

TAR 309: Housing tenure by age, cost, ethnicity, and time

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TAR 309: Housing tenure by age, cost, ethnicity, and time

[UNCLASSIFIED]

Note: This report is best viewed with **Google Chrome**. Please press and hold the “Ctrl” key, and then press the “-” or “+” keys on the keyboard, to **zoom-out** or **zoom-in**.

Overview

This report analyses household housing tenure and housing costs, with a focus on aiding the Retirement Commission in their Review of Retirement Income Policies.

We provide distributions of households by housing tenure, age, and ethnicity. We show breakdowns of these distributions by real (\$2021) and nominal housing costs, and by housing costs as a proportion of New Zealand Superannuation. We show these for the last three years using the TAWA (Tax and Welfare Analysis) model combined with HES (Household Economic Survey) data. We recommend using the distributions of real housing costs rather than nominal in order to account for general price inflation.

We also provide analysis using historical HES data of the longer-term trends in housing tenure and nominal housing costs. We consider tenure by age and by (pseudo) cohort. We calculate inter-quartile ranges of housing cost components by age, and also average total housing costs. These give an indication of what the future may hold if long-term trends continue.

Some key results

- Overall, households that pay rent are younger and face higher housing costs, while households are paying a mortgage are older and face higher housing costs. Households that own outright are generally older and have significantly lower housing costs.
 - The majority of senior households own their home outright. Relative to NZ Superannuation, the housing costs for senior households show a similar pattern of being highest for those paying a mortgage, somewhat lower for those paying rent, and much lower for those who own outright.
 - Longer-term, there seems to be a shift from owning outright (with low housing costs) to paying rent (with high housing costs), particularly within households with head-of-household in the 45-54 and 55-64 age bands. There also appears to be a shift from owning outright to paying a mortgage for households whose head-of-household is in the 65-74 band.
 - The proportion of seniors paying greater than 20% of their NZ Super income on housing looks to have been increasing for those who pay rent and outright owners. Senior households paying rent are much more likely to be spending 40% or more of their NZ Super income on housing, and long-term trends suggest that there will be more senior households paying rent in the future.
 - Rental costs for younger households appear to have been increasing at a higher rate than for older households. Rent and mortgage costs are on average higher than the housing costs of outright owners, and appear to have been growing at a faster rate over time.
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Request Outline

Requestors

Dr Suzy Morrissey, Michelle Reyers, and Jo Gamble from the Retirement Commission.

Context

We are assisting the Retirement Commission with modelling for their 2022 review, in particular their “Outcomes for Target group 1 – current retirees” work.

Time frame

v0.1 - Initial draft, sent on: 28 June 2022

v1.0 - Report for discussion, sent on: 8 July 2022.

v1.1 - Adjustments after feedback, sent on: 25 July 2022.

Outputs & Methodology

Households by housing costs

Using HES 2018/19, HES 2019/20, and HES 2020/21, we run TAWA with status-quo policy settings in the corresponding tax years 2018/19, 2019/20, and 2020/21.

For these three years, we calculate the distribution of households by housing tenure (paying rent, paying a mortgage, or own outright) and by age, using the age of the oldest person in the household.

We give these distributions for households with Māori people, households with Pacific peoples, and for all households.

Within each distribution, we give breakdowns of households by:

- Total household weekly housing costs (nominal)
- Total household weekly housing costs (2021 dollars)
 - Nominal housing costs are inflated to 2021 values using TAWA's BEFU22 CPI inflator, which uses the average of the Stats NZ CPI index across the corresponding tax year.
- Total household weekly housing costs as a proportion of NZ Superannuation

Note that the housing costs used for these distributions were the standard TAWA housing costs, which do not include maintenance costs. The plots in "housing costs over time" give an indication of the size of maintenance costs; there is a relatively larger impact on outright owners given their otherwise low total housing costs.

Housing costs have not been adjusted to account for differences in household size, which means the dollar values are actual amounts paid by those households.

Housing costs over time

Using all available HES survey years in the IDI, i.e. HES 2006/07 through to HES 2020/21, we consider housing costs over time, by housing tenure type. We label households by age according to the oldest person in the household.

We calculate the following housing costs:

- Average total housing costs over time
 - By age
 - Overall
- Interquartile ranges of housing cost components over time
 - By housing tenure and age

For housing cost components over time, we show the median, upper quartile, and lower quartile of each component. The components we consider (with corresponding HES expenditure codes) are:

- Rent - 4.1.*
- Mortgage interest (and fees) - 11.5.*, 13.1.*
- Mortgage principal - 4.2.*
- Other
 - Rates - 4.4.*
 - Body Corporate fees - 4.6.*

- Insurance - 11.4.*
- Maintenance
 - Data only available every three years, in the HES “Expenditure” years: HES19, HES16, HES13, HES10, and HES07
 - Materials for property alterations, additions and improvements - 4.2.02.*
 - Services for property alterations, additions and improvements - 4.2.03.*
 - Property maintenance materials - 4.3.01.*
 - Property maintenance services - 4.3.02.*

Note: these results use HES weights (thus align with the HES reference period ending in June). We do not provide confidence intervals since the HES weights do not support this for all years.

Tenure over time

Using all available HES survey years in the IDI, i.e. HES 2006/07 through to HES 2020/21, we consider housing tenure rates over time. We label households by age according to the oldest person in the household.

We calculate tenure rates by:

- Age band
 - This looks at changes in tenure rates at specific fixed ages
 - This is a cross-sectional view, repeated through time
- Birth-year cohort
 - This looks at changes in tenure rates for particular generational cohorts as they get older
 - This is a pseudo-panel view, following cohorts through time based on their birth years

Note: these results use HES weights (thus align with the HES reference period ending in June). We do not provide confidence intervals since the HES weights do not support this for all years.

Detailed Results

Nominal housing costs

Here we give breakdowns of households by nominal housing costs (not including maintenance).

Percentages may not add to 100% due to suppression of values with small sample sizes.

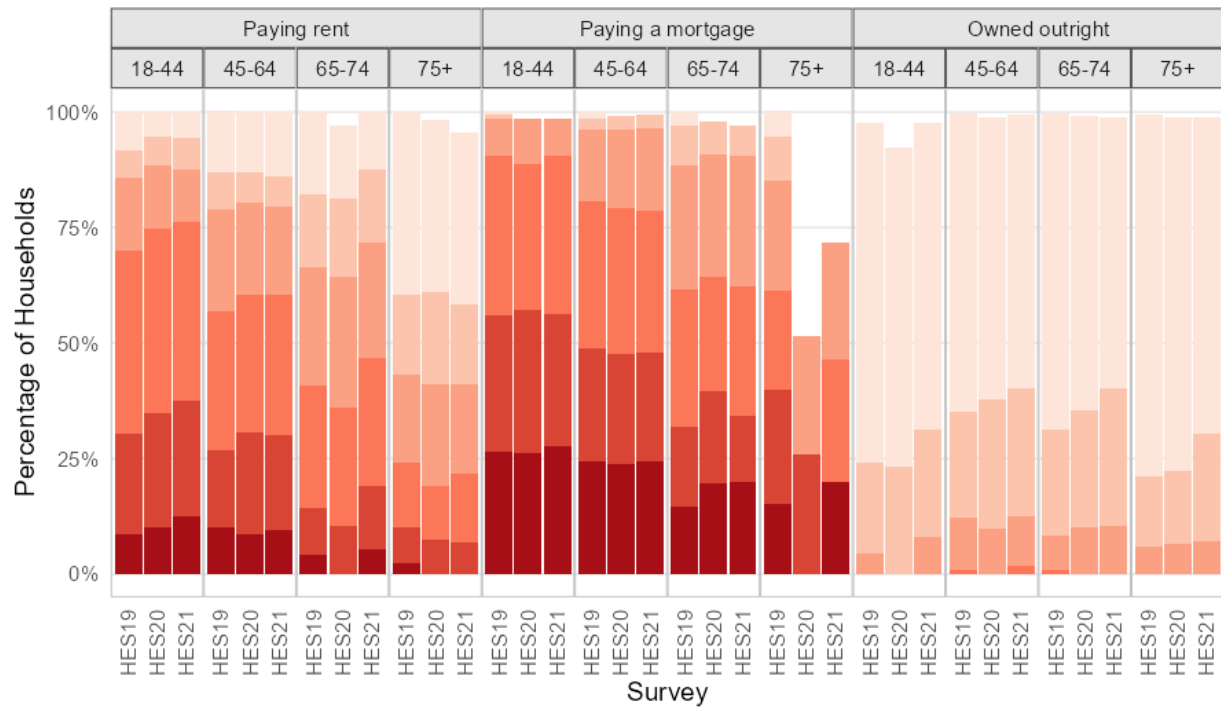
Plots

Percentages

All households

Weekly Housing Costs (nominal)

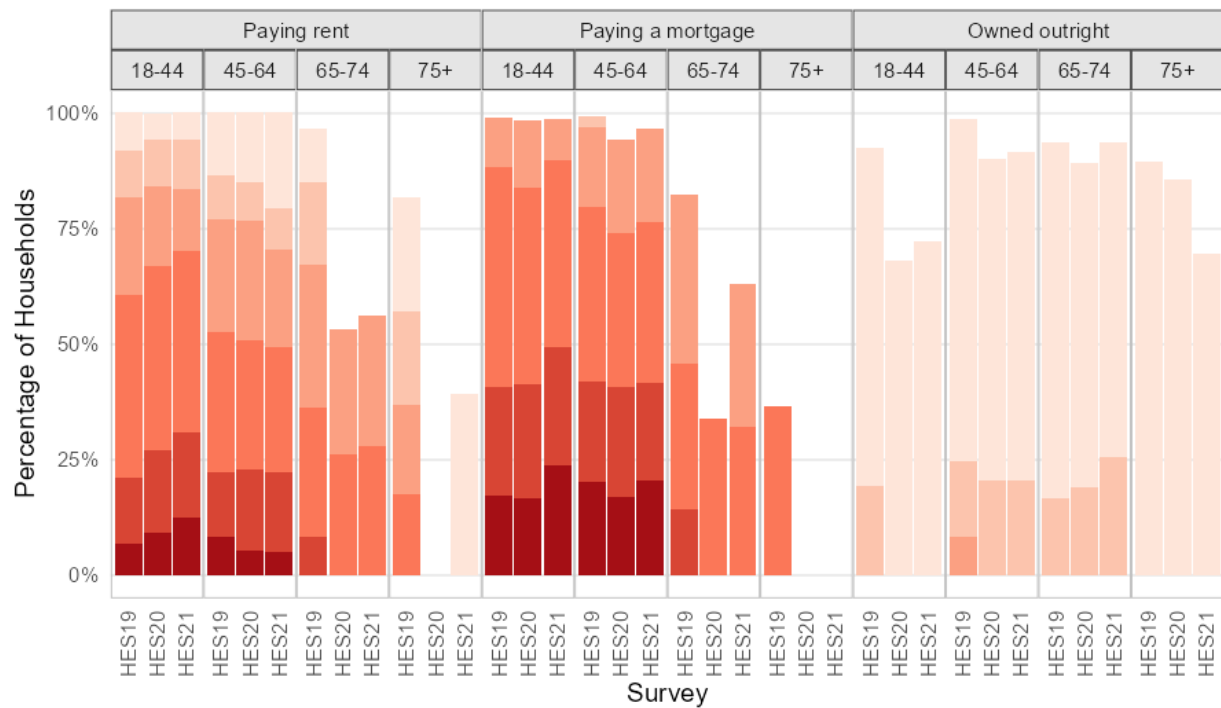
Less than \$100	\$150-\$299	\$500-\$699
\$100-\$149	\$300-\$499	\$700+



