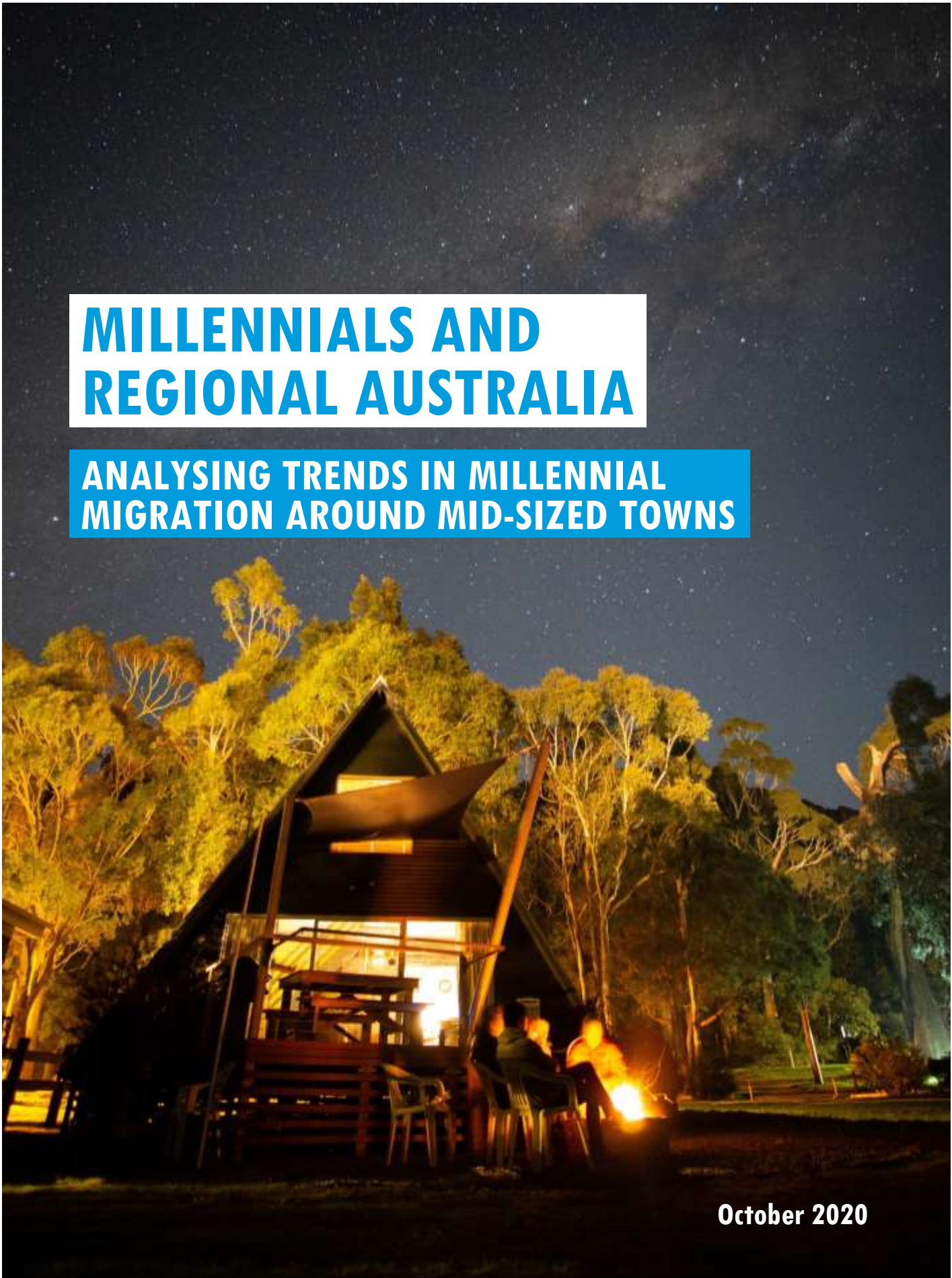




**REGIONAL  
AUSTRALIA  
INSTITUTE**

# **MILLENNIALS AND REGIONAL AUSTRALIA**

**ANALYSING TRENDS IN MILLENNIAL  
MIGRATION AROUND MID-SIZED TOWNS**



**October 2020**

## ACKNOWLEDGEMENTS

I would like to thank everyone at the Regional Australia Institute who helped me throughout this process. In particular, a big thank you to Liz Ritchie, Nina Davis, Hayley Achurch, Div Polepalli, Shyla Vohra, Geraldine How and Sherlyn Moynihan. A very special thank you to my supervisor, Kim Houghton, for all the guidance and confidence he gave me in writing this report. It is all appreciated.

Thank you to the staff of the Australian National Internship Program. Their efforts in facilitating my internship placement, support throughout the process and feedback on assessments was invaluable in the completion of this report.

John Block

## REFERENCE

This paper can be referenced as:

Block, J. (2020). *Millennials and Regional Australia: analysing trends in millennial migration around mid-sized towns*. Canberra: Regional Australia Institute

## CONTACT

Dr Kim Houghton and Katherine Bassett

**P.** 02 6260 3733

**E.** [info@regionalaustralia.org.au](mailto:info@regionalaustralia.org.au)

Further information can be found at [www.regionalaustralia.org.au](http://www.regionalaustralia.org.au)

## COVER IMAGE

[Fábio Hanashiro](#) on [Unsplash](#). Grampians, VIC.

## EXECUTIVE SUMMARY

This report, *Millennials and Regional Australia*, examines the migration patterns of millennials around midsized towns (MSTs) in Australia. MSTs are towns with a population between 5,000 and 50,000, and there are 182 across the country. Using the Regional Australia Institute's liveability indicators, this paper analyses trends in the most and least popular destinations for millennials across Australia.

The findings of this research complement previous studies on Australian internal migration. The literature makes it clear that employment and amenity are essential factors in individuals' migration decision, and this research supported that. This research also highlights the importance of high quality digital infrastructure to millennials' migration decisions.

Given the normalisation of remote working arrangements in the wake of the COVID-19 pandemic, more Australians might consider such a set up over the long term. As proximity to the workplace would no longer be a chief consideration in decisions on where to live, regional Australia could benefit significantly from a new wave of amenity migrants. **The Government should assist in this process to encourage and incentivise people to migrate to the regions, retaining their employment and continuing to work from home in a remote working capacity.**

Strategies to accomplish this could include advertising campaigns, incentives for businesses to upgrade infrastructure, or incentives for homeowners to upgrade regional houses to include home offices.

Digital connectivity was the variable which most strongly correlated with millennial migration flow. **This report makes the recommendation that the NBN upgrades announced in September 2020 include significant portions of regional Australia.** Closing the regional divide when it comes to internet speed and connectivity is important for making the regions an attractive destination for millennials.

This research found that the RAI's liveability indicators were a useful tool in understanding the influencers of millennial migration. In particular, the conceptualisation of moving as a two-step process was supported by the findings of this research. However, the indicators struggled to weight the different pull factors of towns which performed different roles. **This paper recommends that the Liveability Indicators be re-worked to incorporate different typologies of towns, to reflect the different ways migrants perceive liveability in towns with different roles.**

Regional Australia is changing. Millennials are a very desirable age group for regional towns. Migrating millennials can bring long term benefits to the regions, especially if they choose to start a family in their destination. Every effort should be made to encourage millennial migration to the regions, and this paper offers strategies to improve policies in this area.

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## INTRODUCTION

In countries around the world, the age cohort that is most likely to migrate is young adults (Charles-Edwards et al., 2018). Australians in this cohort follow this trend too. Not only do young people migrate at a higher volume than older generations, but their migration patterns are quite different from other age cohorts. The Regional Australia Institute's (RAI) *Big Movers* report (Bourne et al., 2020) found that from 2011 to 2016 regional areas of Australia had a net inflow of 65,204 people, meaning they gained more people than they lost to capital cities. But the flow of millennials was the exact opposite. There was a net outflow of 31,999 millennials from regional areas to capital cities.

Millennials, defined as the age cohort of people born between 1981 and 1996, are important for their local economies. At the start of 2016, people in this group would have been between 20 and 34 years old. This group consists of families as well as early-to-mid career professionals and tradespersons, all of whom can boost the human and social capital of regional communities (Bourne et al., 2020). Youth outmigration from regions can reduce the capacity of rural communities to replenish their skill base and negatively impact community groups (Davies, 2008; Tonts, 2005). It is in the best interests of regional communities to attract and retain millennials. The Commonwealth also believes it is good for capital cities, particularly Sydney and Melbourne. There is an emphasis in current policy to encourage regional migration to ease congestion in cities (Australian Government, 2019).

Different age cohorts are motivated to migrate in different ways. Understanding the push and pull factors for each cohort can help policymakers fine-tune policies to target these specific groups. There have been many attempts to explain influencing factors on migration around Australia, and how these vary with age.

