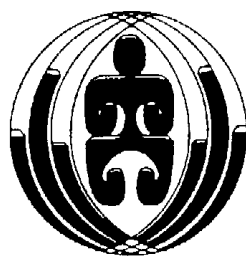


**POPULATION ASSOCIATION
OF
NEW ZEALAND**

Te Roopu Whaka Waihanga

Iwi O Aotearoa



NEWSLETTER

November 2011

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Note from the President

Tena koutou katoa

As I write this November note, we are barrelling towards the 2011 PANZ conference, to be held on 28 and 29 November in Auckland. I am excited about it and really do hope to see a lot of you there. This time around, we have organised some interesting elements to the two days, including two panel discussions involving guest speakers, a dedicated session on Canterbury following the earthquakes, a dedicated session on Future Population Statistics in New Zealand (by Statistics New Zealand), and a 'Pop'In 5' session – a chance for graduate students to showcase their work to a broad audience in five minutes or less.

Conferences are a collective effort and on behalf of the 2011 PANZ Conference organising committee, I would like to thank everyone who has put forward papers, who have agreed to participate in panels or as plenary speakers, those of you who have registered (and those of you who are about to) and of course the conference sponsors, namely Auckland Council, Auckland Uniservices Ltd, Statistics New Zealand and NIDEA.

I hope that you will come along to the conference dinner at the Fale Pasifika, a gorgeous venue in the University grounds. Oscar Kightley of *Sione's Wedding* and *BroTown* fame will be entertaining us after dinner.

I look forward to catching up with the rest of the Council at the conference, and am particularly keen to hear tales of high adventure and new learnings from some of our members who have been spending lengthy amounts of time overseas this year. For example, Michael Berry from Statistics NZ has been in Tokelau assisting the Tokelauan Government with managing their 2011 Census, and Ward Friesen has been busy on sabbatical, attending conferences and soaking up the atmosphere in China, India, and Indonesia for two months.

Once the conference is over, we will be again returning our efforts to the production of the *New Zealand Population Review*. We are already underway with Volume 37, this is expected to be finalised in the first quarter next year, and we will be putting a call out for papers for Volume 38 in the new year.

On that note, you may be interested to know that we are working to ensure that the *New Zealand Population Review* is available in ProQuest's flagship product ABI/INFORM, as of 2012. Council felt that this would bring benefits of increased journal citations and would provide an additional impetus for PANZ to publish in a timely fashion and for authors to submit to the journal.

And on that note I will sign off.

Kind regards
Alison Reid, President 2011–12

Note from the Editor

Welcome to the November 2011 issue of the PANZ newsletter.

Remember that contributions to the newsletter are welcome at any time. It provides an opportunity for members to share news and reports on research and activities. The newsletter also provides an opportunity to promote current and future work of you and your wider team(s).

Have you attended an interesting population-related workshop or conference? Read a useful population-related book? Or visited an interesting populated-related website? Drop us a note so we can publicise it among our members.

The next issue is scheduled for publishing in May 2012. Contributions, feedback and any enquiries regarding the newsletter should be addressed to the editor, Kim Dunstan: kim.dunstan@stats.govt.nz.

Similarly, members and others working in the field are encouraged to contribute articles to the Association's peer-reviewed **New Zealand Population Review**. Articles and any enquiries regarding the journal should be addressed to the journal's editors, Dr Ward Friesen: w.friesen@auckland.ac.nz and Dr Arvind Zodgekar: zodgekar@paradise.net.nz.

Kim Dunstan
Editor

PANZ Conference

New Zealand's demographic futures: Where to from here?

School of Engineering, University of Auckland, Symonds St
28 and 29 November 2011

Registrations are still open

It's not too late to attend. Simply register here: www.population.org.nz/?page_id=106

Draft timetable

Monday 28 November

8:30– 9:00	Coffee, tea and registration
9:00–11:00	Morning programme Welcomes Plenary sessions
11:00–11:30	Morning tea
11:30– 1:00	Concurrent sessions
1:00– 2:00	Lunch
2:00– 3:30	Concurrent sessions
3:30– 4:00	Afternoon tea
4:00– 5:15	Plenary panel and discussion New Zealand's demographic futures: challenges and opportunities
5:15– 6:30	Pre-dinner drinks
6:30–	Conference dinner

Tuesday 29 November

8:30– 9:00	Coffee, tea and registration
9:00–11:00	Morning programme PANZ presidential address Statistics New Zealand Jacoby Prize Plenary session
11:00–11:30	Morning tea
11:30– 1:00	Concurrent sessions
1:00– 2:00	Lunch
2:00– 3:00	Special session Future population statistics in New Zealand
3:00– 3:30	Afternoon tea
3:30– 4:00	Plenary panel and discussion Counting populations
4:00– 4:15	Wrap-up and conference conclusion

