



Research Brief

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Northern Territory Contemporary Indigenous Migration Trends

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RESEARCH AIM

A growing net loss of Indigenous residents of the Northern Territory to other jurisdictions in Australia has been observed in successive Censuses. In this brief we examine Northern Territory Indigenous migration trends from 2001 to 2016 to identify patterns, flows and the characteristics of Indigenous migrants arriving to and departing from the Territory for interstate. The aim is to inform considerations by policy-makers on ways to enhance the retention of Indigenous people in the Territory and to increase attraction rates for those outside of the Territory. We also provide insights about return migration rates and characteristics for Indigenous residents compared to others. While the aim is primarily to outline migration trends, as context we provide baseline data on Territory Indigenous population characteristics and trends which are important to understanding recent and future Indigenous population growth and change in the Territory.

THREE KEY FINDINGS

1. Territory migration flows are concentrated to and from Darwin and interstate which has comparatively higher rates of in and out migration for those originating from interstate.
2. Within the Territory, migration and other factors are leading to growth in Darwin (in particular) and Katherine while other regions are either growing slowly or in decline.
3. The Territory's Indigenous population is changing, including through significant population ageing.

Acknowledgements

The work reported here was in part funded by a grant provided by the Northern Territory Government [No. D18-0289] to investigate population trends and prospects in the Northern Territory. All opinions and interpretations are nevertheless of the authors. Our analysis here utilises the best available data. However, these sources do not wholly capture the many important movements of Indigenous people. We recognise there are limitations to the ways in which migration patterns for Indigenous peoples are collected and reported in official data like the Census. Such data does not adequately depict short-term movements which may be associated with cultural activities, for example. They also do not necessarily represent the migration flows of the past which have led to Indigenous connections and networks across the country. We recognise the Indigenous peoples of the Northern Territory and state our respect for their culture and their connection to Territory lands and seas. We pay our respect to all Territory elders; past, present and future.

Suggested citation

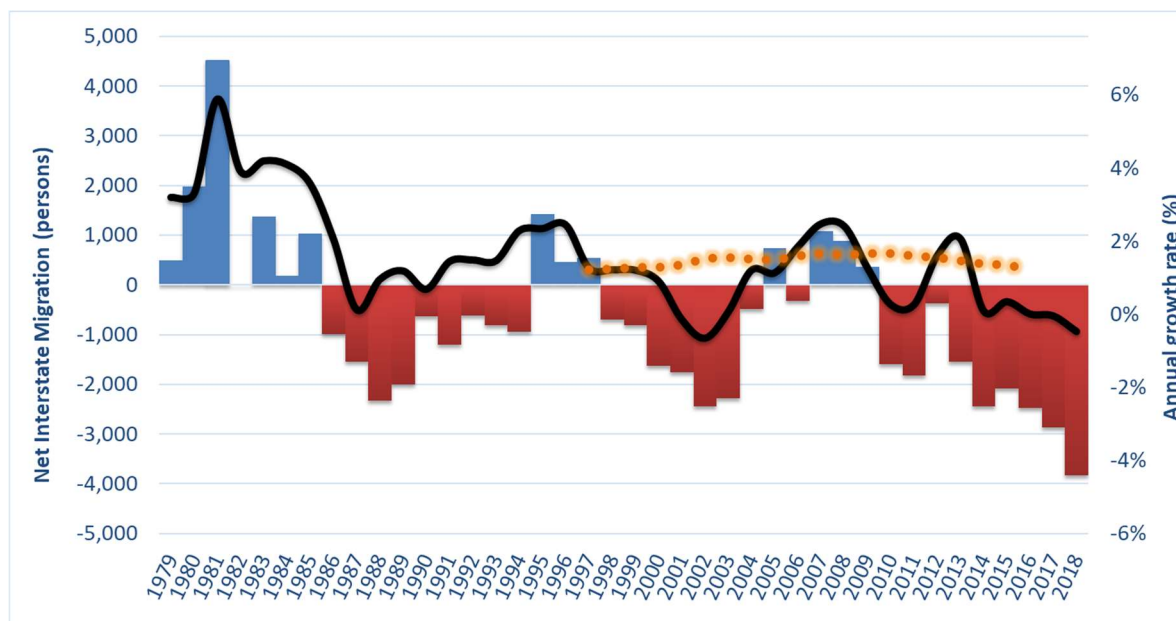
Taylor, A. and Dyrting, S. (2019). *Contemporary Northern Territory Indigenous Migration Trends*. Darwin: Northern Institute.



1. Background

The Northern Territory (NT or Territory) is in a lengthy period of low population growth after growing at above-average rates for 5 years prior to 2010 (as denoted by the black line in Figure 1). The primary cause has been marked deteriorations in Net Interstate Migration (NIM) outcomes, which is the difference between people moving to the Territory from interstate as residents and those leaving to interstate destinations. The blue bars (for positive NIM years) and red bars (for negative NIM years) in Figure 1 represent forty years of population data and show there have been a number of low growth 'eras' in the Territory before; notably from 1986 to 1994 and 1998 to 2005. However, the present-day era, commencing in 2009, is now more protracted than other eras. NIM outcomes in 2017 and 2018 were both worse than previously experienced in the history of the Territory's recorded migration. During 2018, for example, 4,000 more residents migrated to other jurisdictions in Australia than arrived to take up residence in the Territory. Nevertheless, the Indigenous population growth rate (shown by the orange line in Figure 1) is more stable and has been generally higher than the overall population.

Figure 1 - Net interstate migration 'eras' (blue/red bars), the Territory growth rate (black line) and Indigenous population growth rate, 1979 to 2018



Source: Authors calculations from ABS, 2019: 3101.0 - Australian Demographic Statistics, Dec 2018. Note: Data for Indigenous Territorians is limited.

The Northern Territory Government has long recognised the importance of population growth for the economic and financial strength of the Territory. In 2017 it commissioned demographers at the Northern Institute of Charles Darwin University to synthesise twelve years of their research on the causes and consequences of population change and to advise on strategies to help address the low growth (see Taylor and Carson, 2017). Recommendations included developing a suite of initiatives to influence migration behaviors for specific population groups in relation to coming to live in the Territory (attraction) or staying



as a resident in the Territory (retention). On-the-whole these recommendations were adopted in the *Northern Territory Population Growth Strategy, 2018 to 2028* (see <https://population.nt.gov.au>).

In the same report, Taylor and Carson flagged that there was an increasing net loss of Indigenous residents to other States and Territories in Australia evident in successive Census data:

“It should be noted that, even though out-migration rates have been low, there has been a long-term increase in negative net interstate migration for Indigenous Territorians, such that on average there was a net loss of around 700 residents (a medium sized community) between 2006 and 2011, and nearly 1,000 between 2011 and 2016.”

(Taylor and Carson, 2017, Pg.39)

The report recommended further analysis of migration data to better understand this apparent increasing net loss. In this brief we report on analysis of Census and other secondary data sources to understand Territory Indigenous migration trends during the 15 years to 2016. The aim is to provide policy makers with an informed platform on which to consider policy initiatives for attraction and retention of Indigenous residents. We first provide a general summary of Territory and then regional level Indigenous population data and projections before examining migration trends for Indigenous people leaving and arriving to the Territory from other States and the ACT. In that research we dissect the analysis by geographical areas to identify hotspots for Territory Indigenous ‘leavers’ and ‘arrivers’. Where possible we present the results in maps to assist readers with the visualization of migration trends. Subsequently we look at some of the drivers motivating Indigenous people to leave the Territory from our survey *The Territory and Me* before discussing the main findings in this brief.

2. Data sources and means of analysis

The analysis in this brief is primarily based on data available from the Australian Bureau of Statistics through its Census of Population and Housing conducted every five years. From this dataset it is possible to tabulate resident populations over a range of geographic and personal characteristics. Migration flows can be likewise characterised by comparing place of usual residence on census night with that either one or five years prior to the census.

A person’s indigenous status is determined by their response to the ABS Standard Indigenous question which asks if they are of Aboriginal and/or Torres Strait Islander descent. Where data has been derived from ABS sources Indigenous populations and flows refer to those people who have answered that they are either of Aboriginal, Torres Strait Islander, or both Aboriginal and Torres Strait Islander descent.

In undertaking applied analysis of Indigenous migration data to inform policy, it is important to distill who is migrating in terms of their place of origin. Nuanced information separating those Indigenous migrants who were likely ‘born and bred’ in the Territory and those who are likely from elsewhere is needed. However, one of the limitations of Census data is that, while there is a question that asks a person’s country of birth, for those born in Australia there is no question asking the place of birth. This means there is no direct way of characterising a mover as ‘of Territory origin’ or of defining a move as a ‘return to origin’. In other words, while we can *define* an Indigenous person of Territory origin (hereafter an Indigenous Territorian) as a person of Indigenous descent born in the Northern Territory they cannot be directly measured in Census data.



To overcome this limitation, we have developed an indirect method for categorising Indigenous Territorians that can be applied to Census data. Indigenous language speakers can be discovered through the Census question asking if a person speaks a language other than English at home. If the response indicates an Indigenous language strongly associated with the Northern Territory **and** the person is of Indigenous origin we infer that the mover is an Indigenous Territorian. Such a test would have a high specificity (unlikely to count a person who was not an Indigenous Territorian) but low sensitivity (likely to not count a person who was an Indigenous Territorian). In other words, it would be an effective test for ruling in but not for ruling out, and as such likely underestimates absolute migration flows. However, we might expect estimates of migration rates, ratios, and trends for Indigenous Territorians to be less systematically biased. The concept of a *language strongly associated with the Northern Territory* is necessarily broad but we can readily construct a hierarchy: Indigenous languages traditionally only spoken in the Northern Territory, Indigenous languages traditionally mostly spoken in the Northern Territory, and Indigenous languages spoken in the Northern Territory by a sizeable number of people.

An alternative definition of an Indigenous Territorian is a person with a lasting attachment to the Northern Territory, defined as having a usual place of residence within the Territory both on Census night and five years previous. This allows us to define return moves as those involving a place of usual residence outside the Territory one year prior to Census night but within the Territory five years prior. We can then make direct comparisons between return moves to the Territory for Indigenous and non-Indigenous Australians.

