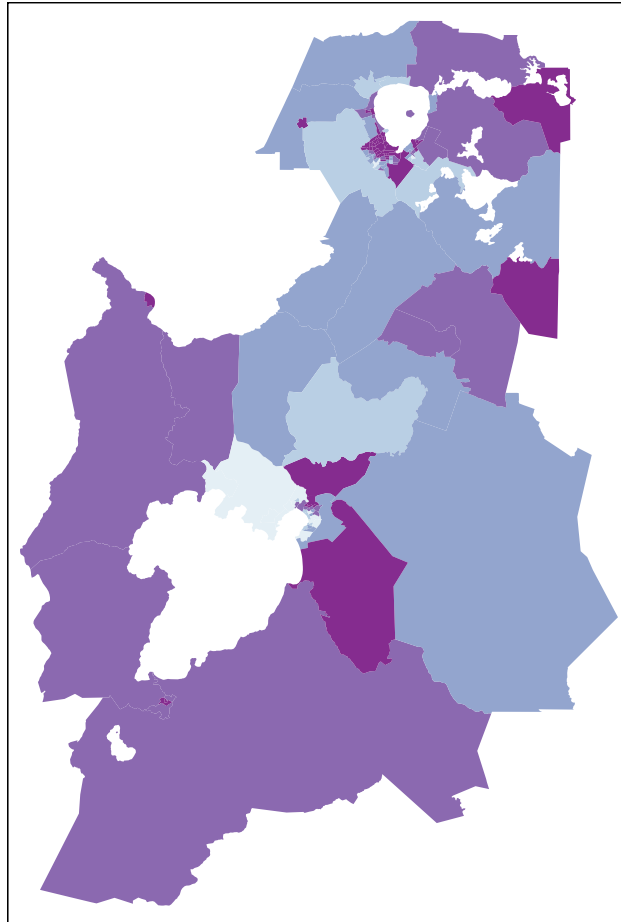# A deprivation and demographic profile of the Lakes District Health Board

Lakes District Health Board, showing overall IMD deprivation with the most deprived areas shaded darkest

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Statistics New Zealand Disclaimer

Acknowledgements

A deprivation and demographic profile of the Lakes District Health Board

The New Zealand Index of Multiple Deprivation (IMD) allows one to look at disadvantage in overall terms, as well as in terms of seven domains of deprivation: Employment, Income, Crime, Housing, Health, Education and Access. The seven domains are weighted to reflect the relative importance of each domain in representing the key determinants of socio-economic deprivation, the adequacy of their indicators and the robustness of the data that they use. Figure 1 shows the IMD's 29 indicators and weightings of the seven domains.

