Population issues are vital to many social, economic and cultural discussions in New Zealand, and multidisciplinary discourse contributes to our understanding of the implications of the complex population changes now emerging. The Population Association of New Zealand (PANZ) was established to facilitate informed public debate about population matters, and to identify the underlying population issues in other discussions.¹ The 2005 PANZ Conference² was held at the University of Auckland on 30 June – 1 July. Its theme was “People and place: Communities, regions, diversity and change”, and the New Zealand and international speakers covered:

- diversity and change across age, employment, ethnicity, region, family and fertility
- the demographics of communities, Māori, consumers and health
- economic demography
- infrastructure
- methodological issues
- migration
- population and policy
- services
- sustainability.

The Minister of Immigration provided an overview of the projected changes in the demography of New Zealand society, focusing on skill requirements. He also invited interested delegates to conduct in-depth research in support of decision-making on immigration policy. James Newell, the PANZ President, spoke on trends in population studies and related occupations and fields, which was based on his studies into human capital accumulation and the labour market. International keynote speakers included Associate Professor Brenda Yeoh from the National University of Singapore and Dr Kevin Dunn from the University of New South Wales.

¹ The Association usually runs a national conference every two years and publishes a refereed journal, New Zealand Population Review.
In this review I will summarise selected conference presentations, beginning with overseas studies, and followed by New Zealand papers on immigration policies and the employment dynamics of immigrants, labour market participation, the planned 2006 census of population and dwellings, measuring and monitoring small populations, and issues and challenges in the study of the Māori population.

OVERSEAS EXPERIENCES

Regional and Ethnic Diversity and Women’s Employment in Australia

Yaghoob Foroutan’s presentation “Competing implications of regional and ethnic diversity on women’s employment: An Australian case” reflected the fact that female labour-force participation throughout the world, particularly in developed and industrialised countries, has substantially increased over the last few decades, “one of the fundamental facts of gender relations in this century”. The multi-ethnic and multicultural characteristics of this phenomenon in Australia provide a context to extend the literature and knowledge on factors influencing women’s employment status. Based on 2001 census data, more than 20% of the Australian population were born overseas. Their socio-cultural and economic backgrounds and experiences may play key roles in their labour-force behaviour in Australia.

In this study, the labour-force activities of Australian-born and overseas-born women were compared. Results show that major factors influencing women’s labour-market behaviour include:

• human capital investments (education, English-language skills, etc.)
• migration-related issues (such as duration of residence in the destination country and region of birth)
• family building (couple status, partner’s income, presence of child and age of child at home)
• age structure.

The regional and ethnic diversity contributed the most among other competing determinants highlighted in the literature.
Urbanisation of Pacific Indigenous Populations

Richard Bedford, Elsie Ho and Robert Didham, in their paper “Urbanisation of Pacific populations: An international perspective”, maintained that urbanisation of Pacific indigenous peoples has been profoundly influenced by migration from the island countries to metropolitan countries on the Pacific rim. For many eastern Pacific countries, less than 50% of the people live in urban places in the islands. But when their ethnic communities living overseas are included, levels of urbanisation are much higher. There is considerable circulation of Pacific people between the island and metropolitan countries, thus ensuring that the various components of the ethnic communities remain strongly interconnected. An international perspective on the urbanisation of many Pacific peoples is essential if the process is to be understood in its 21st century context.

Household-specific Social Problems in Singapore

Professor Brenda Yeoh spoke on “Trangressing the nation-state? Migrant domestic workers, civil society and nation-building in Singapore”. In Singapore, where it is typical for both partners in the same household to work, many low-paid migrant workers are privately employed as household maids. The current legislation is regarded as an effective framework for regulating flows of skilled migrant workers to meet Singapore’s ongoing economic development needs. The legislation, however, fails to address the civil rights of domestic workers, who are not regarded as skilled workers, and so they are very dependent on their host families. A recent incident of physical and psychological abuse leading to the death of one domestic worker sparked public debate on the need for policy that addresses the civil rights of migrant domestic workers and also meets the requirements of local households.

