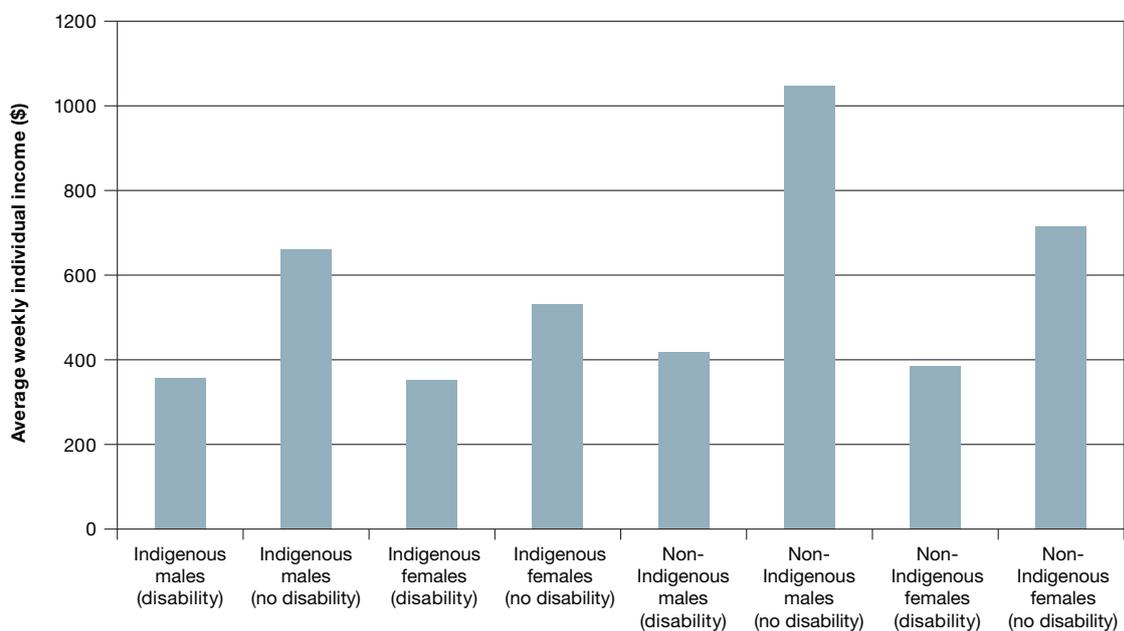
Once again, there were significant differences by Indigenous status and sex. Indigenous females were more likely than Indigenous males to provide unpaid assistance and/or unpaid child care. This was true regardless of whether the individual has a need for assistance themselves. For both sexes, Indigenous Australians were more likely to provide child care or unpaid assistance.

**FIGURE 10. Distribution of Indigenous and non-Indigenous males and females by whether they have a profound or severe disability and occupation, 2011**



Source: Customised calculations using the 2011 Census.

**FIGURE 11. Average weekly individual income by Indigenous status and need for assistance and gender, 2011<sup>1</sup>**



Source: Customised calculations using the 2011 Census.

1. In calculating the average weekly individual income, the mid-point of the income categories were used as estimates. For those reporting negative individual weekly income, an amount of zero dollars was imputed. For those reporting individual income levels of \$2000 or more, the dollar amount was imputed by multiplying the top code of \$2000 by a factor of 1.5.

This difference was, however, much higher for those with a profound or severe disability themselves, and was particularly the case for the provision of child care.

There may be some benefits to the individual from providing such care. It also may be that based on their own experiences, Indigenous Australians with a profound or severe disability have a stronger preference for providing care themselves rather than paying for it. Nonetheless, the results in Table 2 do point to a potential lack of availability of paid care options for Indigenous Australians with a disability, either due to the areas in which they live or because of their relatively low levels of income, as documented in Figure 11. This can have implications across the lifecourse (see Yap & Biddle 2012), with young Indigenous people more likely to be carers than their non-Indigenous peers, potentially contributing to low participation rates in Year 12, vocational education and training courses and university studies.