Draft list of papers (in chronological order)

Counting everyone in the country: US census and international comparisons
Wei Li

The demographic forces shaping New Zealand's future
Natalie Jackson

Drivers of Maori wellbeing: An investigation of the New Zealand General Social Survey
Desi Small-Rodriguez and Martin Wall

Maori and the potential collateral demographic dividend
Natalie Jackson

"Working for the river will lift the health of the people": Maori environmental community action and community health and wellbeing
Wendy Henwood, Remana Henwood, Hine Tohu, Irihapeti Morgan and Helen Moewaka Barnes

Theorising the global Maori diaspora
Tahu Kukutai, Manuhua Barcham and Jenine Cooper

Changing patterns of residential differentiation in Auckland
Charles Crothers and Ali Gale

Auckland's demographic futures
Alison Reid

Perceptions of sustainability in Auckland's residential housing market
Christoph Brodник

A demographic comparison of Auckland and Melbourne
Jamie Newell

Is working later our future? Older New Zealanders in the labour force
Mansoor Khawaja and Bill Boddington

Spreading the costs of an ageing population
Susan St John and Claire Dale

Policy on NZS age of eligibility: What longevity data is needed?
Alison O'Connell

Options for responding to the projected shortfall of carers in an ageing society
Peggy Koopman-Boyden and Patrick Barrett

Immigrant integration and social capital formation
Matthew Roskrige

Immigrants and electoral enrolment: do the numbers add up?
Anne Henderson

Demographic consequences of migration and social change: cross-cultural components
Yaghoob Foroutan

The Indian diaspora in New Zealand: Changing populations and community demographics, preliminary results
Todd Nachowitz

Are official demographic projections meeting the needs of users? Quantifying uncertainty using stochastic projections
Kim Dunstan

Victoria's small area population projections using improved lot-level data
David Sykes

Micro-level stratification: A sampling method to eliminate post survey weighting
Mathew Parackal, Sheryl Parackal and John Harraway

Approaches in activity classifications for time use surveys
Andrew Hancock

Inter-ethnic partnering: An analysis of new parents
Bill Boddington and Robert Didham

Far from WEIRD: Maori and Pacific fertility defies expectations
Robert Didham and Bill Boddington

The high costs of housing: investigating changes in rental affordability over time, using experimental measures based on census data
Rosemary Goodyear

Rural New Zealand transformed - changes in age composition 1981 to 2006
Jamie Newell

Measuring health and wellbeing in the Pacific
Ward Friesen

Health and mobility: the transnational story of one family and their experiences with tuberculosis
Evelyn Marsters

Diabetic retention in the national "Get Checked" programme: The case in Midlands Health Network
Janet Amey

The reporting of mental health outcomes in New Zealand
Sandra Baxendine

Demographers in the public sector: roles, skills and qualifications
Patrick Corr

New Zealand's demographic futures: challenges and opportunities
Panel discussion

Australia's demographic futures
Ross Barker

Maori gross national income, 1880s to 1945
Ian Pool and Shefali Pawar

Ambient temperature and birth sex ratios in New Zealand: Is there a relationship?
Diane Ormsby, J Haywood, P Lester and B Dixon

Use of alternative data sources in estimating subnational populations
Adele Quinn and Kim Dunstan

"A challenge to decency": An historical overview of crowding in New Zealand since 1921
Rosemary Goodyear

Where have all the students gone? Student movements following the 2010 and 2011 Canterbury earthquakes
David Johnston, Sarah Beaven and Thomas Wilson

Exploring the usefulness of cell phone data to inform emergency management
Deborah Potter and Kirsten Nissen

International migration to/from Christchurch after the earthquakes
Peter Lafferty

The Pacific in New Zealand's demographic future
Richard Bedford, Robert Didham and Graeme Hugo

Population policies in the Pacific Islands: Recent history and prospects for the future
Geoffrey Hayes

Ethnic counting in the Pacific, 1965 to 2010
Tahu Kukutai and Victor Thompson

Census taking in the Pacific – a case study of Tokelau
Michael Berry

Future censuses in New Zealand
Christine Bycroft and Susan Riddle

Future population statistics: meeting our current and future official information needs
Introduction of the draft Population Statistics Domain Plan
Andrea Blackburn, Deborah Potter and Robert Didham

Counting populations
Panel discussion

News from Statistics New Zealand

New 'Asian peoples' webpage

A new [Asian peoples](#) webpage contains information and links to statistics and publications relating to Asian ethnic groups in New Zealand. The wide range of resources is grouped under four headings: Information releases, Data, Reports and articles, and Information about data.

Included is a new set of profiles for Asian ethnic groups. This set of 48 tables provides a wide range of information from the 2006 Census for the broad Asian ethnic group overall, and for the eight largest Asian ethnic groups (Chinese, Indian, Korean, Filipino, Japanese, Sri Lankan, Cambodian, and Thai).