Taylor et al. (2020) found that changes in preferences associated with age could explain 75% of migration out of the Northern Territory. The most common reasons people aged between 18-29 years old gave for leaving included education, work and defence transfer<sup>1</sup>. Nicholas and Shah (2019) conducted a choice experiment to determine how likely people were to relocate to regional areas for work. They found that people were more likely to move if they were looking for work (regardless of current employment status). Findings also showed that 75% of young people were willing to accept jobs that were ongoing, without training and require permanent relocation to Karratha or Emerald without a wage premium. These results speak to the importance of employment in the moving process. And this relationship works both ways. A key takeaway from Alston's (2004) research was that lack of full-time job opportunities was leading to young people migrating out of rural areas to cities. Not only do good job markets to act as pull factors for regions, but poor job markets often work as a push factor.

One factor influencing internal migration around Australia that has received a great deal of focus is natural amenity<sup>2</sup>. Results from such analyses have varied. A prominent conceptualisation of amenity is the amenity index by Argent et al. (2007). This research focuses on the south-east and south-west of Australia's mainland. Over the time periods studied, the consistently important variables were "irrigated agriculture, beach proximity, tourism workforce and remoteness" (Argent et al., 2014:314). The pull factor of a pleasant climate is also discussed by Osbaldiston et al. (2020) as a factor influencing

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<sup>1</sup> This is likely to be a factor unique to the region given the military presence in the Northern Territory.

<sup>2</sup> Argent et al. (2010) gives a summary of the literature of this topic on pages 6-9

migration, as well as a change to work/life balance that results from counter-urbanisation. Of note in this study was that all dominating factors that were important to migrants could be classed as “higher order motivations” except one – access to digital infrastructure (Osbaldiston et al., 2020:62).

Forbes et al. (2020) explores the balance between amenities and labour market conditions. In particular, they highlighted the different outcomes between inland and coastal towns, finding that unemployment was less impactful for metropolitan and coastal regions than for inland areas. They argued that natural amenities were important in explaining this disparity. They also noted that human-made amenities had a positive effect on migration.

The RAI developed six liveability indicators based on qualitative analysis of people’s experiences in the regions (Bourne, 2019). These paint a nuanced picture of what different cohorts of people look for before making the move to regional Australia. This study into liveability conceptualises moving to the regions as a two-step process. The first step is when people first decide to move to regional Australia. At this point, they have considered that there are sufficient employment opportunities, as well as a good standard of infrastructure, such as digital connectivity. The second step involves deciding where in Australia someone wants to move to. This decision is much more personal and subject to a liveability assessment. The RAI identified six categories which encompass prominent influencers of migration, and how different cohorts of people viewed a regional town’s liveability based on these categories. The six liveability indicators are:

- Health services
- Education services
- Cost of living
- Amenity
- Connections to community, friends and place
- Lifestyle and opportunity

Given how COVID-19 has impacted the relationship between work and home, it would appear that there is the potential that more people will consider migrating to regional Australia. But to make the most of this opportunity, policymakers need to consider the preferences of different cohorts of Australians. Given the economic and social benefits of millennial migration to regional Australia, this paper will examine how they migrate in an attempt to understand why they migrate. Understanding this is the next step to developing successful population policies for regional communities.

The RAI’s *Big Movers* report showed the total millennial inflows and outflows of MSTs. Overall, the inflow was 4.4%, and the outflow was 4.6% (Bourne et al., 2020:35). However, this was an aggregate of all MSTs. While it painted a broad picture of millennial migration, it was not very detailed on where movements are taking place. This report will complement the *Big Movers* report by highlighting the finer details of where these movements are taking place, using MSTs as the reference point through which to view millennial migration.

## METHODOLOGY

This study incorporates a mixed method quantitative/qualitative approach, which can be separated into two distinct steps. In the first step, a list of mid-sized towns from the RAI's *Mid-Sized Towns Roles and Typology Briefing Note*<sup>3</sup> was collected. Towns were operationalised as an Urban Centre of Locality (UCL). Mid-sized towns were defined as places with populations between 5,000 and 50,000. UCLs are an Australian Statistical Geography Standard (ASGC) "represent areas of concentrated urban development with populations of 200 people or more" (Australian Bureau of Statistics, 2017a).

This methodology section is intended to provide an overview of the variables used for analysis. For greater detail in how figures were obtained, please refer to Appendix 2.

Total population flows and millennial flows for Local Government Areas (LGAs) were obtained from the RAI's *Mid-Sized Towns Roles and Typology Briefing Note*. All LGAs without an MST in their boundaries were dropped from the sample. The net millennial flow was then calculated as a percentage of the total population. The LGAs were ordered by net millennial flow percentage, and the top 20 LGAs and bottom 20 LGAs were selected. Some LGAs had multiple MSTs within their boundaries, and all MSTs within an LGA were assigned the same net millennial flow. An example of this is Greater Geelong, which had five MSTs within its boundaries (Portarlington - St Leonards, Drysdale - Clifton Springs, Lara, Leopold and Ocean Grove – Barwon Heads). Of the top 20 LGAs, there were 29 MSTs. Of the bottom 20 LGAs, there were 22 MSTs.

The ASCG Remoteness Structure divides Australia into five classes of remoteness. It is a measure of a regions' relative access to services. All MSTs selected that classified as a 'Major City of Australia' were dropped from the sample. This was done to ensure that the study focused on regional Australia. During this process, nine of the high performing MSTs and one of the low performing MSTs were dropped from the sample.

The final sample of MSTs included 18 high performing, with high millennial inflows. There were 21 low performing MSTs, with high millennial outflows. Therefore, the total sample had 39 MSTs. Once a list of high performing and low performing MSTs was created, they were compared on a series of variables. These variables were chosen based on the RAI's liveability indicators to reflect the indicators for millennials and families<sup>4</sup>. Two variables were chosen to represent the first step of the moving process. The unemployment rate and the proportion of dwellings where the internet was accessed were selected. These measures reflect an MST's labour market conditions and digital infrastructure.

Seven variables were chosen to represent the second step of the moving process, and they covered four of the six liveability indicators. These seven variables were the number of healthcare services, median house price, student – teacher ratio, proportion of dwellings that were rental properties, proportion of households where rent was 30% or less of weekly income, whether or not the town was serviced by a specialist university, and the percentage of the workforce working in Arts and Recreation, Education and Training, Health Care and Social Assistance and Retail Trade.

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<sup>3</sup> The list of MSTs is on pages 29-35 of the Briefing Note (Bourne et al., 2019).

<sup>4</sup> A table with these indicators appears on pages 10-12 of *Understanding Regional Liveability: Briefing Note* (Bourne, 2019).

Number of healthcare services was chosen to represent the health services in an MST. The median house price, proportion of households where rent was 30% or less of weekly income and proportion of dwellings that were rental properties were chosen as a way to represent the cost of living of an MST. Student – teacher ratio and whether or not the town as serviced by a generalist university were chosen to represent the education services in the MST.

Gao and Melser (2016) created a variable as a proxy for the existence of human-made amenities. They found suggestive evidence that the presence of these amenities increased quality of life (along with climatic factors). The variable, labelled as AMEN, is the percentage of total regional employment engaged in Arts and Recreation, Education and Training, Health Care and Social Assistance and Retail Trade. This study will use the variable to proxy for human-made amenities in an attempt to capture a statistic which can reflect cultural vitality, representing the lifestyle and opportunities of an MST.

Two further variables were also gathered on each MST which did not relate to the liveability indicators. These two variables were an MST's Remoteness Structure and typology/role, as was determined in the RAI's *Mid-Sized Towns Roles and Typology Briefing Note*.

MSTs were then compared with each other across these ten variables by looking at overall averages for high and low performing MSTs, as well as comparisons with MST and Australian averages. The literature did not make the compelling case that the data set would be deterministic enough to warrant regressions. Due to the personal nature of migration decisions and the relatively small sample, there was no expectation that the results could confirm firm statistical relationships. A qualitative analysis was justified given that migration decisions relied on a potential migrant's experience and perceptions of a town (Bourne, 2019). As such, following the quantitative analysis, four MSTs were selected as case studies. Of these four, one was the MST with the highest millennial inflow, and another was the MST with the highest millennial outflow. An additional high performing and low performing MST were selected. These were chosen based on their town role, which was to be different to the other MSTs chosen, and results which warranted further examination.

The qualitative analyses of these four towns used descriptive indicators to fill in the intangible qualities of an MST. Data sources included local newspapers, local government websites and more to cover the two other liveability indicators that were not captured in the quantitative analysis. Sources have been cited in-text, and feature in the bibliography, or included in Appendix 2.



# RESULTS

## QUANTITATIVE ANALYSIS

The results support the RAI's conceptualisation of moving as a two-step process. The results, displayed in Table 1, showed that the two variables which represent step one of the moving process, digital infrastructure and the unemployment rate, were more favourable for the MSTs with high millennial inflows than MSTs with low inflows. The unemployment rate for high performing MSTs was lower than the national average. However, both high and low performing MSTs were below par when compared to the national average on digital infrastructure. This indicates that a job market with favourable conditions and a decent quality of digital infrastructure are important considerations in millennials' decision making when migrating to regional Australia.

The results showed a more mixed picture about some of the variables for the second stage of the moving process. Some results are consistent with expectations. On the categories which measured education, high performing MSTs were better serviced than low performing MSTs. Higher performing MSTs were more likely to be serviced by a university but had a slightly worse student/teacher ratio. Both groups of MSTs in the sample had a student/teacher ratio better than the Australian and MST average, with more teachers per student.