The IMD measures deprivation at the neighbourhood level using custom data zones that were specifically developed for social and health research. The New Zealand (NZ) land mass has 6,181 neighbourhood-level data zones that have a mean population of 712 people. In urban settings, data zones can be just a few streets long and wide. Data zones are ranked from the least to most deprived (1 to 6181) and grouped into five quintiles. Q1 (light shading) represents the least deprived 20% of data zones in the whole of NZ; while Q5 (dark shading) represents the most deprived 20%. This multidimensional deprivation information is combined with demographic information from the 2018 census to produce a District Health Board profile.
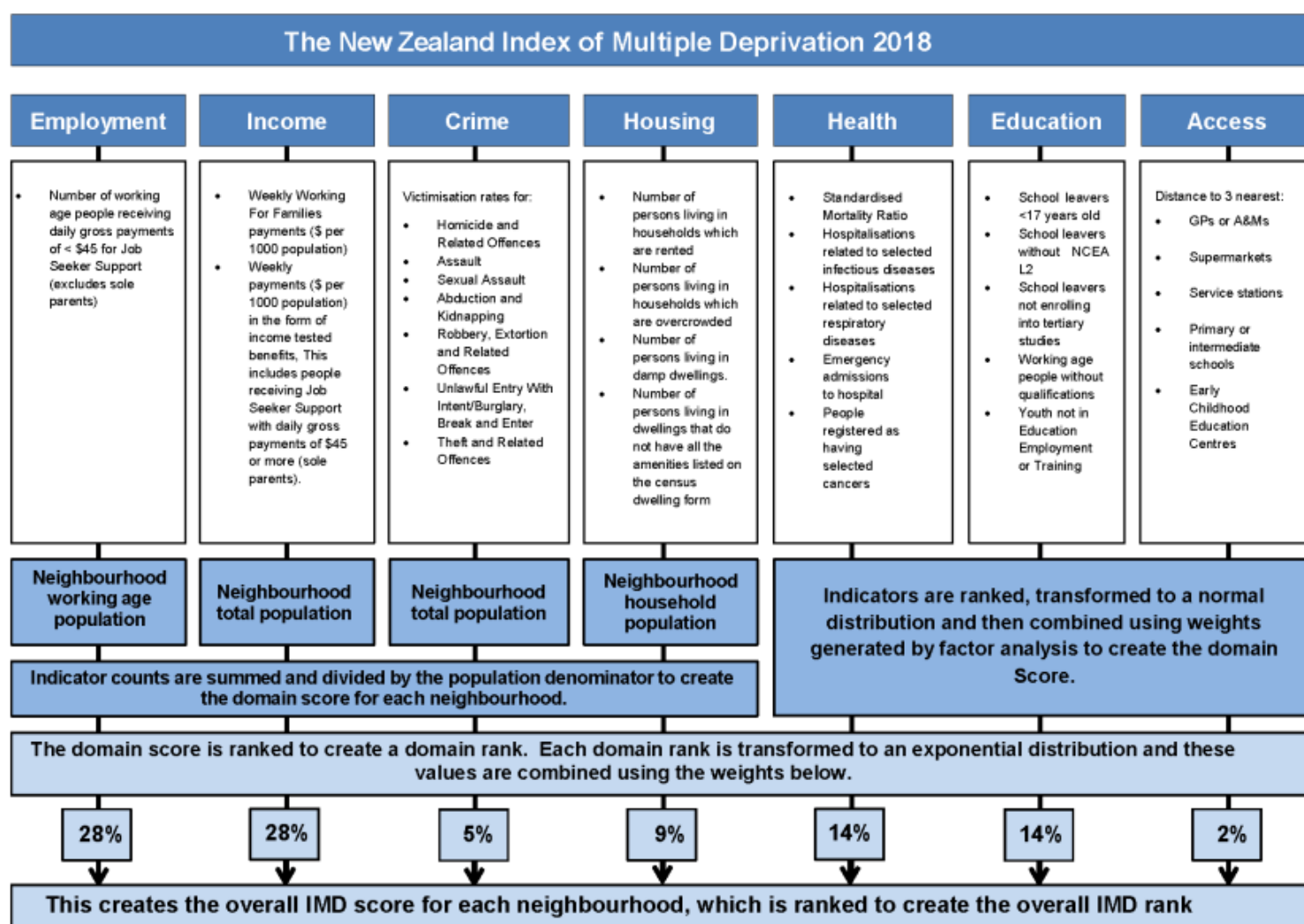

Figure 1: **Flow diagram showing the IMD, its indicators, domains and weights.** Adapted from Figure 4.2 SIMD 2012 Methodology, in Scottish Index of Multiple Deprivation 2012. Edinburgh: Scottish Government (Crown copyright 2012).

