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Modelling Inter-Ethnic Partnerships in New Zealand 1981-
2006: A Census-Based Approach

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Abstract

This thesis examines the patterns of ethnic partnership in New Zealand using national census data from 1981 to 2006. Inter-ethnic partnerships are of interest as they demonstrate the existence of interaction across ethnic boundaries, and are an indication of social boundaries between ethnic groups. A follow-on effect of inter-ethnic marriage is that children of mixed ethnicity couples are less likely to define themselves within a single ethnic group, further reducing cultural distinctions between the groups.

The main goals of the research are to examine the historical patterns of ethnic partnership, and then use simulation models to examine the partnership matching process. It advances the current research on ethnic partnering in New Zealand through its innovative methodology and its content. Previous studies of New Zealand have examined at most two time periods, whereas this study uses six full sets of census data from a twenty-five year period. There are two key components to the methodological innovation in this study. The first is the use of log-linear models to examine the patterns in the partnership tables, which had previously only been analysed using proportions. The second is the use of the parallel processing capability of a cluster computing resource to run an evolutionary algorithm which simulated the partnership matching process using unit-level census data of the single people in the Auckland, Wellington and Canterbury regions.

The European group showed a much lower rate of same ethnicity partnering than that suggested by the proportion of homogamous couples. European individuals and Maori individuals showed similar rates of same ethnicity partnering, with little change over time. The Pacific group was the only one to see an increasing tendency for same-ethnicity partnerships, whilst the rate for Asian people decreased dramatically. Individuals with dual ethnic affiliations were more likely to have a partial match of ethnicity than none at all, and there was evidence of gender asymmetry amongst some ethnic combinations. The evolutionary algorithm showed that age and education similarities were the dominant matching factors for recreating ethnic patterns. The rate of same-ethnicity and mixed-ethnicity partnerships also contributed to the matching algorithm, providing some evidence of a micro-macro link.

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Statistics New Zealand Disclaimer

1. The results presented in this study are the work of the author, not Statistics New Zealand.
2. Access to the data used in this study was provided by Statistics New Zealand in a secure environment designed to give effect to the confidentiality provisions of the Statistics Act 1975.
3. I acknowledge Statistics New Zealand as the source of the Census data used in this thesis.

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