

Wealth inequality in New Zealand

**An analysis of the 2014-15 and 2017-18 net worth modules in
the Household Economic Survey**

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Introduction

This report examines data from the 2014-15 and 2017-18 net worth modules attached to the Household Economic Survey (HES). It also compares that data with results from previous household wealth surveys and administrative data. It does so in order to examine the distribution of wealth across New Zealand households, the potential concerns raised by that distribution, and the implications for public policy.

The core concept here is net worth: the assets held by the adult (15+) New Zealand ordinarily resident population, minus their liabilities (debts). This is also known as net wealth or simply wealth. It can be presented at either the individual or household level; the data shown here are in respect of individuals. If not otherwise stated, data are from 2017-2018. Where a household has more than one adult, data are collected from each adult separately, and amalgamated to obtain household results. The survey is designed to mitigate over- or under-counting in this instance. In respect of trusts, data are collected only from respondents who are settlors or quasi-settlors of a trust, as they are most likely to accurately value the assets it contains. This includes settlors and trustees who are also beneficiaries (the latter being quasi-settlors), but not beneficiaries alone nor trustees who are not settlors. (This may lead to some under-counting.)

The HES net worth modules asked 5,500 New Zealanders about their assets and liabilities. While such surveys do not fully capture the upper end of the wealth distribution, and thus understate wealth inequality, they still provide detailed and useful insights about assets and liabilities. After each net worth survey is completed, Statistics New Zealand releases detailed results.¹ This paper augments those published results, asking specific questions about upper-end wealth and ownership of specific classes of assets, among other things. This research has been carried out jointly by Statistics New Zealand staff and Institute for Governance and Policy Studies (IGPS) researchers during 2019-20. We thank Statistics New Zealand for so generously making staff time and resources available to pursue this public-interest project.²

¹ See: <https://www.stats.govt.nz/information-releases/household-net-worth-statistics-year-ended-june-2018>.

² Thanks in particular to Wesley Thompson, whose help in the latter stages of this project was invaluable.

A similar collaboration in 2015-17 examined wealth inequality data from the Survey of Family, Income and Employment (SoFIE), producing two IGPS working papers.³ The SoFIE data, covering the period 2004-10, provides a natural point of comparison for the 2014-15 and 2017-18 results. Both sets of data come from household surveys using broadly similar methodologies. However, the questions asked and the classification of assets and liabilities have changed in various different ways between surveys, so care must be taken in drawing comparisons.

As well as understating wealth inequality, household surveys are imperfect in other ways.⁴ They rely on individuals fully recollecting (and accurately valuing) their assets and liabilities, and naturally have certain omissions. We therefore note different results derived from administrative data maintained and collated by government agencies, such as the Reserve Bank's estimates of household wealth.

To aid reading comprehension, the main part of this paper presents only the core points from the data we have gathered. (The full results are presented elsewhere.⁵) In some instances, the figures we present have high sample errors – that is, uncertainties as to their true value – because they are taken from sub-groups of a relatively small overall survey (5,500 households). The online tables provide the relative sample error (RSE) – that is, the ratio of the sample error to the estimated value. Where the RSE exceeds 20%, Statistics New Zealand recommends extra care be taken.

In this paper, tables 6, 7 and 8 have particularly high RSE values:

- Table 6: the median and mean for shares and own business have RSEs between 20% and 35%;
- Table 7: the RSEs for the means of the third and fourth groups, covering the wealthiest 10% (except for the Top 1%), are a little over 20% on average; and the average RSE for the smallest group, the Top 1%, is over 40%. This is to be expected given their smaller sample sizes. Figures for shares and own business are well over 20%; and for the first group, those with net worth in the 0 to 50% range, the RSE for trusts is also high, reflecting the low holdings there of that asset;
- Table 8: the average RSE for the bottom decile is over 100%, and doesn't start approaching 20% until the sixth decile. Again, own business and shares have RSEs well above 20% across all deciles. Low asset holdings in the lower net worth deciles would seem to explain this higher degree of relative sample error.

Finally, we note the different ways in which means can be presented. In most of the data, some people in a given group (the poorest tenth, for instance) lacked a given type of asset or liability (housing, for instance). This did not affect the median figures (the asset/liability held by the individual in the middle of the range of responses), which Statistics New Zealand always calculates by excluding those who reported none of a given type of asset/liability, following standard statistical practice.

³ Geoff Rashbrooke, Max Rashbrooke and Wilma Molano, 'Wealth Disparities in New Zealand: Preliminary Report Providing Updated Data from SOFIE', Working Paper 15/02, Institute for Governance and Policy Studies, Wellington, November 2015; Geoff Rashbrooke, Max Rashbrooke and Wilma Molano, 'Wealth Disparities in New Zealand: Final Report', Working Paper 17/02, Institute for Governance and Policy Studies, Wellington, March 2017.

⁴ By only surveying those in permanent private dwellings, they omit the homeless, for instance.

⁵ <https://www.maxrashbrooke.net/the-good-society/wealth-inequality-the-full-datasets>.

But the means (the mathematical average of the amounts recorded) could be calculated two different ways. The means originally calculated by Statistics New Zealand were ‘respondent means’: the mean (average) among respondents *who reported having some of the relevant asset or liability*. We have also calculated ‘population means’: the mean (average) across all respondents, *whether they reported having some of the relevant asset or liability or not*. For instance, among people in the lowest net worth decile (tenth of the population), some 33,000 individuals out of 362,000 reported having ‘own home’ assets of a total of \$6 billion. The respondent mean is \$182,000; the population mean, \$17,000, is much lower.

When medians and means are being compared, respondent means are the appropriate measure. But the population mean, in our view, gives a better single snapshot of the position for a group such as a decile, and we report this as appropriate, signalling the distinction accordingly. In one instance, Table 6, we also tabulate ‘Coverage’, the proportion of respondents holding a specific asset.

1. Wealth inequality

The distribution of economic resources has been a perennial concern of developed societies because of its effect on individual life chances and the wider social fabric. Having sufficient income and wealth is essential to an individual’s ability to lead a fulfilling life and pursue their goals. Conversely, a lack of income and/or wealth may severely hamper an individual’s prospects. Large inequalities of income and wealth may also lead to negative social outcomes and raise profound ethical questions.

Typically, the greatest attention is given to income, the flow of salaries, wages and benefits. Income is more easily measured than wealth, and New Zealand has detailed long-run statistics on income inequality. Income can also be seen as the most pressing issue for public policy, as it is the resource that individuals use to manage the present – to pay current bills and meet current living expenses.

However, wealth, in the sense of the store or stock of accumulated assets, is increasingly of interest. If income is the present, wealth is the future: possession of wealth allows individuals to confidently plan ahead and to ride out spells of low income by drawing down their reserves. It represents collateral for borrowing, opening up further opportunities. The passive returns on pre-existing wealth, typically greater than the returns generated by actively working in the current economy, can also be a major contributor to wider inequalities, as highlighted by the work of Thomas Piketty.⁶

Wealth is typically much more unequally distributed than income: while the richest 10% of income earners have 27% of all after-tax income, the wealthiest 10% of asset holders have 59% of all wealth.⁷ Note that these are not necessarily the same people: those with high wealth may have low incomes, as in the classic case of the Auckland pensioner living in a \$2 million house but relying on New Zealand Superannuation for her income.

