

Household Economic Survey (Income): Year ended June 2015

Embargoed until 10:45am – 26 November 2015

Key facts

Housing costs

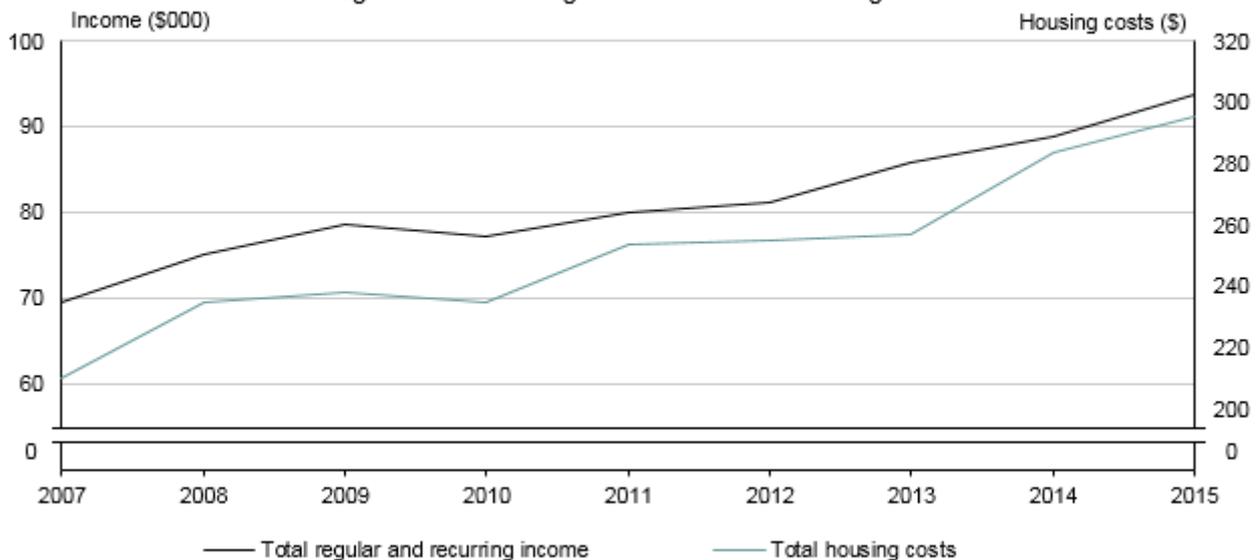
- Average weekly housing costs increased 4.0 percent from the year ended June 2014, to \$295.40.
- Building-related insurance payments increased 9.9 percent, to \$28.70 per week.
- Average weekly mortgage payments were \$400.20, and rent payments were \$301.00.

Household income

- Average annual income from all regular sources was up 5.7 percent, to \$93,880.
- Average annual income from New Zealand Superannuation and war pensions was up 4.8 percent, to \$24,322.
- The proportion of households receiving wages and salaries was up almost 2 percentage points, to 76 percent.

Average annual household income and average weekly household expenditure

Total regular and recurring income and total housing costs



Source: Statistics New Zealand

Liz MacPherson, Government Statistician
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Commentary

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Points to note

The Household Economic Survey (HES) measures annual income and housing expenses from a sample of New Zealand households.

This year, we revised the HES weights to account for the updated population estimates from the 2013 Census. We do not recommend comparing this year's results with last year's.

[See HES population rebase](#) for more information.

All expenditure and income figures relate only to households reporting that expenditure or income.

All income figures refer to gross (before-tax) income.

All income and expenditure changes in this commentary are [statistically significant](#), unless they have an asterisk (*) alongside.

Overview

Between the two years ending 30 June 2014 and 30 June 2015:

- average annual household income from regular sources increased 5.7 percent, to reach \$93,880.
- average expenditure on housing costs did not increase as much as income, up 4.0 percent,* to \$15,403 (or \$295.40 per week).

During the latest year, New Zealand households spent, on average, 16.0 percent of their income on housing costs. This was marginally less than the 16.2 percent in 2014.

Nearly one-third of households spend one-quarter of income on housing

Some households spend more (or less) than 16 percent of their income on housing. In the year to June 2015, 30 percent of households spent a quarter or more of their income on housing costs.

Compared with other New Zealand households these households were more likely to:

- be a single-person household, or a sole parent with dependent child(ren).

- receive other government benefits – such as Working for Families tax credits, student allowances, or benefits from Work and Income.

These households were less likely to:

- own or partly own the dwelling they live in.
- receive income from investments or New Zealand Superannuation.

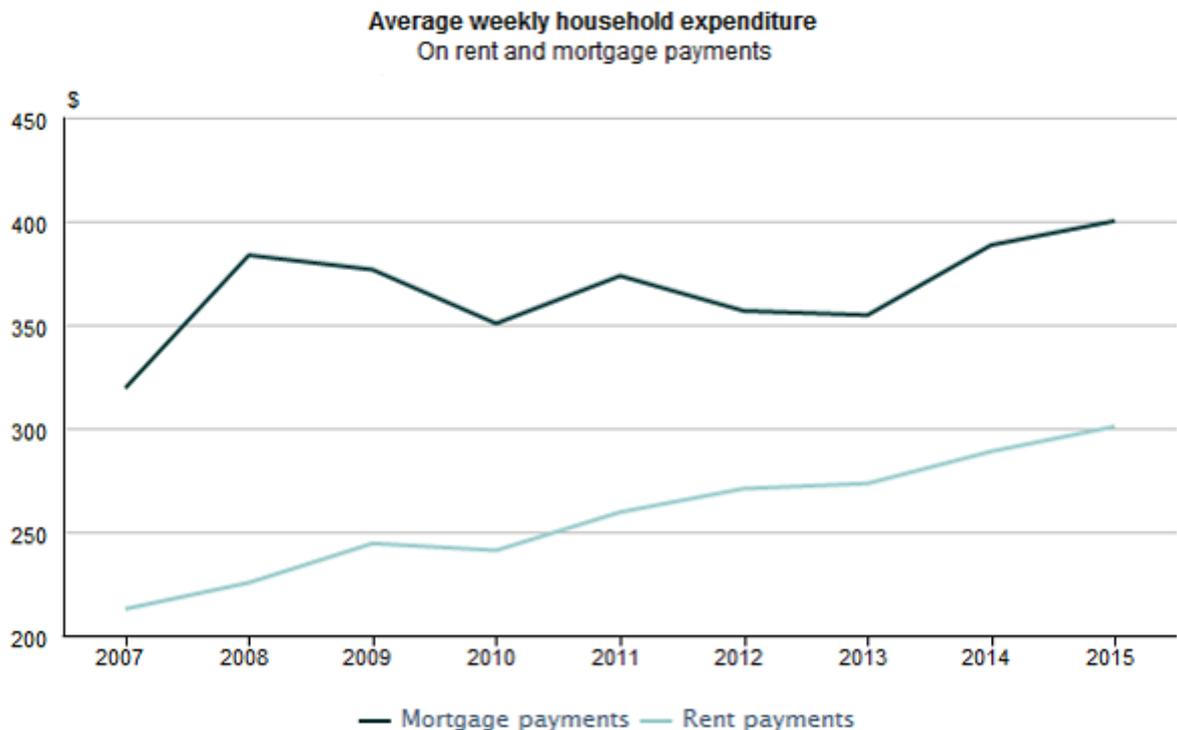
Housing costs continue to increase

Mortgage and rent payments increase

Average weekly household mortgage payments during the year were \$400.20 – up 3.0 percent* since 2014. At the same time, rent payments increased 4.2 percent* to \$301.00.

