

He pēhea te āhua o te ahungarua mō te iwi Māori? What does retirement look like for Māori?

He rangahau poto o te āhua o ngā hihiritanga ā-hangapori hei hoahoa i te pānga ki te Māori o te kaupapahere moniwhiwhi ahungarua

A brief study of how demographic dynamics will shape the impact on Māori of retirement income policy

Len Cook¹ (30 June 2022)

What does retirement look like for Māori?

A brief study of how demographic dynamics will shape the impact on Māori of retirement income policy

Enabling Te Ara Ahunga Ora Retirement Commission to test the relevance and fit of retirement income policy for Māori 2020 - 2050

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What does retirement look like for Māori?

Te Mana Ahungarua, the Retirement Commissioner, has a statutory role under the New Zealand Superannuation and Retirement Income Act 2001 every three years to review the retirement income policies being implemented by the Government and to report to the Minister of Commerce and Consumer Affairs.

The Review of Retirement Income Policies 2022 (RRIP) terms of reference, issued by the Minister, includes a specific focus on Māori:

TOR2: The impact of government policy on the retirement savings outcomes and experiences of Māori as Treaty partners, and of Pacific Peoples and women.

In response Te Ara Ahunga Ora Retirement Commission developed a research project to find out what retirement looks like for Māori, taking a kaupapa Māori approach to this research. The work is designed to explore the role of the state in creating structural inequality and examine its impact on the journey to retirement.

A series of four papers form this project. They are:

- **Paper One:** Decolonising Public Policy: The Galaxy, The Gavel and The Gun, Dr Kathie Irwin (2022);
- Paper Two: Literature Review Dr Margaret Kempton (2022);
- Paper Three: A brief study of how demographic dynamics will shape the impact on Māori of retirement income policy Len Cook (2022);
- **Paper Four:** What the people said, about 'what retirement looks like for Māori', Dr Kathie Irwin and Erin Thompson (2022).

This demographic study is the third in the series.

The collective impact of this work is further discussed in the main RRIP report, delivered in December 2022.





Ngā Ihirangi

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Whakarāpopototanga Matua

Executive summary

As Māori become a larger share of the population, and contribute disproportionately to growth in the workforce, it will be time to openly recognise the distinct differences of Māori and determine whether they should influence any of the key parameters of the system of income provision in retirement. Despite the influence of population dynamics, income distribution and productivity on confidence in retirement income policy at a country-wide level, the very different position of Māori in these aspects has long been ignored.² While the changes in the age structure and mortality can be readily analysed and understood, other significant changes are not so readily quantifiable in simple measures.

When the Māori population is analysed as a distinct entity, the aspects of its demographic dynamics that differ greatly from the population at large, point to different policy preferences in many sectors of government. A significant share of Māori dies between ages 50 and 65, and so a larger share of Māori than the population at large therefore will have an active working life but not receive retirement benefits. After reaching age 65, Māori then die earlier than most in the following years. The combined effect of these two issues for each group of 1,000,00 births results in the average period for receiving NZ Superannuation of 12.8 years for Māori males, and 18.2 years for non-Māori males. This gap is similar for women. After reaching age 65, women on average live for 2.5 years longer than males in all groups.

Over the period to 2050, the Māori population will not only grow but will be an increasing share of the New Zealand population in every age group. Māori aged between 30 and 50 years will be one of the fastest growing age groups in New Zealand over this period (Figure 1). They will be an increasing share of the population of working age, with their impact on the labour market able to be increased by investment in education and health. They will be a significant source of unrealised productivity growth in New Zealand, given the legacy of disproportionately worse access to health and education when young. The potential effect of the changing age structure alone on the economic strength of the Māori population over time is crudely measured by the economic contribution ratio that I have calculated. This ratio shows that, compared to the non-Māori population, the increase in the share of the population aged 65 and over will be offset by growth in the population share in the conventional workforce ages, and strong growth at younger ages. The measure would gain from further refinement, so it can counter the limitations of simple dependency ratios that span all population groups whose needs vary greatly.

Another source of productivity gain, is that of the continuing employment of people aged 65 and over is already significant in New Zealand. There is a well-recognised involvement of kaumātua and kuia in whānau, hapū and marae activities, but the mortality of Māori prior to 65 reduces the potential share of any birth cohort available for this.

2 The one known exception to this was in 1938 when Treasury argued for lower benefit levels for Māori because their payrates were lower. A Civilised Community: A History of Social Security in New Zealand 1898-1998, Margaret McClure, Auckland University Press pages 79, 80

Te āhua o te kaupapahere moniwhiwhi ahungarua

I. The nature of retirement income policy

He whakarāpopototanga o te hitori me te hononga ki te Māori

A. Summary of history and connection to Māori

Retirement income policy is a key influence on determining how the resources accumulated by a population during its working life are reallocated by taxation, regulation, saving and welfare benefits. Fiscal constraints and varying policy perspectives result in retirement policy being a balance of ensuring the wellbeing of those who have retired, improving the productivity of the future workforce through health and education policies, and the welfare and education of the young. The share of the population of workforce age and in these other two stages is constantly changing, and in New Zealand the population age distribution and dynamics differs for each ethnic group.

Over the 20th century, neither the distinct demographic dynamism and life expectancy of Māori nor their comparatively weaker economic situation has usually been a consideration in determining retirement income policy. Neither overall demographic change nor ethnic population differences have played a key part in shaping retirement income policy, despite its significance.

The state provision of an age benefit was introduced in 1898, when Māori life expectancy was at its lowest. Since then, the form of public provision has evolved in reaction to inflation, fiscal constraints, market failure, and social attitudes and conditions. New Zealanders now are eligible for a significant but weakly connected mix of government support in retirement, founded on both public provision of a cash benefit and participation in a regulated saving scheme. The establishment of New Zealand Superannuation (National Superannuation) in 1977, and the later implementation of KiwiSaver in 2007 make up the New Zealand government's system of retirement provision. This is underpinned by the tax regime for the contributions, investment earnings and profit from recognised superannuation saving schemes introduced in the late 1980 (discussed in a later section).

The Retirement Commission³ notes "Retirement income systems not only redistribute funds but also pool risks. These risks include individual risks such as longevity, interruptions to working life, persistent poverty, and other factors that may result in inadequate private savings, and macroeconomic risks such as inflation or poor financial market performance." Differences in population age structures and age specific mortality rates mean that the outcomes of risk pooling are not necessarily equitable. Differences in life expectancy are discussed in detail later in the paper. Māori as a distinct group have a higher likelihood of dying during working life and will live for fewer years than non-Māori after reaching 65. Women live longer than men in all cultures, but generally have fewer opportunities than men to make adequate provision for this longer retirement. Poorer health outcomes for Māori can be seen in their higher death rates at ages 55-64 in the decade before NZ Superannuation eligibility, and the period after when 65-69. (See Appendix: Māori Mortality Analysis)

The role of the state in retirement provision and its funding has a significant influence on the lifestyle, working life and family arrangements of all except the most well-off. For much of their lives, most people defer some consumption to build up some form of retirement provision. All this has intangible and unintended consequences on attitudes to work, saving, family and housing. Personal investments during the working life take many forms, from

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³ Te Ara Ahunga Ora Policy Papers 02/2021. New Zealand retirement income policies and how they compare within the OECD. Page 6

maintaining good health, education and training to build up skills and the tools to use them, the acquisition of household durables, home ownership and family and community networks and exchanges.

Policy initiatives that have their prime focus on increasing savings may have the opposite effect on these other personal investments. Shifts in education, skills and health, home ownership and household durables reflect the working life accumulation of wealth that is of direct relevance to attaining the level of consumption needed individually and collectively to meet a desired standard of living after retirement. Because financial saving may be a small part of accumulated wealth, it alone is not a sufficiently broad focus for policies which seek to influence a much wider need for wealth creation out of deferred consumption.