⁶ Thomas Piketty, *Capital in the Twenty-First Century*, Harvard University Press, Cambridge, Mass., 2014.

⁷ Bryan Perry, *Household incomes in New Zealand: Trends in indicators of inequality and hardship 1982 to 2018*, Ministry of Social Development, Wellington, November 2019, p.50.

Increased interest in wealth inequality is reflected in a growing number of surveys assessing its extent in New Zealand. The first major recent attempt came in 2001 with the Household Savings Survey, followed by the longitudinal SoFIE between 2003-04 and 2009-10. This line is continued by the 2014-15 and 2017-18 net worth modules attached to the HES, which are the focus of this paper. (Work is also underway to standardise results from these various surveys in order to better compare them.)

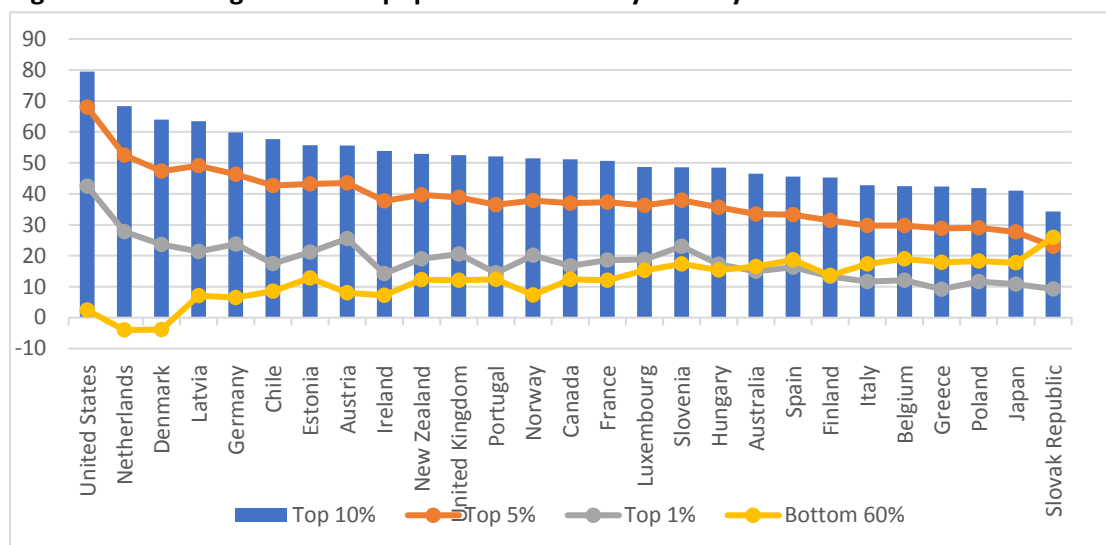
The overall distribution of wealth is shown in the table below for both 2014-15 and 2017-18. As above, this is wealth in the sense of net worth, or assets minus liabilities, by individual. The population is broken down into five groups of uneven sizes: the Wealthiest 1% (technically P99-100), the Next 4% (P95-99, rounding out the rest of the wealthiest 5%), the Next 5% (P90-95, rounding out the rest of the wealthiest 10%), the Next 40% (P50-90, loosely speaking the middle classes), and the Poorest 50% (P1-50). These groups are chosen as they represent specific populations of interest.

Table 1. Wealth, wealth shares and cumulative wealth for five groups

	HES 2014-2015				HES 2017-2018			
	Wealth (\$bn)	Cum've wealth	Share	Cum've share	Wealth (\$bn)	Cum've wealth	Share	Cum've share
Wealthiest 1%	230.4	230.4	22%	22%	273.6	273.6	20%	20%
Next 4 %	245.2	475.5	23%	45%	331.1	604.7	24%	44%
Next 5%	150.4	625.9	14%	59%	203.2	807.9	15%	59%
Next 40%	406.6	1,032.5	39%	98%	536.0	1,343.9	39%	98%
Poorest 50%	22.1	1,054.6	2%	100%	23.7	1,367.6	2%	100%

These inequalities are significant. In 2017-18, the Wealthiest 1%, representing approximately 38,000 adults, had \$274 billion in net worth, 20% of the total. In contrast, the Poorest 50%, representing 1.4 million adults, had just \$23.7 billion, 1.7% of the total. The table shows little movement in wealth inequality between 2014-15 and 2017-18, except for slight increases in the share of the Next 4%, Next 5% and Next 40% groups at the expense of the wealthiest 1%. As the figure below shows, New Zealand's level of wealth inequality is above average. (The figure shows wealth inequality by household, which is lower than by individual, as calculated above.) It is also likely that the above figures for the wealthiest 1% and 10% shares are significantly understated, as discussed below.

Figure 1. Percentage shares of population wealth by country



Source: OECD SDD/DOC(2018)1, Inequalities in household wealth across OECD countries: Evidence from the OECD Wealth Distribution Database. Values taken from Table 2.1 (value for NZ Top 1% estimated by authors)

2. Understanding the wealth spectrum

Before the data are analysed in detail, it is useful to understand the shape of the wealth inequality spectrum and the spacing of the points along it. The following table sets out the 2017-18 boundaries between the five groups described above.

Table 2. Boundaries and averages for five groups

Group	Band	Median net worth (\$m)	Mean net worth (\$m)
Wealthiest 1%	\$3,880,000 and above	6.20	7.10
Next 4%	\$1,410,000-\$3,880,000	1.97	2.18
Next 5%	\$860,000-\$1,410,000	1.04	1.07
Next 40%	\$90,000-\$860,000	0.30	0.35
Poorest 50%	\$0-\$90,000	0.01	0.01

As the table shows, an individual would need \$3.88m to be in the wealthiest 1% of adults, while a net worth of \$50,000 would place them squarely in the poorest 50%.

The next table repeats this analysis but by individual decile, dividing the individual population into ten equally sized groups, in 2017-18. Decile 1 is the poorest and decile 10 the wealthiest. In contrast to the previous table, the poorest groups are at the top and the wealthiest at the bottom.

Table 3a. Boundaries and averages by decile (individual)

Decile	Band	Median net worth	Mean net worth	Total net worth (\$bn)
1	Under \$0	-\$14,000	-\$36,237	-13.1
2	\$0-\$3,849	\$1,000	\$1,193	0.5
3	\$3,850-\$14,999	\$8,000	\$8,669	3.3
4	\$15,000-\$38,999	\$24,000	\$25,273	9.6
5	\$39,000-\$91,599	\$59,000	\$61,377	23.4
6	\$91,600-\$187,499	\$135,000	\$135,278	51.7
7	\$187,500-\$301,452	\$237,000	\$239,994	91.4
8	\$301,453-\$487,309	\$382,000	\$386,266	147.2
9	\$487,310-\$860,499	\$636,000	\$644,988	245.7
10	\$860,500 and over	\$1,406,000	\$2,120,488	807.9

Again, significant inequalities of wealth are visible. The poorest decile has \$13 billion more in debts than it has assets. Conversely, the wealthiest decile has \$808 billion in net worth. The threshold of \$860,500 to be in decile 10 may seem low, given that it is lower than the average Auckland house price, but most of those houses will have substantial mortgages against them. What this threshold points to, in fact, is the very long tail of upper-end wealth. The wealthiest decile includes everyone from people on \$860,000 through to those worth billions of dollars.