IMMIGRATION POLICIES AND EMPLOYMENT DYNAMICS OF IMMIGRANTS

New Zealand’s future depends on a high-skilled, high-waged economy, where a more skilled workforce contributes to New Zealand’s skill base, improves productivity and promotes continued economic growth. Immigration provides us with some of the workers and skills that the economy needs. Short-term skill gaps can be filled by granting temporary work visas to overseas skilled workers, whereas longer-term gaps have to be addressed by new skilled-migrant policy that is responsive to the changing needs of New Zealand’s labour market to ensure a sufficient quantity and quality of skilled workers. In-depth research is needed to identify the short-term, medium-term and long-term drivers of these changes and help develop evidence-based immigration policy.
Anne Henderson spoke on labour-market participation as a key factor in the integration of immigrants of working age. The early engagement of immigrants in employment is a central goal of most immigration policies but, until recently, immigrant policy in New Zealand assumed that suitably qualified immigrants would fit into the wider society without further assistance. Challenges to this assumption have seen the introduction of a more rigorous selection system, and increased settlement services for immigrants who do not settle quickly. However, employment continues to be a major problem for skilled immigrants, especially those from non-traditional source countries, due to differences in human capital (lack of English proficiency, non-transferable overseas qualifications and work experience) and structural factors related to broader economic conditions and discrimination. Some studies have been conducted to investigate the role of English-language proficiency and other factors in the recruitment and employment of professional immigrants from non-English backgrounds. However, more targeted research is needed to provide sound evidence for decision-making in the selection of skilled immigrants and related employment assistance.

James Newell and Richard Bedford presented updated estimates for 1981–2001 intercensal migration by age group and gender and derived migration indicators for New Zealand customised regions. Volatility in net migration rates is influenced most acutely by variation in the rates of international out-migration of young adults and in the rates of long-term and permanent international in-migration.

LABOUR MARKET PARTICIPATION

Overview of Occupational Shortages among Selected Trade Occupations

Robert Haig reported on the findings of a 2004 survey conducted by the Department of Labour of 16 selected trade occupations, including construction, engineering, motor, food and furniture building. The objectives were to assess whether there was a genuine skill shortage in the occupations under review, to understand the demand and supply forces contributing to the shortage, and to develop a short-term outlook. The key findings were:

- shortages exist in every trade occupation surveyed
- some shortages are acute, with fewer than 30% of vacancies filled in some trades
- shortages are assessed to be genuine skill shortages, as opposed to recruitment difficulties, in all but one occupation surveyed
- on balance, the growth in supply through training and net migration falls short of the loss of trades people through retirement and occupational wastage and the growth in demand through job creation.
The causes of trade shortages include a drop in young people entering the trades in the 1990s, and low training rates at the “fully trade qualified” qualification levels. The shortages are expected to persist in the short term and partly reflect the wider economic and social context currently existing in New Zealand, where official unemployment is the second lowest among the OECD nations, and many industry sectors and employers are reporting skill and labour shortages.

Gender Difference in Labour Market Participation

Richard Bedford and Paul Callister explained, in “Globalisation, gendered migration and labour markets”, that New Zealand has had an imbalance between the numbers of women and men among prime-working-age groups since the early 1980s, and stands out among industrialised countries in terms of the size and direction of this imbalance. Their study explores the reasons for the increasing number of women, particularly well-educated women, relative to men within prime-working-age groups in New Zealand.

They analysed national and regional baseline data on sex ratios, using the five-yearly Census of Population and Dwellings and the yearly Population Estimates produced by Statistics New Zealand. Their analysis suggests that gendered migration, by which more well-educated overseas women than men immigrated into New Zealand, is a key reason behind the changes in sex ratios. This hypothesis is further supported by analysing data from New Zealand and Australian censuses, arrival and departure cards, the Department of Labour’s immigration database, two surveys of returning New Zealanders from 1990/1991 and 2000/2001, and student loan data.