Te raraunga me te tākoha tonu o te hunga ahungarua

B. Citizenship and the continuing contribution of the retired

The Royal Commission on Social Policy (RCSP, 1988) judged NZ Superannuation to be the central anchor of retirement provision, paid in recognition of the continuing contribution to society of older people who were no longer in paid employment. This assessment was informed by the huge voluntary activities of the retired generally, and the special part of older people in society and institutions of Māori and other cultures. This is a much stronger purpose than the protection from poverty in old age which was the purpose of the first old age pensions introduced in 1898.

Because of the simplicity of NZ Superannuation, and its presumption of citizenship as the reason for how an entitlement is determined once the simple tests of eligibility are met, the existence of other forms of wealth creation do not significantly affect the entitlement, whether collective or individual, financial, property, intellectual and skill based. This simplicity of connection means that retirement options are understandable to almost all, without expert advice, as can be the case with means tested publicly funded benefits for retirement or other purposes. What has changed since its implementation in 1977 is the age of eligibility, the benchmarks for setting entitlements, and the tax that sets the effective abatement rates of the benefit, as other income increases.

Reanga māpua, tautika tuku iho me te tautika kore

C. Baby boomers, intergenerational equity and inequality

Over the 20th century, each new generation has continued to live longer than its predecessors. Compared to the generations before and after, the post-war baby boom generation have at each age experienced fewer situations that generally bring about a lower working-life standard of living, and lessened capacity for home ownership. Increased inequality in incomes and wealth has been a consequence. Because of the huge size of the baby boom generation, and the influence it has had on policy, as well as shifts in fertility and mortality, the transfers between cohorts have risen to a higher level than experienced before. We have yet to understand the likely retirement expectations of those birth cohorts that now follow the post war baby boom generations. These later cohorts are experiencing a growing inequality in the distribution of incomes, wealth, and education.

New Zealand Superannuation essentially redistributes resources between generations (age cohorts) each financial year. The PAY as you GO approach to its funding gathers the tax paid by those who are mainly in employment or investors, to enable a fortnightly benefit to be paid to those who mainly are not and are aged 65 or older. With a few exceptions, within any household any eligible individual's NZ Superannuation benefit is not affected by the income sources of their partner. Both the individual based eligibility criteria of NZ Superannuation and the common level of fortnightly entitlements contribute strongly to gender equity, unlike either savings schemes, or means tested welfare benefits. The payment an individual receives from NZ Superannuation is effectively reduced as other income increases, by income taxation rather than an income or means tested benefit. This means that any income that is

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additional to the benefit is also subject to tax only, but not additionally abated, unlike the situation with all other welfare benefits. This facilitates a staged withdrawal from the paid workforce after age 65 if that is sought. The high employment rates of people aged 65 and over confirm the significance of this.

Given the nature of NZ Superannuation, the capacity of those lower in the income distribution to sustain their working life consumption in retirement will be influenced by earlier experience of public policies that have downstream effects on productivity and personal income such as in education, health, and the labour market. For those on lower incomes, or not employed in the paid workforce, state regulated defined-contribution savings schemes or tax incentives for savings may be less relevant for accumulating savings. For them, uncertainty of savings balances is affected by volatility in employment earnings, the predatory nature of short-term financing and the need to draw on savings before receiving means tested benefits during the working life, as well as the legacy some will have from student loans and the uncertainty of contract employment.

For quite a large share of low-income earners, for those who are not in paid employment or those who have shorter periods in the paid workforce, their working life consumption and lasting forms of non-financial wealth accumulation would most likely be further reduced if there were significant compulsory pension contributions. The hugely different population dynamics of Māori, as well as the ongoing life expectancy differences, bring an additional dimension to intergenerational equity considerations. The cash reserve accumulated from taxation in order to fund NZ Superannuation is not managed in the same manner as KiwiSaver or any similar saving scheme would. The purpose of the NZ Superannuation Fund is to pay forward some of the future costs of NZ Superannuation, by those still in the workforce, but only partially so. It is not a hypothecated fund and could be diverted from this purpose by political fiat.





Te Penihana o Aotearoa me te KiwiSaver

II. NZ Superannuation and KiwiSaver

Te Penihana

A. New Zealand Superannuation

A policy paper⁴ by Te Ara Ahunga Ora notes that

"Pension wealth can be thought of as the lump-sum needed at the retirement age to buy an annuity that would give the same flow of pension payments as that promised by mandatory retirement-income schemes (OECD 2019). Net pension wealth relative to individual net earnings measures the total discounted value of the lifetime flow of all retirement incomes in mandatory pension schemes at retirement age. New Zealand is among the countries with highest net pension wealth for lower earners and slightly below OECD average for average earners. (Figure 6)"

Compared to most income or means tested benefits, retirement benefits are paid to each eligible individual in a household, so that the actions of part of a household do not affect the retirement benefit entitlement of others. The age thresholds do not reflect improvements in wellbeing from health status, education, and social security, or differences associated with gender or ethnicity. The age thresholds of each component of the retirement provision system are set politically. There are now no such things as a retirement age that is explicit in agreements, regulations, or laws. Many people who retire take up community work of some sort. For Māori, particularly in customary settings, the rewards from employment after the retirement age, and before for many, are obtained by communities and whānau.

Currently the marginal reduction in New Zealand Superannuation as a result of additional taxable income earned by continuing employment or from other sources is not significant. Consequently, a significant share of people aged 65 and over have continued either parttime or fulltime in employment. The Te Ara Ahunga Ora policy paper⁵ notes "Those who remain in employment and start receiving NZ Super (as there is no eligibility requirement to cease paid work) will have much higher incomes than those who only receive NZ Super. In other words, this growth in income inequality is not linked to unequal pensions. Rather, it is linked to the unequal opportunities of people aged 65+ in the labour market, different preferences regarding how long to stay in the labour force after 65, and the lack of requirement to cease paid work to receive NZ Super or to gain access to KiwiSaver funds."

As long as NZ Superannuation continues to be treated as a normal form of taxable income, then any additional income obtained as a result of some saving scheme during the working life will not affect the net value of the benefit in the more substantial way that occurs with the abatement rates set for income or means-tested welfare benefits.

B. KiwiSaver

In keeping with the simplicity of NZ Superannuation, KiwiSaver is essentially a savings scheme, which exists independent of NZ Superannuation. KiwiSaver enables saving over a lifetime from both employee and employer contributions to accumulate into a tax-exempt cash sum that is able to be drawn down at age 65 or invested differently after that time, whenever the saver wishes. The connection between KiwiSaver and NZ Superannuation is simply through the taxation of income streams that result. The main strength of KiwiSaver is its prudential oversight regime and transparency of KiwiSaver schemes compared to other forms of saving. KiwiSaver balances are protected from release in many circumstances that

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⁴ Te Ara Ahunga Ora Policy Papers 02/2021 New Zealand retirement income policies and how they compare within the OECD. Page 17

⁵ Te Ara Ahunga Ora Policy Papers 02/2021 New Zealand retirement income policies and how they compare within the OECD. Page 19

are more likely to arise for those on low incomes. KiwiSaver does not contribute to gender equity, redistribution goals or poverty alleviation. KiwiSaver only weakly redistributes funds through the subsidies that are provided on joining, and the fee structure can disproportionately affect low-income savers. KiwiSaver is not compulsory, and KiwiSaver funds do not enable contributors to convert their funds to an annuity that can provide them with a regular payment until death. The means for converting KiwiSaver funds to an annuity are very limited in New Zealand and for the individual to arrange privately. In Australia, there is no regular pension payment generated by the savings scheme on retirement that is coupled with the compulsory nature and scale of subsidies on personal saving, as in NZ. Most significantly, in Australia, the age benefit paid by the state is severely means tested, which used to be the case in NZ up to 1977 for the Old Age Benefit.

Regarding KiwiSaver, and all employment related schemes, Te Ara Ahunga Ora⁶ notes:

"The issue of pension coverage is most often discussed in relation to second- and third-tier benefits, which are linked to having contributed to the scheme, or to employment status. In many such schemes, those who spent a long time outside of the workforce (due to care responsibilities, unemployment, illness etc.) and those who worked in non-standard work are at risk of low benefits or no benefits from those tiers".