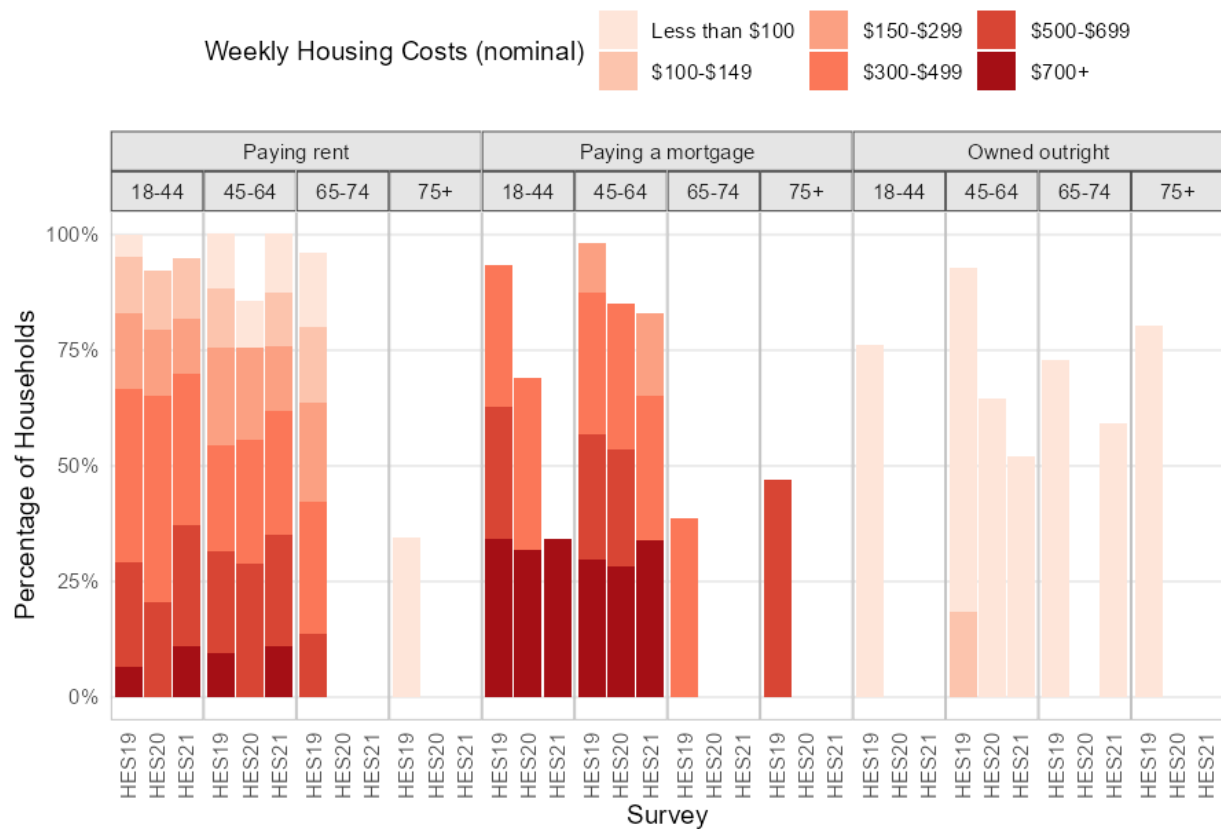
Māori households

Weekly Housing Costs (nominal)

