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Regional Centres

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In July 2012, the Australian Bureau of Statistics 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 FaHCSIA or any other government departments.

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Contents

Abstract	ii
Acknowledgments	ii
List of acronyms	ii
Introduction and overview	1
Identifying and classifying regional centres	1
The demography of Australia's regional centres	3
Mobility into, out of and within regional centres	8
Developing an Index of Mobility-Related Service Issues	12
Socioeconomic outcomes in selected regional centres	15
Concluding comments	16
References	16

Abstract

Regional centres are an important but often overlooked set of areas with particular policy and population dynamics. In this paper, we identify 43 regional centres which we have defined as having a total population of between 10,000 and 250,000 with at least 1,000 Indigenous usual residents. These areas contain substantially more Indigenous Australians overall than remote Indigenous communities (23 per cent of the total Australian Indigenous population in 2011). However, the Indigenous population in these areas tend to make up a greater share of the population than in Australia's major cities. Despite this, policy interest is very rarely devoted to individual regional centres or to regional centres as a separate geographic grouping. Compared to the rest of the Australian Indigenous population, as well as the non-Indigenous population of the 43 selected regional centres, those Indigenous Australians living there were relatively young. Partly because of this relatively young age distribution, the Indigenous population in the selected regional centres was relatively mobile, both in the short-term and over the long-term. One of the innovations of this paper was the development of an index of mobility which was analysed alongside an index of socioeconomic outcomes. The intersection of these indices identified four regional centres of particular policy concern. Specifically, compared to the other regional centres Port Augusta, Geraldton, Kalgoorlie-Boulder and Hervey Bay were identified as having a relatively disadvantaged Indigenous population, as well as a highly mobile population.

Acknowledgements

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List of acronyms

ABS	Australian Bureau of Statistics
ERP	estimated resident population
IMRSI	Index of Mobility-Related Service Issues
IRSEO	Indigenous Relative Socioeconomic Outcomes
PCA	Principal Components Analysis
SEIFA	Socioeconomic Indexes for Areas
SUA	Significant Urban Areas

Introduction and overview

Policy debate in Australia has a tendency to focus on what is taking place in our largest capital cities. This is not surprising, given that 37% of Australians live in either Sydney or Melbourne and over 60% live in the six largest capital cities, Sydney, Melbourne, Brisbane, Perth, Adelaide and Canberra. This 'metrocentrism' is mirrored in academic research, where Bell and Jayne (2009, p.683) argue that regional centres have been 'bypassed', resulting in a mischaracterisation of the 'full picture of urban form and function'. Indeed, urban experiences of the 16% of Australians who dwell in cities and towns with populations between 10,000 and 250,000 are qualitatively different to those living in the largest metropolises.

In Australia, recent scholarship regarding regional centres has highlighted the way in which economic restructuring since the mid-1980s has catalysed divergent urban growth trajectories. Beer and Maude (1995) point out that while the coastal retirement and tourism destinations of Bunbury, Broome and Busselton were the fastest growing settlements in Australia during the late eighties, towns based around manufacturing and declining mines such as Whyalla and Mt Isa were experiencing rapid depopulation. Population growth, however, may not be the best indicator of community wellbeing at the city scale. As Stimson, Baum and O'Connor (2003) have demonstrated, while so-called 'sun-belt' coastal retirement destinations such as Coffs Harbour and Hervey Bay experienced relatively high population growth during this period, their residents had relatively low incomes and high levels of unemployment. Conversely, even in towns with declining populations such as Mt Isa, specialisation around the extractive industries may keep employment and income relatively high. Subsequent research has emphasised the heterogeneity of restructuring experiences among regional towns over the past three decades (e.g. Baum 2006; Beer & Clower 2009).

Similarly, debates in Indigenous affairs tend to neglect the experiences of regional towns. Where general policy debate may focus on the major cities, Indigenous policy tends to focus on more remote parts of the country, especially the Northern Territory. This is, perhaps, no coincidence. Almost all the land returned to its Indigenous owners under native title legislation and various land rights measures is located in what the ABS define as remote or very remote Australia (Altman & Markham 2013). Furthermore, it is in the remote Northern Territory that Indigenous people form the greatest proportion of the population, where the greatest number of discrete Indigenous communities are located and where Commonwealth legislation has overridden territory laws regarding Aboriginal people on several occasions since the 1967 referendum.

Despite the practical and symbolic importance of remote Australia for Indigenous policy, relatively few Indigenous Australians live in discrete communities in remote areas. While the Indigenous population is, like the non-Indigenous Australian population, mostly concentrated in Australia's capital cities, a substantial and growing proportion of the population (over 23 %) are resident in smaller regional centres. Located between small scale communities and the large metropolises in Australia's settlement hierarchy, the life chances of Indigenous residents of regional centres are influenced by the employment and service opportunities in their place of residence. The Indigenous population in regional centres tend to have worse socioeconomic outcomes than the non-Indigenous population. However, the diversity of local contexts and circumstances of these cities make them worthy of their own focused study.

In this paper, we use data from the 2011 Census to look at the demographic and socioeconomic characteristics of the Indigenous population in 43 regional centres. We select these centres based on three criteria:

- They must be classified by the Australian Bureau of Statistics (ABS) as a Significant Urban Area (SUA) which implies a population of 10,000 usual residents or more;
- They cannot have a population of 250,000 usual residents or more, as that would put them in the 'major city' category in the ABS's remoteness hierarchy; and
- They must have had an Indigenous population estimate of at least 1,000 usual residents in 2011.

In the next section we provide a classification of the 43 regional centres that fit the above criteria. This is followed by an analysis of the demographic characteristics of the regional centres, followed by the migration patterns into and out of them between 2006 and 2011. We then move on from demography to analyse the socioeconomic circumstances of the 43 regional centres. We then conclude the paper with a summary of the key issues and some implications for policy formulation.

Identifying and classifying regional centres

In the introduction to this paper, we discussed the three criteria used to identify 43 regional centres in Australia. In essence, these regional centres have a large enough population to be considered a self-contained labour market and service centre (more than 10,000), but not too large that they begin to split into more than one location with distinct regions and identities (less than 250,000).

TABLE 1. Indigenous and total population in 43 selected regional centres, 2011

Selected regional centre	Total ERP	Indigenous ERP	Indigenous per cent of total	Per cent of Australian Indigenous	Per cent of Australian total
Hobart	206,639	8,030	3.89	1.20	0.93
Geelong	180,440	1,930	1.07	0.29	0.81
Townsville	166,998	12,567	7.53	1.88	0.75
Cairns	136,254	14,810	10.87	2.21	0.61
Darwin	113,433	12,238	10.79	1.83	0.51
Toowoomba	110,331	4,797	4.35	0.72	0.49
Ballarat	95,353	1,399	1.47	0.21	0.43
Bendigo	89,900	1,595	1.77	0.24	0.40
Albury-Wodonga	86,020	2,222	2.58	0.33	0.39
Launceston	85,115	2,844	3.34	0.42	0.38
Mackay	79,092	4,349	5.50	0.65	0.35
Rockhampton	75,306	5,577	7.41	0.83	0.34
Bundaberg	69,482	2,925	4.21	0.44	0.31
Bunbury	69,155	2,147	3.10	0.32	0.31
Coffs Harbour	67,397	3,223	4.78	0.48	0.30
Wagga Wagga	55,427	3,050	5.50	0.46	0.25
Hervey Bay	50,598	1,986	3.93	0.30	0.23
Mildura-Wentworth	49,084	2,882	5.87	0.43	0.22
Shepparton-Mooroopna	47,807	2,230	4.66	0.33	0.21
Port Macquarie	43,845	1,556	3.55	0.23	0.20
Gladstone-Tannum Sands	42,348	1,932	4.56	0.29	0.19
Tamworth	40,611	4,492	11.06	0.67	0.18
Geraldton	38,193	4,304	11.27	0.64	0.17
Orange	38,115	2,397	6.29	0.36	0.17
Dubbo	36,165	5,758	15.92	0.86	0.16
Nowra-Bomaderry	34,482	2,835	8.22	0.42	0.15
Bathurst	34,151	1,822	5.34	0.27	0.15
Albany	32,772	1,348	4.11	0.20	0.15
Kalgoorlie-Boulder	30,781	2,651	8.61	0.40	0.14
Lismore	29,999	1,861	6.20	0.28	0.13
Devonport	29,992	1,874	6.25	0.28	0.13
Burnie-Wynyard	27,842	2,017	7.24	0.30	0.12
Alice Springs	27,335	5,667	20.73	0.85	0.12
Maryborough	27,134	1,296	4.78	0.19	0.12
Taree	26,661	2,234	8.38	0.33	0.12
Armidale	23,416	1,773	7.57	0.26	0.10
Cessnock	21,007	1,240	5.90	0.19	0.09
Mount Isa	19,756	3,716	18.81	0.55	0.09
Grafton	19,398	1,727	8.90	0.26	0.09
Broken Hill	19,172	1,690	8.81	0.25	0.09
Port Augusta	13,758	2,897	21.06	0.43	0.06
Broome	13,254	3,640	27.46	0.54	0.06
Port Hedland	12,756	2,577	20.20	0.38	0.06
All included regional centres	2,516,774	154,105	6.12	23.01	11.27

