Household Expenditure Statistics: Year ended June 2016

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Key facts

Between the years ending 30 June 2013 and 30 June 2016:

- Average weekly household expenditure increased by $190 (17.1 percent) to $1,300.
- Spending on housing and household utilities (up $61) had the largest dollar change in average weekly household expenditure of all expenditure groups.
- Housing and household utilities was also the largest component of total average weekly household expenditure (25.6 percent of household spending), followed by food (16.8 percent) and transport (15.0 percent).
- Average household income from all regular sources increased 11.7 percent, to $95,898.
- On average, New Zealand households spent 17.3 percent of their income on housing costs.
- About 31 percent of households spent one-quarter or more of their total income on housing costs.

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Commentary

- Changes to the survey
- Household spending increases in most expenditure groups
- Income for households and individuals
- Life satisfaction on the up

Changes to the survey

For 2016, we made changes to the Household Economic Survey (HES). The changes improve the quality of the data, decrease respondent burden, and improve the ability for survey respondents to answer the questions accurately. Expenditure and income types affected by the main changes are mortgages, travel, health, household maintenance, contribution schemes, and self-employment.

See Improving the household income and expenditure statistics for a summary of these changes.

Household spending increases in most expenditure groups

Between the years ended 30 June 2013 and 30 June 2016, average weekly household expenditure increased by $190 (17.1 percent) to $1,300. Although most expenditure groups increased in average weekly spending, the rise was largely driven by increases in housing and household utilities, and other expenditure (eg interest payments, contributions to savings, and money given to others). Average annual household expenditure for the household contents and services and the communications groups remained flat or had minimal change.

Costs associated with owning a house were behind much of the increase in household expenditure. Housing and household utilities (up $61) had the largest dollar change in average weekly expenditure of all expenditure groups. This included mortgage principal payments (up $24). Mortgage interest payments contributed a $22 increase to the total expenditure of $32 in the ‘other expenditure’ category.

See Improving the household income and expenditure statistics for information about methodology changes that may have affected this data.

Housing and household utilities continued to be the largest component of total average weekly household expenditure for the year ending June 2016, making up more than one-quarter (25.6 percent) of household spending, followed by food (16.8 percent) and transport (15.0 percent).
Housing costs

Housing costs include expenditure on rent and mortgages (both principal and interest repayments), property rates, and building-related insurance. This information is collected every year.

In the 2015/16 year, New Zealand households spent an average of $327 per week on housing costs, up 10.7 percent on 2014/15.

This increase was mostly due to households spending more on mortgage payments (up 16.9 percent) and property rates (up 11.3 percent). In comparison, renting costs over the same period increased by 5.1 percent.

Food

Average weekly household expenditure on food increased by $27 (14.0 percent) in the three years to 30 June 2016, to $218.

All five food subgroups had increases in average weekly household expenditure over the three years. Of these, three were significant: restaurant meals and ready-to-eat food (up 28 percent), fruit and vegetables (up 12 percent), and grocery food (up 10 percent).

Average weekly spending on restaurant meals and ready-to-eat food increased from $49 in 2012/13 to $63 in 2015/16, and drove half the change for food – expenditure on restaurant meals
alone increased 50 percent over this period, to $25 a week. The proportion of households that reported eating out increased from 43.3 percent to 51.5 percent. As well as more people eating out, the increase in restaurant meal expenditure could also reflect the increased price of restaurant meals – the consumers price index indicated restaurant meal prices increased 5.2 percent from June 2013 to June 2016.

**Average weekly household expenditure**

*By food subgroup*

*Year ended June, 2013 and 2016*

![Chart showing average weekly household expenditure by food subgroup for 2012/13 and 2015/16.]

Source: Statistics New Zealand

**Transport**

The transport group contains expenditure on vehicle purchases, private transport supplies and services, and passenger transport services. It includes spending on petrol, vehicle parts and servicing, and travel by rail, road, air, and sea.

