

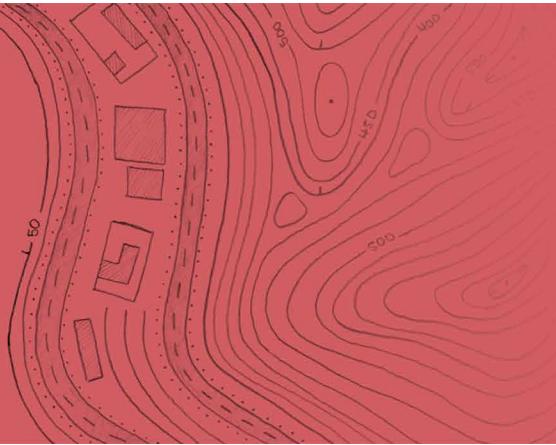
# COMMUTING TO DIVERSITY

An Executive Summary of Motu Working Paper 19-20

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## SUMMARY HAIKU

You travel to work  
and meet people unlike you.  
Pākehā gain most.



## INTRODUCTION

Auckland is New Zealand's most diverse city, but the impacts of diversity are likely to be less if different groups don't mingle. In this study, we examine measures of exposure to local cultural diversity based on where people work as well as where they live. The study also examines whether commuting alters the exposure to diversity for workers with different skills or types of job.

## EXPOSURE TO DIFFERENCE AND DIVERSITY

We distinguish between people's exposure to people different from themselves and their exposure to diversity. A group's exposure to difference captures the probability that a random interaction results in an individual meeting someone from a group other than their own. Exposure to diversity on the other hand provides additional information about different groups' exposure to a mix of other groups as captured by the diversity of the areas in which they live or work. A relatively small population group living in an area (e.g. Maori) with only one other group represented (e.g. NZ born Europeans) will have high exposure to difference, but low exposure to diversity.

All the measures we consider capture only potential exposure to difference and diversity. Our findings need to be interpreted as identifying the scope for interactions rather than their occurrence. Without face-to-face social interactions that permit tacit knowledge exchange and the building of trust, the hypothesised benefits of diversity are unlikely.

## DATA AND METHODOLOGY

Our study focuses on residential and workplace neighbourhoods captured at the individual level in the 2013 census. We focus more narrowly on a subset of Auckland urban area residents who also work in the Auckland urban area ('commuters'). Once observations with missing information are omitted, 473,559 employed residents remain in our main analysis data set.

Diversity measures are calculated from the demographic composition within small administrative areas (census area units). We use information on 358 area units within Auckland. On average, these are approximately 170 hectares (1.3km by 1.3km), with a mean population of around 3,600.

Our measures of cultural diversity are based on Aucklanders' reported country of birth and ethnic self-identification. The combined birthplace-ethnicity classification we use has 49 distinct cultural groups – 38 distinct birthplace codes, with New-Zealand-born individuals separated into 12 different ethnic codes. Such statistical measures of cultural diversity will always be imperfect. There can be cultural diversity among people who have the same birthplace and ethnic identity, based on e.g. language, ancestry, religion or customs.

## RESULTS: EXPOSURE TO DIFFERENCE

Each cultural group is more likely to encounter someone from their own group in their home or workplace area units than would be expected based on their share of the Auckland population. For example, Tongans account for 1.6% of the Auckland population but cluster in residential administrative units where 6.3% of the population is Tongan. Similarly, South Africans have a 10.4% chance of encountering other South Africans in their residential administrative units, though they make up only 3.1% of the Auckland population.

Every group, except New Zealand-born Europeans, have at least an 89% chance of encountering someone different to themselves in their residential administrative unit, and more than a 92% chance in their workplace administrative unit. Exposure to difference is lowest for the New Zealand-born group as a whole.

New Zealand Europeans have relatively low exposure to difference at home (57.8%). However, when they go to work, they tend to commute to areas where New Zealand Europeans are even more prevalent. A large part of this effect is due to the higher employment rates of New Zealand Europeans.

## RESULTS: EXPOSURE TO DIVERSITY

Average residential diversity varies greatly, from 67.5% for people in the least diverse neighbourhoods, to 90.6% for people in the most diverse neighbourhoods. However, all of the different cultural groups we consider have exposure to diversity of at least 77%.

New Zealand Europeans' exposure to diversity is increased when they go to work, this is the opposite of what is experienced by all other groups except those born in England. Among the other groups, the three with the lowest residential exposure to diversity (English, Samoans, and dual ethnicity New Zealand-born European/ Māori) have relatively small differences between residential and workplace exposure to diversity.

Degree-qualified commuters have the lowest levels of exposure to diversity at home (79.7%) and at work (78.9%). In contrast, the 9% of commuters with no qualifications have the highest residential exposure to diversity (83.1%).