There are inequities that are a consequence of the design of KiwiSaver, including:

- 1. There is no recognition of the value of unpaid activity such as child rearing. Those who receive a state benefit during their working life do not have a KiwiSaver contribution made in parallel with the benefit during its duration. This affects those on benefits for disability, unemployment and sole parenting.
- 2. Secondly, where the KiwiSaver fees have a fixed per person amount regardless of the amount saved, this disproportionately penalises those on the lowest incomes.
- 3. For those who change employers through contract work, the transactions costs in retaining participation in KiwiSaver when changing employer may prove too high.

The capital value of equity investments varies⁷ depending on when they are to be drawn on, most particularly so before and after an economic shock. The long run upward trend in the New Zealand share index (NZX) is impacted by the severity of fluctuations from significant falls in 1974, 1987 and 2008, as well as several periods of minimal growth. Equity balances are again experiencing falls as a result of the recent sharp rise in global uncertainty about inflation and economic prospects coinciding with concerns about the consequences of war in Ukraine.

The recent survey of KiwiSaver⁸ provided a much-needed analytical oversight of the scheme to date. The survey identified gender differences in KiwiSaver balances, with females having smaller balances compared to males at all ages, despite the higher life expectancy at age 65. Because the analysis carried out for Te Ara Ahunga Ora reflects the wage gap explicit in average earnings, the biases in KiwiSaver that reflect women including pay equity gaps, employment gaps for child rearing, and delayed progression in roles. There is an additional impact for Māori women given the structural bias towards jobs with lower remuneration than non-Māori women.

Te Ara Ahunga Ora⁹ developed hypothetical scenarios for people who had invested in KiwiSaver for 14 years (the maximum time possible) without making any withdrawals. The median wage for each cohort was used to determine the contribution amount (minimum employee and employer) and government incentives were included. The analysis demonstrated the extent to which balances were lower than expected for income and age. The research found that *"Balances are lower, on average, across all age groups but more pronounced for younger people (age 44 and under). This cohort may be more likely to have made first home deposit withdrawals than those aged 45 and over. Gender differences are evident within potential fund balances because median wages for each gender were used in the calculation."*

⁶ Te Ara Ahunga Ora Policy Papers 02/2021 New Zealand retirement income policies and how they compare within the OECD. Page 15

⁷ Note Chamberlain

⁸ KiwiSaver Demographic Study Melville Jessup Weaver March 2022

⁹ Te Ara Ahunga Ora Policy Brief 01 KiwiSaver Balances

Overall, at each age range, the percentage of Māori who contribute to KiwiSaver is less than for the population overall. Table 1 below shows that Māori aged 15 to 54 are consistently less likely to contribute to KiwiSaver, contributing at some 10 to 19 percent less than the population in total. For those 55 and older, the differences are not significant. At ages between 25 and 44, the average balance in funds of Māori and non-Māori are both the same. For those under 25, and aged 55 and over, the mean value of funds held by Māori is significantly lower than for the total population. Because of the sample size, the mean values for Māori are subject to larger sampling error than those for the total population. As a consequence, it is the consistency in the scale of difference than the absolute value of any particular difference that is significant. Analysis of statistics on Māori income and wealth would show the extent to which recent generations of Māori have been able to augment their savings by their age of retirement. Such analysis would indicate the extent to which the relevance of KiwiSaver could change for those generations of Māori who are, or are going to become, eligible for NZ Superannuation between now and 2050. It would also indicate how a move to make retirement savings compulsory would affect Māori.

Age Group	Number in KiwiSaver Year ended June 2021(a),(c)		Estimated Population March 2018(b)		Percentage of age group in KiwiSaver(c)		Māori KiwiSaver average value as percent of
	Māori	Total	Māori	Total	Māori	Total	non-Maori KiwiSaver average value(d)
15-24	74,000	357,000	144,520	512,910	51	70	60
25-34	90,000	521,000	115,960	593,440	78	88	100
35-44	49,000	413,000	90,300	520,890	54	79	100
45-54	58,000	434,000	91,080	562,770	64	77	76
55-64	48,000	378,000	68,830	518,510	70	73	85
65+	10,000	110,000	50,100	684,900	20	16	67

Table 1: Analysis of KiwiSaver take up by Māori in 2020/2021

Source: (a) Te Ara Ahunga Ora Policy Brief 01, (b) 2018 Census of Population, (c) KiwiSaver statistics from customised analysis by StatsNZ from the Household Economic Survey, (d) Author calculation

In New Zealand, the connection between the age thresholds for a retirement state pension and state regulated savings schemes for retirement provision is simple, because currently age 65 is an eligibility threshold common to both schemes. There are issues as to whether the use of the TTE taxation regime for designated retirement savings contributions provides sufficient immediate incentives compared to the previous EET regime. TTE restricts taxation of the accumulated savings after retirement to any earnings generated by the savings. The tax regime may have little influence on how personal capital or other resources are applied, for most on modest incomes. However, the requirement to draw on any personal wealth should intensive personal care have to be provided after age 65 has had the side effect of providing strong incentives to those with significant wealth to adopt tax avoidance devices such as trusts.

As noted above, of importance in New Zealand is equity during the life course in the access to services which enable a reasonable standard of health, education, security, employability, family and community connection, along with KiwiSaver, and these make up the broad nature of retirement provision that is reinforced by NZ Superannuation.

Te whakarite i te whai mōhio o te kaupapahere i ngā taunakitanga e pā ana ki ngā Māori katoa

III. Ensuring policy is informed by evidence relevant to all Māori

The very different demographic dynamics of Māori over the past century have influenced education, health and labour market outcomes, as well as the forms of wealth creation that each generation leaves to successor generations.

It is a major policy failing that by the time of retirement, Māori of any generation will have experienced significant disproportionality in outcomes in those other areas of public policy that influence saving up to then. Past policy and practice in these areas have had a less significant positive impact on social and economic wellbeing after retirement for Māori than non-Māori. This paper looks at evidence, particularly demographic, that could support the future oversight and evaluation of the part of NZ Superannuation and KiwiSaver in retirement policy. Equity in retirement provision may require a broad, comprehensive focus on providing assurance of increasing equity for Māori before the point of retirement. There are a wider range of policy areas which determine the quality of individual retirement provision.

What the Treaty of Waitangi obligations mean for the system of retirement provision is not well specified and so far, they appear to have had no effect on NZ Superannuation and KiwiSaver. The relevance of the Treaty is articulated by Whanaketanga Māori, as Tino Rangatiratanga, Equity, Active Protection, Options and Partnerships. To better enable acknowledgement of these obligations, this statistical study takes Māori as the prime analytical unit rather than the total population.

Retirement provision in New Zealand should enable Māori to expect to participate fully in retirement years, as a result of both a productive working life, which was prepared for by equitable access to education and health services particularly when young. The efficacy of earlier public investment in education and health will influence the productivity of Māori during their working life, and capacity to contribute to wealth creation, as well accumulate assets personally. Given that Māori aged between 30 and 50 will be one of the fastest growing groups in the labour force over the next two decades, for society to fully benefit from this one-off demographic dividend will depend on how much their productivity is influenced by these early life investments.

Te whakareretanga o te rautau 20

A. The legacy of the 20th century

Well before the start of the 20th century, the collective loss of land, kāinga, economic enterprises, harvesting rights, and environment had damaged Māori health, reproductive strength and employment potential. Perhaps the most significant indicator of this was infant mortality rates which, until the 1950s, had for much of a century diluted the advantages of continued high Māori fertility. Survival rates from birth to age 15 increased from 81-83 percent in 1945 to 95-96 percent in 1966 (Pool¹⁰ et al, p192). In the ebb and flow of the 20th century welfare state, each generation of Māori has faced retirement with different means of accumulating the economic, social and community capital during their lifetime.

