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Regional migration exodus from Auckland

Benje Patterson

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Report overview

This report provides a detailed analysis of regional migration away from Auckland. Regional migration is defined as internal movements of people out of Auckland to other parts of New Zealand.

The report investigates where in New Zealand these regional migrants left for and the age profile of migrants compared to the general population of Auckland. Mobility of existing Auckland residents within Auckland is also considered. Some of the rationale of these migratory patterns are discussed.

The period covered for the regional migration insight in this report is the four years to June 2017. This time horizon coincides with the period for which detailed regional migration insight is available from Statistics New Zealand.

Key findings

The key findings of the report are:

- Auckland's population rose from 1.49 million to 1.66 million in the four years to June 2017.
- This population growth would have been faster had it not been for an exodus of Aucklanders to other parts of country.
- Cumulative regional migration losses of Aucklanders leaving for other parts of New Zealand totalled almost 33,000 people over the four years to June 2017.
- The net regional migration flows out of Auckland accelerated from 2,727 people in 2014 to 12,942 people in 2017.
- Auckland's regional migration losses to the rest of New Zealand aren't surprising considering the deterioration to housing affordability in Auckland that occurred over the period.
- Regional migrants from Auckland have benefited the rest of New Zealand, initially by pushing up local spending, but then longer-term by adding to these areas' productive workforces.
- 68% of Auckland's regional population exodus was to Bay of Plenty, Waikato, and Northland.
- Outside of areas in the upper North Island, Auckland residents have been most likely to move to Dunedin City and Queenstown-Lakes District.
- In 2014 there was a net migration flow of 126 people from Wellington City into Auckland, but by 2017 that flow had swung around so that 468 were leaving Auckland for Wellington.
- Hawke's Bay and Nelson-Tasman also appear to be now trending up as top destinations for Aucklanders.
- Net regional migration out of Auckland is characterised by high net outflows of people in their late twenties and through their thirties with children. The only cohort for which Auckland gains residents from other parts of New Zealand is the 20-24 year age group.
- Net regional migration outflows also accelerate as people reach retirement.
- The exodus of productive workers to other parts of New Zealand during the peak years of their working life exacerbates skills shortages in Auckland's labour market.

Data sources

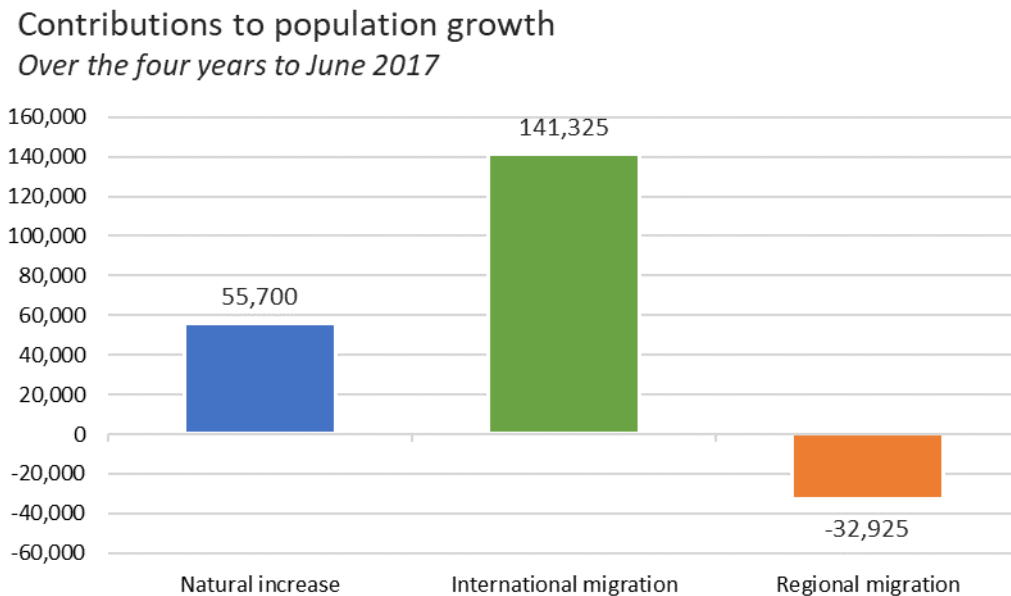
This analysis is based on Statistics New Zealand's subnational population estimates and experimental internal migration dataset. More details of data sources can be found in the technical appendix to the report.

Regional migration a drag on Auckland's population

Auckland's population rose from 1.49 million to 1.66 million over the four years to June 2017. This growth was at an average rate of 2.6%pa, compared to 1.9%pa growth nationally. But Auckland's population would have grown even faster had it not been for an exodus of Aucklanders to other parts of country.