On the category to measure health, the total number of healthcare services, low performing MSTs were much better than high performing MSTs. High performing MSTs were also below the overall MST average. This lends support to the liveability indicators, which argue that millennials and families are less concerned about specialist services, but are more concerned with the availability of GPs and pharmacists.

For the categories that measure the cost of living, results are also mixed. High performing MSTs had fewer households where rent payments were less than 30% of weekly income, although the difference was negligible. High performing MSTs had a higher proportion of rental properties than low performing MSTs. However, these results were heavily impacted by two outliers. Port Hedland and Karratha had 63.87% and 65.34% of rental properties out of all occupied dwellings respectively. These were by far the MSTs with the highest proportion of rentals (Armidale is third with 39.52% of rentals). If these two outliers are removed, the average for high performing MSTs becomes similar to the average for low performing MSTs. The results also showed that the median house price was higher in high performing MSTs than low performing MSTs. This category was the only one where all of the top 10% of values were in high performing MSTs, and all bottom 10% were in low performing MSTs. This result is broadly in line with literature on the topic of migration and house price. Moallemi and Melser (2019) found that an immigrant inflow of 1% of a postcode's population increased housing prices by 0.9%. In this study MSTs, with high net millennial inflows had a much higher median house price than low performing MSTs.

	Millennial inflow	Unemployment rate	Proportion of dwellings where internet was accessed	Proportion of MSTs serviced by a generalist university	Student-teacher ratio	Healthcare services	Households where rent payments are less than 30% of household income	Proportion of occupied dwellings that are rentals	Median house price	AMEN
<b>Average of high performing MSTs</b>	0.89%	6.40%	75.84%	83.33%	10.88	1.22	88.53%	32.07%	\$443,988*	33.75%
<b>Average of low performing MSTs</b>	-2.22%	7.25%	68.61%	66.67%	10.00	2.52	89.15%	29.83%	\$270,509	37.06%
<b>Australian Average</b>	N/A	6.9%	78.79%	N/A	11.33	N/A	88.50%	28.92%	N/A	32.83%
<b>Average of all MSTs</b>	-0.78%	7.21%	72.35%	N/A	11.50	1.73	N/A	29.54%	\$350,000**	34.98%
<b>Karratha</b>	2.53%	5.60%	77.81%	Not serviced	9.18	1.00	90.40%	65.34%	N/A	21.30%
<b>Mount Isa</b>	-3.39%	6.10%	70.25%	Not serviced	8.77	3.00	93.00%	39.40%	\$253,635	28.17%
<b>Torquay – Jan Juc</b>	0.39%	4.20%	86.37%	Serviced	8.98	0	92.80%	22.00%	\$824,920	37.22%
<b>Kempsey</b>	-1.86%	10.60%	57.59%	Serviced	17.98	4.00	83.00%	32.64%	\$343,875	42.45%

Table 1: Table of results from quantitative analysis and selected MSTs

\*does not include Karratha

\*\*does not include Karratha or Geraldton

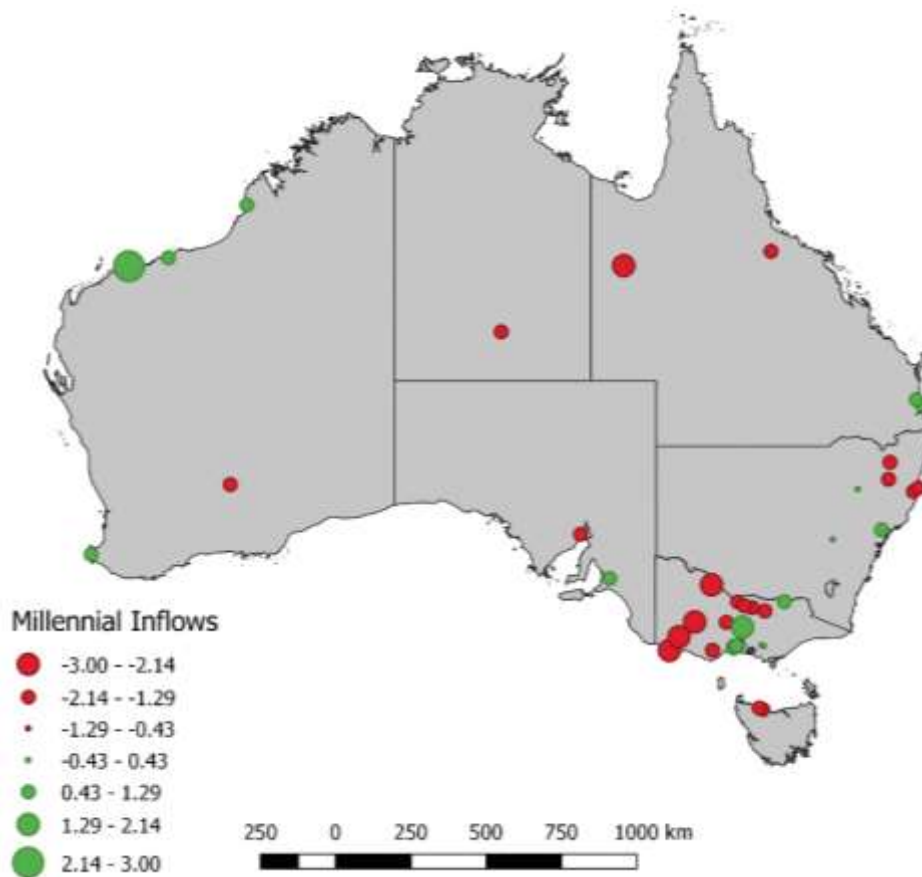


Figure 1: Map of Australia showing locations and flows of MSTs

The results for the AMEN variable were the opposite of expectations. It was lower for high performing MSTs than for low performing MSTs, and the Australian average was lower than the MST average and average for both high and low performing MSTs. Being that AMEN was a proxy variable for cultural vitality, this appears to indicate that the less cultural vitality an MST has, the more likely people are to migrate there. These results could be reflective of a few things. The results could be showing that variable is a poor choice to proxy for cultural vitality. Or it could indicate that cultural vitality is not as important for people when they choose to migrate as the literature would suggest. More detailed review in particular locations would be able to shed further light on this.

Figures 2 and 3 show that there is a stark contrast between the towns which are high performing and the towns which are low performing when sorted by role<sup>5</sup>. A large majority of low performing MSTs can be categorised as industry or service towns. Only three of the low performing MSTs can be classified as coastal lifestyle towns. This contrasts with the high performing MSTs, of which less than half of the towns can be categorised as either an industry or service town (one town is both). Eight high performing MSTs had the role of a connected town, and seven had the role of coastal lifestyle towns.

<sup>5</sup> The totals for these graphs is more than 39 because some MSTs perform multiple roles.