Any analysis of migration requires a definition of source and destination regions. There is a trade-off that needs to be made when deciding on the granularity of regional classifications between geographically small areas, which allow relatively precise definitions of source and destination but are subject to measurement issues arising from a small population at risk of migrating, and large areas which allow greater certainty of flow sizes but tend to mask regional population differences. In this brief we use two area classifications: Greater Capital City Statistical Areas and Indigenous Regions. Greater Capital City Statistical Areas (GCCSA) are designed to divide each State and Territory into a capital city region and the balance of the state (ABS, 2016) and allow migration to be classed as 'capital city' or 'regional'. Indigenous Regions are based on the former Aboriginal and Torres Strait Islander Commission boundaries (ABS, 2016b). They allow a finer division of States and Territories than GCCSA while still being large enough to enable cross classification of populations and flows.

Migration matrices are a fundamental tool in quantifying the size and direction of migration flow, but even with coarse geographic classification such as GCCSA the number of matrix elements can be quite large making it difficult to easily summarize and analyze movement patterns. Furthermore, while they code connectivity they lack the spatial information necessary to understand a population's spatial boundary and distance moved. Analysis and understanding of the geospatial features of population distribution and migration flows is greatly enhanced by using maps and circular migration plots. For our maps digital boundaries were taken from ABS (2016a) and ABS (2016b). Maps and circular migration plots were produced using R (R Core Team, 2019).

The effect of migration on a population's spatial, sex, and age structure is best understood through population projections. In this brief we make use of the latest population projections compiled by Northern Territory Department of Treasury and Finance (2019). One limitation of these projections is that they are given by Statistical Area Level 3 (SA3) rather than Indigenous Regions used here (ABS, 2016a). Apart from Alice Springs SA3 there is a high level of commonality between Territory SA3s and Indigenous Regions. For example, the Darwin Indigenous Region can be approximated by Greater Darwin (Darwin City, Darwin Suburbs, Palmerston and Litchfield SA3s). But the Alice Springs SA3 includes Alice Springs and Apatula Indigenous Regions. This difference should be noted by readers.



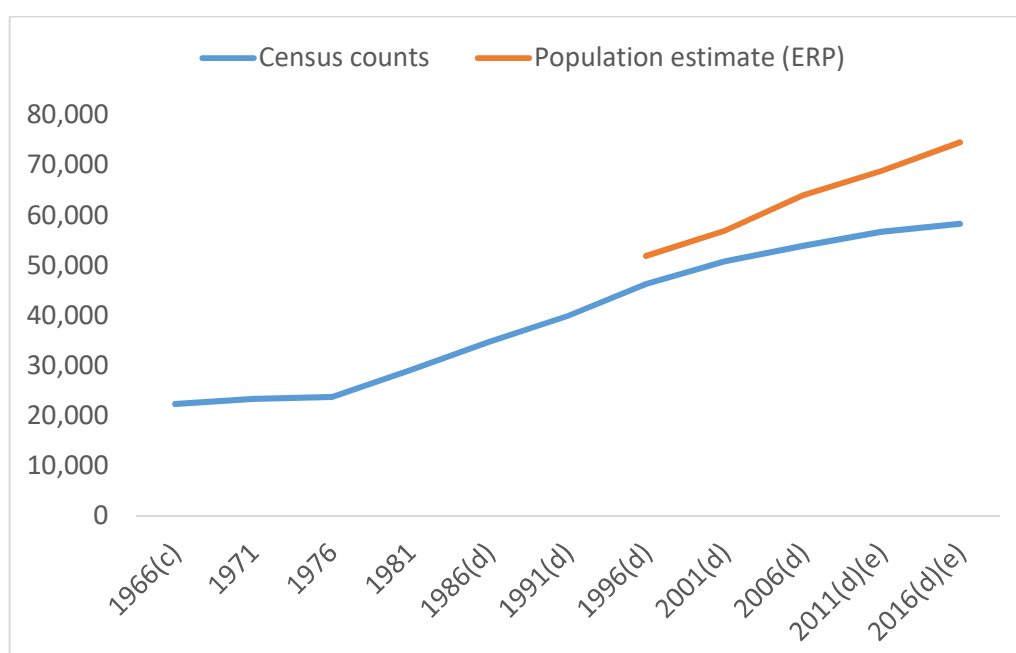
The section in this Brief on attraction and retention factors features initial analysis of a sub-cohort of respondents from *The Territory and Me* survey. The survey is part of a wider research program into population drivers affecting the Territory. It asks people about their experiences of living in the Northern Territory, including how long have they have lived here, why they came, why they stayed, and why they left. Unfortunately, in looking at drivers for Indigenous people leaving the Territory, the sample of residents of the Territory who have left to elsewhere in Australia is small at 49 people. This limits the extent of analysis and inferences; such that only high-level analysis is recommended and provided here.

3. Results: Territory Indigenous demography and trends

In 2016 the size of the Indigenous population of the NT (which includes those ‘born and bred’ in the NT and those who migrated here from other parts of Australia) was estimated by the Australian Bureau of Statistics to be 74,546, having grown by 16.5% in the ten years from 2006 to 2016 (ABS, 2018). During the same period the non-Indigenous population of the NT grew by 16.7%. In 2016, 30% of the Territory’s population was Indigenous.

Figure 2 shows Territory Indigenous population growth based on Census counts and population estimates. Estimates were not available until 1996 and are consistently higher than Census counts because they include adjustments for net undercounting in the Census (where more people are missed than double counted) and other adjustments that provide for a consistent quarterly estimated population series.

Figure 2 Northern Territory Indigenous population size, 1966 to 2016

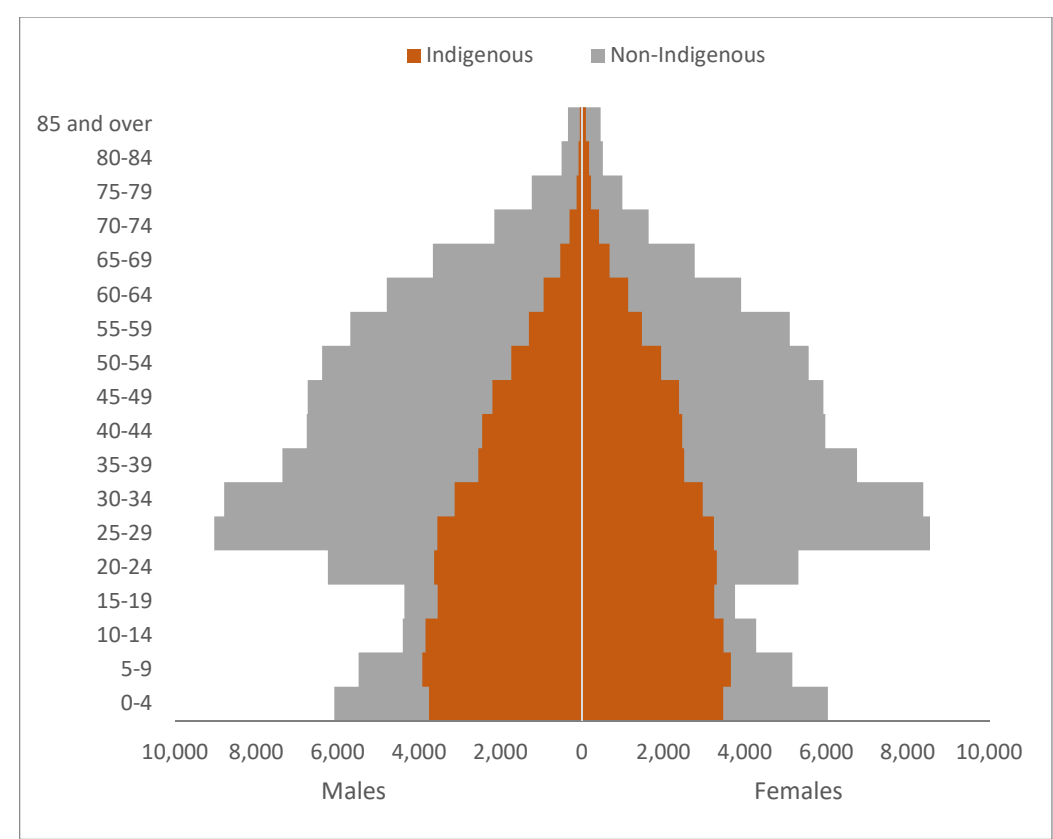


Source: Author’s calculations from ABS, 2019



In terms of its age structure, the Indigenous population of the Territory is substantially younger than the remainder. This reflects past and continuing comparatively high fertility rates and relatively low life expectancies. While life expectancies for Indigenous Territorians have risen significantly in recent decades, they have also increased for non-Indigenous residents, such that gaps between the two remain. The population pyramid in Figure 3 compares Indigenous Territory residents with others. As well as the younger age structure, the pyramid shows the relatively large impact that net migration gains has in shaping the age structure for non-Indigenous adult Territorians aged twenty-five and over (Taylor and Wilson, 2016).

