THE IMPACTS OF OUR AGING POPULATION ON REGIONAL NEW ZEALAND

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KEYNOTE ADDRESS PRESENTED TO THE NEW ZEALAND POPULATION CONFERENCE HELD AT UNIVERSITY OF WAIKATO, HAMILTON, 29 JUNE 2015

The recent floods in Whanganui and Rangataiki have served as a stark reminder of the vulnerability of regional New Zealand. Early estimates of the cost of these floods put this at $120 million excluding costs to agriculture. The Government has initially promised a 60% subsidy to meet this damage although it is doubtful that this 60% relates to the $120 million figure but to a smaller more tangible one of damage to local physical infrastructure. The reality is that the recovery from the 2015 floods in Whanganui-Rangataiki will end up largely being the burden of Whanganui-Rangataiki in the same way as Christchurch is having to tax itself more heavily and privatise its public assets to pay the on-going bills from the 2010 and 2011 earthquakes. Christchurch may have the scale and resources to do this but it is by no means certain that the Whanganui and Rangataiki Districts do. As well this is the second historically significant flood in the region in just 11 eleven years.

Part of the problem for Whanganui and Rangataiki Districts is their demography. These communities are small in scale, somewhat scattered, relatively poor and aging quickly. The median age in 2014 in the Manawatu-Whanganui region was 39.0 years up from 36.6 years in 2006 while the proportion of the population aged over 65 has increased from 13.8% in 2004 to 17% in 2014. These ratios and aggregates are not exceptional across New Zealand's regions – some regions such as Northland and Nelson-Tasman-Marlborough are aging much faster although this is partly on account of migration.

Perhaps one of the biggest problems facing the Manawatu-Whanganui region, and many small regions like it, are forecasts of a rapidly aging population who most likely will find it more and more difficult to afford to pay for local infrastructure let alone the repairs to such infrastructure from storm damage. For example population forecasts from Statistics New Zealand suggest that the over 65's population in Manawatu-Whanganui will rise to over 27% of the local population by 2038 and the dependency ratio will increase from around 60% in 2014 to over 82% in 2038. This is on the back of a regional population which is expected to grow hardly at all – by around 7,000 people over the next 25 years through to 2038.

In a recent report on the funding and management of local council's infrastructure, the Auditor General offered the following warning.

Managing the funding and timing for infrastructure development in areas of growth is challenging. For most of the last hundred years, as a country, we have built for growth. Now, up to nine regions face declining forecasts. For places in these regions managing networked infrastructure services in conditions of economic and population decline while standard and service-level expectations increase might be more than challenging. Although New Zealand has seen population movements before, today's population and economic changes could present funding and infrastructure challenges with which we have little experience[i]

This paper attempts to flesh out this challenge a little more by looking at the challenges and opportunities which an aging population offers for New Zealand's smaller regions.

The fiscal implications of New Zealand's aging population

The aging of New Zealand society and the impact of the baby boomers on New Zealand's demographic structure scarcely needs reciting at a population conference. The fiscal implications of this aging are however not as well understood or appreciated especially by an aging electorate who might be inclined to not want to know.

In 2008, and just before his election as Prime Minister. John Key promised that *'National will retain all the superannuation entitlements and eligibility rules that our senior citizens currently enjoy. We will keep this pledge and I will resign as Prime Minister, and as a member of our Parliament, rather than break it'* [ii]. In a quiet but emphatic way he set the framework for inter-generational politics for his leadership term – however long this may be. Who knows if this move was based on a genuinely held conviction of some unwritten social contract which exists between generations or whether it was a shrewd electoral bet? It may have been both but the numbers are certainly working in Mr Key's favour.

In 2008, when Mr Key made this promise, the population aged over 55-years-old, and so most affected by retirement income policies, made up 31% of the voting-age population. At the end of his second term as Prime Minister, this proportion had risen to 34% and by 2021, it may exceed 38%[iii]. Furthermore, if we consider voter enrolment patterns and voting behaviour by age, its seems likely that more than 45% of the 2.4 million votes cast in the 2014 General Election were made by voters aged over 55 years old[iv]. While it would be simplistic and even cynical to suggest that entire cohorts of voters vote en-bloc on generational interests, it is easy to see why there are certain 'sacred cows' or more accurately 'no go areas' in electoral politics. Areas of policy where the status quo is comfortable even if it isn't sustainable. Such an area is that of the fiscal implications of an aging population.