Table 1: Min, max and median deprivation ranks by domain for 53 data zones with Q5 IMD

	IMD	Employment	Income	Crime	Housing	Health	Education	Access
Min	4955	4561.0	4391	2402	1925	95	2171	69
Max	6176	6180.0	6180	6145	5991	6135	6121	6054
Median	5651	5821.5	5641	5013	4756	4250	5486	2068

The stacked bar chart in Figure 2 shows the proportion of data zones in the Lakes District Health Board (Lakes DHB) that belong to each deprivation quintile for overall IMD deprivation and the seven domains in 2018. If the deprivation circumstances were the same for all of NZ, we would see 20% of the Lakes DHB's 142 data zones in each quintile. However, Figure 2 shows that the proportion of data zones with Q5 overall housing deprivation was less than 20%, while the proportion with Q5 IMD, employment, income, crime, health, education, access deprivation was greater than 20%. The Lakes DHB has higher than average overall IMD deprivation, with 58.5% (83/142) of its data zones either in Q4 or Q5.
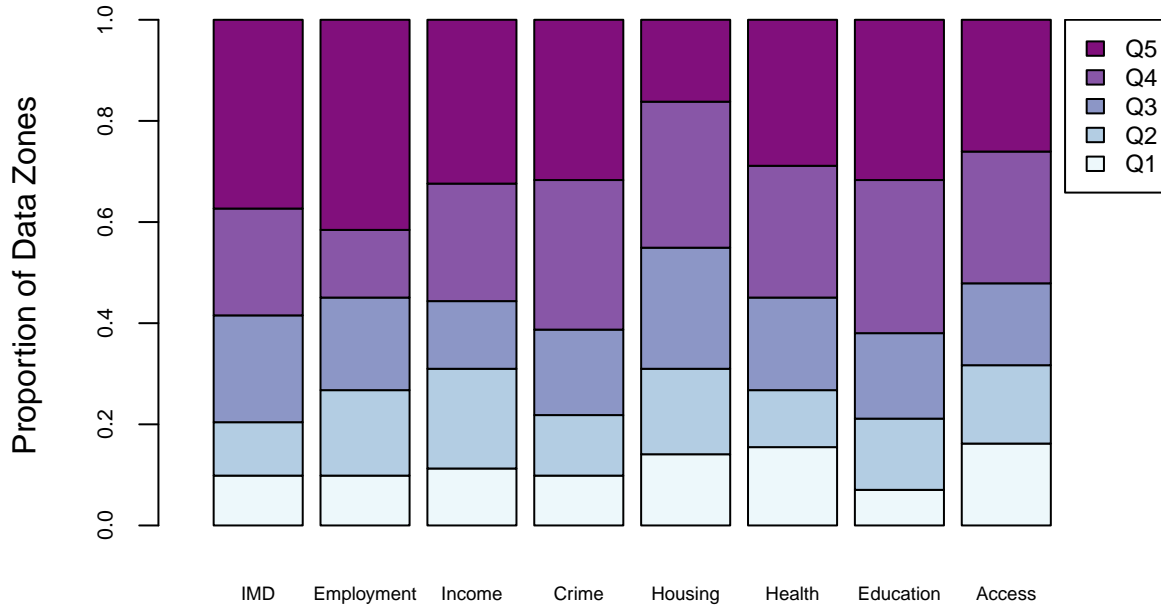
Figure 2: Stacked bar chart showing overall deprivation and seven domains in the Lakes DHB.