Demographic Patterns in Labour-force Participation

Mervyl McPherson used census data to analyse changes in labour-force participation patterns, 1981–2001, by ethnicity, gender and age (part of a Massey University Labour Market Dynamics Research Programme study of non-standard work). From examining the decline in full-time work and the increase in non-standard work over the period it became apparent that non-labour-force participation rather than non-standard work has replaced full-time work for some demographic groups. Other patterns by gender and ethnicity also emerged, including greater similarities between New Zealand Europeans and Māori than with more recent immigrant groups. The patterns for Pacific peoples are sometimes closer to Māori and sometimes closer to recent immigrant groups. The factors underlying the trends, potential solutions and areas for further research were also discussed.
Demographic Structure of Occupations and Implications for the Workforce

James Newell and Martin Perry examined the changing demographic structure of the workforce of New Zealand occupations (under the Department of Labour Future of Work Programme). Fifteen occupational case studies provided a range of workforce growth rates, gender participation ratios and educational levels, analysed by age, gender and ethnic composition. Intercensal cohort comparisons were used to estimate entry and exit into each occupation, 1991–1996 and 1996–2001, participation by sex and ethnicity, and urban and rural patterns.

Supply-side Factors and Employment

Sandra Baxendale, Bill Cochrane and Jacques Poot studied regional employment change in New Zealand by means of multi-period shift share analysis. Considering 29 regions over three intercensal periods between 1986 and 2001, this research highlighted substantial diversity across New Zealand regions with respect to change in employment by industry, classifying the regions into nine clusters. In general, region-specific factors (the competitive effect) were more important than industry mix in explaining total regional employment change.

The regions were then redefined in terms of labour-market areas with economically meaningful (commuting-determined) boundaries rather than administratively determined boundaries, so that the researchers could explore the impact of a range of population and labour-supply factors on the competitive component of employment growth (i.e. the residual after accounting for national growth and industry mix) in the labour-market areas. Regression analysis was used to explain the competitive effect in terms of changes in the structure of the population (age, ethnic composition, education, occupation and home ownership) and population size (net inward migration and natural increase).

THE 2006 CENSUS OF POPULATION AND DWELLINGS

The census occupies a unique place within the official statistics system as a “snapshot” of all of New Zealand society at a given point in time. The 2006 Census of Population and Dwellings will occur at a time when there is increasing demand for timely data from central government, local government, and research and private sector organisations. The 2006 census will be an essential resource for planning, monitoring, research and policy making, and must be delivered within a timeframe that ensures its relevance for these purposes. The proposed timeframes for data release from the 2006 census are based on Statistics New Zealand’s experience in releasing data from previous censuses, and extensive consultation with users of census data.
Strategic Direction as Defined by Users’ Needs

Nancy McBeth, Ian Smith, Denise McGregor and Lauren Wood discussed plans for the 2006 census. Key recommended changes from the 2001 census output approach involve:

- a phased output programme with emphasis on improvement over the previous census
- working much more closely with different user communities to finalise the content of key products
- the first release of final census data catering to all audience segments.

Data in all phases will be accompanied by metadata that are specific to the audience and the products and services provided. The 2006 Census Strategic Plan acknowledges that the use and users of census data are rapidly becoming more diverse and that users want to contribute more to decisions that affect them. This audience modelling framework will provide the foundation for the strategic direction of the 2006 Census of Population and Dwellings, a core element of which is responsiveness to users.

The Official Statistics Research and Data Archive Centre is another project being developed to improve users’ access to data. One of the Centre’s initiatives is a Census Confidentialised Unit Record File (heavily modified data available on CD-ROMs for researchers to access and use in their offices). A conference on key statistics, intended for 25–27 October 2005 in Wellington, is planned to discuss needs and ideas for the official statistics system with attendees from across the government, universities, other educational institutions, research groups and other stakeholders in official statistics.