Where will you be on Tuesday, 5 March 2013?

Government Statistician Geoff Bascand has announced the date for the next census and says with well under two years to go, preparations are moving with a sense of urgency and excitement.

The Census of Population and Dwellings is a chance to find out a lot of information about who we are as a country, and where and how we live. The information people give is used by many groups to decide how to provide the things New Zealanders need, like hospitals, schools and roads.

The census is a national stocktake and underpins our democracy – where people live determines the areas politicians represent.

“The 2011 Census was deferred because of the February Christchurch earthquake. This makes the 2013 Census even more important because, people and organisations that rely on census information for their planning want the latest information possible,” Mr Bascand said.

“We’ve been working with these groups to identify other sources of information to help meet their needs until the next census. But we are aware of a keener interest than ever from government, business, and communities for Statistics NZ to run a very successful 2013 Census.

“I am very confident that we can meet those expectations.”

2011 Tokelau Census

New Zealand has a special constitutional relationship with Tokelau. As a result, New Zealand has an obligation to support economic and social development in Tokelau.

To facilitate this development, the Ministry of Foreign Affairs and Trade has established an administrative assistance programme. This programme is designed to coordinate a whole of government approach to assistance delivery to Tokelau. An important part of this programme is ensuring there is regular and accurate statistical information about both the social and economic aspects of Tokelau.

Following on from its close involvement with the 2006 Census, Statistics NZ helped with the planning, management, and operation of the 2011 Census. This included sending two census staff, including PANZ Council member Michael Berry, to Tokelau to help prepare for and manage census day.

On Tuesday, 18 October 2011, in the midst of a national emergency caused by a shortage of fresh water, Tokelau successfully held its five-yearly population census, revealing a provisional census night population count of 1,205. This is an increase of 5 percent over the 2006 census night population count of 1,151 people.

The largest growth was recorded in Fakaofu, one of Tokelau's three atolls, where the census night population has provisionally increased by 19 percent to 486. More results are available from [Provisional count: 2011 Tokelau census night population](#).

"The census is very important to Tokelau and New Zealand, to help with planning and development," 2011 Tokelau Census manager, Kele Lui, said. "It is situations like the water shortage where having accurate information is vital."

A count of people who usually live in Tokelau will be released in December 2011. Data use and dissemination workshops will be conducted in Tokelau in 2012.

Niue and Cook Islands censuses

Statistics NZ is also supporting the 2011 Niue Census, which has just been held. A senior analyst has just returned home after helping out with the interviewer training, interviewing the visitor population, and helping to prepare for processing. The Cook Islands are also gearing up for their census. The Cook Islands are considering scanning for the first time and Statistics NZ is providing advice on questionnaire design.

Earthquake Information Portal

Information and links continue to be added to the New Zealand [earthquake information portal](#). It catalogues statistical data and reports, from Statistics NZ and other agencies, which may be useful following the 22 February 2011 earthquake in Christchurch.

Statistics NZ is hosting the portal with the aim to:

- increase awareness of what data is available
- reduce duplication in data collection, analysis and research
- help inform current and future work being undertaken.

It is a resource that will continue to grow over time. The page is updated regularly and contributions are welcome. To submit content or a link, please email earthquakedata@stats.govt.nz.

What do electoral enrolments, driver licence registrations, and sales of toothpaste have in common?

All these data sources have been proposed as ways of estimating local populations. In a recently released paper, [Evaluation of alternative data sources for population estimates](#), some 20 different administrative and commercial data sources are evaluated for their utility to inform official population estimates.

The data sources vary considerably in what or who they measure, compared with estimates of the 'resident population'. Nonetheless, some of the administrative data sources are already being used, either directly or indirectly. Other data sources have potential. Investigating alternative data sources has been given recent impetus by the Canterbury earthquakes and changes to the frequency and timing of the Census of Population and Dwellings.

Estimating local populations after the 2010/11 Canterbury earthquakes

[This paper](#) outlines the different data sources used to produce annual subnational population estimates following the 2010/11 Canterbury earthquakes. The target population and coverage of these data sources is invariably different to that of the 'resident' population being estimated. However, collectively, the different sources provide confidence about the general robustness of population estimates, and some offer potential for ongoing use.

Christchurch's population decreases 2.4 percent

The first official estimate of population change in Christchurch city, and across New Zealand's subnational areas, since the Canterbury earthquakes began, was released on 25 October. The estimates indicate that 10,600 more people left Christchurch than arrived in the June 2011 year. Births exceeded deaths by 1,700, resulting in a population loss of 8,900 or 2.4 percent. The decline was even more pronounced among children and younger adults.