Although this paper is largely focussed on individual data, Table 3b replicates the above data by household, for the sake of descriptive interest.

Table 3b. Boundaries and averages by decile (household)

Decile	Band	Median net worth	Mean net worth	Total net worth (\$bn)
1	Under \$8,545	-\$1,945	-\$32,463	-5.6
2	\$8,545-\$43,249	\$24,010	\$24,439	4.2
3	\$43,250-\$97,049	\$64,728	\$66,191	11.5
4	\$97,050-\$205,609	\$147,050	\$149,540	25.9
5	\$205,610-\$339,999	\$269,373	\$269,824	46.7
6	\$340,000-\$494,599	\$415,150	\$418,315	72.7
7	\$494,600-\$708,749	\$593,350	\$593,694	102.8
8	\$708,750-\$1,067,999	\$877,300	\$877,439	152.4
9	\$1,068,000-\$1,750,023	\$1,306,840	\$1,346,423	233.3
10	\$1,750,024 and over	\$2,830,991	\$4,168,147	723.7

In the upper deciles, the boundaries by household are roughly twice those by individual, indicating a preponderance of two-person households. No such relationship between the individual and household decile boundaries exists among the poorer deciles. Inequality by individual is slightly greater than by household, the latter reflecting the equalising effect of relatively poor individuals cohabiting with relatively wealthy spouses.

3. Upper-end wealth

The table below presents further details of the wealth held at the upper end of the spectrum.

Table 4. Wealth held in high net worth bands

Band	2014-15		2017-18	
	Net worth (\$bn)	Population	Net worth (\$bn)	Population
\$0.5m-\$1m	223	323,900	307	436,800
\$1m-\$2m	183	133,300	262	191,600
\$2m-\$5m	161	53,800	249	84,300
\$5m-\$10m	78	12,700	158	22,600
Over \$10m	81	5,400	67	4,900

These figures need to be treated with caution, however. Given the HES sample size, the results for small segments of the population are likely to be unstable. This can almost certainly be seen in the figures for those with wealth of over \$10m. It is implausible that, in the actual population, their numbers would have fallen, and their combined wealth declined by \$14bn, in a period of wide prosperity and no major economic shocks. In reality, this likely reflects variations in the sample.

Moreover, it is globally acknowledged that household surveys do not fully capture the upper end of the wealth distribution, as the very wealthy are reluctant to take part.⁸ They may wrongly fear, for instance, that their data will be passed onto other government agencies and examined for evidence of tax evasion. In addition, the most commonly under-reported assets may be financial ones, because they are the hardest to value and/or recall; these assets are disproportionately held by the wealthy.⁹ All this suggests that upper-end wealth, and therefore wealth inequality, may be significantly understated by the figures above.

Internationally, scholars are making growing efforts to correct for the under-sampling of the very wealthy in household surveys. One approach is to use data from a country's Rich List, a ranking of the wealthiest individuals as estimated by a given publication. While these lists are of course subject to inaccuracies, they represent the best data available, and are reasonably accurate for individuals whose fortunes are based on publicly listed companies with disclosed share values. These data can be added to the household survey data to fill in what is informally known as 'the missing tail'. They complete, in other words, the hockey-stick-shaped graph of increasing wealth that would otherwise cut off before the end. A set of defensible mathematical assumptions is used to piece the two lines together.¹⁰

Using this method, the economists Stefan Bach, Andreas Thiemann and Aline Zucco have produced estimates that significantly increase the wealth share of the top 1% for three European countries:

⁸ Philip Vermeulen, 'Estimating the top tail of the wealth distribution', Working Paper Series no. 1907, European Central Bank, Frankfurt, 2016 (<https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1907.en.pdf>). The lower end may also not be fully captured, although over-sampling attempts to address this.

⁹ Ibid.

¹⁰ Stefan Bach, Andreas Thiemann and Aline Zucco, 'Looking for the missing rich: tracing the top tail of the wealth distribution', *International Tax and Public Finance*, 26, pp.1234–58, November 2019.

Germany, France and Spain. For each country, they have taken two years' worth of data. The estimated increases are striking, ranging from 6 to 12 percentage points.

Table 5. Estimated 1% share in three European countries

Country	1% share in household survey	1% share adjusted with Rich List data	Difference (percentage points)
Germany year 1	24%	34%	10
Germany year 2	24%	35%	11
Spain year 1	15%	23%	8
Spain year 2	16%	22%	6
France year 1	18%	25%	7
France year 2	19%	31%	12

Source: Stefan Bach, Andreas Thiemann and Aline Zucco, 'Looking for the missing rich: tracing the top tail of the wealth distribution', *International Tax and Public Finance*, 26, pp.1234–58, November 2019.

The New Zealand Treasury has recently taken initial steps to replicate this method. Simply adding the Rich List to the HES data increases the wealthiest 1%'s share of all assets from 20% to 26%. The Treasury has not yet taken the next step of using mathematical assumptions to match the HES and Rich List 'lines' together, but this work is understood to be underway.¹¹ In addition, the Treasury has reverse-estimated individuals' wealth from the capital income they declare to Inland Revenue, assuming that that income represents a certain percentage return on the assets they hold. This increases the estimated 1% share of wealth to 25%, similar to the Rich List method. It also increases the wealthiest 10% share from 59% to 70%. This strengthens the overall argument that the household survey data, though otherwise immensely valuable, significantly understates the concentration of wealth.

4. Asset patterns

We have been using the term 'wealth' as an overarching concept, but it is made up of many different parts. Wealth can come in the form of financial assets (cash and bank deposits, shares, bonds) and non-financial assets (houses, vehicles, consumer goods). Different kinds of wealth will have different implications for individuals' lives. An individual whose wealth is dominated by their own home may enjoy one very important form of security; but in the event of job loss or another economic shock, they might lack liquid assets – cash, or things easily converted into cash – to ride out that shock, leaving them with the unpalatable option of selling their home. Meanwhile, the pattern of ownership of financial assets, in particular ownership of businesses, helps us understand the distribution of power and control within the economy. The table below shows the assets and liabilities held in each kind of asset by coverage, the median and respondent mean by individual, and the total held by the whole population with the percentage this represents of all assets and all liabilities respectively.

¹¹ <https://www.stuff.co.nz/national/politics/300238241/more-than-40-of-millionaires-paying-tax-rates-lower-than-the-lowest-earners-government-data-reveals>.