Source: Customised calculations based on the 2011 Census

TABLE 2. Classification of 43 regional centres based on Indigenous population growth and remoteness hierarchy

		Indigenous Population Growth	
		High	Low
Remoteness	Inner Regional	Albury-Wodonga Ballarat Bathurst Bendigo Bunbury Bundaberg Cessnock Dubbo Grafton Hervey Bay Nowra-Bomaderry Orange Taree Toowoomba	Armidale Coffs Harbour Geelong Gladstone -Tannum Sands Hobart Launceston Lismore Mackay Maryborough Port Macquarie Rockhampton Shepparton-Mooroopna Tamworth Wagga Wagga
	Outer Regional	Cairns Geraldton Townsville	Albany Broken Hill Burnie-Wynyard Darwin Devonport Kalgoorlie-Boulder Mildura-Wentworth Port Augusta
	Remote		Alice Springs Broome Mount Isa Port Hedland

Source: Customised calculations based on the 2011 Census.

Furthermore, they need to have a large enough Indigenous population (more than 1,000) to warrant the consideration of specific services for the Indigenous population that meet their specific needs and circumstances.

Table 1 lists these 43 regional centres in order of their total estimated resident population (ERP).¹ The urban areas range from Hobart, with a population of around 206,000 people at the time of the 2011 Census, to Port Hedland with a population of around 13,000. The first two columns of the table give the total and Indigenous ERPs, with the third column giving the percentage of the total ERP identified as being Indigenous. The ABS estimates that the Indigenous population of Australia was around 670,000 at the time of the 2011 Census, out of a total population of around 22,324,000. The last two columns give the Indigenous and total populations in each of the regions expressed as a percentage of the Australian Indigenous

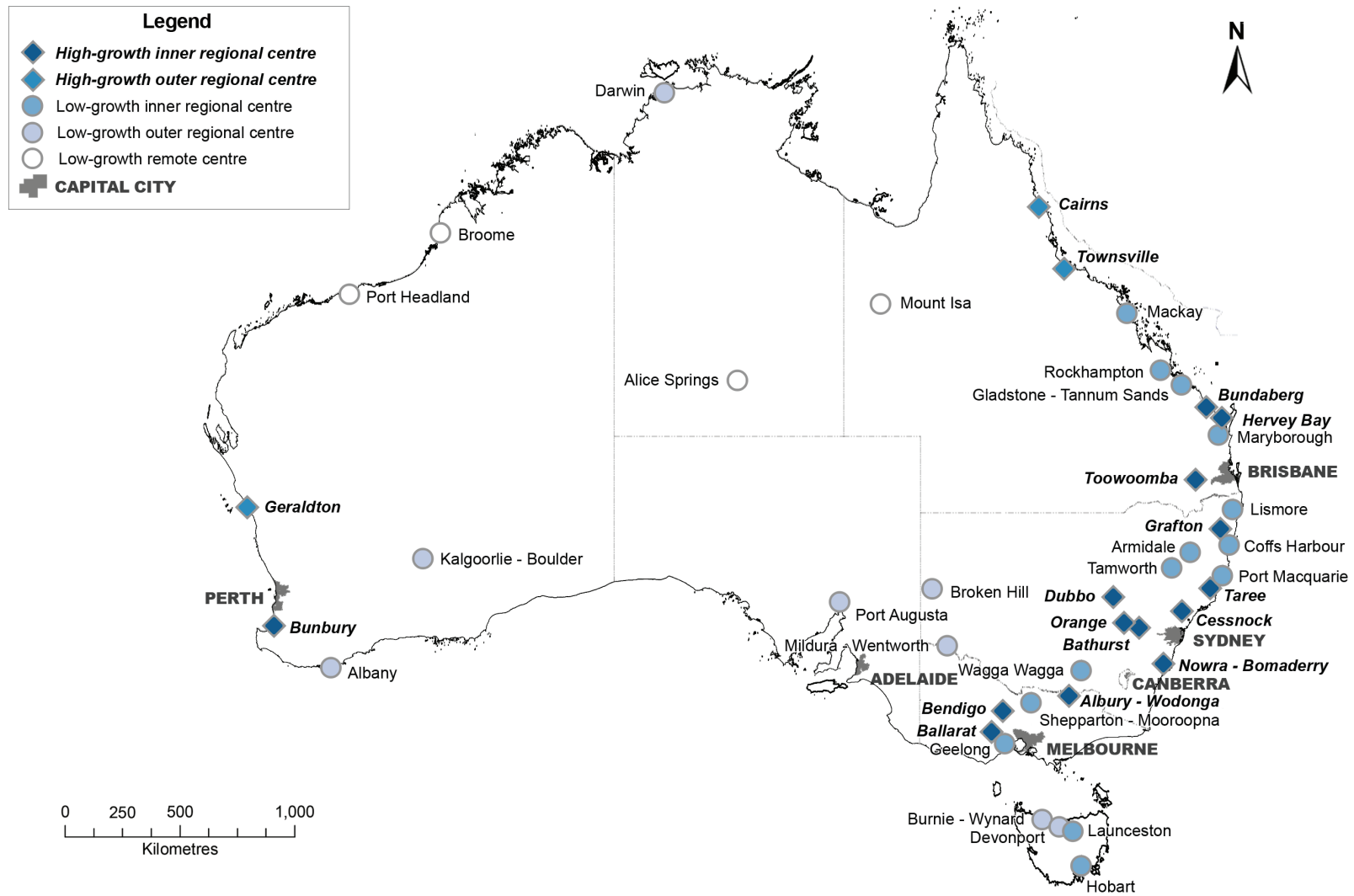
and total population. The last line of the table gives the relevant data for all 43 selected regional centres combined.

Looking at the last line of the table, there were 154,105 Indigenous Australians who were estimated to be living in the 43 selected regional centres at the time of the 2011 Census. This made up a little over 6 per cent of the population in those regional centres, roughly twice the per cent of the total Australian population that was estimated to be Indigenous in 2011.