Among those who had been eligible for NZ Superannuation when it was put in place in 1977 were Māori from the generations which experienced severe life and capital loss in younger or working age years because of rare extreme situations. Those generations that were impacted in these situations lost their most productive years, but also caused loss to whole whānau and their legacy for later generations. The generations most affected during the 20th century, and of relevance to recent and current retirement income policy have been those whose formative years were affected by the events below:

¹⁰ Pool, I, Dharmalingam, A, Sceats, J (2007) The New Zealand Family from 1840. Auckland University Press

Historical events with intergenerational consequences.

- Those born 1885-1900: First World War deaths and injuries, and 1918 Flu pandemic¹¹. This affected some 7 percent of Māori, with males of prime working ages being disproportionately affected.
- 2. Those born 1900-1925: Second World War deaths¹² and injuries, and post-war rapid urbanisation

Events experienced by those who will be recipients of retirement benefits for some or all of the next two decades:

- 1. Those born 1945-1970: Extreme¹³ child custody rates and young adult imprisonment, then high unemployment associated with 1980s state restructuring. For Māori males born between 1960 and 1980, a large share ended child custody with prison sentences, jeopardising future earnings and opportunities for personal retirement provision
- 2. Those born 1970-1985: impact of extreme rates of unemployment¹⁴ for youths and young adults between 1988-1995

Were these events to have affected the population at large on the same scale as Māori, such differences might have stimulated change at a political level. Although well known, the system of retirement provision has not taken account of Māori generational differences in life expectancy, morbidity and differential access to education and health services. Given disproportionality in access and effects of these services, the productive potential of Māori has been blighted up to now. On balance, Māori in early life have faced different choices, or the lack of, during their lifetime compared to others.

Te pānga o te rerekē o te matapae wā ora i runga i te hua o ngā tau whiwhi o te Māori

B. Effect of life expectancy differential on years of benefit receipt for Māori

The Statistics New Zealand period life tables that span 1950 to 2019 show that the death rates in 2017-19 of Māori males at all ages approximates the death rates experienced nearly 30 years before in 1990-92 by all New Zealand males. For Māori females, the death rates measured in 2017-2019 approximate that in 1985-87 for all New Zealand females, a gap of nearly 35 years before now. The life tables for 2017-2019 are analysed in Table 2.

The life expectancy differences in 2017-19 between Māori males and females and other population groups are stark. Māori male life expectancy at 65 is 15.4 years, compared to 19.6 years for a non-Māori male. The difference for females ranges between 17.5 to 21.9 years for Māori and non-Māori. Māori survivorship drops significantly for both males and females between 50 and 65 years, with the death rate for Māori males in those ages being 2.3 times that of the non-Māori population, while the comparable excess for Māori females is 2.6 times the non-Māori rate.

Because Māori mortality between 50 and 65 years is significantly higher than non-Māori (Table 2), a larger share of each generation of Māori, who have been in the labour force up to age 50, will not survive to pension age, compared to non-Māori. The combined effect of the differences in life expectancy at 65 years, and the excess death rate between 50 and 65 affects the balance between years receiving the benefit and contribution years (i.e., the average number of years that a person will receive NZ Superannuation, assuming still employed at aged 50 years). When the higher mortality between 50 and 65 is accounted for,

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¹¹ Geoffrey Rice, Black November: The 1918 Influenza Epidemic in New Zealand. Allen & Unwin 1988

¹² Of the more than 3600 men who served voluntarily with the Māori Battalion:

In all, 649 were killed or died on active service

[•] A total of 1712 was wounded

In all, 267 were taken prisoner or reported as missing

This casualty rate was almost 50% higher than the average for the New Zealand infantry battalions.

¹³ L W Cook. A Statistical Window for the Justice System: Putting a Spotlight on the Scale of State Custody across Generations of Māori. INSTITUTE FOR GOVERNANCE AND POLICY STUDIES WORKING PAPER 20/02, January 2021

¹⁴ In March 1991, at ages 15-19 42.8% of Māori were unemployed and 23.6% European (& other) At ages 20-24 Māori unemployment was 31.9%, European (& other) was 14.4%.

the effect is to reduce the effective benefit years for both the current Māori and non-Māori population, the Māori: non-Māori ratios becoming 12.8: 18.2 for males and 15.3: 20.4 for females. The higher mortality of Māori between 65-69 is taken account of in the life expectancy differences with non-Māori after age 64.

	Māori	non-Māori	Pacific	Asian	Total
Number per 100000 males who reach age 65	76,179	89,506	81,387	93,279	87,642
Number per 100000 females who reach age 65	82,892	93,205	86,474	96,253	91,775
Male Life expectancy at 65 years	15.4	19.6	16.2	22.6	19.3
Female Life expectancy at 65 years	17.5	21.9	18.5	24.5	21.6
Balance between NZ Super benefit and working life contribution (males)	12.8	18.2	14.1	21.5	17.7
Balance between NZ Super benefit and working life contribution (females)	15.3	20.9	16.8	23.9	20.4
Number per 100,000 males who reach age 50	91,657	96,278	93,311	97,884	95,511
Number per 100,000 females who reach age 50	94,658	97,657	95,451	98,589	97,147
Deaths aged 50 to 65 years per 100,000 males	15,478	6,772	11,924	4,605	7,869
Deaths aged 50 to 65 years per 100,000 females	11,766	4,452	8,977	2,336	5,372

Table 2: Current Life expectancy differences at age 65 for Māoriand other groups in NZ

Source: www.stats.govt.nz. NZ Period Life Tables 2017-2019



For those Māori with sufficient savings, because neither governments nor market mechanisms recognise life expectancy differences, this means that as a group they will pay a disproportionately larger premium during working life to gain a desired level of retirement income for both the universal state pension (New Zealand Superannuation) and any retirement savings scheme, such as KiwiSaver.

From cause of death statistics produced by the Ministry of Health, statistics on the mortality of Māori aged between 50 and 70 years can be analysed. A measure of excess deaths can be calculated by applying European death rates to the Māori population at each age group. The measures of excess deaths are based on comparing the actual number of Māori deaths in that age group, with the number that would have arisen had the European death rates applied. Table 3 below was prepared from New Zealand health statistics by Inzight Analytics, by Professor Andrew Sporle. The excess count is the number who have died in a particular age group who would not have died were the European death rates applied to Māori. These numbers are not comparable with those in table 2 above, which are based on a reference population of 100,000 births. This is done so as to simplify comparisons across other groups, which is significantly greater than the number of Māori born into the age cohort in the mortality statistics. This chart and those in the appendix show that Māori excess deaths at ages 50 and over have been rising during the most recent 5 to 10 years.

Age band	Māori population count in age band	All cause excess Māori deaths per year	All cause excess Māori deaths per year as % of Māori in age band	Amenable excess Māori deaths per year	Amenable excess Māori deaths per year as % of Māori in age band
50-54	43180	125	0.29%	62	0.14%
55-60	40100	238	0.59%	102	0.25%
60-64	28770	246	0.86%	122	0.42%
65-69	21110	270	1.28%	152	0.72%

Table 3: Annual Māori excess mortality as percentage of population in 2018

Source: inzight analytics

Te ine i ngā taumahatanga o te wā nei, o te anamata hoki i whakamahia, mā te panoni i ngā anga reanga taipakeke

C. Measuring the current and prospective tensions caused by changing age structures

Population dynamics over the next 50 years will drive considerable change in family structures, communities, the labour market and health services need with consequential effects on business and public organisations. Change on this breadth cannot be readily encapsulated in a simple extrapolation of demographic trends over this period. The huge shift in the age structure of the population will have an impact on formal and informal exchanges between generations, whether they be driven by government, family or market activity. These changes will not happen in isolation from the influences of globalisation, technology change, international security, environmental pressures or the consequences of the changing population dynamics of other countries.