The [information release](#) notes that a 22 percent increase in departures from New Zealand to 80,100 in the June 2011 year, dampened population growth overall. However, the relocation of people from earthquake-affected areas boosted population growth, notably in the South Island. The fastest growing territorial authority areas were Selwyn, Queenstown-Lakes, Ashburton, Waimakariri, and Hurunui districts.

Latest demographic projections

	Last release	Next release	
National projections			
National population	Oct 2009		
National ethnic population	Apr 2010		
National labour force	May 2010		
National family and household	Jul 2010	Dates in 2012–15 to be confirmed	
Subnational projections			
Subnational population	Feb 2010		
Area unit population	Feb–Sep 2010		
Subnational ethnic population	Sep 2010		
Subnational family and household	Dec 2010		

Information about all of these projections is available from www.stats.govt.nz/estimates-projections. That webpage also contains links to the latest estimates (national, subnational, Māori, dwelling and household) and related information including:

- Moving age-sex pyramids
- Local population trends (graphs and tables)
- Accuracy of recent population projections
- Other related papers.

For more information, email demography@stats.govt.nz or phone toll-free 0508 525 525.

Population estimates using Bayesian methods

Statistics NZ Senior Researcher, John Bryant, is working with Patrick Graham, of Bayesian Research, on new methods for constructing subnational population estimates and projections. The new methods are similar to those used by statistical ecologists, but on a much bigger scale. Although this is a medium to long term project, it will hopefully allow greater automation, and make it easier to exploit administrative data.

2010 General Social Survey

The first release of data from the 2010 New Zealand General Social Survey (NZGSS) was on 1 November. The two-yearly survey provides information on the well-being of New Zealanders aged 15 years and over. The survey was first run in 2008. A confidentialised unit record file (CURF) will also be available for data users on 1 December.

The NZGSS covers a wide range of social and economic outcomes, and shows how different sub-population groups are faring. This information includes the circumstances of New Zealanders, as well as their assessment of different aspects of their lives. For more information about the survey and its content, see the latest [information release](#) or the [GSS webpage](#).

News from Australian Bureau of Statistics (ABS)

Forecasting births

The [Australian Census Analytic Program: Forecasting Births, 2006](#) (cat. no. 2051.0) article was released on 21 July 2011. The authors of this paper are Professor Peter McDonald (Director, Australian Demographic and Social Research Institute, Australian National University) and Dr. Rebecca Kippen (Future Fellow, Centre for Health and Society, University of Melbourne).

The paper describes a new methodology for the estimation of the future number of births by increasing the number of demographic parameters incorporated in the estimation model. Using data from Australian Censuses of Population and Housing (1981 to 2006), the authors demonstrate the increased accuracy gained in the short-term projection of births through the inclusion of parameters such as the timing of first birth, parity, and duration since previous birth to the conventional model which uses mother's age only. This analysis was undertaken as part of the 2001 and 2006 Australian Census Analytic Program (ACAP).

Releases

Demography Releases

[Overseas Arrivals and Departures, Australia](#) (cat. no. 3401.0)

[Migration, Australia, 2009-10](#) (cat. no. 3412.0)

[Australian Demographic Statistics](#) (cat. no. 3101.0)

[Population by Age and Sex, Australian States and Territories](#) (cat. no. 3201.0)

[Population by Age and Sex, Regions of Australia, 2010](#) (cat. no. 3235.0)

[Regional Population Growth](#) (cat. no. 3218.0)

[Births, Australia, 2010](#) (cat. no. 3301.0)

[Deaths, Australia, 2010](#) (cat. no. 3302.0)

Other Releases

[Australian Social Trends](#) (cat. no. 4102.0)

[Migrant Data Matrices, June 2011](#) (cat. no. 3415.0)

[Information Paper: Measuring Net Undercount in the 2011 Population Census](#) (cat. no. 2940.0.55.001)

Contact Us

The ABS Demography team can be contacted by emailing demography@abs.gov.au.

For general statistical and other enquiries, please contact the National Information and Referral Service on 1300 135 070, or email client.services@abs.gov.au.

News from Australian Population Association (APA)

www.apa.org.au

Passing of People and Place

After 18 years, the recent Volume 18, Number 4, of *People and Place* was its last. The journal is well known and respected in Australia for its contribution to public debate. It frequently carried content describing research on aspects of Australia's demographic landscape. As the editors, Katherine Betts and Bob Birrell noted in their final editorial, "Since its inception it has played a significant role in providing information, analysis and policy advice based upon careful data analysis. This has contributed to wide-ranging reforms in the fields of immigration, education, health and urban policy. A major focus has been on Australia's population and its size, growth and distribution."