Figure 3 - Northern Territory population pyramids by Indigenous status



Source: Author’s calculations from ABS Table Builder

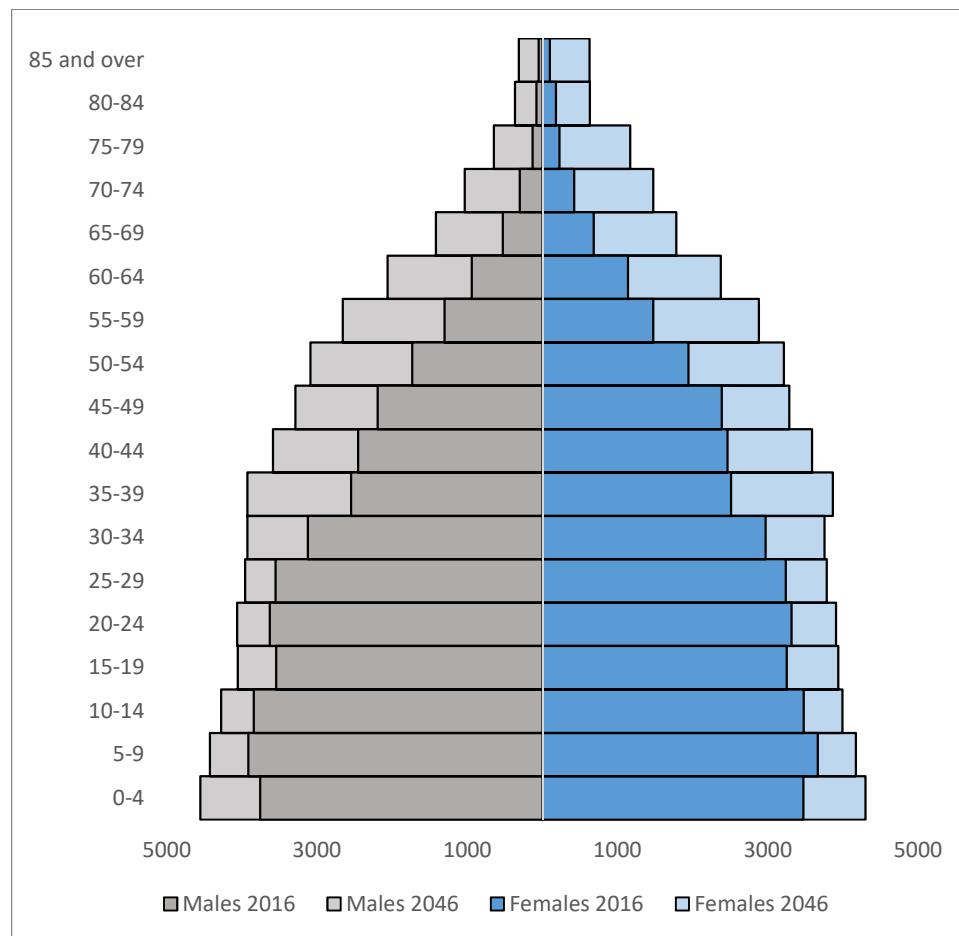
Territory population projections

Looking forward, population projections compiled by the Northern Territory Department of Treasury and Finance, suggest the Indigenous population of the Territory will be 104,387 by 2046, or 40% higher than in 2016 (Figure 4 - Northern Territory Department of Treasury and Finance, 2019). If achieved, this would equate to an annual average growth rate of 1.0 per cent compared to a projected 1.1 per cent for the non-Indigenous population. However, with growth rates continuing to be very low in the non-Indigenous population, the latter figure may become more unattainable over time. The projections also flag future Indigenous population ageing with the proportion aged 65 and over projected to grow two-and-a-half



times from 2016 to 2046 (from 3.6 per cent to 9.1 per cent of the population). Indigenous population ageing is discussed in more detail in our research brief *'We're Still Here! Territory seniors population trends and futures'*.

Figure 4 - Northern Territory Indigenous population pyramids, 2016 and 2046



Source: Author's calculations based on Northern Territory Department of Treasury and Finance, 2019

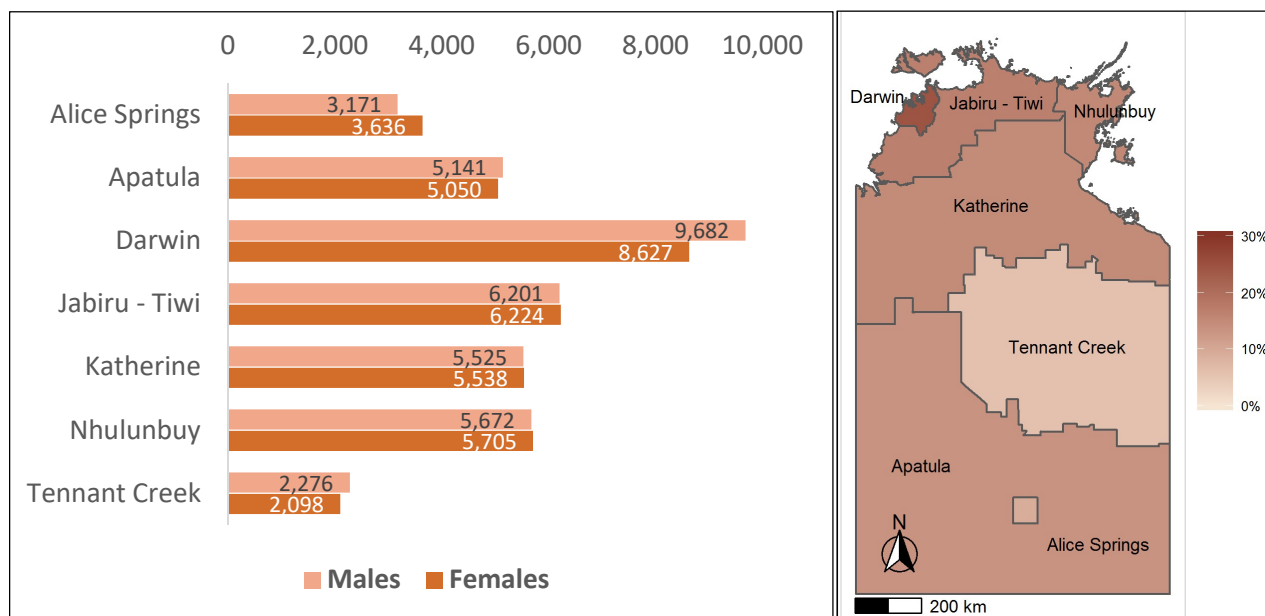
4. Regional Territory Indigenous demography

In this section we look at broad Indigenous demographic trends for Indigenous Regions within the NT as necessary context for examining recent migration trends. Indigenous Regions are large areas which are broadly based on the former Aboriginal and Torres Strait Islander Commission boundaries. Figure 5 shows the 2016 estimated population by gender for each region in the chart on the left and, in the map of Indigenous Regions on the right, the share of the total NT Indigenous population estimated as living in each region in 2016 is shown. Around a quarter of Territory Indigenous residents lived in Darwin in 2016. Interestingly, there were many more males than females in the Darwin region due to the relocation of the Darwin prison, where Indigenous males are highly over-represented (see Taylor et al., 2017) and INPEX



workers accommodation in the region. Collectively the Top End (Jabiru-Tiwi and Nhulunbuy regions combined) accounted for almost a third of the Indigenous population while only 6 per cent lived in the geographically large Tennant Creek region.

Figure 5 - Indigenous population by gender (left) and Territory Indigenous population share (right), Indigenous Regions, 2016



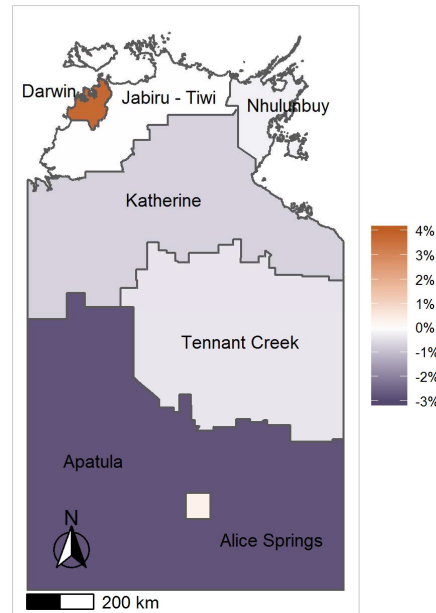
Source: Author's calculations based on ABS population estimates

The distributions seen in the map in Figure 5 differ to those in the past because of migration, differential birth rates and death rates between regions. Figure 6 shows the change in population share for each region from 2001 to 2016. Readers should note that this is a different measure to numbers of Indigenous Territorians on short-term movements; rather it reflects where people say their place of usual residence was at the time.

The shift in share to the Darwin region (which is the same area as the Greater Darwin area) emphasises the resident Indigenous population of the Territory is gradually urbanising, as is the non-Indigenous population. Growth in Palmerston was a significant factor in the increased share of the Darwin region. By 2016, an additional four percent of the Territory's Indigenous population lived in Darwin compared to 2006, while the Apatula and Katherine regions lost population share.



Figure 6 - Change in population distribution of Indigenous Territorians by Indigenous region, 2006 to 2016.



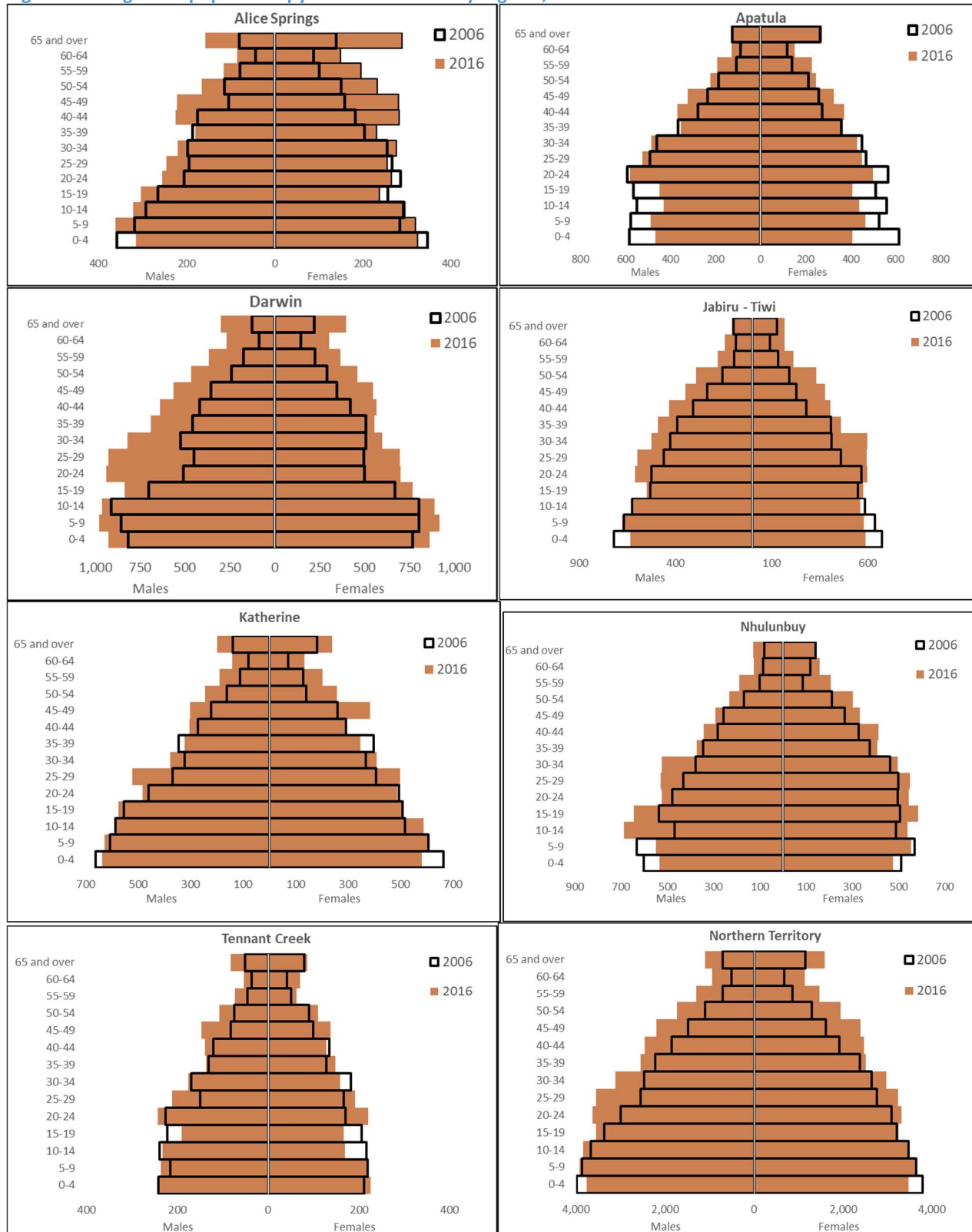
Source: Author's calculations based on ABS population estimates