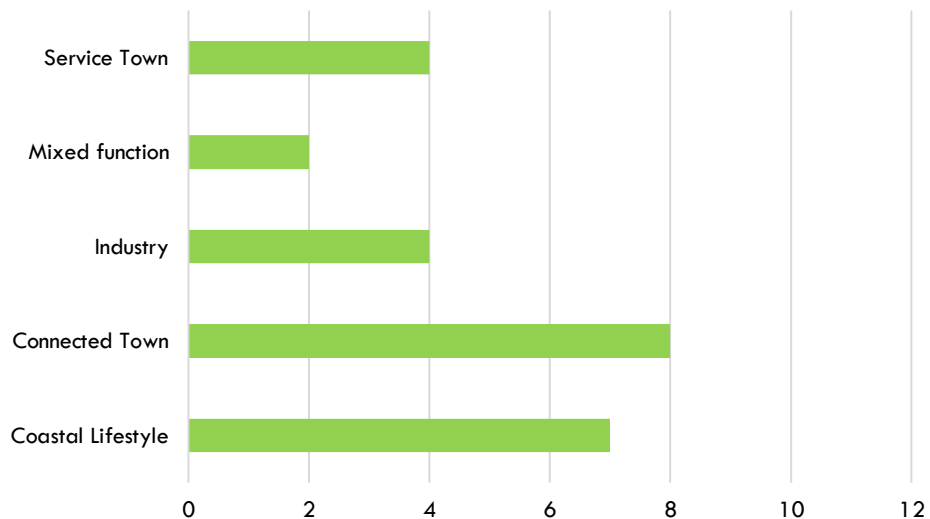


Figure 2: Typologies of high performing MSTs

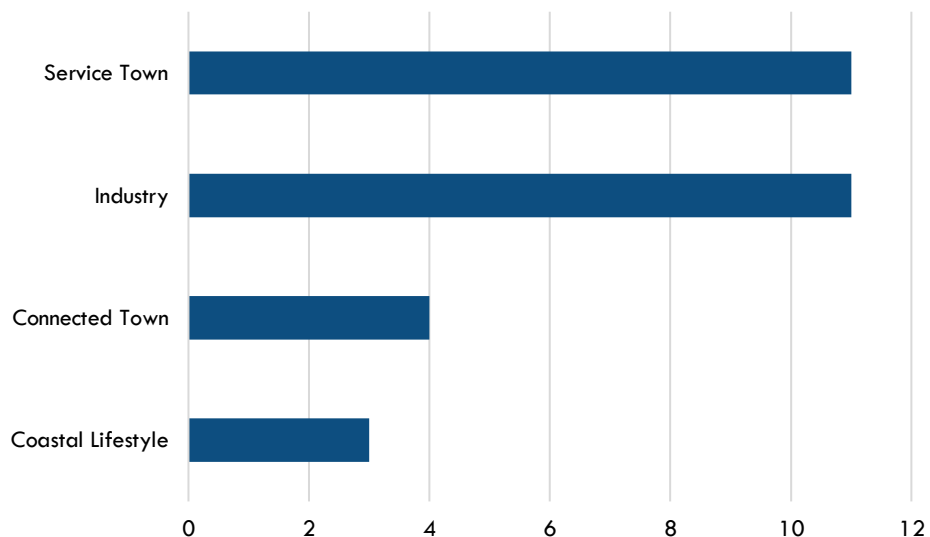


Figure 3: Typologies of low performing MSTs

There is also a contrast between the remoteness areas of the high performing and low performing MSTs, as shown in Figure 4. Over 75% of the MSTs with the highest millennial inflows were in Inner Regional Australia. Of MSTs with the highest millennial outflows, less than half were in Inner Regional Australia, and 43% were from Outer Regional Australia. The sample did not include any MSTs in Very Remote Australia. The divide observed correlates with the higher number of connected high performing MSTs. 10 of the 12 connected towns in the sample were in Inner Regional Australia. This is to be expected – by definition the connected towns must be within 40km of a major regional or metropolitan city. It is rare to find such hubs that are remote.

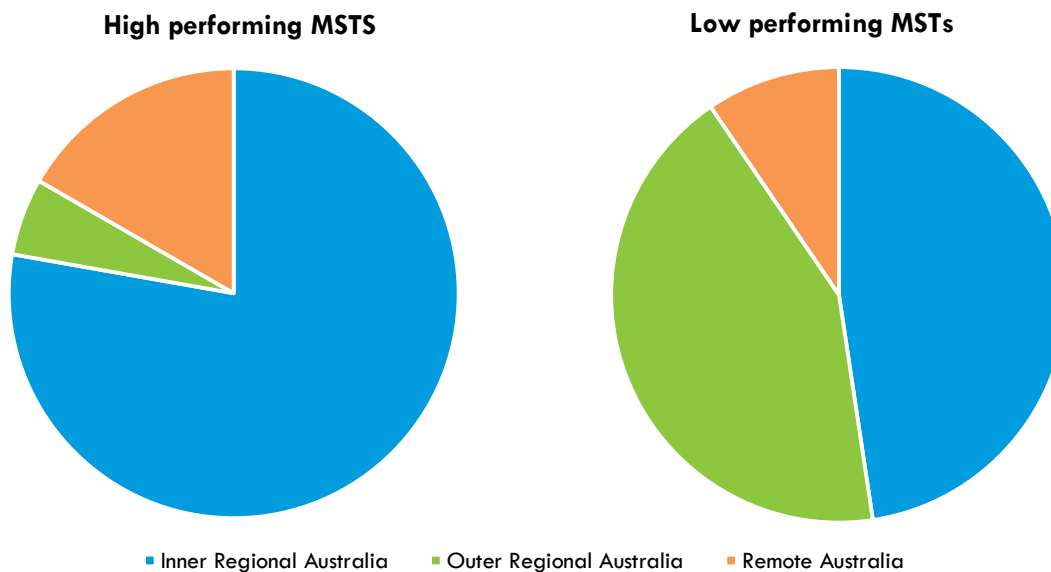


Figure 4: Comparison of remoteness area for MSTs

### CASE STUDY 1: KARRATHA, WA

The MST which received the highest net inflow of millennials was Karratha, Western Australia. The population of Karratha was 15,828 at the time of the 2016 Census, and it saw a net inflow of millennials of 2.53%. The town had relatively a relatively low unemployment rate and a relatively high rate of internet connectivity (although slightly below the Australian average). Karratha's number of healthcare services, AMEN and student/teacher ratio were all below the average for high performing MSTs, as well as the average for MSTs. The town is also not serviced by any university, with the nearest campus over 600 km away in Broome. There was an extremely high proportion of rental properties in the town, and a very high proportion of households where rent payments are less than 30% of household income. There was no data available for house prices. However, the Real Estate Institute of Western Australia calculated that in the March quarter of 2019 the median house price in the Karratha region was \$410,000 (*Six Regional Centres Record Median House Price Increases in March Quarter, 2019*). This shows a reversal of a trend of falling house prices in the region, which fell over \$400,000 in value, from 2010-2016 (Productivity Commission, 2017). While this gives an indication of the market in Karratha, it should not be used in a direct comparison with other house prices as it is not measured at an LGA level.

Karratha is an industry town in Remote Australia. Major industries of employment are iron ore mining (6.8%), oil and gas extraction (5.6%) and other non-metallic mineral mining and quarrying (4.6%). The median weekly household income in Karratha was \$2,643, much higher than the national average of \$1,438 (Australian Bureau of Statistics, 2017b).

The student/teacher ratio was slightly lower than average in Karratha, and this suggests that there was a sub-optimal but adequate number of teachers. There are many schools to choose from, allowing parents the option of either public or private high schools, as well as Catholic schools in the region. Having at least two options was found to be important by the RAI's liveability study (Bourne, 2019). So while education services are not a large drawcard for potential migrants, services in Karratha are at least serviceable for families. Millennials looking to study at university were unlikely to find Karratha

appealing. The health services in Karratha are also serviceable for millennials and families. There is one small hospital, the Karratha Health Campus (*Completed Project - Karratha Health Campus, n.d.*), as well as a number of GPs (including female GPs).

Despite close proximity to beaches, Karratha's natural amenities do not lend themselves to being a drawing factor in migration to the region. The local council notes that it is responsible for the maintenance of 28 parks and seven sporting fields. This is an enticing factor which is important to families, who value these spaces for their children to play in. While the town doesn't feature a traditional main street, it does boast of a shopping centre in the middle of the town. This features both a Coles and a Woolworths, as well as numerous franchises and retail opportunities. The choice in stores is valued by millennials and families alike.

Karratha boasts of a variety of leisure and sporting activities that can make it an attractive destination. The importance of sporting activities is of greater importance to millennials and families than it is to older demographics. Karratha has teams in the leagues of multiple sports, such as the Pilbara Rugby League, North Pilbara Football League and the West Pilbara Cricket Association (which also features a women's team).

The percentage of people employed in AMEN industries were among the lowest of any MST in the sample. This indicates a low level of cultural vitality. This result is unsurprising, given there is no university, a low ratio of students to teachers, and a significant portion of the community works in the resources sector. When the Census was conducted, there was no arts precinct in Karratha, no community theatre group and no avenue for locally produced or performed shows (Barton, 2020). With that said, there is an annual FeNaClNG Festival, which is used by local community groups to raise funds (*Fe[Iron]NaCl[Salt]NG[Natural Gas]*, 2020). The fact that a public holiday is held the day after the event takes place signifies the importance of the festival to the town as a cultural cornerstone of Karratha. Since the Census a new theatre was built in Karratha. Opening in 2018, the Red Earth Arts Precinct hosts a 476 seat theatre and multipurpose performance space that hosts local and touring performers ("Red Earth Arts Precinct Opens in the Pilbara," 2018). This could substantially increase millennial's connection to their community, as they value a diverse mix of cultural and artistic events.

While millennials value suitable rental properties in a town, the high number of rental properties tells us more than how affordable Karratha is. While the data tells us that cost of living is an attractive quality of Karratha, it also speaks of a highly mobile population. Despite the high net inflow of millennials to the region, the population of Karratha decreased by 647 between 2011 and 2016. Combined with other results, this paints a picture of a region where migration occurs for temporary employment opportunities rather than the amenities and community Karratha has to offer. This is further supported by the large proportion of dwellings that are rentals. Given that homeownership is associated with increased connections to community and that homeowners relocate less frequently (Select Committee on Housing Affordability in Australia, 2008:17; Taylor et al., 2020), it is unsurprising that Karratha residents are so mobile.

## CASE STUDY 2: MOUNT ISA, QLD

The region that experienced the highest net millennial outflow was Mount Isa, Queensland. The population at the time of the 2016 Census was 18,342, and there was a net millennial inflow of -3.39%. The unemployment rate was lower than the MST and Australian average. Digital connectivity was also below the MST average, and far below the Australian average. While there is a James Cook University campus located in Mount Isa, it is a specialist campus which only offers programs in nursing. The student/teacher ratio is quite good in Mount Isa, with more teachers for every student than the MST and Australian averages. There are three healthcare services in Mount Isa, with Mount Isa Base Hospital hosting an emergency department, oncology department and maintenance renal dialysis unit. 93% of households have rent payments which are less than 30% of household income, and this is much higher than the Australian average. 39.4% of occupied dwellings are rentals, which is also much higher than the MST and Australian average. The median house price for Mount Isa at an LGA level was \$253,635, which is below the median for the low performing MSTs. The net outflow of millennials is consistent with an overall population decline of 10.83% since 2011 (Australian Bureau of Statistics, 2013).