Of the regional centres included in this analysis, the one with the largest Indigenous population in absolute terms was Cairns, with an estimated Indigenous population of 14,810, or 2.2 per cent of the total Australian Indigenous population. There were two other regional centres with Indigenous populations of 10,000 people or more—Townsville and Darwin. The regional centre which had the highest Indigenous percentage in terms of its population estimate was Broome, where 27.5 per cent of the 13,254 usual residents were estimated to be Indigenous. There were three other regional centres where at least one-fifth of the population were estimated to be Indigenous—

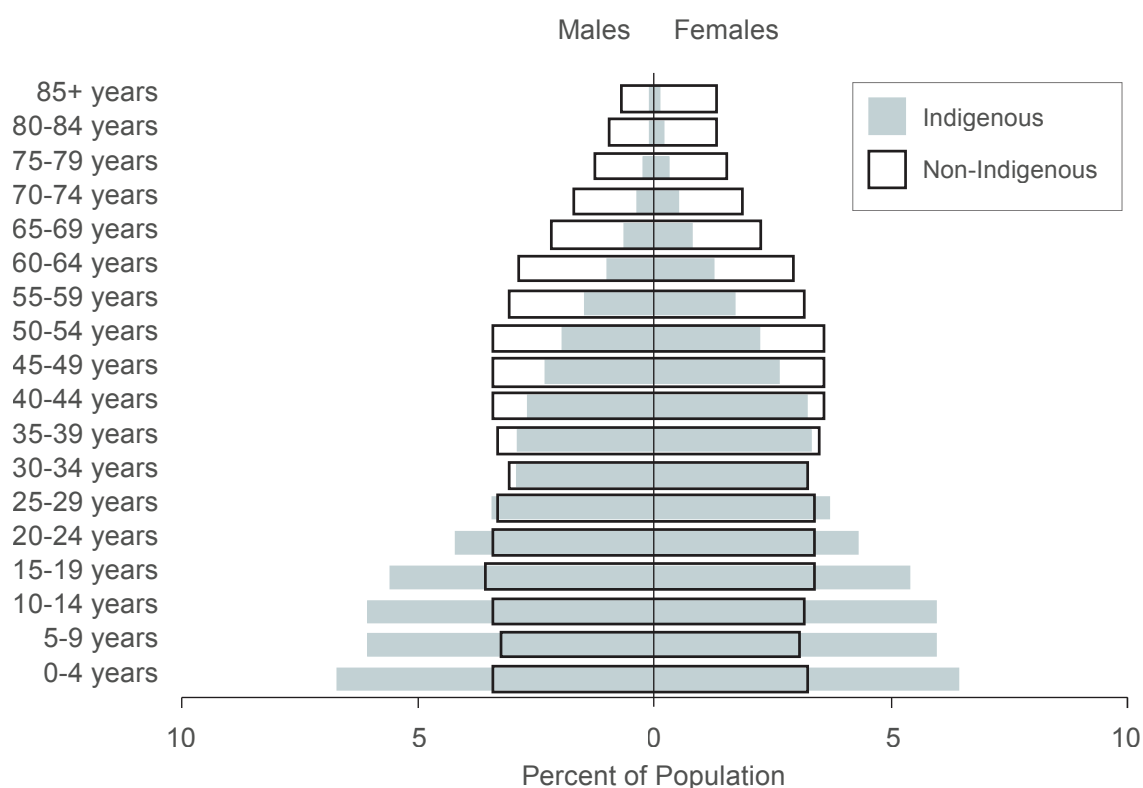
1. At the time of writing this paper, there were no data available on the ERP of geographical entities smaller than States or Territories. We therefore used the published state, age and sex specific undercount factors for Indigenous people to estimate undercount at lower levels of the geography and calculate a pseudo-ERP.

FIG. 1. Map of 43 regional centres based on Indigenous population growth and remoteness hierarchy



Source: Customised calculations based on the 2011 Census.

FIG. 2. Age distribution of the Indigenous and non-Indigenous population of 43 selected regional centres



Source: Customised calculations based on the 2011 Census.

Port Augusta (21.1 %), Alice Springs (20.7 %) and Port Hedland (20.2 %).

There are a number of possible ways to classify the 43 regional centres in Table 1. In this paper, we chose to follow a two-way classification based on the ABS classification of remoteness as well as Indigenous population growth over the last intercensal period. Specifically, the regional centres were grouped into three ABS remoteness types—inner regional, outer regional and remote. Each centre was also classified into either low growth or high growth, with the later including all those centres for which the Indigenous population count and the Indigenous population count as a percentage of the total population grew faster than the national average (20.5%). As there were no remote urban areas with a relatively rapid population increase, this led to the 43 regional centres being grouped into five mutually exclusive categories, as documented in Table 2.

Table 2 shows that there were the same number of high growth and low growth inner regional centres (14 in each category). Of the 11 outer regional centres included in the analysis, however, only three were categorised as being

high growth. Fig. 1 maps the regional centres within these five categories, with the large capital cities also presented for geographic context.

The demography of Australia's regional centres

One of the defining features of the demography of Indigenous Australians is the relatively young age profile (Biddle 2012). As shown in Fig. 2, the Indigenous population of Australia's regional centres also has a very young population relative to the non-Indigenous population in these centres. The age pyramid in Fig. 2 gives the percentage of the total Indigenous population count in the 43 regional centres who are in a given five-year age group by sex (solid bars) as well as the corresponding percentage of the non-Indigenous population count in that age/sex category (hollow bars).

This figure shows that a very large proportion of the Indigenous population is in the first five age groups (aged

TABLE 3. Age structure of the Indigenous population by regional centre and per cent of total population in each age group who are Indigenous

Selected regional centre	Per cent of Indigenous population in age group			Per cent of age group that is Indigenous		
	0 to 14	15 to 64	65plus	0 to 14	15 to 64	65plus
Hobart	35.2	61.0	3.8	6.4	3.1	0.8
Geelong	37.8	59.4	2.8	1.9	0.8	0.2
Townsville	38.0	59.4	2.6	12.0	5.8	1.9
Cairns	38.7	58.1	3.2	17.3	8.3	3.3
Darwin	32.8	64.3	2.9	16.6	9.3	4.9
Toowoomba	42.0	55.1	2.9	7.8	3.4	0.7
Ballarat	36.5	59.3	4.2	2.4	1.2	0.4
Bendigo	38.0	58.1	3.9	3.0	1.4	0.4
Albury-Wodonga	41.8	55.2	3.0	4.7	1.9	0.5
Launceston	35.2	60.8	4.0	5.5	2.7	0.7
Mackay	38.5	58.4	3.1	9.0	4.3	1.4
Rockhampton	39.9	56.6	3.5	12.4	5.7	1.8
Bundaberg	42.2	54.2	3.6	8.0	3.4	0.7
Bunbury	36.2	61.3	2.5	4.6	2.5	0.6
Coffs Harbour	37.7	59.1	3.2	8.6	4.1	0.8
Wagga Wagga	39.3	58.0	2.7	9.3	4.4	1.0
Hervey Bay	43.6	52.2	4.2	8.0	3.2	0.6
Mildura-Wentworth	39.7	57.4	2.9	9.7	4.7	0.9
Shepparton-Mooroopna	37.7	57.8	4.5	7.2	3.7	1.2
Port Macquarie	38.8	57.4	3.8	7.1	3.2	0.5
Gladstone-Tannum Sands	39.6	58.2	2.1	7.0	3.5	1.1
Tamworth	38.9	57.9	3.2	18.6	9.3	2.0
Geraldton	36.3	60.7	3.0	16.2	9.3	2.5
Orange	40.7	56.5	2.7	10.6	5.1	1.1
Dubbo	39.2	57.1	3.7	25.3	13.2	3.9
Nowra-Bomaderry	38.6	57.4	4.0	14.6	6.8	1.7
Bathurst	37.0	60.4	2.6	8.5	4.4	0.9
Albany	33.0	63.6	3.4	5.9	3.7	0.7
Kalgoorlie-Boulder	36.0	60.4	3.5	11.8	6.5	5.0
Lismore	39.2	58.1	2.7	11.6	5.1	1.0
Devonport	34.7	60.9	4.4	9.7	5.3	1.3
Burnie-Wynyard	36.5	58.8	4.7	12.0	5.9	1.7
Alice Springs	33.3	61.6	5.1	30.5	17.4	17.2
Maryborough	37.4	59.8	2.8	8.0	4.2	0.6
Taree	40.2	56.4	3.4	15.7	7.4	1.2
Armidale	36.6	59.9	3.5	13.4	6.2	1.7
Cessnock	33.1	63.7	3.2	8.8	5.3	1.1
Mount Isa	38.3	57.5	4.2	27.3	14.2	11.9
Grafton	37.0	59.0	3.9	15.4	8.0	1.6
Broken Hill	37.0	59.6	3.4	16.4	7.6	1.4
Port Augusta	32.4	63.2	4.3	30.2	18.0	5.8
Broome	31.2	65.0	3.9	34.1	22.5	19.0
Port Hedland	30.0	65.2	4.7	25.0	15.8	31.8
All included regional centres	37.3	59.3	3.4	10.1	5.0	1.3

Source: Customised calculations based on the 2011 Census.