In 2015/16, average weekly expenditure on transport was $195, up $37 (or 23.4 percent) from 2012/13. This was largely driven by increased expenditure on vehicle purchases and passenger transport services.

**Average weekly household expenditure**

*By transport subgroup*

*Year ended June, 2013 and 2016*

![Chart showing average weekly household expenditure by transport subgroup for 2012/13 and 2015/16.]

Source: Statistics New Zealand
The amount spent on purchase of vehicles accounted for most of the increase in the transport group, up $27 from 2012/13. One-quarter of households (25.7 percent) reported buying a vehicle in 2015/16. However, more money was spent on purchasing second-hand motor cars than in any other vehicle group – an average of $45 of weekly household expenditure.

Expenditure for passenger transport services has increased 89.0 percent since 2012/13, and was reported by nearly two-fifths of households (39.6 percent). This increase was driven by international air transport, up 171.7 percent. While the number of New Zealand residents leaving the country for less than 12 months increased 15.1 percent between the 2012/13 and 2015/16 period, international airfares dropped 7.3 percent. Spending on domestic air transport increased 66.4 percent over the same period.

See Improving the household income and expenditure statistics for information about methodology changes which may have affected this data.

The amount spent on private transport supplies and services decreased over the three years, largely driven by expenditure on petrol. Households spent, on average, $6 less on petrol a week in 2015/16 than they did in 2012/13. This is likely to be due to petrol decreasing in price by 11.9 percent over the same period.

Health

Between 2013 and 2016 there was a significant increase in average weekly expenditure on health – up 42.6 percent to $39 a week. Dental services increased 64.8 percent, to $8 a week, while expenditure on pharmaceutical products, and on therapeutic appliances and equipment increased to $9 (up 29.6 percent) and $5 (up 173.1 percent), respectively.

See Improving the household income and expenditure statistics for information about methodology changes which may have affected this data.

Contributions to savings increase

Despite New Zealand households spending more, we are also managing to save more than previously. Average weekly household expenditure on contributions to savings increased 61 percent between 30 June 2013 and 30 June 2016, from $21 to $33. The bulk of this was personal KiwiSaver contributions – which made up three-quarters of all contributions to savings. Nearly half of households (46.3 percent) reported contributing to their savings in the 2015/16 year.

Income for households and individuals

The following income figures refer to gross (before-tax) annual income. They represent people or households who received that type of income.

Average household income increased 2.1 percent (to $95,898) between the year ended 30 June 2015 and the year ended 30 June 2016. For the same period, personal income increased 1.5 percent (to $48,233). Neither of these increases was statistically significant.

In the three years to 30 June 2016, average household income from all regular sources increased 11.7 percent. This is influenced by households receiving higher income from each source (except 'other government benefits', down 7.5 percent) and by more people moving into paid employment.
Personal income is similarly influenced by these factors. In the three years to June 2016, personal income from all regular sources increased 8.4 percent (to $48,233). People in paid employment are more likely to have above-average income. On average, people receiving wages and salaries earned $50,477 in the year to June 2016, and on average the self-employed earned $57,849.

A large number of people who are not in paid employment receive income from NZ Superannuation and war pensions. Since 30 June 2013, income from NZ Superannuation (including supplementary benefits) has increased 14.5 percent (to $18,556). Over this time the government adjusted NZ Superannuation rates by just over 5 percent. The number of people receiving supplementary benefits with their NZ Superannuation has also increased.

**More income spent on housing costs**

The housing-costs-to-income ratio is calculated by dividing total housing costs by total regular income for all households. It is often used as a measure of housing affordability.

In 2015/16, on average, New Zealand households spent 17.3 percent of their income on housing costs. Since the beginning of the series in June 2007 the housing-costs-to-income ratio has fluctuated, but the overall trend has been upward. This means that, on average, households are spending a larger proportion of their income on housing costs. The increase in the ratio for 2015/16 was particularly strong – up 1.3 percentage points. However, this increase is partly due to our changes in mortgage payment calculations.