Less than \$100	\$150-\$299	\$500-\$699
\$100-\$149	\$300-\$499	\$700+

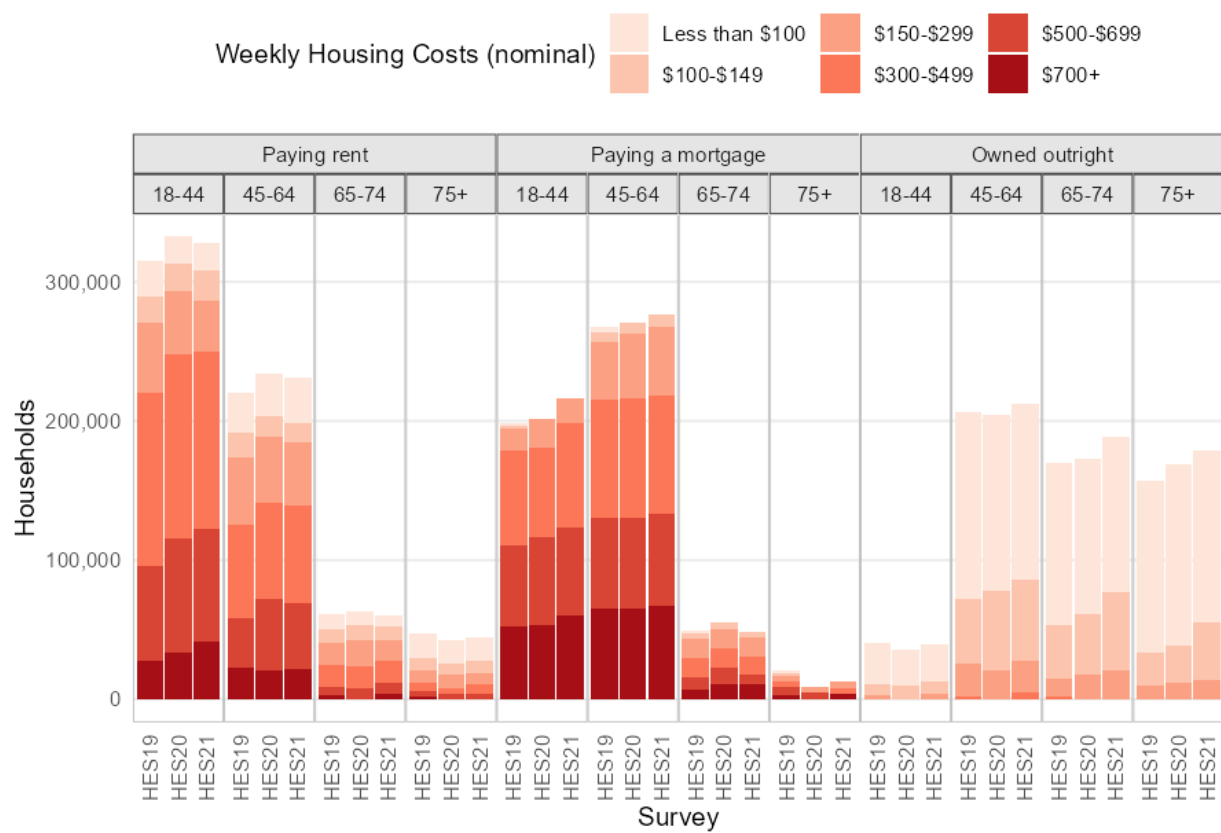


Pacific households

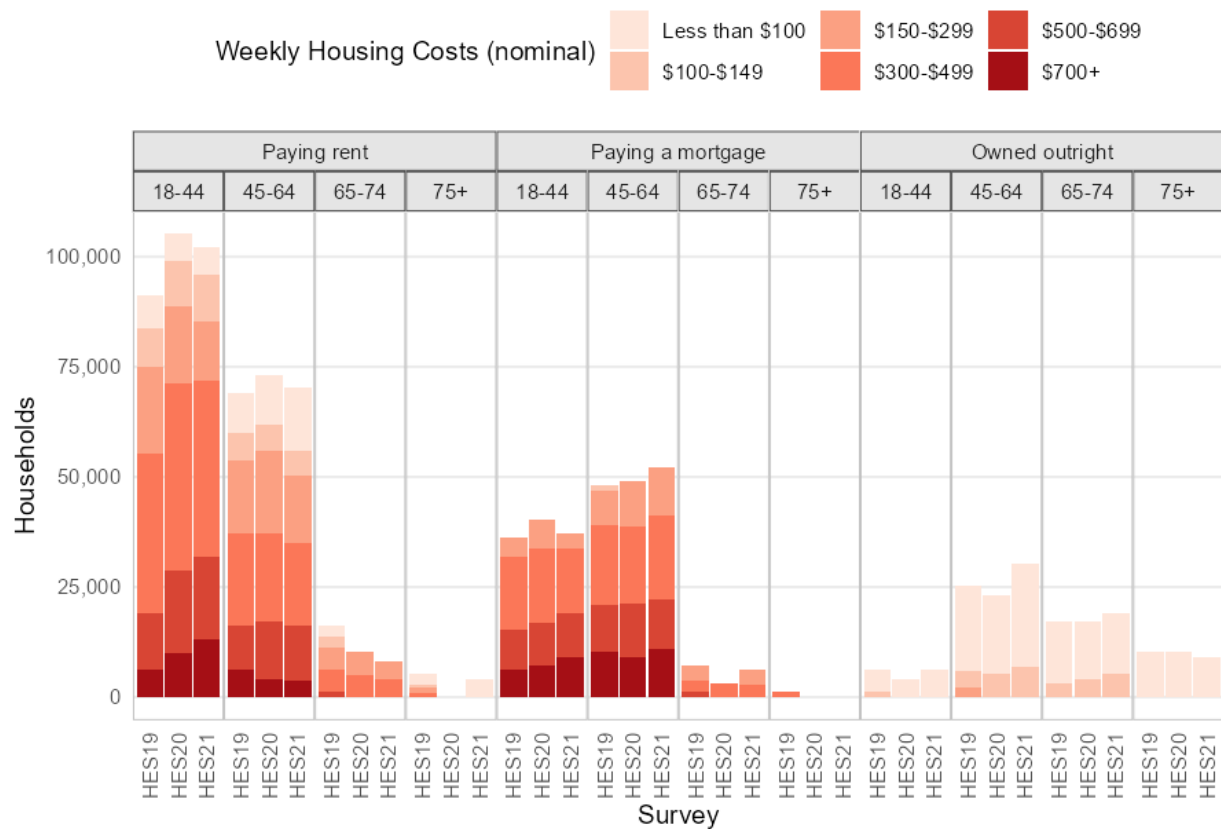


Populations

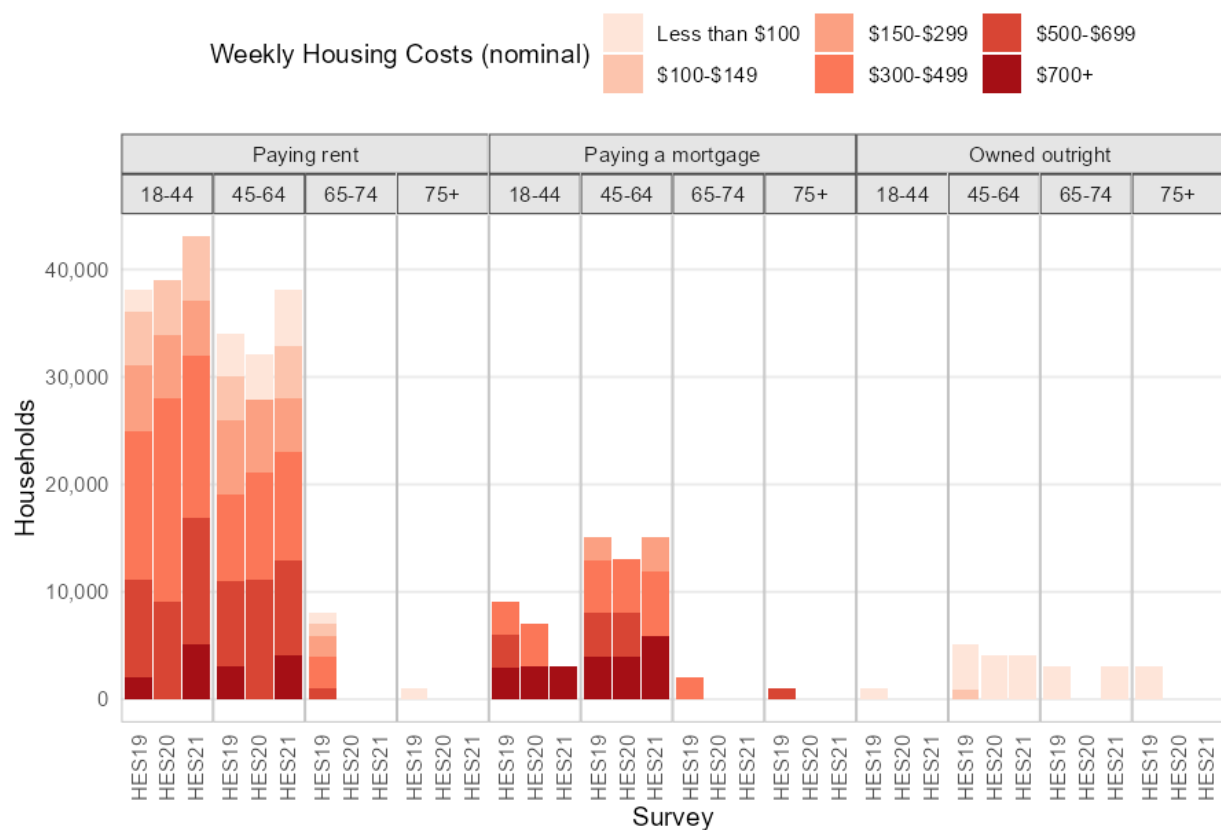
All households



Māori households



Pacific households



Real housing costs (\$2021)

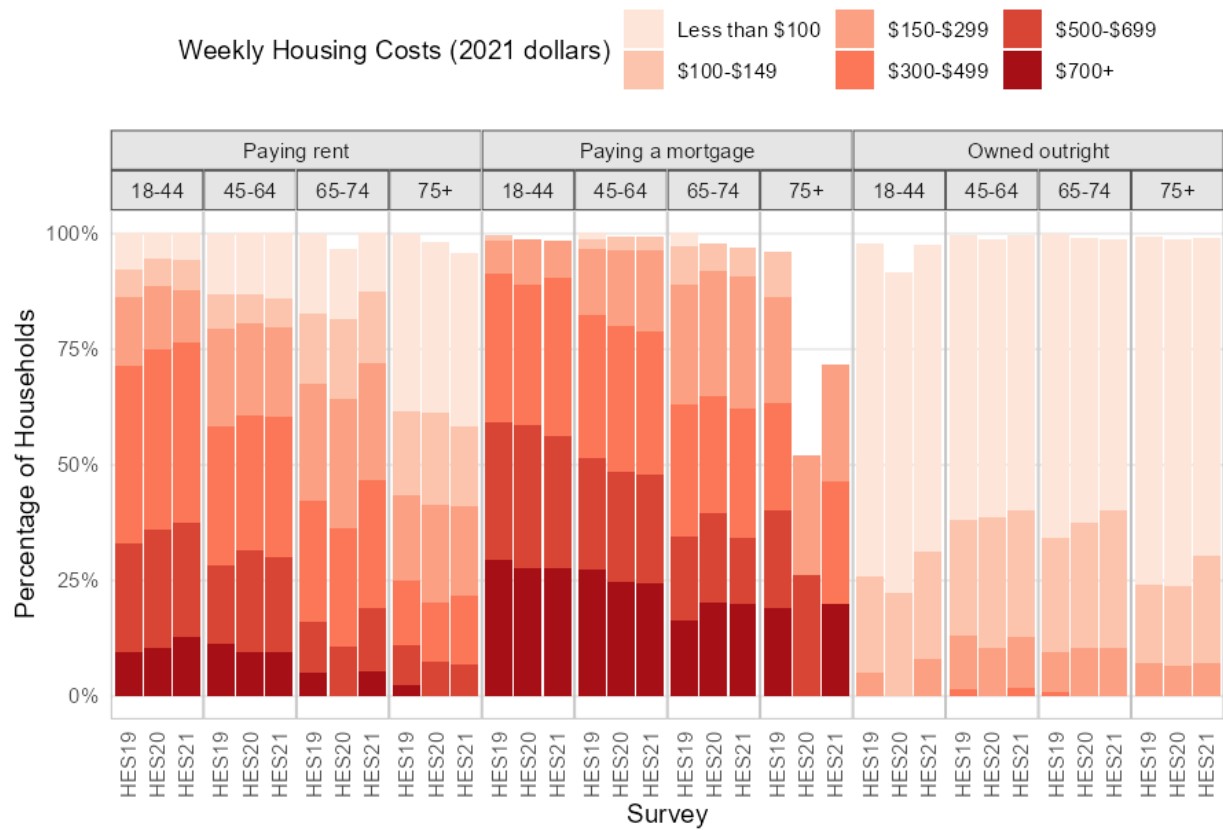
Here we give breakdowns of households by housing costs in 2021 dollars (not including maintenance).

Percentages may not add to 100% due to suppression of values with small sample sizes.