Table 6. Overall distribution of asset and liability types

Asset or liability type	Covered*	Median	Mean	Total (\$bn)	Percent of all
Trusts	8%	\$649,775	\$1,169,704	354	22%
Own home	39%	\$267,352	\$333,174	490	31%
Other housing	9%	\$228,807	\$344,789	123	8%
Cars	71%	\$7,262	\$13,212	36	2%
Household items	87%	\$24,011	\$35,203	117	7%
Superannuation	52%	\$14,975	\$37,390	74	5%
Life insurance	3%	\$34,419	\$66,756	9	1%
Business	4%	\$49,799	\$313,233	46	3%
Financial assets	6%	\$45,597	\$151,684	34	2%
Cash	94%	\$2,542	\$29,201	105	7%
Collectibles	20%	\$6,999	\$18,107	14	1%
Other	7%	\$14,754	\$117,255	29	2%
Shares	13%	\$32,843	\$294,993	149	9%
Total assets	24%	\$167,818	\$420,844	1,579	115%
Own mortgage	36%	\$121,708	\$151,059	137	65%
Credit card	14%	\$1,250	\$2,530	3	2%
Student loans	9%	\$15,001	\$20,637	11	5%
HP debt	20%	\$1,094	\$2,441	1	0%
Other debt	5%	\$6,910	\$16,774	13	6%
Other mortgage	98%	\$177,408	\$244,446	46	22%
Total liabilities	64%	\$20,784	\$86,236	211	15%
Net worth	100%	\$91,599	\$359,035	1,368	100%

* Percentage of respondents who report holding this asset

Note: See the Introduction for a discussion of the sample errors in this table.

At first glance, property (bringing together the 'Principal residence' and 'Other real estate' classes) makes up 38.8% of assets. Correspondingly, mortgages (bringing together 'Owner residence mortgage' and 'Other real estate mortgage') make up the vast majority (87%) of all liabilities.

The most striking finding, however, is the predominance of trust assets. Apart from owner-occupied housing, trust assets are, at 22.4% of the total, the second largest asset class. At first glance, this appears significantly larger than in 2009-10, when SoFIE recorded the figure at 7.6%. However, the way respondents are asked about trusts can vary significantly across household surveys, so this may not represent a true increase.¹² Regardless, it is a large amount, especially given the concerns traditionally raised about trusts, which in the past have been used to avoid or evade tax, hide assets from creditors and spouses, and gain access to rest home subsidies for which the asset owner would not otherwise be eligible. The extent to which such practices continue is, however, disputed.

¹² Just between the 2015 and 2018 net worth modules, for instance, the survey design was changed to ask respondents about trust assets much earlier in the interview. (If respondents are asked about trusts later, they may not include assets they have already listed elsewhere – rental properties, for instance – even if they are in fact held in a trust.) See: <https://www.stats.govt.nz/methods/improving-net-worth-statistics>.

Separate analysis of the HES data suggests that 65% of the assets held in trusts are non-financial.¹³ This will very largely be housing. If, say, 60% of the 22.4% in trusts is housing (that is, 13.4% overall), roughly 52% of household wealth would be in property, in line with Reserve Bank estimates based on administrative data.¹⁴ This would also be broadly in line with the SoFIE 2009-10 estimate.¹⁵

The other significant asset classes include shares, at 9% of the total, household items (7%) and superannuation (5%). Notably, 'Own business' represents just 3% of the total, against 18.7% in the 2009-10 SoFIE.¹⁶ Presumably, however, much of this business wealth is now being reported as owned by a trust, rather than having dramatically declined in the last decade.

Combining our two previous forms of analysis, we can now look at the way different kinds of assets and liabilities are distributed across different groups. The following table divides the population into five groups of uneven size, as above, and shows how much the mean individual in that group has of a particular asset (or liability), as well as the total amount that group holds in that asset (or liability).¹⁷ The mean shown here is the population mean (the average of *all* people in the group).

¹³ Statistics New Zealand, correspondence with the author, December 2020.

¹⁴ The Reserve Bank lists net financial wealth as \$895,345bn and housing and land as \$928,366bn, for a total of \$1,823,711bn. Accordingly housing/land is 51% of household wealth. <https://www.rbnz.govt.nz/statistics/c22>.

¹⁵ In SoFIE, 'Own Home' and 'Residential Property' were 36.3% and 9% of all wealth, which combined with 60% of the 'Trust Assets' figure of 7.6% gives around 50% overall. Rashbrooke, Rashbrooke and Molano, 'Wealth Disparities in New Zealand: Final Report', p.17.

¹⁶ Ibid.

¹⁷ The median values for each asset class do not add up to the median net worth for an individual in any given group. Although this makes sense mathematically it can look confusing to the average reader, so median values have been omitted for this table. Population means do add up.

Table 7. Asset and liability distribution by five groups

Asset/Liability	Poorest 50%		Next 40%		Next 5%	
	Mean	Total (\$bn)	Mean	Total (\$bn)	Mean	Total (\$bn)
Trusts	\$366	0.7	\$27,677	42.2	\$255,697	48.6
Own home	\$13,698	26.1	\$218,612	333.2	\$361,994	68.8
Other housing	\$5,209	9.9	\$32,305	49.2	\$118,121	22.4
Cars	\$4,673	8.9	\$12,013	18.3	\$19,553	3.7
Household items	\$10,073	19.2	\$47,192	71.9	\$64,689	12.3
Superannuation	\$6,142	11.7	\$25,459	38.8	\$65,959	12.5
Life insurance	\$145	0.3	\$3,655	5.6	\$9,665	1.8
Business	\$106	0.2	\$4,768	7.3	\$32,901	6.3
Financial assets	\$200	0.4	\$5,350	8.2	\$22,576	4.3
Cash	\$3,858	7.3	\$27,377	41.7	\$81,163	15.4
Collectibles	\$778	1.5	\$4,407	6.7	\$14,420	2.7
Other	\$310	0.6	\$4,763	7.3	\$19,076	3.6
Shares	\$225	0.4	\$14,608	22.3	\$67,246	12.8
Total assets	\$45,783	87.2	\$428,188	652.6	\$1,133,061	215.3
Own mortgage	\$19,037	36.2	\$56,174	85.6	\$24,950	4.7
Credit card	\$691	1.3	\$1,142	1.7	\$1,122	0.2
Inv loans	\$0	0.0	\$0	0.0	\$0	0.0
Student loans	\$5,163	9.8	\$977	1.5	\$0	0.0
HP debt	\$240	0.5	\$206	0.3	\$172	0.0
Other debt	\$3,687	7.0	\$3,284	5.0	\$1,404	0.3
Other mortgage	\$4,526	8.6	\$14,685	22.4	\$36,012	6.8
Total debt	\$33,345	63.5	\$76,468	116.5	\$63,726	12.1
Net worth	\$12,438	23.7	\$351,720	536.0	\$1,069,334	203.2

Asset/Liability	Next 4%		Wealthiest 1%	
	Mean	Total (\$bn)	Mean	Total (\$bn)
Trusts	\$799,754	121.6	\$3,615,275	141.0
Own home	\$319,690	48.6	\$337,708	13.2
Other housing	\$215,540	32.8	\$210,741	8.2
Cars	\$22,840	3.5	\$30,944	1.2
Household items	\$68,319	10.4	\$85,248	3.3
Superannuation	\$56,662	8.6	\$53,970	2.1
Life insurance	\$5,093	0.8	\$7,222	0.3
Business	\$125,663	19.1	\$341,850	13.3
Financial assets	\$91,960	14.0	\$174,514	6.8
Cash	\$146,549	22.3	\$465,052	18.1
Collectibles	\$15,622	2.4	\$19,967	0.8
Other	\$71,535	10.9	\$177,157	6.9
Shares	\$342,344	52.0	\$1,577,297	61.5
Total assets	\$2,281,570	346.8	\$7,096,946	276.8
Own mortgage	\$55,496	8.4	\$50,691	2.0
Credit card	\$1,039	0.2	\$1,072	0.0
Inv loans	\$0	0.0	\$0	0.0
Student loans	\$0	0.0	\$0	0.0
HP debt	\$53	0.0	\$0	0.0
Other debt	\$2,001	0.3	\$3,981	0.2
Other mortgage	\$44,651	6.8	\$23,822	0.9
Total debt	\$103,382	15.7	\$80,329	3.1
Net worth	\$2,178,188	331.1	\$7,016,616	273.6

Note: See the Introduction for a discussion of the sample errors in this table.