TABLE 4. Selected measures of mobility and service access by regional centre, 2011

Regional centre	Away from place of usual residence		Changed usual residence in last 5 years		Resident of non-private dwelling		In non-fixed dwellings	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
Hobart	5.2	5.0	44.3	36.8	2.6	3.1	0.3	0.2
Geelong	3.8	4.1	47.2	36.9	5.5	3.3	0.3	0.5
Townsville	6.3	5.1	53.4	50.3	8.9	3.8	0.7	1.1
Cairns	6.5	4.8	60.3	49.5	2.9	2.8	1.0	2.0
Darwin	6.8	5.6	49.3	51.7	10.7	4.9	4.3	3.3
Toowoomba	6.8	4.9	61.7	46.6	5.9	4.6	0.3	0.3
Ballarat	6.0	5.0	51.0	43.3	3.9	3.5	0.0	0.2
Bendigo	6.2	5.1	47.7	40.8	1.7	3.2	0.8	0.4
Albury-Wodonga	6.6	5.4	55.8	42.5	2.0	3.5	1.2	0.4
Launceston	5.0	4.9	51.1	38.3	1.6	3.4	0.8	0.2
Mackay	6.0	6.4	49.9	46.9	2.8	4.1	1.4	1.9
Rockhampton	6.0	5.6	53.2	43.6	6.6	4.8	0.4	1.5
Bundaberg	5.6	5.5	59.7	45.2	1.2	2.7	1.1	2.9
Bunbury	6.5	6.0	52.4	45.4	6.2	3.3	0.3	0.8
Coffs Harbour	7.3	5.5	52.5	42.8	2.3	3.2	2.1	3.5
Wagga Wagga	5.7	5.2	48.1	44.3	2.4	4.4	0.2	0.3
Hervey Bay	7.0	5.7	65.9	50.1	2.1	2.7	2.6	4.4
Mildura-Wentworth	6.2	5.2	49.8	38.3	1.6	2.6	2.4	2.1
Shepparton-Mooroopna	7.3	5.1	44.1	37.6	2.0	2.9	1.6	1.2
Port Macquarie	5.1	5.6	61.4	45.5	3.4	3.6	1.0	2.2
Gladstone-Tannum Sands	4.8	5.1	55.5	47.6	1.1	2.2	1.9	1.9
Tamworth	6.0	5.2	53.4	42.5	3.2	4.1	0.3	0.6
Geraldton	7.1	6.8	55.4	43.1	11.2	4.1	1.4	2.8
Orange	5.7	5.0	49.7	42.3	3.1	4.4	0.2	0.3
Dubbo	5.8	5.6	53.9	42.3	2.6	4.1	0.3	1.3
Nowra-Bomaderry	5.3	5.0	45.7	41.3	5.1	4.4	0.5	0.9
Bathurst	6.3	4.6	53.9	44.8	13.1	5.7	0.2	0.2
Albany	7.8	7.5	52.7	41.3	12.9	4.0	0.4	1.1
Kalgoorlie-Boulder	7.7	5.7	56.4	51.8	7.5	3.7	4.1	2.3
Lismore	6.3	4.6	54.7	43.4	2.3	4.0	3.6	1.1
Devonport	4.5	6.0	45.3	36.6	1.4	3.1	0.4	0.6
Burnie-Wynyard	5.7	5.8	48.5	37.3	1.9	3.5	0.2	0.3
Alice Springs	7.8	6.4	50.3	48.9	9.4	3.3	6.0	7.2
Maryborough	4.9	5.0	57.0	40.7	13.6	3.9	1.4	1.3
Taree	6.4	5.1	47.8	36.4	0.9	3.4	0.2	0.5
Armidale	6.8	6.2	53.3	45.5	5.3	8.8	0.7	0.5
Cessnock	2.9	4.3	48.9	37.8	11.7	5.5	0.0	0.4
Mount Isa	8.1	6.3	48.1	52.1	6.3	2.9	2.8	6.4
Grafton	4.7	5.1	52.3	40.0	8.4	4.6	0.7	0.8
Broken Hill	9.0	6.4	41.3	25.4	6.3	4.0	0.2	1.7
Port Augusta	10.0	6.8	40.1	31.9	8.7	5.5	0.3	3.7
Broome	8.0	7.0	45.7	60.5	9.4	5.4	3.1	27.8
Port Hedland	11.9	8.2	56.4	71.4	6.5	6.9	3.8	7.9
All included regional centres	6.5	5.3	52.2	43.2	5.5	3.7	1.5	1.5

Source: Customised calculations based on the 2011 Census.

0–24 years). Across males and females, these age groups represent 56.8 per cent of the total Indigenous population compared to 33.0 per cent of the total non-Indigenous population. At the other end of the age distribution, 14.1 per cent of the total non-Indigenous population is aged 65 years and over compared to 3.4 per cent of the Indigenous population.

Compared to the rest of the Australian Indigenous population, those Indigenous Australians living in one of the 43 selected regional centres were relatively young. Specifically, there were more Indigenous Australian in regional centres aged 0 to 24 (56.8 per cent of the population compared to 54.7 per cent nationally) and fewer aged 65 plus (3.4 per cent compared to 3.9 per cent nationally).

In terms of the working age population (those aged 15 to 64 years) the relatively high number of Indigenous children in regional centres means that there are fewer Indigenous Australians who are potentially able to be working relative to those who are either too young or too old to be working. This can be summarised by the inverse dependency ratio which represents the number of potential workers per dependents, calculates as the number of people of working age relative to those 0 to 14 years or 65 years and over. The inverse dependency ratio in the 43 selected regional centres (1.40) is not only lower than that for the non-Indigenous population in these regional centres (1.95), but is also lower than for the rest of the Indigenous population (1.49).

Table 3 shows that there is significant variation in the age structure of the Indigenous population across the selected regional centres. Furthermore, because the relative size and age structure of the non-Indigenous population also varies, the percentage of the total population in each broad age group that is Indigenous also varies.

The first three columns of results in **Table 3** give the percentage of the Indigenous population count in that regional centre that was aged 0 to 14, 15 to 64 and 65 plus. Reflecting the age pyramid discussed earlier, a very high percentage of the Indigenous population across the regional centres was aged 0 to 14 at the time of the 2011 Census. However, there were a few regional centres where this was particularly the case. In Hervey Bay in Queensland, 43.6 per cent of the Indigenous population count was aged 0 to 14 years. Bundaberg, Toowoomba, Albury-Wodonga, Orange and Taree also all had an Indigenous population where 40 per cent or more of the population was younger than working age. At the other end of the age distribution, Alice Springs had the Indigenous population with the highest share in the 65 plus age group

(5.1 %). Port Hedland and Burnie-Wynyard also had a relatively old Indigenous population based on this measure.

Those who are relatively old and those who are relatively young tend to be classified as the dependent population. That is, individuals who are outside the standard working age groups require resources from families and the community, but contribute relatively little directly in terms of wages and salaries. Those aged under 15 or over 64 of course contribute to the wider community in many different and important ways. But, in terms of economic resources, areas with a high proportion of the population between the ages of 15 and 64 are likely to have a much larger potential workforce from which to draw upon.