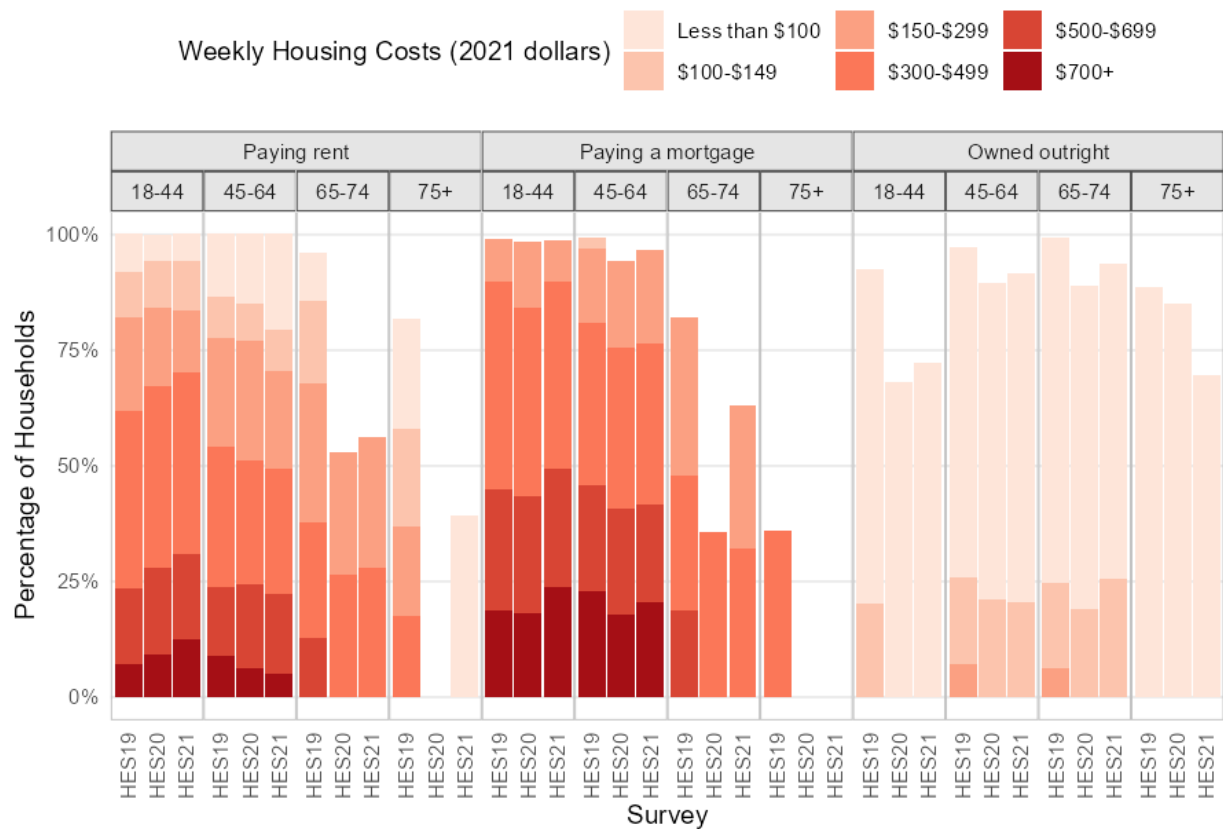
Plots

Percentages

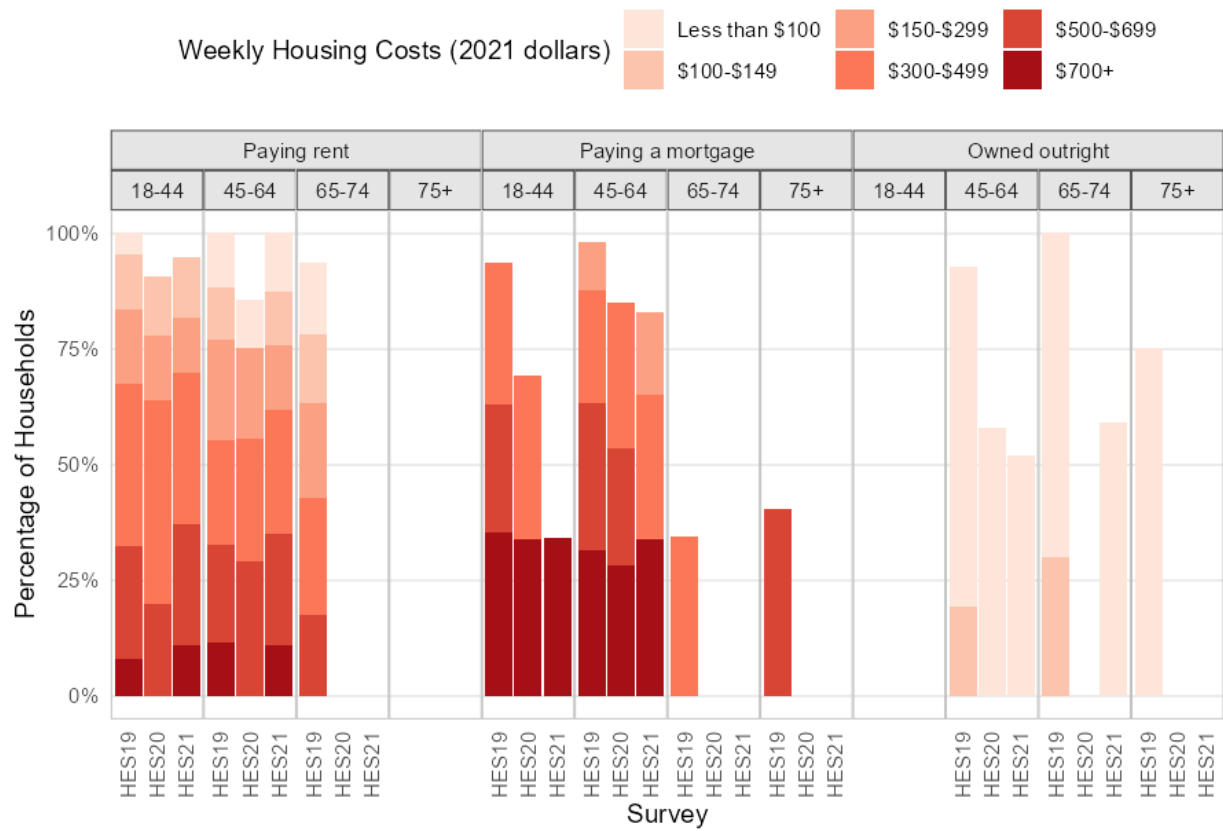
All households



Māori households

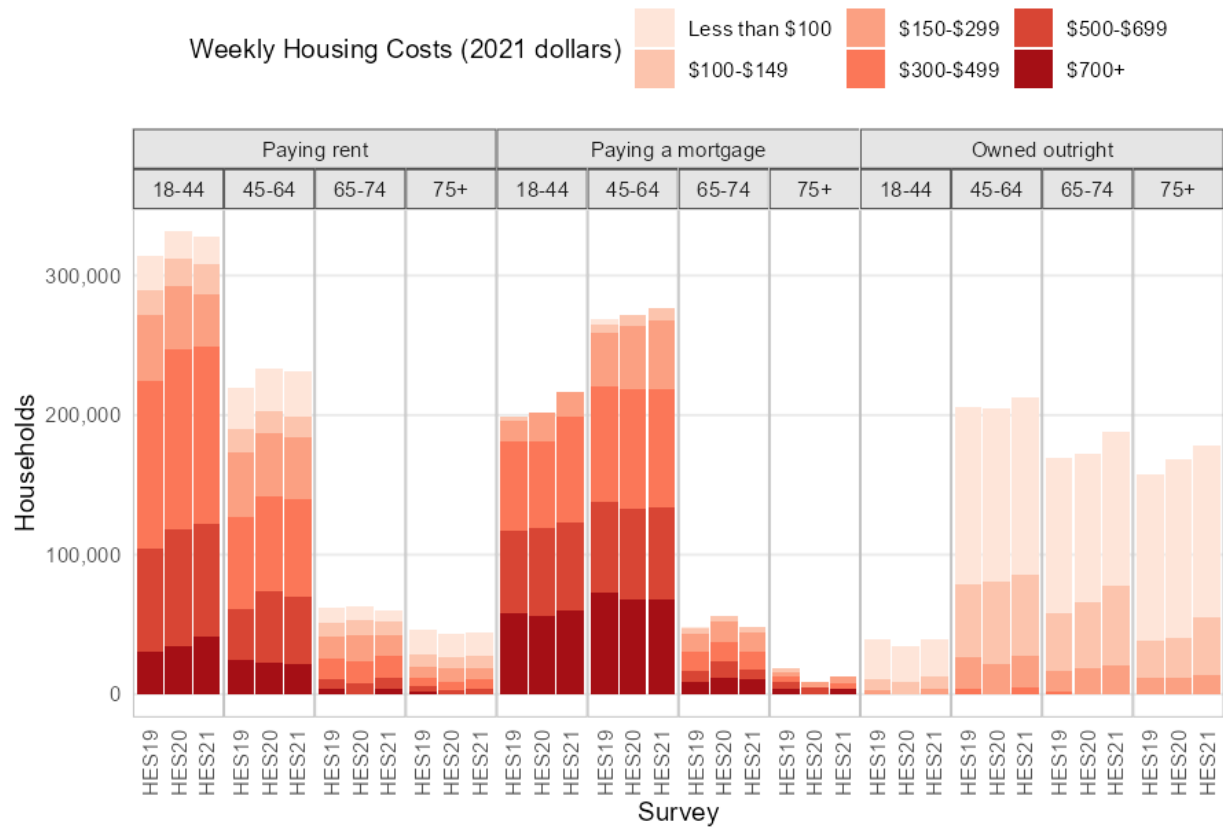


Pacific households

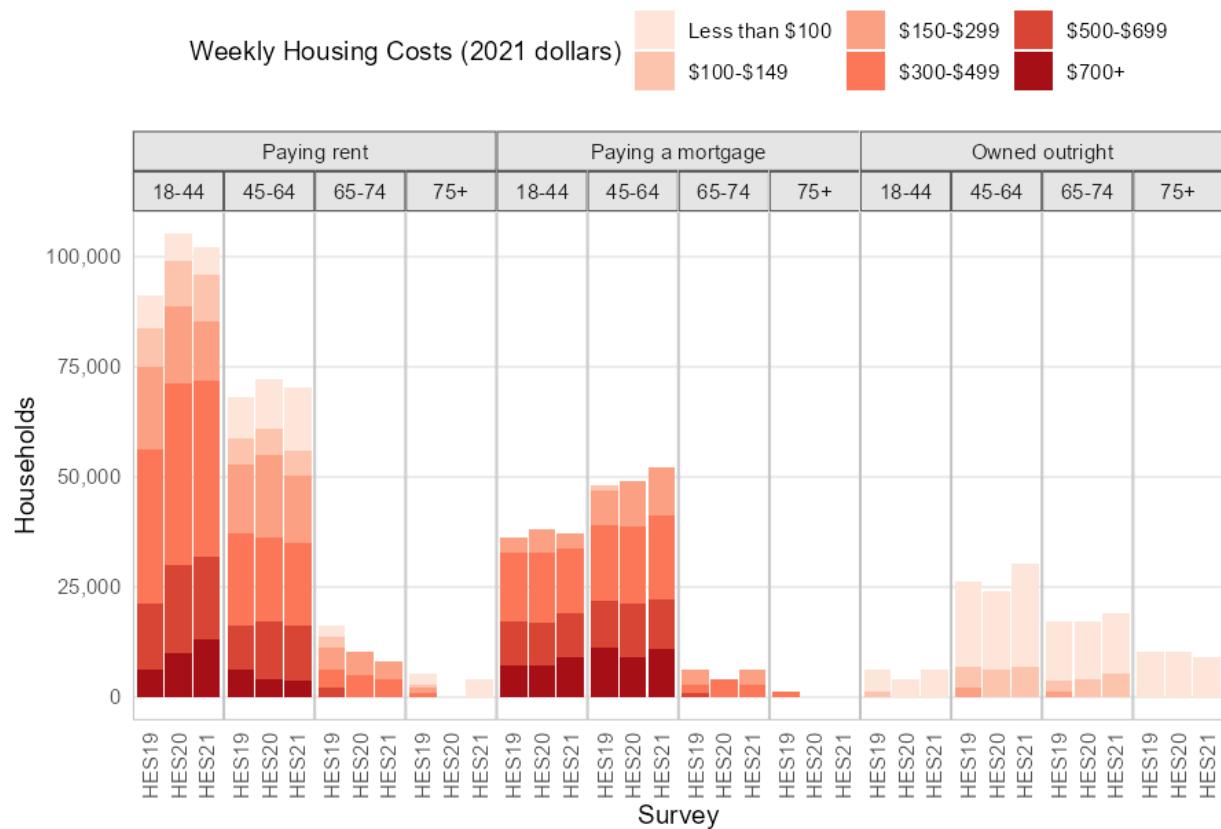


Populations

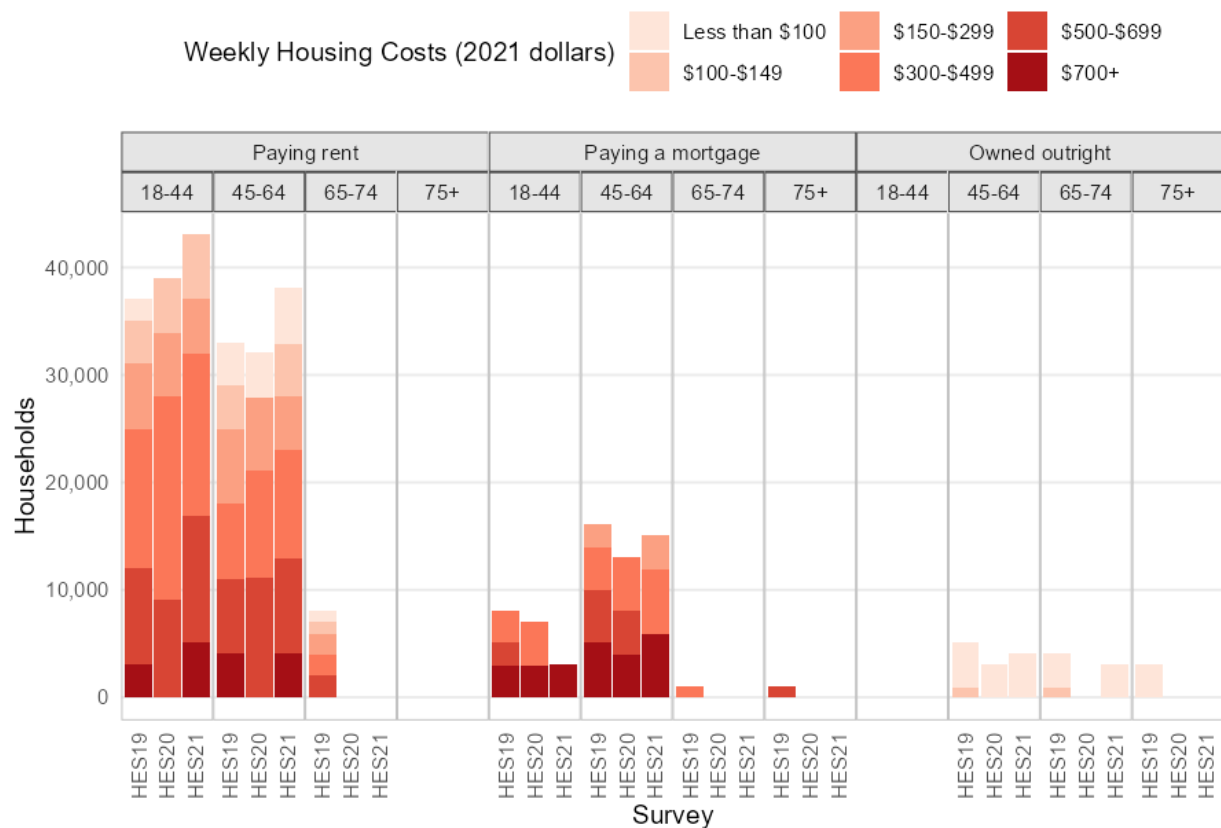
All households