The table again reveals immense wealth disparities. Mean net worth ranges from \$12,400 for the poorest 50% to \$7,017 million for the wealthiest 1%. For the poorest 50%, housing is the dominant asset: \$26.1 billion in 'Principal residence' and \$9.9 billion in 'Other real estate'. These are, however, outweighed by housing-related liabilities: \$36.2 billion in 'Owner residence mortgage' and \$8.6 billion in 'Other real estate mortgage'. The poorest 50%, as well as comprising people who genuinely have no assets, also includes a significant number of people who do own their own home, albeit often with a large mortgage against it. For the poorest 50%, liabilities play a major role: at a mean of \$33,300, they are nearly three-quarters of the \$45,800 recorded for mean assets. For this group as a whole, the other significant assets are household items (\$19.2 billion), superannuation (\$11.7 billion) and currency and deposits (\$7.3 billion).

In the next 40%, which covers some of the New Zealand middle classes, owner-occupied housing is far and away the dominant asset class, representing over half of mean net wealth. This unsurprising finding reflects the traditional New Zealand middle-class emphasis on homeownership as a route to economic stability. It also reflects the middle classes' relative lack of other investments. The mean person in this group, for instance, has just \$14,600 in shares and \$5,400 in general financial assets. In contrast to the poorest 50%, mean debts for this group are insignificant, making up less than one-fifth of mean assets.

In the remaining three groups, which between them comprise the wealthiest 10%, the pattern of asset ownership is strikingly different. Owner-occupied housing, though not negligible, becomes a less and less important component of overall wealth. At first glance it represents less than 5% of mean net worth for someone in the wealthiest 1% (though we do not know how much of the trust wealth discussed below is in fact housing). Other real estate, however, becomes increasingly important, as do financial assets, cash, and ownership of businesses. Share ownership rises markedly, from a mean of just \$225 among the poorest 50% to \$1.58 million for the wealthiest 1%. Most significant, however, is the immense value of trust assets, at \$3.62 million representing over half the net worth of someone in the wealthiest 1%. When it comes to liabilities, the pattern observed earlier continues, in which debts do not increase significantly – indeed the mean debt of the wealthiest 1% is not very different to that of the next 40% – even as assets do.

The above exercise can also be performed using deciles rather than the five groups of uneven size. The table below provides the mean values held in each asset and liability class by each decile.¹⁸

¹⁸ Although it is population means reported here, i.e. the average of all members of the decile, the means of different asset groups in Deciles 2 and 3 do not add up exactly to the mean total assets and mean total liabilities, as the result of rounding required for low response rates.

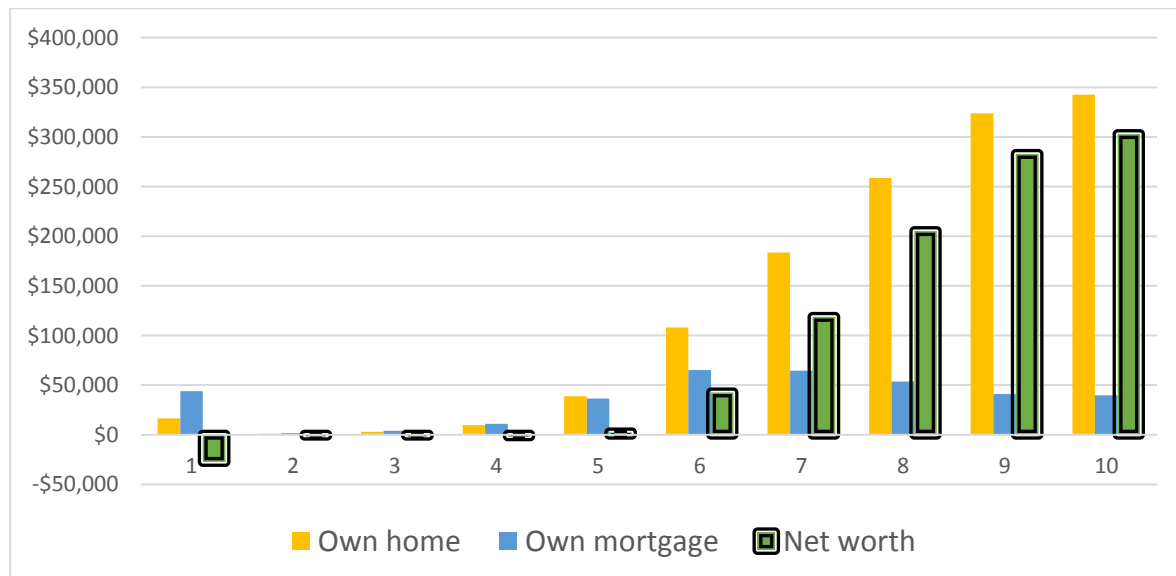
Table 8. Asset and liability distribution by wealth decile

Group	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
Trusts	\$409	\$0	\$0	\$0	\$1,441	\$2,293	\$10,003	\$24,782	\$73,624	\$816,643
Own home	\$16,538	\$1,101	\$3,162	\$9,784	\$38,634	\$108,160	\$183,556	\$258,607	\$323,841	\$342,631
Other housing	\$12,332	\$749	\$141	\$2,153	\$11,238	\$20,554	\$20,555	\$32,227	\$55,831	\$166,467
Cars	\$3,629	\$687	\$3,124	\$6,226	\$9,826	\$9,903	\$9,701	\$12,267	\$16,156	\$22,030
Household items	\$8,091	\$1,427	\$4,964	\$12,401	\$23,785	\$38,928	\$43,229	\$48,943	\$57,566	\$68,242
Superannuation	\$5,704	\$900	\$2,974	\$7,345	\$14,009	\$14,957	\$19,110	\$22,586	\$45,146	\$61,023
Life insurance	\$281	\$0	\$0	\$73	\$373	\$1,247	\$2,865	\$4,731	\$5,775	\$7,591
Business	\$62	\$0	\$23	-\$99	\$568	\$1,188	\$1,737	\$5,675	\$10,470	\$101,533
Financial assets	\$88	\$46	\$68	\$151	\$648	\$1,489	\$2,024	\$3,184	\$14,700	\$65,809
Cash	\$2,310	\$596	\$2,404	\$4,486	\$9,567	\$13,711	\$18,113	\$25,969	\$51,678	\$146,545
Collectibles	\$567	\$21	\$404	\$928	\$1,994	\$2,706	\$3,042	\$4,232	\$7,640	\$15,467
Other	\$518	\$21	\$56	\$173	\$807	\$1,095	\$2,034	\$4,546	\$11,376	\$56,186
Shares	-\$1,217	\$89	\$48	\$1,104	\$1,035	\$5,303	\$7,114	\$11,618	\$34,386	\$331,568
Total assets	\$49,313	\$5,618	\$17,376	\$44,724	\$113,925	\$221,534	\$323,083	\$459,366	\$708,188	\$2,201,735
Own mortgage	\$43,858	\$1,870	\$3,963	\$11,150	\$36,389	\$65,343	\$64,713	\$53,467	\$41,002	\$39,771
Credit card	\$886	\$132	\$380	\$893	\$1,202	\$1,255	\$1,127	\$1,059	\$1,123	\$1,084
Student loans	\$18,763	\$872	\$2,290	\$2,344	\$2,422	\$1,610	\$1,263	\$571	\$459	\$49
HP debt	\$318	\$62	\$230	\$343	\$259	\$356	\$182	\$116	\$169	\$107
Other debt	\$10,006	\$946	\$1,719	\$3,075	\$3,133	\$3,482	\$3,102	\$2,948	\$3,594	\$1,906
Other mortgage	\$11,719	\$0	\$0	\$1,646	\$9,143	\$14,210	\$12,700	\$14,939	\$16,853	\$38,210
Total debt	\$85,550	\$4,425	\$8,707	\$19,451	\$52,548	\$86,257	\$83,089	\$73,101	\$63,200	\$81,246
Net worth	-\$36,237	\$1,193	\$8,669	\$25,273	\$61,377	\$135,278	\$239,994	\$386,266	\$644,988	\$2,120,488