Table 1 shows summary statistics by domain for 53 data zones that were among NZ's most deprived (Q5) for the overall IMD and reveals the contributions of different domains. In descending order, high (Q5) median deprivation ranks for Employment (5821.5), Income (5641), Education (5486) and Crime (5013) were contributing to high overall deprivation in these 53 data zones in 2018, bearing in mind that these domains carry different weights in the IMD (see Figure 1).
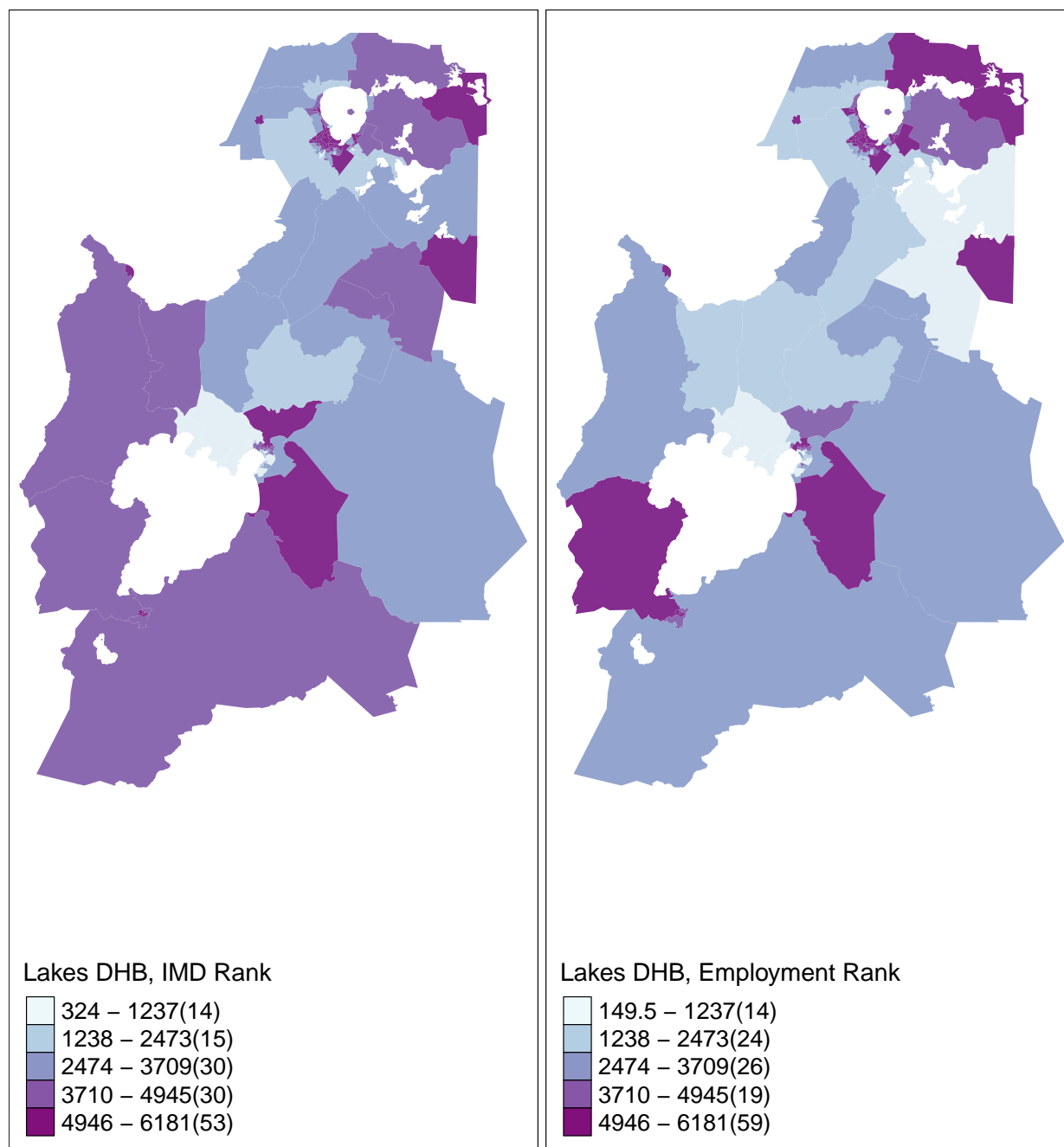
Figure 3: Distribution of overall IMD and employment deprivation in the Lakes DHB.

The values in brackets in the legends of the maps that follow are counts of data zones in the relevant quintile. The map for overall deprivation (IMD) on the left of Figure 3 shows relatively high levels of Q5 deprivation in the Lakes DHB in 2018, with the highest number of data zones (53) in the Q5 quintile. 37.3% (53/142) of data zones were among the most deprived 20% in NZ (Q5), while 9.9% (14/142) were in the least deprived 20% (Q1). The median IMD rank in the Lakes DHB was 4175, 17.5% (1084 ranks) worse than the NZ median of 3091. Urban data zones are difficult to see on these maps, so we suggest that readers use the interactive maps at the IMD website to explore the Lakes DHB further.