Population change within regions can be depicted in detail by population pyramids. These highlight changes in numbers and in the age composition which can help guide planning around demands for services in schools, health care and aged care. Indigenous population pyramids for each Indigenous Region in the Territory and the Territory as a whole (bottom right pyramid in Figure 7) are on the following page with the 2006 population indicated by the black outlined bars and 2016 population by the tan-colored bars.

The pyramids reveal population ageing was significant in some regions during 2006 to 2016 - notably in Alice Springs, Darwin and Katherine. In the Jabiru-Tiwi region there was a net loss of young people but an increase in other age groups. In Darwin, the impact of the new jail and INPEX workers is noticeable with very large increases in numbers of males aged between 20 and 34 years. Meanwhile, the Tennant Creek and Apatula pyramids suggest low population growth and general ageing. In Apatula there was a significant reduction in the population aged under 20 years. This indicates a combination of lower numbers of births in combination with net out migration (for example for schooling and higher education). Sport is also thought to drive some flows out of the Territory, and especially AFL. It should be noted however, that we estimate return rates for Indigenous migrants to the Territory are far higher than for others (see Section 5).



Figure 7 - Indigenous population pyramids for Territory regions, 2006 and 2016



Source: Author's calculations based on ABS population estimates



Regional Territory population projections

Based on past trends, the Northern Territory Department of Treasury and Finance have developed a population projection model to separately and simultaneously project the Indigenous and non-Indigenous population of the Territory into the future: the only model of its type in the world (see Wilson, 2014). Regions in the projection outputs are broadly like the Indigenous Regions presented earlier in this Brief, but with the Darwin region broken up into Darwin City, Darwin Suburbs, Litchfield and Palmerston, and the Alice Springs region not separated into the town and surrounds (Aputula).

Projections shown in Table 1 suggest regional populations outside of Darwin, Katherine and Alice Springs will either grow quite slowly (for example, the East Arnhem region) or reduce in size (such as for the Barkly region). Very high growth rates are projected for the Litchfield region; however, readers should note that projections are based primarily on past population trends and, with the one-off move of the prison to the Litchfield region, a repeat of growth rates observed during 2011 to 2016 is unlikely. Nevertheless, the general trend of higher growth in and around Darwin is likely to continue into the foreseeable future.

Table 1 - Indigenous population projections for the Northern Territory and its regions, 2016 to 2046

	Population					Annual average population change				
	2016	2021	2026	2031	2036	2016-21	2021-26	2026-31	2031-36	2016-36
	no.	no.	no.	no.	no.	%	%	%	%	%
Aboriginal										
Darwin City	1 883	2 050	2 222	2 398	2 599	1.7	1.6	1.5	1.6	1.6
Darwin Suburbs	6 620	6 645	6 859	7 112	7 465	0.1	0.6	0.7	1.0	0.6
Litchfield	3 732	4 764	5 587	6 567	7 478	5.0	3.2	3.3	2.6	3.5
Palmerston	5 219	6 154	7 034	7 856	8 712	3.4	2.7	2.2	2.1	2.6
Greater Darwin	17 454	19 613	21 702	23 933	26 253	2.4	2.0	2.0	1.9	2.1
Alice Springs	17 001	17 911	18 831	19 726	20 613	1.0	1.0	0.9	0.9	1.0
Barkly	4 375	4 303	4 232	4 205	4 221	- 0.3	- 0.3	- 0.1	0.1	- 0.2
Daly–Tiwi– West Arnhem	13 272	13 807	14 347	14 834	15 299	0.8	0.8	0.7	0.6	0.7
East Arnhem	10 582	11 008	11 415	11 790	12 115	0.8	0.7	0.6	0.5	0.7
Katherine	11 862	12 676	13 553	14 437	15 332	1.3	1.3	1.3	1.2	1.3
Rest of NT	57 092	59 706	62 378	64 991	67 581	0.9	0.9	0.8	0.8	0.8
Total NT	74 546	79 318	84 080	88 924	93 834	1.2	1.2	1.1	1.1	1.2

Note: Alice Springs region includes the Indigenous Regions of Alice Springs and A1putula
Source: Northern Territory Department of Treasury and Finance, 2019



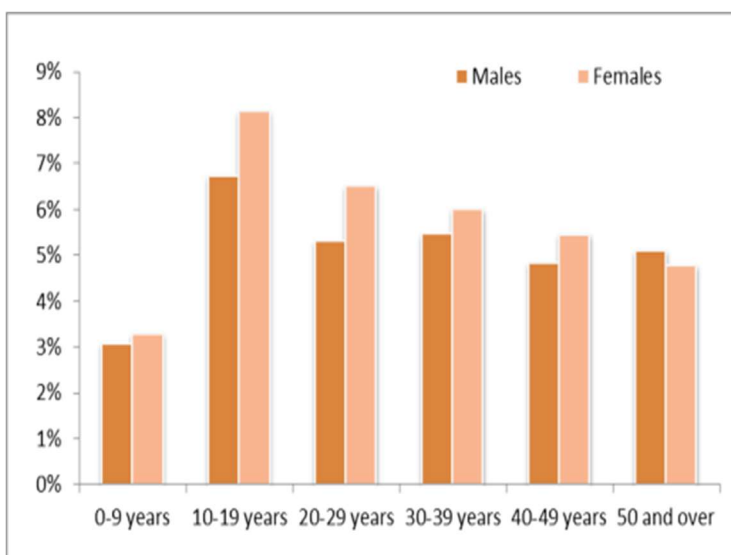
5. Territory Indigenous migration flows and trends

In this section we take a detailed look at the size, direction and characteristics for Indigenous migration into the Territory (arrivers), leaving the Territory (leavers) and returning to the Territory (returners). Migration here refers to a change in a person's stated usual place of residence. Three types of migration contribute to net migration outcomes for the Territory and regions within it: overseas migration (immigration and emigration), interstate migration and intra-Territory migration. In this section we focus on Indigenous interstate migration to and from the Territory, as well as patterns of migration within the Territory to provide a picture of net migration by regions. The analysis excludes overseas migration because full data are not available, and it is assumed to be net zero for Indigenous Australians.

Territory Indigenous interstate migration

Although not widely known, a sizeable number of Indigenous residents leave the Territory each year to take up residency in other jurisdictions of Australia. From 2011 to 2016, for example, the equivalent of over 5 per cent of Territory Indigenous residents (more than 3,000 people) identifying as Indigenous in 2016 had changed their residence to outside of the Territory. Because the question on past residency in the Census is often not fully completed, these figures are likely conservative. More than half (52%) of those who had left came from remote parts of the Territory. Rates varied by age group and were as high as 8 per cent for females aged 10 to 19 years (Figure 8). Although around 2,000 Indigenous people (not necessarily the same people who had previously left) moved to the Territory during the same period, the net loss was around 1,000 Indigenous people during 2011 to 2016. The size of this (net) Indigenous resident loss has increased over time. For example, during 2001 to 2006 the net loss was recorded as 300 people. In line with international trends, we can expect numbers of Indigenous Territorians migrating across borders to increase as educational attainments, the influence of technology and improving socio-economic conditions alter life-choices (Taylor, 2011).

Figure 8 - Proportion of Indigenous Territory residents who had moved interstate, 2011 to 2016



Source: Author's calculations from ABS Table Builder



Evaluating migration flows between geographic areas is visually difficult so to assist we have developed a circular migration plot showing Indigenous migration flows by Territory Indigenous Regions, both internal and interstate (combined) during 2011-2016 (Figure 9). Segments of the circle are labelled with the region. Flows are represented by the arcs joining two segments with the arrow indicating direction and colour indicating the source region. The width of the arc where it meets the circle is proportional to the size of the flow shown by the numbers on the circle. Within each region, departures and arrivals are grouped together and within each type of flow arcs are arranged in decreasing size.