Mount Isa is an industry town in Remote Australia. The major industries of employment are copper ore mining (18.6%), silver-lead-zinc ore mining (9%) and hospitals (except psychiatric hospitals) (4.6%). The median weekly household income is \$2,141, much higher than the Australian average of \$1,438 (Australian Bureau of Statistics, 2017d). Mount Isa is in a period of transition following the mining boom. Mount Isa was also drought declared for six years during the 2010s. A 2019 flood is estimated to have resulted in the deaths of one-third of all cattle in the region (Smee, 2019). As a consequence, there is a re-adjustment occurring in the region. The Productivity Commission (2017) details how unemployment, while low compared to the national, is rising (from a low of 2%) and house prices are falling to levels not seen since 2007.

A report by Noller et al. found “potentially significant” levels of lead pollution in Mount Isa as a result of the mining that occurs in the town (2017:7). This expanded on a 2008 report which found that 11% of children in Mount Isa had elevated lead levels (Stephens and Cillekens, 2013). This damages the perceptions of Mount Isa’s amenity amongst families, who value safety. Children are more at risk from elevated lead levels as exposure could have significant health impacts such as impairment to development (Field, 2017). Furthermore, the size and spread of Mount Isa lends itself to having a central business district as opposed to a walkable town centre. Millennials and families prefer the latter. Despite these drawbacks which weaken the suitability of Mount Isa’s amenities, the urban sprawl has allowed Mount Isa to have a high proportion of separate houses, offering potential movers to the region the opportunity for large backyards which are desired (Australian Bureau of Statistics, 2017d). Nearby there are national parks, heritage walks and lakes, the presence of which can help strengthen residents’ connection to the community.

Community organisations around Mount Isa also offer millennials diverse ways to get engaged with the community. There are over 70 sporting teams and numerous events throughout the year which showcase the arts (including multiple festivals). While Mount Isa ranks well below the MST average on the AMEN variable, there are dedicated events spaces (such as the Buchanan Park Events Complex and Civic Centre Auditorium) which allows for large scale events such as the Mount Isa Rodeo. The largest rodeo in the southern hemisphere, it attracts visitors from around the state, with attendance at the rodeo exceeding the town’s population (Tatham, 2017).

Mount Isa has nine primary schools and three high schools, allowing parents to choose between the private and the public systems. There are also fifteen early childhood providers. Having a wide variety of schools is looked upon favourably by parents. The number of students per teacher is low, which is a good outcome. While there is no general university in the area, there is the Centre for Rural and Remote Health, run by James Cook University, offering a Bachelor of Nursing Science. Therefore, the appeal for millennials to migrate for education is quite limited. The university offers training placements at the Mount Isa Base Hospital, which provides the opportunity for students to specialise. The Mount Isa Medical Centre supplements this, offering GP services and bulk billing. These services are adequate for millennials and families to consider moving to Mount Isa.

Cost of living pressures are relatively mild in Mount Isa. The combination of high incomes, low house prices and affordable rent payments relieve residents of their financial burden. This should make Mount Isa an attractive destination. However, with such a large percentage of the population in the resources sector, and a major employer in that industry unable to offer certainty (Barker, 2020; Chessell, 2015), people are not swayed by the liveability of the town. Beyond that, without facilities to pursue a diverse tertiary education, younger millennials responding to the job market conditions and looking to upskill are required to migrate out of the town.

### CASE STUDY 3: TORQUAY – JAN JUC, VIC

Torquay – Jan Juc, Victoria, is an MST located along the Great Ocean Road, approximately 100 kilometres from Melbourne. The population at the 2016 Census was 16,948, and it saw a net inflow of millennials of 0.39% of its total population. Unemployment was among the lowest of all MSTs in the sample, and internet connectivity was the highest in the sample, comparing well with the Australian average. The median house price in the LGA was the highest in the sample by a total of almost \$300,000. The nearest university was approximately 15 kilometres away in Geelong. The student – teacher ratio for the town was better than the MST average. However, there were zero healthcare services. There was a relatively low number of rentals in the area and quite a high proportion of people whose rent payments were less than 30% of income. The AMEN variable was about 10% higher than the MST average.

Torquay – Jan Juc comprises of two suburbs and can be categorised as a coastal lifestyle and connected town. It is in Inner Regional Australia. The median weekly household income was \$1,753, higher than the Australian average (ABS, 2017e).

By any measure of natural beauty, Torquay – Jan Juc is a highly desirable place to live for millennials. The area is renowned for its surfing and beachside location. The world-famous Bells Beach is just outside the MST's south-west border. There is an abundance of greenery and bushwalks available, and Point Addis Marine National Park is nearby. These amenities contribute to attracting over 850,000 tourists to Torquay – Jan Juc in 2015/16. The most popular activity of tourists was going to the beach (Surf Coast Shire, n.d.).

Being a connected town, Torquay – Jan Juc is located close to Geelong, a major regional centre in Victoria. This means that Torquay – Jan Juc is not viewed upon less favourably for not having as many specialist services as they are offered only a short distance away (the drive from Torquay to Geelong is



about half an hour). So even though there are zero healthcare services offered in the MST, a wide variety of services are available in Geelong's Barwon Health. Generalist services which may need to be used more frequently, such as chemists and GPs, are present in the town.

There is not a wide variety of schools in Torquay – Jan Juc, with four primary schools (two Catholic) and one secondary school in the area. However, only examining schools in Torquay – Jan Juc would miss the wide range of schools offered in Geelong. This area is host to a large number of schools, including two prestigious Associated Public Schools of Victoria, Geelong Grammar and Geelong College. Considering that there are four primary schools and only one high school in the town, it can be inferred that children of secondary school age are being educated outside the town because these students must be receiving their education from somewhere. Similar to the case with healthcare services, Torquay – Jan Juc will be looked upon favourably by millennials for its proximity to services in Geelong, which are easily accessible.



Photo by [gryffyn m](#) on [Unsplash](#). Bells Beach, VIC

The lifestyle in Torquay – Jan Juc offers a mixture of sports, leisure and arts. As is to be expected considering its proximity to good beaches, Torquay – Jan Juc offers people of different ages and experience levels the opportunity to surf. There are also numerous art galleries and street art projects in the area. Surf Coast Shire, the local council governing the town, offers local arts grants to encourage collaboration between local businesses and artists (Kenny, 2020). The Australian Surfing Museum is a representation of both sports and arts. Despite this, young adults report that one of their main issues of concern is boredom and lack of leisure and sporting facilities<sup>6</sup> (Surf Coast Shire, 2017). This suggests that

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<sup>6</sup> This survey classified young adults as 18-25 year olds

the opportunities on offer are not well targeted and that galleries are not the sort of artistic endeavours enjoyed by millennials.

A barrier for millennials considering making the move to Torquay – Jan Juc is the high cost of living. Housing prices are extremely high, and there are very few rental properties. This is potentially a function of the town being a coastal lifestyle MST. Only 70.6% of dwellings in Torquay – Jan Juc are occupied, compared to a national average of 88.8% (ABS, 2017e). An abundance of holiday houses, which go unused for most of the year, may be distorting the housing market.

Torquay – Jan Juc offers millennials a high amenity destination with nearby access to services from one of the largest regional centres in the country in Geelong. However, millennials in the area self-report an issue with boredom arising from lack of leisure and sporting facilities, and living costs are quite high. The net millennial inflow reflects these factors – there is a positive inflow. However, it is relatively small.

#### **CASE STUDY 4: KEMPSEY, NSW**

Kempsey is an MST in the Mid North Coast of New South Wales with a total population of 10,648 as of 2016. It had a net outflow of millennials of -1.86%. Kempsey's unemployment rate of 10.6% was among the highest in the sample, and far above the national average. The proportion of the workforce in part-time work also exceeded the national average, with 37.6% of workers employed on a part-time basis. This paints a picture of a town that is disadvantaged, with a median household income of \$820 per week, a little more than half the national average (ABS, 2017c). The Australian Council of Social Service found in 2020 that one in five residents were disadvantaged (Katte, 2020). Only 83% of households had rental payments which were less than 30% of household income. This was also among the lowest in the sample. Internet accessibility was 57.59%, which was the lowest of all 39 MSTs in the sample. Kempsey's student – teacher ratio of 17.98 students per teacher was one of the poorest in the sample, too. A bright light for the town is the AMEN workforce, which at 42.45% was among the highest in the sample. University campuses in Port Macquarie, which is a 45-minute drive from the town, also serviced Kempsey. The median house price, \$343,875, was much higher than the low performing MST median, and similarly, the proportion of rental properties was slightly higher than the low performing MST average. The total number of healthcare services in Kempsey was four, much higher than the average from the sample. Kempsey is a service town in part due to its close proximity to Port Macquarie. It is also close to South West Rocks, another MST with high millennial outflow (although on other measured variables South West Rocks is much less disadvantaged MST). Kempsey is classified as being in Inner Regional Australia.

The number of students per teacher in Kempsey is one of the highest in the sample. Despite this, there are enough schools to offer parents a mix of government and Catholic primary and secondary schools. There is also a TAFE in Kempsey, which offers a small number of courses in areas such as healthcare. While universities in Port Macquarie service the town, this is unlikely to attract migrants to Kempsey. It is more likely to encourage students residing in Kempsey to stay instead of moving to Port Macquarie. Migrants who travel to study at a university in Port Macquarie would find living in Port Macquarie a more attractive prospect than Kempsey. In summary, the provision of education services is generally unattractive for potential migrants in Kempsey.