Te whakaumu ngātahitanga mā te rangatahi, te hunga mahi me ngā taupori kaumātua

C-1. The simultaneous transformation of youth, workforce and aged populations

Over the period to 2050, the Māori population will not only grow but will be an increasing share of the New Zealand population in every age group. By 2043, one quarter of all New Zealanders aged under 35 will be Māori, and one in nine people aged 65 and over will be Māori (Figure 1). Māori will be 21 percent of the population aged 25 to 55 years. Unlike the ageing of the non-Māori population, this provides Māori with a strong demographic dividend from the productive potential of the increased labour force participation, whether it be in paid employment, community or family work. Some key summary points relevant to retirement income policy are:

- Over the 20-year period to 2043, the number of Māori who will be in the prime workforce ages 25-54 is projected to rise by 51 percent, while the number of non-Māori in those age ranges will increase by just 7 percent. Māori are projected to be 21 percent of those aged between 25 and 54 in 2043, compared to 16 percent now. The age group 25-54 years is of prime working age and household capital accumulation.
- The rate at which the number of Māori aged 65 will increase over the 20 years to 2043 is
 projected to be 4.2 percent, which is twice that of the 2.1 percent growth of non-Māori
 projected to be aged 65 and over for the same period.
- The share of the population aged under 15 which is Māori is currently 28 percent. This share will continue to rise, to nearly 33 percent by 2043 because of the lower fertility of European and Asian communities. Because immigration is focused on persons of workforce age, the youngest age groups are less affected by the ebb and flow of international immigration.



Figure 1: Māori as percentage of total population by age group 1911-2043

Source: Statistics New Zealand. Censuses of Population and Population Projections. Calculations by Author

Given the current low level of fertility and the continued improvements in life expectancy at older ages, the size, demographic dynamism and current and prospective age structure give Māori a comparative advantage. As a mainly young population its capacity to adapt to shifts in occupation, economic, social and institutional structures is larger than the Pakeha community. The productive potential is dependent on access to health services and education and training on a less disproportionate basis than the generations who will be reaching age 65 after 2020 and before 2050. We are already seeing international competition for educated and trained young New Zealanders. It is important to note that although total birth numbers in New Zealand have ranged close to 60,000 every year since 1955, when the population was some 2 million, now that the population has reached 5 million, birth numbers have not grown at all since 1955. Within the total population, Māori are showing very different trends.



Figure 2: Age Distribution of Māori male Population 1886 to 2043

Source: Statistics New Zealand. Censuses of Population and Population Projections. Calculations by Author

Ngā taupori rangatahi e panoni ana

C-2. Changing youth populations

The trends in population structure as presented in Figure 2 above can be crudely summarised by the dependency ratio, which related the number in one or all of the usually dependent ages ranges, to those in the age groups usually associated with the paid or unpaid workforce. The delineation of dependent and non-dependent age groups can be somewhat arbitrary, and in practice the relevance of the ratio differs over time, as a measure of the balance between dependent and productive groups in the population. Changed participation rates, extension of education and training periods, employment equity and recognition of productive activity outside market employment are just some of the reasons why the interpretation of the dependency ratio, despite its title, needs to be done cautiously. In the face of these cautions, I have assumed that the youth dependent population to be all who are aged 17 and under, and all who are aged 65 and over for the aged. For each of these age groups, I have separately inverted the dependency ratio¹⁵, so that the changes in the ratio indicate changes in the number in of the oldest and youngest age groups. Changes have occurred in the age range deemed to identify the population of working age. Consequently, using the age ranges 18-64 as the denominator makes the resulting measure relevant for identifying long term age structure shifts in a population, but less valid for comparing the needs of either dependent population with the resources potentially available from the economically active population, except for changes over short periods.

¹⁵ The dependency ratio is often used for comparisons over time to show the balance between dependent and active populations, and for cross country comparisons. This simple measure can prove to be a flawed basis for analysing the social and economic impacts of ageing where there is significant change in population structures that are ignored and major lifestyle, economic and social changes it cannot include.



Figure 3: Inverse Youth dependency ratios: Māori non-Māori

Source: Statistics New Zealand. Censuses of Population and Population Projections. Calculations by Author

For long term comparisons of dependent and economically active populations, the inferences that can be drawn about the effect of particular policies will be affected by change in the relevance of particular age thresholds. For example, Māori and non-Māori have fared differently from investment or contribution to their welfare in education, health and welfare services, but also experienced differently any downstream benefits in terms of productivity on reaching the workforce ages. Youth and aged populations are not aggregated for this reason, and the youth and aged dependency ratios are presented separately. For Māori, the inverse dependency ratio for those aged 17 and under (Figure 3) varied between 0.74 and 1.11 from 1911 to 1986. Given the extent of urbanisation, the changing nature of the Māori workforce, and the huge shift in fertility, it should be recognised that the age thresholds used in the inverted dependency ratios would not have the same relevance for all applications, or for the whole period since 1911. Before the low point in the inverse youth dependency ratio for Māori was reached in 1971, one half of the total Māori population was aged under 15. The youth dependency ratio was 1.55 in 2018 and given the projected changes in the age distribution, the ratio will rise to 2.01 in 2043. A key driver of this increase in the youth inverse dependency ratio was the faster growth in the number of Māori aged between 18-64 compared to the growth in those aged 17 and under.

For non-Māori, the inverse dependency ratio for those aged 17 has progressively risen since 1986, reflecting diverse shifts in both the youth population and that defined as working age.

- a) A decline in the number of non-Māori aged under 20 has progressively occurred since the 1970s.
- b) The number of non-Māori aged under 5 peaked in 1966 and have been on a declining trend since.
- c) Those number of non-Māori aged 15-19 peaked in 1981.
- d) Some rise in the median age of those in the workforce is projected.
- e) There have been unusually high levels of immigration over the past decade, such that at older ages, the effects of immigration have contributed to growth continuing while the share of the population born in New Zealand has declined.

The youth inverse dependency ratio is higher for non-Māori than Māori because

- a) Māori fertility has been consistently higher than that of non-Māori, but also
- b) Māori mortality between the ages of 50 and 64 is some three times the rate of non-Māori.

As mortality rates for Māori in these ages continues to fall, the inverse dependency ratio will rise.

Ngā panonitanga o ngā reanga pakeke ake

C-3. Changes in older ages

Contrary to the rising youth inverse dependency ratios that will continue past 2043, the inverse aged dependency ratios (Figure 4) for both Māori and non-Māori will fall over that time. Continued life expectancy gains for both Māori and non-Māori is projected to continue to increase the number in the older ages, so too will the ageing of the baby boomers have some effect. The inverse aged dependency ratio for Māori aged 65 and over calculated over the period 1961-1991 was unusually high. This reflected the very low survival rates of Māori in the generations of Māori born before 1930, despite high fertility. Since the mid to late 1990s, a strong growth in the number of Māori in the working age groups coincided with even more rapid growth rate of Māori aged 65. The consequent fall in the inverse age dependency ratio is projected to occur during a period when there will also be potential productivity gains from the growing youth population, and when Māori will be a growing share of the total population of workforce age.





Source: Statistics New Zealand. Censuses of Population and Population Projections. Calculations by Author

In 1966, nearly half the Māori population was under 15 years. The survivorship of Māori babies was significantly higher after 1950, so the higher fertility rates of Māori began to have a significant effect on the growth in the number of children. The largest growth period was between 1951 and 1966, at the end of which the number of Māori children aged under 15 doubled. From 1976 the inverse child dependency ratio has risen continuously and will do so through the period until 2050. The change in the inverse dependency ratio for those 65 and over has been particularly marked for Māori, partly because of the legacy of events and policies of the 20th century noted above, and the partly because of the momentum from the demographic dynamism that has resulted in the Māori population continuing to grow in all age groups. Being projected to grow by some 50 percent in the 25 years to 2043, the Māori population in 2043 that is aged 65 and over will be three times the size it was in 2018.

In relating the impact of both young and the oldest to the productive capacity of the population, it is not unusual for studies to simply add the numbers in both groups and relate them the number of working age as a way of measuring the fiscal impact of change in the age mix of the population. As noted above, despite being in common use, this calculation is of very limited value, as it fails to recognise the large differences in the scale of both dependency and contribution made at different ages. Even when calculated over short periods where assumptions about the comparability of social and economic conditions have considerable validity, an inverse total dependency ratio would incorrectly give equal weight to the young, the oldest and those usually active in the work force.