At a national level this question of the fiscal implications of an aging population revolves around retirement income policy and health expenditures while at a regional or local level it rests on the affordability of Council rates and the ability of local rating bases to sustain local infrastructures. If we use a local lens these questions are of course inter-related in that retirement incomes partly determine the affordability of rates – especially in regions such as Manawatu-Whanganui where perhaps as many as 40% of the residential ratepayers by 2038 will be retired[v]. A further connection is around health budgets and within these the structure and location of these expenditures. Health spending which is increasingly concentrated in tertiary level hospitals clearly has a different distributional impact geographically than spending on programmes involving primary health care and home care.

All of this is important to public policy because we are unlikely to create useful and relevant public policy and programmes if we are not willing to acknowledge the proverbial elephant in the room. In this case this elephant is that of a generation of citizens who are now entering retirement and who have a set of entitlements and expectations which might limit what else our society can achieve simply because there are limited resources left after these entitlements and expectations are met.

The basic numbers were quite predictable, are well known and a little daunting. Table 1 presents some of these.

Table 1: Summary of population projections by age to 2038[vi]

At June	2006	2014	2018	2028	2038
Population aged under 15 years	889,400	911,100	921,300	928,300	949,500
Population aged 15 to 64 years	2,801,400	2,948,200	3,067,400	3,182,600	3,263,800
Population aged over 65 years	518,400	650,400	749,800	1,042,000	1,285,800
Population aged over 85 years	59,200	77,700	88,300	129,400	218,800
Proportion aged over 65	12.3%	14.4%	15.8%	20.2%	23.4%
Proportion aged over 85	1.4%	1.7%	1.9%	2.5%	4.0%
Dependency ratio[vii]	0.50	0.53	0.54	0.62	0.68

The first Baby Boomers began reaching retirement age in early 2011 and from this time until around 2033 the numbers of people aged over 65 will grow by more than 500 per week or 26,000 per year. This growth is expected to exceed 30,000 per year between 2023 and 2028. In comparison the working age population is forecast to grow by around 30,000 per year between 2014 and 2018 falling to 14,000 per year between 2018 and 2023 and to below 10,000 per year from then until 2038. In other words at the height of the Baby Boomers' retirement, the population aged over 65 will increase at three times the rate of the working age population.

The numbers and proportion of people aged over 85 years old is also reported in Table 1. This data is seen as being relevant on the assumption that the over 85's population is a good proxy for what might be termed the 'frail elderly' -those older people who require additional care. As can be seen on Table 1, this population is forecast to increase almost three-fold between 2014 and 2038.

Part of this growth in the elderly population is due to increasing life expectancies as shown in Figure 1 Figure 1 charts the progress in additional life expectancy at age 65. Essentially a person reaching 65 today can expect to have a retirement which is four to five years longer than their parents. Over the past 60 years life expectancy at age 65 has extended by five to six weeks per year. While such trends are no doubt built into population forecasts, such as those offered in Table 1, the expectation that life expectancy in old age will continue to extend at recent rates is perhaps one of the unanswered policy questions of the next 20 years. Clearly such extensions are possible with more sophisticated and often more expensive medical interventions but the unanswered and perhaps even unasked question is around the broader social value of such investments. As a society will we choose to invest resources into extending life through greater health spending especially on medical and pharmaceutical interventions or will we choose to spend our health dollars on reducing health inequalities perhaps through public health measures or targeted interventions to those with lower life expectancies?