Māori households



Pacific households



Housing costs relative to NZS

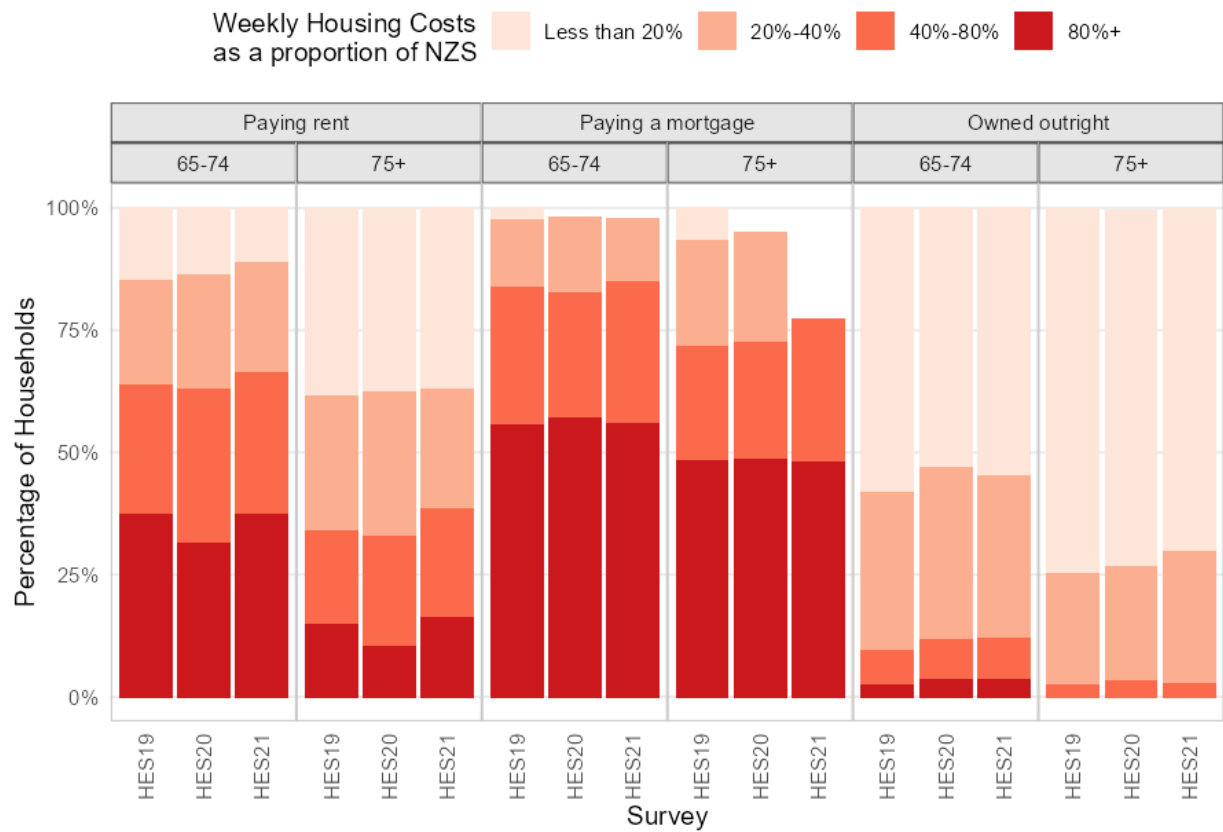
Here we give breakdowns of households by the ratio of housing costs (not including maintenance) to their NZ Superannuation income.

Percentages may not add to 100% due to suppression of values with small sample sizes.