Te whakatairitetanga o te uara more me te pakeke o te tangata

C-4. Comparisons of current net worth and age

The extent to which net worth increases with age is shown in Figure 5. This shows the marginal shifts in the age distribution of net worth between 2015, 2018 and 2021. The age group 55-64 is the peak age for net worth, and the apparent decline or cessation of growth will be a sign of the propensity to retire, new expenditures on health and leisure, and intergenerational transfers, among other things. There is reduced precision from small sample sizes. The analysis of net worth for each age group suggests that while Māori trends (Figure 6) are consistent with those for the total population, the value in each age group of Māori ranges between some 50 to 64 percent of the average value of the population as a whole. The average value of KiwiSaver funds for Māori compared to non-Māori, is significantly higher, as seen in Table 1. This would suggest that despite its limitations in coverage, KiwiSaver plays a bigger part in lifetime asset accumulation for Māori than non-Māori.



Figure 5: Individual net worth of all groups by age 2015-2021

Source: Household Economic Survey (Stats NZ)





Figure 6: Individual net worth of Māori by age 2015-2021

Source: Household Economic Survey (Stats NZ)

Figure 7 below for the period 2015-2021 affirms that how Māori assets are spread on average is not significantly different from the total population, with Māori holding an average of some 6 percent of the total in each asset type. This is not the case for loans, those for education, and other loans and liabilities (excluding houses or other real estate). These are 15 percent to 17 percent of the total liabilities of that type, compared to around 6 percent for all other types. This will partly reflect the share of the population which are of the age at which attendance at a tertiary educational or training institution is likely to occur, and merits further investigation.



Figure 7: Māori share of household assets and liabilities

Source: Household Economic Survey (Stats NZ)

National Transfer Accounts - he taputapu tātari mō te anamata

C-5. National Transfer Accounts - an analytical tool for the future

In providing a measure which can adjust for differences in the scale of dependency and contribution at different ages and times, Ogawa¹⁶ et al have proposed a system of National Transfer Accounts. Ogawa et al examine the impact of age compositional shifts on economic growth using two approaches: (i) conventional demographic indicators and the National Transfer Accounts framework. They note "we use the NTA model to analyze a key economic challenge for aging populations, which is how to provide for old-age consumption in the face of substantially reduced income. In some societies, this challenge is met by relying on intergenerational transfer systems (either public programs or familial support systems). In others, the response consists of increasing saving rates and accumulating greater physical wealth or capital. It is in this latter response that prospects for more rapid economic growth are enhanced, and this pro-growth mechanism is called "the second demographic dividend."

The National Transfer Accounts analyse the effect of the age structural shifts on the pattern of intergenerational transfers over time. This enables the scale and timing of the demographic dividends that result in societies in different way. The approach is particularly significant for comparing the distinct demographic dynamics of Māori in the context of the 21st century with that the New Zealand European population, especially when it is the characteristics of the NZ European population which have generally shaped retirement income policy, and the political forces which have generated the momentum behind their evolution.

"National Transfer Accounts provide a comprehensive framework for estimating consumption, production, and resource reallocations by age. The accounts are constructed so as to be consistent with and complementary to the National Income and Product Accounts. Also, sectoral disaggregation allows the analysis of public and private education and health-care spending. The NTA system will provide important new information relevant to the following issues: (i) the first demographic dividend, (ii) the second demographic dividend, and (iii) intergenerational transfers (public and private [familial] transfers), (iv) aging policy, and (v) childbearing incentives"

Ogawa et al

Information to replicate the work of Ogawa et al is not readily available in New Zealand, although National Transfer Accounts have been investigated by the NZ Treasury. In the absence of a National Transfer Accounts existing in New Zealand, I have loosely drawn on earlier work by Ogawa which focused on his "economic support" ratio (Ogawa¹⁷), This provides different weights for the key population groups, effectively calculating a weighted total inverse dependency ratio. It has been possible to prepare an estimate which approximates Ogawa's "economic support" ratio, but it is little more than indicative of the trends that would be more accurately measured were National Transfer Accounts available, or if the comprehensive analysis outlined by Ogawa were carried out. My calculated crude economic contribution ratio, albeit indicative only, will be a closer measure of the scale and timing of the impact of demographic change than that made without any adjustment.



¹⁶ Naohiro Ogawa, Norma Mansor, Sang-Hyop Lee, Michael R.M. Abrigo, Tahir Aris. Population Aging and the Three Demographic Dividends in Asia. Asian Development Review (2021) 38 (1): 32-67.

¹⁷ How to create statistical measures that facilitate full exploitation of Māori demographic dividend

[•] Effective workers are calculated as a weighted sum of pop. using labour income age profile.

Effective consumers are calculated in a similar fashion, using consumption age profile.
 Ratio of effective labour to effective consumers is Ogawa's "Economic Support Ratio"

Ratio of effective labour to effective consumers is Ogawa's "Economic support Ratio
 The balance of workers and consumers for the whole population is summarised by Ogawa's "economic support" ratio

¹⁸ The Distribution of Income and Fiscal Incidence by Age and Gender: Some Evidence from New Zealand Omar Aziz, Norman Gemmell and Athene Laws WORKING PAPER 10/2013 June 2013

However, the disproportionality with which educational and health resources have been applied to Māori is another limit to the accuracy of this or any similarly crude measure of comparative fiscal impact. I use a study done by Aziz, Norman Gemmell and Athene Laws¹⁸ (page 21, Figure 16). From this work I have applied my judgement to crudely estimate relevant parameters, while being aware that this is a rich area for further analysis. The results are presented in Figure 8, and in Table 4. They should be treated with some caution as they were not prepared for this purpose. As noted above, disproportionality in access to key services and ethnicity and gender shifts in the occupation mix over time have not been adjusted for. Albeit crude, they reduce a large amount of bias that the total dependency ratio brings through equal weighting, although the extent of this is unknowable without a more detailed analysis than was possible in this study. The crude ratio does also signal the benefits to our understanding that a comprehensive study would bring.

The crude economic contribution ratios as calculated for Māori and non-Māori indicated little difference between them until 2006. The calculated crude economic contribution ratio indicates that for non-Māori this ratio is projected to fall consistently over the projected period to 2043. The same ratio for Māori begins a slower decline, but not until 2023. Given that total population trends have been dominated by those of non-Māori, the economic contribution ratios show that while retirement income policy may respond to population wide trends dominated by those for non-Māori, the trends for Māori are sufficiently different to warrant recognition when any assessment of alternative policies for retirement provision. When weighted by age, the higher costs of caring for the elderly exceed those born in the education and training of the young. The growth in the elderly will increase the demands on heath resources, more so than New Zealand Superannuation, which has almost the same fixed fiscal cost for each individual.