The contribution of *People and Place* to public debate on population issues in Australia was highlighted in *The Age* (Geoff Maslen, 8 February 2011, Devil in the Detail); "...the magazine and its unassuming publisher have generated more heated discussions about immigration and other hot-button issues than any similar venture in the country." Former Monash vice-chancellor Professor Peter Darvall was quoted in the article saying, "New issues of *People and Place* are keenly anticipated by policy-makers and the media since the articles are impeccably researched and the conclusions carefully drawn."

It is vital that similar quality research, addressing issues of relevance to Australia, can find an alternative outlet. For example, the current interest being shown by both the Federal Government and the public in all aspects of population growth should encourage demographers to publish their research. The public debate to date has been characterised by poorly understood concepts and a lack of fundamental demographic knowledge.

Here is an opportunity (indeed some might say a responsibility) for demographers to produce relevant, focused and thought-provoking research that can shed some scholarly light into the existing over-heated, highly emotive and polarised discussion about Australia's population future. Such research, research that is vital to Australia's future, must find an effective means of dissemination and ideally a voice as influential as *People and Place* has been.

Alison Taylor

Conference report

Australia 2050: Population Challenges to Sustainability

Australia 2050: Population Challenges to Sustainability was the title of the 2011 Australian Academy of Science Annual Symposium held at the Shine Dome, Canberra, on 6 May 2011. In response to the recent groundswell of public interest in Australia's population future, the symposium sought to articulate the scientific basis upon which a sustainable population for Australia should be determined. Eminent speakers included the former UK Chief Scientist Professor Lord May, 2011 Australian of the Year Simon McKeon, Professor Tim Flannery, Professor Graeme Hugo, and Sir Peter Gluckman, Chief Scientist of New Zealand.

Speakers traversed a range of topics including trends in global population growth (Professor Lord May), the relationship between population and economic growth in Australia (Simon McKeon), an optimum population for Australia and the mechanisms by which it could be achieved (Professor Flannery), Australia's population growth and outlook (Professor Graeme Hugo) and the connections between demography and human health (Sir Peter Gluckman). The nexus between population and the environment was also discussed, with speakers offering their perspectives on such topics as population and water sustainability, the reduction of Australia's carbon footprint and shifts towards sustainable urban forms.

Video and audio versions of all presentations can be accessed at the Australian Academy of Science website:

www.science.org.au/events/sats/sats2011/symposium.html

Elin Charles-Edwards

Australian Institute of Health and Welfare

The Population Health unit (www.aihw.gov.au/population-health/) at the Institute provides information on understanding health and disease in the community, and provides advice on improving the health and well-being of population groups and diseases when disparities are evident.

Some recent releases include:

- [The use of health services among Australians with disability](#)
- [The health of Australia's males](#)
- [Life expectancy and mortality of Aboriginal and Torres Strait Islander people](#)
- [Comparing life expectancy of indigenous people in Australia, New Zealand, Canada and the United States: conceptual, methodological and data issues](#)
- [Older Aboriginal and Torres Strait Islander people](#)

News from British Society of Population Studies (BSPS)

www.bsps.org.uk

Stronger links with PANZ

PANZ and BSPS have agreed to strengthen links with each other. As Ludi Simpson, University of Manchester, and President BSPS 2011–13, observes, “since there are no links that I am aware of at the moment, that should not be a hard task! There will be many personal links, through those who have attended BSPS events, and through migration of demographers between our countries.”

Initial plans include promoting our respective conferences to each other’s members (eg via our regular newsletters). BSPS activities between conferences include public meetings on issues of statistical or social policy with a major demographic element. An international or other national perspective is always useful.

Another possibility is to organise meetings around visits of PANZ/BSPS experts in their fields. And it may be that we can simply put members in contact with others of similar demographic interests, whether or not they are visiting the UK/New Zealand.

Similar objectives to PANZ

BSPS is a non-profit society of people with a scientific interest in the study of human populations. BSPS was founded in 1973, but originated in the 1960s.

Its main objectives are to further the scientific study of biological, economic, historical, medical, social and other disciplines connected with human populations and to contribute to the public awareness of them. BSPS provides a forum for discussion of these issues and is a vehicle for the interchange of ideas. It provides facilities for study and research and for the exchange and dissemination of information.

In order to fulfil its objectives, BSPS organises various events: half-day and day meetings, occasional workshops and an annual conference. BSPS produces a newsletter at least four times a year, and an occasional register of members’ interests.

Upcoming BSPS event

Professor Bob Woods, FBA, John Rankin Professor of Geography in the University of Liverpool and a Past President of BSPS, died in February 2011. In Memorial to Bob’s work, just after the first anniversary of his death, BSPS is sponsoring a Memorial Symposium. This will be held in the Foresight Centre of the University of Liverpool, from 2.30pm on Friday 8 March, to 4pm on Saturday 10 March, 2012.

