

# OCCUPATIONAL DRIFT IN NEW ZEALAND: 1976-2018



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## SUMMARY HAIKU

The jobs that we do  
are not those of yesterday.  
Each spring, new plants grow

## INTRODUCTION

The nature of work is constantly changing – and always has been. Whether due to new technologies, new work practices, or new goods and services being produced, the mix of jobs evolves over time. In this paper, we trace the changing mix of jobs in New Zealand by measuring changes in the occupational composition of employment over a 42-year period from 1976 to 2018. We calculate measures of occupational ‘drift’ that is observed as some occupations become a smaller proportion of employment while others increase their share.

We follow the approach of Atkinson and Wu (2017), who examine US patterns, and the Australian Office of the Chief Economist (2018), who examine Australian patterns, to allow international comparisons with New Zealand’s rate of occupational drift. These studies use the term ‘occupational churn’ to describe the changing mix of occupations. We prefer the term ‘drift’, which better captures the gradual evolution of occupational mix over time.

## DATA

Detailed occupational data were obtained from the New Zealand Census of Population and Dwellings (eight surveys between 1976 and 2013). Census microdata were accessed in the Statistics New Zealand data laboratory. Results derived from the microdata were supplemented outside the datalab by publicly available 2018 census data on employment. All occupation codes are mapped to a consistent set of codes.

## RESULTS

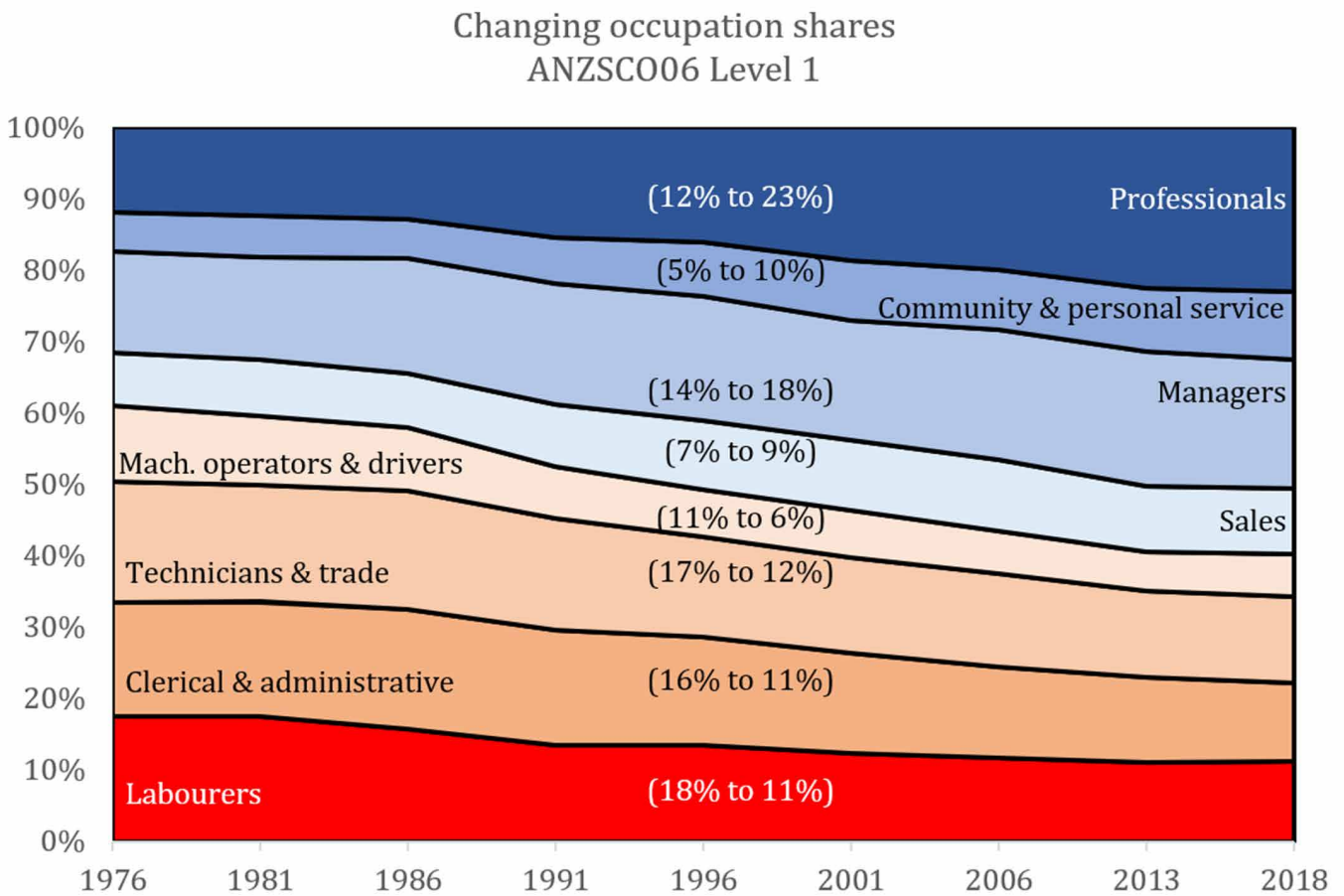
Figure 1 summarises the changing occupational composition of employment over 42 years, using the latest top-level coding. Occupations are ordered by growth rate over the period.