Looking at the second column of **Table 3**, the three regional centres with the lowest dependency ratio are Port Hedland, Broome and Darwin. In these regional centres, there are around 1.8 Indigenous Australians aged 15 to 64 year for every Indigenous Australian outside of the main working age group. At the other end of the distribution, there were less than 1.2 Indigenous Australians of working age per non-working age Indigenous Australian in Hervey Bay and Bundaberg.

In general, those regional centres with relatively rapid growth rates (as outlined in **Table 2**) tend to have the youngest populations. The median age for Indigenous Australians in the high-growth inner regional areas was 19 years. In the high-growth outer regional areas and low-growth inner regional areas it was 20 years, whereas in the low-growth outer regional and low-growth remote areas, it was 22 years and 24 years. It would appear, therefore, that one of the reasons for the higher growth rates in certain regional centres is a large number of children being born and identified as being Indigenous by their parents in these areas.

Another source of population growth is mobility, as described in the following section.

Mobility into, out of and within regional centres

The ability of governments and other service providers to meet the needs of a town or city's population is influenced in part by population movements and flows (Markham et al. 2013). Such movement can be socially-based, employment-based, or service-based. It can be a permanent move or occur over a few days, a few weeks or a few months. Furthermore, it can be reasonably steady across a year, have a particular seasonal profile, or occur at seemingly random points in time. Whatever the motivation, duration, or timing, additional flows of non-

usual residents into an area can place additional demands on government and commercial services. Through increases in prices or decreases in availability, this can also impact on other individuals in the area.

The first two sets of results in **Table 4** show that there is considerable variation in both short-term mobility (a person being away from their place of usual residence on the night of the census) and long-term mobility (a person changing their place of usual residence over a five year period). Both sets of figures are calculated as a percentage of those who identified that regional centre as their place of usual residence on the night of the census.

Of the 43 regions included in the analysis, there were only 8 where the Indigenous population had a lower rate of temporary mobility than the non-Indigenous population. Of these, it was only in Cessnock and Devonport where Indigenous Australians were substantially less mobile (by this measure). For the most part though, Indigenous Australians were more likely to be away from their place of usual residence on the night of the census than the non-Indigenous population. Furthermore, there were two regions which stand out as having an Indigenous population with very high rates of temporary mobility. These were Port Hedland and Port Augusta, where more than one-in-ten usual residents were away from their place of usual residence on the night of the census.

There were even fewer regional centres where the Indigenous population was less likely to have changed their place of usual residence over the previous five years compared to the non-Indigenous population. These were Broome, Port Hedland, Mount Isa and Darwin, all of which had a relatively high non-Indigenous mobility rate. In terms of high rates of Indigenous mobility, more than 60 per cent of the usual resident population of Hervey Bay, Toowoomba, Port Macquarie and Cairns had changed usual residence over the previous 5 years.

Another indicator of differing service requirements is the proportion of the population who live in a non-private dwelling. This includes hotels or motels, boarding schools, hospitals and corrective institutions. According to the 2011 Census, 26,124 Indigenous Australians (or 4.8% of the Indigenous population) were counted in non-private dwellings. This is somewhat higher than the 3.0 per cent of the non-Indigenous population who live in such dwellings. However, the last line of the table shows that an even higher per cent of the population in the selected regional centres (5.5 per cent) lived in such dwellings. While residents of certain types of dwellings (for example, boarding schools and hospitals) might be easier for service providers to stay in touch with, being a resident of almost

all non-private dwellings is likely to be a predictor of past or future mobility.

In terms of living in non-private dwellings, there was a reasonably even split of regional centres, with 21 having a higher rate for the Indigenous compared to the non-Indigenous population and 22 having a higher rate for the non-Indigenous population. However, there was a much greater variation for the Indigenous population. The highest rate of residence in non-private dwellings for the non-Indigenous population is Armidale, where 8.8 per cent of usual residents were in a non-private dwelling. This was mainly driven by the presence of the University of New England in that regional centre, a university that draws heavily upon students from outside its immediate vicinity. For the Indigenous population, on the other hand, there were nine regional centres with at least nine per cent of the usual resident population in a non-private dwelling, with two of these (Maryborough and Bathurst) having a rate of above 13 per cent.

The final two columns in **Table 4** look at the proportion of the Indigenous and non-Indigenous population who were in private dwelling in the 43 regional centres on the night of the census but living in a non-fixed dwelling. There are two categories of non-fixed dwellings in the census based on their structure—caravan, cabin, houseboat; and improvised home, tent, sleepers out. While different in terms of the amenities available, as well as safety and security, both types of dwelling structures will be difficult for service providers to reach and provide assistance to.

Looking at the last line of **Table 4**, there was about the same percentage of Indigenous and non-Indigenous Australians in non-fixed dwellings across the regional centres 1.5 per cent in both cases. Unlike with the other variables, however, it is the non-Indigenous population that has the greatest variation in this measure across the regional centres. Specifically, there were 30 regional centres where the non-Indigenous population has a higher share living in non-fixed dwellings. Broome is clearly an extreme case, with 27.8 per cent of the non-Indigenous population in the area on the night of the census in a non-fixed dwelling. However, Port Hedland, Alice Springs and Mount Isa also all have relatively high non-Indigenous rates.

Mobility can occur over relatively short distances, within the same neighbourhood, suburb or town, or over much larger distances. The latter type of move is likely to have a much greater impact on an individual's social networks, as well as the specific commercial and government service providers that an individual accesses. Furthermore, it is likely to have long-term impacts on the size and composition of the area that the person moved from or to.

TABLE 5. Migration rates for regional centres, Indigenous and non-Indigenous Australians, 2006–11

Regional centre	Indigenous			Non-Indigenous		
	Inward	Outward	Net	Inward	Outward	Net
Hobart	10.1	7.6	2.5	14.0	9.5	4.5
Geelong	16.5	10.3	6.2	16.0	10.5	5.4
Townsville	23.3	13.7	9.6	27.5	18.2	9.3
Cairns	29.8	14.2	15.6	28.9	18.7	10.1
Darwin	17.7	17.8	-0.1	34.7	28.4	6.3
Toowoomba	27.3	18.1	9.2	23.5	18.7	4.9
Ballarat	22.8	15.7	7.1	21.3	12.2	9.1
Bendigo	18.6	12.3	6.3	18.9	12.5	6.4
Albury-Wodonga	19.3	12.3	7.0	20.0	15.4	4.6
Launceston	13.2	9.8	3.4	17.8	13.1	4.8
Mackay	18.7	18.0	0.8	29.8	21.6	8.2
Rockhampton	17.5	15.0	2.5	20.4	15.6	4.8
Bundaberg	26.3	17.8	8.5	22.7	15.7	7.1
Bunbury	25.9	11.1	14.8	28.7	15.7	12.9
Coffs Harbour	17.5	15.8	1.7	22.1	15.9	6.2
Wagga Wagga	16.6	16.4	0.2	22.9	18.7	4.2
Hervey Bay	47.7	19.2	28.5	34.3	19.8	14.6
Mildura-Wentworth	18.9	10.2	8.7	16.2	14.2	2.1
Shepparton-Mooroopna	12.1	11.6	0.4	19.0	14.7	4.3
Port Macquarie	25.6	19.3	6.3	25.8	16.7	9.1
Gladstone-Tannum Sands	28.1	21.2	6.8	27.8	22.8	5.0
Tamworth	23.1	17.5	5.7	20.6	17.3	3.2
Geraldton	25.2	16.8	8.3	24.3	16.2	8.1
Orange	24.7	19.1	5.6	22.6	16.9	5.7
Dubbo	20.1	17.7	2.3	19.6	17.3	2.4
Nowra-Bomaderry	19.4	17.1	2.3	22.3	17.9	4.4
Bathurst	26.8	14.8	12.0	24.2	16.3	7.9
Albany	18.2	17.1	1.1	21.6	15.9	5.7
Kalgoorlie-Boulder	20.2	21.5	-1.3	36.1	32.1	4.0
Lismore	25.0	19.9	5.0	23.8	20.1	3.7
Devonport	17.4	12.1	5.3	17.2	14.2	3.0
Burnie-Wynyard	18.4	13.7	4.7	16.7	14.8	1.9
Alice Springs	24.0	11.9	12.1	35.2	29.4	5.7
Maryborough	24.7	25.7	-1.0	19.6	18.6	1.0
Taree	20.3	16.9	3.3	18.0	16.7	1.3
Armidale	27.1	22.6	4.5	28.9	21.7	7.1
Cessnock	25.3	20.9	4.4	19.4	14.7	4.7
Mount Isa	18.8	22.1	-3.3	37.9	35.1	2.8
Grafton	24.5	19.3	5.1	18.5	17.1	1.4
Broken Hill	16.3	14.5	1.8	9.9	13.6	-3.8
Port Augusta	13.9	13.4	0.5	14.1	16.1	-2.0
Broome	25.7	17.2	8.5	53.6	40.0	13.6
Port Hedland	28.2	30.8	-2.7	71.6	54.6	17.0