During the year, 33 percent of households reported making mortgage payments, and 36 percent made rent payments.

The increase in rent payments was particularly strong in the Auckland region, up 10.9 percent* to \$395.30 per week. Households in Auckland continue to spend more on rent than households in other regions. The average weekly rent payment in Wellington was \$296.10, followed closely by Canterbury, at \$292.10.



Source: Statistics New Zealand

Note: y-axis doesn't start at zero.

Mortgage payments are partly influenced by interest rates. Over the last two survey periods average interest rates have increased:

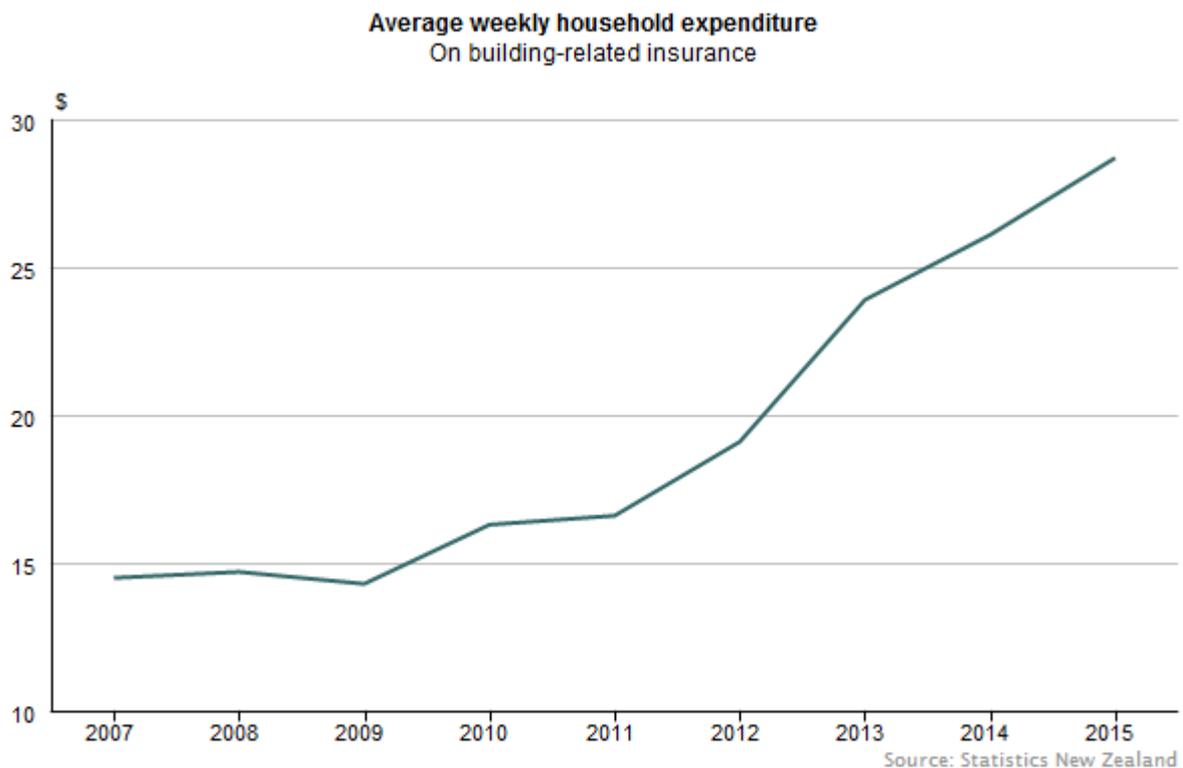
- up 0.8 percentage points (to 6.6 percent) for floating rates
- up 0.6 percentage points (to 6.1 percent) for two-year fixed rates.

These rates are annual averages of the monthly interest rates published by the Reserve Bank of New Zealand.

Building-related insurance still on the rise

Weekly spending on building-related insurance increased 9.9 percent in the year to June 2015, to \$28.70. The increase was particularly noticeable in Canterbury, where this spending was up 16.1 percent.

Since 2011, building-related insurance payments have increased by over 70 percent. On average, households now spend \$12.10 more a week than in 2011.



Note: y-axis doesn't start at zero.