See [Improving the household income and expenditure statistics](#) for information about methodology changes which may have affected this data. Even without the latest year’s data we still see an upward trend in the housing-costs-to-income ratio.

Some households spend more than 17.3 percent of their income on housing costs. In the year to 30 June 2016, about 31 percent of households spent one-quarter or more of their total income on housing costs. For households not owned by the usual residents, almost half (49.3 percent) spent one-quarter or more of their income on housing costs, compared with 22.5 percent of households that were owner-occupied (with or without a mortgage).
Life satisfaction on the up

In the year ended 30 June 2016, most people were satisfied or very satisfied with their lives:

- 81 percent of respondents were satisfied or very satisfied
- 13 percent were neither satisfied nor dissatisfied
- 6 percent were dissatisfied or very dissatisfied.

This is an overall shift in satisfaction since the 2012/13 survey, as shown in the graph below.

Generally, life satisfaction increases with income. For households with income in the lowest 20 percent of the population, 74 percent of respondents said they were satisfied or very satisfied with their lives. This increased to 93 percent of respondents where household income was in the highest 20 percent of the population.

Most people say they have enough income

Respondents were asked about their capacity to spend money on accommodation, food, clothing, and other necessities. Sixty-four percent reported their income was enough or more than enough to meet their everyday needs. In contrast, 36 percent of respondents said their income was just enough or not enough to meet their everyday needs.

For households where income was in the lowest 20 percent of the population, slightly less than half (48 percent) of respondents still considered their income was enough or more than enough to meet their everyday needs.
For more detailed data see the Excel tables in the 'Downloads' box.
Definitions

About the Household Expenditure Statistics

The Household Expenditure Survey (HES) is conducted every three years, and collects information on household expenditure and income, material well-being, as well as a wide range of demographic information. A shorter version of the survey, HES (Income), is collected in the two years between the full HES.

The main differences between the two surveys include the extent to which expenditure data is collected. The full HES collects expenditure information, including purchases of food, clothing, and household items. An expenditure diary is used to collect some of this detailed information in addition to the questionnaire. In HES (Income), the only expenditure data collected relates to specific housing costs, including rent, mortgages, property rates, and building-related insurance. The diary is not used.

See Differences between full HES and HES (Income) for more information.

More definitions

Average (mean): 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.

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: 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: covers 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: 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: a group of people who share a private dwelling and normally spend four or more nights a week in the household. They must share consumption of food, or contribute some portion of income towards essentials for living as a group.
**Housing-costs-to-household-income ratio**: 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 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 equivalised. 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**: 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**: 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**: covers NZ Superannuation, and veteran’s, war disablement, and surviving spouse pensions.

**Other government benefits**: includes all family assistance payments such as those made as part of the Working for Families package. This category also includes main benefits (eg unemployment benefit, invalid’s benefit), and student allowances, emergency benefits, 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**: 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 the North Island and Rest of the South Island. These consist of:

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

**Rent payments**: includes 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.

**Self-employment income**: is the combined income received from self-employment activities. This could include net profit or loss received, wages or salaries, or lump sum payments from all current and previous 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’).

**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 (e.g., 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 current and previous 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.
Related links

Next release

The *Household Income Statistics* will be released at the end of 2017.

To subscribe to information releases, including this one, please complete the online subscription form.

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

Past releases

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

Related information

Consumers price index measures price change of goods and services purchased by New Zealand households.

Labour Market Statistics (Income): June 2016 quarter measures personal and household income from paid employment and government transfers.
Data quality

Information on New Zealand households’ expenditure, income and material well-being is based on data collected as part of the Household Economic Survey: 2015/16 (HES).

Period-specific information

This section contains data information that has changed since the last release.