The programme will comprise five two-hour sessions focusing on the following key aspects of Bob's contribution:

1. Global Demography (key speaker: Tim Dyson)
2. Population modelling (key speaker: Phil Rees)
3. Historical Demography (key speaker: Tony Wrigley)
4. Fetal, infant and childhood mortality (key speaker: tba)
5. Demography and medical history (key speaker: Frans van Poppel)

It is hoped that the overviews of the keynote speakers will then be supplemented by contributions in each session by colleagues, friends and former students reviewing and developing Bob's ideas and findings.

News from Monitoring and Evaluation Research Associates (MERA)

The last 18 months has seen a lot of effort go into a few areas of work. The MERA base has also just shifted from the Kapiti Coast to a larger home office in Churton Park, Wellington.

Local demographic modelling

Much of the work has been on local population and employment estimates, projections and scenarios, and associated modelling of service implications. With a gap to the next census, now in 2013, the challenge was to integrate official statistics (international travel and migration, births, labour market indicators, census data, annual population estimates, projection assumptions) and administrative data to determine the most recent trends since the last census.

As with many contract research projects, the outputs were either in the form of internal reports or results, which for various operational reasons are not for public release. Nevertheless, I am hoping to release some key results in the form of MERA working papers – although this is not part of the funding or brief for the work.

One study was on the property needs of schools in a large area of west central Auckland. The second study was on operational models of population, household and employment for the Kapiti Coast district, taking into account some possible scenarios of the effects of the expressway development on the district.

The school rolls and capacity study highlighted how the upswing in births in 2007–11 – the largest number for many decades – was putting pressure locally on some early childhood and school accommodation. It also showed how much can be achieved by integrating administrative data on school enrolments with Statistics NZ population estimates, projections and other official statistics to better inform local service and infrastructure planning.

Following on from this, we engaged in a very intensive and detailed synthesis of administrative data (including a rates/property derived layer built from council administrative and GIS data), official statistics on the labour market, business demography, census data, population estimates, and projection assumptions to build a scenario-based approach to modelling at meshblock and sub-meshblock level, tweaking the projection assumptions to the 2010 estimated resident population.

On this experience, it is clear that we can do a lot by making better use of administrative data and official statistics other than the census, but they are not a replacement for a census but are best used as an extension to supplement what can be derived from a census.

Labour market sub-catchments

This is an extension of work on the concept of “labour market sub-catchments” (previously reported in the May 2010 PANZ newsletter) as a spatial framework for analysing and understanding the structural dynamics of major urban areas. In 2010 we developed a labour market sub-catchment classification and applied it experimentally to Auckland (corresponding roughly to the new Auckland Council boundaries). Earlier work on a “labour market catchments” spatial framework for Australia was initiated to help the Australian Bureau of Statistics develop a new spatial “labour force regional” (SA4) layer to the now recently released ASGS 2011 standard in use for the 2011 Australian census.

In early 2011, we adapted the methodology to classify the Melbourne Statistical Division into labour market sub-catchments. There were some particular technical headaches associated with applying the method to the available Melbourne travel to work matrix from the 2006 Census. However, the method with some refinements worked well in the end and we also compared it with recent results for the same area using a different methodology. Our method replicated results from the other work but appeared capable of identifying more detail than the previous work. The report to the Victoria State Government has not yet been approved for public release, but some of the results will be included in a comparison of the internal distribution of jobs and population within Auckland and Melbourne in a presentation to the 2011 PANZ conference. One of the reasons for taking this approach was to have a standard method for comparing the structures and internal development processes of different cities in Australia and New Zealand and potentially in other countries.

Ageing of rural populations

The final interesting piece of work was a detailed analysis of the trends in population and the labour market for rural New Zealand, by region and for selected case study communities, during 1981–2011. This updates some of the work carried out by MERA in the early 1990s and released as a series of publications for MAF. This recent work was carried out for the University of Otago working on contract to MAF.

One of the many interesting findings was a major shift in the population age composition of rural New Zealand, sustained by some shifts in the migration patterns for particular age groups. While rural New Zealand has continued to grow at a rate only slightly slower than urban New Zealand, the age composition of rural New Zealand has diverged from that of urban New Zealand. Of particular importance for New Zealand’s agricultural sector has been the rapid drop in the proportion of rural residents aged in their 20s, once an important part of the agricultural labour force.

Ageing of rural populations is something to be seen in the context of the large population flows to and from rural New Zealand. Some of these results will be presented at the 2011 PANZ conference and hopefully as a working paper.

James Newell

World population reaches 7 billion

The United Nations Population Division designated 31 October 2011 as the day that the world's population reached 7 billion. That's 7,000,000,000 people.

The UNFPA has launched the **7 Billion Actions** Campaign. This will engage people on what it means to live in a world with 7 billion people and encourage action on issues that affect us all. The campaign can be found at www.7billionactions.org/.