Note: See the Introduction for a discussion of the sample errors in this table.

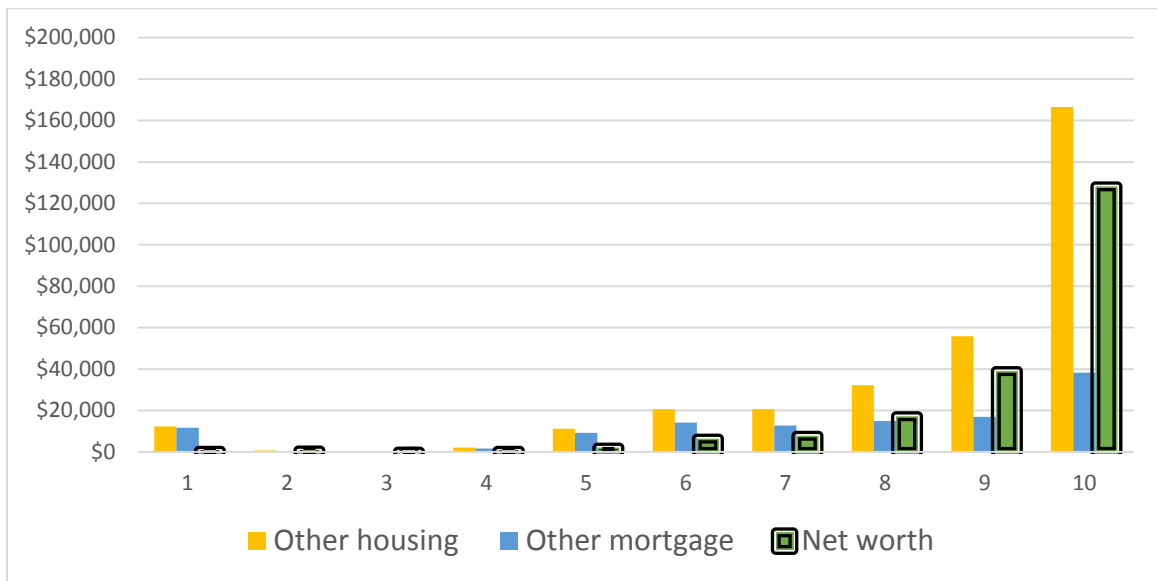
These data, graphed below, shed light on debates about wealth inequality, beginning with housing.

Figure 2. Assets and liabilities for own home; mean value for each wealth decile



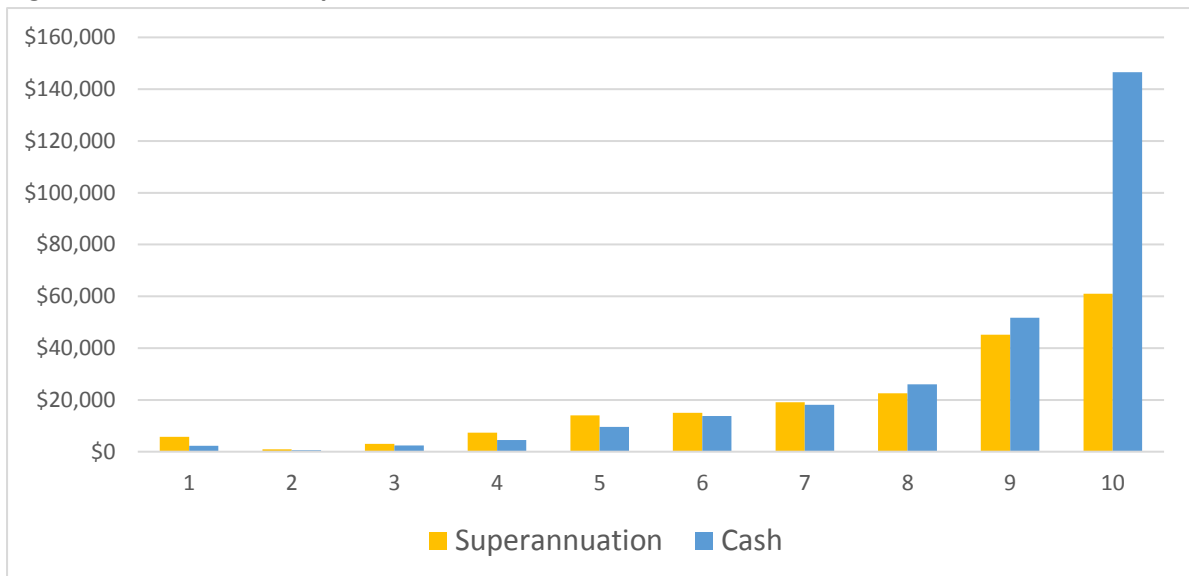
Much current attention focuses on housing inequality, and understandably so, given the centrality of housing to both community life and individual well-being. As the graph shows, housing is unequally distributed: there is minimal housing wealth in the four poorest deciles, then a step increase through to deciles 9 and 10. Nonetheless, because there is substantial housing wealth in deciles 6-9, housing is the most evenly distributed of the major asset classes; its distribution could be called 'relatively equal' (with the stress on 'relatively').