The map of the Employment Domain on the right of Figure 3 reflects the proportion of working age people who were receiving the Unemployment or Sickness Benefits in 2018. In the Lakes DHB, 41.5% (59/142) of

data zones were among the 20% most employment deprived in NZ, while 9.9% (14/142) of data zones were in the least deprived 20%. The median employment deprivation rank in the Lakes DHB was 4270, 19% (1177 ranks) worse than the NZ median of 3091.

Figure 4: Distribution of income and crime deprivation in the Lakes DHB.
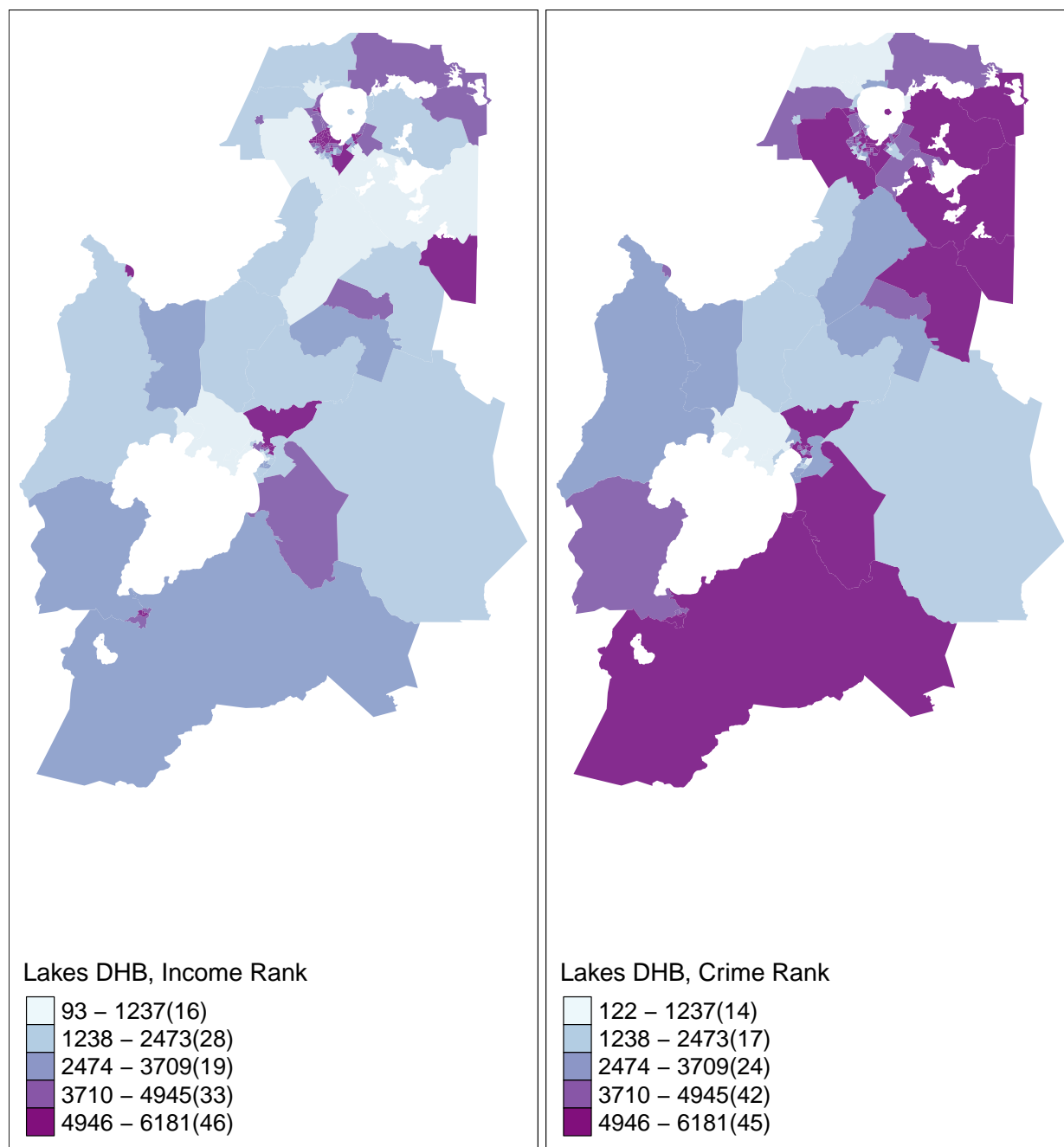
The Income Domain measures the amount of money per person paid by the government in the form of Working for Families payments and income-tested benefits. In the Lakes DHB, 32.4% (46/142) of data zones were in NZ's 20% most income deprived, while 11.3% (16/142) were in the 20% least income deprived. The median income deprivation rank in the Lakes DHB was 4040, 15.4% (949 ranks) worse than the NZ median. There were less Q5 data zones in the Income Domain than for the IMD overall in the Lakes DHB.