Figure 1: Additional life expectancy at age 65 between 1952 and 2012

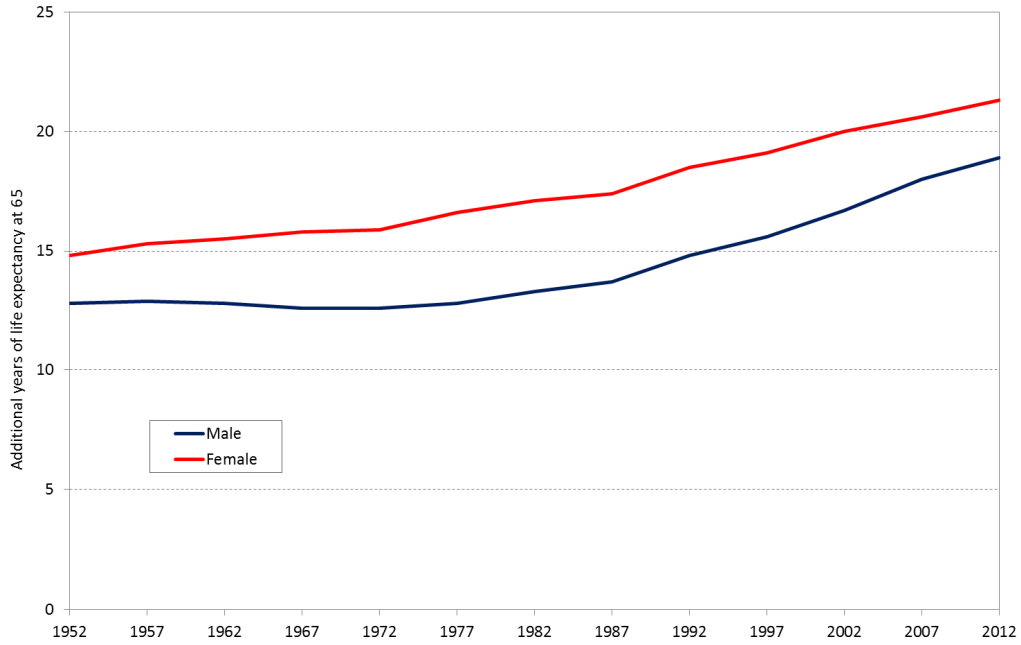


Table 2 summarises current and expected spending on tax funded retirement income programmes and puts this spending in the context of other welfare spending and overall spending by the Government**.** As was entirely predictable at the time Mr Key made his pre-election promise, spending on New Zealand Superannuation now dominates welfare spending and is becoming increasingly dominant in overall government spending. The cost of New Zealand Superannuation will increase by $400 to $500 million per year for the foreseeable future and this increase typically will represent more than 40% of all new Government spending once inflation is taken into account. This is the first part of the fiscal implications of an aging population.

Table 2: Cost of New Zealand Superannuation 2010 to 2019[viii]

$millions nominal	2010	2014	2015	2016	2017	2018	2019
New Zealand Superannuation	8,290	10,913	11,589	12,256	12,861	13,571	14,382
All benefits & pensions	18,961	21,187	21,699	22,492	23,263	24,069	25,034
Core Crown expenses	83,821	91,007	94,808	97,388	100,503	105,196	107,799
NZ Super as % of benefits	43.7%	51.5%	53.4%	54.5%	55.3%	56.4%	57.4%
NZ Super as % Core expenses	9.9%	12.0%	12.2%	12.6%	12.8%	12.9%	13.3%

The second obvious part of the fiscal implication is around additional health and support care costs. Here the evidence of the links between an aging population and increasing health costs is mixed and complex. A recent Treasury paper which has attempted to provide a basis for health expenditures forecasts suggests that aging only partly contributes to rising public spending on health[ix]. This paper suggests that much of the increase in health expenditures in the past has been due to rising expectations and cost pressures. Furthermore in forecasting future growth, Treasury expect that the pressure of an aging population will be partly offset by so-called 'healthy aging' whereby older people

spend much of their retirement in relatively good health and really only impose high demand on the health system at the very end of their lives.

There are however costs around personal and household support which might increase simply because the numbers of people requiring such services has increased. This support comes in two forms – home based support services or HBSS and residential care in older old age.

It is difficult determining the approximate costs of these services as they are generally funded through district health board budgets and not reported separately by them. From what limited information is available, it would appear that home-based support services reach about 40,000 -45,000 older people at an annual cost of around $250 million while residential care subsidies support around 20,000 people in rest homes and private hospitals at a cost of around $900 million annually[x]. As the population of over 65's and especially as the population of over 85's rise, we can expect a pro-rata increase in costs for both HBSS and residential care. The proviso here is of course that rationing rules do not become more stringent or that funding rules don't become more onerous. As shown in Table 1 the over 65's population is expected to increase 1.5 times between 2014 and 2038 while the over 85's population will grow 2.7 times. Should rationing and funding rules remain the same (which appears unlikely over a 25 year period) we should expect the costs of services to support people in these age groups to rise by a corresponding proportion. Feasibly the costs of home based care services could easily rise to $500 million annually (at today's $ values) over the next 25 years while the costs of residential care could easily exceed $2 billion annually (at today's value) even with less generous funding rules.