- Recall period
- External influences
- Response rate to HES 2015/16
- Changes to New Zealand Household Expenditure Classification
- Sampling errors

General information

This section contains information that does not change between releases.

- Scope of the survey
- HES components
- Sample design information
- Reliability of survey estimates
- Proxy
- Imputation
- Population rebase
- Population weighting adjustments
- HES benchmarks
- Under-reporting expenditure
- Consistency with other periods
- Interpreting the data
- Full HES estimates in the HES (Income) release: data exclusions
- Using material well-being data
- Suppressed estimates
- Data validation and editing
- Customised data

Period-specific information

Recall period

The full HES was carried out continuously from 1 July 2015 to 30 June 2016, therefore different households have different recall periods. Households interviewed on 1 July 2015 would have recall periods earlier than the date interviewed, so from 1 July 2014 to 30 June 2016.

Expenditure data was collected by the following methods:

- 3-month recall for large or irregular expenditure types, such as health and travel
- 12-month recall for housing-related costs and recreation and culture
- Latest payment (for regular commitments such as electricity, telephone, rates, rent, insurance, and superannuation)
- 14-day diary keeping for smaller, more regular expenditure types.
Income has several recall periods, including 12-month recall and latest payment.

**External influences**

Changes in income and expenditure may be influenced by one-off real-world events. Events that could have influenced the HES 2015/16 data are the:

- increase in the adult minimum wage from $14.75 to $15.25 (effective from 1 April 2016)
- increase in government transfer maximum rates for people with dependent children of $25 for main benefits and student allowances (effective from 1 April 2016)
- increase in New Zealand Superannuation rate of 2.73 percent (effective from 1 April 2016).

**Response rate to HES 2015/16**

The sample size for HES is approximately 5,000 households.

The target response rate for full HES is 70 percent of eligible households. We achieved a 78.1 percent response rate for the year ended 30 June 2016 (post-imputation).

We calculate the response rate by determining the weighted number of eligible households that responded to the survey as a proportion of the estimated weighted population.

Even though the response rate has been declining over time, and minimal bias is present, our non-response adjustment and the calibration to population benchmarks remove the impact of this bias.

**Changes to New Zealand Household Expenditure Classification**

The New Zealand Household Expenditure Classification (NZHEC) was reviewed between 2012/13 and 2015/16. We made minor changes at the item level to reflect real-world changes and any redevelopment changes. An example of a change is the removal of the package deal item codes for travel.

**Sampling errors**

The table below shows the sampling errors for the level of expenditure by expenditure type in 2012/13 and 2015/16.

We advise care when interpreting 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.
<table>
<thead>
<tr>
<th>Expenditure type</th>
<th>Level sampling error (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012/13</td>
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<tr>
<td>Food</td>
<td>3.3</td>
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<tr>
<td>Alcoholic beverages</td>
<td>8.3</td>
</tr>
<tr>
<td>Clothing and footwear</td>
<td>11.6</td>
</tr>
<tr>
<td>Housing and household utilities</td>
<td>5.9</td>
</tr>
<tr>
<td>Household contents and services</td>
<td>7.2</td>
</tr>
<tr>
<td>Health</td>
<td>9.1</td>
</tr>
<tr>
<td>Transport</td>
<td>6.7</td>
</tr>
<tr>
<td>Communication</td>
<td>3.8</td>
</tr>
<tr>
<td>Recreation and culture</td>
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<tr>
<td>Education</td>
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<tr>
<td>Miscellaneous goods and services</td>
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<tr>
<td>Other expenditure</td>
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</tr>
<tr>
<td>Sales, trade-ins, and refunds</td>
<td>22.4</td>
</tr>
</tbody>
</table>

1. Data for this year is revised

Source: Statistics NZ

Income level sampling errors can be provided on request. There will be a delay in supplying this information due to the November 2016 earthquake. Contact info@stats.govt.nz for more detailed sampling errors.

General information

Scope of the survey

The target population for HES 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 expect to be resident 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.