Graph 1 shows that cumulative regional migration losses of Aucklanders leaving for other parts of New Zealand totalled almost 33,000 people over the four years to June 2017. These internal migration outflows partly offset Auckland's 197,000 person gain from international migration and natural increase.

Graph 1 – Contributions to population growth in Auckland



What's more, Auckland's net regional migration outflow has accelerated over recent years. Table 1 shows that net regional migration flows out of Auckland ranged from 2,727 people in 2014 to 12,942 people in 2017. Auckland on average lost a net 8,231 people per annum to other parts of New Zealand over the four years to June 2017.

Table 1 – Net regional migration to Auckland from other parts of New Zealand

Net regional migration	
<i>From all other parts of NZ, June years</i>	
Year	Net migration
2014	-2,727
2015	-6,924
2016	-10,332
2017	-12,942
Average (2014-17)	-8,231

Auckland's regional migration losses to the rest of New Zealand are not surprising when one considers the deterioration to housing affordability in Auckland that occurred over the period. Data from interest.co.nz shows that in April 2017, the median Auckland house was estimated to cost about 9.5 times the median household income. By comparison this ratio was 6.2 nationally.

Where are Auckland residents moving to?

This section of the report explores Auckland's regional migration exodus in more detail by looking at the key parts of New Zealand where Auckland migrants left for.

A full summary table of net regional migration flows with Auckland on a territorial authority by territorial authority basis is contained in Table 4.

Bay of Plenty, Waikato, Northland gained the most

Not surprisingly, the key destinations for regional migrants from Auckland were across Bay of Plenty, Waikato, and Northland. Our estimates show that 68% of Auckland's population exodus to regional New Zealand went to Bay of Plenty, Waikato, and Northland. The proximity of these regions would have been appealing for Aucklanders as they would more easily enable the maintenance of social and professional networks than taking up residence in farther-flung parts of the country.

Over the four years to June 2017, there were more than 4,500 Aucklanders who moved to Tauranga – at an average rate of 1,144 people per annum.

Waikato District on the southern fringe of Auckland gained an average of 3,381 Aucklanders over the period, while Hamilton gained just over 1,500 residents from Auckland.

The data shows that almost 6,000 Aucklanders moved to Northland over the four years to June 2017. These gains were spread relatively evenly across Whangarei District (2,889), Far North District (1,572), and Kaipara District (1,494).

The following table summarises the ten territorial authorities that Auckland lost the most migrants to over the four years to June 2017.

These regional migrants from Auckland have benefited other parts of New Zealand, initially by pushing up local spending, but then longer-term through adding to these areas' productive workforces. Later in this report it is highlighted that many people leaving Auckland have young families, with the most productive years of their working life still ahead of them.

Table 2 – Key destinations for regional migration from Auckland

10 biggest net regional migration losses

Regional migration loss to selected areas

Net loss to:	Average migration 2014-17 (pa)	Total migration 2014-17
Tauranga City	-1,144	-4,575
Waikato District	-845	-3,381
Whangarei District	-722	-2,889
Far North District	-393	-1,572
Hamilton City	-382	-1,527
Kaipara District	-374	-1,494
Western Bay of Plenty District	-347	-1,389
Thames-Coromandel District	-345	-1,380
Dunedin City	-287	-1,146
Queenstown-Lakes District	-280	-1,119

Dunedin and Queenstown ones to watch

A somewhat surprising revelation from Table 2 is that large numbers of Aucklanders have also been moving to the far south of the country.

Outside of areas in the upper North Island, Auckland residents have been most likely to move to Dunedin City and Queenstown-Lakes District. Both Dunedin and Queenstown-Lakes gained more than 1,100 residents each from Auckland over the four years to June 2017.

This quantitative evidence supports anecdotal media stories that have for a while been partly attributing Dunedin's renaissance to an increasing trend of Aucklanders choosing the city as a place to work, live, and do business.

Queenstown's gain also highlights the concern that the resort's overheated property market has in part been driven by cashed-up Auckland buyers – one of the few areas in the country where housing equity is generally enough to enter the local market.

Emerging stories: Wellington, Hawke's Bay, and Nelson-Tasman

There are several other parts of the country that are worth mentioning as destinations for Aucklanders, even though they didn't feature in the top 10 list across the four-year period. The more detailed Table 4 shows that Wellington City is a rising destination for Auckland residents. In 2014 there was a net migration flow of 126 people from Wellington City into Auckland, but by 2017 that flow had swung around so that 468 were leaving Auckland for Wellington.