Figure 8: Crude Contribution Ratio: Māori Non-Māori - 1966 to 2043

Source: Statistics New Zealand. Censuses of Population and Population Projections. Calculations by Author

¹⁸ The Distribution of Income and Fiscal Incidence by Age and Gender: Some Evidence from New Zealand Omar Aziz, Norman Gemmell and Athene Laws WORKING PAPER 10/2013 June 2013

Table 4:	Measures	of summarising	change in	population	age structures	to simplify
comparis	sons					

Census Year (actual &	Inverse Dependency Ratio: non-Māori Māori		Inverse Dependency Ratio: all ages (not used)		Crude Economic Contribution ratio (indicative only)			
projected)	Age 17 and under	Age 65 and over	Age 17 and under	Age 65 and over	Non-Māori	Māori	Non-Māori	Māori
1911	1.66	21.76	1.10	12.73	1.66	1.01		
1916	1.49	11.72	1.06	13.86	1.42	0.98		
1921	1.62	14.91	1.02	13.66	1.57	0.95		
1926	1.68	11.76	0.94	10.52	1.59	0.86		
1936	2.03	9.55	0.89	11.97	1.81	0.83		
1945	1.98	6.71	0.84	15.09	1.63	0.79		
1951	1.80	6.07	0.85	17.58	1.47	0.81		
1956	1.62	5.85	0.83	18.99	1.34	0.80		
1961	1.49	5.96	0.79	21.72	1.27	0.76		
1966	1.49	6.16	0.74	21.83	1.29	0.72		
1971	1.55	6.07	0.77	21.92	1.33	0.74		
1976	1.68	5.92	0.86	21.12	1.41	0.82		
1981	1.87	5.45	1.04	21.36	1.51	0.99		
1986	2.21	5.22	1.11	22.09	1.67	1.06		
1991	2.37	4.90	1.20	21.07	1.71	1.13		
1996	2.53	4.73	1.23	17.69	1.75	1.15	1.52	1.53
2001	2.56	4.62	1.25	16.02	1.74	1.16	1.50	1.52
2006	2.68	4.61	1.31	13.28	1.80	1.19	1.53	1.51
2013	2.85	3.97	1.39	10.45	1.75	1.23	1.41	1.49
2018	3.07	3.74	1.55	9.29	1.77	1.32	1.38	1.55
2023	3.17	3.29	1.65	7.87	1.69	1.37	1.26	1.52
2028	3.28	2.86	1.77	6.39	1.60	1.39	1.14	1.45
2033	3.45	2.59	1.90	5.59	1.55	1.42	1.07	1.41
2038	3.57	2.38	1.96	5.01	1.49	1.41	1.00	1.35
2043	3.65	2.31	2.01	4.80	1.47	1.42	0.98	1.34

Source: Statistics New Zealand. Censuses of Population and Population Projections. Calculations by Author

Ogawa et al identify the focus of analysis needed to deal with a new important research topic in the realm of population ageing. They note that "This is called "the silver demographic dividend" or "the third demographic dividend," which is generated through the use of the untapped work capacity of healthy older adults. It is of great importance to note that this topic is closely related with changes in the health of the elderly."

These ideas point to how this short study could be extended to provide a coherent basis for extending the analysis of the current and prospective economic, social, health and demographic position of Māori. Information from existing statistical and research resources could contribute to informing a perspective on retirement provision that reflects the understanding this information provides. There are many significant elements of Māori social organisation and the Māori economic base as well as Māori perspectives on the nature of wealth and its accumulation and distribution that are not available from the statistical evidence base that this paper has drawn on.

Te whakamātau i ngā take mō te Māori me te kaupapahere ahungarua

IV. Testing issues for Māori and retirement policy

Identifying the choices that have to be periodically evaluated is a vital precursor to identifying the practicality of addressing the relevant research questions that then follow. To evaluate how the current retirement provision policies are applied to the Māori population, any assessment of contemporary policy questions has subjective elements. The questions listed below result from the author's assessment.

Ngā pātai kaupapahere moroki

A. Contemporary policy questions

Over the period to 2050 New Zealand will benefit from the distinctive advantages of Māori demographic dynamic on influences which shift economic potential at population level. When reviewing the current model, the general questions that regularly need to be addressed are:

1. Demographic, social and economic context

- a. The likelihood and impact of prospective increases in the productivity of the economy and its taxable capacity
- b. Acknowledgement of citizenship as underlying basis for retirement policy
- c. Recognition of whānau, hapū or Iwi based contribution and initiatives

2. New Zealand Superannuation

- a. Whether or not to change the age of eligibility to publicly funded benefits?
- b. Whether to alter the future level of the fortnightly entitlement?
- c. If the level of benefits were to change, should it be by a one-off change in benefit levels, or by changing how they are adjusted for inflation?
- d. How to reduce (or abate) the net value of the retirement benefit when income from other sources rises (currently taxed at the marginal tax rate specified in the tax system), as in existing income tested or means tested benefits?

3. KiwiSaver issues

- a. Prospects for the balance between public and private provision of retirement income for future generations
- b. Whether participation in the state savings scheme should become compulsory?
- c. For receiving KiwiSaver benefits, whether to introduce an annuity based lifelong regular pension at age 65?
- d. How to improve returns on capital accumulation by financial literacy and savings incentives
- e. The periodic volatility of commercial markets can result in major falls in value causing significant capital losses occurring during any 40-year working life.

f. Increasing life expectancy has reduced the certainty that the asset base of marketbased funds would be certain to meet pension liabilities, and this has limited the scale of an annuity market in New Zealand.

4. Tax policy issues:

- a. Whether to retain the tax regime for retirement savings as TTE or change to another model?
- b. Whether the key components integrate, at different levels of lifetime earnings?

5. Productivity issues

- a. Increase productivity from education, health and skills of new generations (including disabled).
- b. How to increase labour force participation of older workers after conventional retirement threshold is reached?

Ngā whakatairitenga waiwai Māori

B. Critical Māori comparisons

The New Zealand model is anchored around the universality of New Zealand Superannuation from age 65, and its implicit assumption of high rates of homeownership, along with other investments including entitlement to health and education services. KiwiSaver enables savings to be invested in a wide range of ways, with a higher level of prudential oversight than might be arranged by individuals. The needs of the Māori population benefit less than non-Māori from the nature of these arrangements, because:

- Māori have a lower life expectancy than non-Māori [Analysed in section III B above]. Consequently, Māori men and women that reach age 65 will on average spend significantly fewer years in receipt of NZ Superannuation.
- 2. Māori are more likely to die at ages between 55-64 than any other group. This increases the gap in the average number of years of receipt of NZ Superannuation for Māori males and females compared to other groups.
- 3. Māori are less likely to obtain the potential benefits that KiwiSaver provides, because of lower take up rates, and lower average incomes which are disproportionally affected by fixed fees.
- Māori have built up fewer tangible assets before retirement, particularly housing. Because they are more likely to be renting, their standard of living will be more affected by rental costs than non-Māori.
- 5. The productive potential of earlier generations of Māori has not been realised because of past disproportionality in access to higher levels of education and training, and unmet health needs. The realisation of Māori productive potential will impact more significantly on economic growth in the future up to 2050 than in earlier periods, because of the significance now of Māori in the labour market in New Zealand, and of new entrants.
- 6. The effect of means testing when receiving welfare benefits late in life can undermine the various forms of capital accumulation important in retirement, and this may have affected a larger share of Māori who would be eligible for New Zealand Superannuation in the period to 2050.
- 7. Some four major events during the 20th century affecting the life expectancy and life course early on in the most productive stages of people's lives disproportionately affected Māori. Those in these birth cohorts will have had less opportunity to accumulate the forms of capital typical of their generation.

Differences in opportunity in health, education and employment that are known to be significant have not been examined in this study. The differences that are well known include:

- 8. Because of disability, Māori are more likely to face a decline in the activity levels sustained when younger.
- Non-Māori have been less likely to be employed in physical occupations compared to Māori.
- 10. Given lower Māori life expectancy, experience at early ages in extreme events and legacy of weaker average educational and housing outcomes, it is highly likely that a larger share of Māori than non-Māori will spend a period dependent on a means tested benefit between age 50 and 65 years. There would be a consequent effect on the holding of assets that would otherwise support retirement.

Alongside the differences above, the very different history and prospects in the comparative economic position of Māori have to be acknowledged. The part of iwi, hapū and whānau in retirement provision is not recognised in government retirement policy, and 20th century urbanisation would have put much pressure on many earlier customary forms of such provision. In the 21st century contemporary arrangements such as the Whai Rawa (KiwiSaver-like scheme) of Ngāi Tahu reflect other concerns about the relevance of the form of a nationwide system.

Ngā whakaawetanga ki te Māori e hoahoa ai pea i te whakaratonga ahungarua ki te 2050

C. Influences on Māori that should shape retirement provision to 2050

The considerable change in family structures, communities, the labour market, health services, business and public organisations over the next 50 years cannot be readily encapsulated in any simple extrapolation of demographic trends over this period. The huge shift in the age structure of the population will have an impact on intergenerational exchanges, whether they be driven by government, family or market activity. These changes will not happen in isolation from the influences of globalisation, technology change, or environmental pressures.