The National Geographic magazine also has a series of issues on the world's population. Each issue of the magazine during 2011 has a different slant on population, looking at demographics, food security, climate change and so on. There are also some stunning photos and a good video graphic about the event: <http://ngm.nationalgeographic.com/7-billion>

According to the UN and its 'World Population Prospects: The 2010 Revision' released in May 2011, the world population is expected to keep on rising during the 21st century, although its growth is projected to experience a marked deceleration during the second half of the century. The various billion milestones under their medium fertility scenario are:

Milestone	Year	Years since previous billion (calculated from precise dates)
1 billion	1804	
2 billion	1927	123
3 billion	1959	32
4 billion	1974	15
5 billion	1987	13
6 billion	1998	12
7 billion	2011	13
8 billion	2025	14
9 billion	2043	18
10 billion	2083	40

The UN population projections and other population data are available at www.unpopulation.org.

Interested to know where you fit into this story of human life? Fill in your date of birth here to find out! www.bbc.co.uk/news/world-15391515

Applied Demography Toolbox

The Applied Demography Toolbox is a website which hosts, or has links to, a variety of spreadsheets, program code, teaching software, and datasets for applied demographic analysis. Created by Eddie Hunsinger, a demographer with the Alaskan State Government, the website is based on the philosophy that sharing program code, spreadsheets, and similar items is beneficial for both the producers and users of these files. The website can be found at www.demog.berkeley.edu/~eddieh/toolbox.html.

As an aside, this notion of sharing 'working code' is neatly espoused in this Nature opinion piece:

www.nature.com/news/2010/101013/full/467753a.html

and further information can be found here:

<http://sciencecodemanifesto.org/about>

Some of the website resources require fairly high-level knowledge (eg code for the R statistical package) while others are user-friendly point-and-click programs. Available for downloading are things such as:

- spreadsheet for producing cohort-component population projections
- R code for iterative proportional fitting
- spreadsheet for calculating the median age of a population
- SAS code for calculating the error measure MAPE-R.

There are links to software and datasets hosted on other sites such as:

- Rob Hyndman's demography package for R
- spreadsheet template for calculating life tables
- NIDI's POPTrain Europe program
- A program for fitting the Lee-Carter mortality forecasting model.

The value of the website is the availability of spreadsheets and software not available elsewhere, as well as the inclusion of links to tools maintained elsewhere.

Other New Zealand Publications, Papers and Resources

National Institute of Demographic and Economic Analysis (NIDEA), University of Waikato (www.waikato.ac.nz/nidea)

Department of Labour (www.dol.govt.nz/News/recentpublications.asp)

Ministry of Education (www.educationcounts.govt.nz)

Ministry of Health (www.moh.govt.nz/publicationsbydate)

Ministry of Social Development (MSD) (www.msd.govt.nz/about-msd-and-our-work/work-programmes/social-research/index.html)

Royal Society of New Zealand (www.royalsociety.org.nz)

Asia New Zealand Foundation (www.asianz.org.nz/our-work/knowledge-research)

Institute of Policy Studies, Victoria University (www.ips.ac.nz)

Centre for Applied Cross-Cultural Research, Victoria University
(www.victoria.ac.nz/cacr)

EEO Trust (www.eeotrust.org.nz/research)

Forthcoming Conferences, Meetings and Events

2011

28–29 Nov **Population Association of New Zealand
Auckland**
www.population.org.nz

2012

8–10 January Applied Demography Conference
San Antonio
<http://idser.utsa.edu/ADC/2012/Index.aspx>

3–5 May Population Association of America
San Francisco
www.populationassociation.org/sidebar/annual-meeting/

5–8 June Demographic Analysis and Research International Conference
Crete
www.smta.net/demographics2012.html

13–16 June European Population Conference
Stockholm
www.epc2012.se

27–29 June International Conference on Population and Development
Paris
www.waset.org/conferences/2012/paris/icpd/

1–4 August International Sociological Association Forum
Buenos Aires
www.isa-sociology.org/buenos-aires-2012/rc/rc.php?n=RC41

26–29 August Asian Population Association Conference
Bangkok
www.ipsr.mahidol.ac.th/ipsr-th/apa_conference/apa_conference_home.html

26–30 August International Geographical Congress
Cologne
<https://igc2012.org/frontend/index.php?sub=12>

10–12 September British Society for Population Studies
University of Nottingham (Jubilee campus)
www2.lse.ac.uk/socialPolicy/BSPS/annualConference/Home.aspx

December Australian Population Association Conference
Melbourne
www.apa.org.au

2013

11–13 April Population Association of America
New Orleans
www.populationassociation.org/sidebar/annual-meeting/past-future/

26–31 August IUSSP International Population Conference
Busan, South Korea
www.iussp.org/busan2013/index.php

Useful websites for information on other population-related conferences and events:

- International Union for the Scientific Study of Population www.iussp.org
- British Society for Population Studies www.bsps.org.uk
- European Association for Population Studies
www.eaps.nl/index.php?q=scientific-activities/european-population-conferences
- International Metropolis Project www.metropolis2010.org
- Conferences in USA www.bgsu.edu/organizations/cfdr/page36287.html

PANZ Officers and Council Members 2011–12

The day-to-day affairs of the Association are conducted by the members of the Council, who come from various parts of New Zealand, and work within a variety of organisations dealing with population issues. Recent councils have comprised individuals working in central government departments, various departments within universities, district health boards, and local and regional councils.