Hawke's Bay and Nelson-Tasman also appear to be now trending up as top destinations for Aucklanders.

Napier City and Hastings District lost a net 201 people to Auckland in 2014, but by the June 2017 year that flow had swung round to a net 498 Aucklanders instead moving to Napier and Hastings.

A similar story has been apparent in Nelson City and Tasman District where in 2014 the two areas gained a net 129 people from Auckland, but by 2017 that annual gain had expanded to 447.

Auckland only gained from a select few

There were only five places, out of New Zealand's 67 territorial authorities, that Auckland gained people from in total over the four years.

These areas are highlighted in Table 3. Of the five, only Lower Hutt City consistently recorded a loss to Auckland in each and every one of the four years to June 2017. Lower Hutt's loss` may have been driven by a hollowing out of manufacturing jobs, while manufacturing employment in Auckland rose.

Table 3 – Key sources of regional migration to Auckland

Net regional migration gains

Regional migration gain from selected areas

Net gain from:	Average migration 2014-17 (pa)	Total migration 2014-17
Lower Hutt City	81	324
Porirua City	29	114
Invercargill City	8	30
Hurunui District	5	18
Grey District	1	3

Table 4 – Net regional migration flows between Auckland and other territorial authorities

Net regional migration					
<i>Regional migration with other territorial authorities</i>					
Net migration with:	Average migration 2014-17 (pa)	2014	2015	2016	2017
Tauranga City	-1,144	-501	-1,032	-1,455	-1,587
Waikato District	-845	-330	-792	-1,071	-1,188
Whangarei District	-722	-429	-540	-735	-1,185
Far North District	-393	-165	-276	-438	-693
Hamilton City	-382	84	-339	-507	-765
Kaipara District	-374	-138	-294	-489	-573
Western Bay of Plenty District	-347	-87	-321	-609	-372
Thames-Coromandel District	-345	-138	-330	-468	-444
Dunedin City	-287	-318	-300	-186	-342
Queenstown-Lakes District	-280	-189	-231	-339	-360
Waipa District	-214	-39	-150	-315	-351
Taupo District	-212	-12	-132	-360	-345
Christchurch City	-193	-120	-186	-264	-201
Hauraki District	-188	-102	-234	-237	-180
Matamata-Piako District	-185	-81	-198	-222	-240
Marlborough District	-152	-129	-99	-189	-189
Hastings District	-145	57	-30	-321	-285
Rotorua District	-144	-66	-144	-159	-207
Wellington City	-131	126	15	-195	-468
Selwyn District	-129	-30	-135	-102	-249
Tasman District	-125	-69	-51	-84	-297
Waimakariri District	-90	-9	-99	-129	-123
Napier City	-86	144	-21	-255	-213
Nelson City	-83	-60	-66	-57	-150
Central Otago District	-77	-54	-66	-84	-102
Manawatu District	-75	-21	-54	-108	-117
Kapiti Coast District	-70	-36	-75	-69	-99
Ruapehu District	-69	-18	-84	-87	-87
Whanganui District	-65	54	-48	-45	-219
South Waikato District	-59	-18	-75	-51	-90
South Taranaki District	-56	-27	-27	-24	-144
Waitaki District	-54	-30	-36	-69	-81
Ashburton District	-53	-90	-12	-111	3
Horowhenua District	-47	36	-57	-78	-87
Gisborne District	-44	-51	-72	15	-69
Southland District	-44	-54	-3	-48	-72
New Plymouth District	-43	-30	42	-18	-165
Timaru District	-40	-42	-21	-36	-60
Palmerston North City	-39	54	-81	-90	-39
Central Hawke's Bay District	-37	-21	-39	-33	-54
Carterton District	-35	-27	-51	-33	-30
Rangitikei District	-34	-45	-24	-21	-45
Masterton District	-33	15	-24	-27	-96
Stratford District	-23	0	-42	-3	-48
Clutha District	-22	-12	-15	-21	-39
Westland District	-20	-33	0	-18	-27
Waitomo District	-17	-27	-6	-15	-21
Opotiki District	-17	33	-63	6	-42
Otorohanga District	-17	27	-45	-33	-15
Whakatane District	-14	45	-75	30	-57
Mackenzie District	-12	-18	9	-18	-21
Gore District	-8	-9	6	-6	-21
Tararua District	-7	-6	-21	12	-12
Waimate District	-7	-15	-15	9	-6
Buller District	-6	9	-18	-24	9
South Wairarapa District	-6	3	0	15	-42
Kaikoura District	-5	9	0	-9	-18
Kawerau District	-5	6	-6	-15	-3
Wairoa District	-3	3	-24	12	-3
Upper Hutt City	-2	36	0	-45	0
Grey District	1	-12	6	24	-15
Hurunui District	5	9	-3	-3	15
Invercargill City	8	33	18	-24	3
Porirua City	29	99	42	-45	18
Lower Hutt City	81	99	120	42	63
Total migration from Auckland	-8,231	-2,727	-6,924	-10,332	-12,942