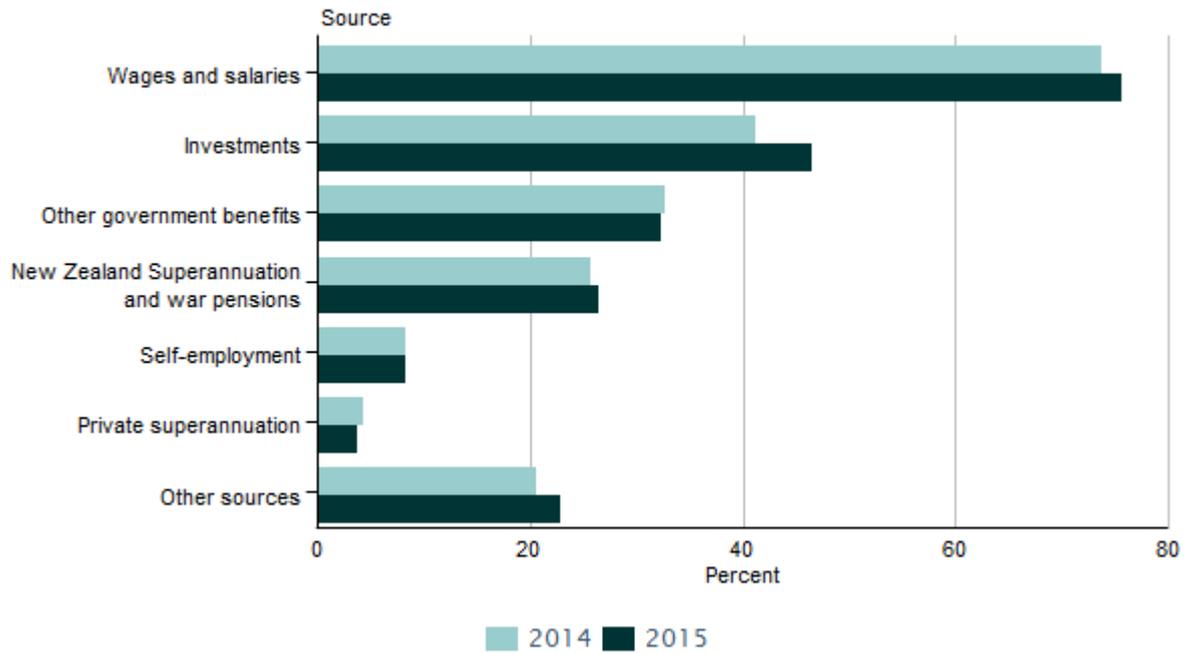
Average household income grows

Since 2014, average annual household income from regular sources has increased 5.7 percent, to reach \$93,880.

The biggest contributor to this change was the increase in wages and salaries – up 2.9 percent* to \$90,878.

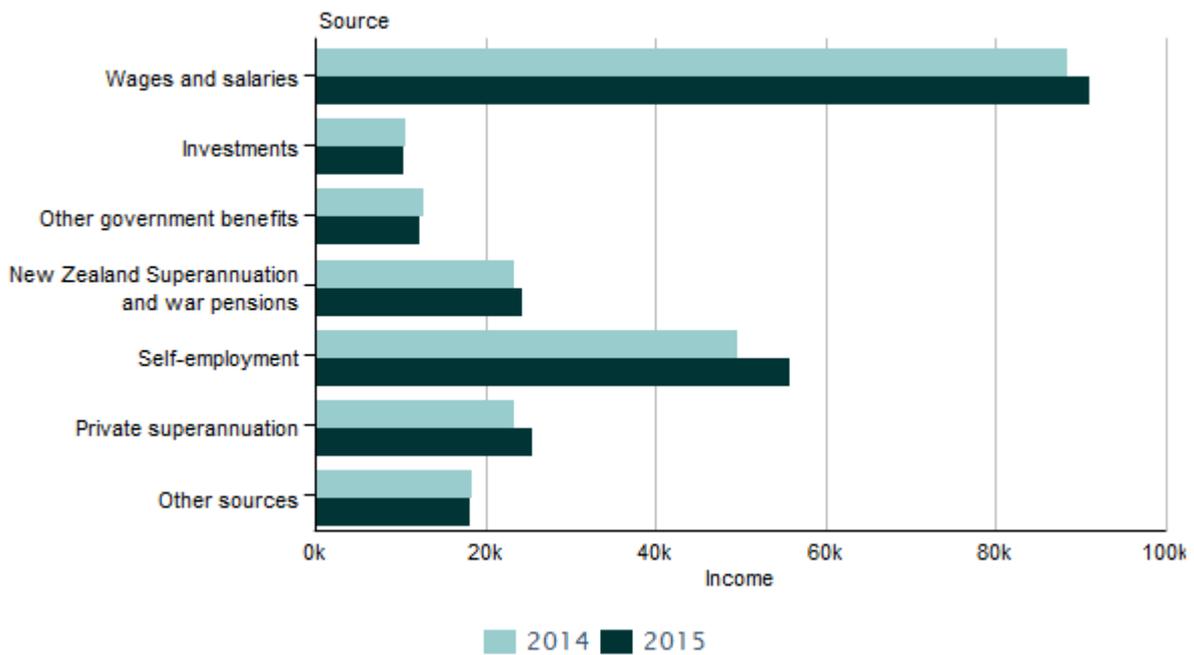
Household income from wages and salaries has steadily increased over the last few years. However, in 2015 the proportion of households reporting this type of income also increased – to 76 percent of households, up from 74 percent in the previous year.

**Proportion of households receiving income
By income source**



Source: Statistics New Zealand

**Average annual household income
By income source**

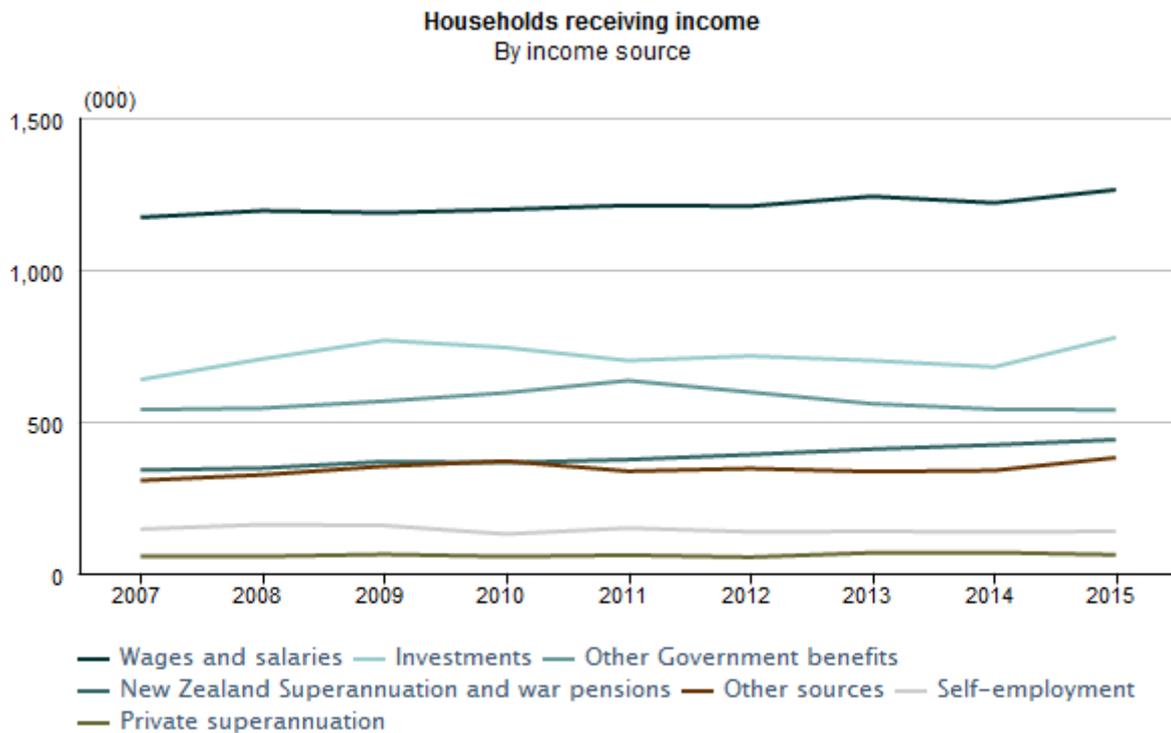


Source: Statistics New Zealand

Income from New Zealand Superannuation

Income from New Zealand Superannuation was another contributor to the change in household income.