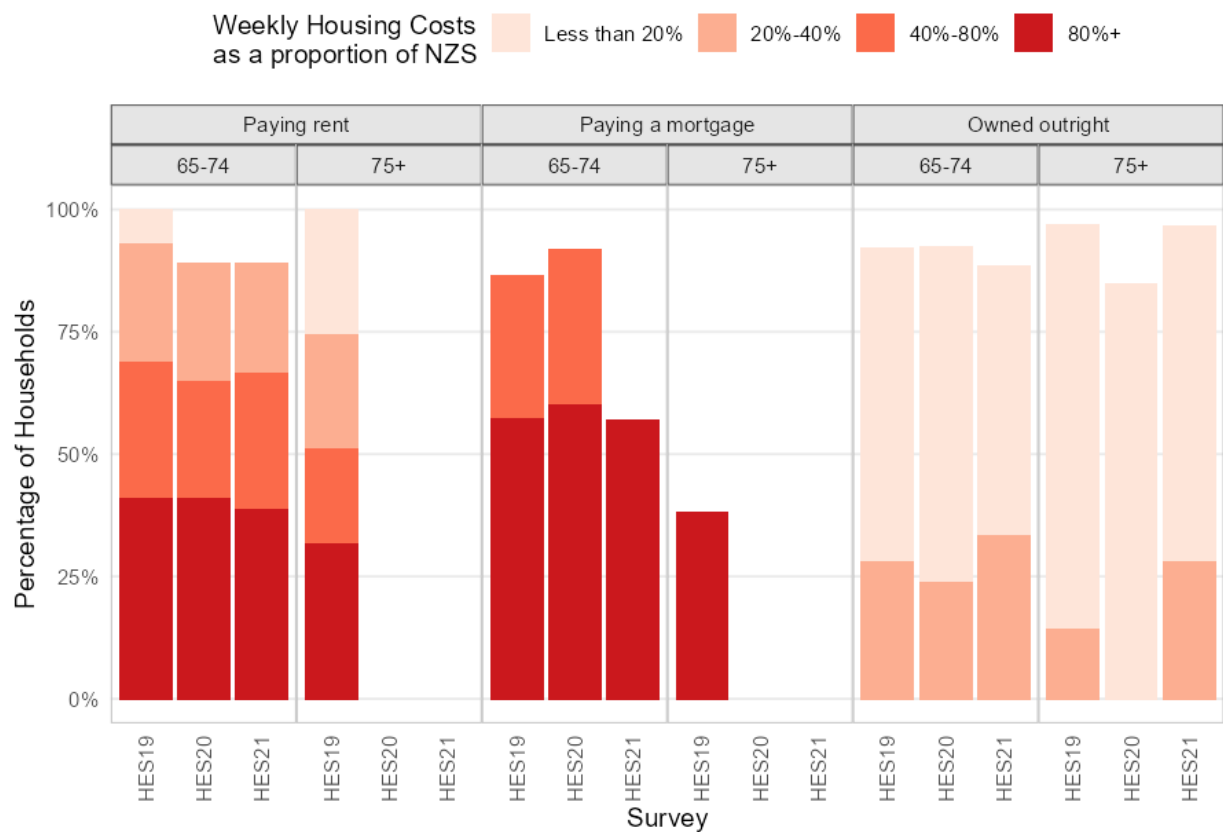
Plots

Percentages

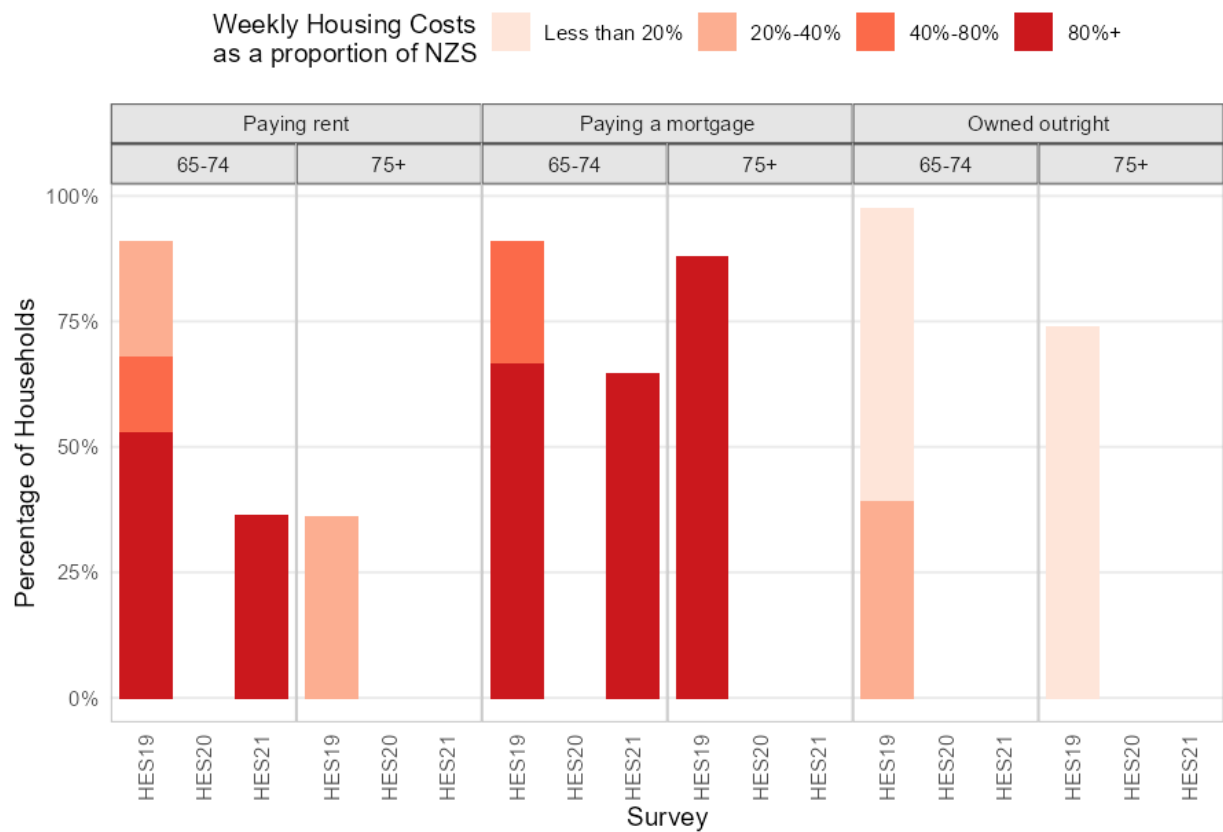
All households



Māori households

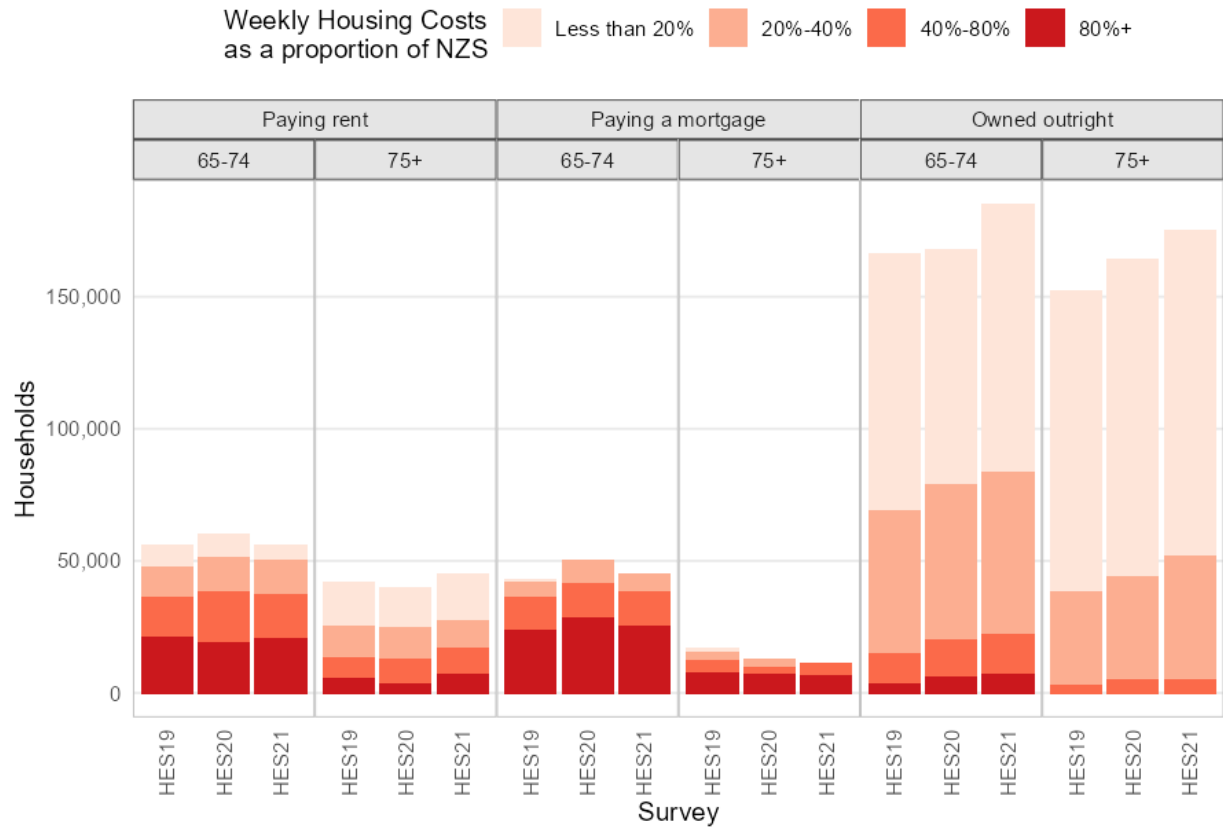


Pacific households

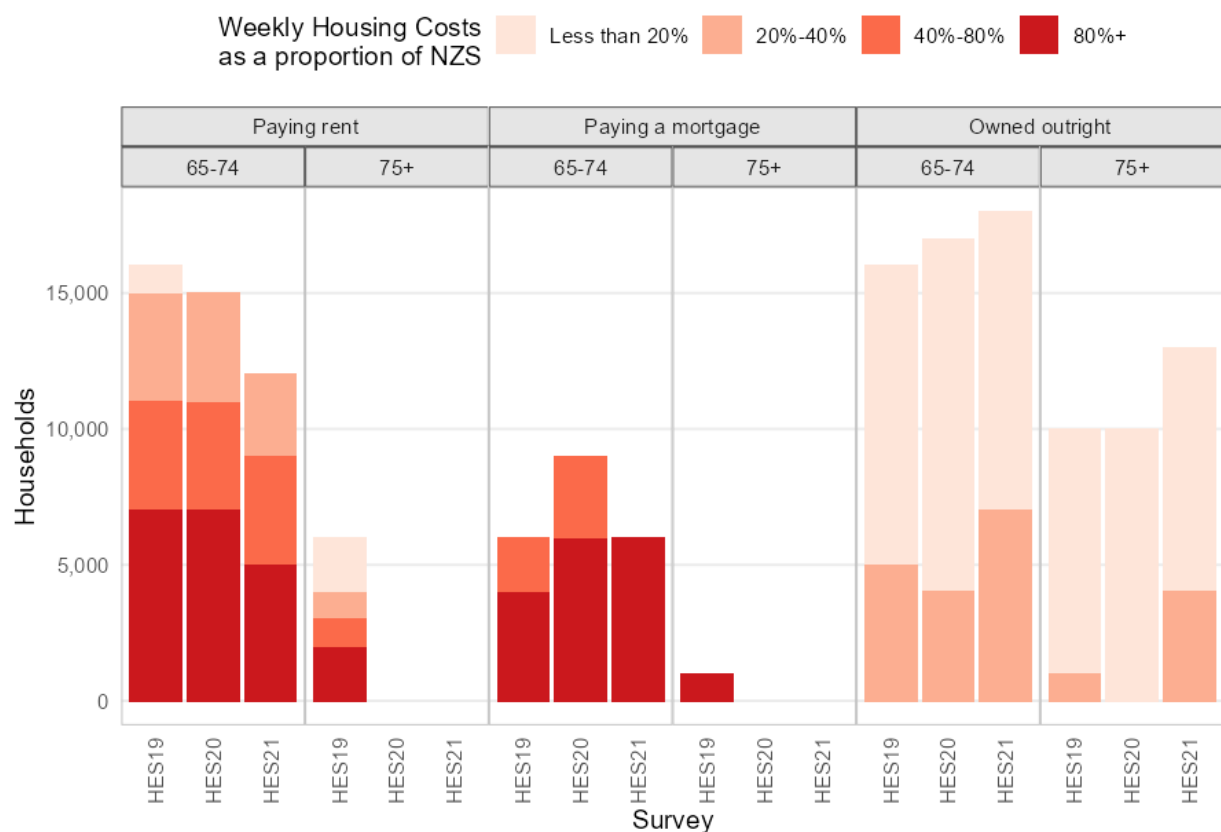


Populations

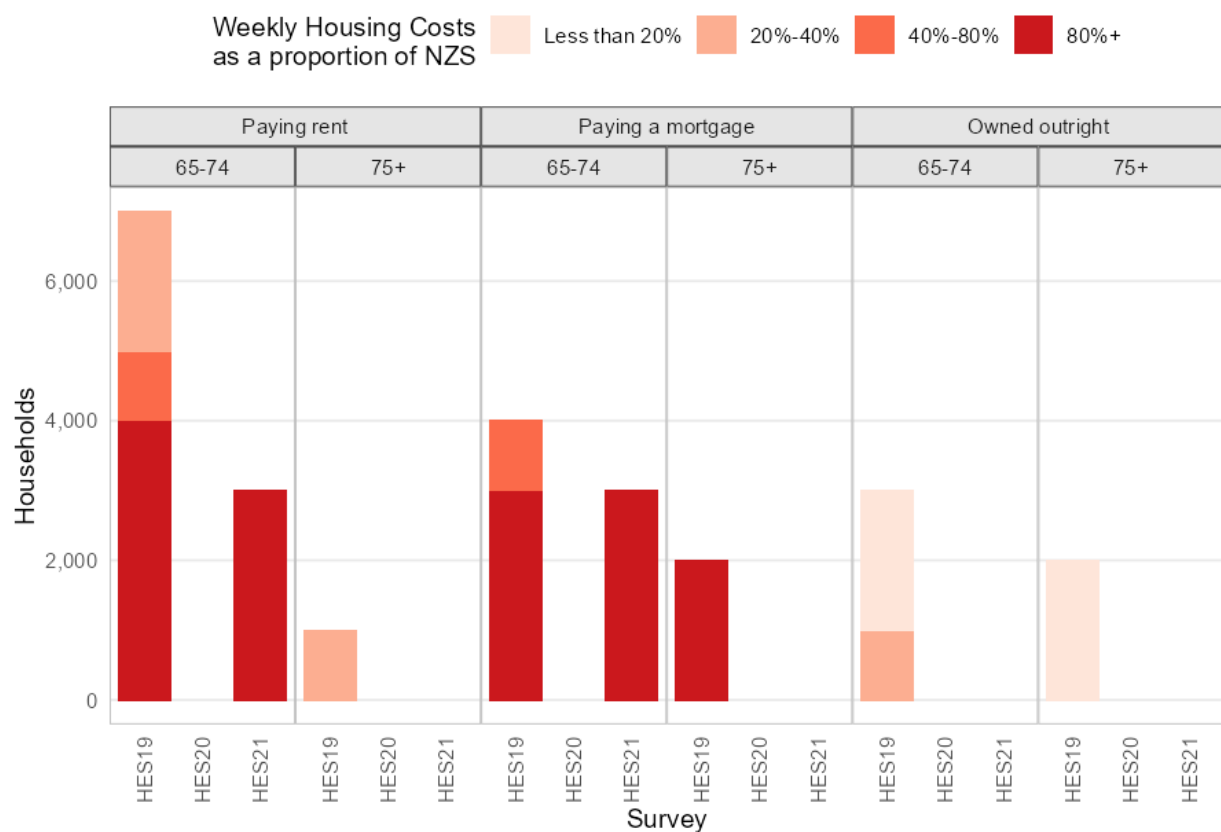
All households



Māori households



Pacific households



Housing costs over time

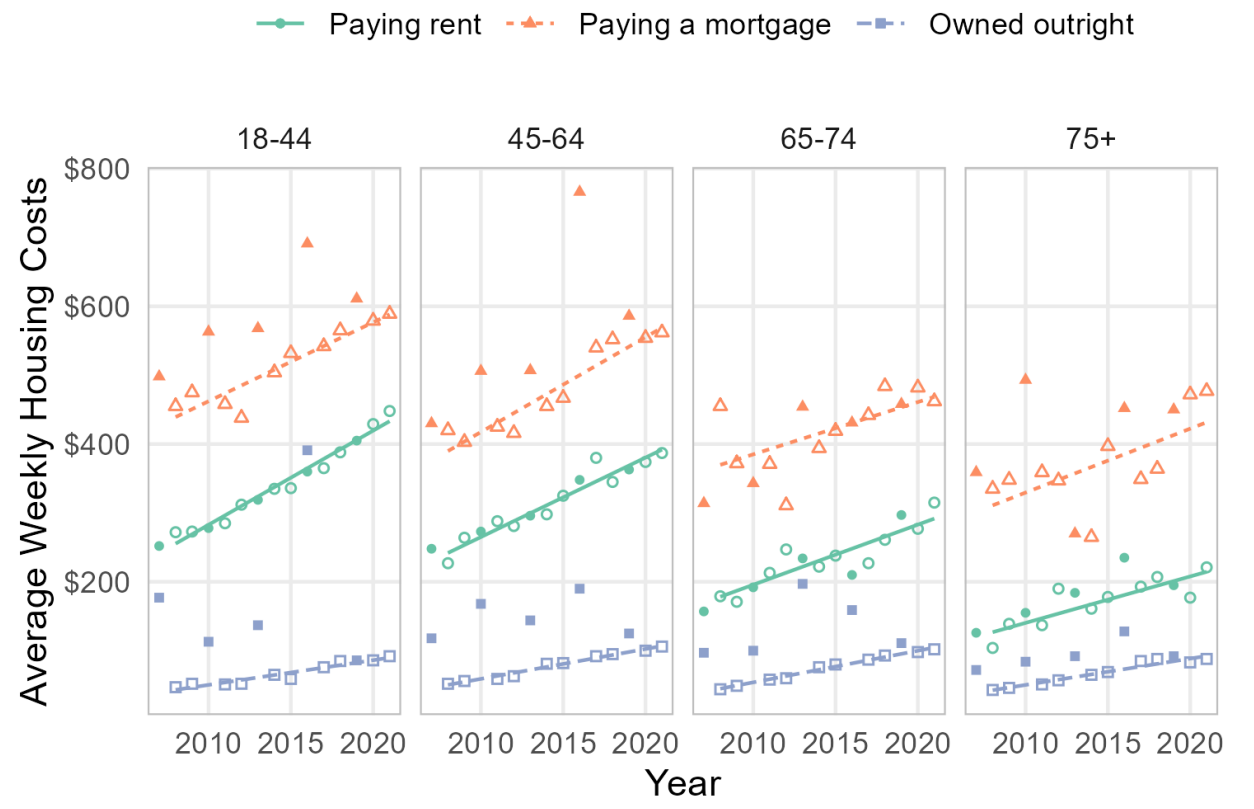