Retirees and those in their peak working years leaving

This section considers the age profile of Aucklanders who leave for other parts of New Zealand. The analysis identifies whether the residents that leave are of working age, and if they are older or younger than Auckland's existing population.

Rates of net regional migration from Auckland by 5-year age group, measured as a percentage of the total population in Auckland, can vary widely.

Graph 2 shows that the only cohort for which Auckland gains residents from other parts of New Zealand is the 20-24 year age group. These young adults will be moving to Auckland for job opportunities in the early stages of their careers.

However, the inward trend reverses once these young adults begin to have families. Net regional migration out of Auckland is characterised by high net outflows of people in their late twenties and through their thirties with children.

Net regional migration outflows also accelerate as people reach retirement. The allure of selling an Auckland home to free up equity for a cheaper house in the regions is proving too difficult to resist for many people.

Graph 2

Net regional migration to Auckland by 5-year age group
Average annual migration 2014-17 as % of 2017 population



The median age of a regional migrant away from Auckland over the four years to June 2017 was in the 35-39 year age bracket. By comparison the median age of residents in Auckland as at June 2017 was 34 years old.

The exodus of productive workers to other parts of New Zealand during the peak years of their working life exacerbates skills shortages in Auckland's labour market. These gaps have been partly filled by international migrants, but as international migration policy settings tighten, an increased focus on retaining youth and attracting young families to Auckland will be needed.

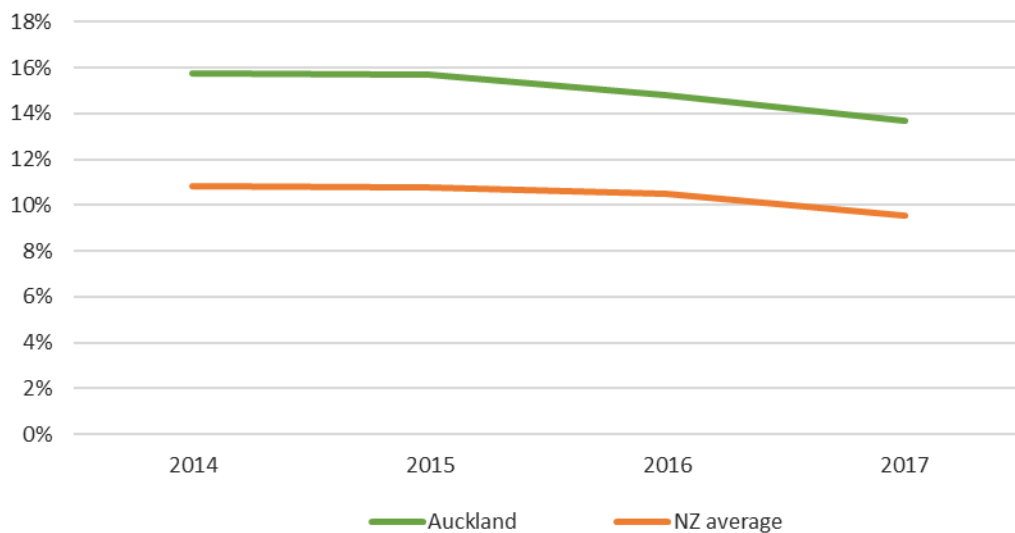
How likely are people to move within Auckland?

This section takes a slightly different tack. Rather than considering migration flows with other parts of New Zealand, here we investigate the likelihood of existing residents of Auckland to move within Auckland.

The data shows that Auckland residents have relatively high mobility within the city (see Graph 3). In 2017, approximately 13.7% of Auckland residents moved within Auckland. By comparison, the average across New Zealand was 9.6% of people moving within the territorial authority in which they already resided.

Graph 3

People also move within the same territorial authority *% of population moving within the same territorial authority*



The propensity of Auckland residents to move within the city is also generally higher than people in other urban areas in the upper North Island as evident by Table 5.