The Crime Domain measures victimisations per 1000 people and is largely driven by thefts (55%), burglaries (24%) and assaults (18%). In the Lakes DHB, 31.7% (45/142) of data zones were among NZ's 20% most deprived for the Crime Domain, while 9.9% (14/142) were among NZ's 20% least deprived. The median crime deprivation rank in the Lakes DHB was 4336, 20.2% (1246 ranks) worse than the NZ median.
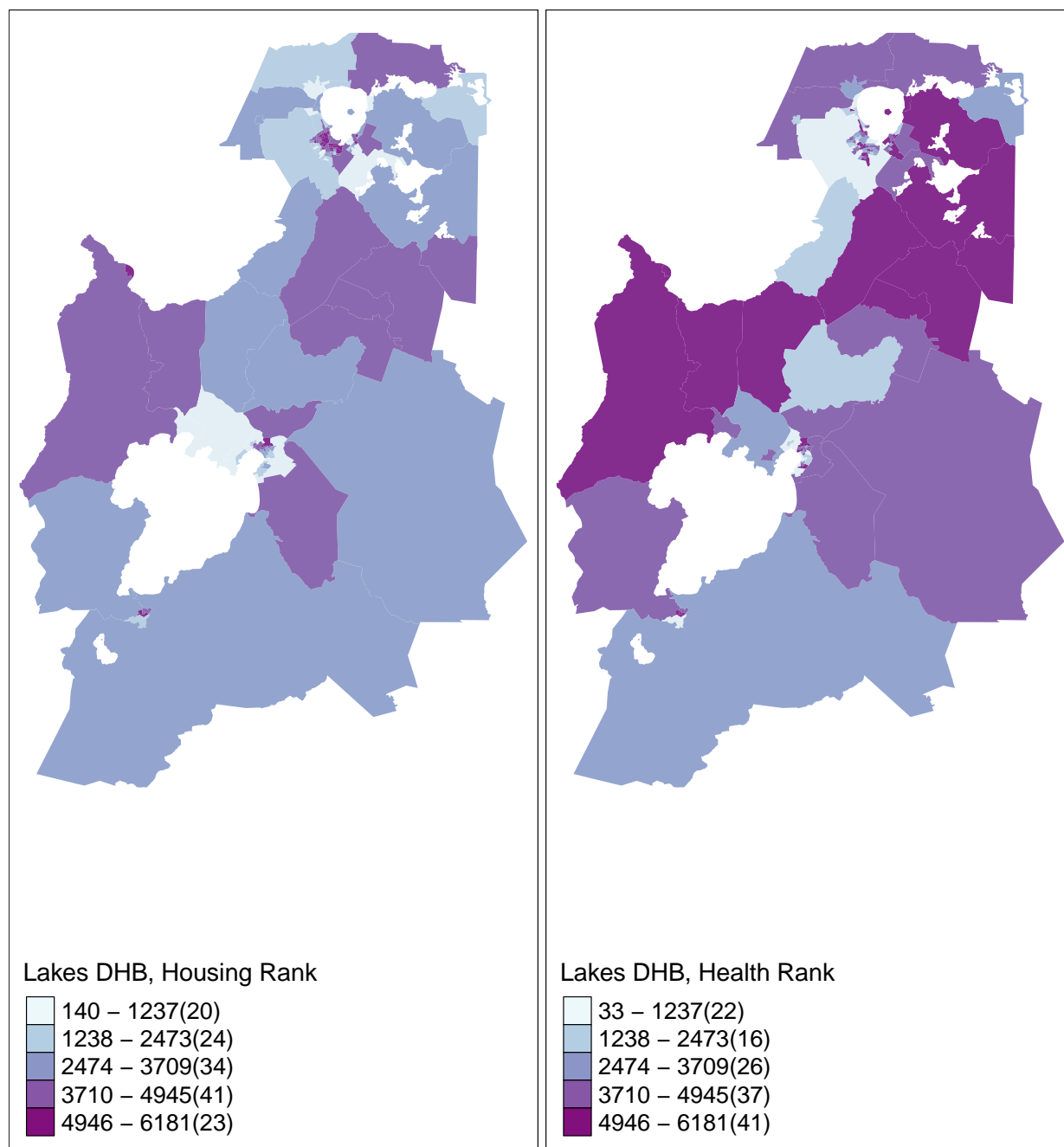
Figure 5: Distribution of housing and health deprivation in the Lakes DHB.