An aging workforce

A notable feature of the Baby Boomers as they reach retirement age is that they are not retiring. This trend is shown in Table 3 for the decade to the end of 2014. The number of people aged over 65 who are still working rose 1.4 times between 2005 and 2014 and the employment rates almost doubled to just under 20%. Some of this growth in employment is obviously due to the rapid growth in the population who have just reached retirement age - that is those aged between 65 and 70 years. There has however still been a structural shift in labour force participation – especially since the GFC, with more older people working longer.[xi]

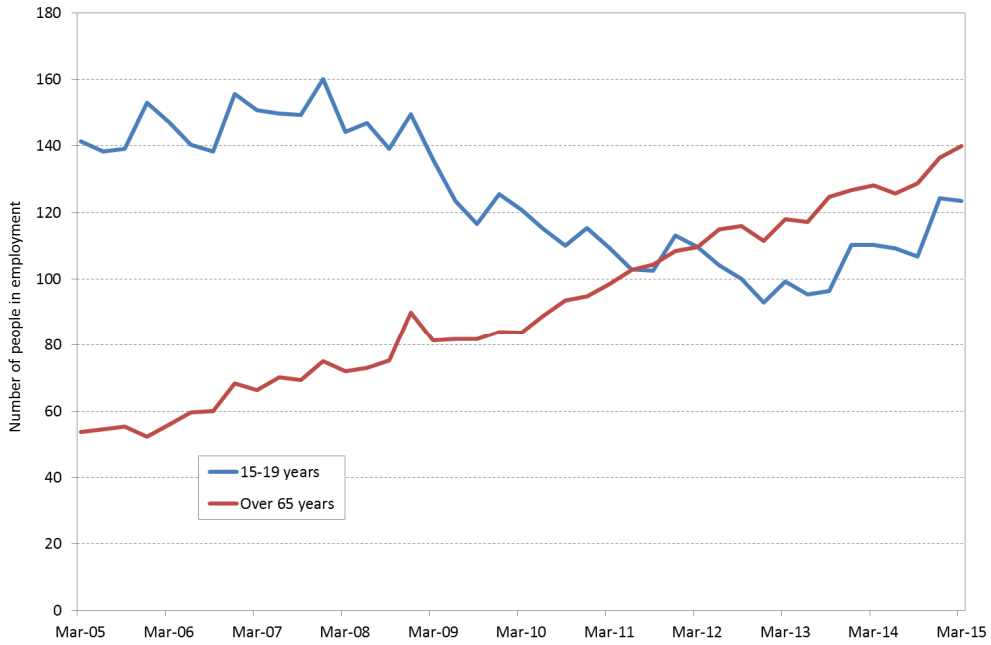
Table 3: Employment of over 65's - 2005 to 2014

December	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Over 65's employed[xii]	54.0	61.0	70.3	77.6	82.3	90.4	103.5	113.0	121.7	129.8
Over 65's population	504.0	518.4	530.7	541.3	555.1	572.0	591.5	614.6	638.8	662.4
Employment rate	10.7%	11.8%	13.2%	14.3%	14.8%	15.8%	17.5%	18.4%	19.1%	19.6%

To some extent this rising employment amongst those aged over 65 has crowded out the employment of those entering the workforce. Figure 2 compares estimates of total employment of 15 to 19 year olds and those aged over 65 years old on a quarterly basis for the last ten years. While it is not popular to suggest that older workers, who are also receiving the Superannuation, are keeping younger people out of work, the reality was that younger workers were worst affected in the post GFC recession and their position has only just started to recover. The exact dynamic for this process is difficult to

establish but it would seem that first time workers have failed to find a place in a tight labour market while at the same time older workers stayed on to their jobs in the face of economic uncertainty.