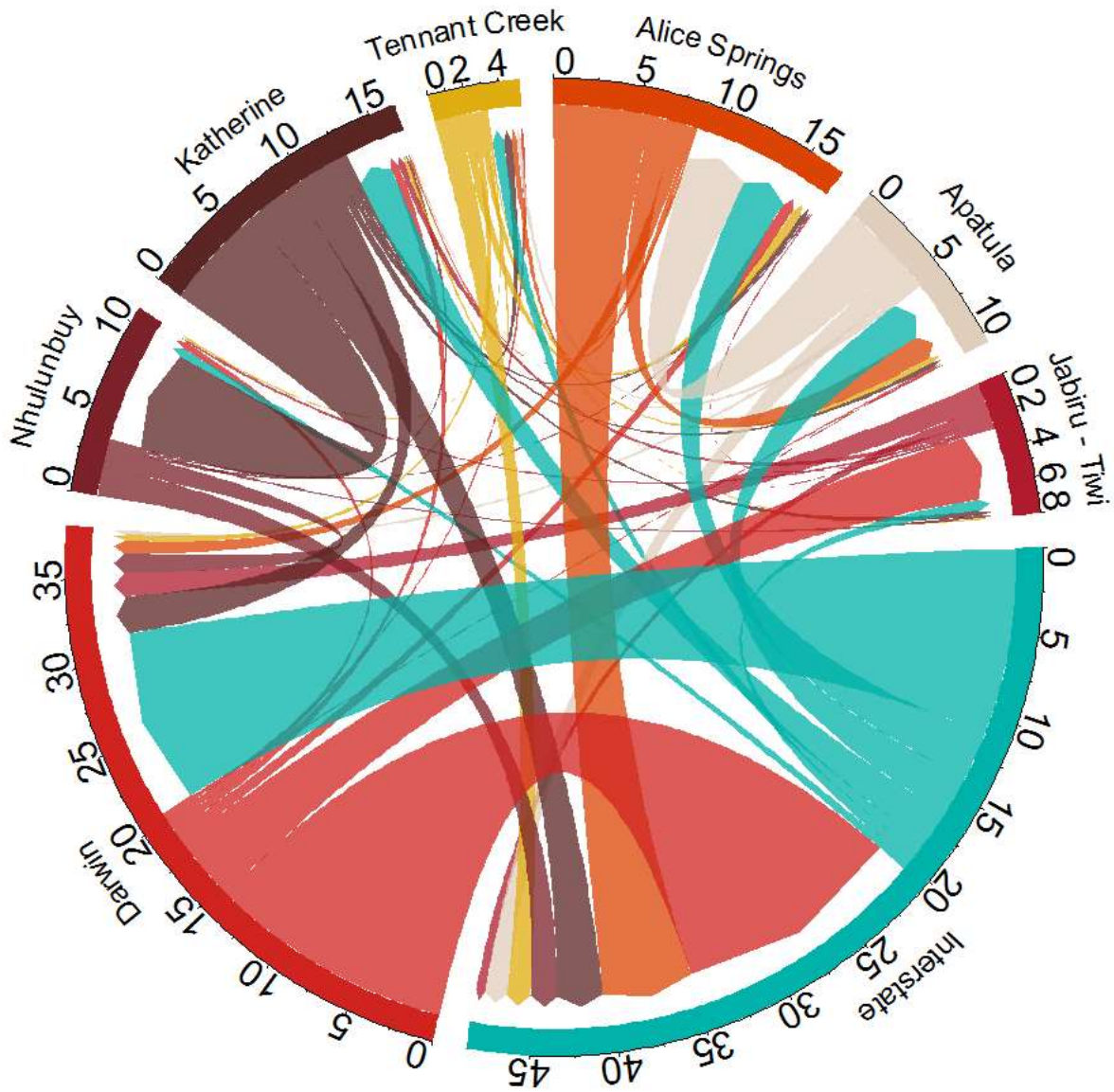
Focusing on the Interstate segment at the bottom right of the circular plot we see that Indigenous departures from the NT (circa 3,000) to interstate were less than arrivals (circa 2,000) reflecting a net outflow of minus 1,000 Indigenous persons. The top three source regions for departures were Darwin (red), Alice Springs (orange) and Katherine (brown). Readers should note that, while Darwin accounted for approximately one quarter of the Indigenous population in 2016, it was the source for almost half (51%) of interstate departures, suggesting a significantly higher out-migration rate compared with the remainder of the Territory (15% versus 4 per cent). In contrast, in-migration flows (and thus the rate) for Darwin were only slightly greater than for the remainder of the Territory (0.23 per cent compared to 0.19 per cent in-migration rate).

Darwin and Alice Springs were noteworthy as for both, more than half of out-migration was to interstate. Nhulunbuy and Jabiru-Tiwi were the only two regions where arrivers exceeded departers. For the other five regions, departers exceeded arrivers with Katherine showing the highest ratio of leavers to arrivers (3.5).

For Darwin, Apatula, Katherine and Tennant Creek the largest source of arrivers was interstate. In contrast most arrivers to Nhulunbuy, Alice Springs, and Jabiru-Tiwi were internal Territory migrants.



Figure 9 - Indigenous migration flows by Northern Territory Indigenous Region and Interstate, 2011-2016.



Source: Author's calculations based on ABS Census data

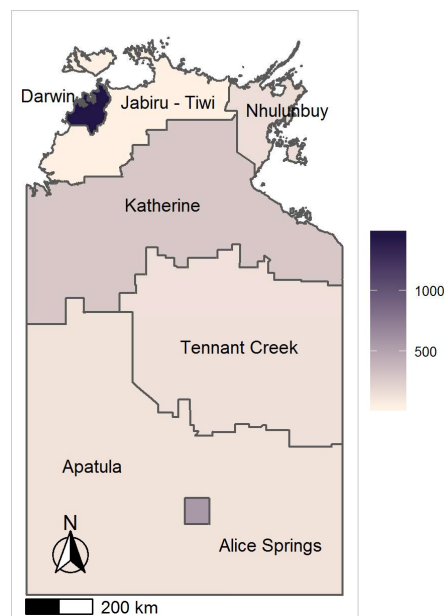


We now look in detail at the sources and destinations for Indigenous migrants shown in the flows circle above. We separate these into NT 'leavers' (Indigenous people who lived in the NT in 2011 but did not in 2016), 'arrivers' (Indigenous people who lived outside of the NT in 2011 but in the NT in 2016) and 'returners' (those who lived in the NT in 2011, outside of the NT in 2015 and back in the NT in 2016). Because these are point-in-time measures, they significantly under-estimate total flows that occurred during those periods. Nevertheless, the regional relativities and direction of flows are likely similar.

Leavers

Figure 10 shows which region within the Territory those who left the NT during 2011 to 2016 came from. We see again that the Darwin region was the largest source for leavers (1,445) while the neighbouring Jabiru-Tiwi region was the smallest (59).

Figure 10 - Northern Territory Indigenous departures by source Indigenous region, 2011-2016.



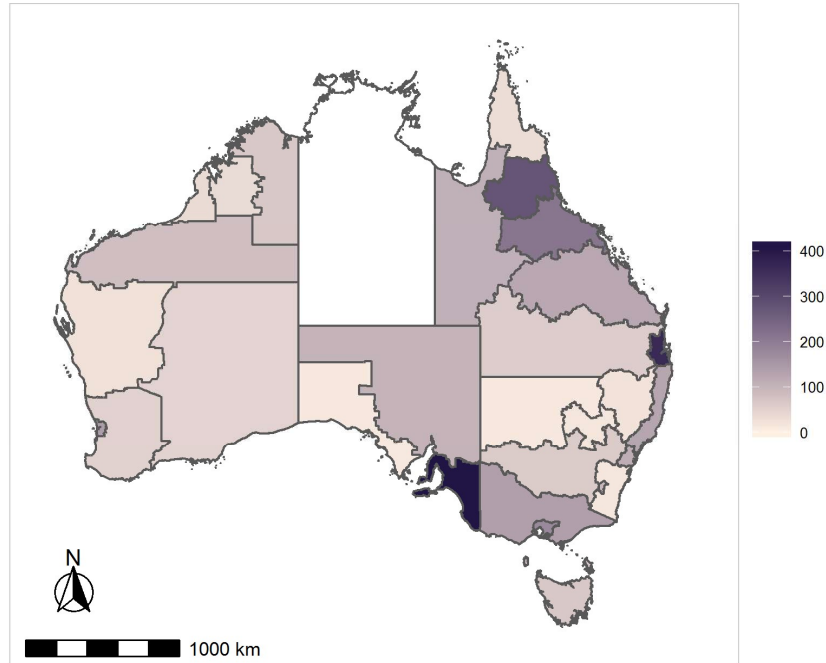
Source: Author's calculations based on ABS Census data

Turning to where those who left the Territory (as shown above) migrated to, Figure 11 shows the destination Indigenous Region for Indigenous people who left during 2011 to 2016. The top ten destinations, in decreasing flow size order were: Adelaide, Brisbane, Cairns-Atherton, Townsville-Mackay, Melbourne, Perth, Victoria (excluding Melbourne), NSW Central and North Coast, Rockhampton, and Sydney-Wollongong. Together these received approximately two-thirds of total leavers. The top two, Adelaide (410) and Brisbane (363), together received around a quarter of all Territory Indigenous leavers.



After Marina Strocchi

Figure 11 - Number of Indigenous persons leaving the Territory by destination Indigenous region, 2011-2016

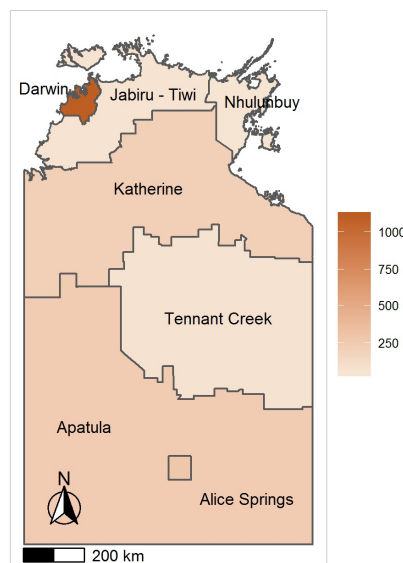


Source: Author's calculations based on ABS Census data

Arrivers

Figure 12 shows the places in the NT that Indigenous people who moved there during 2011 to 2016 were counted in at the 2016 Census. We see that the Darwin region had the highest number of arrivers (1,105) while the regions of Tennent Creek (72), Jabiru-Tiwi (67), and Nhulunbuy (53) had the smallest.