Average annual household income from this source increased 4.8 percent, to reach \$24,322. Just over one in four households receive income from New Zealand Superannuation, and this proportion has been steadily increasing as the baby boomers turn 65 years.



Fewer people receive other government benefits

Other government benefits include income from Working for Families, main benefits, emergency benefits, student allowances, and supplements.

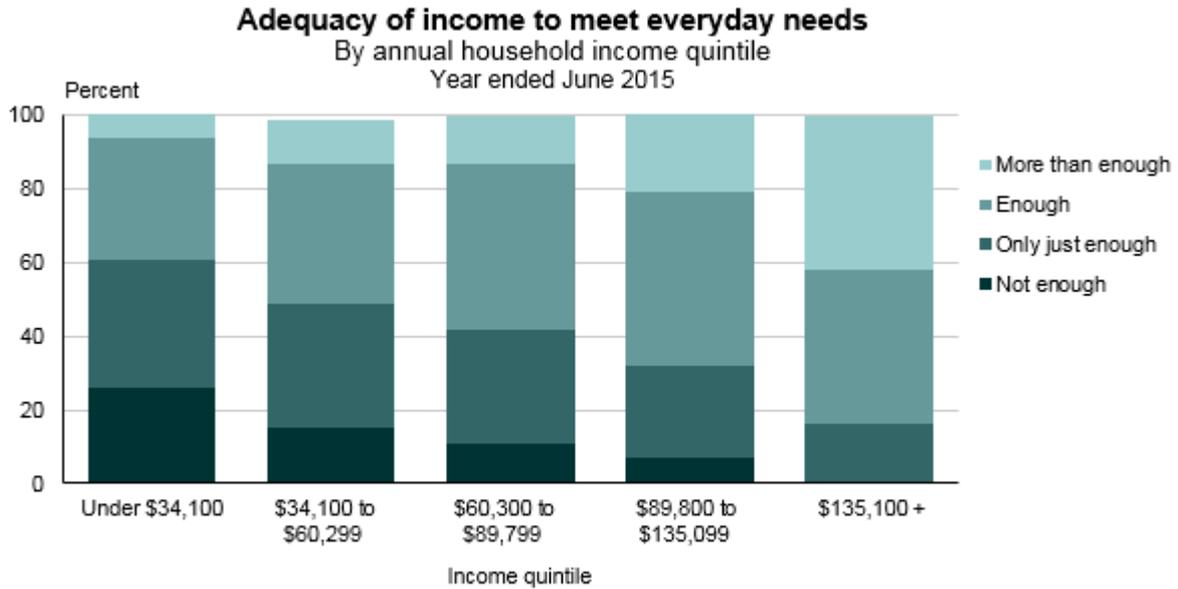
Over the year to June 2015, average annual household income from other government benefits was \$12,084. This is marginally lower than last year's estimate of \$12,596*. The number of households receiving income from other government benefits has continued to decline, down 0.5 percent* from 2014, to 538,800 households.

Household income sufficient for most people

We randomly selected one person 18 years or over in every household to complete an additional questionnaire on behalf of the household.

Respondents were asked how adequately their household income meets their everyday needs (eg accommodation, food, and clothing expenses). Of the people asked:

- 59 percent reported their income was enough or more than enough
- 28 percent said it was only just enough
- 12 percent said it was not enough.



Source: Statistics New Zealand

For more detailed data, see the Excel tables in the 'Downloads' box.

Definitions

About the survey

The Household Economic Survey (HES) is run every year between 01 July and 30 June the following year.

HES (Income) is a shortened version of the detailed three-yearly HES (Expenditure). The shorter survey runs each year between HES (Expenditure) years.

HES (Income) provides a comprehensive range of statistics on household and personal income, housing-cost expenditure, personal and household demographics, and material well-being. The survey collects income from all sources at both the person and household levels.

The main differences between the two surveys is that in HES (Income), expenditure data only relates to some types of housing costs (rent and mortgages, property rates, and building-related insurance) and there is no other expenditure information (eg food, clothing, transport).

Data from HES (Income) can be compared with that from HES (Expenditure) for most measures. However, differences in the questionnaires can affect the numbers reporting expenditure from mortgages and loans.

More definitions

Aggregate is the sum of all the values of a certain indicator. For example, aggregate income from wages and salaries for total New Zealand is the sum of wages and salaries income in New Zealand earned by the population.

Average (mean) is the average value – the mean is calculated by adding two or more figures and dividing the sum by the number of figures.

Building-related insurance A household has expenditure on building-related insurance when it pays premiums to an insurance company or broker for coverage in the event of damage occurring to a dwelling. Where building-related insurance is part of a combined insurance policy, the expenditure may also include premiums paid for house contents and vehicles.

Deciles are formed by dividing the population into 10 equal groups, from lowest to highest. The bottom decile (decile 1) is the lowest 10 percent of the population, while the top decile (decile 10) is the highest 10 percent.

Dwelling ownership is an aggregation of categories from the 'tenure of household' classification. Tenure refers to the occupancy a household has in a private dwelling. It does not refer to the tenure of the land on which the dwelling is situated.

The dwelling can be classified in two ways:

- **Owned or partly owned:** includes dwellings that are held (or not held) in a family trust, regardless of whether mortgage payments are made or not made for the dwelling.
- **Dwelling not owned:** covers dwellings where the household does not own the dwelling, and either pays rent or lives there rent-free.

Expenditure is the amount of money spent on specified items or services. All expenditure includes goods and services tax (GST) and excise duties.

For those making mortgage/rent payments includes only households who say they make either a mortgage or rent payment.

Household is either one person who usually resides alone, or two or more people who usually reside together and share facilities (such as for eating or cooking) in a private dwelling. A household may contain one or more families, other people in addition to a family, or no families at all, such as unrelated people living together.

Housing-costs-to-household-income ratio is the aggregate housing costs for all households as a proportion of the aggregate household income for all households. This measure is often used as an indicator of housing affordability.

However, it is typically calculated by using disposable household income (gross income minus income tax) instead of before-tax (gross) income. Only gross income is reported in this release.

This means that the housing costs to (gross) household income ratios may be slightly lower than ratios reported from other data sources. This measure includes households that do not make mortgage or rent payments.

Imputation replaces missing values with actual values from similar respondents. For more information, see [Imputation in Data Quality](#).

Income before-tax (gross) income. Income in this release is not equalised. That is, it is not adjusted to remove the effects of household size or household type (eg the number of dependent children).