The growth of professional occupations is clearly evident, growing from 12% of employment in 1976 to 23% of employment in 2018. Some occupations declined in size and experienced only low to moderate levels of occupational drift. As an example, labourers’ share of employment declined from 18% to 11%. There is also considerable change within each of these broad categories. The occupation groups with the highest within-occupation drift, are generally also the occupations that grew most rapidly between 1976 and 2018.

Among the contributing causes for occupational drift are differential industry growth and decline, new technologies, and the changing organisation of work.

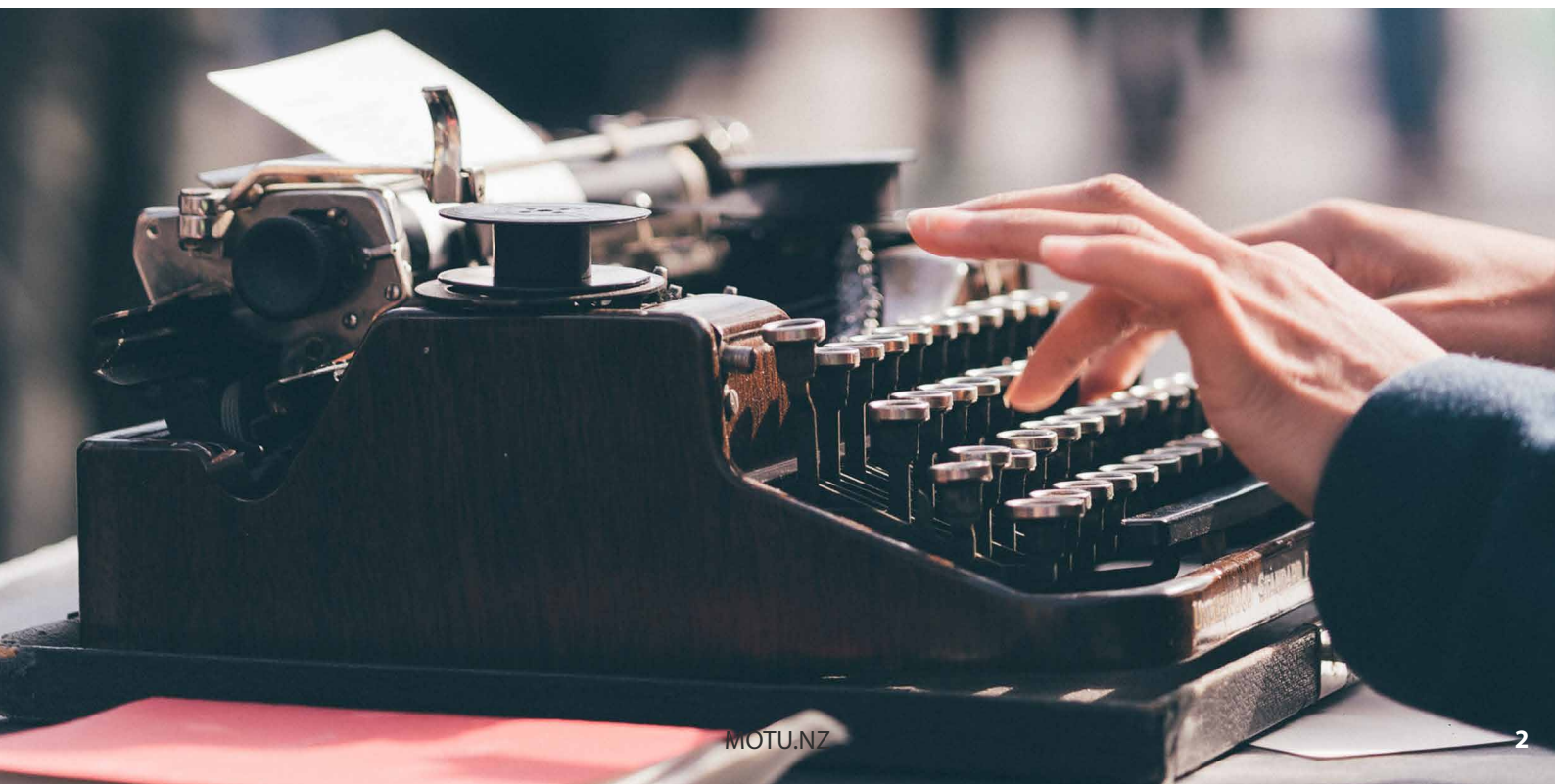
This research was supported by the Productivity Commission of New Zealand. Access to the data used in this study was provided by Statistics New Zealand under conditions designed to give effect to the security and confidentiality provisions of the Statistics Act 1975. The results presented in this study are the work of the author, not Statistics NZ.