Online Census

The Statistics Act provides that population censuses be conducted every five years in New Zealand. Censuses in New Zealand are based on the model of enumerator form drop-off and collect, although a small proportion are returned by mail. These forms have been available in both English and in a bilingual (English/Māori) format since the 1996 census. Support for the census remains high, with under-coverage, as measured in the Post Enumeration Survey, being 1.9–2.5% in 2001. This high level of support should not be taken for granted, however, since New Zealand society has been changing in many ways. The society is more diverse and people are busier, less available and less willing to accept the need to participate in statistical activities such as the census. Public attitudes in New Zealand and in many other countries indicate a strong demand for choice and convenience when interacting with government. This has been an important driver in deciding to proceed with the provision of an online form for the 2006 census.
Developing the online census faces both business and technical challenges: managing stakeholder expectations and the impact on existing business processes; meeting statistical needs; and applying advanced technologies to gain efficiency. The expectation is that future operations will be carried more cheaply by providing information electronically.

MEASURING AND MONITORING SMALL POPULATIONS

Measuring Health Inequality

Reducing health inequalities is now at the centre of New Zealand’s public health agenda. Yet measurement of health inequality to date has consisted merely of computing average differences in mortality or morbidity between pre-defined social groups (such as occupational classes or ethnic groups). According to Martin Tobias, while average group differences are clearly policy-relevant, conceptualising inequality in this way has two major limitations: it captures only between-group inequality and ignores within-group inequality, and pre-defining the social groups of interest constrains the possible explanations for inequality. A more comprehensive approach is to define inequality as the variation in health across individuals in a population, which allows measurement of total inequality (the sum of between-group and within-group inequality) and permits unconstrained analysis of the determinants of inequality. The Ministry of Health proposed to measure total health inequality by calculating the distribution of neighbourhood (census area unit) life expectancy at birth.

With this approach, five calendar years centred on the census year are aggregated and genders pooled to obtain small areas with populations of at least 1,000 (i.e. at least 5,000 person-years of observation). Deaths allocated to neighbourhoods were corrected for residence misclassification (geo-coding error) and health-selective migration (rest home placement). The distributions of neighbourhood life expectancies can thus be summarised by calculating a “health inequality index” (HII), a statistic similar to the variance, at national and district level. District Health Boards (DHBs) are assigned ranks using an integrated measure of health that weights level of health (district average life expectancy at birth) and distribution or inequality of health (district HII) equally. Neighbourhood life expectancy can thus be estimated robustly for populations as small as 1,000. Regular monitoring of neighbourhood life expectancy (and its causes) provides a means to assess progress towards reducing health inequalities at both national and DHB levels. Through identifying DHBs with high levels of health inequality (and the contributions of different causes), monitoring neighbourhood life expectancy may prove to be a useful policy tool for local health service planning and evaluation, for both DHBs and primary health organisations.
Janelle Anthony described the Quality of Life project, which was established in 1999 to provide social, economic and environmental indicators of quality of life in New Zealand’s six largest cities, and expanded to include 12 cities in 2004, since its first publication in 2001. The Quality of Life Residents Survey, the focus of her presentation, is part of the project’s ongoing data collection and explores residents’ perceptions of overall quality of life, health, free time, wellbeing, public transport, democracy, work-related issues, crime/safety, community and the built environment. The most recent survey, in 2004, was a joint initiative between the 12 cities participating in the Quality of Life Project and the Ministry of Social Development. The results are used to inform local and central government policy makers and to encourage collaborative work between government bodies with the objective of improving quality of life in New Zealand. The information will also be particularly useful for cities in their measuring and monitoring of progress toward desired community outcomes under the Local Government Act 2002.

Meeting Specific Regional Information Needs

Through the Local Government Act 2002, territorial local authorities (TLAs) are obliged to identify measures of desirable community outcomes and monitor progress over time. This task requires relevant and timely regional information for various subgroups of the New Zealand population, to link the contributions and interactions of individual agencies to improved community outcomes across different aspects of social wellbeing. Within this regional information framework, the need for small-area estimates of the population could arise from many potential parties (for example, TLAs, communities, research institutes, government agencies, and businesses), mainly at TLA or other meaningful small-area levels.