Figure 2: Employment of 15-19 year olds and over 65 year olds – 2005-2015



The recent recovery in employment has been concentrated in Auckland and Canterbury which have accounted for over two thirds of the 180,000 jobs created since the GFC. As a result most of the other regions in New Zealand have had minimal job growth since the GFC and five of the remaining 11 regions covered by this data have seen total job growth of less than 5% over the past eight years. It seems likely then that the youngest workers have remained the most disadvantaged in these regions as witnessed by regional NEET (Not in Employment Education or Training) rates which in 2015 were at or close to rates reported in 2007[xiii]. Such circumstances are of course an invitation for younger people to leave these regions in search of education, training and employment this making the aging trend worse.

The regional distribution of our aging population

The age structure of New Zealand's regions varies significantly with a general pattern being that urban regions are younger while other, often smaller regions are becoming centres of retirement. Between these extremes there are a few relatively small regions which are struggling economically and which are experiencing the continual exodus of younger adults alongside a stable population of older adults which is naturally aging. These dynamics are partially illustrated in Table 4 which reports changes both in the numbers of people aged over 65 years old and the proportion of the total population which is aged over 65.

During the period 2006 to 2014 and across New Zealand in total, the proportion of the population aged over 65 grew 3.3% from 12.2% to 15.5%. Urban regions have tended to have experienced age shifts slightly below this national average – Auckland's proportion of over 65's population grew by 3.1%,

Wellington's grew 2.9% and Canterbury's 2.4%. A number of other more rural regions also experienced a proportion shift in the population aged over 65 which was less than the national average. These include Taranaki at 2.8%, Otago 3.0% and Southland 2.5%. These later regions have not experienced exceptional growth in the numbers of children or young adults - which might otherwise have skewed these results, so it is fair to speculate that some local older people have migrated elsewhere.

On the receiving end of this migration are generally sunnier regions which often have less expensive housing. These regions include Northland where the proportion of the population aged over 65 rose 5.3% to 19.8%, Bay of Plenty and Hawkes Bay – both 4.1%, Tasman 6.5%, Nelson 5.5% and Marlborough 5.3%.

These patterns are also borne out in Table 5 which compares changes in the dependency ratio across regions. Here too urban regions have the lowest dependency ratios and have experienced the lowest rates of growth in these ratios. At the same time what might be called 'retirement regions' such as Northland, Hawkes Bay, Nelson, Tasman and Marlborough with already relatively high dependency ratios experienced the greatest growth – generally from 6 to 10 points.

Table 4: Regional populations aged over 65 years 2006-2014

	Number of people aged over 65 years			% of population aged over 65		
	2006	2013	2014	2006	2013	2014
Northland	22,100	28,900	30,200	14.5%	18.9%	19.8%
Auckland	134,000	169,800	177,200	9.8%	12.4%	12.9%
Waikato	48,900	61,600	64,200	12.4%	15.7%	16.3%
Bay of Plenty	39,200	48,200	50,200	14.8%	18.2%	18.9%
Gisborne	5,500	6,400	6,500	12.0%	13.9%	14.1%
Hawkes Bay	21,000	26,200	27,300	13.8%	17.2%	17.9%
Taranaki	15,900	18,200	18,900	14.8%	17.0%	17.6%
Manawatu-Wanganui	32,500	38,000	39,100	14.2%	16.6%	17.0%
Wellington	53,100	64,100	66,500	11.4%	13.7%	14.3%
Tasman	6,200	8,700	9,200	13.5%	19.0%	20.1%
Nelson	6,400	8,400	8,800	14.4%	19.0%	19.9%
Marlborough	7,100	9,100	9,400	16.3%	20.9%	21.6%
West Coast	4,500	5,300	5,500	14.0%	16.5%	17.1%
Canterbury	74,700	85,800	88,500	13.8%	15.9%	16.4%
Otago	27,500	32,400	33,600	13.8%	16.2%	16.8%
Southland	13,000	14,900	15,300	13.9%	16.0%	16.4%
New Zealand	511,600	626,000	650,400	12.2%	15.0%	15.5%