Income received from this source includes only people or households that receive the specified source of income used in calculating averages and medians (so excludes those who reported no income from the specified source).

Investment income is the net profit or loss received from investments. Investments captured in this collection are rent, rents from Māori land or other leased land, dividends from New Zealand companies, royalties, or interest from banks, other financial institutions, bonds, stocks, money market funds, debentures, or securities.

Irregular income includes income from inheritances, matrimonial settlements, lump-sum life insurance pay-outs, lump-sum bursaries and prizes, and gifts of money from other New Zealand households.

Median is the point where half the population is above and half below the stated amount.

Mortgage payments consists of mortgage principal repayments, mortgage interest payments, and application and service fees for mortgages..

New Zealand Superannuation and war pensions cover New Zealand Superannuation and veteran's pension, war disablement pension, surviving spouse pension and overseas pension top-up payment made by Work and Income New Zealand

Other government benefits includes all family assistance payments such as those made as part of the Working for Families package. This category also includes benefits such as

Jobseeker Support, Sole Parent Support, Supported Living Payment, Youth Payment, Young Parent Payment, Emergency Benefit, and Emergency Maintenance Allowance, Student Allowances, Orphan's Benefit and supplements.

Other sources of regular and recurring income includes income received from trusts, annuities, alimony, educational scholarships, and income protection insurance.

Percentage of households reporting is the sum of the households reporting expenditure or income, divided by the number of households in the population.

Private superannuation income includes income received from both job-related superannuation schemes and other private schemes.

Quintiles are formed by dividing the population into five equal groups, from lowest to highest. The bottom quintile (quintile 1) is the lowest 20 percent of the population, while the top quintile (quintile 5) is the highest 20 percent.

Region The HES sample design has five broad regions. The Wellington and Canterbury regional council areas, and the Auckland Council area, are separate regions. The remaining regional council areas are grouped as:

- **Rest of North Island:** Northland, Waikato, Bay of Plenty, Gisborne, Hawke's Bay, Taranaki, and Manawatu-Wanganui
- **Rest of South Island:** Nelson, Marlborough, Tasman, West Coast, Otago, and Southland.

Rent payments include rent paid for primary property, and for other properties, and other payments connected with renting – that is, bonds, ground rent, and easements.

Rents are rent payments paid by the household. Imputed rent (the estimated benefit value from home-ownership of not having to pay rent, partly offset for home-owners by the expenses of home ownership) is not reported in this release.

Sampling weights: the number of units in the population represented by the sample member.

Self-employment income is the net profit or loss received from all self-employment jobs held over the reference period. It includes drawings (cash or goods the respondent takes out of the business instead of a 'wage').

Statistical significance: in statistics, a result is considered significant not because it is important or meaningful, but because it is predicted as unlikely to occur by chance alone.

Total housing costs consists of expenditure from the following sources: mortgage principal repayments, mortgage interest payments, mortgage application fees, rent payments, other payments associated with renting (for example bonds paid in the last 12 months), property rates payments (both regional and local government), and payments associated with building related insurance.

Wages and salaries consists of income received from all wage and salary jobs held over the reference period. This includes any job-related bonuses, commissions, redundancies, or other taxable income such as honoraria or directors fees. A respondent can have an employment status of 'self-employed', but receive wage and salary income instead of self-employment income.

Related links

Upcoming releases

Household Economic Survey (Savings): Year ended June 2015 will be released in June 2016.

Household Economic Survey: Year ended June 2016 will be released in November 2016.

[Subscribe to information releases](#), including this one, by completing the online subscription form.

[The release calendar](#) lists all our upcoming information releases by date of release.

Past releases

See [Household Economic Survey](#) for links to past releases.

Related information

[Consumers price index](#) measures the price change of goods and services purchased by private New Zealand households.

[Food price index](#) measures the rate of price change of a fixed basket of food goods and services purchased by households.

[New Zealand Income Survey](#) provides a snapshot of regular weekly income for individuals and households.

[Household incomes in New Zealand: trends in indicators of inequality and hardship 1982 to 2014](#) is a Ministry of Social Development report that analyses HES data in depth.

[User guide for wage and income measures](#) has more information about using wage and income measures.

Data quality

Period-specific information

This section contains information about changes affecting the latest data.

- [Population rebase](#)
- [Asset and liability questions included](#)
- [Revisions to income from other government benefits](#)
- [External influences](#)
- [Recall period](#)
- [Response rate to HES \(Income\) 2014/15](#)
- [Imputation for HES \(Income\) 2014/15](#)
- [Sampling errors](#)

General information

This section contains information about data that does not generally change between releases.

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- [HES \(Income \) components](#)
- [Sample design information](#)
- [Reliability of survey estimates](#)
- [Data validation and editing](#)
- [Proxy](#)
- [Imputation](#)
- [Population weighting and adjustments](#)
- [Under-reporting expenditure](#)
- [HES benchmarks](#)
- [Consistency with other periods](#)
- [Comparing HES \(Expenditure\) data with estimates in HES \(Income\) releases: data exclusions](#)
- [Using non-monetary indicator data](#)
- [Interpreting the data](#)
- [Confidentiality & suppression](#)
- [Customised data](#)
- [More information](#)

Period-specific information

Population rebase

The Household Economic Survey (HES) is a sample survey that uses statistical weights to calculate income and expenditure estimates for the total New Zealand population. We revise the weights following each census, based on the latest population counts (called a population rebase). For the current HES, we used the weights based on the Census 2013 population.

We have also revised HES income and expenditure estimates from 2007–14, based on the Census 2013 population figures.

See [Household Economic Survey population rebase: year ended June 2007–15](#) for more information about the revisions.

Asset and liability questions included

We added questions on assets and liabilities to the survey this year. This allows us to analyse wealth and income from the same collection. The last time assets and liabilities were collected in detail was in the 2001 Household Savings Survey, although some information was collected in the longitudinal Survey of Family, Income and Employment (SoFIE) between 2003 and 2008.

Topics covered include: property owned (by type of property); mortgages; equity in businesses; assets and liabilities held in trusts; superannuation scheme entitlements; financial assets; consumer durables; student loan debt; and other debt.

Questions on assets and liabilities are either presented within other existing HES (Income) modules in the income and expenditure questionnaires, or collected as separate sets of questions (modules) at the end of the income questionnaire.

Topics within existing HES (Income) modules are the value of:

- principal residence [housing costs]
- other non-investment properties [other property]
- mortgages for principal residence and non-investment properties [mortgages and loans]
- superannuation schemes [private superannuation]
- New Zealand financial assets [investments]
- New Zealand investment property assets and liabilities [investments]
- overseas property and financial assets [overseas income].