Figure 3. Assets and liabilities for other housing; mean value for each wealth decile



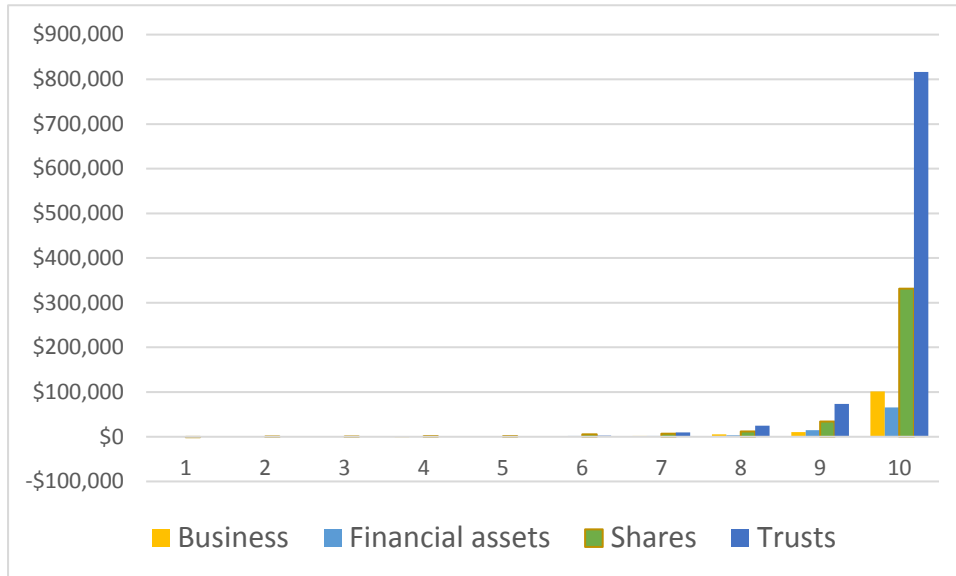
Ownership of investment properties and second homes is more markedly concentrated in the top two deciles, particularly once mortgage debt on these properties is taken into account. Net worth doubles between decile 8 and decile 9, and more than triples between decile 9 and decile 10.

Figure 4. Assets held in superannuation and cash; mean value for each wealth decile



The distribution of the above classes might be described as ‘very unequal’. There is a small amount of wealth in deciles 5-9, but this is dwarfed by the holdings in decile 10. The average cash holding in the bottom three deciles is less than half the \$4,000 recommended as a buffer against shocks.

Figure 5. Business, shares, trusts, and other financial assets; mean value for each wealth decile



The distribution of the four asset classes graphed above – direct business ownership, holdings of shares, trusts, and other financial assets such as term deposits – might be labelled ‘extremely unequal’. There is minimal wealth in deciles 1-9; ownership of these assets is almost solely the preserve of the wealthiest 10%.

This finding is interesting in light of the long-running debates about the nature of capitalist societies and their ability to distribute wealth and power. One view of capitalism is that through market exchanges, which should (theoretically) reward each according to their due, inequality will be reduced and ownership of the economy widely distributed. In general, however, the data provide more support for the contrary thesis that capitalism is a good generator of wealth (albeit at the expense of the environment and other sectors) but a poor distributor. Redistribution of wealth is limited to housing, a ‘non-productive’ part of the economy and one that does not bring into question the power exerted by employers and investors. The assets that allow control over businesses and the productive economy – businesses, shares, and financial assets – remain largely the preserve of one-tenth of the population. (Albeit this picture is slightly softened by the pattern of superannuation assets, which will include significant indirect shareholdings.) As the US businessman and author Jeff Gates has noted, it is one of the curiosities of capitalism that it “creates so few capitalists”.¹⁹

¹⁹ Jeff Gates, *The Ownership Solution*, Perseus Books, Reading, Mass., 1998, p.1.

5. Intersections with other inequalities

This paper is focused on an original analysis of inequalities in economic wealth. However, such inequalities overlap or intersect with other inequalities, such as those of ethnicity, gender and age. Accordingly, we examine below some of those intersections, drawing heavily on analysis produced by Statistics New Zealand and the Tax Working Group. While further intersections could be explored – based on region, education, occupation and other categories – such analysis is beyond the scope of this paper, though it will be picked up elsewhere.²⁰

Table 10. Wealth inequality by ethnicity

	Median	Mean	Spread
European	\$138,000	\$411,000	3.0
Māori	\$29,000	\$204,000	7.0
Pacific peoples	\$15,000	\$81,000	5.4
Asian	\$46,000	\$258,000	5.6
Other	\$39,000	\$265,000	6.8

Source: Statistics New Zealand, 'Household net worth statistics: Year ended June 2018 – corrected', December 2018, Tabs 8.01 and 8.02.

Wealth for European (or Pākehā) individuals is significantly higher than that for other ethnicities, especially compared to Māori.²¹ This inequality has deep roots reaching back to the widespread nineteenth-century confiscation of Māori land and policies that limited Māori access to capital.²² Other drivers of this inequality may include the long-term concentration of Māori workers in low-paid industries, and the decline of those industries following economic restructuring in the 1980s. (Low pay limits the ability to save and thus contributes to wealth inequality.) However, there are also significant inequalities *within* each ethnicity. While the median represents the actual wealth held by the person in the middle of a given distribution, the mean is the sum of the wealth held by all those individuals divided by their number, and is thus “pulled up” by the long tail of very wealthy individuals at the upper end. Dividing the mean by the median, which shows how far the two are apart, provides a rough measure of how strong this “pull” is, and thus of inequality within a given population. As the ‘Spread’ column indicates, inequalities among Māori are greater than they are within other ethnicities, especially compared to Pākehā. Māori researchers have attributed this to the uneven distribution of Treaty settlements, among other factors.²³ It may also be influenced by inequalities in the distribution of Māori business wealth, estimated to be worth \$69 billion in 2018.²⁴

²⁰ One of the authors is working on a manuscript that will deal with these variables in greater detail.

²¹ The terminology used here is that provided by Statistics New Zealand. They note: "Ethnic groups in this table are created using the total response method. People were able to identify with more than one ethnic group."

²² Māori, for instance, were often unable to access business loans in the nineteenth century. Ranginui Walker, *Ka Whawhai Tonu Matou: Struggle Without End*, Penguin, Auckland, 2004, p.99-101.

²³ See, for instance: Evan Poata-Smith, 'Inequality and Māori', in Max Rashbrooke (ed.), *Inequality: A New Zealand Crisis*, Bridget Williams Books, Wellington, 2013, pp.148-58.

²⁴ Berl, *Te Ōhanga Māori: The Māori Economy 2018*, Reserve Bank, Wellington, January 2021, p.14.

Table 11. Wealth inequality by gender

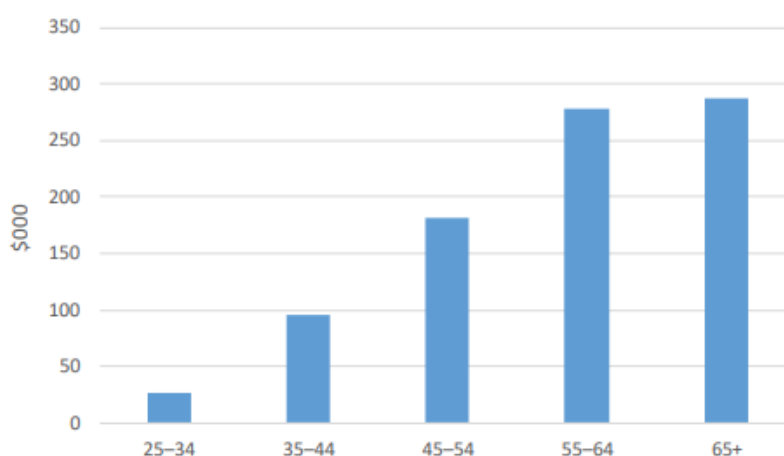
	Median	Mean	Spread
Women	\$91,000	\$333,000	3.7
Men	\$93,000	\$386,000	4.2

Source: Statistics New Zealand, 'Household net worth statistics: Year ended June 2018 – corrected', December 2018, Tabs 9.01 and 9.02.