Source: Customised calculations based on the 2011 Census.

There are, however, a number of other ways in which the populations counted in a particular area might change through time. The first of these, boundary changes, are controlled for as much as possible by using a 2011-based geographic classification and population-weighted concordances to convert 2006 data into 2011 areas. The next two sources of population change are births and deaths in an area, with natural population increase the excess of the former over the latter. The fourth source of population change is international migration into those location types. For the Indigenous population, this is likely to be quite small, and balanced by Indigenous Australians temporarily leaving the country. For the non-Indigenous population, on the other hand, net positive international migration is the main source of continued population growth for many areas.

The fifth source of population change for a regional centre comes from a person changing the way they respond to the Indigenous status question on the census. This involves someone identifying as Indigenous or non-Indigenous in one census and then the opposite in a subsequent census or collection. The sixth source of population change at the local level is what we have

labelled statistical ethnic migration (Biddle 2012). In contrast to the more traditionally defined ethnic mobility, statistical ethnic mobility involves individuals maintaining their own internal identity, but being recorded differently in different collections. This could be because they did not answer the Indigenous status question at either the start or end of the period (item non-response); because they were missed entirely from one of the collections (non-response); or because they were coded incorrectly by themselves, by someone else filling out the form, or by the statistical agency collecting the data. In the case of Australia, changes to the Indigenous Enumeration Strategy in 2011 may have played a role in reducing both types of non-response, thereby increasing statistical ethnic mobility.

The seventh and final source of population change is residential mobility. That is, an individual identifying one area, region or location type as their place of usual residence at one point in time, but physically changing their area, region or location type of usual residence over the subsequent period. The previous six points have highlighted how such residential mobility is only one of a number of ways in which a geographic area's Indigenous

TABLE 6. Indigenous immigrants to regional centres by origin as a percentage of 2011 regional centre Indigenous population, 2006 to 2011

Destination	Source				
	Major city (%)	Other regional centre ^a (%)	Low Indigenous regional centre (%)	Non-urban (%)	Overseas (%)
High-Growth Inner Regional	4.1	2.6	1.0	10.8	0.2
High-Growth Outer Regional	2.5	3.8	0.4	13.2	0.3
Low-Growth Inner Regional	2.8	2.6	0.9	8.7	0.1
Low-Growth Outer Regional	2.9	2.2	0.7	10.2	0.1
Low-Growth Remote	3.0	3.6	0.3	14.1	0.1

Source: Customised calculations based on the 2011 Census.

Note: a. Excludes those moved internally within a regional centre.

TABLE 7. Indigenous emigrants from regional centres by destination, as a percentage of 2006 regional centre Indigenous population, 2006 to 2011

Destination	Source			
	Major city (%)	Other regional centre ^a (%)	Low Indigenous regional centre (%)	Non-urban (%)
High-Growth Inner Regional	4.6	3.2	1.4	7.6
High-Growth Outer Regional	3.4	3.0	0.5	7.4
Low-Growth Inner Regional	3.6	3.1	0.8	7.4
Low-Growth Outer Regional	4.1	3.5	1.1	7.5
Low-Growth Remote	4.1	5.6	0.9	7.6

Source: Customised calculations based on the 2011 Census.

Note: a. Excludes those moved internally within a regional centre.

(and non-Indigenous) population can change. However, for most services (apart from those associated specifically with births and deaths) residential mobility is likely to have the greatest impact on demand.

Table 5 summarises population movement into and out of the 43 selected regional centres. For both the Indigenous and non-Indigenous population, three rates of migration are given:

- Inward: The number of people who moved into that regional centre between 2006 and 2011 as a percentage of the 2006 base population;
- Outward: The number of people who moved out of that location type between 2006 and 2011 as a percentage of the 2006 base population; and
- Net: The difference between inward and outward migration.

While there was a net flow of Indigenous Australians into the 43 selected regional centres over the last intercensal period, results presented in **Table 5** show that this was far from evenly distributed. There were five regional centres where more Indigenous people moved out of the area than moved in, with Mount Isa and Port Hedland having relatively large net outflows. The latter centre is particularly interesting as it is the regional centre within the selection that has the highest net inflow for the non-Indigenous population. It is not possible to test with the data available, but it is quite likely that this inflow of non-Indigenous Australians is putting upward price pressure on goods and services with a relatively inelastic supply.

While there are some regional centres with a net outflow, this is far from the norm. Hervey Bay, for example, had a net inflow of 28.5 per cent over the last intercensal period. This was, however, on top of a relatively small population base. This was not true for all regional centres with a large inflow, however, with Cairns and Alice Springs being two regional centres that had both a large Indigenous population in 2006, as well as a large net inflow between 2006 and 2011.

Not surprisingly, many of the regional centres that experienced a large net population increase over the last intercensal period were also those that were classed as being high-growth in the classification used for this paper. As shown in **Table 6** and **Table 7**, there were also differences across these groupings in terms of where people moved from and to. **Table 6** looks at the source areas for those who moved into each of the five regional-centre types between 2006 and 2011. These are expressed as a percentage of the 2011 regional centre population with potential sources as follows:

- Major city—those urban areas with a population estimate of 250,000 or more;
- Other regional centre —an urban centre in one of the other four regional-centre types;
- Low Indigenous regional centre —regional centres that had a total population of less than 250,000 but greater than 10,000 and an Indigenous population of less than 1,000;
- Non-urban—those areas in Australia that were not classified as a Significant Urban Area because they had a population of less than 10,000 or were outside of a bounded locality; and
- Overseas—usual residents of Australia that were temporarily overseas in 2006.

Table 7 uses a similar classification, but looks at the destination areas of those who left the regional centres. These are expressed as a percentage of the 2006 regional centre Indigenous population.

There are a few main points to note from **Tables 6** and **7**. First, the majority of the population who moved into the regional centres between 2006 and 2011 came from non-urban parts of Australia. This was particularly the case for low-growth remote areas and high-growth outer regional areas. Non-urban areas were also the main destination area type for those who moved out of the regional centres between 2006 and 2011. However, in terms of destinations, major cities take on a slightly more dominant role. Not surprisingly, this was particularly the case for those who moved out of high-growth inner regional areas.

Developing an Index of Mobility-Related Service Issues

The previous section identified a range of issues related to population mobility that impact on the ability of governments and commercial organisations to deliver services. For some of these, the Indigenous population of the selected regional centres had much higher average rates than the non-Indigenous population (for example short-term and long-term mobility). For others (for example those living in a non-private dwelling or a non-fixed dwelling), there was a greater overlap between the Indigenous and non-Indigenous population. Nonetheless, all of them create challenges for the delivery of services. One of the problems though is that while they are related, they don't necessarily move in exactly the same direction. There is an empirical and conceptual relationship between the indicators, but this relationship isn't one-to-one.