## 5. Summary and conclusions

The Government has recently announced the trial and eventual roll-out of the NDIS. It is a major policy initiative that has the potential to improve the lives of all Australians with a disability. However, given the higher rate of disability amongst the Indigenous population (documented in this paper and elsewhere), the NDIS is of particular relevance to the Indigenous population. There are a few distinguishing factors which make the disability experience amongst the Indigenous population different to those of the non-Indigenous population.

Firstly, census data suggests that Indigenous Australians experience a profound or severe disability at a rate higher than non-Indigenous Australians for all points across the life course. This is both a cause and consequence of the relatively poor health and socioeconomic circumstances of Indigenous Australians. Related to this, whilst ageing-associated disability is likely to become more common as the Indigenous population ages, Indigenous Australians are a relatively young population and there is a higher prevalence of disability amongst Indigenous children than in their non-Indigenous counterparts. The types of services which may be required by those Indigenous Australians with a disability are likely to be different at different ages. For the elderly, aged care services and appropriate housing will be one of the considerations. For the young, school-appropriate care and learning aids are likely to be a particular focus.

Secondly, Indigenous Australians face a number of potential barriers to accessing disability and support services. The Productivity Commission (2011) report identifies two main potential barriers—a lack of disability-friendly services in the areas in which they live (with a higher proportion of Indigenous Australians living in very small communities which may not be easily accessible in terms of provision of services), and a reluctance of some Indigenous Australians with a disability to engage with the services that are there. Yet as previous census papers in the series suggest (Yap & Biddle 2012), Indigenous carers remain a potential care workforce who could be harnessed in these areas and assisted to provide culturally appropriate care and services to Indigenous males and females with a disability. Programs and services that are embedded within the local communities will likely result in better outcomes for Indigenous males and females living in remote and regional areas.

Thirdly, there is qualitative evidence (First Peoples Disability Network 2011) that Indigenous Australians with a disability are less likely to identify as such either within the community, to survey interviewers and to service providers. There is, however, evidence from the census that this reluctance may be diminishing, at least with regards to identifying as having a disability in statistical collections. The Indigenous population reporting that they have a disability has grown substantially since 2006 both in absolute terms and relative to the overall Indigenous population. Analysis in this paper has shown that this is only partly driven by demographic and geographic factors. In the absence of a substantial deterioration in Indigenous health (for which there is no evidence), it is likely that Indigenous Australians are now reporting disabilities at a rate which is more commensurate with the actual level of disability in the community. Rather than seeing the increase in disability between 2006 and 2011 as a bad thing, it may be that we are now getting more and better information on this important segment of the Indigenous population.

There are many barriers to participating in the labour force for people with a disability. This is compounded for Indigenous Australians who have been shown to suffer from poorer employment outcomes than non-Indigenous Australians, even after controlling for a range of observed characteristics (Biddle & Yap 2010). Analysis presented in this paper showed that at each point on the age distribution, Indigenous Australians with a disability are less likely to be employed than their non-Indigenous counterparts (after taking into account the different age distributions of the populations).

A fifth and final point to note from the analysis is that Indigenous males and females with a disability participate in the community at a relatively high rate by providing unpaid care and assistance to others in the community. Despite having a disability, they continue to provide unpaid assistance at a greater rate than non-Indigenous individuals with a disability. For carers with a disability or poor health, there may be additional support that might be required to help them continue to provide the support that those around them draw on.

Ultimately, not enough is known on this subset of the population, in particular Indigenous children with a disability. While surveys like the Longitudinal Survey of Indigenous Children and the NATSISS do provide further details on type of disability and barriers to accessing services, the information is not always available at the level of geography which is more informative for service provision and policy planning. Such information will be vital to the ongoing evaluation and monitoring of the NDIS.

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