Inequality by gender appears much less pronounced than it is by ethnicity. However, many of the HES survey respondents are in couples, where there is an expectation – and sometimes a reality – of equal division of assets on separation. In practice, the distribution of assets is not always even, and men and woman can experience markedly different paths of wealth acquisition post-separation. Data drawn solely from single men and woman would undoubtedly paint a different picture.

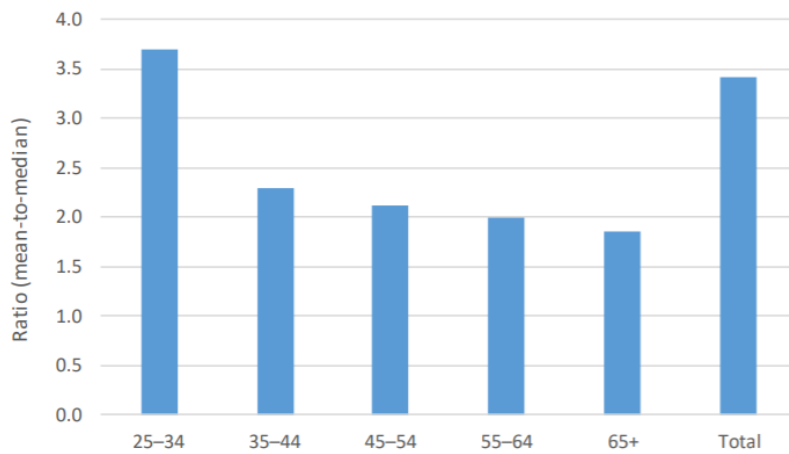
Finally, we can look at wealth inequality by age, using analysis prepared for the 2018 Tax Working Group. Figure 6, showing the median individual net worth for each age group, tells a familiar story: wealth increases with age until retirement. (It then decreases as people draw down savings, although this is not shown.) This story is sometimes used as a counter to concerns about wealth inequality. If wealth simply – and naturally – increases with age, what is there to worry about? Figures 7 and 8, however, reveal the flaw in this argument. As Figure 7 shows, there is significant inequality (measured once again by the extent to which the mean is greater than the median) within each age group. Figure 8 makes this point even more starkly. Dividing the adult population into four age groups, it sets out the disparity between the richest and poorest fifths (quintiles) within each cohort. (Quintile 1 is the poorest fifth, quintile 5 the wealthiest.) As is readily apparent, there are both very wealthy and very poor individuals in every age group, including the older cohorts. Wealth inequality is ever-present, and cannot be dismissed as an age effect.

Figure 6. Median individual net worth by age group, 2015



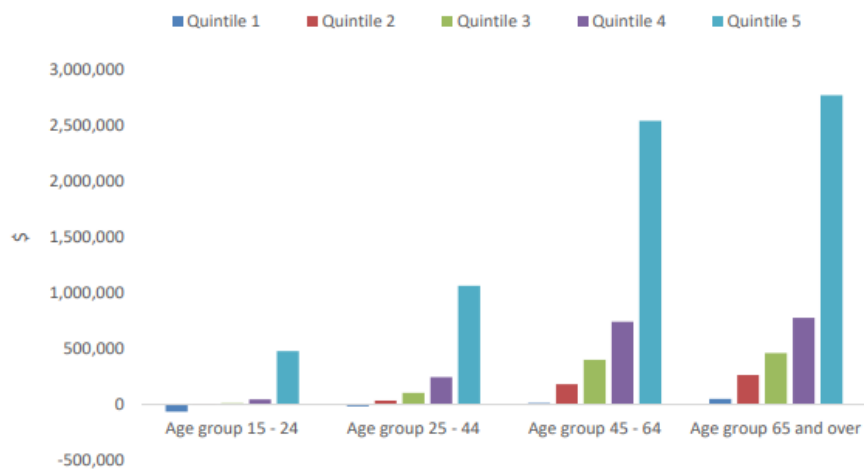
Source: 'Distributional Analysis', paper for session 5 of the Tax Working Group, March 2018, p.13 (<https://taxworkinggroup.govt.nz/sites/default/files/2018-09/twg-bg-distributional-analysis.pdf>).

Figure 7. Individual net worth inequality (mean-to-median ratio) by age group, 2015



Source: Ibid, p.14.

Figure 8. Mean individual net worth by quintile for four age groups, 2015



Source: Ibid.

6. Comparison with administrative data

There are multiple reasons why the HES is likely to underestimate household wealth. In addition to the under-sampling of the very wealthy and the potential under-reporting of financial assets, the HES counts only those in permanent private dwellings, omitting – among others – those living in aged care hospital units. HES respondents are likely to under-report their net worth, people being more prone to forget assets than invent them; they may also simply undervalue their wealth.

The sum of these and other effects is seen in the discrepancy between the total household net worth reported in the HES, \$1.37 trillion, and the Reserve Bank estimate of \$1.65 trillion at December 2017 (roughly the midpoint of the HES). The latter is \$281 billion or 20.6% higher.²⁵ It is based largely on administrative data such as property records and banks' statements of their holdings, and is thus more likely to be more accurate. (It does not, though, provide any information on how this wealth is distributed; hence the need for the HES.)

One potential resolution to this discrepancy would be to crudely increase all the HES values by 20.6%. This, however, would run into a number of difficulties, not least the fact that under-representation is likely to be greater amongst the wealthiest respondents.²⁶ A more sophisticated approach would involve adjusting the values for each asset and liability class in the HES to those in the Reserve Bank estimates, taking into account the above issues.

But even this would be a complex task. As Statistics New Zealand notes, it is difficult to directly compare the two approaches for all asset types. Some categories "are a one-to-one match ... but for others the [HES] data needs adjusting to be compared with the [Reserve Bank] figures."²⁷ The treatment of housing, trusts and businesses, for instance, varies significantly between datasets.

Such a systematic comparison is accordingly beyond the scope of this paper. We simply note that Statistics New Zealand now compiles annual household wealth estimates on a similar basis to the Reserve Bank, with a view to shortly publishing such estimates on a quarterly basis; and that these developments may provide further opportunities for comparing or reconciling the different approaches to estimating household wealth.

²⁵ Reserve Bank of New Zealand, 'Household Balance Sheet – C22', <https://www.rbnz.govt.nz/statistics/c22>.

²⁶ Vermeulen, 'Estimating the top tail of the wealth distribution'.

²⁷ See: <https://www.stats.govt.nz/methods/comparison-of-household-net-worth-statistics>.

Conclusion

New Zealand has traditionally portrayed itself as an egalitarian country. The above analysis suggests that this is not the case when it comes to economic wealth, even leaving aside all the other inequalities – for instance those between ethnicities – that characterise New Zealand. There are striking inequalities of wealth, more so even than in comparable developed countries. These inequalities appear to be even greater once the under-reporting of the largest fortunes is corrected. The data reveal significant inequality in housing, one of the most important assets for well-being, and even greater inequality in the assets that create, and are created by, control over the productive economy. While New Zealand may be egalitarian in some other respects – its relative ease of connection between different social classes, for instance, or its moderately high social mobility – it is not egalitarian in its actual distribution of economic wealth.