Figure 12 - Number of Indigenous persons arriving to the Territory by destination region, 2011-2016

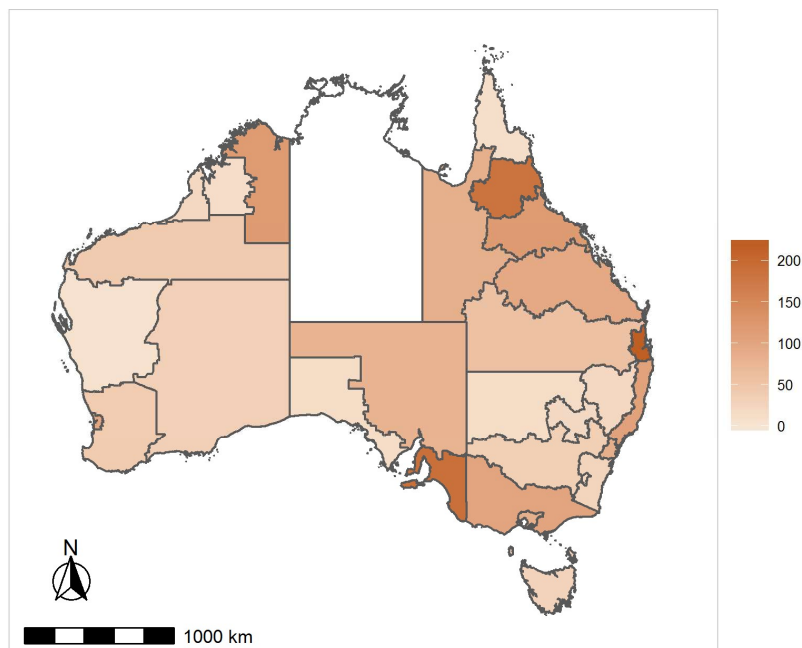


Source: Author's calculations based on ABS Census data



The following map (Figure 13) shows where people who moved to the NT during 2011 to 2016 came from. The top ten sources in order of decreasing flow size were: Brisbane, Adelaide, Cairns-Atherton, Kununurra, Townsville-Mackay, NSW Central and North Coast, Victoria (excluding Melbourne), Perth, Rockhampton, and Sydney-Wollongong. Together these regions sent approximately two-thirds of all arrivers. The top two, Adelaide (189) and Brisbane (219), together sent approximately a fifth of the total NT arrivers.

Figure 13 - Number of Indigenous persons arriving to the Territory by source Indigenous region, 2011-2016



Source: Author's calculations based on ABS Census data

Returners and return rates

The Australian Census asks where a person usually lives, where they usually lived one year ago, and where they usually lived five years ago. This enables us to define a returner to the Territory as a person who lived in the Territory five years ago, lived interstate one year ago, and lived in the Territory on Census night. A non-returner is a person who lived in the Territory five years ago but lived interstate one year ago and on census night. We can then define a crude return rate (or more precisely crude return rate conditional on being away for four years) as the number of returners divided by the sum of returners and non-returners.

Table 2 shows crude return rates to the Northern Territory by sex and Indigenous status. We see they were higher for Indigenous males than females and were significantly higher for Indigenous Australians than non-Indigenous Australians.

Table 1 - Northern Territory crude return rates by sex and Indigenous status, 2015-2016.

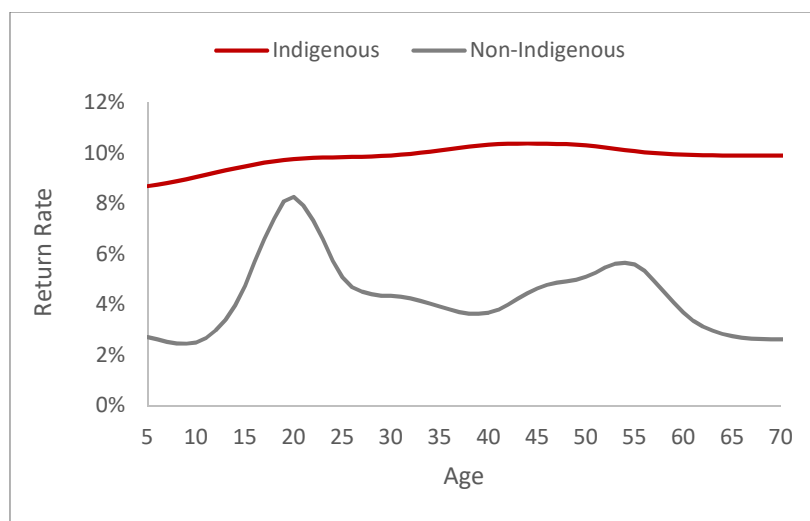
Sex	Indigenous Return Rate	Non-Indigenous Return Rate
Female	8.3%	4.6%
Male	9.6%	4.5%

Source: Author's calculations based on ABS Census data



Migration rates typically vary greatly with age and a single measure such as the crude migration rate above might therefore not be an adequate measure of return propensity. Figure 14 shows an estimate of age-specific return rates by Indigenous status considering the different levels of uncertainty associated with much smaller numbers of Indigenous movers away in 2015 (2,556 persons) compared with non-Indigenous movers (32,383 persons). We see that, at all age groups (including at age twenty, where non-Indigenous return rates were at their highest) Indigenous return rates were higher than non-Indigenous return rates.

Figure 14 - Northern Territory age-specific return rates by Indigenous status, 2015-2016



Source: Author's calculations based on ABS Census data

Migration rates for Indigenous Territorians

It is important to note that the analysis so far has included all Indigenous people in the Northern Territory and has not separately compared those who might be considered as 'born-and-bred' Territorians to those from elsewhere. Because birthplace is not captured in the Census, an indicative proxy measure is needed. In this case we have used Indigenous language spoken at home to examine migration by subsets of the Indigenous population.

In the Census data, Indigenous languages are grouped into ten categories: Arnhem Land and Daly River Region Languages, Yolngu Matha, Cape York Peninsula Languages, Torres Strait Island Languages, Northern Desert Fringe Languages, Arandic, Western Desert Languages, Kimberly Area Languages, Other, and Not Further Defined. From these we can construct a hierarchy of language groups that we broadly call *languages strongly associated with the Northern Territory* as follows:

- **Group A:** Those languages traditionally only spoken in the Northern Territory including all Arnhem Land and Daly, Yolngu Matha, and Arandic languages, plus a subset of North Desert Fringe Languages (Gurindji, Gurindji Kriol, Light Warlpiri, Ngarinyman, Warlpiri, Warumungu, Mudburra, and Warlmanpa), and a subset of Western Desert Languages (Luritja).
- **Group B:** Those languages traditionally mostly spoken in the Northern Territory including Group A above plus Kriol and Yankunytjatjara.



- **Group C:** Those languages traditionally spoken in the Northern Territory by a sizeable number of people. We have taken this to be Group B plus Pitjantjatjara.

Not all Indigenous residents of Territory origin speak an Indigenous language so these test cannot be used to directly estimate their numbers. However, if the movement of these subgroups is indicative of the movement of Indigenous Territorians overall then they can be used to estimate migration rates.

Table 3 shows Northern Territory five-year crude out-migration rates by Indigenous status for the 2006, 2011, and 2016 censuses. This groups people who resided in the NT at the start of the period but lived outside the NT by the end based on language spoken according to the hierarchy A, B and C above. To the extent that the movement of our language-based groups is indicative of the mobility of Indigenous Territorians we can say that out-migration rates for Indigenous persons of Territory origin were significantly less than other Indigenous and non-Indigenous persons. In terms of trends, while from the 2006 to the 2016 Census there was an increase in the general Indigenous out-migration rate from 5.08 per cent to 6.34 per cent, even the largest estimate of the change in rates for Indigenous Territorians (Indigenous C) was not exceptional (from 0.86 per cent to 0.92 per cent).

This difference in trends between Indigenous Territorian and general Indigenous out-migration rates can be explained by a decline in the fraction of Indigenous people resident in the Territory who are of Territory origin. We estimate that in 2006, 85% of Indigenous people resident in the Territory at the time of the 2006 Census were of Territory origin. By 2011 this had fallen to 82% and in 2016 to 81%. These figures are based on the assumption that Indigenous residents not of Territory origin leave at the same rate as non-Indigenous residents.

Table 2 - Northern Territory five-year crude out-migration rates

Group	2001-2006	2006-2011	2011-2016
Non-Indigenous NT residents	30.53%	28.18%	29.51%
All Indigenous NT residents	5.08%	5.49%	6.34%
Indigenous languages Group A (only spoken in the NT)	0.81%	0.65%	0.82%
Indigenous languages Group B (mostly spoken in the NT)	0.76%	0.66%	0.80%
Indigenous languages Group C (Group B plus Pitjantjatjara)	0.86%	0.76%	0.92%

Source: Author's calculations based on ABS Census data

Table 4 shows Northern Territory five-year crude in-migration rates by Indigenous status for the 2006, 2011, and 2016 censuses. This groups people who resided outside of the NT at the start of the period but lived in the NT by the end based on language spoken according to the hierarchy A, B and C above. In contrast to out-migration rates we see a much greater range of values across our three language-based subsets. This is to be expected since the probability of not being of Territory origin conditioned on being



outside the NT would likely increase substantially as we move from group A to B to C. None the less in-migration rates for Indigenous persons of Territory origin were significantly greater than other Indigenous and non-Indigenous persons, especially for those with languages only spoken in the NT. In terms of trends, while from the 2006 to the 2016 Census there was a decrease in the general Indigenous in-migration rate from 0.59 per cent to 0.44 per cent, even the smallest estimate of the change in rates of Indigenous Territorians (Indigenous C) was an increase from 3.35 per cent to 3.56 per cent.

Table 3 - Northern Territory five-year crude in-migration rates by Indigenous status

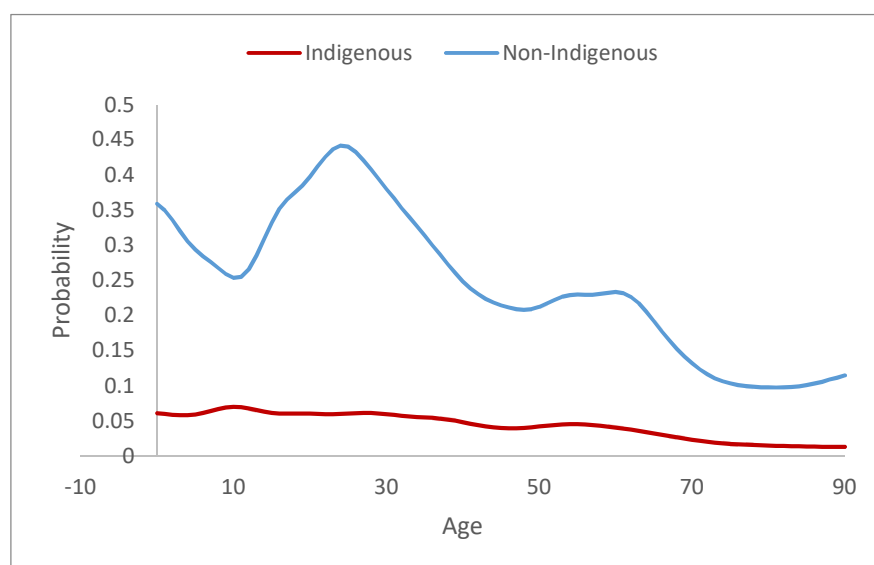
Group	2001-2006	2006-2011	2011-2016
Non-Indigenous NT residents	0.17%	0.17%	0.17%
All Indigenous NT residents	0.59%	0.47%	0.44%
Indigenous languages Group A (only spoken in the NT)	17.50%	23.34%	22.46%
Indigenous languages Group B (mostly spoken in the NT)	3.41%	4.78%	4.47%
Indigenous languages Group C (Group B plus Pitjantjatjara)	3.35%	3.36%	3.56%

Source: Author's calculations based on ABS Census data

Key characteristics of leavers and arrivers

In this section we look at some key characteristics of Indigenous migrants for the NT. Commencing with age, Indigenous out-migration probabilities are relatively consistent by age and are far lower than for the non-Indigenous population (Figure 15). However, the rate increases for ages 8-11 years and slowly declines after that to reach its lowest at older ages.