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PANZ Membership

Existing members:

A reminder to pay your annual subscription if you haven't already. If unsure of your financial status, you can check by contacting the Treasurer.

New members are very welcome.

Membership provides:

- Subscription to the Association's publications, including the *New Zealand Population Review*
- Access to a network of individuals and organisations interested and active in population matters
- Opportunity to contribute and participate in the Association's activities, including a biennial conference (the next in 2011).

Membership fees (for the year ended 31 March 2012):

Ordinary Member	\$45.00
Associate Member (students and unwaged)	\$20.00
Publication Member (libraries & other organisations within NZ)	\$65.00
Publication Member (libraries & other organisations overseas)	\$100.00
Corporate Member	\$100.00

To Join:

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Signature	
& Date	

New Zealand Demographic Indicators

Indicator	2009	2010	2011
Estimated resident population at 30 June			
Male	2,117,500	2,144,600	2,164,600 P
Female	2,198,300	2,223,200	2,240,600 P
Total	4,315,800	4,367,800	4,405,300 P
Under 15 years (number)	891,200	894,500	894,600 P
Under 15 years (percent)	20.7	20.5	20.3 P
15–64 years (number)	2,872,000	2,904,200	2,923,700 P
15–64 years (percent)	66.5	66.5	66.4 P
15–39 years (number)	1,484,600	1,496,600	1,499,000 P
15–39 years (percent)	34.4	34.3	34.0 P
40–64 years (number)	1,387,400	1,407,500	1,424,700 P
40–64 years (percent)	32.1	32.2	32.3 P
65+ years (number)	552,600	569,200	587,000 P
65+ years (percent)	12.8	13.0	13.3 P
Median age (years)	36.5	36.7	36.8 P
Sex ratio (males/100 females)	96.3	96.5	96.6 P
Annual growth rate (percent)	1.1	1.2	0.9 P
Vital and migration statistics, year ended 30 June⁽¹⁾			
Live births	62,964	64,121	62,659
Stillbirths	411	440	402
Nuptial births	32,431	32,831	32,400
Ex-nuptial births	30,533	31,290	30,259
Deaths	28,961	28,842	29,325
Natural increase	34,003	35,279	33,334
Permanent and long-term migration			
Arrivals	88,251	82,305	84,016
Departures	75,736	65,801	80,149
Net migration	12,515	16,504	3,867
Total passenger movements ⁽²⁾			
Arrivals	4,435,459	4,548,670	4,663,894
Departures	4,415,308	4,547,550	4,674,657
Demographic indices, year ended 30 June⁽¹⁾			
Crude birth rate (births per 1,000 mean population)	14.7	14.8	14.3 P
Total fertility rate (births per woman)	2.1	2.2	2.1 P
Crude death rate (deaths per 1,000 mean population)	6.7	6.6	6.7 P
Infant mortality rate (deaths under one year per 1,000 live births)	4.6	5.1	4.9
Median age of women having a baby (years) ⁽³⁾	29.9	30.0	29.9
Vital statistics, year ended 31 December⁽¹⁾			
Marriages	21,628	20,940	..
Divorces	8,737	8,874	..
Demographic indices, year ended 31 December⁽¹⁾			
Life expectancy at birth (years of life) ⁽⁴⁾			
Male	78.8
Female	82.7
Difference (female – male)	3.9
General marriage rate (marriages per 1,000 not-married population aged 16+ years)	13.2	12.5	..
Divorce rate (divorces per 1,000 existing marriages)	10.2	10.2	..
Median age at marriage (years)			
Male	32.2	32.1	..
Female	30.1	30.0	..
Median age at divorce (years)			
Male	44.9	45.1	..
Female	42.3	42.5	..

1. All data are based on the resident population concept and refer to events registered in New Zealand during the given period.

2. Includes the short-term (less than 12 months) movement of overseas and New Zealand residents, as well as permanent and long-term migration.

3. Based on live births.

4. Abridged period life table for 2008–10.

Note: Due to rounding, individual figures may not always sum to the stated total(s).

Symbol:

P provisional

.. not available

Source: Statistics New Zealand