Table 5: Changes in dependency ratios 2006-2014

	2006	2013	2014	Change 2006-2014
Northland	60.2	65.7	66.8	6.6
Auckland	45.9	47.6	47.4	1.5
Waikato	53.8	57.0	57.3	3.5
Bay of Plenty	60.0	63.5	64.2	4.2
Gisborne	60.8	62.6	62.4	2.6
Hawkes Bay	57.6	62.4	63.7	6.1
Taranaki	57.1	59.3	59.9	2.8
Manawatu-Wanganui	55.5	58.7	59.3	3.8
Wellington	46.5	48.6	48.8	2.3
Tasman	53.2	60.5	62.0	8.8
Nelson	50.2	56.6	57.5	7.3
Marlborough	53.0	62.5	63.5	10.5
West Coast	52.1	54.2	55.5	3.4
Canterbury	49.8	51.6	51.4	2.6
Otago	45.3	48.8	49.3	4.6
Southland	53.8	56.6	57.2	3.4
New Zealand	50.3	52.8	53.0	2.7

This variable aging process appears to work in three ways
- younger adults migrating from one region to another for work, training or education,
- older adults migrating from one region to another for lifestyle reasons, retirement or cheaper housing,
- a higher concentration of older people staying where they are and just getting older.

Often these processes can work together to accelerate or slow down the 'aging' of region. The best example of this is between Northland and Auckland and these processes are illustrated in Figure 3. Figure 3 reports the proportion of the total population which is comprised in each five year age cohort in 2014. This is reported for Northland, Auckland and New Zealand. In some respects New Zealand is the hinge around which the fortunes of Northland and Auckland revolve. In both regions the proportion of the population in the 0 to 4, 5 to 9 and 10 to 14 cohorts are roughly the same at around 7%. For the 15 to 19 cohort things begin to change as 15 to 19 year olds leave Northland for Auckland. It appears that there is (or rather has been) further outward migrations of younger adults through to around 35 years old. At around 50 things even up although not for long as older adults leave Auckland for a quieter life in Northland where they remain until they die. As a proportion of the population more people die in Northland just because there are more old people there.

This narrative is of course a very simplistic representation of what has actually happened. For example young adults leaving Northland do not necessarily arrive in Auckland. Despite its simplicity, this narrative does illustrate the countervailing trends at work between small mainly rural regions and nearby large urban regions –one's loss is the other's gain.

Figure 3: Age distributions by region in 2014

It is possible to frame New Zealand's population shifts at a larger scale by combining regions and areas which appear to be facing a similar future. This allows the observer to overcome problems associated with the uncertainty attached to forecasts for regions with small populations and provides an opportunity to distil the most important trends. This consolidation of regions is done in Tables 6 and 7 where the 16 regions are regrouped into four sub-groups – Auckland, other major cities with populations over 100,000 people, the rest of the North Island and the rest of the South Island[xiv].

Table 6: Population projections of broadly defined regions 2013-2043

	2013	2043	Change 2013-2043	Share of NZ growth 2013-2043
Auckland	1,493,200	2,229,300	49%	62%
Other main cities	1,288,400	1,617,000	26%	27%
Provincial North Island	1,196,300	1,271,700	6%	6%
Provincial South Island	463,600	520,600	12%	5%
New Zealand	4,442,100	5,639,000	27%	

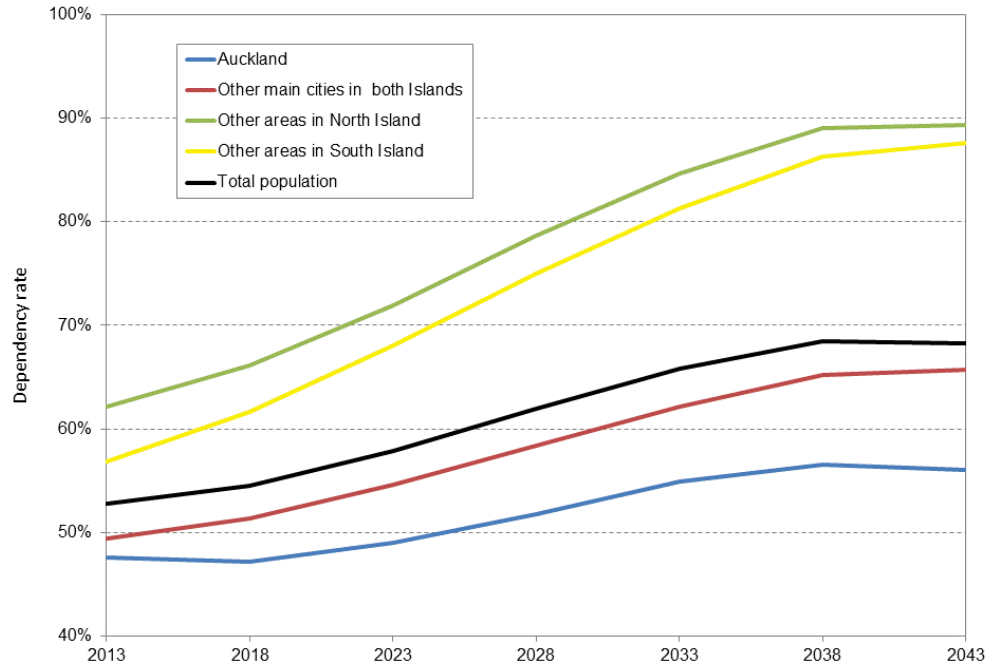
Table 7: Projections of over 65's population for broadly defined regions 2013-2043 [xv]