Figure 15 - Age-specific five-year out-migration probabilities by Indigenous status, 2001-2016

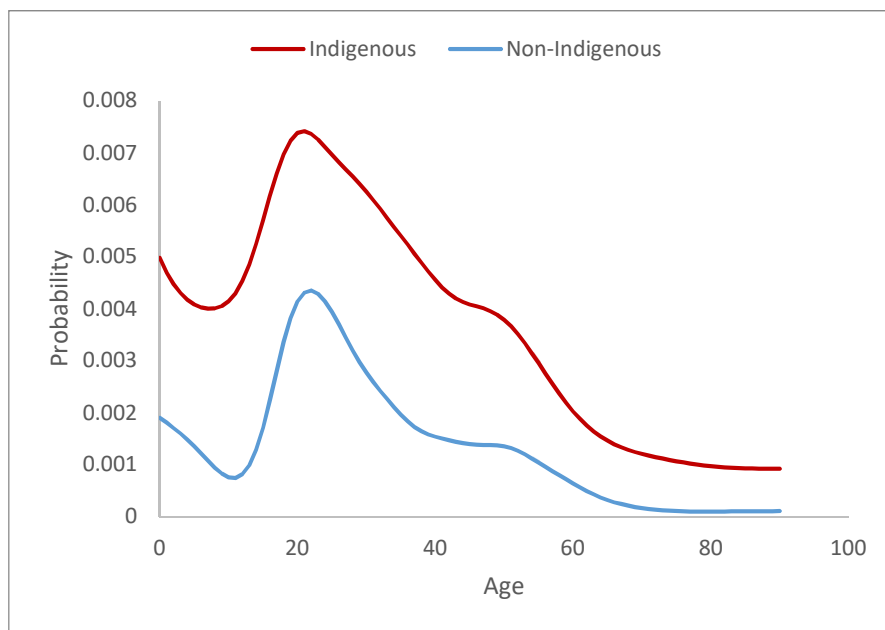


Source: Author's calculations based on ABS Census data



In-migration probabilities are higher for Indigenous people moving to the Territory at all ages compared to non-Indigenous people and display a similar age-migration profile (figure 16). Readers should note that the higher Indigenous probabilities reflect the relatively small numbers of non-Indigenous people coming to the Territory relative to the total non-Indigenous population.

Figure 86 - Age-specific five-year in-migration probabilities by Indigenous status, 2001-2016



Source: Author's calculations based on ABS Census data

Table 5 shows the proportion of 2011-2016 Territory stayers, leavers, and arrivers with a post-school qualification by Indigenous status. For both Indigenous and non-Indigenous persons, we see an increase in the proportion from Stayers to Leavers and Arrivers. Indigenous leavers were 2.3 times more likely to have a post-school qualification compared to stayers, whereas non-Indigenous leavers were only 1.1 times more likely.

Table 4 - Proportion of movers aged 20 and over with a post-school qualification by Indigenous status, 2011-2016.

Mover Type	Indigenous	Non-Indigenous
Stayers	0.23	0.63
Leavers	0.54	0.69
Arrivers	0.55	0.74

Source: Author's calculations based on ABS Census data

Table 6 shows the labour force status ratios for 2011-2016 Territory stayers, leavers, and arrivers of Indigenous descent and Table 7 shows the corresponding table for non-Indigenous persons. Indigenous



leavers were 1.6 times more likely to be employed compared to stayers. In contrast non-Indigenous leavers were 1.1 times *less* likely to be employed compared to stayers.

Table 5 - Labour force status ratios for 2011-2016 Territory stayers, leavers, and arrivers of Indigenous descent.

Mover Type	Employed	Unemployed	Not In the labour force
Stayers	0.32	0.12	0.56
Leavers	0.52	0.12	0.36
Arrivers	0.73	0.07	0.19

Source: Author's calculations based on ABS Census data

Table 6 - Labour force status ratios for 2011-2016 Territory stayers, leavers, and arrivers of non-Indigenous descent.

Mover Type	Employed	Unemployed	Not In the labour force
Stayers	0.77	0.02	0.21
Leavers	0.69	0.06	0.25
Arrivers	0.85	0.03	0.12

Source: Author's calculations based on ABS Census data

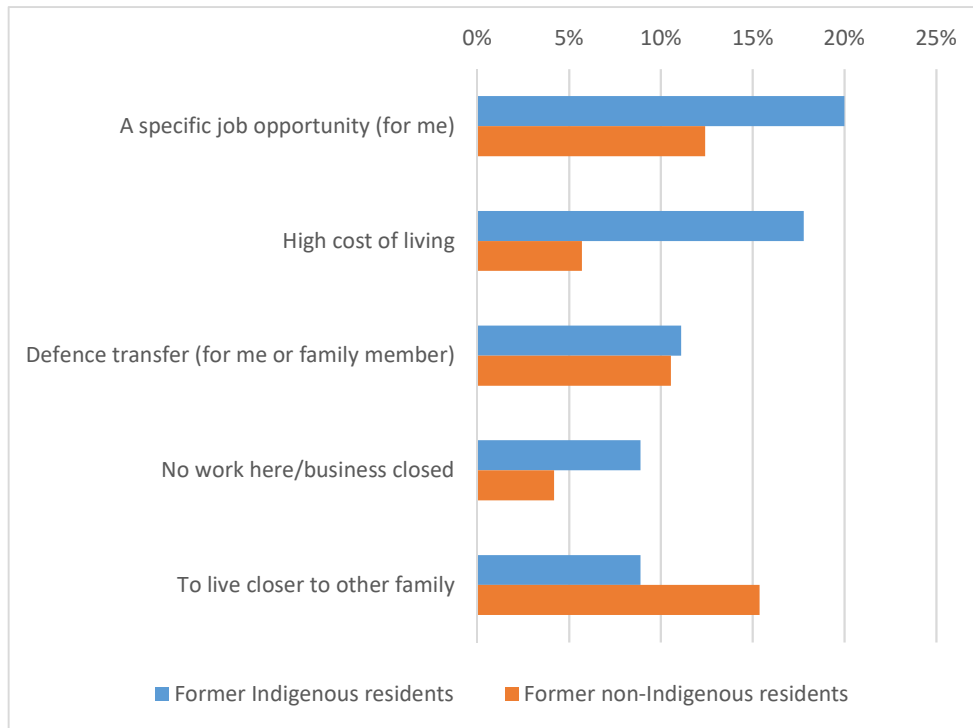
6. Push and pull factors for Indigenous people: Initial results from *The Territory and Me* Survey

At the time of writing, *The Territory and Me* survey included 49 Indigenous participants who formerly lived in the Territory but none born in the Northern Territory. While this is a small sample compared to the 984 non-Indigenous former Territory residents, it does represent 20% of the total Indigenous sample (250 as self-identified); the same proportion as for non-Indigenous former residents. However, 21 of the 49 Indigenous former residents (43%) had left more than 10 years ago.

Figure 17 shows the top five reasons for Indigenous people leaving the Territory. A higher proportion of Indigenous than non-Indigenous former Territorians had left for a specific job (20% compared to 12%) and the high cost of living (18% compared to 6 per cent) while a lower proportion (9 per cent compared to 15%) left primarily to live closer to family (other than children or grandchildren).



Figure 17 - Main reason for leaving the Territory, top 5 by Indigenous status, 2019



Source: *The Territory and Me* Survey, Northern Institute, Charles Darwin University

We also received 12 responses to a modified version of *The Territory and Me* survey (called 'My Community') designed for Indigenous Territorians living in remote communities with potential difficulty completing the full survey in English. Of these, none intended to move out of the Territory in the foreseeable future, however most stated an intention to move within the Territory with the three main reasons being access to education, access to health services or to be with family.

7. Other important Indigenous demographic trends for the Northern Territory

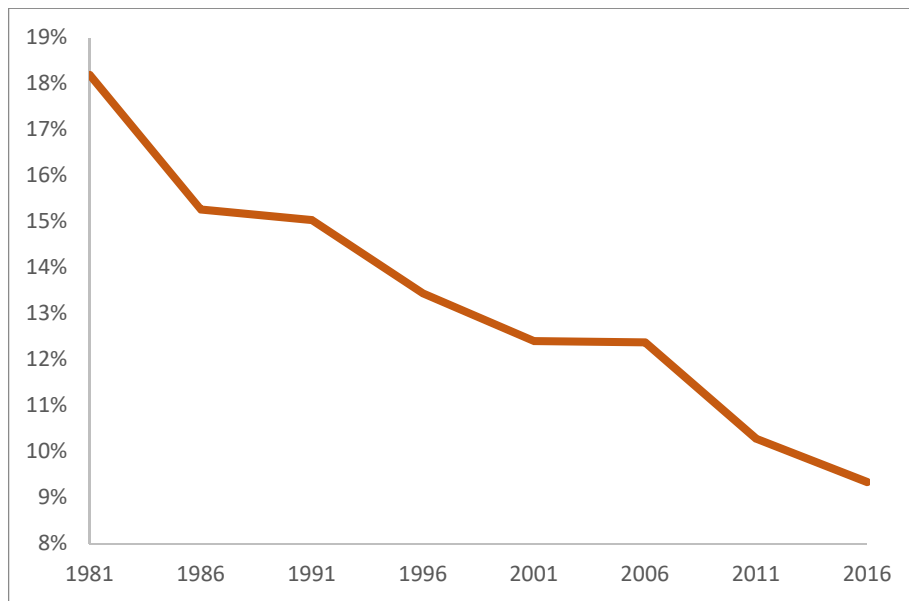
A. Declines in our share of the national Indigenous population

Population estimates show there has been a long-term decline in the share of Australia's Indigenous peoples who are living in the Northern Territory, having fallen from 18.2% in 1981 to 9.3 per cent in 2016 (Figure 18). This reflects rapid growth in numbers of Indigenous Australians living in urban areas of Australia, especially in coastal New South Wales and southeast Queensland. These trends partly resulted from individuals changing their Indigenous status from one Census to the next, gradual declines in Indigenous fertility (including a convergence of rates towards those of non-Indigenous Territorians), as well as changing Census procedures and coverage. These factors have driven very high growth rates in the official Indigenous population numbers in southern and eastern Australia and eroded the Territory's share



nationally. In turn, this has affected the amount of GST funds allocated to the Northern Territory and impacted on reported levels of disadvantage for Indigenous Australians because those who ‘newly identify’ as Indigenous tend to have better socio-economic outcomes (Markham and Biddle, 2018). This may diminish national policy attention on the continued acute disadvantage of Indigenous people living in remote Australia, including the Northern Territory.