## RESULTS: COMMUTING

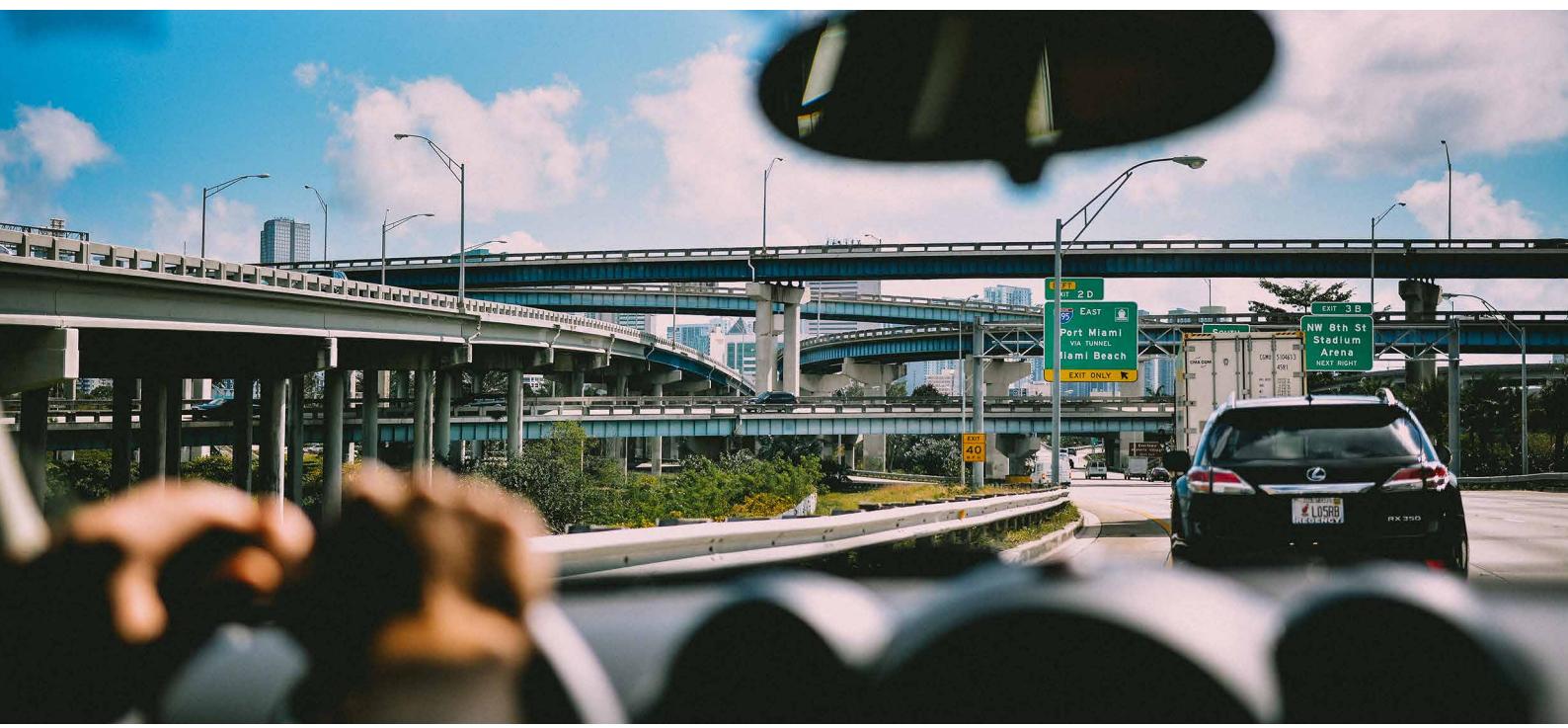
People from neighbourhoods with high residential diversity tend to commute to workplace neighbourhoods that are also more diverse than average.

If we split neighbourhoods into five levels of diversity, 38% of people who live in the least diverse neighbourhoods commute to the least diverse workplace neighbourhoods. This is much greater than the 20% we would expect if diversity at home and work were unrelated. Similarly, 37% of commuters in the most diverse residential neighbourhoods commute to the most diverse workplace neighbourhoods. However, 10% of people still commute from the least diverse residential areas to the most diverse workplace areas and 8% commute from the most diverse residential areas to the least diverse workplaces.

The least diverse areas are predominantly those towards the outer limits of the urban area, although there are some low-diversity areas close to Auckland Central – in Devonport, Ponsonby, Remuera, and the Eastern suburbs. Diverse workplaces and diverse residential areas are most concentrated in South Auckland, and in a corridor through the Western suburbs.

Commuters from low-diversity residential neighbourhoods have longer average travel times, consistent with their being disproportionately located in the outer parts of the urban area.





## SUMMARY

Despite the tendency of all groups to locate disproportionately with members of their own cultural group, most people have at least an 88% chance of a random encounter bringing them into contact with someone from a different group either in their residential neighbourhood or in the neighbourhood where they work. Within this range, groups with relatively low exposure to difference include people from South Africa, China, Fiji and England.

The exception to this overall pattern is the largest group – New Zealand-born people of European ethnicity. They account for 35% of usually resident adults in Auckland but have only a 58% chance of meeting someone from a different cultural group at home.

Exposure to someone from a different group is not the same as exposure to a diverse range of other groups.

New Zealand-born Europeans, New Zealand-born European/Māori, South Africans, and English have the lowest overall exposure to diversity, though even for them, there is at least a 77% chance that a random meeting in their home or work neighbourhoods will be between two people from different groups.

For New Zealand Europeans, and residents born in England, exposure to diversity at workplaces plays the strongest role in raising their overall exposure to diversity, despite relatively low exposure to diversity there as well.

Overall, commuting to the workplace lowers exposure to cultural diversity. However, commuting does raise exposure to diversity for groups for whom residential exposure is relatively low. This includes people with high educational attainment, as well as people living in neighbourhoods with lower than median diversity.

If the potential benefits of diversity are to be realised, the greatest gains may result from increasing the exposure of the largest group to diversity – either in workplaces, or in the neighbourhoods where they live.

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