	2013	2043	Share of population 2013	Share of population 2043	Over 65's as share of growth 2013-2043
Auckland	169,800	425,400	11%	19%	38%
Other main cities	172,200	368,400	13%	23%	60%
Provincial North Island	199,900	374,200	17%	29%	231%
Provincial South Island	84,000	172,800	18%	33%	159%
New Zealand	625,900	1,340,800	14%	24%	60%

Two main things are apparent from the data offered in Tables 6 and 7. The first is how dominant Auckland is likely to be in New Zealand's future population growth – so much so that population growth in provincial towns and rural communities is almost inconsequential. The second thing to note from Table 7 is the dominance of older people in the population futures of provincial areas and even moderate sized cities.

This dominance is also illustrated in Figure 4 which maps changes in the dependency ratio for these broadly defined regions through to 2043. Figure 4 illustrates well the divergent paths which provincial New Zealand and Auckland are on. This divergence could be source of political tensions as discussed later.

Figure 4: Forecasted dependency ratios for broadly defined regions 2013-2043



Opportunities from the Third Age

It would be quite wrong to present older people as a problem and this could perhaps be the tenor interpreted in this paper so far. Increasing longevity along with good health in old age are valuable resources – not just for the individual but also for the communities they live in. The Treasury's observation of the expectation of good health in old age not only has fiscal value in terms of reducing demands on public health services, but also has value as an organising idea for how public policy, especially at a local level, might respond to challenges of a society which is aging unevenly.

Into the future around 40% of older people will live in small cities and provincial towns throughout New Zealand. These towns and cities will become somewhat dominated by older people not only because of their share of the local populations but also because their needs and interests might be some of the few growth opportunities for business and other services.

While many Baby Boomers have chosen to remain working, at some point, and probably as they turn 70, many will begin to retire fully. At such a time most retirees could expect a further ten years of life with good health and mobility although if there are some emerging limitations around New Zealand Superannuation they may not be as well off financially as they expected to be. Regardless, the resource of their time, skills and talents will be valuable and too good to waste. The challenge here is to provide the opportunities to marry this time and energy with the needs of younger generations. This challenge is made more demanding if older people are living apart from their families in 'retirement towns and regions' and particularly if they have shifted in on their retirement so perhaps are not as well connected locally.

Some potential for conflict

The data offered in Table 6 and 7 provides a stark indication of the divergent growth paths of Auckland and most of the rest of New Zealand. If this growth scenario proves accurate, it seems likely that Aucklanders will be younger, more diverse and probably better paid and wealthier than other New Zealanders. Aucklanders will however only make up 40% of the population so they will not be dominant politically even if an Auckland consensus could be established. Figure 4 however indicates the extent to which many parts of New Zealand, and especially sparsely settled provincial areas, will struggle to pay their way. Large swathes of New Zealand may become net recipients of tax dollars simply because there are not sufficient numbers of working age people living there to pay the taxes to support those who are not working. The demands of Auckland, especially around meeting the costs of growth, may have the potential for some conflict with those of other regions which are struggling to maintain public infrastructure and services.

Regions and communities with 40% of more of residential ratepayers reliant on New Zealand Superannuation will most likely struggle to sustain their physical and social infrastructure – especially if population growth is minimal. When these communities are rocked by shocks, such as the recent floods in Whanganui and Rangataiki, their financial capacity to recover may be quite limited.