TABLE 8. Ranking of regional centres based on Index of Mobility-Related Service Issues (IMRSO)

High mobility		Moderately high mobility		Moderately low mobility		Low mobility	
1	Port Hedland	12	Mackay	23	Maryborough	34	Taree
2	Alice Springs	13	Broken Hill	24	Rockhampton	35	Bendigo
3	Broome	14	Lismore	25	Bundaberg	36	Port Macquarie
4	Mount Isa	15	Albany	26	Grafton	37	Ballarat
5	Darwin	16	Armidale	27	Tamworth	38	Launceston
6	Kalgoorlie-Boulder	17	Mildura-Wentworth	28	Shepparton-Mooroopna	39	Burnie-Wynyard
7	Cairns	18	Coffs Harbour	29	Bunbury	40	Geelong
8	Townsville	19	Gladstone-Tannum Sands	30	Dubbo	41	Cessnock
9	Port Augusta	20	Toowoomba	31	Wagga Wagga	42	Devonport
10	Hervey Bay	21	Albany-Wodonga	32	Orange	43	Hobart
11	Geraldton	22	Bathurst	33	Nowra-Bomaderry		

Source: Customised calculations based on the 2011 Census.

One option in such a situation is to develop an index that summarises the variation across the variables and ranks the regional centres. An example of such an approach would be the development by the Socioeconomic Indexes for Areas (SEIFA) by the ABS (2008), as well as the Indigenous Relative Socioeconomic Outcomes (IRSEO) index constructed as part of this census series and made available in a future paper (Biddle 2013, forthcoming). In this section of this paper, we develop and discuss a new ranking which we have labelled the Index of Mobility-Related Service Issues (IMRSI).

The aim of the IMRSI is to rank the 43 regional centres used in this paper based on the degree of mobility. For this, we use the following indicators of mobility, some of which have been discussed already in this paper:

- Inward migration—the number of people who moved into that regional centre between 2006 and 2011 as a percentage of the 2006 base population;
- Outward migration—the number of people who moved out of that location type between 2006 and 2011 as a percentage of the 2006 base population;
- Population away—the number of people who identify that area as their place of usual residence but are away from home on the night of the census as a per cent of the usual resident population;
- Population visiting—the number of people who were in that area on the night of the census but were away from home as a per cent of the place of enumeration population;

- Non-private dwelling population—the number of people who were enumerated in a non-private dwelling as a per cent of the usual resident population;
- Non-fixed dwelling population—the number of people in that area on the night of the census who were in a non-fixed dwelling as a per cent of the place of enumeration population; and
- Distance moved—the median distance between the centroid of the area in which the person lived in 2006 and the centroid of the regional centre, calculated for those who moved into the regional centre between 2006 and 2011.

These seven indicators of mobility are then analysed through a Principal Components Analysis (PCA). Doing so resulted in an eigenvalue for the first component of 3.59 and an eigenvalue of 1.01 for the second component. Furthermore, about 51.3 per cent of the variation in the seven variables was explained by the first component. This indicates that a single component provides a useful summary of the variation across the seven underlying variables. Furthermore, all of the underlying variables had a positive correlation with the first component, implying that it can be usefully described as capturing high mobility.

Having undertaken the PCA, the index value is then used to rank each regional centre ranging from the one with the highest mobility (Port Hedland) to the one with the least mobility (Hobart), **Table 8**

TABLE 9. Indigenous Relative Socioeconomic Outcomes (IRSEO) index rank for selected regional centres, 2006 to 2011

Regional centre	2006 Rank	2011 Rank	Change in rank
Hobart	25	22	-3
Geelong	21	23	2
Townsville	34	38	4
Cairns	32	45	13
Darwin	41	31	-9
Toowoomba	42	43	1
Ballarat	25	38	13
Bendigo	34	36	2
Albury-Wodonga	45	49	4
Launceston	30	26	-3
Mackay	27	25	-2
Rockhampton	44	41	-3
Bundaberg	41	57	16
Bunbury	49	53	4
Coffs Harbour	50	50	0
Wagga Wagga	40	34	-6
Hervey Bay	47	58	11
Mildura-Wentworth	70	70	1
Shepparton Mooroopna	43	49	6
Port Macquarie	34	33	-1
Gladstone-Tannum Sands	32	22	-10
Tamworth	53	49	-4
Geraldton	60	71	11
Orange	62	52	-10
Dubbo	49	43	-6
Nowra Bomaderry	49	52	3
Bathurst	53	52	-1
Albany	55	60	5
Kalgoorlie-Boulder	71	70	-1
Lismore	41	40	-1
Devonport	19	22	2
Burnie-Wynyard	25	21	-4
Alice Springs	54	45	-8
Maryborough	47	58	11
Taree	68	69	1
Armidale	60	64	4
Cessnock	33	37	4
Mount Isa	54	55	1
Grafton	58	66	8
Broken Hill	70	71	1
Port Augusta	75	77	2
Broome	47	52	5
Port Hedland	63	56	-7
Average of all selected regional centres	46	47	1

Source: Customised calculations based on 2006 and 2011 data from Biddle (2013, Forthcoming).

summarises this ranking, with regional centres grouped into 3 groups of eleven regional centres and one group of ten.

There are a few structural points to note from the index results presented in **Table 8**. First, those regional centres with a relatively large total population tend to rank relatively low on the IMRSI. These include Hobart, Geelong Ballarat and Launceston. However, while there was a negative correlation between total ERP rank and IMRSI rank, there were a number of exceptions, with Cairns and Townsville having both high mobility and a high ERP.

While there was a negative correlation between mobility and total ERP, there was a positive correlation between mobility and the share of that ERP that is identified as being Indigenous. That is, regional centres like Broome, Alice Springs, Port Hedland, Mount Isa and Port Augusta all had a high Indigenous population share and high rankings on the IMRSI. The last three of these centres have a high proportion of workers in mining and other related industries, a point that will be picked up in a later paper in this census series.

There are a number of limitations of the IMRSI. First, because the census is undertaken in August, the index does not capture any seasonal patterns of temporary mobility, nor is it possible to capture the length of stay in an area. Second, there is limited information on a number of aspects of homelessness beyond living in a non-fixed dwelling. Third, there is no information on the social relationships that can either ease or exacerbate the effects of mobility on individuals and service providers. Nonetheless, the index can be used as a predictor of areas of particular policy concern, especially when used in conjunction with other data items on socioeconomic status as in the next section of this paper.

Socioeconomic outcomes in selected regional centres

In the previous section of this paper, we introduced a new index related to the mobility into, out of, and within 43 regional centres. As was mentioned when introducing this index, a similar technique was used to create a socioeconomic index (the IRSEO), which will be presented in a forthcoming paper in this series (Biddle 2013, forthcoming). While this index was created for a different level of geography, it is possible to calculate the average socioeconomic rank for the 43 regional centres analysed in this paper. Furthermore, by combining the information from the 2006 and 2011 version of the IRSEO, it is possible to see how the relative socioeconomic positions of the regional centres have changed through time. This is summarised in **Table 9**.

In order to interpret **Table 9** it is important to keep in mind a few things about the IRSEO. First, the 2006 version of the index ranked all 531 Indigenous Areas in 2006 based on nine input variables related to employment, education, income and housing (Biddle 2009).² This was then combined with the 408 Indigenous Areas in the 2011 AIGC, based on a population-weighted concordance. All Indigenous Areas were then ranked, with 1 being the most advantaged areas and 100 the most disadvantaged. Similar data from the 2011 Census was then used to re-rank all 408 areas according to the socioeconomic outcomes of the Indigenous population in 2011. These Indigenous Area rankings were then allocated to the 43 selected regional centres.