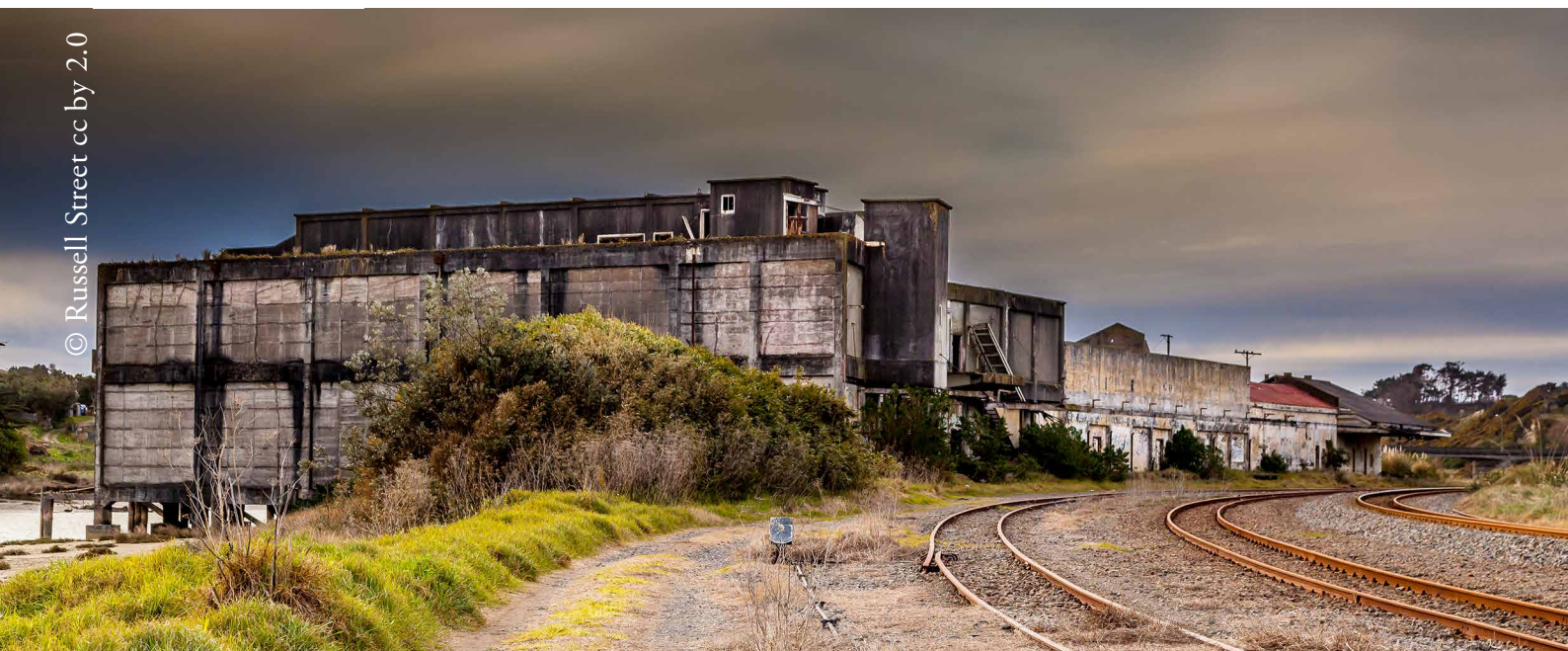
**Figure 1: Changing occupational shares: level 1 occupations**



Occupational drift may arise because of overall growth or decline in particular industries. For example, in 2018 there were 8 codes for '7117: Textile and Footwear production machine operators' and 1,200 workers, whereas in 1976, there were over 50 codes, reflecting the much larger number of people working in these occupations (almost 9,500 in 1976).

The occupational impacts of computerisation are most clearly seen in the increase in computer-related occupations. For the 'ICT Professionals' group as a whole, employment increased from around 2,000 in 1976 to almost 60,000 in 2018 (from 0.2% of employment, to 2.4% of employment).





Computers have also had a substantial impact on the organisation of office work, reflected in ‘Clerical and administrative worker’ occupations. ‘Office manager’ has increased from 10,000 in 1976 to 32,000 in 2018. In contrast, ‘keyboard operators’, declined from 21,000 in 1976 to 3,500 in 2018

More generally, the changing organisation of work is reflected in the relatively rapid growth of management occupations. The number of managers grew from 14% of employment to 18% of employment between 1976 and 2018 (from 186,000 to 441,000).

Changes in occupational titles also reflect changes in the organisation of work and the degree of task specialization across occupations.

To summarise long-run occupational drift, we compare employment patterns in 2018 with those in 1976. Using level 4 coding from the Australia and New Zealand Standard Classification of Occupations from 2006, the long run rate of drift is 135%. About half of this (two-thirds as many people as were employed in 1976) is due to growth in occupations that increased their share of employment. An equal amount is due to occupations with declining shares.

## SUMMARY

In New Zealand, occupational change was particularly strong between 1986-1991 and was historically low during the GFC (2006-2013). Current levels of occupational change are similar to those experienced between 1991 and 2006.

Employment growth in professional occupations has been particularly strong, growing from 11% of employment in 1976 to 23% in 2018. There has also been pronounced growth and change in the mix of occupations within the ‘community and personal services’ occupation group and within ‘clerical and administrative’ occupations.

Rates of occupational drift in New Zealand are similar to those reported for Australia and the United States, although differences in occupational coding make a precise comparison difficult. A decline in the rate of occupational drift since the 1980s or early 1990s is evident in all three countries.

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