Making the necessary adjustments in the way resources are allocated and public programmes funded is never easy especially in the face of long-established expectations and entrenched interests. Demographic pressure is however close to unassailable especially when such pressure is combined with economic circumstance such as income. This straightforward but by no means simple fact means

that demographers have a critical role in informing good public policy. To some extent we are moving into uncharted territory in New Zealand where we have communities which are not only aging quickly but are not growing. It will probably be the fine grain of the demographic picture which will prove the most useful in finding ways through this uncharted territory. Maintaining the health and wellbeing of older people will be an important part of any response and here the demographers' trade is likely to prove the most helpful.

Endnotes

[i] Office of Auditor General (2014) *Water and roads: funding and management challenges* p.6 Report available at http://www.oag.govt.nz/2014/assets/docs/water-and-roads.pdf

[ii] http://www.johnkey.co.nz/index.php?url=archives/498-NEWS-Economic-plan-Superannuitants-get-a-boost.html&serendipity%5Bcview%5D=linear

[iii] Based on Statistics New Zealand's median scenario population projection of 1.416 million population aged over 55 years against an over 18's population of 3.706 million

[iv] Older people are more likely to vote than younger people so the electoral weight of this growing over 55 age-group will be amplified. Political scientist, Professor Jack Vowles, suggests that at the 2011 Election, just over 50% of 18-year-olds who were enrolled actually voted, while about 82% of enrolled 60-year-olds did so – see Vowles, J. (2012) *Down, Down, Down: Turnout in New Zealand from 1946 to the 2011 Election;* Paper for presentation at the Annual conference of the New Zealand Political Studies Association, Wellington, November 25-27 2012 . The Electoral Commission reported just prior to the 2014 Election that 76.5% of 18 to 24-year-olds had enrolled to vote while 98.6% of 55 to 70-year-olds had p14. See report at http://www.elections.org.nz/research-statistics/enrolment-statistics-electorate

[v] The proportion of residential ratepayers who are retired will clearly depend on levels of homeownership amongst the elderly, the numbers of older people living with family or in rest homes as well as the occupancy rate of those living in private dwellings. At the time of the 2013 census there were 87,003 households in Manawatu-Whanganui of which 22,800 received the New Zealand Superannuation. Based on a realistic occupancy scenarios it seems that in 2013 20-25% of ratepayers were over 65 in 2013. In 2031 there were 38,000 people aged over 65 or just over 16% of the population. By 2038 there is forecast to be 65,000 people aged over 65 or over 27% of the population. This population of older people could represent 35-40% of the residential ratepayers of the region

[vi] This table is based on Statistics New Zealand's most recent population projections off a 2014 population base and using the median (50^{th} percentile) scenario.

[vii] The dependency ratio is the proportion of the population aged under 15 years old or over 65 years old to the population aged between 15 and 64 years old

[viii] This table is based on data taken from the New Zealand Government's budget publications including the Budget Economic and Fiscal Update and detailed appropriations for Social Development. Figures for 2016 and later are based on the 2015 Budget forecasts.

[ix] The Treasury (2012) *Health projections and policy options for the 2013 Long-term Fiscal Statement* Available at http://www.treasury.govt.nz/government/longterm/externalpanel/pdfs/ltfep-s4-01.pdf

[x] Estimates of home based support services are based on data provided in the Waitemata DHB's 2013/14 Annual Report on volumes of these services. Estimates of residential care subsidies are taken from the Regulatory Impact Statement of 2012 which reviewed the impacts of increasing asset thresholds applying to these subsidies. This statement is available on the Treasury's website.

[xi] Employment of over 65's compared with the size of the population aged 65 to 74 (those most likely to remain in employment) rose from 26% in 2007 to 28% in 2010 to 34% in 2014.

[xii] Employment data is from Statistics New Zealand's Household Labour Force Survey and figures are averaged

[xiii] See Household Labour Force Survey NEET data on Statistics New Zealand's Info data base at http://www.stats.govt.nz/infoshare/

[xiv] The 'major cities include Hamilton, Tauranga (including Western Bay of Plenty) urban Wellington (Wellington City, Hutt City, Upper Hutt City and Porirua City) Christchruch including Selwyn and Waimakariri Districts and Dunedin City. Parts of regions outside of these cities are included in the North or South Island aggregate.

[xv] Data source Statistics New Zealand NZ.Stat data base of subnational population projections and based on the 'medium' projection. Available at http://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE7517.