As the geographical classification that underlies the regional centres and Indigenous Areas are both based on the lowest level of geography in the Australian Statistical Geographic Standard, there is considerable overlap in boundaries for both sets of geography. Those regional centres which line up perfectly in a geographic sense with an Indigenous Area simply received the Indigenous Area percentile rank. Those regional centres that contained more than one Indigenous Area were allocated an average percentile value using the proportion of the total estimated resident population of that regional centre that was in each Indigenous Area. A final point to note is that those regional centres that form a small part of a larger Indigenous Area are allocated the ranking from the whole Indigenous Area. Although it is not possible to test with the data available, there is a strong possibility that the Indigenous population within that regional centre is not completely indicative of the surrounding area.

Keeping in mind that a low ranking implies an area for which the indigenous population is relatively advantaged, the last line of **Table 9** suggests that the socioeconomic outcomes of the 43 selected regional centres are (on average) only slightly better than for the Australian Indigenous population as a whole (which has an average of 50). This relative ranking was, however, reasonably consistent through time with an average rank of 46 out of 100 in 2006 and 47 out of 100 in 2011. Once again though, there was considerable variation across the regional centres.

2. The first five indicators of socioeconomic status were the per cent of the population 15 years and over who were (1) employed; (2) employed as a manager or professional; (3) employed full-time in the private sector; (4) completed Year 12; and (5) completed a qualification. Indicator (6) was the per cent of the population 15 to 24 years old attending an educational institution whereas number (7) was the per cent of the population 15 years and over with an individual income above half the Australian median. The final two measures were the per cent of the total Indigenous population who (8) live in a house that is owned or being purchased; and (9) who live in a house with at least one bedroom per usual resident.

The highest ranking regional centres (based on the IRSEO index) were Burnie-Wynyard, Devonport, Gladstone-Tannum Sands, Hobart, Geelong and Mackay, all of which were in the top quartile of the Indigenous distribution in 2011. At the other end of the distribution, Port Augusta was in the bottom quartile of the Indigenous distribution, with Kalgoorlie-Boulder, Mildura-Wentworth, Broken Hill and Geraldton also ranking relatively poorly. In terms of change through time, Gladstone-Tannum Sands, Orange, Darwin and Alice Springs all improved their relative socioeconomic ranking by a considerable number of places, whereas Cairns, Ballarat and Bundaberg worsened by an even greater amount.

There is a negative correlation between the ranking of areas on the IRSEO and the IMRSI (correlation coefficient equals -0.46) meaning that those areas with high mobility are more likely to be those which are relatively disadvantaged. This is not necessarily a causal relationship. However, combining the information on the mobility index from the previous section as well as the socioeconomic index in this section identifies four regional centres of particular concern for those delivering services to the Indigenous population. Specifically, compared to the other regional centres analysed in this paper, Port Augusta, Geraldton, Kalgoorlie-Boulder and Hervey Bay were all identified as having a relatively disadvantaged Indigenous population as well as a highly mobile population. What this potentially means is that in these regional centres there is likely to be greater need for government assistance and support for the Indigenous population. However, due to high rates of mobility into, out of, and within these centres, adequate provision of services to the Indigenous population is likely to be particularly difficult.

Concluding comments

Regional centres—which we have defined as having a population of between 10,000 and 250,000 with at least 1,000 Indigenous usual residents—are an important but often overlooked part of the geography of the Indigenous landscape. The 43 identified in this paper contain substantially more Indigenous Australians overall than remote Indigenous communities. Moreover, the Indigenous population in these areas tend to make up a greater share of the population than in Australia's major cities. Despite this, policy interest is very rarely devoted to individual regional centres or to regional centres as a separate geographic grouping.

The aim of this paper was to introduce some of the population and socioeconomic dynamics of 43 regional centres, occasionally grouped into one of five categories based on population growth and degree of remoteness. The main finding from the analysis was that there is substantial

variation within the regional centres for the demographic, mobility and socioeconomic measures analysed. However, this variation was not always consistent and there was no obvious clustering into smaller groups that held across the different measures. There were, however, a number of general conclusions from the analysis.

One of the findings from the analysis was that compared to the rest of the Australian Indigenous population, as well as the non-Indigenous population of the 43 selected regional centres, those Indigenous Australians living there were relatively young. This creates a number of opportunities for an emerging Indigenous population. However, it puts a high emphasis on policies that encourage young Indigenous Australians to complete formal education where appropriate, as well as policies that support the transition from education into the labour market. There were some counter-examples: for example, more than 5 per cent of the Indigenous population count of Alice Springs was aged 65 years and over in 2011. Nonetheless, regional centres appear to contain a relatively youthful Indigenous population.

Partly because of this young age distribution, the Indigenous population in the selected regional centres was relatively mobile, both in the short-term and over the long-term. This has clear implications for the delivery of services, with governments and private businesses that operate in these areas needing to go to greater effort to keep track of those they provide services to. One of the innovations of this paper was the development of an IMRSI, which was used to group the 43 regional centres into quartiles. The paper also included an application of the IRSEO index (from Biddle 2013, forthcoming) to the regional centres, with the major finding being that as a group, the regional centres had considerable diversity. It was shown, however, that on average the regional centres had a slightly higher ranking than the Australian average, with that difference being quite consistent over the last intercensal period (2006-2011).

The intersection of these indices identified four regional centres of particular policy concern. Specifically, compared to the other regional centres Port Augusta, Geraldton, Kalgoorlie-Boulder and Hervey Bay were identified as having a relatively disadvantaged Indigenous population, as well as a highly mobile population. These areas were identified to have both a high level of need for government assistance and support and, due to high Indigenous mobility, where the adequate provision of services is likely to be particularly difficult.

References

ABS (Australian Bureau of Statistics) 2008. Socio-Economic Indexes for Areas (SEIFA) - Technical Paper, 2006, ABS cat. no. 2039.0.55.001.

Altman, J. and Markham, F. 2013. Submission to the House of Representatives Standing Committee on Aboriginal and Torres Strait Islander Affairs Inquiry into the Native Title Amendment Bill 2012, available at: <http://www.aph.gov.au/parliamentary_business/committees/house_of_representatives_committees?url=atsia/native%20title%20bill/subs/sub%20025.pdf>, accessed August 26, 2012.

Baum, S., 2006. 'A typology of socio-economic advantage and disadvantage in Australia's large non-metropolitan cities, towns and regions', *Australian Geographer*, 37(2): 233–258.

Beer, A. and Clower, T. 2009. 'Specialisation and growth: Evidence from Australia's regional cities', *Urban Studies*, 46(2): 369–389.

— and Maude, A. 1995. 'Regional cities in the Australian urban system, 1961-1991', *Urban Policy and Research*, 13(3): 135–148.

Bell, D. and Jayne, M., 2009. 'Small cities? Towards a research agenda', *International Journal of Urban and Regional Research*, 33(3): 683–699.

Biddle, N. 2009. 'Ranking regions: Revisiting an index of relative Indigenous socioeconomic outcomes', *CAEPR Working Paper No. 50*, CAEPR, ANU, Canberra.

— 2012. 'Population and age structure', *CAEPR Indigenous Population Project: 2011 Census Paper No. 5*, CAEPR, ANU, Canberra.

— (Forthcoming) 'Socioeconomic Outcomes', *CAEPR Indigenous Population Project: 2011 Census Paper No. 13*, CAEPR, ANU, Canberra.

Markham, F., Bath, J., Taylor, J., and Doran, B., 2013. 'New directions in Indigenous service population estimation', *CAEPR Working Paper No. 88*, CAEPR, ANU, Canberra.

Stimson, R., Baum, S. & O'Connor, K. 2003. 'The social and economic performance of Australia's large regional cities and towns: Implications for rural and regional policy', *Australian Geographical Studies*, 41(2): 131–147.

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