Topics covered in separate modules are:

- life insurance
- equity in businesses
- motor vehicles, collectibles, and cash assets
- household durables
- trusts
- non-property debt
- life history.

See [Household Economic Survey 2014/15 flowcharts](#) for more detail – the asset and liability questions we added to existing modules are coloured blue.

To capture asset and liability information in enough detail we increased the sample size from 5,000 to 8,000 households.

Adding asset and liability questions to the survey had little impact on the core HES (Income) estimates. The response rate was similar to previous HES (Income) collections. The increased sample size led to reduced sample errors for the key HES (Income) statistics.

Data about assets and liabilities will be released as Household Economic Survey (Savings) in June 2016.

Other changes

Other than including asset and liability questions, we made minor modifications to existing HES questions to help respondents understand concepts and to reduce respondent load. These changes included:

- introducing a new filter in the WINZ module to route respondents under 50 years past the WINZ pension questions
- changing the WINZ module to include only the new benefits (WINZ benefits introduced in July 2013 have now replaced the old benefits)
- changing the education module so we ask education questions only of people aged 15 years and over.

Revisions to income from other government benefits

In Household Economic Survey: Year ended 2014, we noted an under-reporting of benefit income in the 2013/14 year. A change in main benefit names and categories in July 2013 contributed to this under-reporting. It appears that some respondents reported receiving only the old or new benefit when they actually received both over the survey year. This led to an under-estimate of their time on benefits and their annual income from benefits. We did not adjust for this under-reporting in the Household Economic Survey: Year ended 2014 tables as the effect on key estimates was minimal.

However, after consulting with key customers, we decided to adjust the data where it was reasonable to do so. If the person's main source of income was benefit income and:

- a new benefit (but not an old benefit) was reported at the time of interview, or
- an old benefit (but not a new benefit) was reported as received in July 2013.

If either situation applied, then the time they received the benefit was adjusted to the whole year. This resulted in about 11 percent of benefit payments being adjusted.

This adjustment did not resolve all respondent error in the data. As there is no information about the actual length of time respondents were on a benefit, we cannot make any other reasonable adjustments.

Before the adjustment, the average annual personal income from other government benefits between 2013/13 and 2013/14 had decreased by 14 percent. After the adjustment, this reduced to an 8 percent decrease.

We re-coded some previously miscoded private superannuation payments that were recorded as New Zealand Superannuation payments to private superannuation.

External influences

Data in this release was collected between 01 July 2014 and 30 June 2015. Changes in income and expenditure data (from previously published HES data) will be influenced by real-world changes that came into effect during this period.

Although the benefit system did not change during the survey recall period, some respondents continued to report the old benefit names and placed these under the 'other benefit' category. We re-assigned these benefits to the corresponding current benefit. Consequently, the

overall impact of this mis-reporting on the total income from government benefits would be minimal, if any.

Other events that could have influenced the HES (Income) 2014/15 income data include:

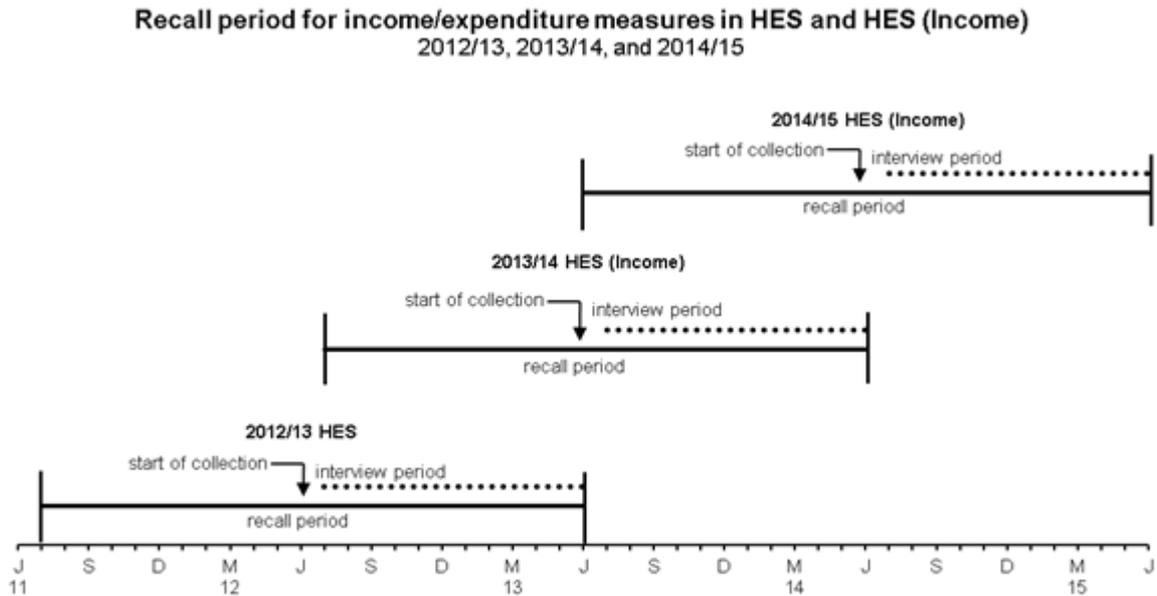
- increases in the adult minimum wage – up from \$14.25 in April 2014 to \$14.75 from 01 April 2015
- increases in government transfer maximum rates for main benefits and student allowances – up 1.38 percent from 01 April 2014 and 0.51 percent from 01 April 2015
- increases in New Zealand Superannuation rates – up 2.66 percent from 01 April 2014 and 2.07 percent from 01 April 2015.

Recall period

Data in this release was collected between 01 July 2014 and 30 June 2015. Most housing-cost expenditure was collected as 'latest payment' – meaning the amount most recently spent on this item. However, for some housing costs, we asked respondents about their spending in the last 12 months before the interview – examples include easement or ground rent, and lump-sum payments connected with renting (bond payments or rent administration fees). Expenditure data collected by 12-month recall period means we cover a two-year period – from 01 July 2013 (for households contacted on the first day of the survey – 01 July 2014) through to 30 June 2015 (for households interviewed in the last month of the survey).

For information on income, we ask each household member aged 15 years and over about their income for the year before their interview date. As a result, income data also covers a two-year period.

The figure below demonstrates how the recall period can overlap with a previous reporting period.



Source: Statistics New Zealand

Response rate to HES (Income) 2014/15

The target response rate for HES (Income) is 75 percent of eligible households. We achieved a 77.9 percent (post imputation) response rate for the year ended 30 June 2015.

We calculate the response rate by determining the weighted number of eligible households who responded to the survey as a proportion of the estimated weighted number of total eligible households in the sample.