The Housing Domain measured the proportion of people living in overcrowded households (60% of the weighting) and in rented dwellings (40%). In the Lakes DHB, 16.2% (23/142) of data zones were among the 20% most deprived in NZ, while 14.1% (20/142) were among the 20% least deprived. The median housing deprivation rank in the Lakes DHB was 3506, 6.7% (415 ranks) worse than the NZ median. There were 23 Q5 data zones in the housing domain compared to 53 Q5 data zones for the IMD in the Lakes DHB.

The Health Domain consists of five indicators: standard mortality ratio, acute hospitalisations related to selected infectious and respiratory diseases, emergency admissions to hospital, and people registered as having selected cancers. In the Lakes DHB, 28.9% (41/142) of data zones were among the 20% most health deprived in NZ, and 15.5% (22/142) were among the least deprived 20%. The median health deprivation rank in the

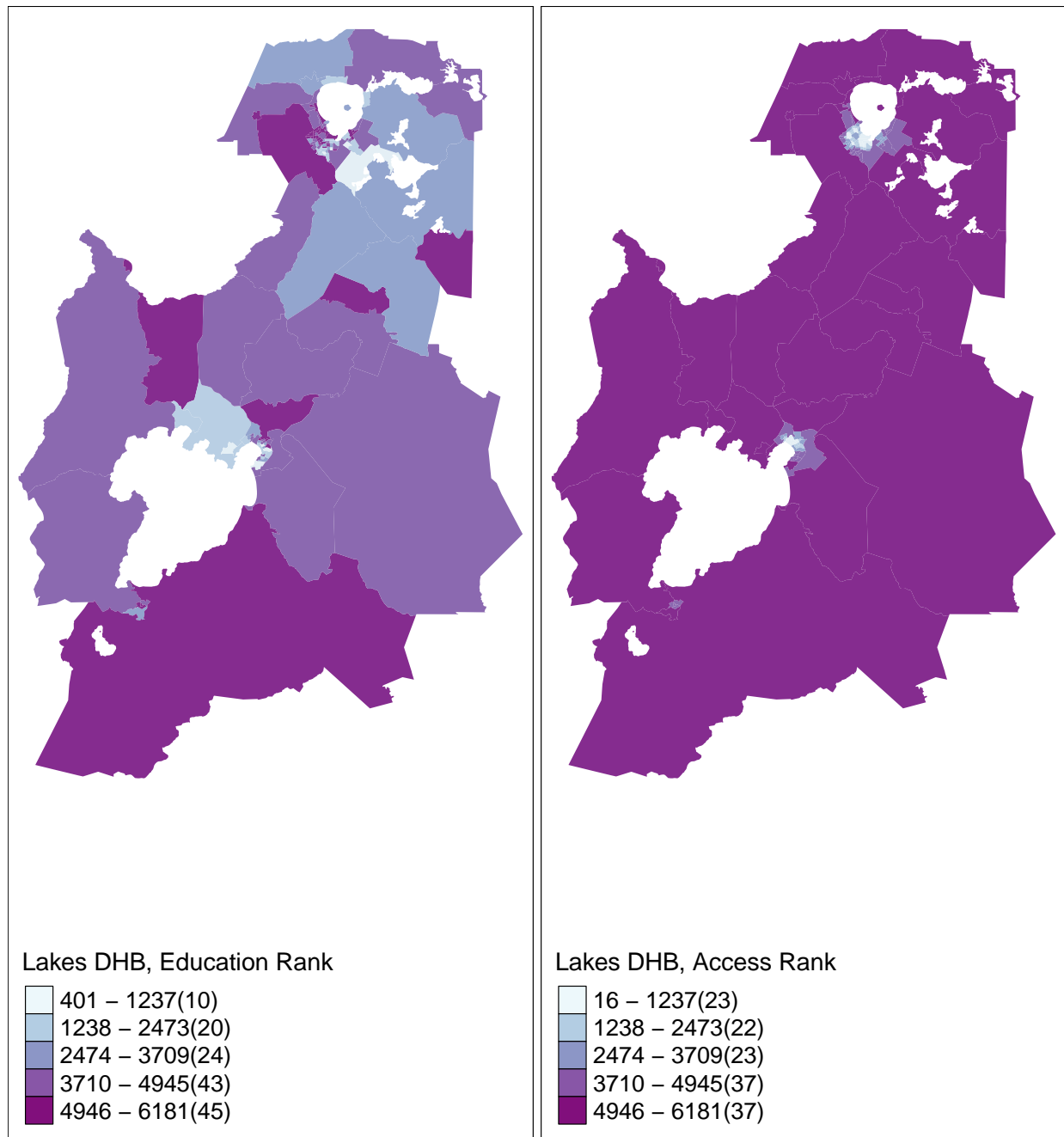Lakes DHB was 3934, 13.6% (843 ranks) worse than the NZ median.

Figure 6: Distribution of education and access deprivation in the Lakes DHB.

The Education Domain measures retention, achievement and transition to education or training for school leavers; the proportion of working age people 15-64 with no formal qualifications; and the proportion of youth aged 15-24 not in education, employment or training (NEET). In the Lakes DHB, 31.7% (45/142) of data zones were among the 20% most education deprived in NZ (Q5), and 7% (10/142) were among the 20% least deprived (Q1). The median education deprivation rank in the Lakes DHB was 4186, 17.7% (1095 ranks) worse than the NZ median.

The Access Domain measures the distance from the population weighted centre of each data zone to the nearest three GPs, supermarkets, service stations, schools and early childhood education centres. In the Lakes DHB, 26.1% (37/142) of data zones were among NZ's 20% most access deprived, and 16.2% (23/142)

were among NZ's 20% least deprived. The median access deprivation rank in the Lakes DHB was 3825, 11.9% (734 ranks) worse than the NZ median.

Further Information

For more information about the IMD, NZ data zones for this profile, please contact Dan Exeter at d.exeter@ auckland.ac.nz. For downloadable spreadsheets of the IMD or NZ data zones, online interactive maps, publications and technical documentation, please go to the IMD website.