These results are for HES years ending in June (rather than tax years). All amounts are in nominal dollars.

Housing maintenance costs are included only in HES expenditure years (HES19, 16, 13, 10, 07); these use a solid symbol, while non-expenditure years use a hollowed-out symbol.

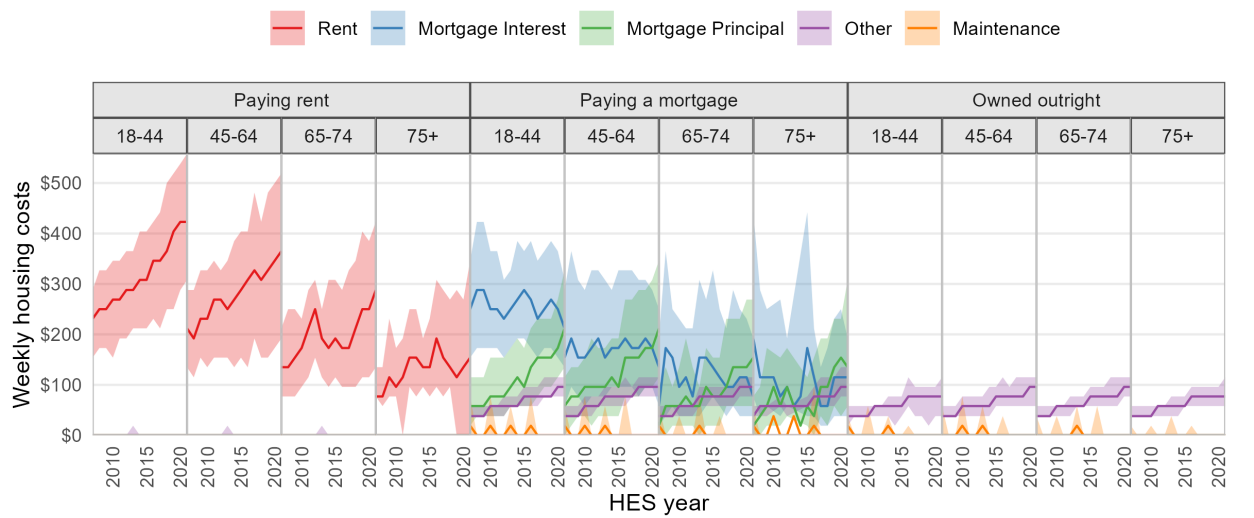
Straight lines are indicative linear fits to help identify trends. HES expenditure years are excluded from these fits to better capture non-maintenance trends.