Imputation for HES (Income) 2014/15

Imputation in HES replaces missing values with actual values from similar respondents. The table shows the effect of imputation for the 2014/15 survey.

Number of individuals before and after imputation	
Year ended 30 June 2015	
	Number of people aged 15+
Eligible individuals pre-imputation	10,326
Individuals imputed	313
Recovered records	428
Eligible individuals post-imputation	11,067

See [Imputation](#) for more information

As a result of recovering and imputing records, the response rate for the year ending 30 June 2015 improved from 74.3 percent to 77.9 percent.

Sampling errors

Sampling error refers to the variability that occurs by chance because a sample rather than an entire population is surveyed. This is calculated from the variability of the observations in the sample.

We calculate sampling errors using the jackknife method. It is based on the variation between estimates of different subsamples taken from the whole sample.

The tables below summarise the sampling errors for 2012/13, 2013/14, and 2014/15 by income source and housing cost type. The tables also indicate the variability of the estimates for the three surveys.

Customers should take care when interpreting income or expenditure estimates with sampling errors greater than 20 percent. They are less statistically reliable than estimates with sampling errors less than or equal to 20 percent.

See [Reliability of survey estimates](#) for more information.

Sampling errors for average annual household income, by income source (for households receiving that source of income)			
Year ended 30 June 2013, 2014, and 2015			
Income source	Level sampling error (%)		
	2012/13 ⁽¹⁾	2013/14 ⁽¹⁾	2014/15
Wage and salaries	4.1	3.4	3.1
Self-employment	29.3	22.0	28.8
Investments	18.5	19.1	14.4
Private superannuation	17.1	17.4	15.4
New Zealand Superannuation and war pensions	2.9	2.7	1.8
Other government benefits	7.6	7.1	6.3
Other sources	23.8	19.5	28.2
Total regular income	3.7	2.9	3.2
1. Based on re-based figures.			

Sampling errors for average weekly household expenditure, by housing cost type (for households with that type of expenditure)			
Year ended 30 June 2013, 2014, and 2015			
Expenditure item	Level sampling error (%)		
	2012/13 ⁽¹⁾⁽²⁾	2013/14 ⁽²⁾	2014/15
Property and ground rent	4.3	4.6	3.7
Other payments connected with renting	18.2	19.2	16.9
Total rent payments	4.3	5.2	3.8
Mortgage principal repayments	7.3	7.6	7.0
Mortgage interest payments	8.0	6.5	4.7
Application and service fees for mortgages	52.1	34.8	52.9
Total mortgage payments	6.9	6.2	4.4
Property rates	3.4	3.4	2.9
Building-related insurance	4.0	4.8	3.8
Other housing costs	35.8	48.2	26.0
Total housing costs	4.0	4.3	2.9
1. Diary expenditure excluded from sample error calculations to improve comparability between HES (Expenditure) and HES (Income).			
2. Based on re-based figures.			

Contact info@stats.govt.nz for more detailed sampling errors.

General information

Scope of the survey

As with HES (Expenditure), the target population for HES (Income) is the usually resident population of New Zealand living in private dwellings, aged 15 years and over. This population does not include:

- overseas visitors who are in New Zealand for less than 12 months
- people living in non-private dwellings such as hotels, motels, boarding houses, hostels, and homes for the elderly

- patients in hospitals, or residents of psychiatric or penal institutions
- members of the permanent armed forces in group living facilities; for example, barracks
- people living on offshore islands (excluding Waiheke Island)
- members of the non-New Zealand armed forces
- non-New Zealand diplomats and their families.

HES (Income) components

HES (Income) has four survey components:

- a household questionnaire
- a shortened expenditure questionnaire collecting household housing costs
- an income questionnaire for each household member aged 15 years and over
- a set of non-monetary indicator questions for one member of the household who is 18 years and over (chosen randomly).

This survey uses computer-assisted interviewing.

See printable versions of the [HES \(Income\) 2014/15 questionnaires](#).

Sample design information

We select the sample for HES (Income) using a two-stage stratified cluster design. Households are sampled on a statistically representative random basis from areas throughout New Zealand. The sample is stratified by geographic region, urban and rural areas, ethnic density, and socio-economic characteristics.

We obtain information for each member of sampled households that fall within the scope of the survey and meet survey coverage rules.

Reliability of survey estimates

Two types of error are possible in estimates based on a sample survey – sampling error and non-sampling error.

Sampling error is a measure of the variability that occurs by chance because a sample rather than an entire population is surveyed.

Non-sampling errors arise from biases in the patterns of response and non-response, questionnaire design, inaccuracies in reporting by respondents, and errors in recording and coding data. We endeavour to minimise the impact of these errors by applying best practice survey methods and monitoring known indicators (eg non-response).

Data validation and editing

As part of the quality check process, we put HES (Income) data through a validation process at the end of each quarter of the survey cycle. This involves looking for any unexplained outliers as well as comparing data against previous HES data for any movements that cannot be explained by real-world changes.

Using computer-assisted interviewing allows numerous range and consistency edits into the questionnaire, enabling interviewers to check improbable values and consistency of the responses at the point of contact. This reduces errors within the data.

Once the data are electronically loaded to the processing database, we edit the data further and resolve inconsistencies and errors.

After completing editing in the processing database, we put key outputs through a further validation process. This involves examining outliers and resolving what to do with them. The decision to treat or leave outliers is made by looking at movements across HES data.

Proxy

A proxy may provide information for the income questionnaire in 'family type' households:

- where the whole household is informed about the survey. All agree to participate, but are not able to be present when the questionnaires are administered
- for children away at boarding school
- for people who don't work and have no source of income
- for the elderly, sick, or mentally incapacitated.

In all cases of proxy interviews, our interviewer must be convinced the proxy is totally familiar with the other respondent's information.

Imputation

Imputation in HES replaces missing values with actual values from similar respondents. We use the nearest-neighbour donor imputation method, where we replace missing values by data values from another record called a donor. A donor is selected by finding a respondent with matching characteristics to the recipient.

We introduced imputation into HES in 2009/10, and use it in all subsequent HES (Expenditure) and HES (Income) releases. We also applied it to data for 2006/07 (HES) and 2007/08 and 2008/09 (HES Income) and revised the data accordingly. Imputation is applied to a household where the household does not supply all the required income or expenditure information, but supplies sufficient information to be retained in the sample.

For households where at least one significant person in the household has a fully completed income questionnaire, we impute income questionnaires for other household member(s) who have not fully completed their income questionnaire(s). In HES (Expenditure) years, we apply the same process when expenditure diaries are not supplied by all eligible members of the household. In addition, we impute age for respondents who do not provide an age.

Before imputation was introduced, households with one or more questionnaire(s) missing were discarded. With imputation, we recover some of these households.