Existing data sources such as administrative, survey and census do not meet such specific information needs. I presented a Generalised Linear Model (GLM) approach as a cost-effective approach to create new small-area data for meeting specific regional information needs in New Zealand. This approach makes use of information from different sources, with necessary quality assessments of the estimates, to derive timely and relatively reliable estimates of regional and/or local importance for any meaningful small areas. Other information-generating methods, such as data integration and sophisticated modelling, could be used, but they either fail to create the right information or are too difficult to apply where resources are modest. The GLM approach strikes a realistic balance between meeting the specific regional information needs in small areas and keeping the cost of producing such information to a minimum.
Methodologies of Measuring Ethnicity

Paul Callister and Tony Blakely presented “Ethnic classification, intermarriage and mortality: Some methodological issues”. In New Zealand, there is considerable interest in measuring disparities between Māori and other New Zealand residents. While at times non-Māori are treated as one group, comparisons often go beyond the two groups and assess the relative positions of Māori, Europeans, Pacific peoples and, to a lesser extent, Asian people. However, neither the two-group nor the wider-group comparisons are straightforward, due to the methodological challenges involved in identifying and measuring ethnicity and in then assigning people to discrete categories.

In the past, health researchers have made single ethnic group mortality comparisons when, in fact, a significant number of individuals are now recording dual or multiple ethnicities. The presenters proposed comparing mortality rates for people who self-identify as just one ethnic group with those for people with multiple self-identified ethnic groups. For example, mortality for respondents recording Pacific-only ethnicity should be compared with that for people who recorded at least one other ethnic group in addition to Pacific. Likewise, mortality rates should be explored for combinations of Māori ancestry and ethnicity. This approach would stimulate discussion regarding the recommendations of Statistics New Zealand’s Review of the Measurement of Ethnicity, and help to assess the usefulness of complex ethnicity and ancestry data for monitoring and measuring health status and related research.

MĀORI POPULATION ISSUES AND CHALLENGES

The rights of New Zealand Māori as people of the land were affirmed in the Declaration of Independence in 1835, and reaffirmed by the Treaty of Waitangi in 1840. Bridget Robson, in her presentation, argued that, associated with the right to self-identification, as recognised by the United Nations Draft Declaration on the Rights of Indigenous Peoples, is the right to be counted as Māori in official statistics. The quality of ethnicity data is an indicator of health service performance and a signal of commitment to improving Māori health and reducing inequalities.

Some official health data, however, still undercount Māori: the Eru Pomare Māori Health Research Centre of Otago University estimates public hospitals undercount Māori admissions by 19%, cancer registrations by 17%, and mortality by 6%. The centre uses the central health data collections to monitor Māori health status and disparities. To accommodate the undercount of Māori, they use the “ever Māori” method of classification, which counts as Māori anyone ever recorded as Māori in any ethnicity field of deaths, hospital admissions, cancer registrations or the National Health Index.
They claim to have reduced the undercount of Māori to less than 1% in cancer registrations and deaths, and to 6% in hospital admissions, for the period 1996–2003.

In survey designs, the sample size necessary for understanding patterns within a population should be the same for both the Māori and non-Māori populations. To improve Māori health and eliminate inequalities, surveys need enough power to be able to examine determinants of inequalities, design intervention and monitor progress. Thus, the design of surveys and research should start with the necessary study power to answer the questions for Māori, which presents challenges for area-based sampling frames. The principle of equal explanatory power recognises that the statistical and informational rights of indigenous peoples have equal or perhaps greater status than those of the numerically dominant population. Adopting this principle will influence how questions are framed, priorities are ranked, problems are defined and people participate in research on Māori. All these require setting the standard to centralise indigenous realities.

The right of Māori to recognition as a people, and not as a subgroup or socio-demographic variable, is pertinent to the way data are presented. In typical table presentations, survey results may be reported by sex, age group, ethnic group, income, deprivation or other variables, and findings for Māori are typically presented as a univariate result, maybe one line per table. This presentation of data does not support the status of Māori as indigenous people, but relegates Māori to minority status, or perhaps to just a socio-demographic variable. A more positive approach may be to make comparable Māori and non-Māori data available and accessible to monitor and evaluate the outcomes of Crown policy. Information on Māori must be reported in such a way that they are treated with respect and their wellbeing realistically reflected. This understanding provides a framework for policy design and resource allocation in addressing indigenous issues.