Plots

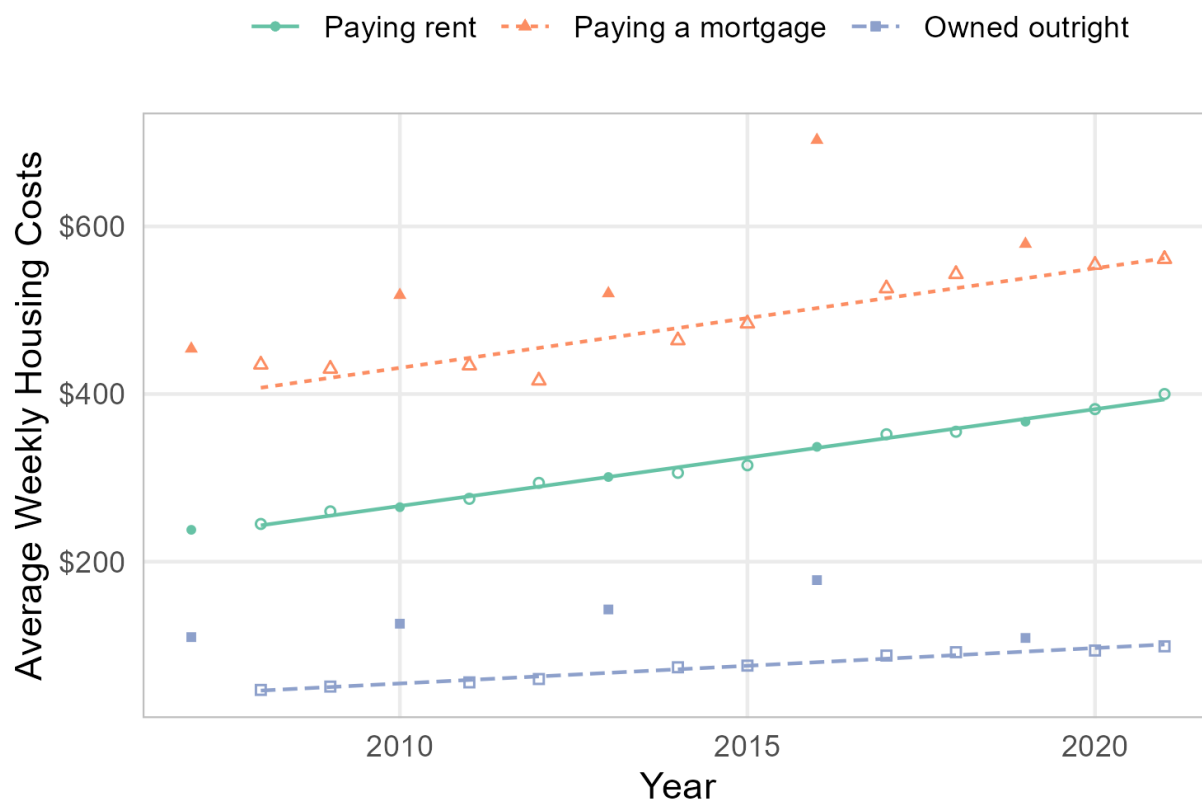
Average totals by age



Interquartile ranges of components by age



Overall average totals



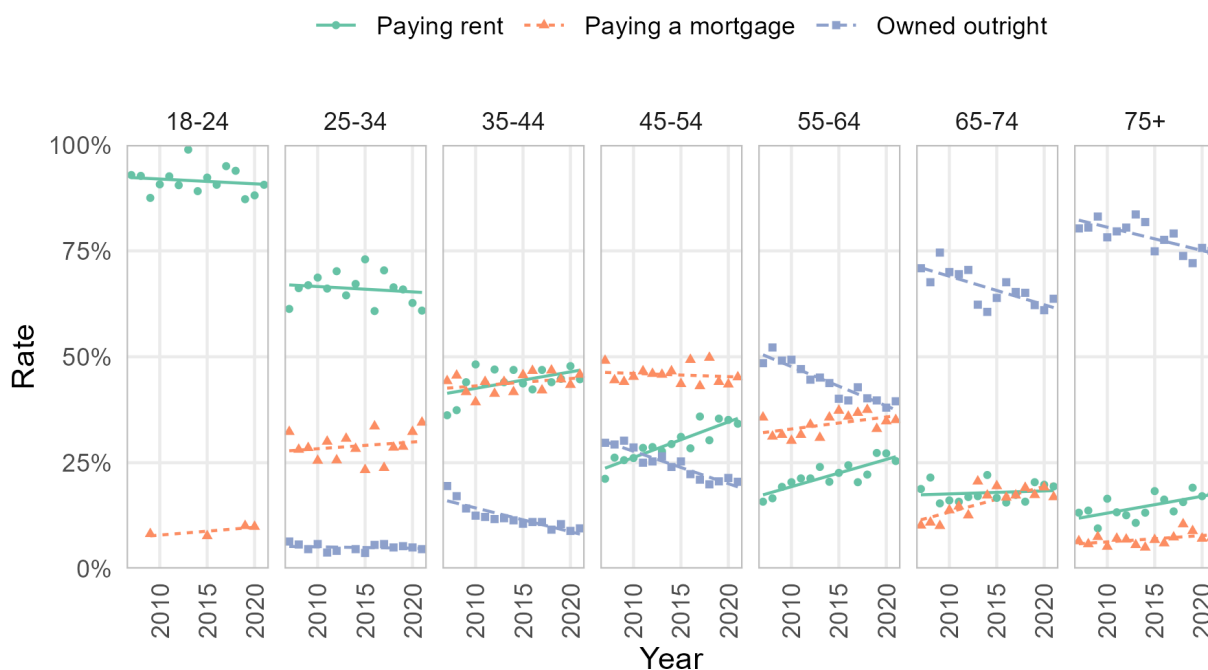
Tenure over time

These results are for HES years ending in June (rather than tax years).

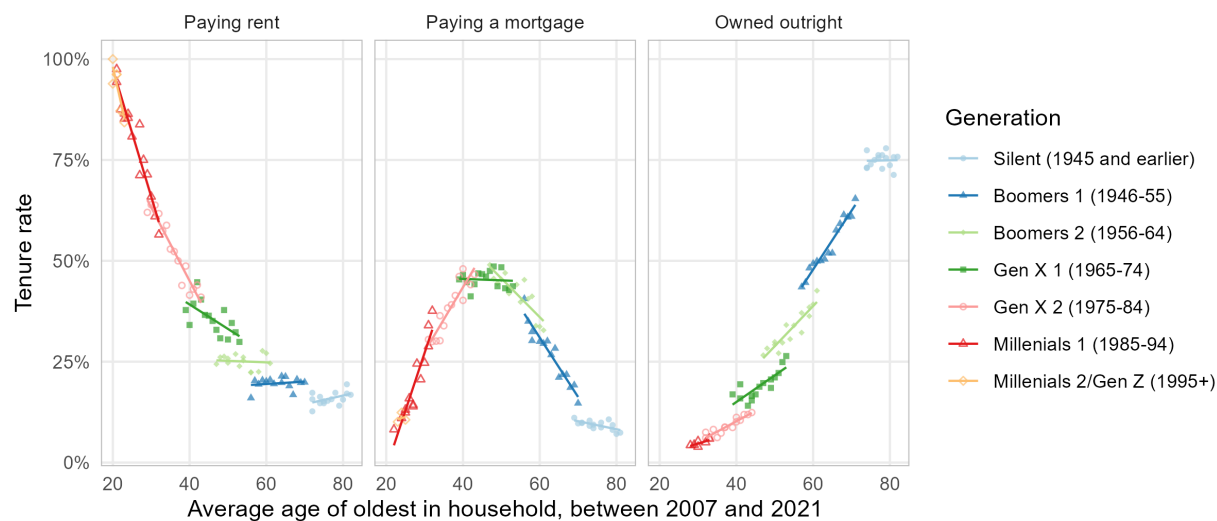
Solid lines are indicative linear fits to help identify trends.

Plots

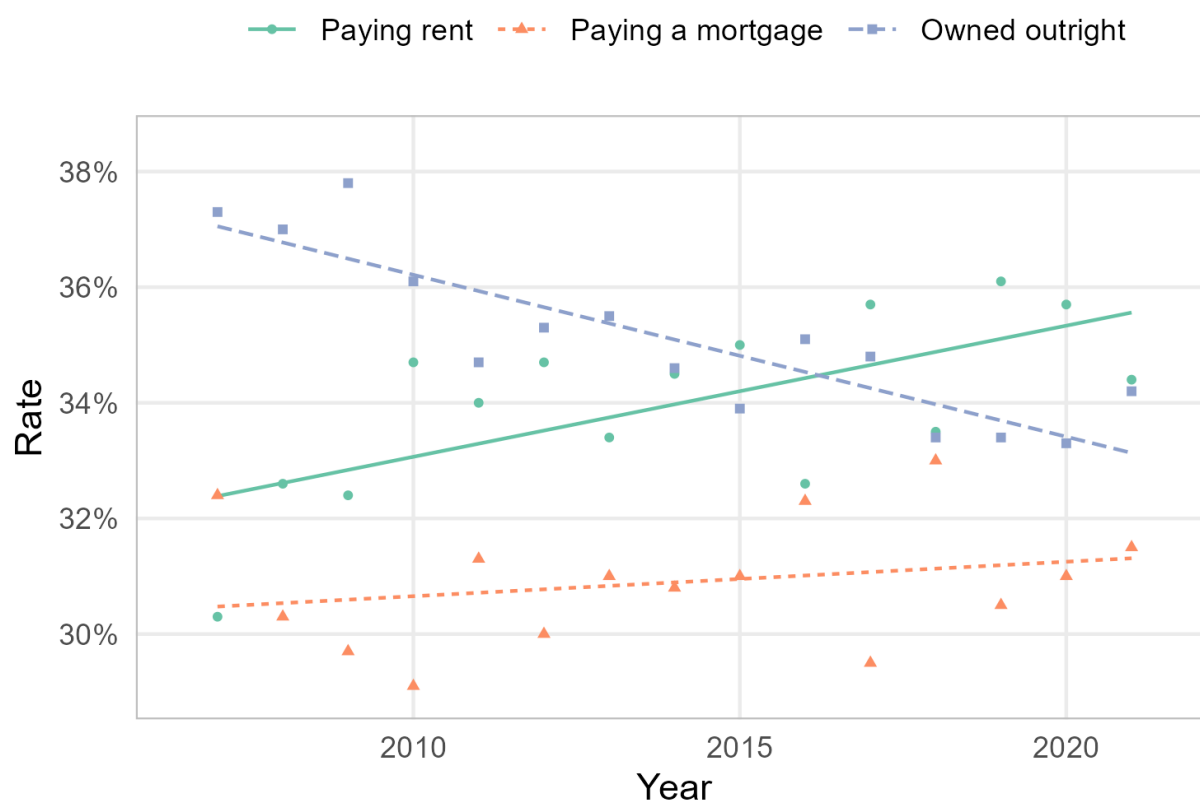
By age



By birth-year cohort



Overall



Modelling assumptions

1. This analysis was carried out using Treasury's micro-simulation model of the tax and welfare system - TAWA. All calculations should be considered as estimations.
2. Estimates from TAWA use HES data augmented with IDI data, inflated and population adjusted with BEFU 2021 inflation estimates. Results are sensitive to particular data and EFU inflation estimates, and TAWA routinely updates its data and EFU inflation estimates. This can result in differences when comparing analysis requests.

3. Status quo results correspond to the currently legislated tax and welfare system.
4. Apparent inconsistencies in totals are due to rounding and/or suppression, with estimates being suppressed if they did not meet the confidentiality requirements of Statistics NZ.
5. Our reporting uses 95% confidence intervals, calculated as the estimate plus or minus the margin of error (MoE). The MoE is a way of measuring statistical uncertainty, it is calculated as 1.96 multiplied by the standard error of the estimate.

Risk/reliability assessment

The Treasury considers these results to have medium reliability and low risk. These results have not been independently reproduced.

Disclaimer

These results are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI) which is carefully managed by Stats NZ. For more information about the IDI please visit <https://www.stats.govt.nz/integrated-data/> (<https://www.stats.govt.nz/integrated-data/>). The results are based in part on tax data supplied by Inland Revenue to Stats NZ under the Tax Administration Act 1994 for statistical purposes. Any discussion of data limitations or weaknesses is in the context of using the IDI for statistical purposes, and is not related to the data's ability to support Inland Revenue's core operational requirements.

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