Population weighting and adjustments

Weighting plays a vital role in estimation. Each unit in the sample is given a weight that indicates the number of people it represents in the final population estimate. Weighting ensures that estimates reflect the sample design, adjusts for non-response, and aligns estimates with the current population estimates. For household surveys, deriving the weight is a multi-phase

process.

The first stage of the weighting involves calculating a unit's initial weight. The initial weight is dependent on the sample design and equals the inverse of the selection probability.

The second stage involves adjusting the initial weights to account for unit non-response. This refers to a household which either has no information provided or the amount of information provided (and/or quality of) is insufficient to be regarded as a response. The initial weight of a non-responding unit is reduced to zero, while initial weights of responding units are scaled up by a combination of factors within the estimation group – such as region, ethnic densities, urban/rural, and interview quarter.

The final stage in the weighting process is integrated weighting. This process ensures that all eligible responding individuals within a household receive the same weight so we can produce household statistics. Integrated weighting also aligns estimates with externally sourced population person and household benchmarks, and adjusts for under-enumeration of specific sub-population groups – such as young males and Māori.

The population we used for the integrated weighting was benchmarked to estimates based on the 2013 Census.

Under-reporting expenditure

For some types of housing cost expenditure, the estimated amount for all private households is less than expenditure reported from other data sources.

There are three main reasons for this difference:

- We exclude expenditure by residents of non-private households, or by those ineligible for the survey (eg overseas visitors) from this survey.
- Respondents to the survey forget or omit some types of purchases because they are unable to recall expenditure, or cannot refer to records at the time of the interview.
- A bias associated with non-response affects some statistics.

We do not adjust the data to compensate for any under-reporting.

HES does not collect rent payments made by businesses, including insurance companies. Rent payments collected in HES include rent from all private eligible households. This includes rent payments for council and state-owned dwellings.

HES benchmarks

The person benchmarks used for HES are: regional population estimates; children sub-population estimates by three age groups; adult sub-population estimates by sex and thirteen age groups (including 75 years and over); and adult Māori sub-population estimates by two age groups (including 30 years and over).

The household benchmarks are two categories of household composition (two-adult households and non-two-adult households), and these categories split further by regions.

Population estimates are based on the 2013 Census of Population and Dwellings

Consistency with other periods

Although we adjust survey results for various demographic variables (age, sex, and region), given the relatively small sample size for HES, there can still be variability in survey estimates from one survey collection period to the next. This variability may be caused by a different group of households being selected for each survey.

Comparing HES (Expenditure) data with estimates in HES (Income) releases: data exclusions

To make HES (Income) and HES (Expenditure) as comparable as possible, we exclude some expenditure data from HES (Expenditure) that is not collected in HES (Income) – such as housing costs expenditure reported in the diaries, home maintenance charges, expenditure on transport, and travel, medical, and telecommunication costs, which are only collected in HES (Expenditure) years.

In this 2014/15 release, as in previous HES (Income) releases, we revised expenditure figures from previous HES (Expenditure) years (2006/07, 2009/10, and 2012/13). This was to exclude diary-sourced housing costs and to adjust for the different level of detail collected in the expenditure questionnaire in HES (Expenditure). These adjustments improve time-series comparability.

We do not adjust for other differences between the surveys, including questionnaire structure. There is evidence that these structural differences (eg level of detail and length of questionnaire) are affecting the comparability of housing costs data between HES (Income) and HES (Expenditure) years. These differences particularly affect the mortgages and loans expenditure data, which are a significant component of total housing costs. For this reason, we only compare mortgages and loans and total housing costs in the current HES (Income) commentary with previous HES (Income) years.

Using non-monetary indicator data

The set of non-monetary indicator questions collects information on material standard of living. The questions are about ownership of certain essential items, affordability to do certain activities, and the extent to which people economise. We also ask respondents how they rate their overall life satisfaction.

From these questions, we publish selected results for life satisfaction levels, and adequacy of income to meet every day needs. We do not produce an index measurement of material well-being from this data. Other agencies can use this data in conjunction with other measures (eg income, expenditure on housing costs, or household demographics), to indicate the material well-being of New Zealanders.

Interpreting the data

Customers need to consider the following factors when interpreting data from this survey.

- A household's expenditure or income can be influenced by household size, household composition, geographic location, and employment-related factors.
- All income figures refer to gross (before tax) income, and housing cost expenditure includes GST, where it applies.

- The five broad regions reported are based on the regional council areas of Wellington and Canterbury, as well as the Auckland Council area. Regions also include the combined regions of 'Rest of the North Island', and 'Rest of the South Island'. This level of geographical breakdown is the lowest available for HES, due to the sample design.

Confidentiality and suppression

We suppress estimates in the information release if based on fewer than five people or households, because publishing would be a risk to respondents' confidentiality or the data would be unreliable. Data is also suppressed if the relative sample error is 51 percent or higher (21 percent for cross-tabulated data).

Customised data

The tables in this information release do not contain all possible analyses of HES (Income) data. We can customise data to users' specifications.

More information

See [HES and HES \(Income\)](#) for more information about HES.

Statistics in this release have been produced in accordance with the [Official Statistics System principles and protocols for producers of Tier 1 statistics for quality](#). They conform to the Statistics NZ Methodological Standard for Reporting of Data Quality.

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Contacts

For media enquiries contact:

Diane Ramsay
Wellington 04 931 4600
Email: info@stats.govt.nz

For technical information contact:

Sarah Dovey or Ishraq Ahmed
Wellington 04 931 4600
Email: info@stats.govt.nz

For general enquiries contact our Information centre:

Phone: 0508 525 525 (toll-free in New Zealand)
+64 4 931 4600 (outside New Zealand)
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Tables

We updated the Excel tables with rebased estimates. We do not recommend comparing these tables with those in the *HES (Income): Year ended June 2014* release.

See [HES population rebase](#) for more about these changes.

See the following Excel tables in the 'Downloads' box on this page. If you have problems viewing the files, see [Opening files and PDFs](#).

1. Average and median annual household income, by income source, for households receiving income from this source
2. Average and median annual household income, by income source, over all households
3. Average and median annual personal income, by income source, for people receiving income from this source
4. Average and median annual personal income, by income source, for all people
5. Housing costs to household income ratios, by dwelling ownership
6. Housing costs to household income ratios, over all households, by region
7. Household expenditure on housing costs, by housing-cost type, for households with that type of expenditure
8. Rating of household standard of living, by annual household income quintile
9. Household demographics, by annual household income decile
10. Personal demographics, by annual personal income decile

Access more data on NZ.Stat

Use [NZ.Stat](#) to access a range of time-series data from this release and previous HES releases. The tables available on NZ.Stat have also been rebased.