Table 5

Movements of people within the same territorial authority

Proportion of the population who move within the same territorial authority in a given year

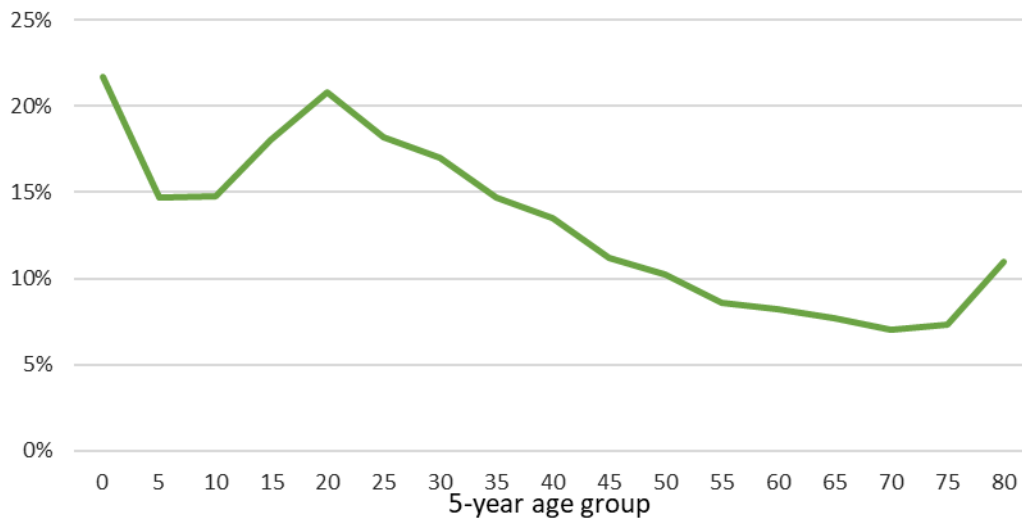
Year	Auckland	Hamilton City	Tauranga City	Whangarei District
2014	15.8%	15.3%	13.6%	14.9%
2015	15.7%	15.3%	14.1%	14.9%
2016	14.8%	14.7%	13.3%	14.2%
2017	13.7%	13.8%	11.8%	12.8%
Average (2014-17)	15.0%	14.8%	13.2%	14.2%

An analysis of mobility within Auckland by age group shows that young people leaving home and young families are most likely to move within the city (see Graph 4).

The likelihood of residents moving within Auckland generally decreases as people age, but pushes higher again for people aged over 80. The peak among elderly is likely to be related to downsizing homes or moving into retirement villages and aged-care facilities.

Graph 4

People moving within Auckland by 5-year age group
Annual moves within Auckland 2014-17 as % of 2017 population



Technical appendix

About the regional migration data source

Net regional migration has been estimated by analysing flows of people in Statistics New Zealand's experimental internal migration dataset.

The data has ultimately been extracted from the Integrated Data Infrastructure (IDI) for the period 2014-17. The IDI is a large administrative dataset that links together several government sources into a centralised database about people and households. The data in IDI is being used by Statistics NZ to patch up Census 2018.

Using the IDI, Statistics NZ has been able to form detailed population estimates, with characteristics of individuals also available based on the sorts of personal details consistently captured by government forms. Administrative data performs well for core demographic details such as age and sex, while residential addresses are also captured in the data.

When an individual engages with a government service in New Zealand (such as health care, education, or tax services), or when a New Zealand resident notifies an agency of an address change, the address information is updated in an individual's address history in the IDI. These observed changes in residential address across all individuals form the basis for estimating migration internally within New Zealand.

The sources in IDI that are used for collecting information on residential address and address changes are:

- 2013 Census (Stats NZ)
- tax registrations (Inland Revenue)
- National Health Index and Primary Health Organisation enrolments (Ministry of Health)
- working age benefits and superannuation (Ministry of Social Development)
- primary and secondary school rolls (Ministry of Education)
- ACC claims (Accident Compensation Corporation).

For confidentiality reasons Statistics NZ has released its most detailed internal migration on movements of people between places by sex and age bracket into groupings of three people. The provision of this data allows for granular analysis of regional migration, but can cause rounding errors in aggregate.

About the population data source

The estimated resident population of an area in New Zealand is an estimate of all people who usually live in that area at a given date. Estimates have been sourced from Statistics New Zealand.

The estimated resident population used in this report spans the June 2013 to 2017 years and is based on the 2013 Census usually resident population count, updated using IDI for the following:

- net census undercount (based on the 2013 Post-enumeration Survey)
- residents temporarily overseas on census night
- births, deaths, and net migration between census night and the date of the estimate
- reconciliation with demographic estimates at ages 0–9 years.

The estimated resident population is not directly comparable with the census usually resident population count because of these adjustments.