There is an abundance of general practice services, many offering bulk billing and female GPs. While one might expect Kempsey to have few healthcare services, given that Port Macquarie is nearby and has a hospital, there are a large number of services on offer in Kempsey.

The perceptions of community safety might cause millennials to look upon Kempsey unfavourably. In 2015 it was reported that in “practically all areas of crime, [Kempsey] [was] two times the state average except for ‘break and enter into a dwelling’, which [was] three times the state average” (Moran, 2016). Similar crime statistics were recorded throughout the decade (Waterson, 2017; “Kempsey Identified as Mid North Coast Crime ‘Hotspot,’” 2011). This is especially impactful for families and is a large turnoff for millennials.

Further hurting perceptions of amenity in Kempsey is the frequent declaration of natural disasters. The Kempsey Shire (of which the town Kempsey constitutes a sizeable portion of the population) has experienced 19 natural disasters in the last decade (Harari, 2020). Most frequent are floods or bushfires. Kempsey is particularly prone to flooding due to its placement along the Macleay River, with the most recent severe flood occurring in 2013 (“Five Year Anniversary of Mid North Coast Floods | Photos,” 2018). However, in the Macleay Valley is a wide range of national parks, with Goolawah National Park to the south-east, alongside the coast, and Yarrahapinni Mountain to the north. These options for outdoor exploration can increase millennials’ connection to place.

The AMEN variable indicates a high amount of human-made amenities in Kempsey. However, a closer analysis reveals that the human-made amenities in Kempsey which influences residents’ lifestyle are relatively thin. There are few sports clubs and few artistic events. There is a large community of Indigenous Australians in Kempsey, and a testament to their culture is evident in the Wigay Aboriginal Culture Park and the Dunghutti-Ngaku Aboriginal Art Gallery. There is also an abundance of green spaces and parks, the likes of which families value as spaces for children to play in.

While Kempsey may meet the standards set out by some of the liveability indicators, it is held back from being a desirable destination for millennials by a lack of distinct pull factors and issues with disadvantage among the community.

## HARMONISING THE QUANTITATIVE ANALYSIS AND CASE STUDIES

This research complements literature on Australian internal migration. The literature made it clear that employment and amenity were important factors in individuals’ migration decision, and these findings supports this. Additionally, this research gives justification for policymakers to sharpen their focus on a few key areas to increase millennial migration to regional Australia. The relationship between digital connectivity and millennial flows was the strongest observed in the study. This area has not previously been explored to the same extent as other influencing factors and is further discussed in the recommendations of this report.

Previous research argued that some variables have a large influencing effect on millennials. This research contrasts with those, finding that cultural vitality in low performing MSTs were higher than for high performing MSTs. This is a puzzling finding. The RAI’s liveability indicators argued that “community and cultural vitality is important” for millennials when they consider moving (Bourne, 2019:11). Through the

qualitative analysis of case studies, cultural vitality did not appear to be a pull factor for any of the towns. Of the four case studies Mount Isa was the town with the most vibrant culture, which also had the highest millennial outflow. While it may be the case that millennials have a preference for cultural vitality, these results suggest that there are preferences which supersede it (such as the variables in the first step of the moving process).

The case studies of Karratha and Mount Isa tell two different sides of the same story. Karratha is a town still riding the wave of the mining boom. Mount Isa is on the other side of the phenomenon. As such, what was observed in this study was drastically different for both towns even though they shared many attributes. The results show a trend that there were more industry towns like Mount Isa, which were seeing outflows of millennials, than towns like Karratha, which were experiencing millennial inflows.

The case study on Torquay – Jan Juc gives an insight into why connected towns were among those with the highest millennial inflows. Proximity to regional hubs offers residents the services they infrequently use at a distance that is not inconvenient, while still offering the lifestyle of an MST. For people who do not mind the commute, this is a ‘best of both worlds’ scenario.

Some aspects of liveability were unable to be measured by this study, so their influence could not be considered. For example, Davies (2008) found that people who had previously lived in regional Australia had more positive perceptions about the regions. This means that there is the potential that influencers of liveability were overlooked. Furthermore, it should be noted that this research only looks at the proportional impact of millennial migration, and is not comparing towns with the largest total migration. For example, Mount Isa is not the MST with the highest outmigration on raw numbers. The Blue Mountains saw more millennials leave, but this constituted a smaller proportion of their population.



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# RECOMMENDATIONS

## ENCOURAGING REMOTE WORK IN REGIONAL AUSTRALIA

This paper was written whilst COVID-19 spread around the world, devastating the economies of countries and taking countless lives. As a result of policies which aim to prevent the spread of the virus, there have been wide-reaching effects on the Australian economy. Of note is the effect on regional Australia, which is predicted to be impacted significantly by the pause of international migration (Australian Associated Press, 2020). While the results of this paper did not address COVID-19 (as the main data source was the 2016 Census), the results can help to power regional recovery following the crisis.

A key argument used in the national debate to encourage internal migration to the regions is that there is an abundance of jobs in regional Australia. Deputy Prime Minister and Minister for Infrastructure, Transport and Regional Development Michael McCormack has made this point repeatedly (Bolger, 2019; Galiberger, 2020). RAI data shows that job vacancies in regional Australia had only fallen 2% between August 2019-2020, compared to a fall of 33% in mainland capital cities (Houghton, 2020). However, clearly there is more to the migration picture than just jobs. Such a focus on jobs obscures the fact that millennials value careers. A job accompanied by an uncertain future is not an attractive prospect, as can be observed with the Mount Isa case study. This paper suggests that there should be a transition away from focusing on the jobs in regional Australia to attract opportunistic migrants, and discussion should focus on the long term benefits of moving to regional Australia. New policies can accompany this.

Policy responses to COVID-19 necessitated the proliferation of remote working arrangements, allowing more people to experience remote working than ever before (Mitchell, 2020). This phenomenon presents the opportunity to remove jobs in the regions with migration considerations, and to encourage millennials to bring their jobs with them when they move and work from home in their destination.

This research focused on local labour markets as a premier consideration in migration decisions, noting that there were other influencing factors affecting an MST's liveability. Given the rapid normalisation of remote working arrangements, local labour markets may not impact migration decisions as strongly in the future. Now that Australians are more familiar with remote working, they may be more inclined to continue these arrangements into the future. If this is the case, proximity to work, believed to be a prominent consideration in migratory decisions (Osbaldiston et al., 2020), would no longer be of paramount concern. Workers would be more willing to become amenity migrants to the regions. This could be seen as a reversal of the Fly-In, Fly-Out employment method incorporated in many mining regions. Instead of workers temporarily migrating to be close to their employer, they migrate away from their place of work to enjoy lifestyle changes.

Early anecdotal evidence, although limited, suggests that such a change is beginning to occur (Dunn, 2020). **The Government should try to stimulate this process, to encourage more millennials to move from capital cities to the regions.** Strategies to achieve this could include:

- **Government-run advertising campaigns encouraging a sea or tree change where migrants bring their work with them and work from their homes;**
- **Incentives to businesses which allow staff to take up remote working arrangements.** These can take the form of;

- A commitment to tax incentives over the long term for necessary infrastructure investments required for remote working arrangements. These could include tax write-offs for investments in upgrading internal communication systems, hardware for home use (such as webcams or printers) and file-sharing arrangements; and
- Guidelines for businesses on the best practice for transitioning to a workforce that operates remotely. Or
- **Incentives for homeowners to renovate their property to include a home office.**

## INCREASING REGIONAL AUSTRALIA'S DIGITAL INFRASTRUCTURE

Access to high quality internet is required for remote working arrangements to be successful. The variable from this study which most strongly correlated with millennial migration flow was digital connectivity. Research on the effects of local labour markets and natural amenities on migration was much more prominent than internet usage, which was barely mentioned<sup>7</sup>. Given this, the strong relationship was somewhat unexpected. However, surveys had found internet accessibility to be an issue for regional Australians. A recent survey of regional WA found only 38% of respondents were satisfied or very satisfied with their internet services (Department of Industries and Regional Development, 2017). A 2015 regional wellbeing survey also found that only 37% of rural and regional Australians felt they had good access to high-speed internet (Schirmer et al., 2016:xvii).

The Joint Standing Committee on Migration (2020) recently released their *Report of the Inquiry into Migration in Regional Australia*. It did not mention digital connectivity as infrastructure important to attracting or retaining people in regional Australia. This suggests that there is a policy blind spot, where there is room for improvement for the Commonwealth to attract millennials to regional Australia.