Children at boarding schools are also not surveyed, but expenditure on behalf of those children is included in the record-keeping of the parent or guardian. The survey population is therefore marginally different from the target population.

For survey purposes, a ‘household’ comprises a group of people who share a private dwelling and normally spend four or more nights a week in the household. They must share consumption of food or contribute some portion of income towards the provision of essentials for living as a group.
HES components

The HES has five survey components:

- a household questionnaire
- an expenditure questionnaire
- an income questionnaire for each household member 15 years and over
- expenditure diaries for each household member 15 years and over
- a material well-being questionnaire for one member per household who is aged 18 years or over (chosen randomly).

We use computer assisted interviewing for HES – first introduced in the 2006/07 interview period.

Sample design information

We select the sample for the HES using a two-stage stratified cluster design. Households are sampled on a statistically representative random basis, from rural and urban areas throughout the North and South islands.

The HES sample has approximately 5,000 private households. Information is obtained 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.

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

Given a certain sample size, the level of sampling error for any given estimate depends on the number of sampled households/individuals in the category of interest and the variability of the estimate due to the random nature of the sample selection.

As the size of the sampled group decreases, the relative sampling errors (RSEs – sample error as a percentage of the estimate) will generally increase. For example, the estimated average annual household income from self-employment would have a larger relative sampling error than the estimated average annual household income for households receiving income from wages and salaries.

In the tables provided with this release, only income or expenditure estimates with RSEs less than or equal to 20 percent are considered sufficiently reliable for most purposes. However, estimates with RSEs between 21 percent and less than 50 percent, are included and are preceded by an asterisk to show they are subject to high sampling error and should be used with caution. Estimates with RSEs between 50 and 100 percent are considered unreliable for most uses, and are flagged with double asterisks. Estimates with RSEs over 100 are also provided and are flagged with triple asterisks. They are deemed to not be very useful.
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 (e.g. non-response).

Proxy

A proxy may provide information 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
- children are away at boarding school
- people don't work and have no source of income
- people are elderly, sick, or mentally incapacitated.

In all proxy interviews, the interviewer must be convinced the proxy is totally familiar with the other respondent’s information.

Imputation

Imputation replaces missing values with actual values from similar respondents. As a result of imputing records, the response rate for the year ending 30 June 2016 improved from 75.7 percent to 78.1 percent.

Two imputation methods are used in HES – nearest neighbour donor imputation and mean imputation (latter for expenditure only).

The nearest neighbour donor imputation method replaces 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. Mean imputation uses the mean of the acceptable values to replace a missing value.

We introduced donor imputation into HES in 2009/10, and use it in all subsequent HES (Expenditure) and HES (Income) releases. We also applied imputation to every previous HES cycle and revised the data accordingly.

The donor 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 completed at least two modules out of the three core ones (Job, Government transfers, and Investment) of the 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.

We also impute local and regional council rates for respondents who have not provided enough information for us to calculate their rates. A form of manual imputation is used to impute interest rates.
Before imputation was introduced, we discarded households with one or more questionnaire(s) missing. With imputation, we recover some of these households.

**Population rebase**

The HES is a sample survey that uses statistical weights to calculate income, expenditure and material well-being 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.

The rebase was first applied in the 2014/15 year. The revised data applies to the income and material well-being data from 2006/07 to 2015/16, and to the expenditure data for the years 2006/07, 2009/10, 2012/13 and 2015/16.


**Population weighting adjustments**

The population weighting process takes account of undercoverage in the survey for specific population groups, such as young males and Māori.

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 weighting involves calculating a unit’s initial weight. The initial weight depends 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 without information, or where the amount of information provided (and/or quality of) is insufficient to be a response. The initial weight of a non-responding unit is reduced to zero, while initial weights of responding units are scaled up – by combining factors within the estimation group (eg region, ethnic densities, urban/rural, and interview quarter).