The post war baby boom, along with increases in life expectancy and declining fertility have resulted in huge differences in the scale of past and future transfers between generations, particularly in regard to retirement provision. Many subsidies and benefits that were available to the post-war baby boomers and earlier generations have not been available to later generations, which now bear greater or additional costs for education, health and housing, much of which is funded by greater use of personal loans. High fees at tertiary educational institutions are financed by a state-run loan facility. The affordability of home ownership has differed significantly between generations. Since the 1990s, it has been clear to governments and commercial entities that the uncertainties about future life expectancy trends have proven costly to hedge, reducing the availability of defined benefit schemes from both government and financial markets. While those born after about 1965 have experienced the transition from universality of programmes to intensive targeting, those born even after 2000 have seen a continued expansion of user pays, training as a personal rather than employer investment, and a major shift in the importance of debt in purchasing power.

Figure 8 below is a subjective indicator of policy shifts mainly since the 1960s aimed at indicating the extent to which public policy over the last century has shifted from enabling wealth accumulation at all levels of income, to either contributing to greater inequality or not seeking to address policy shifts that have widened the gaps between those in the top income groups. The three groups are crudely delineated by their need for New Zealand Superannuation. The top group contains those eligible for New Zealand Superannuation, but will not have any need for it, while the bottom groups is defined by those who, when they reach the age of eligibility, cannot adequately live without New Zealand Superannuation. For those born between 1960 and 1975 and since, the transition from universality of programmes to intensive targeting that occurred between 1985 and 1995 has been a major influence. This is well described in many places.



Figure 8: Cohort and income effects of public policy and other changes 1910 to 2020

Source: LW Cook, unpublished paper, 2010

The impact of change over each of these periods can be analysed statistically by each period, or by different birth cohorts. Analysing by cohorts pinpoints the life course experiences of different birth years, and how population shares of the young and old interact with increases in earning capacity and home ownership rates. They will help explain the influences on the comparatively dynamic nature of the relevance of retirement policy at any time for Māori.



Whakakapinga V. Conclusion

The extraordinary demographic dynamism of the Māori population during the past century was preceded by the 19th century destruction of the Māori economic base. The strong demographic differences between Māori and non-Māori are projected to continue over the next two decades. By their nature, they provide a strong demographic dividend that will increase the scale and momentum seen from recent advances in the Māori economic base.

For at least the next two decades, a significant share of Māori in the retired population will be from that part of the population whose lifetime income had not been sufficient to regularly generate savings at a level which would provide a sustainable retirement income. These are the generations most adversely affected by the economic and welfare reforms of the late 1980s and 1990s. There are limitations on market mechanisms for retirement provision. Home ownership is a significant part of retirement provision provided by market mechanisms, and Māori have had lower and declining home ownership rates.

For Māori, their current and projected age structure and demographic dynamics have placed them in an advantaged position in comparison with other New Zealand communities. While realising this potential should be part of long run retirement income policy, how this is to be taken properly into account will involve sectors of government that are not usually directly involved.

The effect on the generations which will become eligible for New Zealand Superannuation by 2050 will benefit less from this, through the higher mortality rates between age 50 and 64 years, and when they reach age 65 Māori face higher mortality particularly in the years 65-69. The years for which Māori on average will receive a New Zealand entitlement will be two thirds of that received by non-Māori.

The restoration of the historical social and economic wellbeing of Māori since the mid-1970s has been a slow, unsteady process. To meet the needs of most Māori retiring in the near future, it is assumed that a vital element now would be the certainty of an adequate income on retirement that is provided with dignity and without the presumption of significant assets accumulated prior to this point.



Āpitihanga: Tātaritanga Pāpānga Mate a te Māori i waenga i te 55-59, 60-64, 64-69 tau

VI. Appendix: Māori Mortality Analysis between 55-59, 60-64, 65-69 years

These charts have been prepared by Professor Andrew Sporle, from Inzight analytics from health records (2018 is the most recent year currently available)



Chart 1: Māori excess mortality from all causes in 2018





Chart 3: Māori excess deaths from ALL CAUSES in those aged 55-59 years from 1996 to 2018



Chart 4: Māori excess deaths from ALL CAUSES in those aged 60-64 years from 1996 to 2018



Chart 5: Māori excess deaths from ALL CAUSES in those aged 65-69 years from 1996 to 2018



Critical details about retirement provision where Māori may have different needs

The table below indicates how these primary and implicit elements relate.

Primary elements of retirement provision	Associated elements
Eligibility determined by reaching a threshold retirement age, currently set at 65 in New Zealand. Entitlement is a fortnightly sum adjusted to wage or price change based on a level pragmatically set in the past.	The annual investment by the State each year in equities and other investment forms is intended to accumulate a pool of funds (NZ Superannuation Fund) that can be drawn down to smooth the disproportionate demands of the baby boom cohorts as NZ Superannuation beneficiaries.
The system is financed for current taxation through a pay as you go model, that has applied since 1898.	
When employment ceases before eligibility to NZ Su	perannuation
A de facto tier for those aged under 65 who are not able to be in employment exists in the form of an income tested unemployment benefit. Some will be border line eligible for sickness or invalid benefit. Spending time in this tier can result in asset loss because the associated means testing of additional support can require recipients to draw down capital that had been accumulated during their working life for retirement.	For those with significant wealth, the creation of family trusts has enabled some to avoid the effects of obligatory payments from capital that they could face whenever the retired require ongoing personal care and support through declining health. Means testing applies when the benefit unit is widened to include a spouse and any weakly connected potential resource providers.
State regulation of retirement saving	
 KiwiSaver is an insurance type scheme whereby personal regular contributions can build up funds that are then available at the point of retirement. The accumulated sum is wholly available at the time of retirement, including conversion at the wish of the recipient to a commercial annuity. The accumulated savings may be used at that time to purchase an annuity that pays a regular sum, its value being determined by the savings accumulated; or A limited capacity to withdraw funds before retirement for more relevant forms of wealth creation (first home deposit), or debt management (hardship). How the various forms of retirement provision are taxed determines the relationship between annual saving and final accumulated sum. KiwiSaver operates under a 'TTE' system of taxation 	 Prudential oversight mechanisms. Memory effects from the collapse of equity markets in 1987, late 1990s, 2007 followed periods of high inflation (1969-1980) and 1988 to 1993, along with leaky homes have distorted comparative risk assessment for alternative capital markets. The Office of the Retirement Commissioner exists to independently oversee retirement provision in New Zealand, continuing a series of periodic reviews that began in 1991. RC 2021 4 page 2 "All managed investment schemes are regulated by the Financial Markets Authority [FMA]. The Financial Markets Conduct Act 2013 ('the FMC Act') requires that all MIS managers must be licensed by the FMA and have a licensed supervisor. MIS managers are responsible for the investment strategy of the fund. A series of obligations apply to all MIS, including statutory duties of care on supervisors and managers, and acting in the best interests of investors. MIS that are KiwiSaver schemes have additional obligations " Individual return on investments depends on Whether the amount of savings accumulated over a working life can sustain an adequate standard of living in retirement. Ability to sustain the variability in the value of investors throughout all heaps of business of busines
Māori	investments throughout an preses of business cycles
Treaty of Waitanci obligations. These are largely	Other arrangements including home ownership
ignored by NZ Superannuation and KiwiSaver. Defined in Whanaketanga Māori, as:	 Other arrangements, including nome ownership, personal investments in equity markets or as bonds or bank deposits. Tax incentivised property speculation induces an
Equity	intergenerational transfer from all future purchasers of land (who purchase at artificially high prices) to the first generation of landowners (Coleman)
Ontions	Investment in education.
Derteerships	Equity in provision of health and disability services.
Partnersnips	Treatment of employment in unpaid activity.

Te Ara Ahunga Ora Retirement Commission

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