2020 has seen a handful of welcomed announcements in terms of digital infrastructure. In July 2020, legislation was passed requiring NBN Co and equivalent companies to provide a download speed of at least 25 megabits per second and an upload speed of 5Mbps during peak hours (Lysaght, 2020). In September, works were announced to upgrade two million homes currently on Fibre to the Node to Fibre to the Premises (Nirmalathas, 2020). At the time of writing, there has not been an announcement as to which areas will receive these updates. **There should be an emphasis on regional Australia, with particular attention paid to towns which are already lagging behind capital cities, to receive upgrades as part of this initiative.**

Given that there is already a focus on upgrading Australia's internet services, there is an opportunity to link current digital infrastructure policies to migration policies. The Australian Digital Inclusion Index (Thomas et al., 2019:7) found that digital inclusion was 8.1 points higher in capital cities (63.8) than in country areas (55.7). There is a broad scope to improve digital infrastructure in the regions, and this report offers an extra incentive for policymakers to do so. Policies that help to reverse the trend of millennials leaving regions for capital cities are vital for regional Australia's sustainability.

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<sup>7</sup> Osbaldiston et al. (2020) noted that digital infrastructure is important to migrants. However, does not discuss this result at length.

## IMPROVEMENTS TO THE REGIONAL AUSTRALIA INSTITUTE'S LIVEABILITY INDICATORS

This study broadly supports the approach used by the RAI and their conceptualisation of moving to the regions as a two-step process. The results from the quantitative analysis showed that variables which measured the first step correlated with migration patterns the strongest. While this study is limited in so far as it did not measure all things which could relate to this first step, such as other infrastructure services, the results were encouraging. However, the results of this study show a much more mixed picture of the second step of the liveability indicators for millennials.

Even towns with high millennial outflows measured well on some of the liveability indicators. This presents an issue on their accuracy. For example, the inclusion of bulk billing GPs and multiple schools to choose from in a town is argued to make a town a more attractive destination. While it is likely the case that a town without doctors and one school is less favoured than multiple of each, MSTs have such a population that they always met these criteria, and it did not appear to affect migration flow. Furthermore, connected towns such as Torquay – Jan Juc are located near a large regional hub, which provided services that were not available in the MST itself, but were still easily accessible to residents. Therefore, there was not a large impact on millennial migration despite Torquay – Jan Juc lacking services, because residents were still in close proximity to them.

The results also suggested that influencing factors varied based on the typology of each town. For example, the success of industry towns in attracting millennials seems almost wholly reliant on the labour market. Comparing Karratha and Port Hedland with Mount Isa and Kalgoorlie – Boulder makes this point well. All four are industry towns, the former two attracting large numbers of millennials and the latter two seeing large outflows. These flows correspond well to the success of the labour market of these towns (and particularly the mining industry, the major regional employers). Despite being relatively similar on most metrics<sup>8</sup>, there was a considerable discrepancy in the flows between the two higher performing and two lower performing towns. This is suggestive that other indicators are of little importance to residents of, and potential migrants to, industry towns.

The nature of liveability is wide-ranging and a deeply personal choice. Therefore, it is exceedingly difficult to draw conclusions that are concrete and applicable for all cases. However, these patterns suggest that the indicators can be improved.

**This paper makes the recommendation that the liveability indicators be re-worked to incorporate different typologies of towns, to reflect the different ways migrants perceive liveability in towns with different roles.** This can improve their accuracy and make them a more useful tool for towns to determine their attractiveness as a migration destination.

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<sup>8</sup> Percentage of rental properties is the only measure with an extreme variation between the two higher and two lower performing towns.



Photo by [mick orlick](#) on [Unsplash](#). Barossa Valley, SA

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## APPENDIX 1 – FULL TABLE OF RESULTS

UCL	Millennial Inflow	Unemployment Rate	Internet accessed	Nearby University	Student-teacher ratio	Health-care services	Households where rent payments are less than 30% of household income	Proportion of occupied dwellings that are rentals	Median House price (\$)	AMEN	Type of town	Type of town 2 (when applicable)	Remoteness area
<b>Cessnock</b>	0.824%	10.1%	68.92%	Yes	20.46	1	85.3%	32.38%	381,821	31.53%	Connected Town		Inner Regional
<b>Albury - Wodonga (Wodonga Part)</b>	0.935%	6.5%	76.53%	Yes	13.44	2	88.3%	35.72%	352,272	35.17%	Service Town		Inner Regional
<b>Drysdale - Clifton Springs</b>	0.908%	5.9%	79.44%	Yes	12.95	0	92.0%	17.38%	539,042	37.68%	Coastal Lifestyle	Connected Town	Inner Regional
<b>Ocean Grove - Barwon Heads</b>	0.908%	4.4%	84.76%	Yes	9.37	0	92.1%	19.70%	539,042	39.42%	Coastal Lifestyle	Connected Town	Inner Regional
<b>Bongaree - Woorim</b>	0.715%	9.6%	73.83%	Yes	9.82	0	84.8%	26.63%	462,911	36.82%	Coastal Lifestyle		Inner Regional
<b>Mount Barker (SA)</b>	1.069%	6.1%	82.60%	Yes	10.65	1	88.1%	29.83%	411,488	37.61%	Connected Town		Inner Regional
<b>Broome</b>	0.678%	4.9%	70.77%	Yes	7.04	2	85.8%	39.34%	451,987	37.11%	Coastal Lifestyle	Service Town	Remote

<b>Karratha</b>	2.534%	5.6%	77.81%	No	9.18	1	90.4%	65.34%	N/A	21.30%	Industry		Remote
<b>Port Hedland</b>	1.175%	5.3%	67.90%	No	9.79	3	90.7%	63.87%	204,123	23.22%	Industry	Coastal Lifestyle	Remote
<b>Warragul</b>	0.336%	5.8%	76.61%	Yes	7.26	4	91.0%	22.70%	422,101	36.30%	Industry		Inner Regional
<b>Torquay - Jan Juc</b>	0.388%	4.2%	86.37%	Yes	8.98	0	92.8%	22.00%	824,920	37.22%	Coastal Lifestyle	Connected Town	Inner Regional
<b>Orange</b>	0.411%	6.6%	72.17%	Yes	10.28	6	87.4%	32.97%	419,352	40.49%	Service Town		Inner Regional
<b>Drouin</b>	0.336%	6.2%	75.80%	Yes	9.74	0	89.2%	24.00%	422,101	32.72%	Mixed function		Inner Regional
<b>Kilmore</b>	1.977%	5.9%	77.62%	Yes	10.00	1	91.6%	22.35%	443,988	31.17%	Mixed function		Inner Regional
<b>Portarlington - St Leonards</b>	0.910%	8.9%	69.50%	Yes	11.03	0	87.6%	22.38%	539,042	35.37%	Connected Town	Coastal Lifestyle	Inner Regional
<b>Beerwah</b>	0.675%	7.6%	79.00%	Yes	15.34	0	82.9%	33.90%	598,262	35.73%	Connected Town		Inner Regional
<b>Margaret River</b>	0.659%	5.1%	82.09%	Yes	10.83	0	86.8%	31.86%	489,402	28.45%	Connected Town		Inner Regional
<b>Gunnedah</b>	0.491%	6.5%	63.38%	No	9.70	1	86.7%	34.85%	319,845	30.25%	Industry	Service Town	Outer Regional
<b>Kempsey</b>	-1.856%	10.60%	57.59%	Yes	17.98	4	83.00%	32.64%	343,875	42.45%	Service Town		Inner Regional

<b>Shepparton - Mooroopna</b>	-1.758%	7.20%	72.03%	Yes	9.93	5	89.10%	30.45%	281,328	38.16%	Service Town		Inner Regional
<b>Colac</b>	-1.845%	4.30%	67.78%	Yes	11.66	2	91.30%	24.25%	335,389	32.37%	Industry		Inner Regional
<b>Echuca - Moama (Echuca Part)</b>	-1.868%	5.30%	70.70%	Yes	8.23	3	89.60%	29.29%	295,466	36.98%	Industry		Inner Regional
<b>Portland (Vic.)</b>	-2.884%	7.40%	70.38%	No	11.09	2	90.70%	28.03%	210,351	32.48%	Industry	Coastal Lifestyle	Outer Regional
<b>Swan Hill</b>	-2.584%	5.00%	66.01%	No	7.32	2	90.00%	30.47%	238,855	36.11%	Industry		Outer Regional
<b>Castlemaine</b>	-1.887%	5.40%	72.97%	Yes	10.97	0	89.90%	21.50%	476,842	39.72%	Industry	Connected Town	Inner Regional
<b>Mount Isa</b>	-3.385%	6.10%	70.25%	No	8.77	3	93.00%	39.40%	253,635	28.17%	Industry		Remote
<b>Kalgoorlie - Boulder</b>	-2.289%	5.90%	74.33%	Yes	9.70	5	93.50%	34.37%	302,209	24.96%	Industry	Service Town	Outer Regional
<b>Burnie - Somerset</b>	-2.323%	9.20%	71.14%	Yes	12.11	4	86.10%	32.40%	250,672	38.38%	Service Town		Outer Regional
<b>Alice Springs</b>	-2.420%	3.40%	71.53%	Yes	5.68	6	90.30%	36.81%	461,008	38.76%	Service Town		Remote
<b>Armidale</b>	-1.844%	9.30%	75.17%	Yes	8.13	5	82.10%	39.52%	356,752	50.84%	Service Town		Inner Regional