Figure 18 - The Northern Territory’s share of Australia’s Indigenous population, 1981 to 2016



Source: ABS (2019) 3105.0.65.001 Australian Historical Population Statistics, 2019

B. Older Indigenous Territorians are our fastest growing population segment

The Northern Territory has entered a period where its numbers of pre-retirees and seniors are growing rapidly. We remain a very young population compared to the rest of Australian, however improvements in life expectancies and declines in fertility rates for Indigenous Territorians have contributed to rapid Territory population ageing. Northern Territory Department of Treasury and Finance projections suggest the proportion of Indigenous people 65 years and over will more than double from 2016 to 2046; up from 3.6 per cent to 9 per cent (NTDTF, 2019) compared to 8.3 per cent to 11.5% for non-Indigenous Territorians. Meanwhile, numbers of Indigenous Territorians aged 55 years and over are projected to increase by 5% per annum in the next decade, making them the fastest growing segment in the Territory’s population (in proportional terms) and adding 8,500 senior Indigenous Territorians to the population by 2046. Policy makers will need to consider the growing size of the Indigenous seniors population for service provision, especially in remote and very remote areas.

C. Improvements to gaps in life expectancy have somewhat stalled

Life expectancies for Indigenous Territorians have improved significantly since the 1960s. However, gaps remain between Indigenous Territorians and others because non-Indigenous life expectancies have continued to increase as well, while improvements for some groups have stalled. Recent research (Wilson



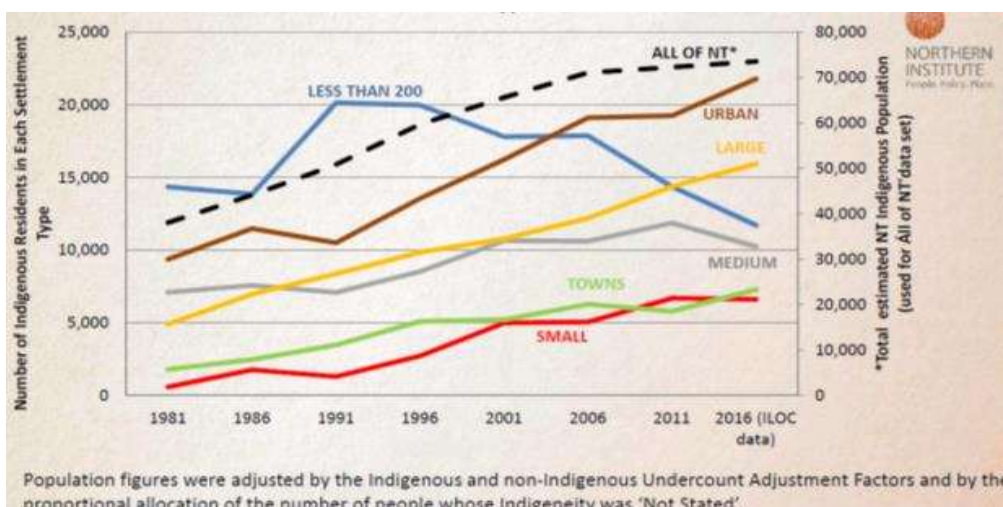
et al., forthcoming) shows past gains have largely come from greatly reduced childhood mortality and strong gains for those aged 35 to 64. Recently, improvements in both groups have stalled, and especially for females. For example, although Indigenous female life expectancy increased by an estimated 2.2 years from 1996-2001 to 2001-2006, they did not increase at all from 2006-2011 to 2011-2016. With life expectancies for the general Australian population continuing to increase, the gap between these and Territory Indigenous life expectancies is increasing and is estimated to be 16.9 years for females and 16 years for males in 2011-2016 and this difference is unfortunately around the same as in the three decades prior. Socio-economic disadvantage (such as relatively poor education, housing, hygiene, nutrition, and income) is thought to be responsible for between one-third and one-half of these life expectancy gaps.

D. Our Indigenous population is urbanising

While a large proportion of the Territory's Indigenous population still live in remote communities and areas, there is a long-term trend towards a greater proportion residing in the urban settlements of Darwin and Alice Springs, as well as larger remote communities. Meanwhile there has been a significant decline in those living in small settlements of less than 200 people, including homelands and outstations. Even though the Territory's Indigenous population is double the size of 1981 in terms of absolute numbers, a third less live in these very small settlements (see Figure 19 below).

These trends are based on people's declared place of residence, rather than places they are temporarily visiting. On temporary mobility, Census data suggests that, at any point in time, around 1% of the Indigenous population living outside of Darwin (in remote areas of the Territory) may be away from home in places outside of the Territory, the same proportion as those away from remote areas and in Darwin. Meanwhile 2% of Darwin's Indigenous residents may be away from home in remote parts of the Territory at any given point in time. This compares to 3% of the non-Indigenous population of Darwin. While some caution is warranted for these indicators, the data suggests that there are broadly similar numbers of remote living Indigenous Territorians interstate as are in Darwin at a given point in time.

Figure 19 - Number of Northern Territory Indigenous residents living in different settlement types, 1981 to 2016



Source: Courtesy of Johanna Kieboom. Data sourced from various ABS collections



8. Discussion and Conclusions

Our analysis of Indigenous migration flows to and from the Territory has provided a picture of the sources and destinations for migrants grouped by arrivers, departers and returners. A relatively high proportion of both arrivers and departers come from or go to northern Queensland regions, Adelaide and Brisbane. Our circular plot and maps show that Darwin dominates net and absolute flows to, from and within the Territory. Most regions outside of Darwin are experiencing either low or negative population growth based on population estimates.

Our method for separately identifying migration rates for Indigenous migrants of Territory origin compared to others was based on main language spoken at home. It shows far higher rates of out migration for Indigenous people who do not originate from the Territory and far lower rates of in migration; such that, given the under estimation associated with limitations in the method, their migration rates and patterns may be more like non-Indigenous migrants than those of Territory origin. This is an important distinction for policy-making aimed at retaining or attracting Indigenous people and is supported by the data on key characteristics which shows much higher migration probabilities for those with post-school education and those employed.

The point of difference for attracting Indigenous migrants from interstate (compared to non-Indigenous people) is that, with a high proportion of Indigenous people in the Territory's population, those coming from interstate might feel culturally and socially more welcome and accepted. Indeed, they may have extended family networks already in the Territory because of long-existing migration flows linking Indigenous peoples throughout Australia where trade and family exchanges have and continue to occur. In addition, the Territory, with a large service sector in part tailored towards servicing the Indigenous population, offers job opportunities for Indigenous people. These factors may provide clues on how to attract and retain Indigenous people from outside the Territory, although more research is needed to articulate how initiatives might be devised to maximise opportunities. With a rapidly growing 'pool' of Indigenous people in southern parts of Australia, the potential is perhaps increasing; although this trend is also negatively affecting the Territory's share of the national Indigenous population. Opportunities to work with Indigenous people in the Territory might also be considered as a drawcard for potential non-Indigenous migrants, having been identified as such in past surveys. Careful thought would need to be given to respectful and culturally appropriate ways to 'sell' that message 'down south'.

The analysis in this research brief also highlights some important long-term changes taking place in the demography of the Indigenous population of the Northern Territory. Notably, population ageing is occurring throughout the Territory with rapid growth in numbers and proportions of older Indigenous people. This is a result of a large cohort of Territory Indigenous people 'ageing in place', including in remote parts of the Territory. In the Southern parts of the Territory, for example, the only age groups to grow in the ten years to 2016 were those over 40 years (see Figure 7). Within the next ten years the Territory will have a cohort of much older Indigenous Territorians and this emphasises the need to consider health, aged-care and associated service and infrastructure needs for seniors right across the Territory. A lack of services may encourage those needing support and treatment to migrate to receive it. However, the extent this may occur is untested and Census data shows Indigenous people have far higher rates of caring for family members than other Territorians (Taylor and Payer, 2016). Nevertheless, as an indication, our research in 2019 (Taylor et al., in press) suggests, of the 12% of senior Territorians intending to leave for interstate within 5 years (non-Indigenous and Indigenous combined), 8 per cent of those cited access to health services as the main reason.



Like the non-Indigenous population, Indigenous people in the Territory are increasingly concentrated in the Greater Darwin area and the larger community settlements while numbers and the share in very small (less than 200) and small communities have declined. This trend of urbanization is partially assisted by the high proportion of interstate Indigenous migrants, who may not be of Territory origin, coming to Darwin, as shown in our maps and the circular plot. It also reflects the direction of internal migration in the Territory which, by-and-large, shows net movements towards Darwin, aside from the Aputula region which sends more migrants to Alice Springs town. Over time we might, based on trends overseas, expect increasing migration flows for people of Territory origin to and from interstate as educational attainment levels rise and general mobilities increase.

Overall, the research here contains analysis which has not been visualised previously, as well as new methods for understanding migration according to the origin of the (Indigenous) migrant. These shed light on contemporary migration flows and trends for Indigenous people in the Territory and serve as a suitable baseline for monitoring and evaluating changes into the future.



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