The final stage in the weighting process is integrated weighting. This process ensures we give all eligible responding individuals within a household the same weight so we can produce household statistics. Integrated weighting also aligns estimates with externally sourced population individual and household benchmarks, and adjusts for under-count of specific sub-population groups (eg young males and Māori).

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

**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 13 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.

**Under-reporting expenditure**

For some types of 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.

- Expenditure by residents of non-private households, or by those ineligible for the survey (e.g. overseas visitors), is excluded 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. Some of this has been reduced due to changes in the recall period.
- A bias associated with non-response affects some statistics.

We don’t adjust the data to compensate for any under-reporting.

**Consistency with other periods**

HES has a relatively small sample size (approximately 5,000 households). Although we adjust survey results for various demographic variables (age, sex, and region), there can be variability in survey estimates from one survey collection period to the next. This variability is because a different group of households is selected for each survey. For example, in 2014/15 the sample was boosted to 8,000 households because it was a HES (savings) collection. Although weighting should adjust for sample size differences, there could be some variability between 2014/15 and 2015/16.

**Interpreting the data**

Factors influencing a household's expenditure or income include 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 we report on are based on the regional council areas of Wellington and Canterbury, the Auckland Council area, and 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 the HES surveys due to the sample design.

**Full HES estimates in the HES (Income) release: data exclusions**

To make the HES (Income) and full HES as comparable as possible, we exclude some expenditure that is not collected in HES (Income) from our separate housing costs tables – such as expenditure not related directly to the building (so excludes expenditure on utilities).

A small amount of insurance expenditure that is only collected in the full HES years is assigned to an expenditure code used by the HES (Income). To further increase comparability between full
HES and HES (Income), starting with the 2010/11 release, this expenditure is now also excluded when comparing housing costs between years.

We do not adjust for other differences between the surveys, including questionnaire structure. There is evidence that these structural differences (e.g., 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. We have moved the order of the mortgages and loans questions to earlier in the questionnaire, but we can’t measure the impact of doing this.

**Using material well-being data**

The material well-being questionnaire asks about ownership of particular items, or doing certain activities, and the extent that people economise. We also ask respondents how they rate their life satisfaction and whether income meets every day needs.

From the material well-being questionnaire we publish selected results for satisfaction levels, and adequacy of income to meet every day needs. Statistics NZ does not produce an index measurement of material well-being from this data. Other agencies can use such index data in conjunction with other measures (e.g., income, expenditure on housing costs, or household demographics), to give an indication of the material standard of living of New Zealanders.

**Suppressed estimates**

Data in the information release are suppressed if based on fewer than five people or households. Data is no longer suppressed if a relative sample error is 51 percent or higher (21 percent for cross-tabulated data).

See the Reliability of survey estimates section above.

**Data validation and editing**

As part of the quality check process, expenditure, income, and material well-being data goes through a validation process at the 6-month, 9-month, and 12-month stages of the survey cycle. We look for any unexplained outliers and compare data against previous years of data for any movements we can’t explain by real-world changes.

During validation, we noted there were times when respondents did not interpret some questions as we intended. Such responses were edited after we considered the respondent’s response to other questions or demographic information.

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

**Customised data**

The tables in this information release do not contain all possible analyses of full HES data. Data requests can be customised to customers’ specifications. There may be a delay in providing customised requests due to the November 2016 earthquake. Contact info@stats.govt.nz for more information.
More information

See HES and HES Income for more information about HES.

Liability

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Tables

The following tables are available in Excel format from the 'Downloads' box. 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 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. Average weekly household expenditure by group, subgroup, and class expenditure levels
9. Average weekly household expenditure, by expenditure group and region
10. Household material standard of living, by annual household income quintile
11. Household demographics, by annual household income decile
12. Personal demographics, by annual personal income decile
13. Aggregate annual household expenditure by storetype and expenditure group

Next release

The Household Income Statistics will be released at the end of 2017.