<b>Whyalla</b>	-1.805%	12.50%	67.55%	Yes	11.38	4	88.00%	37.03%	168,410	34.16%	Industry	Service Town	Outer Regional
<b>Glen Innes</b>	-2.310%	9.90%	61.30%	No	12.52	1	84.80%	30.72%	200,838	35.98%	Service Town	Industry	Outer Regional
<b>South West Rocks</b>	-1.856%	7.60%	70.16%	No	13.18	0	87.90%	24.30%	343,875	36.76%	Coastal Lifestyle	Connected Town	Outer Regional
<b>Benalla</b>	-2.258%	6.30%	67.97%	Yes	8.03	0	88.80%	28.21%	265,899	37.72%	Connected Town		Inner Regional
<b>Hamilton</b>	-2.992%	5.30%	71.09%	No	7.78	3	93.10%	25.07%	206,734	41.95%	Industry	Service Town	Inner Regional
<b>Kyabram</b>	-1.868%	6.30%	66.75%	Yes	8.54	2	91.00%	25.80%	295,466	36.54%	Industry		Inner Regional
<b>Stawell</b>	-2.921%	6.20%	65.52%	Yes	10.97	1	92.20%	15.91%	190,495	34.88%	Service Town		Inner Regional
<b>Wynyard</b>	-1.886%	8.40%	66.93%	Yes	9.74	0	88.20%	30.86%	270,509	37.75%	Coastal Lifestyle	Connected Town	Outer Regional
<b>Charters Towers</b>	-1.818%	10.70%	63.75%	No	6.23	1	89.50%	29.50%	194,795	43.05%	Service Town		Outer Regional
<b>Average high performing</b>	0.89%	6.40%	75.84%	15/18	10.88120 12	1.222222 222	88.53%	32.07%	443,988	33.75%			
<b>Average low performing</b>	-2.22%	7.25%	68.61%	14/21	9.996998 017	2.523809 524	89.15%	29.83%	270,509	37.06%			



## APPENDIX 2 – EXPANDED METHODOLOGY

Data was sourced using the Australian Bureau of Statistics (ABS) 2016, Census of Population and Housing TableBuilder Pro data unless otherwise stated.

### Migration flows

Internal migration was measured with the census variable LGA of usual residence five years ago (LGAU5P). This was crosstabbed with LGA of Usual Residence. Responses that had been recorded as: Not Applicable, Born Overseas and Not stated were removed from the analysis. For each LGA we calculated inflow, static population and outflow. Inflows were counted as people who had stated that they were living in another LGA to the five years previously. The Static population represented those people who stated that they lived in the Same LGA in 2016 as 2011. Finally, outflows were calculated by the sum of those people who stated that they had lived in a particular LGA five years previously and had since moved to another LGA. Other elements of population change for any region in Australia not counted in this project are births and international migration. This process was then repeated using only responses from those aged between 20 and 34 years old (millennials). This provided the inflow, static population and outflow for each LGA for millennials. This process initially occurred as part of the RAI's Big Movers Report. All LGAs that did not have an MST within their boundaries were dropped from the sample.

To determine the net flow of millennials, the outflow was subtracted from the inflow in each LGA. This figure was then divided by the total population of the town to provide the net flow as a percentage of total population.

### Unemployment rate

The unemployment rate was calculated using the proportion of people in the labour force that was not working (variable LFSP). To calculate this for MSTs this was done at a UCL level. To calculate the Australia figure this was done using the geographical area 'Australia'.

### AMEN

Gao and Melser (2016) created a variable as a proxy for the existence of human-made amenities. They found suggestive evidence that the presence of these amenities increased quality of life (along with climatic factors). The variable, labelled as AMEN, is the percentage of total regional employment engaged in Arts and Recreation, Education and Training, Health Care and Social Assistance and Retail Trade. This study will use the variable to proxy for human-made amenities in an attempt to capture a statistic which can reflect cultural vitality. This data came from the 2016 Census. Using the variable INDP Industry of Employment at a one digit level, the combined total of people working in Arts and Recreation, Education and Training, Health Care and Social Assistance and Retail Trade was divided by the total workforce to give a percentage value of the workers employed in those industries. To calculate this for MSTs this was done at a UCL level. The Australian average was calculated using the same method with the geographical area 'Australia'.

### Median House Price

Median House Price was calculated using the RAI's MOVE tool, available at <http://www.regionalaustralia.org.au/home/move/>. The tool calculated median house price at an LGA

level and was sourced from CoreLogic on 31/01/2019. Because this was at the LGA level, all MSTs within the same LGA were given the same median house price. Two MSTs, Karratha and Geraldton, did not have data available. Unlike the other variables, where the average was calculated as the mean, the house price average for high and low performing MSTs is calculated using the median.

#### Student – teacher ratio

To calculate students per teacher we needed to determine how many students and teachers were in any given area. To calculate the number of students this paper used the variable TYSTAP Educational Institution: Attendee Status and summed the total number of people counted under the variables 'preschool', 'Infants/Primary – Government', 'Infants/Primary – Catholic', 'Infants/Primary - Other Non Government', 'Secondary – Government', 'Secondary – Catholic', and 'Secondary - Other Non Government'. To calculate number of teachers, this paper used the variable INDP Industry of Employment, selecting people at a two digit Level who were in Preschool and School Education. Of these people, only full-time workers were selected. To determine this only people who were 'Employed, worked full-time' under the variable LFSP Labour Force Status were selected. This data was filtered by a Persons Place of Usual Residence. To calculate this for MSTs, this was done at a UCL level. To calculate the Australian average, we used the same process but with the geographical area 'Australia'.

#### Rentals

To measure the proportion of rental properties in an MST the percentage of rentals at a UCL level out of tenure types 'owned outright', 'owned with a mortgage', 'rented', 'other tenure type' and 'not stated' (variable TEND Tenure Type) was calculated. This was filtered by Dwellings Location on Census Night. The Australian average was determined by calculating the percentage of rentals out of the variables mentioned using the geographical area 'Australia'.

#### Rent as percentage of income

To attain the proportion of households where rent payments were less than 30% of household income, each UCL was individually searched on the ABS 2016 Census QuickStats page, which is at <https://www.abs.gov.au/websitedbs/D3310114.nsf/Home/2016%20QuickStats>. The data was taken from each UCL's respective 2016 Census Quick Stats page. The Australian average is given as a comparison on the Quick Stats pages for each MST.

#### Typology

A list of the typology of each MST was collected from the RAI's *Mid-Sized Towns Roles and Typology: Briefing Note* (Bourne et al., 2019). For further information on how towns were sorted, refer to pages 8-9 of this document.

#### Healthcare services

Number of healthcare services came from the RAI's *Mid-Sized Towns Roles and Typology: Briefing Note* (Bourne et al., 2019). For further information on how the data was acquired for that paper, please refer to page 38 of the document.

#### Universities

Nearest university to an MST was calculated as part of the RAI's *Mid-Sized Towns Roles and Typology: Briefing Note* (Bourne et al., 2019). However, only MSTs with a population above 10,000 had their

nearest university calculated. To determine the nearest universities in the sample (for MSTs with a population below 10,000) the same methodology as described on page 38 of the Briefing Note was used. At the end of this process, the nearest universities to MSTs were all known. If the nearest university was less than 60km away, it was considered to be servicing the MST. If the nearest specialist university was over 60km and it was not considered to be servicing the town.

### Internet Connectivity

To capture internet connectivity, the percentage of respondents who answered 'Internet accessed from dwelling' for the variable NEDD Type of Internet Connection was calculated. This was filtered by Dwellings Location on Census Night. To get the MST figure, this was calculated at the UCL level. The Australian average was calculated using the variable NEDD with the geographical area 'Australia'.

### Case Studies

Additional sources were used for each of the case studies. The full list of websites used is listed below

<https://www.karrathamedicalcentre.com.au/general-practitioners/>

<https://www.sonichealthplus.com.au/locations/karratha/our-team>

[https://websites.sportstg.com/assoc\\_page.cgi?c=1-3584-0-0-0&a=COMPS](https://websites.sportstg.com/assoc_page.cgi?c=1-3584-0-0-0&a=COMPS)

<https://nrlwa.com.au/pilbara-rugby-league/>

<https://www.crrh.jcu.edu.au/students/mount-isa-cloncurry-nursing-program/>

<https://www.jcuqp.edu.au/north-west/>

<https://www.barwonhealth.org.au/services-departments>

<https://tfhc.com.au/>

[https://www.healthdirect.gov.au/australian-health-services/results/torquay-3228/tihcs-aht-12243/pharmacy?pageIndex=1&tab=SITE\\_VISIT](https://www.healthdirect.gov.au/australian-health-services/results/torquay-3228/tihcs-aht-12243/pharmacy?pageIndex=1&tab=SITE_VISIT)

<http://www.torquaysurf.com.au/>

<https://www.goodschools.com.au/compare-schools/in-kempsey-2440>

<https://www.tafensw.edu.au/locations/north-coast/kempsey>

[https://www.healthdirect.gov.au/australian-health-services/results/west-kempsey-2440/tihcs-aht-11222/general-practice?pageIndex=1&tab=SITE\\_VISIT](https://www.healthdirect.gov.au/australian-health-services/results/west-kempsey-2440/tihcs-aht-11222/general-practice?pageIndex=1&tab=SITE_VISIT)